

STATEMENT OF QUALIFICATIONS FOR



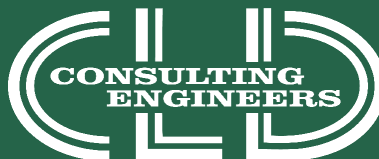
AT-THE-READY (ATR) CONSULTANT ENGINEERING SERVICES FOR MUNICIPALITIES

Submitted to:
Nydia Lugo
Municipal Assistance Bureau
Agency of Transportation
1 National Life Drive
Montpelier, VT 05633-5001



Images of Danville Streetscape Provided by LandWorks, a CLD Team Member Firm

Prepared by:



CLD | Fuss & O'Neill
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Updated September 20, 2017

**STATEMENT OF QUALIFICATIONS FOR VERMONT AGENCY OF TRANSPORTATION
AT-THE-READY (ATR) CONSULTANT ENGINEERING SERVICES FOR MUNICIPALITIES**

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January 6, 2017

Ms. Nydia Lugo, Technical Development Engineer
Agency of Transportation, Municipal Assistance Bureau
1 National Life Drive
Montpelier, VT 05633-5001

**Re: Request for Qualifications (RFQ)
Two-Tier (State-Local) Qualifications-Based
Selection for
At-The-Ready (ATR) Consultant Engineering
Services for Municipalities**

On August 6, 2017, CLD was acquired by Fuss & O'Neill, Inc. We are now operating as CLD | Fuss & O'Neill, a division of Fuss & O'Neill

Dear Ms. Lugo:

Thank you for considering CLD Consulting Engineers, Inc. (CLD) to perform At-The-Ready (ATR) Services for the Vermont Agency of Transportation (VTrans). As you may know, CLD has been performing engineering services for VTrans for over 25 years. We look forward to continuing our commitment to assist you in meeting your program goals.

Our Team for these ATR projects has a wide range of experience such as roadway reconstruction and rehabilitation, culverts and other maintenance related projects, as well as sidewalk, multi-modal, intersection and safety related projects. Our staff of professionals is comprised of skilled engineers specifically trained for these types of assignments. To complement our roadway and safety design services, we offer many support services in-house including Traffic Analysis, Survey, Right-of-Way, Permitting, Water and Sewer Design, Hydraulic and Structural services. We also have several well-qualified subconsultants to perform other critical specialty services that may be needed for the successful completion of municipal projects.

Our past VTrans/Municipal Assistance Bureau (MAB) project experience has given CLD a first-hand understanding of the scope of work and the types of projects that the MAB processes. Our Team's familiarity with State and Federal regulations, the VTrans Project Development Process, VTrans Design and CADD standards, as well as our ability to effectively process the work, has allowed us to be successful in the past, and will allow us to be even more successful in the future. CLD is committed to providing quality work and ensuring we adhere to our Quality Control Plan.

CLD is confident that we can successfully process new Municipal Assistance Bureau projects. We have received many positive performance evaluations on our work from your staff, we believe that we have a very strong Team, and know that we will continue to be responsive to each individual project. Please contact us if you have questions or require additional information.

Very truly yours,

Christopher R. Bean, P.E.
President/Proposed Principal-in-Charge

Patricia T. Shedd
Project Manager

CRB/PTS:sc

CLD's Team has the qualifications and experience necessary to provide top-quality services to the Municipal Assistance Bureau (MAB) and Municipalities. We believe that our knowledge of the MAB process, our excellent working relationships with your staff and our quality submissions are valuable to Municipalities. Firm profiles are included in the next few pages, followed by our Organization Chart. General Qualifications and Experience of each firm relative to the RFQ immediately follow that as well as our Team Capability/Availability Chart.

Fuss & O'Neill was founded in 1924 and provides multi-disciplined services for the public and private sectors with offices in all New England states.

1. INTRODUCTION TO CONSULTANT FIRM

CLD Consulting Engineers, Inc. (CLD) Prime Consultant



Founded in 1976 by Dan Costello, Martin Lomasney, and Paul DeNapoli, the firm was known as Costello, Lomasney & DeNapoli, Inc. Over time we became known as CLD and in 1999 the firm officially changed its name to CLD Consulting Engineers, Inc.

CLD has provided an extensive range of comprehensive professional engineering services to communities, regional planning agencies, State and Federal agencies, as well as industrial and private clients throughout Vermont, New Hampshire, Maine, and Massachusetts. CLD provides an extensive range of comprehensive professional services including roadway design, traffic/transportation planning, bridge design, survey, site planning, structural engineering, permitting, sanitary engineering, water resources engineering, environmental engineering, solid waste management, and construction management services including oversight and inspections. Having this in-house expertise has allowed CLD to keep projects moving ahead in a timely fashion, even when a quick response to a specific project need arises.

Increased capabilities in:
Stormwater treatment analysis,
complete streets and multi-purpose
bicycle/pedestrian paths and trails,
traffic signal design, hydraulics and
landscape design.

On projects needing specialized services that CLD does not have in-house, we will immediately turn to our skilled subconsultants. The firms that we often team with are EIV Technical Services, LLC (EIV), Hartgen Archeological Associates, Inc. (Hartgen), Vermont Survey and Engineering, Inc. (VSE) and LandWorks, and these firms have been included in this proposal. In cases where services are needed outside those provided by CLD, EIV, VSE or LandWorks, we have previous successful experience teaming with other highly qualified firms. In the case of accelerated or multiple assignments, we have the additional staff, resources, and project management skills within CLD that we can utilize as needed.

CLD has been providing engineering services to VTrans for over 25 years. We will be operating out of our headquarters located at 540 North Commercial Street, Manchester, NH 03101. **Christopher Bean, P.E.** and **Patricia Shedd** will be the primary contacts for projects arising from this retainer.

Chris can be reached at (603) 668-8223 x102, chrisb@cldengineers.com; and Patricia can be reached at (603) 668-8223 x184, patricias@cldengineers.com.

EIV has worked on numerous VTrans and municipal projects performing NEPA documentation, permitting and historic and archaeological reviews with Hartgen. VSE has provided surveying and right-of-way research for CLD on several projects. LandWorks and CLD are currently working on several projects together. Our subconsultants capabilities and availability are noted in the chart included at the end of this section. When required, CLD can provide services such as lighting, railroad design and ROW



acquisition through contracting with subconsultants who provide these services and with whom CLD has successfully worked with in the past.

EIV Technical Services, LLC (EIV) (WBE)
Environmental Permitting
Subconsultant



Engineers Incorporated of Vermont was established in 1964, and over the years they became known as 'EIV'. In 1995, the company's legal name became EIV Technical Services, LLC. In 2011, The Company's legal name became CMGN Consulting, LLC dba EIV Technical Services. The company is known by its trade name, EIV Technical Services. EIV's professional scientists, engineers and technicians have been providing expert services on transportation projects since 1964. Their staff has extensive experience conducting natural resource assessments, environmental permitting, plan development and project management. They have the expertise and dedication to quality that has earned them a solid reputation with the regulatory agencies, industry, engineering and architectural firms throughout Vermont and New England. EIV is certified as a Woman-owned Business Enterprise (W/DBE) in Vermont and New Hampshire. EIV and CLD have teamed successfully on several other VTrans' projects. Currently EIV has an open-ended retainer contract with VTrans, where they provide Biological and Environmental Services. They are also currently acting as subconsultants on numerous VTrans engineering and surveying contracts providing resource assessment, wetland and water quality permitting, Act 250 permitting, and erosion and stormwater design and monitoring. EIV will identify wetlands and other environmental resources, and complete all environmental issues and permits.

EIV Technical Services (EIV) can complete all aspects of environmental permitting for Vermont Agency of Transportation Projects including resource identification, field mapping, impact analysis, permit application preparation, and mitigation. EIV has extensive experience presenting project information at public meetings and hearings including Act 250 and the Vermont Environmental Board.

EIV's environmental clearance and coordination services include:

- Vermont Act 250 Jurisdictional Opinions, Land Use Permits, and expert witness testimony.
- ANR permitting including: Conditional Use Determinations, Endangered Species Permits, 401 Water Quality, Title 19 Stream Alteration Consultations, Lakes & Ponds Permitting, Water Supply and Wastewater Permits, General Construction and Operational Stormwater Permits.
- Federal Agency permits including US Army Corps of Engineers Section 404, NEPA Documentation, FAA 7460, and United States Coast Guard permit.
- Coordination with Vermont's Scenic Byways Program during the Program Development Process.
- Rare, Threatened, and Endangered Species Taking Permit through the Vermont Fish and Wildlife Department.

EIV will be providing services from their office at 55 Leroy Road, Suite 15, Williston, VT 05495.
Tel: (802) 497-3653.



Hartgen Archeological Associates, Inc.
Archeological
Subconsultant



Hartgen is an award-winning provider of cultural resource management solutions serving the private and public sectors since 1973. Their archeological and historic preservation consultation services enable their clients to meet the regulatory requirements of the National Historic Preservation Act (NHPA), the National Environmental Protection Act (NEPA), and other federal, state, and local historic preservation laws. Their team includes 36CFR61-qualified archeologists and an architectural historian committed to providing responsive and cost-effective services to their clients. Over the past forty years, Hartgen has completed more than 5,300 cultural resource studies in the Northeast. Their services include all phases of cultural resource management such as Phase IA, IB, II and III archeological investigations; National Register eligibility synopses; architectural history; HABS/HAER documentation; historical deed and document research; historical map research; development of archeological research designs and master plans; artifact cataloging, design and presentation of public information signs, pamphlets, and exhibits; and writing and publication of research reports, including presentation of results at scholarly and public meetings.

Hartgen will be providing services from their office at 32 Kimball Hill Road, Putney, VT 05346.
Tel: (802) 387-8542.



Vermont Survey and Engineering, Inc.
Survey/Right-of-Way
Subconsultant

Vermont Survey and Engineering, Inc. (VSE) was incorporated in 1982 as Aquatec Survey Corporation, the business name was changed to Vermont Survey Consultants, Inc. in 1986, and then to our present name of Vermont Survey and Engineering, Inc. in 1992. They are a Vermont based land surveying firm, providing a wide range of survey services to Federal, State, and Municipal agencies as well as commercial, industrial, and residential developers. They are recognized by their clients as a highly motivated and responsive team of experts who are committed to providing professional land surveying services of the highest quality, with innovative and cost effective solutions.

Surveying services include geodetic control and topographic, hydrographic, boundary, ALTA/ACSM and construction layout surveys. Their staff is trained with professional quality equipment to provide Global Positioning System (GPS) data acquisition on geodetic control projects. On other projects, robotic total stations and data collectors are utilized allowing field data to be quickly downloaded to office computers and further processed using the appropriate software. Information can also be uploaded to the collector to facilitate layout work. VSE can place up to six survey crews in the field, with crew members averaging more than ten years of experience.

They are committed to providing their clients with the most accurate and cost effective services through the use of leading edge technology. The utilization of both MicroStation and AutoCAD platforms allows them to provide base mapping in either of the leading CADD formats (dgn or dwg), without modification or the potential for data errors through file translation.

VSE will be providing services from their office at 79 River Street, Suite 201, Montpelier, VT 05602.
Tel: (802) 229-9138.



**LandWorks
Subconsultant**



LandWorks was founded in 1986 by David Raphael, and it has had the same name ever since. LandWorks is an innovative, Vermont-based firm that has over 20 years of experience in all facets of landscape architecture, planning, and graphic design. Their history of successful project implementation provides the perspective and proficiency to tackle challenging assignments and produce results. The collective technical knowledge of their team ensures that projects are designed with practical construction considerations and maintenance in mind.

The company's area of expertise in terms of landscape architecture includes design and planning for streetscapes, parks, and green infrastructure, as well as site planning for recreational, institutional, housing, and commercial projects. In terms of planning, LandWorks has extensive experience with open space, recreation and conservation planning, downtown revitalization, town plans, zoning ordinances, subdivision analysis, and design review. With an in-house graphic designer, wayfinding system design is another important area of emphasis. They maintain complete, up-to-date software capabilities, which allow a range of technical services that include CAD, GIS, 3-D modelling, graphic design, and photographic editing.

LandWorks has a demonstrated ability to work in a synergistic fashion with both clients and project constituents, and a collaborative approach to working with the project team ensures that the collective expertise of the individuals involved are utilized to the fullest. They sustain long-term commitments to projects, as evidenced by their work and success for the Danville Transportation Project, which included an extensive public process. Ten years in the making, Danville now features a beautiful streetscape and revitalized town green, with buried power lines, new lighting and landscaping, traffic calming initiatives, a vibrant gateway and contextual art.

The collective technical knowledge of their staff ensures that projects are designed with practical construction considerations and maintenance in mind. With a LEED certified professional on the team, LandWorks incorporates sustainable construction methods and materials into project designs where feasible. Exploring ways to creatively integrate green infrastructure is a key component of their design approach. A rain garden designed by LandWorks for the Marble Works District in Middlebury, VT is featured on the Vermont Department of Environmental Conservation website as a successful case study. At LandWorks, such infrastructure is an exciting opportunity to improve ecological function, enhance aesthetics, and provide educational opportunities.

LandWorks will be providing services from their office at 228 Maple Street, Suite 32, Middlebury, VT 05753, Tel: (802) 388-3011.

2. QUALIFICATIONS AND EXPERIENCE OF FIRMS

Federal & State Standards - The engineers and designers at CLD utilize and adhere to the design requirements for each project. Many of these documents such as the MAB Guidebook for Municipally Managed Projects, the Vermont Pedestrian and Bicycle Facility Planning and Design Manual, the VTrans CADD manual, the VTrans 2011 Standard Specifications, the VTrans standard detail sheets, Vermont State Standards, work zone safety and mobility guidelines, the latest MUTCD and more are downloaded onto CLD's network for easy access for design personnel. Our staff routinely accesses websites to ensure we have up-to-date design standards. These and many other design standards are available to CLD's staff in our in-house library.

Permitting - Our core team has significant experience with all aspects of State and Federal standards and how to apply them. This experience has taught us that early coordination often enables us to obtain permits more expeditiously. For instance, coordinating with ANR early in the design process to obtain their concurrence on the design before completing the calculations and preparing a Stormwater Discharge Permit has enabled us to obtain Stormwater Discharge Permits without having to resubmit with changes or additional information. Knowing how and when to apply for permits is critical to keeping a project moving. **CLD, EIV and Hartgen have been teaming on projects for over 10 years** and have obtained Act 250 permits on large projects such as the Pittsford-Brandon US Route 7 reconstruction project, received jurisdictional opinions on MAB projects such as the South Street Reconstruction project in South Hero and Categorical Exclusions on many bridge projects.

EIV is extremely knowledgeable in completing wetland, historic and archaeological investigations necessary for NEPA documentation. EIV has completed NEPA documentation and provided assistance to numerous towns that have municipal projects funded through the VTrans Municipal Assistance Bureau. Projects include bridges, bike paths, village center sidewalks, and restoration and conversion of historic structures.

Right-of-Way – CLD and VSE have extensive experience with the Vermont Right-of-Way (ROW) process. We have teamed together on many projects (some of which are shown in the Project Examples section) where VSE provided the title abstracts, ROW and property lines and CLD completed the ROW plans. For this project we propose to utilize VSE's staff to complete title abstracts and provide CLD the ROW and property lines. CLD is also skilled in completing deed research and title abstracting. With more than 10 years of experience working with VTrans ROW staff, CLD has gained a reputation for being very complete and thorough with title abstracts and determining the location of existing ROW, property boundaries, and easements.

The Right-of-Way process is linear meaning you have to complete one step before you can begin the next which can make it a time consuming process. With our experience on other projects, we believe we can readily keep these projects moving through the development of ROW plans and document preparation.

At property owner meetings, CLD staff will review the project impacts with each property owner. If the property owner has concerns with the design, we will work with them to mitigate the impacts and incorporate requested changes into the design. The Acquisition Review Meeting involves review of final ROW lines and easements, followed by development of ROW plans and documents. The complete package of plans and documents will be sent to VTrans for review and approval. Once the plans and documents are approved by VTrans, the Town can begin the acquisition process. The Town will then be

responsible for the appraisals, negotiations and acquisitions and the design team will be available to assist the Town as needed. In the event that the Town cannot come to an agreement with the property owners, we will be on call to assist throughout the Necessity and Condemnation process.

We are familiar with and understand that all ROW acquisition must conform to the “Uniform Act”.

Requirements and Policies - CLD has gained a vast knowledge of the VTrans organization, procedures, standards and specifications through over 25 years of project experience. The proof can be seen in the quality of our work where we have followed VTrans procedures for design, coordination and permitting, and met all VTrans standards for design and CADD. We use the VTrans Standard Specifications 2011 including the General Special Provisions for all of our VTrans projects and we have experience with using the VTrans front end for MAB projects. We have several staff members who are proficient with InfoTech Estimator™ Version 2.10a. With our previous and current VTrans Municipal Assistance Bureau, Roadway & Safety and Resurfacing projects, we are notified of policy changes that we immediately incorporate into our current projects.

Knowledge of VTrans Transportation Systems and Overall Performance Goals - CLD has gained extensive knowledge of the VTrans organization, procedures, standards and specifications through over 25 years of project experience with VTrans. CLD has a complete understanding of the Scope of Work and we have significant experience performing roadway and safety, resurfacing and structural on-call services for VTrans. Proof of our knowledge of the VTrans processes and our understanding of each individual project Scope of Work can be seen in the quality of our work. We follow VTrans procedures for design, coordination and permitting, meet VTrans standards for design and CADD and use VTrans specifications including General Special Provisions for all of our projects. We have also had experience working on several Municipally Managed Projects where our VTrans knowledge in their process and our ability to provide services such as water and sewer design has been valuable.

We have been involved in numerous VTrans projects from Project Definition to Contract Plans. These projects have involved not only coordinating with the various VTrans Sections, but also coordinating with and working through the processes of the VTrans Hydraulic, Materials, Historic, Environmental and Right-Of-Way Sections and Contract Administration.

CLD has a proven record of meeting all of VTrans' performance goals. We actively participate in quarterly ACEC-VT/VTrans meetings, where VTrans staff typically share the overall performance statistics and emphasize the importance of meeting project schedules. We take VTrans' performance goals very seriously and we are committed to completing all our current and future projects within the mutually agreed to timeframes.



PRINCIPAL-IN-CHARGE
Christopher Bean, P.E.
CEO/President

PROJECT MANAGER
Patricia Shedd
Senior Project Manager
David Munro, P.E.
Project Manager

QC/QA MANAGER
JoAnn Fryer, P.E.
QC/QA Manager

ADDITIONAL STAFF
Erik Mas, P.E.
Stormwater
Ted DeSantos, P.E., P.T.O.E.
Planning/Complete Streets
Stephanie White, R.L.A., CNU-A, LEED AP
Landscape Design
Kristen Solloway, P.E.
Multi-Use Path/Trail Design

ROADWAY DESIGN
Michael Haley, P.E., L.S.I.T.
Senior Highway Engineer
Kristen Hayden, P.E.
Highway Engineer

STRUCTURAL / HYDRAULICS
John Byatt, P.E.
Structural Team Leader
Shannon Beaumont, P.E.
Senior Structural Engineer

BICYCLE / PEDESTRIAN PATH FACILITY DESIGN
Nicole Fox, P.E.
Senior Highway Engineer

TRAFFIC
Paul Konieczka, A.I.C.P.
Senior Transportation Planner
Linda Greer, P.E., P.T.O.E.
Senior Transportation Engineer

ROW RESEARCH
Gregory Brown, L.L.S., P.L.S.
Survey Team Leader
Heidi Quesada, L.L.S.
Survey, ROW, Deed Research Specialist

UTILITY SPECIALIST
David Lewis, P.E.
Senior Project Engineer

ENVIRONMENTAL PERMITTING
EIV TECHNICAL SERVICES
Jacqueline Dagesse, MBA, CPESC, PMP
Environmental Permitting

SURVEY / RIGHT-OF-WAY
VERMONT SURVEY AND ENGINEERING
Stephen Fraser, L.S., Principal
Project Manager, Research Specialist
Lawrence Bliss
Right-of-Way Specialist

LAND ARCHITECTURE
LANDWORKS
David Raphael, B.A., M.L.A.
Landscape Architect
Patrick Olstad, B.S., ASLA + LEED AP
Landscape Architect, Planner

ARCHEOLOGICAL
HARTGEN ARCHEOLOGICAL ASSOCIATES
Elise Manning - Sterling, M.A., R.P.A.
Principal Investigator

CLD CONSULTING ENGINEERS, INC.
SUBCONTRACTED CONSULTANTS

4. AVAILABILITY AND CAPABILITY CHART

The Project Team members and responsibilities are shown in the Organization Chart on page 6. The next page, page 8, represents the Team's Availability and Capability where we have listed the percent that each Team Member is available for VTrans projects and each Team Member's capabilities. This chart illustrates the wide variety, depth of capabilities and experience our Team Members possess.

You will notice that in addition to roadway and safety engineering, CLD's in-house capabilities include Structures Design, Hydraulics Design, Bicycle and Pedestrian Facilities Design, Traffic Design, Water and Sewer Design, Advertising for and Opening of Construction Bids, ROW Research, ROW Plan development, and Utility Coordination.

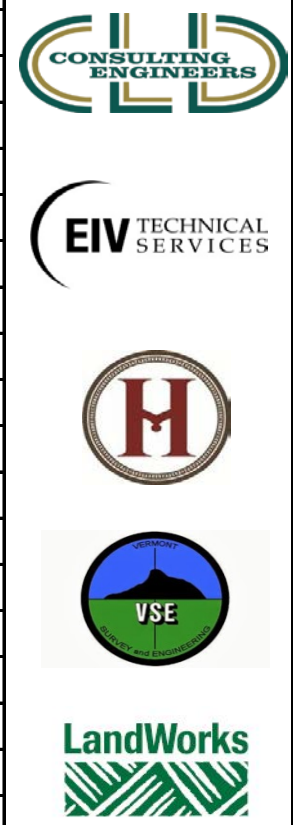
On a few recent projects, CLD has provided water and sewer design services. Although technically contracted through the project's municipalities, having these services in-house and being able to work alongside our engineers has been beneficial to meeting the project schedule.

Commitment of Resources and Staff

We are 100% committed to meeting the availability percentages noted in the Availability and Capability Chart. You will note that several of our staff are shown as **100% available for VTrans projects**. This is our core Vermont Highway Team and they are dedicated to working on only VTrans projects. They only assist other teams when they have no VTrans assignments or their assistance will not jeopardize a VTrans project schedule. Meeting the project schedule and client expectations 100% of the time is our Project Manager's goal. CLD has many other experienced engineers not listed in this proposal to assist on our projects as needed.

In addition to our team of engineers and technicians that focus nearly all their efforts on a wide variety of projects in Vermont, additional Highway Team members focus most of their efforts on projects in other States. Over time we have cross-trained several staff to work on Vermont projects and vice versa as our staffing needs fluctuate. This allows us to add additional staff to process Vermont projects when there is a priority submission deadline. We have also found the sharing of "design efficiency techniques" such as further automating the design and plan preparation process has improved our overall quality and efficiency.

	% Available for VTrans Projects	Design of Roadway Reconstruction Projects	Design of Roadway Rehabilitation Projects	Bicycle and Pedestrian Facility Design	Design of Roadway Maintenance Projects	Project Intersection Projects	QA Management	Design of Safety Related Projects	Traffic Control Plans / TMP	Traffic Analysis	Structures Design - Replacements	Structures Design - Rehabilitation/Maintenance	Large Culvert Design	Hydraulics Analysis	MicroStation/InRoads	Survey	ROW Research	Utility Relocation Routes and Coordination	Water and Sewer Design	Environmental Permits (NEPA)	Right-of-Way Plans and Hearings	Advertising for and Opening of Bids	Project Contracting/Bid Analysis	Construction Inspection Experience	Landscape Design
Christopher Bean, P.E.	25%	✓	✓		✓	✓	✓	✓												✓	✓				
Patricia Shedd	100%	✓	✓	✓	✓	✓	✓	✓				✓	✓				✓			✓	✓	✓			
David Munro, P.E.	100%	✓	✓	✓	✓	✓	✓	✓				✓	✓				✓			✓	✓	✓			
JoAnn Fryer, P.E.	30%					✓	✓			✓	✓	✓	✓								✓	✓			
Michael Haley, P.E., LSIT	100%	✓	✓		✓	✓		✓	✓			✓	✓				✓			✓	✓	✓	✓		
Kristen Rutter, P.E.	50%	✓	✓		✓	✓		✓	✓			✓	✓				✓				✓	✓			
Samuel Fortier, P.E.	50%	✓	✓		✓	✓		✓	✓			✓	✓												
John Byatt, P.E.	75%					✓	✓			✓	✓	✓	✓	✓							✓	✓			
Shannon Beaumont, P.E.	75%									✓	✓	✓	✓	✓							✓	✓			
Nicole Fox, P.E.	50%	✓	✓	✓	✓	✓	✓	✓	✓					✓			✓								
Paul Konieczka, A.I.C.P.	25%					✓			✓	✓															
Linda Greer, P.E., P.T.O.E.	50%	✓	✓	✓		✓	✓	✓	✓	✓				✓											
Gregory Brown, L.L.S., P.L.S.	25%					✓	✓								✓	✓									
Heidi Quesada, L.L.S.	50%														✓	✓									
David Lewis, P.E.	25%																✓	✓			✓	✓	✓		
Jacqueline Dagesse, MBA, CPESC, PMP	100%																		✓						
Elise Manning-Sterling, M.A., R.P.A.	50%																		✓						
Stephen Fraser, L.S.	100%														✓										
Lawrence Bliss	100%															✓									
David Raphael, B.A., M.L.A.	100%																							✓	
Patrick Olstad, B.S., ASLA + LEED AP	100%																							✓	



1. QUALIFICATIONS AND EXPERIENCE OF TEAM

CLD has been performing roadway design services for state, Federal, municipal and private sector clients since 1976. CLD's most recent experience has involved a wide variety of projects for VTrans, NHDOT, MaineDOT, MassDOT, U.S. Forest Service, municipalities and private clients. Projects have included full reconstruction of roadways in urban villages to reclaim projects along Vermont State Routes, large and small box culvert replacements, signalizing intersections, signing projects, and large and small bridge replacements. Because we work with a variety of clients, we are able to see a variety of processes used by these clients. Our Highway Team is diligent about sharing information on our project experiences with the goal of constantly looking at ways to improve our service.

As indicated in the firm profiles, our Team can provide all the services necessary for the types of projects anticipated in this contract as well as other specialty services such as Act 250, title research, signal design and traffic modeling; interstate signing, bicycle and pedestrian facilities, water system design, sewer system design, structural design including retaining walls, box culverts and large bridges; hydrology and hydraulics design. For projects requiring services such as an arborist, railroad or lighting design, we have in the past and would continue to team with firms that specialize in these areas.

2. RELEVANT PROJECT EXPERIENCE

A variety of projects that are currently being designed or recently constructed are presented below. We have completed numerous other relevant projects; however this sample is intended to demonstrate our diverse experience and knowledge of the VTrans process.

Bicycle and Pedestrian Facility Design



Pedestrian Facility Design VT 131, Cavendish, VT



Services: Sidewalk and Drainage Design, Access Management, Public Participation, Right-of-Way Research, ROW Plans, Contract Plan Preparation, Cost Estimating and Advertising and Construction Services, as-built plans.

This project was an addition to the Cavendish-Weathersfield resurfacing project and was managed by Municipal Assistance Bureau (LTF when the project began). The project involved traffic calming, sidewalk, and pavement rehabilitation in the Village. The project area had several drainage problem areas that were addressed. CLD completed the field survey and brought the project through a Public Hearing, Property Owner Meetings, preliminary design, permitting, final design, right-of-way, the bidding process, constructions services. Construction was completed in the Fall 2009.

Contact:

Richard Svec, Retired Fall 2016 Town Manager, Town of Cavendish

Tel: (802) 226-7291 email: rsvec@comcast.net

Bill Preis, VTrans LTF Project Supervisor (Retired)





Bicycle and Pedestrian Facility Design VT 100, Stowe, VT



Services: Sidewalk and Drainage Design, Access Management, Intersection Design, Public Participation, Right-of-Way Research, ROW Plans, Contract Plan Preparation, Cost Estimating and Advertising and Construction Services.

This project is the design of 1200' of sidewalk on Lower Main Street. This project is being managed by the Town as part of the VTrans Municipal Assistance Bureau. Sections of the project are classified as both State Highway and a Class I Town Highway. The project includes analyzing slope, drainage, water, sewer and other potential impacts to adjacent property, as well as Public Meetings, Right-of-way Plans, Contract Plans, Cost Estimates, and Bid Documents. This project is scheduled to advertise in February concurrent with the Waterbury-Stowe reclaim project (designed by others) and be constructed in 2017.

Contact: Harry Shepard, III, Town of Stowe, Public Works Director

Tel: (802) 253-8770

email: HShepard@townofstovermont.org

Tel: (802) 828-5608

email: Rachel.Beauregard@vermont.gov

Design of Roadway Reconstruction Projects



Roadway Reconstruction on US 7, Pittsford and Brandon, VT



Services: Scoping Report, Public Participation, Act 250 Coordination, and Conceptual Plans for all six segments of this 12 mile corridor project. CLD was assigned Segments 5 and 6 to complete Preliminary Design, Property Owner Meetings, ROW Plans, Necessity Hearing, Final Plans, Contract Plans, Cost Estimating, Contract Documents and Construction Services.

Segment 5, constructed in 2010, included 2.4 miles of rural full depth reconstruction with alignment and profile modifications, shoulder widening, new stormwater collection and treatment systems and a new retaining wall along Jones Mill Pond. Segment 6 is currently in the ROW Process and we anticipate advertising for construction in the Spring of 2017. Segment 6 includes 1.2 miles of village full depth reconstruction with alignment and profile modifications, shoulder widening, sidewalk replacement, new stormwater collection and treatment systems, multiple retaining walls, aerial and underground utility relocations, water and sewer relocation, decorative lighting and traffic signals, and extensive landscape improvements including a park, fountains and street trees. A portion of the Segment 6 waterline damaged during Tropical Storm Irene was replaced across the Neshobe River in 2014 as part of an advanced construction contract. CLD successfully prepared Contract Plans and bid documents for the waterline contract in a very short timeframe in order to allow the work to be completed within the 2014 construction season. CLD is currently developing ROW plans for segments 1, 3 and 4.

Contact: Ken Upmal, VTrans Roadway Design Engineer

Tel: (802) 828-3594

email: ken.upmal@vermont.gov





Roadway Reconstruction on US 5, Lyndon, VT



Services: Public Participation, Conceptual Design and a Public 502 Hearing, Preliminary and Final Roadway Design.

This 0.8-mile project is located in the Village of Lyndon. This is a full depth reconstruction project with railroad crossings at the beginning and end of the project, new sidewalks and access management for commercial properties. CLD completed the conceptual roadway and drainage design, conceptual stormwater treatment design for the stormwater discharge permit, conceptual erosion prevention and sediment control design, identified potential utility conflicts and developed Conceptual Plans, quantities and estimate. CLD prepared the handouts, rendered plans and facilitated the April 2015 Public 502 Hearing. At the Towns request, CLD has advanced a new signalized intersection at Red Village Road and that project is anticipated to be constructed in 2017.

Contact: Bruce Martin, VTrans Highway, Safety & Design Project Manager
Tel: (802) 828-5369 email: bruce.b.martin@vermont.gov

Roadway Rehabilitation Projects



Roadway Rehabilitation on South Street, South Hero, VT



Services: Public Participation, Geotechnical Investigation, Conceptual, Preliminary and Final Roadway Design, Right-of-Way Plans and Titles, Cost Estimating, Contract Documents and Construction Services.

This 1.3-mile local road is located off of US 2 in South Hero is being administered by the VTrans Municipal Assistance Bureau and is funded in part with a Federal Earmark and local matching monies. A portion of the project is along the Champlain Bikeway and will widen the roadway to a consistent width that will accommodate both bicycle and vehicular traffic. CLD analyzed the impacts of lowering Frechettes Hill by as much as 5' to meet AASHTO criteria. The impacts to adjacent Historic properties would have been significant and instead the roadway was lowered 4" and raised on either end of the vertical curve to improve sight distance. CLD has closely coordinated with the ANR regarding stormwater permitting needs and received a stormwater discharge permit. The project is scheduled to advertise in January and be constructed in 2017.

Contact: Chris Herrick, South Hero Selectboard Chair
Tel: (802) 479-7586 email: christopher.herrick@vermont.gov
Contact: Ande DeForge, Project Supervisor VTrans
Tel: (802) 828-3975 email: ande.deforge@vermont.gov





Drainage Improvements on Vermont 108, Bakersfield, VT



Services: Existing Conditions Report, Alternatives Analysis, Public Participation, Conceptual Design, and a Public 502 Hearing.

This 0.65 of a mile project is located in the Village of Bakersfield. This will be a pavement reclaim project with shoulder widening, minor profile corrections, new sidewalk and new closed drainage. CLD completed the conceptual roadway and drainage design, identified potential utility conflicts, developed Conceptual Plans, quantities, and estimate and prepared hearing plans for the Public 502 Hearing. CLD will continue with preliminary design services

including detailed hydrology and hydraulic calculations and design of stormwater treatment practices prior to meetings with property owners in the fall of 2016.

Contact: Bruce Martin, VTrans Highway, Safety & Design Project Manager
Tel: (802) 828-5369 email: bruce.b.martin@vermont.gov

Roadway Maintenance Projects



Box Culvert Replacement on VT 14, Barre Town, VT



Services: Conceptual, Preliminary and Final Highway Design, Preliminary and Final Bridge Design, EPSC Plans, Contract Plan Preparation, Cost Estimating and Construction Services.

This project is the complete replacement of an existing 4' wide x 4.5' high stone box culvert with concrete headwalls at both ends built in the 1930's with a 7' wide x 5' high x 62' long concrete box culvert with headwalls at each end. This section of VT 14 is a truck route; therefore a temporary detour that could accommodate a WB-67 was required. There are stone retaining walls that surround the inlet, a

municipal water line that crosses the culvert, aerial utilities and a sanitary sewer at the outlet that had to be relocated prior to the culvert replacement. Construction was completed in 2015.

Contact: Ken Upmal, VTrans Roadway Design Engineer
Tel: (802) 828-3594 email: ken.upmal@vermont.gov



Vermont State Route Reclaim Projects

Services: Developing Horizontal and Vertical Alignments and Superelevation that meet current design standards, analyzing and adjusting the Vertical Alignment based on the pavement recommendation so there is minimal excavation of the reclaimed roadway. Underdrain, Guardrail, Signing and Striping Design; and ensure ADA Compliance. Preparation of Preliminary, Final, Pre-Contract and Contract plans, Cost Estimating; and Construction Services. CLD has completed the design and construction of five reclaim projects totaling over 36 miles since 2011.

Currently Being Designed

Cavendish-Weathersfield STP 0146(14) – 8.953 miles of VT 131

Contact: Michael Fowler, VTrans Highway, Safety & Design Pavement Management Engineer
Tel: (802) 828-0160 email: mike.fowler@vermont.gov



Design of Intersection Projects



Intersection Improvement at US 2 and VT 314, South Hero, VT



Services: Public Participation, Conceptual Design Public 502 Hearing, Traffic Analysis, Drainage Design, Structural Design, Preliminary, Final and Contract Plans, Cost Estimating and Construction Services.

The Public 502 Hearing was held in May 2014. Due to public input, the Agency collected updated summer traffic counts. CLD analyzed the numbers and determined the signal wasn't warranted. CLD is now in Preliminary Design, which includes the replacement of a deteriorating concrete box culvert, addition of a left turn lane, access management, drainage improvements and a stormwater discharge permit application.

Contact: Erin Lewis, VTrans Highway, Safety & Design Project Manager

Tel: (802) 828-2046

email: erin.lewis@vermont.gov



VT 15 and Browns Trace, Jericho, VT



Services: Public Participation, Conceptual Design, Public 502 Hearing, Geotechnical Investigation; Traffic Analysis, Traffic Signal, Closed Drainage Design, Structural Design, Preliminary, Final and Contract Plans, Cost Estimating and Construction Services.

This 0.3 of a mile project is located at the intersection of VT 15 and Browns Trace Road. The project will widen the roadway to create a left turn lane and then reclaim full width to obtain a homogenous blend of subbase materials prior to paving. A signal will be constructed to improve safety at this intersection and a box culvert will be constructed to replace an existing structure. This project is anticipated to advertise for construction in April and be constructed in 2017.

Contact: Patti Coburn, VTrans Highway, Safety & Design Project Manager

Tel: (802) 828-6980

email: patti.coburn@vermont.gov

Scoping Studies



Stowe Intersection Feasibility Studies and Speed Study

Services: Public Participation, Traffic Analysis, Intersection Feasibility Studies and a Speed Study.

CLD prepared Intersection Feasibility Studies for the intersections of VT-100/Moscow Road and VT-100/West Hill Road as well as a Speed Study for VT-100/West Hill Road in collaboration with the Town of Stowe and the Lamoille County Planning Commission. The project was kicked off in May 2016 and the final reports were delivered in November 2016. Each of these feasibility studies considered a range of alternatives sensitive to the conditions at each site. A roundabout was selected at Moscow Road and a traffic signal in conjunction with a speed reduction was recommended at West Hill Road due to historic impacts and sight distance restrictions.

Contact: Rob Moore, LCPC, Regional Transportation Planner

Tel: (802) 851-6347

email: rob.moore@lcpc.org



Structures Design



Roaring Brook Road Over Roaring Brook, Barton, VT (Accelerated Bridge Project)



Services: Project Definition, Public Participation, Preliminary and Final Bridge Design; Contract Plan Preparation; Hydraulic Analysis, ROW and Property Owner Research, NEPA coordination and Permitting, Accelerated Bridge Design; Cost Estimating; and Construction Services.

This project is the complete replacement of an existing single 26-foot span concrete T-beam bridge on concrete abutments. The replacement bridge will consist of 45-foot long NEXT-D beams on integral abutments with driven H-Piles. The bridge is owned by the Town of Barton but the replacement is being performed through VTrans. This project is complicated by the substandard existing roadway. As many improvements as possible were provided while staying within the existing ROW. Also modifications to the NEXT-D beams needed to be made to accommodate a superelevation transition of the roadway over the bridge. Construction was completed in 2015.

Contact: Todd Sumner, VTrans Structures Project Manager

Tel: (802) 828-0161

email: todd.sumner@vermont.gov



US 2 over Hudson Brook, Lunenburg, VT



Services: Project Definition, Public Participation, Preliminary and Final Highway and Bridge Design; Contract Plan Preparation; Hydraulic Analysis, Temporary Detour and a Temporary Traffic Signal, ROW and Property Owner Research, Property Owner Meetings, ROW Plan Development, NEPA Coordination and Permitting, Cost Estimating; and Construction Services.

This project is the complete replacement of an existing culvert. The culvert was replaced with a 110' long, 16' span precast concrete arch. The existing soils at the downstream end of the culvert consist of very soft varied clays. These clays will cause considerable differential settlements of any culvert type structure constructed. Therefore, CLD proposed to place the concrete arch on a large, thick mat foundation. CLD performed a finite-element analysis of the mat using soil properties to analyze the potential settlements and the stress induced from these settlements. The model was used to design the 3' thick reinforced concrete mat. Closing the road in order to construct the proposed structure is not an option, so traffic control plans using a temporary bridge and roadway with a temporary traffic signal and phased construction were developed. Construction was completed in 2016.

Contact: Danny Landry, VTrans Structures Project Manager

Tel: (802) 828-3639

email: dan.landry@vermont.gov

3. KEY PERSONNEL SUMMARIES

Christopher Bean, P.E.

Years of Experience

Principal-in-Charge

42 (29 with CLD)

Chris has over 42 years of experience in transportation engineering. His background includes specialization in preliminary design, traffic capacity/pavement layouts, maintenance of traffic, hydraulics, permitting, documentation, railroad crossings, technical reports, public meetings, and numerous public presentations. As Principal-in-Charge for the Pittsford project, Chris will be available to prioritize the work internally and also provide VTrans experience, guidance, and recommendations as needed. Chris was the Project Manager for the Pittsford-Brandon project back in 2000, when conceptual plans for this segment(s) were completed and the project was taken successfully through the Act 250 Process. Chris has designed and managed a wide variety of bridge and roadway projects for VTrans over the last 25 years.

Patricia Shedd

Years of Experience

Senior Project Manager

31 (18 with CLD)

Patricia has 31 years of civil design experience and has been involved in a diverse range of traffic and transportation projects as well as survey and civil/site designs. She is responsible for the project planning, scheduling, client coordination, subconsultant coordination and project overview for a variety of VTrans projects. Since joining CLD in 1998, Ms. Shedd has developed close working relationships with personnel in VTrans' Highway, Safety & Design, Municipal Assistance Bureau, Pavement Management and Right-of-Way Sections. She has worked on all aspects of roadway design including horizontal geometry, vertical alignments, guardrail, superelevation, drainage, stormwater treatment, scoping, signing, pavement markings, EPSC plans, temporary traffic control plans, developing right-of-way plans, developing cost estimates and obtaining stormwater discharge permits. She has been involved in meetings with Selectboards, Public 502 Hearings, the Act 250 process, and Necessity Hearings.

David Munro, P.E.

Years of Experience

Project Manager

21 (19 with CLD)

Dave is a Senior Engineer for CLD's Highway Team. He has extensive knowledge of AASHTO and state-specific design standards and is responsible for ensuring quality submittals. He does this by providing continual design guidance and support to CLD staff working on highway design projects and by thorough review of plans and documents before submittal. He possesses exceptional MicroStation and InRoads skills and is directly responsible for maintaining and enforcing CAD standards at CLD. Dave has worked on all aspects of roadway design including scoping, horizontal geometry, vertical alignments, superelevation, pavement design, drainage, stormwater treatment, utility coordination, guardrail layout, right-of-way plans, pavement marking, and signing. 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.

JoAnn Fryer, P.E.

Years of Experience

Quality Control / Quality Assurance Manager

25 (all with CLD)

JoAnn is experienced in the design of transportation projects for state DOTs and municipalities, including bridge rehabilitation, widening and replacement projects, as well as roadway and intersection improvements, pedestrian / bicycle trail projects involving structures, off-road and on-road trails and sidewalks, and traffic signalization projects. In addition to now providing quality assurance and control to projects, she assisting in streamlining the management of the project, both internally and externally, in coordination with our clients, state agencies and other project stakeholders.

Michael Haley, P.E., L.S.I.T.
Senior Highway Engineer

Years of Experience
13 (9 with CLD)

Mike has 13 years of experience and has worked on a variety of highway, bridge, and civil/site projects that have involved all aspects of roadway and sidewalk design including horizontal and vertical geometry, superelevation, guardrail, drainage, EPSC plans, temporary traffic control plans, plan review, estimating construction quantities and schedules, and developing construction documents.

Kristen Hayden, P.E.
Highway Engineer

Years of Experience
15 (5 with CLD)

Kristen has over 15 years of highway design experience. She supervises and has developed roadway and drainage designs for several large-scale highway projects. She has extensive experience in stormwater and roadway design for municipal and state clients and has a firm understanding of stormwater regulations in New England as well as being proficient in MicroStation and InRoads. She has lead design teams on projects utilizing her complete understanding of plan development, technical background and practical experience. Kristen has extensive experience in several states and multiple civil engineering disciplines and has participated in and guided projects from conceptual through contract plans.

Samuel Fortier, P.E.
Highway Engineer

Years of Experience
7 (5 with CLD)

Sam has over 7 years of experience working on a variety of highway projects in VT, NH, MA, ME, and RI. Through these projects, Sam has built a strong knowledge base including geometric design, roadside safety, traffic control, drainage, pedestrian accommodations, and estimates.

Nicole Fox, P.E.
Senior Highway Engineer

Years of Experience
18 (8 with CLD)

Nicole has 18 years of experience as a Transportation Engineer in transportation design and planning, including plan development, roadway design, pedestrian and bicycle facility design, traffic and crash analyses, scoping studies, corridor and impact studies, hydraulic design, traffic control plans and intersection design. She has extensive experience with GIS software and MicroStation, InRoads. Nicole has the ability to foster open communication channels between clients, agencies and other consultants. She is familiar with multiple State and Federal Transportation Agencies and has excellent leadership skills.

John Byatt, P.E.
Structural Team Leader

Years of Experience
25 (13 with CLD)

John is the Structural Team Leader and a Senior Project Manager. He has been involved with VTrans bridge projects for over 13 years. As a project manager, he has extensive experience in developing small and large projects through design and construction. His technical experience includes the design of steel and concrete bridge structures, a variety of substructure designs, bridge inspection and seismic analysis.

Shannon Beaumont, P.E.
Senior Structural Engineer

Years of Experience
15 (all with CLD)

Shannon has over 15 years of experience in bridge rehabilitation and replacement design. She has worked on various bridge project phases including the design of steel, reinforced concrete, precast concrete, aluminum and wood. She is proficient at sizing bridges and culverts using accepted methods to calculate flood flows and elevations, including the use of the ACOE Hydraulic Modeling Program HEC-RAS. Shannon is proficient at designing both large and small retaining walls.

Paul Konieczka, A.I.C.P.
Senior Transportation Planner

Years of Experience
35 (31 with CLD)

Paul is a Senior Vice President with CLD and brings 35 years of transportation planning and traffic engineering experience in New England. He has substantial experience in the design, layout, and installation of traffic signal control layout for both individual intersections and coordinated systems and provided assistance with shop drawing review during the construction phase. He has conducted numerous corridor-wide and subregional traffic evaluations, where the future development patterns and transportation system needs merge into a long-range planning document.

Linda Greer, P.E., P.T.O.E.
Senior Transportation Engineer

Years of Experience
17 (2 with CLD)

Linda has extensive experience working collaboratively with State DOTs, taking projects from conceptual design through final construction plans. The foundation of Linda's career as a Roadway Engineer was built by combining traffic analysis with construction field experience. Her deep knowledge of State and Federal standards and breadth of project experience with multiple types of projects from designing intricate intersections to major highways makes her a well-rounded, seasoned addition to our team.

Gregory S. Brown, L.L.S., P.L.S.
Survey Team Leader

Years of Experience
35 (30 with CLD)

Greg has 35 years of experience overseeing all survey components of projects assigned to CLD. His survey work has included residential, commercial, municipal, construction survey assignments, and state highway improvement projects. Greg is intimately involved in the area of construction survey support, boundary re-establishment, re-measurement surveys, and documentation of as-built conditions. He is consulted when subdivision and/or Registry of Deeds issues arise.

Heidi Quesada, L.L.S.
Survey / Right-of-Way

Years of Experience
29 (16 with CLD)

Heidi has 29 years of experience and is responsible for survey note reduction, computations, detailing and generating worksheets and plans, assisting in boundary and right-of-way determination, and preparing field crew assignments. She has been involved in the research, development, and drafting of various utility and signal easement plans in conjunction with highway improvements, researching land, owner, and ROW information at various registries, town offices, and government agencies, while also assisting in the field.

David Lewis, P.E.
Utility Specialist / Senior Project Engineer

Years of Experience
28 (17 with CLD)

Dave has provided municipal, civil and geotechnical engineering services for both public infrastructure and private development projects. Design and permitting work has included rural and urban roadway design, solid and industrial waste landfills, sewers and pump stations. He provides field consultation to owners, designers and construction managers during both design and construction phases.

SURVEY AND RIGHT-OF-WAY

Stephen Fraser, L.S., Principal
Vermont Survey and Engineering, Inc.

Years of Experience
46 (12 with VSE)

Stephen is President and a principal of VSE. Prior to his involvement with VSE, Stephen was a Mapping and Surveying Specialist in the Engineering Department for City of Barre, Vermont (1980-2005). For much of his surveying career, Stephen has focused on the legal aspects of Land Surveying as it affects land boundaries. He is a Land Surveyor licensed in VT, NH, and NY. He is affiliated with the Vermont Society of Land Surveyors, NH Land Surveyors Association, and NY State Association of Professional Land Surveyors.



Lawrence Bliss
Right-of-Way Specialist

Years of Experience
46 (8 with VSE)

Larry is a Right-of-Way Specialist and Title Researcher with VSE and has been since 2005. Larry was Chief of Plans and Titles for the VAOT Right-of-Way Division (46 years) before joining VSE. Larry is highly skilled in areas of title research for right-of-way projects and boundary surveys. Attention to detail and thoroughness are his hallmarks, and Larry has considerable ROW experience managing acquisitions for VTrans and the VT Dept. of Forest and Parks.

ENVIRONMENTAL PERMITTING
Jacqueline Dagesse, MBA, CPESC, PMP
EIV Technical Services

Years of Experience
15 (5with EIV)

Jacquie supports civil and transportation projects with environmental permitting and design services. Her expertise includes: natural resource assessments, hydraulic analysis, culvert design, EPSC design and inspection, aquatic organism passage recommendations, fluvial geomorphology analysis, and wastewater system design. She routinely performs environmental compliance inspections on civil projects. She has a great working relationship with local, State and Federal regulators. She has experience with these regulators for the following: ACOE Section 404 and Section 401, NEPA documentation, Title 19 Stream Alterations Consultation, Act 250, RTE Takings Permit, Construction Stormwater Permit 3-9020, Section 106 Coordination, Operational Stormwater Permit 3-9015, VT Wetlands Permit, coordination of local concerns meetings and as a Public Relations Officer.

ARCHEOLOGICAL
Elise Manning-Sterling, M.A., R.P.A.
Hartgen

Years of Experience
21

Elise will serve as the principal investigator for the contract. She has conducted over 170 projects throughout VT, NH, MA, and NY, including archeological resource assessments (ARA), and Phase I, II and III archeological investigations. She is a member of the Register of Professional Archaeologists, and a two-term past president of the Vermont Archaeological Society.

LAND ARCHITECTURE
David Raphael, B.A., M.L.A.
Landworks

Years of Experience
39 (29 with LandWorks)

David founded LandWorks in 1986 after ten years of professional work as a Landscape Architect and Planner for the public and private sector. He has been Chairman of his local Planning Commission and Development Review Board for 25 years and was a founding member of the Middlebury Design Advisory Committee. Mr. Raphael is a member of the Vermont Urban and Community Forestry Council and the American Society of Landscape Architects.

Patrick Olstad, B.S., ASLA+LEED AP.
Landworks

Years of Experience
19 (10 with LandWorks)

Patrick has designed and managed a wide range of project types, including urban design, institutional, and traditional neighborhood design. Patrick is a LEED accredited professional with a comprehensive knowledge of sustainable design strategies. He was the project landscape architect for the Winooski Downtown Redevelopment Plan, which won a National Award for Smart-Growth from the EPA, a Smart-Growth Award from the Vermont Forum on Sprawl, and a Merit Award from the Vermont Planners Association. At LandWorks, Patrick contributes a well-developed approach to design, an understanding of construction practices, and a high attention to detail. His graphic skills include creating photo-simulations, digital illustration, and hand-drawn perspective sketches.

ADDITIONAL STAFF (see new resumes)

**Erik Mas, PE
Fuss & O'Neill, Inc.**

**Ted DeSantos, PE, PTOE
Fuss & O'Neill, Inc.**

**Stephanie White, RLA, CNU-A, LEED
AP Fuss & O'Neill, Inc.**

**Kristen Solloway, PE
Fuss & O'Neill, Inc.**

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<i>Elise Manning-Sterling, M.A., R.P.A.</i>	39
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<i>Lawrence Bliss</i>	41
<i>David Raphael, B.A., M.L.A.</i>	42
<i>Patrick Olstad, B.S., ASLA + LEED AP</i>	43
<i>Erik Mas, PE</i>	44
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<i>Stephanie White, RLA, CNU-A, LEED AP</i>	46
<i>Kristen Solloway, PE</i>	47



Christopher R. Bean, P.E.

President/CEO

Proposed Role:
Principal-in-Charge

Years of Experience

42 (29 with CLD)

Education

M.B.A., University of
New Hampshire

B.S., Civil Engineering,
Norwich University

Professional Registrations

New Hampshire (4882)

Maine (5859)

Vermont (5520)

Massachusetts (40554)

Professional Affiliations

American Society
of Civil Engineers

American Council of Engineering
Companies – NH

Director 1996-2000

President 2000

State of New Hampshire

Transportation Appeals Board –

Appointed Member, 2011-Present

NHDOT ACEC Consultant Quality
Initiative Committee 2009-Present

NH Good Roads Association

Director 2001-2012

President 2011

Weaver Scholarship –

Trustee 2001-Present

National Society of
Professional Engineers

New Hampshire Society
of Professional Engineers

Chi Epsilon Civil Engineering
Honor Society

Maine Better Transportation
Association

Honors and Awards

NH Good Roads "Honor Road"
Award, 2015

NH Engineer of the Year, 2013

Brandon, VT, US Route 7 Improvements, Brandon (S6), VT: Principal-in-Charge and Project Manager for Preliminary and Final Design of this one-mile-long complex urban **Municipally Managed** VTrans Local Transportation Facilities' project. The work has involved roadway design; signal design; streetscape and landscaping design; development of traffic control plans and a Traffic Management Plan; and design of a comprehensive new closed drainage system that includes treatment facilities to meet the latest stormwater regulations. In addition, in response to a utility undergrounding ordinance in the Downtown area, we have worked extensively with the utility companies designing relocations. The project also included the design of replacement water and sewer systems. A major challenge has involved the design of temporary widenings to accommodate two lanes of traffic during construction for a portion of the project. The project is scheduled for construction beginning in 2017.

VTrans and Town of Brandon, VT, US Route 7 ACT 250 Process: Principal-in-Charge and Project Manager for the taking of the VTrans Pittsford-Brandon Segment 5 2.4-mile project and the Town of Brandon Segment 6 1.2 mile **Municipally Managed** urban-type project successfully through the ACT 250 process. CLD teamed with Engineers Incorporated of Vermont, environmental specialists, to assist in this effort. The work involved numerous workshop meetings associated with developing the application. In addition, graphics and expert testimony was provided at the ACT 250 Merits Hearings. The Segment 6 Act 250 Permit was issued in September 2008.

South Street Improvements, South Hero, VT: Principal-in-Charge of this project with a goal to improve pedestrian, bicyclist, and highway safety along South Street from US Route 2 to Martin Road and Martin Road to the Allen Point Access Area Road. This project is being managed by the Town as part of the VTrans Local Transportation Facilities Program. Engineering services consist of close coordination with our arborist, utility companies, and the Fire District to minimize impacts. There are numerous large trees close to the road, drainage, municipal water, aerial utilities, historic buildings, archaeologically sensitive areas, and apple orchards to consider. The project includes full-depth reconstruction, reclaiming and widening along South Street, as well as signing to guide bicyclists from South Hero Village to the Allen Point Access Area Road. The project will provide paved shoulders and clearly defined vehicular lanes for motorists to reduce conflicts between vehicles, bicyclists, and pedestrians. CLD developed Conceptual Plans that were presented in February 2008. CLD was contracted in 2011 to complete preliminary engineering, Right-of-Way and cost estimates for the Town. This work also involved stormwater permitting and other associated needs. Construction is slated to begin in 2017.

Derry and Londonderry, NH, I-93 New Exit 4A Interchange Environmental Impact Statement (EIS): Principal-in-Charge and Project Manager for this **Town-sponsored** new interchange. The project involved the study of 47 interchange options, including new interchanges at two different locations. In addition, there have been numerous public meetings and extensive coordination with the Towns, FHWA, Resource Agencies, and the NHDOT. The Draft EIS (DEIS) was published and the Public Hearing was successfully completed in 2007. Necessity for the layout was received in early 2008. The progress then stalled during the wetland mitigation process. In 2014, the NHDOT signed an agreement to work with both Towns completing the EIS. FHWA ruled that a re-evaluation / update of the EIS including issuance of a Supplemental Draft EIS, followed by a Public Hearing and then the Final EIS, would be required. This work is in progress with an estimated completion date of December 2017.



Patricia T. Shedd

Vermont Highway Team Group Leader

Proposed Role:
Senior Project Manager

Years of Experience

31 (18 with CLD)

Education

A.S., Civil Engineering Technology,
Vermont Technical College

Professional Training Highlights

VTrans Contractor Workshop
(March 2016)

VTrans Traffic Management Plan
Training (July 2014)

20 hour on-line Project
Management Training (2014)

General Overview of the 2009
MUTCD Parts 1 and 6 (June 2010)

VTrans Right-of-Way Workshop
(September 2009)

35 Hour ASCE Project
Management Training Program
(June 2009)

Stormwater BMP Technology
Demonstration Workshop
(November 2008)

Dale Carnegie Immersion Seminar
in Effective Communications and
Human Relations (March 2008)

Protocol for Implementation of
Construction General Permit 3-
9020 (January 2007)

OSHA Construction Safety
Certification Course (June 2005)

Erosion and Sediment Control
Training Course (June 2005)

South Street Improvements, South Hero, VT: Project Manager/Sr. Highway Engineer for this 2.5-mile local road project that is being managed by the Town as part of the VTrans MAB. The work includes widening the roadway to accommodate both bicycle and vehicular traffic, analyzing the effects of lowering Frechettes Hill by as much as 5 feet to meet AASHTO criteria, and close coordination with the Agency of Natural Resources regarding stormwater permitting needs. To meet the clients funding needs this project was reduced to 1.3-miles. We completed the bid documents and anticipate constructing the project in 2017.

VT Route 100 Sidewalk Project, Stowe, VT: Project Manager for a new sidewalk on Lower Main Street. This project is being managed by the Town as part of the VTrans Municipal Assistance Bureau. During the design, CLD was asked to realign the River Road intersection and reconfigure the bike path to terminate at the intersection. Responsible for reviewing submissions and cost estimates, facilitating public meetings and managing the schedule and budget. This project cleared ROW and construction is anticipated in 2017.

Stowe Intersections Feasibility Studies, Stowe, VT: Project Manager for the development of feasibility studies to improve safety and mobility for two intersections on VT 100 in Stowe. Responsibilities included public meeting presentations and reviewing feasibility reports. A speed study was completed for the intersection of VT 100 and West Hill Rd to complement the recommendations of the feasibility study completed in the Fall 2016.

VTrans US Route 5, Lyndon, VT: Project Manager for this 0.8 mile full depth reconstruction project in the Village of Lyndon. Attended the Public 502 Hearing in April 2015. The community expressed a strong desire for a traffic signal at the intersection of US 5 and Red Village Road. We determined a signal was warranted, developed Contract Plans and bid documents and is anticipated to advertise for construction in January 2017.

VTrans, Brandon, VT, US Route 7 Improvements, Brandon (S6), VT: Highway Engineer for the development of Conceptual, Preliminary, Right-of-Way and Final Plans for this one-mile complex urban MAB project. Stormwater Discharge Permit and Act 250 Permit were received in 2008. We are currently developing Contract Plans.

VTrans, US Route 7 Improvements, Pittsford (S3 & S4), VT: Highway Engineer for the design and development of Conceptual Plans and Project Manager for the Right-of-Way Plans of these 2.4- and 1.7 mile rural projects. The work includes the development of Take Line Plans and preliminary right-of-way plans to be reviewed by VTrans Right-of-Way staff.

VTrans Roaring Brook Road Culvert Replacement, Barton, VT: Sr. Highway Engineer. This project replaced Town owned Bridge No. 8. We realigned the road and improved the superelevation. Construction was completed in 2015.

VT Route 131, Cavendish, Vermont: Project Manager/Sr. Designer for 450 m of sidewalk reconstruction, curbing, drainage, signing and striping for LTF. Constructed in 2009.

VTrans Resurfacing Program, State of VT: Sr. Project Manager overseeing the design of over 25 resurfacing projects along the Interstate, U.S. Highways, State Routes and Class I town highways throughout the State. Design includes guardrail, signing, striping, ADA ramps, railroad crossings, and cost estimates. Reclaim projects include the design aspects noted above as well as horizontal and vertical geometry and superelevation. Responsible for the oversight and management of current projects including review of all submissions and cost estimates, developing and tracking budgets, schedules and invoicing.



David A. Munro, P.E.

Senior Transportation Engineer

Proposed Role:
Project Manager

Years of Experience

21 (19 with CLD)

Education

B.S., Civil Engineering
University of Vermont

Professional Registrations

Professional Engineer:
New Hampshire (10267)

Professional Training

Revised Stormwater Management
Manual Presentation - Vermont
Agency of Natural Resources
(March 2016)

UNH Stormwater Center BMP
Workshop (November 2014)

Signage and Retroreflectivity
Seminar Manchester Community
College Workforce Development
Center (May 2010)

Seeking, Designing, and
Implementing Stormwater Retrofits
(October 2009)

Stormwater BMP Technology
Demonstration Workshop
(November 2008)

Erosion and Sediment Control
Training Course (June 2005)

Annual VTrans/NHDOT CAD
Workshops

Brandon, VT, US Route 7 Improvements, Brandon (S6), VT: Senior Engineer for the development of conceptual, preliminary and final plans for this one-mile complex urban project. This project is being managed by the Town of Brandon with assistance from the VTrans Municipal Assistance Bureau. The work includes detailed roadway design, development of maintenance of traffic plans, utility coordination, development of 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 of Act 250 Permit construction plans and preparation and review of permit applications. This work has involved close coordination and numerous meetings with the local Steering Committee, environmental agencies, and VTrans staff.

South Street Improvements, South Hero, VT: Provided technical support and oversight relative to hydrology and hydraulic calculations and design of stormwater collection and treatment systems to meet current ANR regulations. This project has a goal to improve pedestrian, bicyclist, and highway safety along South Street from US Route 2 to Martin Road and Martin Road to the Allen Point Access Area Road. This project is being managed by the Town of South Hero with assistance from VTrans Municipal Assistance Bureau. The project includes 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.

VT Route 108 Drainage Improvements, Bakersfield, VT: Project Manager responsible for the design of this 0.65-mile reclaim and shoulder widening project with extensive drainage improvements including closed system design, intersection improvements, new sidewalk, retaining walls, and utility relocations. The project is in the ROW Phase.

VT Route 100 Sidewalk Project, Stowe, VT: Senior Engineer and QC / QA Manager for a new sidewalk on Lower Main Street. This project is being managed by the Town of Stowe with assistance from the VTrans Municipal Assistance Bureau. During the design, CLD was asked to realign the River Road intersection and reconfigure the bike path to terminate at the intersection. Responsible for reviewing submissions and cost estimates. This project cleared ROW and construction is anticipated in 2017.

Palmer Road Bridge Replacement, Randolph, VT: Senior Engineer for the design of line, grade, and approach work. The bridge is part of the Accelerated Bridge Program. Contract plans were developed. The bridge was constructed in 2015.

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 VT 15 and Browns Trace Road. The project will add a left-turn lane on VT 15 and a right-turn lane on Browns Trace Road. The design is complicated by two historic properties adjacent to the intersection, aerial/underground utilities, an existing box culvert, a stream and adjacent wetlands. We are currently designing final plans.

I-89 / I-91 / I-93 Signing Projects: Senior Engineer responsible for interstate sign layout design, sign details utilizing SignCAD, sign post design, and preparation of contract plans and documents for nine interstate signing projects spanning 235 miles of interstates I-89, I-91 and I-93 between the New Hampshire border and Winooski (I-89), between the Massachusetts border and Hartford (I-91), and between Ryegate and the Canadian border (I-91 & I-93).



JoAnn L. Fryer, P.E.

Quality Control Manager, Senior Associate

Proposed Role:
Quality Control Manager

Years of Experience

25 (all with CLD)

Education

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

Professional Registrations

New Hampshire (9179)

Massachusetts (40781)

Maine (9655)

Professional Affiliations

American Council of Engineering Companies, ME Structural Engineers of NH

Professional Training

NHDOT LPA Certification Training (April 2016)

MaineDOT Transportation Conference, Transportation Partnerships (December 2015)

Development in FEMA's Regulatory Floodway, RedVector (October 2015)

2014 UNH Civil and Environmental Engineering Alumni Conference (May 2014)

Modular Decked Steel Folded-Plate Beams for ABC Applications (January 2014)

ACEC Financing Public and Private Capital Investments (November 2013)

Maine Stormwater Conference (November 2013)

Integral Abutments for ABC Bridges in Vermont (September 2013)

Integral Abutments for Accelerated Bridge Construction (September 2013)

MaineDOT Local Project Administration Training (May 2013)

South Street Reconstruction, South Hero, VT: The project includes reconstruction / reclamation of 1.3 miles of local street to provide improved roadway and drainage. Responsible for quality control review of contract plan submission, including review of plans and quantity calculations. Developed contract documents and special provisions for this locally managed, Federally funded project through VTrans Municipal Assistance Bureau (MAB) program.

US Route 7 Reconstruction (Segment 6), Brandon, VT: The project includes urban reconstruction of 1.25 miles of US Route 7 and adjacent side streets, including relocation of a section and development of two signalized intersections, as well as reconstruction of underground utilities. Responsible for development of the Traffic Management Plan, collaborating on required project phasing, and recommendations for revisions to the Traffic Control Plans, to accommodate utility, drainage and roadway construction. Also responsible for development of Bid Documents and Special Provisions in accordance with VTrans and FHWA requirements. This is a Federally funded project through VTrans Local Transportation Facilities (LTF) program. Construction is slated to begin in 2017.

VT Route 100 (Lower Main Street) Sidewalk Project, Stowe, VT: Responsible for plan review and development of Bid Documents and Special Provisions for this 1,200 foot Municipal Assistance Bureau (MAB) sidewalk project in the Village of Stowe. The project has cleared Right-of-Way and is anticipated to be constructed in 2017-2018.

SRTS Sidewalks, Troy, NH: Project Manager for new and reconstructed sidewalks as part of two Safe Routes to School (SRTS) grants through NHDOT. Projects included reconstruction of an existing deteriorated and non-ADA compliant sidewalk on Central Square as well as installation of a new sidewalk on South Street to link a recreational area to the Town sidewalk network and local schools. CLD managed the projects from initial development through construction completion in compliance with NHDOT and FHWA requirements.

Reed Road over West Alton Brook, Alton, NH: Project Manager for emergency bridge replacement due to storm damage from Tropical Storm Irene. Work included hydraulic analysis to size new bridge to pass storm flows, as well as development of temporary bridge plans to restore access to the neighborhood. Completed design and construction plans for a 20-foot-span precast concrete rigid frame. Construction administration and inspection were also included. Also responsible for project administration in compliance with NHDOT Bridge Aid Program.

Town Hall Beautification and Safety Project, Amherst, NH: Project Manager for this Municipally Managed Transportation Enhancement Project involving reconfiguration of the roadways, reduction of paved areas, and pedestrian safety improvements. Completed design, construction plans, contract documents and special provisions in accordance with NHDOT and FHWA requirements; and completed construction administration.

York River Access Improvements, York, ME: Project Manager for municipally managed Small Harbor Improvement Project funded through MaineDOT to complete a link of Fisherman's Walk with canoe / kayak access to York River. The project includes 300-foot long bulkhead along a sensitive clam flat to construct a trail linking the Fisherman's Walk to the Wiggly Bridge and Steadman Woods and eliminate a road crossing between parking and recreational areas. Prepared Contract Documents and Special Provisions in accordance with MaineDOT requirements.



Michael F. Haley, P.E., L.S.I.T.

Transportation Engineer

Proposed Role:
Senior Highway Engineer

Years of Experience

13 (9 with CLD)

Education

M.S., Civil Engineering,
California State University

B.S., Civil Engineering,
Clarkson University

Professional Registrations

California (68776)

New Hampshire (12741)

Vermont (107827)

Land Surveyor-in-Training:
(NH) 679

Professional Training

Compost BMP Designs for Green
Infrastructure and Low Impact
Development (March 2015)

StormTrap- Modular Wetlands
Brown Bag Lunch (February
2015)

Water Industries HDPE
Trapezoidal Ditch Liner Brown
Bag Lunch (February 2015)

Conducting Road Safety Audits
(June 2012)

ITE, The Public Rights-of-Way
Accessibility Guidelines
(August 2011)

Pedestrian Road Safety Audit –
Webinar (April 2010)

2009 MUTCD: Traffic Signals &
Accessible Pedestrian Signals
(APS) (February 2010)

General Overview of the 2009
MUTCD (February 2010)

OSHA Construction Safety &
Health (June 2009)

10-Hour OSHA Certified
Construction Training
(June 2009)

VT Route 100 (Lower Main Street) Sidewalk Project, Stowe, VT: Highway Engineer for this 1,200 foot Municipal Assistance Bureau (MAB) sidewalk project in the Village of Stowe. Responsible for reviewing a roadway profile developed by others, designing new drainage and a new bike path/ADA ramp, designing a realigned intersection, as well as performing quantity take-off calculations. Project has involved a significant amount of coordination with local officials to ensure that the end product meets the needs and wants of the Town. 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. The project has cleared Right-of-Way and is anticipated to be constructed in 2017.

South Street Improvements, South Hero, VT: Highway Engineer for this 2.5-mile road project that is being managed by the Town under the MAB program. The work includes 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. The project is anticipated to be constructed in 2017.

VTrans Bridge Replacement Program, Barton, VT: Highway Engineer responsible for developing conceptual through contract plans, cost estimates for each submission, and creating special provisions for roadway approaches to the bridge over Roaring Brook. Challenges included minimizing project length, incorporating existing reverse curves on either side of the brook into the bridge approaches, avoiding Right-of-Way impacts, and accounting for an existing driveway adjacent to the bridge that was required to remain open. This project was constructed in 2015.

US 2/VT 314 Intersection Safety Improvement Project, South Hero, VT: Project Engineer on a safety improvement project at the intersection of US 2 and VT 314. Developed conceptual plans and estimates for six alternatives that were presented to the Town Select Board for review and consideration. Gathered input from local businesses to determine how different alternatives would impact their property. Project includes the addition of a left turn lane and traffic signal and widening pavement. Challenges included developing an intersection layout that reduced the width of VT 314 but still accounted for high volumes of large truck turning movements at the intersection.

VTrans MAB, Brandon, VT, US 7 Improvements, Brandon (S6), VT (Phase 1): 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 Tropical Storm Irene damage. 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. This project was constructed in 2014.

VTrans MAB, Brandon, VT, US 7 Improvements, Brandon (S6), VT (Phase 2): Member of a team of engineers for the development of Preliminary Plans for this one-mile, complex, urban, MAB project. The work has involved incorporating conceptual design modifications to the area around the central green space as requested by local community groups. Also responsible for coordinating with utility companies to relocate overhead utility lines to comply with a local Town Ordinance. This project anticipated to be constructed in 2017-2018.



Kristen A. Hayden (Rutter), P.E.

Project Engineer

Proposed Role:
Highway Engineer

Years of Experience

15 (5 with CLD)

Education

B.S., Civil Engineering, University of Vermont

Professional Registration

New Hampshire (13142)

VTrans, VT Route 15 at Browns Trace Intersection Improvements, Jericho, VT: Started as Project Engineer and transitioned into the role of Project Manager. Responsible for the development of contract plans to improve intersection safety by creating a dedicated left-turn lane with signalization on VT Route 15 and the replacement of an existing box culvert. Services include development of horizontal and vertical geometry, guardrail and superelevation calculations, drainage and stormwater design and associated permitting, traffic analysis, design of signing and pavement marking, traffic signal warrant analysis and design, erosion protection and sediment control, development of traffic control plans.

VTrans, VT Route 102 over Paul Stream, Brunswick, VT: Highway Project Engineer for the complete replacement of an existing bridge. The replacement bridge will consist of a single 106-foot long curved steel girder bridge on integral abutments with 600 feet of associated roadway work, including a temporary bridge to keep the roadway operational during construction.

VTrans, VT Route 108 over Little River, Stowe, VT: Highway Project Engineer responsible for the development of highway plans associated with the reconstruction of a bridge over the west branch of the Little River. Responsibilities included development of alternative horizontal and vertical alignments as well as an alignment for a temporary bridge to avoid a road closure and detours in a tourist friendly area. Design elements included designing horizontal and vertical alignments that minimized impacts to adjacent historical resources.

VTrans, VT Route 15/VT Route 15A, Morristown, VT: Project Engineer for this project which will lower the profile on VT Route 15 and re-align the intersection of VT Route 15A to improve intersection sight distance. Developed alternatives analysis for the intersection improvements. The report specifying the preferred alternative was submitted to the town and VTrans for approval.

Town of Hudson, Pelham Road over Second Brook, Hudson, NH: Highway Project Engineer for the construction of a new 16-foot-span by 8-foot-rise precast concrete arch or rigid frame with precast concrete wingwalls on cast-in-place concrete pedestal walls. The project included approximately 540 linear feet of approach work to improve the existing vertical alignment of the roadway and resolve existing drainage issues.

MassDOT, Route 125 and Massachusetts Ave, North Andover, MA: Project Manager for the development of highway plans associated with the intersection improvements at the intersection of Route 125 and Massachusetts Avenue in North Andover, MA. Proposed improvements were designed to address recommendations from a Road Safety Audit, including roadway widening, reconfiguration of turning lanes, sidewalk improvements, drainage improvements, utility coordination, and signal improvements.

MassDOT, Route 183, Great Barrington, MA: Highway Project Engineer for the development of highway plans associated with the reconstruction of a bridge carrying State Route 183 (Park Street) over the Housatonic River, in an urban and historic downtown area of the Town of Great Barrington. Responsibilities included preparation of Functional Design Report, development of vertical alignment alternatives to avoid impacts to an adjacent railroad underpass with limited clearance and the development of plans and estimate for the approach work, including roadway and sidewalk improvements.



Nicole C. Fox, P.E.

Transportation Engineer

Proposed Role:

Senior Highway Engineer

Years of Experience

18 (8 at CLD)

Education

B.S., Civil Engineering,
University of Florida

Professional Registration

New Hampshire (13102)

Vermont (67261)

Maine (12263)

Virginia (38284)

Stowe Intersections Feasibility Studies, Stowe, VT: Lead engineer for the development of feasibility studies to improve safety and mobility for two intersections on VT Route 100 in Stowe. Project responsibilities included development of the purpose and need statements, development and evaluation of improvement alternatives, public meeting presentations, and preparation of feasibility reports. In addition, a speed study was completed for the intersection of VT Route 100 and West Hill Road to complement the recommendations of the feasibility study.

Delaware & Hudson Rail Trail Resurfacing, Southwestern VT: Project manager for the development of plans for resurfacing 20 miles of rail trail in Southwestern Vermont. The Delaware & Hudson Rail Trail includes two segments running from Castleton to Poultney and West Pawlet to Rupert. The project includes development of typical sections, trail alignment plans, informational signing, and areas of detailed trail design in the Village of Poultney.

Stowe Sidewalk Replacement Study, Stowe, VT: Lead engineer for the development of a study to evaluate and recommend improvements to sidewalks and sidewalk materials in Stowe. The project included evaluations of all sidewalks within the Stowe Village as well as sidewalks on roadways feeding into the Village. The purpose of the project is to improve mobility, safety, sidewalk continuity, and aesthetics.

Juniper Hill Road over Brennan Brook Bridge Replacement, Frankestown, NH: Roadway design engineer for municipal project to construct a new 32-foot-span precast concrete rigid frame bridge over Brennan Brook. The project included approximately 150 linear feet of approach work and a detour alignment to accommodate a temporary bridge. Responsibilities included roadway layout, engineering calculations, traffic control plans, estimating, and plan preparation.

Woodward Hill Road over Brennan Brook Bridge Replacement, Frankestown, NH: Roadway design engineer for municipal project to construct a new 47-foot-span precast concrete NEXT beam bridge. The project included approximately 200 linear feet of approach work. Responsibilities included roadway layout, engineering calculations, detour plans, estimating, and plan preparation.

South Street Improvements, South Hero, VT: Project Engineer responsible for hydrology and hydraulic calculations and design of stormwater collection and treatment systems to meet current Agency of Natural Resources regulations. This project has a goal to improve pedestrian, bicyclist, and highway safety along South Street from US Route 2 to Martin Road and Martin Road to the Allen Point Access Area Road. This project is being managed by the Town as part of the VTtrans Local Transportation Facilities Program. The project includes full-depth reconstruction, reclaiming, and widening along South Street, as well as signing to guide bicyclists from South Hero Village to the Allen Point Access Area Road.

Replacement of NH 153 (Main Street) bridge over Cocheco River, Farmington, NH: Lead engineer for roadway design associated with this project to replace the bridge on NH 153 over the Cocheco River. Project responsibilities included roadway design, development of traffic control plans including a temporary diversion, engineering calculations, plan preparation, quantity calculations and report preparation.



John P. Byatt, P.E.

Structural Team Leader/Associate

Proposed Role:
Structural Team Leader

Years of Experience

25 (13 with CLD)

Education

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

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

Professional Registrations

New Hampshire (9990)

Vermont (18-8478)

Maine (9741)

Rhode Island (6593)

Massachusetts (39960)

Professional Affiliations

Committee Member: Precast
Concrete Institute – Northeast
Technical Committee

Structural Engineers of
New Hampshire

Papers

Design and Construction of
Drilled Shaft Columns for the
Boscawen-Canterbury Bridge.
Deep Foundations Institute, 2004
Conference Proceedings

Professional Training

NHDOT LPA Certification 2016

NHI Bridge Rehabilitation
Evaluation and Design
Considerations

NHI Bridge Inspection
Refresher Course 130053A

OSHA Construction Safety
Certification Course

Route 7 over Neshobe River, Brandon, VT: Project Manager responsible for this municipally managed bridge rehabilitation. The existing historic twin arch bridge in downtown Brandon, Vermont, is being rehabilitated and an impervious membrane is being installed over the top of the structure to protect it from water infiltration. The existing downstream two-span sidewalk structure is being replaced with a single span precast concrete slab bridge.

US Route 7 Improvements, Brandon (S6), VT: Senior Engineer involved in the structural design of several retaining walls for this roadway improvement project. Two new walls are required to accommodate the roadway improvements, and an existing is being replaced with a new cast-in-place concrete wall on spread footings.

Roaring Brook Road Over Roaring Brook, Barton, VT: Project Manager responsible for project development for the complete replacement of an existing 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.

VT Route 114 Over Dish Mill Brook, Burke, VT: Project Manager responsible for project development 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.

TH 65 Over the 2nd Branch of the White River, Randolph, VT: Project Manager responsible for project development for the replacement of an existing 28-foot single span steel stringer bridge on stone and concrete abutments. The replacement bridge consists of 53-foot long NEXT-D beams on integral abutments with driven H-Piles.

Elliot Street Over Whetstone Brook, Brattleboro, VT: Project Manager responsible for project development for the concrete deck replacement of an existing single 88-foot span steel girder bridge.

Hands Across the Merrimack Pedestrian Bridge, Manchester, NH: Project Manager and Construction Administrator for this municipally managed pedestrian bridge project. The project consisted of converting an existing truss bridge that crosses the Merrimack River and F.E. Everett Turnpike into a pedestrian and bicycle bridge. Other responsibilities included resident inspection.

2nd NH Turnpike over South Branch Piscataquog River, Frankestown, NH: Project Manager responsible for project development of this municipally managed bridge replacement. The existing 12'-corrugated metal pipe arches were replaced with a 54'-single span precast concrete NEXT beam bridge founded on integral abutments. Construction was completed in September 2014.

Old Cheshire Road Over Spring Brook, Unity, NH: Project Manager and Construction Administrator responsible for this municipally managed bridge replacement. The replacement bridge is a single 24-foot span precast concrete arch. This structure improves the hydraulic opening significantly compared to the original twin 5-foot diameter culverts. Other improvements included widening the road and raising the profile to improve site distance. Construction was completed in June 2014.

Charcoal Road over Charcoal Brook, Dublin, NH: Project Manager responsible for project development on this municipally managed bridge project. This bridge project involves the replacement of a 22-foot-long jack arch bridge with a 70-foot-long steel girder bridge on integral abutments. The road will also be raised several feet to meet the hydraulic requirements and improvements to the roadway horizontal alignment will be included.



Shannon R. Beaumont, P.E.

Structural Engineer

Proposed Role:
Senior Structural Engineer

Years of Experience
15 (All with CLD)

Education
B.S., Civil Engineering,
Tufts University

Professional Registration
New Hampshire (12527)
Massachusetts (49381)
Vermont (018.0110854)

Professional Affiliations
American Society
of Civil Engineers

Professional Training Highlights
FHWA-NHI-135090 Hydraulic
Design of Safe Bridges

Floodplains and FEMA/NFIP for
Land Surveyors, Engineers and
other Professionals

OSHA Construction Safety
Certification Course

PCI Basic Prestressed Concrete
Design Seminar

Roaring Brook Road Over Roaring Brook, Barton, VT: Project Engineer responsible for the overall design and plan preparation for the complete replacement of an existing 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.

TH 65 Over the 2nd Branch of the White River, Randolph, VT: Project Engineer responsible for the overall design and plan preparation for the complete replacement of an existing 28-foot single span steel stringer bridge on stone and concrete abutments. The replacement bridge consists of 53-foot long NEXT-D beams on integral abutments with driven H-Piles.

Route 7 over Neshobe River, Brandon, VT: Project Engineer responsible for the overall structural design of this municipally managed bridge rehabilitation. The existing historic twin arch bridge in downtown Brandon, Vermont, is being rehabilitated and an impervious membrane is being installed over the top of the structure to protect it from water infiltration. The existing downstream two-span sidewalk structure is being replaced with a single span precast concrete slab bridge.

US Route 7 Improvements, Brandon (S6), VT: Engineer responsible for the structural design of several retaining walls for this roadway improvement project. Two new walls are required to accommodate the roadway improvements, and an existing is being replaced with a new cast-in-place concrete wall on spread footings.

US Route 2/VT 314 Intersection Improvements, South Hero, VT: Engineer responsible for the structural design of a buried precast concrete box culvert. An existing box culvert with a partially buried upstream invert is being replaced with a larger box culvert with a standard upstream invert with precast concrete wingwalls.

VT 131 Roadway Improvements, Cavendish-Weatherfield, VT: Engineer responsible for the structural design of a buried precast concrete box culvert. An existing stone box culvert at the inlet and concrete box culvert at the outlet is being replaced with a larger box culvert with precast concrete wingwalls.

Elliot Street Over Whetstone Brook, Brattleboro, VT: Project Engineer responsible for the overall design and plan preparation for the concrete deck replacement of an existing single 88-foot span steel girder bridge.

I-91 Over Barton River, River Road, and CRLRR, Irasburg, VT: Project Engineer responsible for the overall design and plan preparation for the concrete deck replacement of an existing 442-foot long four span steel girder bridge.

VT Route 100 Over Branch Brook, Ludlow, VT: Project Engineer responsible for the overall design and plan preparation for the concrete deck replacement of an existing single 82-foot span steel girder bridge with full depth precast concrete deck slabs.

VT Route 114 Over Dish Mill Brook, Burke, VT: Project Engineer 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.



Paul Konieczka, AICP

Senior Vice President

Proposed Role:
Senior Transportation Planner

Years of Experience

35 (31 with CLD)

Education

B.S., Urban Geography,
Salem State College

Masters Program, Community
and Regional Planning,
University of Wyoming

Professional Affiliations

Institute of
Transportation Engineers

American Institute of
Certified Planners

NH Planners Association

American Planning Association

NH Chapter - Institute of
Transportation Engineers

Professional Certifications

NHDOT Local Public Agency
(LPA) Program Certified

Professional Training

NHDOT/ACEC Technical Transfer
Conference (April 2016)

APA – ADA Guidelines 2010 –
Accessible Routes (December
2015)

ITE – Traffic Incident Management
(June 2015)

NHDOT Local Public Agency
Training and Certification Part 1
(April 2012, May 2015)

ITE – NHDOT – Asset
Management (April 2015)

ITE, Roundabout Triage
(January 2014)

Pedestrian Safety Guide and
Countermeasure Selection System
(September 2013)

ITE, Status of NH Roundabouts
(September 2011)

Lamoille County Planning Commission – Stowe VT – Intersection Scoping Study –

Analysis of traffic counts, lane geometry, crash and speed data at two unsignalized intersections on VT 100 - Moscow Road and West Hill Road- and prepared scoping report. Study evaluated possible improvement options at both locations, including signalization and a roundabout, and likely physical and environmental constraints to implementation.

VTrans, US Route 5 at Red Village Road, Lyndon, VT (ongoing): Conducted traffic analyses and traffic signal design services in support of intersection modifications to this unsignalized intersection which has an at-grade rail crossing passing through it.

VTrans, VT Route 15 at Brown's Trace Road, Jericho, VT (ongoing): Conducted traffic analyses and traffic signal design services in support of intersection modifications to this unsignalized intersection which provides access to a nearby school as well as being a primary route to I-89.

VTrans, VT Route 314 at US Route 2, South Hero, VT: Conducted traffic analyses and traffic signal design services in support of intersection modifications to this unsignalized intersection which serves as a major access way to the Lake Champlain Ferry. Intersection will remain unsignalized at this time but designed to accommodate a future signal.

VTrans, US Route 7 Improvements, Pittsford-Brandon, VT: Responsible for coordinating traffic counts, analyses, and traffic projections for this high priority 12-mile segment of National Highway System roadway being taken through the scoping process. Segment 6 through downtown Brandon is now out to bid and soon to be under construction.

VTrans, I-89 Exit 7 Bridges rehabilitation- Berlin VT: Analyzed traffic counts to develop a traffic management plan for the rehabilitation of the four I-89 mainline bridges over both Exit 7 (VT 62) and Crosstown Road to the south. Investigated numerous closure, crossover and detour options that best met the construction phasing constraints.

VTrans, VT 100/103 Bridge rehabilitation- Ludlow VT: Analyzed traffic counts to develop a traffic management plan for the rehabilitation of the VT 100/103 bridges over Branch Brook. Evaluated impacts to nearby intersection, including alternating one-way traffic as well as a short-term closure and resulting detour.

MaineDOT, ME Routes 26/11 Intersection, Mechanic Falls/Poland: Traffic analyses and traffic signal design services associated with the reconfiguration of the existing 5-way unsignalized intersection of ME Routes 26, 11 and Winterbrook Road.

MaineDOT – ME Route 236 /Vine Street/Academy Road, South Berwick (ongoing): Traffic analyses and design services associated with the reconfiguration of the existing unsignalized intersection of ME Routes 236, Vine Street and Academy Road that serves two nearby schools to provide turn lanes, a bike access path, and improved turning radii for buses and other through traffic, including a large volume of heavy vehicles.

York Village Intersection Evaluation, Town of York, ME: Working with Town department heads and downtown stakeholders, collected traffic counts, crash data, and geometric information to evaluate conceptual layouts for possible traffic flow changes to existing intersection of US Route 1, Route 1A, and Long Sands Road in the heart of York Village. Concepts needed to provide access to on- and off-street parking while addressing safety concerns in congested downtown business area for both vehicular and pedestrian traffic while maintaining the historic character of the Village area.



Linda Greer, P.E., P.T.O.E.

Senior Transportation Engineer

Proposed Role:
Senior Transportation Engineer

Years of Experience

17 (2 with CLD)

Education

B.S., Civil Engineering, North Carolina State University

Professional Registrations

New Hampshire (13643)
Maine (13221)

Professional Certifications

NHDOT Local Public Agency
Professional Traffic Operations
Engineer

VTrans US Route 5 - Lyndon, VT: Senior Traffic Engineer responsible for designing dual use signals for the existing railroad crossing and proposed traffic signal at Red Village Road and US Route 5. With the installation of the signals a formal left turn lane onto Red Village is added. Project to be constructed spring of 2017.

Route 236/Vine Street/Academy Road – South Berwick, ME: Senior Project Manager for the reconfiguration of the existing intersection of Route 236, Vine Street and Academy Road that serves two nearby schools to provide turn lanes, improve turning radii and overall traffic. Construction finished summer of 2016.

Routes 26/11 Intersection - Mechanic Falls/Poland, ME: Senior Project Manager for the reconfiguration of the existing 5-way unsignalized intersection of Routes 26, 11 and Winterbrook Road. The project relocates Winterbrook Road turning Route 26 and Route 11 into a 4 way signalized intersection. Construction started summer of 2016 and will be completed spring of 2017.

MaineDOT Route 1/Walker Street Intersection Improvement – Kittery, ME: Senior Project Engineer responsible for conceptual design through Final Contract Plans for the reconstruction of the multi-lane intersection at Route 1/Walker Street intersection to improve mobility and safety throughout the area. Tasks included adding new signal equipment and new sidewalks throughout the intersection, realigning left-turn movements and minimizing pavement width by eliminating the existing islands and reducing the overall size of the intersection.

Riverside Warren – Portland, ME: Senior Project Engineer responsible for the development of Final Contract Plans, Specifications and Estimate for the reconstruction and resurfacing of the highly congested multi-lane intersection of Riverside Street and Warren Avenue to improve safety and mobility. Requirements included signal improvements and a retaining wall structure with special design considerations due to poor soil conditions.

Route 33 Bridge Widening – Portsmouth, NH: Project Engineer in charge of development of roadway options for Design Study Report through to Final Design for the replacement of a bridge over the B&M Railroad with 1 mile of roadway improvements, including 2 signalized intersections. Responsibilities included delivering a municipally managed project to complete final contract plans, and bid package. Additional activities included handling utility coordination and construction management services. The project required utility relocation, railroad coordination and adaptation for sensitive archeology sites.

Broad Street Parkway – Nashua, NH: Senior Engineer responsible for providing engineering supporting to the Project Manager on this \$68 million LPA project. Duties require on ongoing coordination efforts relating to finalization of design, bid document preparation, construction administration and mitigation of impacts to historic resources, as well as impacts to natural resources for this new urban parkway.

U.S. Route 3/Parade Road – Meredith, NH: Design Engineer responsible for taking project from preliminary design through to final design. Responsibility included design, plan development, and all CADD work for complete contract and ROW plan set. This project realigned Parade Road with U.S. Route 3 to eliminate existing skew with a roundabout intersection design.



Gregory S. Brown, L.L.S., P.L.S.

Survey Team Leader/Senior Associate

Proposed Role:
Survey Team Leader

Years of Experience

35 (30 with CLD)

Education

A.A.S., Civil Engineering,
Hudson Valley Community College

Professional Registrations

New Hampshire (849)

Maine (2322)

Vermont (694)

Professional Affiliations

New Hampshire Land
Surveyors Association

National Society of Professional
Land Surveyors

President of VOPAR (Vocational
Partnership Foundation - Region 15
Vocation Education)

U.S. Routes 2 & 7 Highway, Colchester, VT (VTrans): The project will widen the roadway to accommodate additional turning lanes and shoulders, reconstruct the Exit 16 interchange to a Double Crossover Diamond interchange and upgrade traffic signal equipment. Performed initial title abstracts and updates on 28 commercial properties along the project corridor. Extensive right-of-way research and field survey was conducted to re-establish the limits of the existing right-of-way. A combination of historic layouts, State takes in conjunction with the construction of Interstate 89, Town acquisitions for highway and sidewalk improvements and existing monumentation were examined to reconcile both record and field evidence. Additional research was performed to verify and compile information of prior Act 250 permits in preparation of the Act 250 Amendment Application. Lessee rights were also determined from the initial abstracts as well as directly contacting the various property owners associated with the project to be able to provide a detailed listing of said rights for notification purposes.

VTrans - 6 Bridge Deck Rehabilitations, Brattleboro, Putney, Orwell, Ludlow, Montgomery and Irasburg, VT: Performed existing conditions/topographic surveys for six bridge sites across Vermont. Surveys included the bridge deck and abutments with roadway approaches. Base plan mapping and a digital terrain model (DTM) was generated for each site for use in engineering design. All sites were tied to NAD83 and NAVD88 for horizontal and vertical controls. This project had an aggressive timeline and the field survey for all six sites was completed within one week.

VTrans, Riverside Avenue, Burlington, VT: 1.1-mile urban reconstruction project. This project included new pedestrian/bikeways, bus turnouts, lighting, landscaping, and drainage. The City's goal was to use these elements along with lane widths to provide traffic calming along the corridor. The project was perched on a shelf above the Winooski River with steep side slopes leading from and to the roadway. The roadway had a history of slides and special precautions were proposed to minimize the potential for future slides. Survey services consisted of existing conditions and right-of-way surveys in support of design.

I-89, Richmond, VT: Survey to support design of a median crossover for traffic control purposes. Utilized a combination of GPS RTK, Robotic and conventional total stations for efficient data collection of a substantial amount of points in the least amount of time.

VTrans, Thetford-Fairlee, VT: Survey services for a 5.6-mile resurfacing project consisted of survey data collection of centerline and edges of pavement; transitions into and out of curves; intersecting drives and side roads; and adjacent ditch or toe/top slope lines at intervals adequate for defining superelevation. In addition to the roadway information, signs, guardrails and additional detail on a bridge were also surveyed.

Roaring Brook Road, Barton, VT (VTrans): This project includes the replacement of Town owned Bridge No. 8, its abutment and foundations. Field survey and right-of-way research was conducted within the subject area and on the abutting properties to determine the limits of the existing right-of-way. Title abstracts were conducted on those properties where probably project easements or acquisitions would be required.

VT Route 9 Property Survey, Brattleboro, VT: Boundary survey of Ellis Robertson property located on the south side of VT Route 9 on the Connecticut River. Plat of survey was prepared for recording at the Brattleboro Land Records.

Highway Rock Ledge Survey, Chester, VT: Conducted a detailed topographic survey of 1,300 lf of rock ledge along the east side of VT Highway 103. Survey was for documentation of ledge conditions and the base mapping was used for engineering design to provide a ledge stabilization solution.



Heidi A. Quesada, L.L.S.

Survey Technician/Deed Researcher

Proposed Role:
Survey, ROW, Deed Research Specialist

Years of Experience

29 (16 with CLD)

Education

B.A., Political Science, University of Massachusetts

A.S., Engineering Technology, New Hampshire Technical Institute

Professional Registrations

Licensed Land Surveyor: (NH) 1016

Designer of Subsurface Disposal Systems: (NH) 1641

Granite State Certified Septic System Evaluator: (NH) 78

Professional Affiliations

New Hampshire Land Surveyors Association

Vermont Society of Land Surveyors

Maine Society of Land Surveyors

National Society of Professional Land Surveyors

Granite State Designers and Installers Association

Professional Training Highlights

Erosion Control Workshop (August 2014)

Stormwater BMP Technology

Demonstration Workshop (November 2008)

NH Department of Transportation Highway Seminar (June 2012)

Joint VSL 7 NHLA Seminar (April 2013)

NHLA Roads Seminar (April 2013)

MALSE Legal Perspectives on Land Surveying (January 2016)

U.S. Routes 2 & 7 Highway, Colchester, VT (VTrans): The project will widen the roadway to accommodate additional turning lanes and shoulders, reconstruct the Exit 16 interchange to a Double Crossover Diamond interchange and upgrade traffic signal equipment. Performed initial title abstracts and updates on 28 commercial properties along the project corridor. Extensive right-of-way research and field survey was conducted to re-establish the limits of the existing right-of-way. A combination of historic layouts, State takes in conjunction with the construction of Interstate 89, Town acquisitions for highway and sidewalk improvements and existing monumentation were examined to reconcile both record and field evidence. Additional research was performed to verify and compile information of prior Act 250 permits in preparation of the Act 250 Amendment Application. Lessee rights were also determined from the initial abstracts as well as directly contacting the various property owners associated with the project to be able to provide a detailed listing of said rights for notification purposes.

U.S. Route 7 Improvements Scoping Project, Pittsford-Brandon, VT (VTrans): Completed conceptual design of intersection improvements, truck climbing lanes, and roadway realignment options. Compiled extensive abutter information and performed research and title abstracts for the purpose of notification and acquisitions related to the highway improvements.

VTrans, Riverside Avenue, Burlington, VT: 1.1-mile urban reconstruction project. This project included new pedestrian/bikeways, bus turnouts, lighting, landscaping, and drainage. The City's goal was to use these elements along with lane widths to provide traffic calming along the corridor. The project was perched on a shelf above the Winooski River with steep side slopes leading from and to the roadway. The roadway had a history of slides and special precautions were proposed to minimize the potential for future slides. Survey services consisted of existing conditions and right-of-way surveys in support of design.

U.S. Route 2 Culvert Replacement, Lunenburg, VT (VTrans): This project includes the replacement of Bridge No. 126 that was constructed in the 1930's with a new larger pre-cast concrete pipe arch. Title abstracts were performed on the abutting properties and right-of-way research conducted to re-establish the historic right-of-way in combination with more recent highway acquisitions within the subject area.

Roaring Brook Road, Barton, VT (VTrans): This project includes the replacement of Town owned Bridge No. 8, its abutment and foundations. Field survey and right-of-way research was conducted within the subject area and on the abutting properties to determine the limits of the existing right-of-way. Title abstracts were conducted on those properties where probably project easements or acquisitions would be required.

VT Route 9 Property Survey, Brattleboro, VT: Boundary survey of Ellis Robertson property located on the south side of VT Route 9 on the Connecticut River. Plat of survey was prepared for recording at the Brattleboro Land Records.

Highway Rock Ledge Survey, Chester, VT: Conducted a detailed topographic survey of 1,300 lf of rock ledge along the east side of VT Highway 103. Survey was for documentation of ledge conditions and the base mapping was used for engineering design to provide a ledge stabilization solution.



David A. Lewis, P.E.

Project Engineer

Proposed Role:
Utility Specialist

Years of Experience

28 (17 with CLD)

Education

B.S., Forest & Resource Engineering, SUNY College of Environmental Science & Forestry

M.E., Civil Engineering, SUNY at Buffalo

Professional Registrations

New Hampshire (10306)

Vermont (8418)

Maine (9595)

Professional Training Highlights

Sampling Techniques for NPDES Stormwater Analysis (November 2015)

Ultra Violet Cured In Place Pipe Lining and CIPP/Infrastructure Services (June 2015)

Trenchless Technology: Laterals – Assessment, Rehabilitation and Results (April 2015)

2015 Filtrexx: Compost BMP Designs for Green Infrastructure and Low Impact Development (March 2015)

Keystone Retaining Walls Technical (February 2015)

Storm Trap – Modular Wetlands NH Approved (February 2015)

NHDOT SRTS Training (2013 – 2014)

Work Zone Road User Costs – Comparison Between ABC and Conventional Construction (January 2013)

Concrete Waterproofing with Crystalline Technology (January 2013)

Route 7 Bridge over Furnace Brook, Pittsford, VT: This project includes reconfiguration of a 10-inch diameter water main to be attached to a replacement bridge. Conceptual layout considered both proposed bridge elements and likely Pittsford-Brandon Segment 2 features. Prior to bridge replacement, the Town expects to replace side-street water mains at the south approach. After VTrans review, plans will be submitted to VT-DEC for regulatory input. This project is expected to advertise in 2019.

Forest Street Bridge and River Street-Dorr Drive Bridge, Rutland, VT: These two bridge replacement projects both impacted municipal water and wastewater utilities in the City of Rutland. Services included review and critique of topographic survey; design of replacement water main, gate valves, sewers, and manholes. Permit applications were submitted to separate units of the Vermont Department of Environmental Conservation for review and approval. Through the design process, coordination was made with VTrans Structures and Rutland Department of Public Works. Plans, details and special provisions were developed to be included in VTrans' contract manuals.

- Resident engineering services were provided for the Forest Street utilities in 2014
- Pump station hydraulic review was also provided for the River-Dorr project to assess new forcemain performance, Construction support was provided for the combined River- Dorr and Ripley Bridge replacement contract in 2015 and 2016.

I-91 and I-93 Safety Improvements, St. Johnsbury, VT: Evaluated and ranked condition of existing drainage culverts under a 40-mile length of Interstate highway. Scope of work also included pay quantity estimates and definition of impacts relating to alternatives for rehabilitation and replacement options.

Utility Replacement, Brandon, VT: Reconstruction design of US Route 7 along with new stormwater drainage features through the Village of Brandon led to an evaluation of water and sewer utilities installed as long ago as 1880. The water supply is conveyed through Town by parallel cast iron mains crossing the Neshobe River in close proximity to a stone arch bridge that was not included in the reconstruction project. As such, alternative concept alignments to cross the river were evaluated for cost, constructability, environmental, and traffic impacts. Work also included layout of replacement water mains and sewers along this mile-long project, as well as regulatory permitting services. One of two water mains crossing the Neshobe River was compromised by Tropical Storm Irene in 2011. Installation of a single 16-inch-diameter main to replace the two cast iron mains was already included in the above design set and had received VT DEC review. A portion of the main that specified the Neshobe River crossing was extracted from the design set and advertised for construction in December 2013. This water main contract was substantially complete in June 2014. The main Segment 6 project is expected to advertise in late fall 2016.

Assessment of Impacts to Utilities, Pittsford, VT: Project included review of probable impacts from US Route 7 reconstruction through the Town of Pittsford, VT. The project length was approximately 3.4 miles and focused on estimating the construction costs for replacing both water main and sewer utilities. Bid tabulations were gathered of recent similar municipal work to estimate costs.

Washington Street Pump Station Replacement, Rochester, NH: Designed a new duplex suction lift pump station and backup diesel generator set enclosed in a new precast pump station with 10-foot-square wetwell. This facility was needed to accommodate increased sewer flows from new development, including a new Lowes/Target plaza in the City.

JACQUELINE DAGESSE, MBA, CPESC, PMP
Environmental Engineer / Public Outreach Manager

EDUCATION

University of Vermont, Masters of Business Administration (MBA)

University of Vermont, B.S. Engineering Management, Concentration in Civil Engineering

Certification: Certified Professional in Erosion Prevention and Sediment Control (CPESC)

Certification: Project Management Professional (PMP) by the Project Management Institute

EXPERIENCE

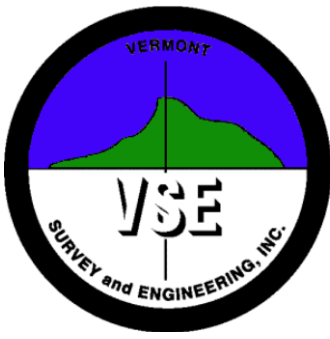
Environmental Engineer, *EIV Technical Services, Williston, Vermont*

Ms. Dagesse supports civil and transportation projects with environmental permitting and design services. Her expertise includes: natural resource assessments, hydraulic analysis, culvert design, erosion prevention and sediment control design and inspection, aquatic organism passage recommendations, fluvial geomorphology analysis, and wastewater system design. She routinely performs environmental compliance inspections on civil projects. She has a great working relationship with local, state and federal regulators. She has experience with these regulators for the following: Army Corp. of Engineers (ACOE) Section 404 and Section 401, NEPA documentation, Title 19 Stream Alterations Consultation, Act 250, RTE Takings Permit, Construction Stormwater Permit 3-9020, Section 106 coordination, Operational Stormwater Permit 3-9015, VT Wetlands Permit, and coordination of local concerns meeting.

Recent Project Work:

- **Town of Weathersfield Hydraulic Analysis (2013)** – Completed site inspections and a hydraulic analysis on 10 drainage structures along Tarbell Hill Road in Weathersfield, VT. As part of the analysis, design recommendations were generated with considering the drainage structures as a system. Structure locations were changed in addition to culvert sizing.
- **Bridge 126 in Lunenburg, VT** – Developed and submitted NEPA Categorical Exclusion documentation, VT Wetlands Permit, Title 19 Stream Alteration Consultation, ACOE Section 404, Water Quality Certification Section 401, and coordination with Hartgen Archeology Associates for an archeological resource assessment;
- **Bridge 35 Replacement in Randolph, VT** – Completed the environmental permitting for the replacement of the Vermont Agency of Transportation's (VTrans) Bridge 35 in Randolph, VT. This bridge carries Palmer Road (TH 65) over the Second Branch of the White River. Permits obtained, include: ACOE Section 404 Category 2 Permit, Title 19 Stream Alterations Engineer Consultation, NEPA CE, and Construction General Permit 3-9020.
- **Bridge 8 Replacement in Barton, VT** – Completed the environmental permitting for the replacement of the Vermont Agency of Transportation's (VTrans) Bridge 8 in Barton, VT. This bridge carries Roaring Brook Road (TH 2) over the Roaring Brook. Permits obtained, include: ACOE Section 404 Category 2 Permit, Title 19 Stream Alterations Engineer Consultation, and NEPA CE.
- **VTrans' Thetford Bridge Replacement** – EPSC Plan development and onsite inspection;
- **Brandon Route 7 Segment 6** – Act 250 permit review, environmental permitting renewals, and EPSC plan design.

- QUALIFICATIONS:** 36 CFR 61 Qualified. Meets the Secretary of Interior's Professional Qualification Standards
- EDUCATION:** The College of William and Mary
Masters of Arts, Historical Archeology, 1994
- State University of New York at Binghamton
Bachelor of Arts, Anthropology, 1983
- EXPERIENCE:** 2014 Newport State Airport Terminal Improvements, Newport, Orleans County, VT
Transportation-related projects Completed Phase I study for proposed expansion and improvements at Newport State Airport. Examined a study area of about 300 acres and identified three areas where disturbance was considered to be minimal. Reconnaissance survey consisted of 32 shovel tests over about 40 acres. Wrote report and directed the fieldwork.
Project sponsor: Vermont Agency of Transportation
- 2013-2014 North Hero-Grand Isle BR8, US 2 over Lake Champlain, North Hero and Grand Isle, Grand Isle County, VT
Principal investigator for Phase I archeological resource assessment and field reconnaissance. Updated previous archeological resource assessment and identified areas for testing. Project currently underway.
Project sponsor: Vermont Agency of Transportation
- 2013 Interstate 89 Exit 17 Scoping Study, Colchester, Chittenden County, VT
Principal investigator for 64 acres including a varied landscape and multiple disturbances and alterations from the adjacent highway. Conducted the site visit and wrote the report.
Project sponsor: Chittenden County Regional Planning Commission
- 2013 Interstate 91 Bridge over the West River, Brattleboro, Windham County, VT
Conducted Phase II archeological site evaluation on a small precontact site within a proposed approach and staging area.
Project sponsor: Vermont Agency of Transportation
- 2012-2013 Randolph BRO 1444157 Improvements, Bridge 35 on Palmer Road, Randolph, Orange Co., VT
Conducted archeological resource assessment of a small bridge crossing over the Second Branch of the White River. Later, conducted a field reconnaissance and identified a small 19th-century stone foundation. Completed archeological site inventory.
Project sponsor: Vermont Agency of Transportation
- 2012 VT 2A/289 Interchange Scoping Study, Essex, Chittenden County, VT
Conducted an archeological resource assessment. Completed site visit and identified several historic structures within or very near the proposed project area that might be affected by future changes to the interchange.
Project sponsor: Town of Essex/Chittenden County Regional Planning Commission
- 2012 Lunenburg US 2 Bridge over Hudson Brook Culvert Replacement, Lunenburg, Essex Co., VT
Completed an archeological resource assessment covering a 1,500-ft long culvert replacement project. Interviewed local residents and identified abandoned historical road.
Project sponsor: Vermont Agency of Transportation
- 2012 Barton Bridge 8 Repair, Roaring Brook Road over Roaring Brook, Barton, Orleans County, VT
Conducted an archeological resource assessment of a bridge repair project. Identified areas of road and stream bank fill, as well as sensitive testable areas.
Project sponsor: Vermont Agency of Transportation
- 2011 Lebanon Airport Improvements, Lebanon, Grafton County, NH
Conducted Phase IA research and Phase IB testing for the proposed runway improvement project at Lebanon Airport in Lebanon, New Hampshire. Coordinated with Hartgen's architectural historian to evaluate adjacent historic structures. Wrote the report and directed the fieldwork.
Project sponsor: New Hampshire Department of Transportation



VERMONT SURVEY and ENGINEERING, INC.

SURVEYORS and CIVIL ENGINEERS

79 RIVER STREET, SUITE 201 • MONTPELIER, VERMONT 05602
(802) 229-9138 • FAX (802) 229-9130 • E-mail: Info@VermontSurvey.com

**Stephen Fraser, LS, Principal
Project Manager/Research Specialist
AOT Manager IV**

**VT LS #527
NH LS #971
NY LS #050855**

Number of years with firm: 12

Mr. Fraser has been involved with engineering and surveying since 1971. Before joining Vermont Survey and Engineering, Inc. in 2005, he was employed for twenty-five years by the City of Barre as a mapping and surveying specialist. During this period, his responsibilities included maintaining water, sewer, and surface utility maps; GIS mapping using ArcInfo 8.0.3; project design and deed research; municipal surveying and construction layout; assisting all departments with their mapping needs; assisting the public regarding all aspects of property ownership; and E 911 liaison.

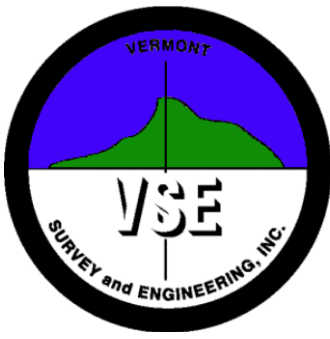
Since joining Vermont Survey, Mr. Fraser has served as Project Manager for survey and right-of-way efforts associated with a twenty-five mile power transmission project in western Vermont, which includes plat preparation and title research on approximately 150 properties. He is also Manager-In-Charge of deed research, property surveys, and plat preparation and is an accomplished AutoCAD operator.

Mr. Fraser has been involved with the following VTrans projects:

**Bennington Bypass North NH F 019-1(5)
Bennington AV-FY 15-010
Brandon NH 019-3(496)
Burlington MEGC M 5000(1)
CULV032-CULV033 Statewide
East Montpelier-Marshfield-Plainfield HPRC(1)
Essex-Westford HPRC(2)
Hartford STP 0113(59)S
Hartford STP BIKE(62)
Hartford STP EH09(15)
Hartford STP EH10(18)
Middlebury AIR 04-3181
Morristown STP HES 030-2(28)
South-Hero STP HES 028-1(22)
South Hero STP SHST(1)
Williston STP HES 5500(12)**

Professional Affiliations/Education

A.A.S. Civil Engineering Technology (Surveying Major) – VT Technical College
Vermont Society of Land Surveyors
New Hampshire Land Surveyors Association
New York State Association of Professional Land Surveyors



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SURVEYORS and CIVIL ENGINEERS

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Lawrence Bliss Right-of-Way Agent AOT Technician VI

Number of years with firm: 8

Mr. Bliss has 46 years of experience in the acquisition of land and rights for public projects. His background includes supervising and managing various Right-of-Way functions for the Vermont Agency of Transportation and some Vermont Department of Forest and Parks acquisitions. He was Chief of Plans & Titles for the VTrans Right-of-Way Division from 1986 to 2000 and is skilled in title searching, property line determination, plat and plan preparation, court testimony, and administration of the complicated laws, rules, and regulations of the *Uniform Relocation Act*. Since joining VSE, he has been a vital member of a team acquiring rights from approximately 150 landowners for a major utility upgrade, as well as providing oversight for VTrans right-of-way projects currently being developed by VSE.

Mr. Bliss has been involved with the following VTrans projects:

Bennington Bypass North NH F 019-1(5)
Bennington AV-FY 15-010
Burlington MEGC M 5000(1)
CULV032-CULV033 Statewide
East Montpelier-Marshfield-Plainfield HPRC(1)
Essex-Westford HPRC(2)
Hartford STP 0113(59)S
Hartford STP BIKE(62)
Hartford STP EH09(15)
Hartford STP EH10(18)
Middlebury AIR 04-3181
Morristown STP HES 030-2(28)
South-Hero STP HES 028-1(22)
South Hero STP SHST(1)
Williston STP HES 5500(12)

Professional Affiliations/Education
University of Vermont
Woodbury Associates Real Estate Course
National Highway Institute Courses

David Raphael, B.A., M.L.A.

Principal/Landscape Architect & Planner

EDUCATION

M.L.A., Harvard University Graduate School of Design, 1977 Cambridge, Massachusetts

B.A. in English, Tufts University, Cum Laude, Minor in Ecology, 1972 Medford, Massachusetts

School of the Museum of Fine Arts, 1971, Boston, Massachusetts

Diploma, Dartmouth College Outward Bound Program, 1970, Hanover, New Hampshire

PROFESSIONAL REGISTRATIONS

Registered/Licensed Landscape Architect - State of Rhode Island, Vermont

Passed Uniform National Examination: eligible for registration in other states

Certified with the Professional Ski Instructors of America

David Raphael founded LandWorks in 1986 after ten years of professional work as a Landscape Architect and Planner for the public and private sector. He is a graduate, with honors, of Tufts University and the School of the Museum of Fine Arts in Boston, where he studied English, ecology and graphic design. He attended Harvard University Graduate School of Design with a Crocker Scholarship and graduated with a Masters in Landscape Architecture. He also attended the Dartmouth College Outward Bound program.

Mr. Raphael has been an Associate Professor in the Graduate Program in Urban and Environmental Policy at Tufts University, on the faculty of Middlebury College, and is currently a Lecturer in the University of Vermont Rubenstein School of Environment and Natural Resources, where he has been teaching courses in aesthetics, environmental design, and landscape architecture since 1982. Additionally, David has been Chairman of his local Planning Commission and Development Review Board for 25 years and was a founding member of the Middlebury Design Advisory Committee. Mr. Raphael is also a member of the Vermont Urban and Community Forestry Council and the American Society of Landscape Architects.

PARTIAL LISTING OF MEMBERSHIPS/COMMUNITY SERVICE

- Chair, Vermont Urban and Community Forestry Council (VTUCFC)
- Member, American Society of Landscape Architects (ASLA)
- Member, American Planning Association (APA)
- Member, Society of Environmental Graphic Designers (SEGD)
- Member, Board of Trustees, Lake Champlain Land Trust
- Fellow in Sustainability, University of Vermont
- Former Member, Board of Directors, Vermont State Craft Center at Frog Hollow
- Chairman, Town of Panton Planning Commission & Development Review Board 1985 - present

PARTIAL LISTING OF RESEARCH & PUBLICATIONS

- "Wayfinding Principles & Practice, 2nd Edition", Landscape Architecture Technical Information Series (LATIS). American Society of Landscape Architects. 2013
- "I Believe: Green is the Infrastructure of the 21st Century, Let's Begin the Blueprint" Burlington Free Press, Dec. 6, 2009
- "Land-Working: David Raphael", SEGD Magazine on Sustainability in Moses Brown School Cupola. Spring 2008
- "Wayfinding Principles & Practice", Landscape Architecture Technical Information Series (LATIS) Number 2. American Society of Landscape Architects. 2006

PARTIAL LISTING OF LANDWORKS AWARDS

- **2015 Certificate of Merit** *Complete Streets & Smart Growth for the Killington Road Commercial District, Killington, VT* | Vermont Planners Association
- **2015 Certificate of Merit** *Rockingham Design Review Supplement, Rockingham, VT* | Vermont Planners Association
- **2014 Vermont Public Places Honor Award** *Middlebury Riverfront Park* | Vermont Chapter American Society of Landscape Architects, Vermont Urban and Community Forestry Council, AIA VT, American Society of Civil Engineers, and Vermont Planners Association
- **2013 Award of Excellence** *Scenic Resources in the Shawangunk Mountains Region: A Guide for Planning Boards* | Vermont Chapter American Society of Landscape Architects



Patrick Olstad, B.S., LEED AP

Landscape Architect

EDUCATION

B.S. in Landscape Architecture, May 1996, California Polytechnic State University, San Luis Obispo, California

PROFESSIONAL REGISTRATIONS

Registered Landscape Architect - New York

COMPUTING SKILLS

Proficient in use of Macintosh and PC programs: Adobe Photoshop, InDesign, Illustrator, AutoCAD, Nemetschek VectorWorks, Microsoft Word, Microsoft Excel

Patrick Olstad is a LEED-certified landscape architect with 19 years of experience in the profession. Raised in California, Patrick graduated magna cum laude with an undergraduate degree in Landscape Architecture from Cal Poly, San Luis Obispo. He also spent a year at the Agricultural University of Norway, NLH, where he found inspiration in Scandinavian design. Patrick has worked on a variety of landscape architecture and planning projects in Vermont for the last 14 years, with an emphasis on designs for public spaces such as parks, streetscapes, mixed-use developments and downtown revitalizations. While working for Wagner McCann Studio in Burlington, VT, he was the project landscape architect for the award-winning Winooski Downtown Redevelopment Plan, which included highly successful urban street tree plantings. More recently Patrick was lead designer and project manager for the Middlebury Riverfront Project, which has won a number of awards including a VT ASLA Honor Award and a Public Places Honor Award. Patrick's work with visual simulations of streetscape enhancements, including street trees, streetlights, and gateway elements, has helped communities envision dramatic transformations of the urban environment.

PROFESSIONAL SKILLS & DUTIES

Project Manager, July 2007 - Present | LandWorks, Middlebury, Vermont

- Involved in various landscape and planning projects focusing on community revitalization, downtown enhancement, master planning, commercial design, residential design, resort development, Act 250 permitting, and pedestrian and transportation systems;
- Manage, develop and execute various projects which include site surveying, site analysis, cost estimating, conceptual design development, design development, plant selection, preparation of construction documents and details, attending construction progress meetings, and supervising and coordinating installations;
- Consult with Principal to review company operations and administrative activities and to coordinate long- and short-term goals;
- Evaluate and allocate expenditures for individual projects and ensure work is completed within contracted time frames;
- Organize and partake in engagements and communicate with clients, architects, engineers, local and state officials, and interested stakeholders;
- Assist in the research, analysis, and writing of detailed project reports such as Inventory and Assessment reports and provide recommendations;
- Orchestrate and participate in community meetings, public workshops, and design charrettes; and
- Conduct site visits to explore issues, needs and opportunities of project areas.

HONORS & AWARDS

- National Award for Smart Growth, 2006 - Environmental Protection Agency
Project: Winooski Downtown Redevelopment
- Smart Growth Award, 2006 - Vermont Forum on Sprawl
Project: Winooski Downtown Redevelopment
- Merit Award, 2004 - Vermont Public Spaces Awards, ECHO at Leahy Center for Lake Champlain
- Merit Award, 2002 - Vermont Planners Association
Project: Winooski Downtown Redevelopment





Erik Mas, PE

Vice President | Department Manager

“Applying math and science to solve environmental problems is what first attracted me to engineering, but working with really bright, passionate people on real-world projects – both simple and complex – is what I enjoy the most about being a consultant.”

EMas@fando.com

800.286.2469 x4433

EDUCATION

BS, Civil Engineering - 1992
Tufts University

MSE, Civil Engineering - 1995
Princeton University

LICENSES & REGISTRATIONS

Professional Engineer CT
Professional Engineer MA

PROFESSIONAL AFFILIATIONS

New England Water Env Assoc
Water Environment Federation
American Society of Civil Engineers

EXPERIENCE

22 years with Fuss & O'Neill
24 years Professional Experience

Erik manages the firm’s Natural Resources Planning Department. His principal areas of expertise include stormwater and watershed management, environmental impact assessment, and wetland and natural resource permitting. Erik has managed and served as the primary author of state and local stormwater design guidance manuals and regulations. He has also managed the preparation of watershed-based plans in Connecticut, Massachusetts, and New York, and serves on the national Water Environment Federation (WEF) Non-point Sources Committee. In addition to his water resources expertise, Erik also leads Fuss & O’Neill’s practice in environmental impact assessment and manages projects involving compliance with the National Environmental Policy Act (NEPA) and state environmental policy acts in the northeast.

REPRESENTATIVE PROJECTS:

- NPDES Phase II Stormwater (MS4) Permit Compliance, Various Towns, CT
- Municipal Stormwater Technical Assistance, Statewide MA
- Green Infrastructure Retrofits, Beardsley Zoo, Bridgeport, CT
- West River Bioswale Design and Installation, New Haven, CT
- Low Impact Development Stormwater Design, Naugatuck Community College, Waterbury, CT
- Low Impact Development Stormwater Design, Emmett O’Brien Technical High School, Ansonia, CT
- Parking Lot Porous Pavement Retrofit, Trumbull Park, Plainville, CT
- Neponset Valley Regional Stormwater Collaborative, Neponset River Watershed Association, Canton, MA
- Parking Lot Bioretention Retrofits, UConn Law School & Hartford Seminary, Hartford, CT
- Stormwater Management Program, Williams College, Williamstown, MA
- North Campus Drainage Master Plan, UConn, Storrs, CT



Ted DeSantos, PE, PTOE

Senior Vice President

“It’s a great thrill for me to work with talented people, solve complex problems, and create projects of lasting value in the community. It is incredibly rewarding to engage neighbors, public officials, and stakeholders in a highly interactive design and deliver a project benefitting a real place and real people.”

TDesantos@fando.com

800.286.2469 x5311

EDUCATION

BS, Civil Engineering - 1994
University of Massachusetts-Da

LICENSES & REGISTRATIONS

Professional Engineer CT
Professional Engineer MA
Professional Traffic Operations Engineer

PROFESSIONAL AFFILIATIONS

Commercial Real Estate Women
Inst Transportation Engineers
Congress for New Urbanism
CT Institute of Trans Eng
CT Main St. Center-Bd Member
CREW Network

EXPERIENCE

20 years with Fuss & O'Neill
24 years Professional Experience

Ted is a Principal at Fuss & O’Neill. His strengths are in client service, communication, and facilitating collaboration among public, private, and community stakeholders. He has a well-rounded skill set including transportation planning, complete streets design, and urban development projects. Ted has proven leadership in planning, design, permitting, and construction of complex multidisciplinary projects. His no-nonsense approach and career commitment to integrity in project implementation define the shortest path to success and set the stage for public and private success.

Ted has a passion for smart growth. He is optimistic about the quality of life and the future of downtown developments in Connecticut. He serves as the Board Chair for the Connecticut Main Street Center Board of Directors, a statewide non-profit catalyzing downtown growth and prosperity.

REPRESENTATIVE PROJECTS:

- Route 10 Corridor Master Plan, Capital Region Council of Governments (CROG), Simsbury, CT
- University of Massachusetts Gateway Corridor Plan, Amherst Redevelopment Authority, Amherst, MA
- Greenwich Avenue Corridor Study, Stamford, CT
- Conservation and Development Plan, Greenwich, CT
- Downtown Planning Study, Windsor Locks, CT
- Town Center Traffic and Streetscape Study, Glastonbury, CT
- Silas Deane Highway Corridor Study, Vision for Reinvestment, Rocky Hill and Wethersfield, CT
- Downtown Circulation, and Regional Mobility Study, Pittsfield, MA
- Master Plan and Rezoning, Yonkers, NY



Stephanie White, RLA, CNU-A, LEED AP

Project Manager

“What is most rewarding about my job is being able to create memorable and enjoyable places that have positive impacts in the way we experience the surroundings in which we live, work and play.”

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800.286.2469 x3005

EDUCATION

BS, Landscape Architecture - 2001
University of Massachusetts

LICENSES & REGISTRATIONS

Landscape Architect CT
LEED AP
Landscape Architect MA
Landscape Architect RI
Congress for the New Urbanism - Accredited Member

PROFESSIONAL AFFILIATIONS

American Society of Landscape Architects
Council of Landscape Architectural Registration Board
US Green Building Council

EXPERIENCE

6 years with Fuss & O'Neill
16 years Professional Experience

Stephanie is a Senior Landscape Architect with Fuss & O'Neill's design studio. With more than 16 years of experience, she has been involved in all facets of the site design and implementation process. Her expertise ranges from sophisticated planting designs, park master planning, housing, education facilities, and, most recently, new urbanism techniques. She is a licensed landscape architect and an accredited professional with the Congress of New Urbanism and U.S. Green Building Council. Stephanie holds a Bachelor of Science in Landscape Architecture from the University of Massachusetts Amherst.

Stephanie has been a team member on two award-winning design projects recognized by the American Society of Landscape Architects. With a keen sense of design and attention to detail, she seeks to deliver creative and sustainable solutions to every design challenge.

REPRESENTATIVE PROJECTS:

- Montgomery Mills Redevelopment, Windsor Locks CT
- Langworthy Field Master Planning, Hopkinton, RI
- Downtown Complete Streets, Windsor Locks, CT
- Filley Park, Town of Bloomfield, Bloomfield, CT
- Hamden Center Town Park, Hamden, CT
- WaterFire Arts Center Redevelopment, Providence, RI
- Eastern Connecticut State University Campus Quad, Willimantic, CT
- Veterans' Park, Town of Ware, Ware MA
- Sears Park, Town of East Hampton, East Hampton, CT
- Marine Magnet High School, Groton, CT
- Windsor Locks Transit Oriented Development, Windsor Locks, CT
- Mill Commons, Town of Simsbury, Simsbury, CT
- Everett Parks Assessment, City of Everett, Everett MA



Kristen Solloway, PE

Vice President | Department Manager

“Like a road, this job has its twists and turns. But if it wasn’t challenging, it wouldn’t be fun!”

KSolloway@fando.com

800.286.2469 x5344

EDUCATION

BS, Civil Engineering - 1996
Clarkson University

LICENSES & REGISTRATIONS

Professional Engineer CT

PROFESSIONAL AFFILIATIONS

Inst Transportation Engineers
CT Institute of Trans Eng

EXPERIENCE

20 years with Fuss & O'Neill
22 years Professional Experience

Kristen is a Vice President with Fuss & O’Neill’s Community Development Services Group. Through her career, she has completed a wide range of projects in various technical disciplines. These projects include roadway design, traffic signal design, traffic impact studies, rights of way coordination, intelligent transportation systems, utility infrastructure and land development. Kristen currently is the Senior Reviewer for the Connecticut roadway and land development projects. She is responsible for ensuring that Fuss & O’Neill’s quality control policies are met and promoting high quality work products that meet client’s expectations.

Her principal strength is her cross discipline experience which allows for greater coordination of multi-faced projects. Kristen’s background includes transportation and site engineering, local regulatory permitting, construction administration, and inspection.

REPRESENTATIVE PROJECTS:

- Airline and Hop River Trail Extension, Windham, CT
- Preliminary Design, Still River Greenway, Brookfield, CT
- Pequonnock River Bike Path Section F Construction, City of Bridgeport, CT
- Pequonnock River Bike Path Sections D and E Construction, Town of Trumbull, CT
- Extension of North Hillside Road (State Project 77-215) University of Connecticut, Mansfield, CT
- Replacement of Plumtrees Road Bridge (State Project 09-88), Bethel, CT
- Removal of Bridge No. 00518 and Intersection Improvements, Route 10 and Route 322 (State Project 131-190), Southington, CT
- Intersection Improvements at Silver Lane and Roberts Street, East Hartford, CT

1. INTRODUCTION

Quality Control is a process involving specific techniques, actions or analysis to ensure quality output. Quality output for design plans, documents and estimates involves, but is not limited to:

- ◆ Errors and omissions free
- ◆ Clearly and accurately representing all the proposed project features and intent
- ◆ Meeting the requirements and standards of the client
- ◆ Using sound engineering practice
- ◆ Consideration of all affected parties
- ◆ Constructability.

Quality Assurance is a process designed to ensure that the Quality Control process has been followed and the desired quality has been achieved.

The following **Quality Control Plan** describes the procedures to be followed for Quality Control and Quality Assurance. This is an overall procedure to be followed for projects. As the size and scope of all projects are different, specific quality control plans for each project shall be developed. These **Project Quality Control Plans** (PQCP) shall be developed using the procedures and methods described herein. Project Quality Control Plans shall include the following:

- ◆ Organization for QC/QA
- ◆ Quality Control Reviews
- ◆ Proposed Method of Documentation of QC/QA Comments
- ◆ Quality Assurance
- ◆ Control of Subconsultants
- ◆ Budget and Schedule Tracking
- ◆ Correspondence
- ◆ Client Communication.

This document can be used as a template for PQCPs.

2. ORGANIZATION

Principal-in-Charge (PIC) or Chief Engineer – Shall ensure the PQCP is developed and followed including the QA review. This person shall also allocate resources to the project to ensure successful completion on schedule and within budget.

Engineer of Record – The engineer who will certify the plans and documents. This person will have the final decision on all technical matters.

Project Manager – Is in overall organizational charge of the project and monitors project budget and schedule. The Project Manager is in frequent contact and communication with the client. The Project Manager shall develop the PQCP. The Project Manager, with the PIC, shall ensure an acceptable level of expertise is be used on a project.

QC/QA Manager – This person will be responsible for verifying and certifying that all QC procedures have been followed. The QC/QA Manager shall also personally, or delegate another individual to, perform further dependant and independent checks of critical project elements. Please refer to the attached checklist of QC and QA items. Depending on the size and scope of the project, this person may also be the Project Manager as long as this person’s technical involvement in the project has been limited. A qualified subconsultant may be used to perform some functions of the QC/QA Manager but shall work under the supervision of the Project Manager or QC/QA Manager.

Senior Engineer/Task Manager – This person shall be responsible for the technical aspects of a specific discipline involved in a project. Depending on the size and scope of the project, the Project Manager may be this person also. This person shall perform overall reviews of the designer’s work including plans.

Designer – This person(s) or person is an experienced engineer (senior or junior) working under the supervision of the Project Manager or Senior Engineer. This engineer is responsible for preparing design calculations, reports, plans for drafting, quantity calculations, estimates and contract documents including special provisions. The designer shall also perform the initial checks on the plans prepared by the CADD Technician.

Checker – Engineers responsible for checking the work of the designers. A designer shall never check his or her own work. The Project Manager or Senior Technical Engineer shall ensure that if work is performed by a junior engineer that a senior engineer with significant experience in that area shall check the work. A checker may be the Senior Engineer/Task Manager. A Senior Technician shall review the CADD files to ensure that all client CADD standards are met. A qualified subconsultant may be used as a dependant or independent reviewer.

3. QUALITY CONTROL REVIEWS

Checklists – Checklists for all design and plan preparation tasks shall be developed for each project discipline by the Senior Engineer. These checklists shall include all tasks necessary to complete the design and prepare all plans and documents. Tasks shall be broken down by submission phase and shall include the name of the designer, checker and whether the checker has compared the completed plans to the calculations.

A QC/QA checklist shall be developed by the Project Manager, Senior Engineer or QC/QA Manager. This list is to be prepared for each PQCP and should include QC items and QA tasks to be checked by the QC/QA Manager. An example is attached.

Submission Reviews – All submissions shall be reviewed before the submittal is made.

Reports – Shall be reviewed by the Senior Engineer and QC/QA Manager.

Plans – Each submission shall be reviewed by the Senior Engineer including verification that the plans meet client standards and requirements. QC/QA Manager shall review aspects outlined in the QC/QA Manager checklist for different submittals.

Final Plan Review – A large portion of the QC/QA Manager’s review shall take place before Final or Contract Plans are submitted to the client. This review includes making sure the clients standards have been met, performing an overall plan review, ensuring all work items have a payment mechanism, and other items listed on the attached checklist. Plans may not be submitted until the final QC and QA is performed and comments are addressed to the satisfaction of the QC/QA Manager.

Calculations and Quantities – All calculations and quantities shall be reviewed and signed off by the checker when comments by the checker are satisfactorily addressed. The QC/QA Manager shall verify that all checks are completed.

Estimates – The estimates shall be prepared by the designer, checked by the checker and reviewed by the Senior Engineer or QC/QA Manager.

Contract Documents and Special Provisions – These shall be reviewed by the Senior Engineer or QC/QA Manager if the Senior Engineer prepared the documents.

Constructability Reviews – These will be conducted by the Senior Engineer and/or Resident Engineer during preliminary design and upon completion of Pre-Final Plans.

Resolution of Disputes – If the designer does not agree with the checker or if a checker does not agree with the response provided by the designer, the matter shall be discussed with the Senior Engineer who may settle the dispute. For disputes between the Senior Engineer and QC/QA Manager, discussions with the Project Manager will occur. If the Senior Engineer is the Project Manager, the PIC, another Senior Technical Engineer or Chief Engineer will be consulted with. The Engineer of Record shall ultimately make the final decision if an agreement cannot be reached.

METHOD OF DOCUMENTATION OF COMMENTS, COORDINATION AND RESPONSES

All comments made by the QC/QA Manager shall be recorded either in memos, e-mails or mark-ups on plan sets. The designer or Senior Engineer shall address the comments of the QC/QA Manager verbally or in writing. The QC/QA Manager shall also similarly record that comments have been satisfactorily addressed. Marked up plans and memos with comments and indications of comment resolution shall be kept in the project file. Also, all independent calculations and quantity take-offs shall be kept in the project file. The QC/QA Manager shall certify that all review comments have been satisfactorily addressed and the certification shall also be kept in the file.

5. QUALITY ASSURANCE

QA includes periodic and final review of the work to ensure compliance with the QC process but it also includes ensuring the following aspects have been addressed:

- ◆ Constructability
- ◆ Bidability
- ◆ Value Engineering or review of Engineering Report options to concur the best solution is recommended.

The QC/QA Manager shall review the personnel involved in the project to ensure the appropriate levels of expertise are involved for both designers and checkers.

The QA shall also review the level and quality of communication and documentation involved in the project. This will help ensure the client and all team members are informed of all the important aspects of the project.

If a project is constructed under the direction of CLD, a post-construction meeting shall be held between construction personnel and the design team to discuss “lessons learned.” If construction is administered by a client or another entity, a similar post construction meeting shall be requested. Lessons learned in construction are invaluable for quality design work. Lessons learned that arise from this post-construction review shall be documented and distributed to all appropriate staff.

6. CONTROL OF SUBCONSULTANTS

This is an important aspect of any project and shall be the primary responsibility of the Project Manager. Emphasis should be placed on critical path activities of the subconsultant and on information the subconsultant needs to perform their work. Subconsultant work and invoices shall be carefully reviewed to ensure there is no unanticipated scope creep. Subconsultants shall be required to submit a PQCP prior to signing of the contract, for review by the Project QC/QA Manager to ensure that quality control and quality assurance by the Subconsultants of their own work complies with CLD guidelines. In addition, CLD will provide overall review of the subconsultant work to ensure that it is in general compliance with the client's standards and project goals.

7. BUDGET AND SCHEDULE TRACKING

This aspect is a primary responsibility of a Project Manager. This is very critical as completing a project on time and within budget is important to both our clients and CLD.

8. CORRESPONDENCE

All team members shall carefully document all meetings, conversations and phone calls for any project-related discussions especially when decisions are made or direction given. This correspondence, including e-mail, shall be distributed to team members as appropriate, then filed in the project folder.

All decisions made during the design phase shall be documented in memos, distributed to team members as appropriate, then filed in the project folder. It is important that all decisions made in the development of a project be recorded. As previously noted, the QC/QA Manager shall review project correspondence and recording practice.

9. CLIENT COMMUNICATION

The Project Manager shall be primarily responsible for client communication. The ultimate goal of a project is to ensure that the client's goals are met completely and satisfactorily. Constant communication to understand these goals and to keep the client up to date on the project status is of utmost importance. The Principal-in-Charge shall also contact clients periodically throughout a project to ensure client satisfaction is being achieved.

Attachments:

1. Example of VTrans Roadway Design Quality Control Tracking Sheet
2. Example of VTrans Roadway Design QC/QA Manager Checklist