

Technical Proposal

Town of Bristol

Main Street Lighting and Sidewalk Improvements Project

Submitted via email to:

Valerie Capels, Bristol Town Administrator
townadmin@bristolvt.org





425097X
January 9, 2019

Valerie Capels
Bristol Town Administrator
PO Box 249
Bristol, Vermont 05443
Submitted via email to: townadmin@bristolvt.org

Re: Proposal – Bristol Main Street Lighting & Sidewalk Improvements

Dear Ms. Capels,

DuBois & King (D&K) has a strong interest in assisting the Town of Bristol (Town) with the Main Street Lighting and Sidewalk Improvements project. This proposal demonstrates D&K's experience and qualifications to support the Town with the design, permitting, and construction services needed to complete this exciting project.

The D&K staff assigned to this project are highly experienced in the design of municipal lighting, sidewalks, utilities, and other streetscape appurtenances. Please consider what the D&K team offers the Town of Bristol:

- D&K's QA/QC Engineer, Chris Lathrop, lives in Bristol and is currently managing the adjacent VTran Route 116 paving project.
- D&K has successfully completed hundreds of municipally managed projects throughout Vermont.
- The D&K team is experienced with public meeting facilitation.
- D&K has a multidisciplinary, in-house team of professionals and does not require subconsultants to complete the project.
- D&K team members provide the management and proactive communication skills required to effectively identify and address concerns, and successfully construct the project.
- D&K team members have a genuine interest in the Gateway to the Green Mountains, the Town's National Historic District, and the lifestyle Bristol offers our fellow Vermonters and visitors.
- D&K has a history of performing similar services for the Bristol Town Green.

D&K often cites the Bristol Town Green Improvements project as one of signature lighting projects and we look forward to the opportunity to continue the enhancement of Bristol's downtown experience. Our team would be pleased to meet to discuss our qualifications and proposal in more detail and to answer any questions you may have. Please do not hesitate to contact me at 802.728.7225 or dconger@dubois-king.com.

Sincerely,
DuBois & King, Inc.

David Conger, PE
Project Manager

Introduction

The Town of Bristol is seeking a consultant to design municipal lighting and sidewalk improvements along the downtown corridor of Main Street. The municipal lighting portion of work requires 14 vintage lampposts and associated electrical service be upgraded, which includes replacing entire lampposts and adding concrete pedestals where necessary. The sidewalk improvements include replacing 711 linear feet of brick pavers with stamped concrete and resetting 711 linear feet of existing granite curb.

The project will improve accessibility, longevity of lighting fixtures and infrastructure, and tie Main Street in with the Town Green and intersection improvements completed in 2015. Though funded and developed separately, this project is a welcome component to the VT Route 116 resurfacing project currently being designed by D&K for VTrans. The two projects together will give downtown Bristol a near full-width makeover.

Understanding/Knowledge of the Project Area

D&K's current work on the Route 116 resurfacing design project provides the D&K team with additional knowledge of the area, such as how best to communicate with Town personnel, stakeholders, the public, and allows staff to coordinate and develop both projects concurrently. D&K already has a basemap of the downtown corridor from the Route 116 project. Because the survey was performed for Route 116 asphalt surfaces, the D&K team will only need a few more to complete a sufficient basemap of the sidewalk, curb, and gutter.

Sidewalk Improvements. Bristol rivals many of Vermont's cities in terms of its walkability. The proposed sidewalk improvements will further encourage walkability among businesses, residences, and facilities by providing an increased level of accessibility and safety.

Through our ongoing work and previous projects, we know that the existing granite curb to be reset is at varying height when compared to the roadway and brick pavers. Ideally, the granite curb will be reset high enough to help prevent vehicles from accessing the sidewalk, and low enough to allow surface water to flow from the sidewalk and over the curb to existing catch basins in the roadway. Alternative solutions may be needed in locations where the height of roadway, curb, and sidewalk vary greatly and the ideal cross-section cannot be achieved, such as the block with Darcy's Salon and Hatch 31. Alternative solutions may be to match existing or add drainage structures.

Utilities and Lighting. D&K understands the Town's need for reliable lighting that is similar to the lampposts installed in the Town Green in 2015. We have maintained contact with our Sternberg supplier since



designing the Town Green lighting and remain confident in our ability to provide the Town with restoration or replacement options that meet the Town's efficiency and aesthetic needs. D&K is also familiar with the need for external power supply, flagpoles, and the capability to hang Main Street Flower Baskets on the lampposts. We will work diligently with the Town, Bristol CORE, and the public to make sure existing and potential functionality is provided.

We can confirm that many of the existing lamp posts appear to be damaged. In addition to considerations regarding restoring or replacing lampposts, adjusting lamp post base connections and elevations should also be explored. Installing new electrical service, upgrading luminaires, and further protecting the lamppost bases will ensure longevity while allowing sidewalk plows and other maintenance to continue providing safe pedestrian passage.

Other Pertinent Information. With proper public involvement and notice, utilities and lighting should be able to be performed in conjunction with the sidewalk improvements to allow for new electrical services to be installed in a trench under the new stamped concrete. This coordinated and phased approach will keep downtown functional by limiting the amount of open construction and number of lamppost outages at any given time during construction.



The D&K team understands the importance of maintaining access to businesses on Main Street and not constrain downtown economic development anymore than necessary to make the improvements. It will be crucial to make sure that temporary traffic control is designed to keep construction workers safe from vehicles and pedestrians safe from construction, while maintaining access to businesses that rely on unimpeded, day and night, downtown traffic.

D&K will also work to maintain existing signage and sign bases, access to fire hydrants, and drainage to existing catch basins. The project presents the Town with the opportunity to coordinate with stakeholders for the Comprehensive Bristol Signage Improvements if the Town wishes to place any wayfinding signs in the project area.

D&K Quality Assurance/Quality Control Engineer Chris Lathrop, PE, lives in Bristol and is currently managing the Route 116 resurfacing project. Having Chris perform the QA/QC for the Main Street Lighting and Sidewalk project enables D&K to coordinate design and schedule aspects of these projects for efficient and successful completion of both projects. The D&K team for the Main Street Lighting and Sidewalk project will communicate with Chris if there are any changes to existing curb elevations to make sure that the changes do not impact the resurfacing project, or if the resurfacing project can be altered to accept any impact. Although we will have a construction inspector available, Chris may occasionally check on the construction for the Main Street Lighting and Sidewalk project while he is in the vicinity of the project to create additional efficiencies for the project.

Scope of Work

Our proposed scope of work for the development of the municipal lighting and sidewalk improvements design is outlined below, and generally follows the scope of services requested in the RFP.

Task 1 – Kickoff Meeting & Site Visit

Upon receiving a notice to proceed, D&K will arrange a kickoff meeting and site visit in Bristol to discuss the process to be followed during project development with Town staff and other stakeholders with input on existing conditions and design options. This will be an opportunity to discuss the project schedule and deliverables, review the project development process, exchange contact information, and collect information that has not already been gathered. D&K Lead Engineer and Point of Contact Jeremy Stephens, PE, joined by Senior Electrical Engineer Bob Kischko, PE, to take notes and prepare meeting minutes to be submitted to the Town for accuracy. The D&K team will also use the site visit to identify any additional appurtenances that need to be surveyed.

After the kickoff meeting, D&K anticipates weekly conference calls with Town officials so that progress can be tracked, issues identified and resolved, and project momentum continued.

Task 2 – Field Reconnaissance

The primary purpose of this phase is to collect additional information needed to by the D&K team to bring the project to successful completion.

2A - Topographic Survey

D&K already has most of the topographic survey complete through the Route 116 resurfacing project, and do not expect to spend more than a couple days to convert the collected data into AutoCAD format. This work will be lead by D&K Senior Land Surveyor Randy Otis, LS, and will be performed with little impact to downtown. The AutoCAD file will be delivered to our design team to begin development of the base plan, evaluation of existing conditions, and options to be considered for design.

2B - Electrical Investigation

During the field reconnaissance task, D&K Electrical Designer Sylvia Miller will investigate the existing lampposts, electrical service tie-ins to the lampposts, and electrical service tie-ins to the primary electrical



distribution. This information will be used to develop lamppost restoration, replacement, products, and electrical service alternatives to be considered for design.

D&K will make contact with the appropriate utility owners to locate existing utilities within the project area. D&K team member will request available information, including record drawings, sketches, as-built, etc. If the team determines that the available information is inadequate to analyze conflicts, field work may need to be coordinated with the existing utility owners to verify locations.

Task 3. Preliminary Plans

Through steady communication of findings, products, and design alternatives, D&K will develop preliminary plans. These plans will be based on Town and stakeholder preferences, and D&K recommendations that are accepted by the Town. D&K will rely on Town and stakeholders to approve the preliminary plans before D&K makes a public presentation.

D&K assumes that one meeting with the Town and stakeholders (e.g. Bristol CORE) will be required to review findings, products, and design alternatives.

D&K will develop the design and prepare plans anticipated to consist of:

- Title Sheet
- Index of Sheets
- Conventional Symbology and Legend Sheet
- Typical Section Sheets
- Detail Sheets
- General Notes
- Sidewalk Layout Sheets
- Sidewalk Details
- Utility Sheets
- Erosion Prevention and Sediment Control (EPSC) Sheets
- EPSC Legend and Notes Sheets
- EPSC Detail Sheets
- Traffic Control Sheets
- Construction limits
- Existing utilities
- Proposed utilities
- Proposed lamppost modifications
- Pavement marking and signing information

D&K will provide an Engineer's Opinion of Probable Construction Cost (EOPCC) that reflects the level of detail in the Preliminary Plans. Pay item quantities will be measured and developed based on VTrans standard procedures and items. Any items not defined under a VTrans standard item will be categorized as a Special Provision Item. Quantities will also be based on the preliminary plans.

This task will have participation from each civil and electrical D&K staff member listed, with general oversight provided by D&K Project Manager/Principal Engineer David Conger, PE, and QA/QC provided by Senior Transportation Engineer Chris Lathrop, PE.

Task 4. Public Meetings

4A - Selectboard Meeting

At the finalization of the preliminary plans and approval of the Town, D&K's Lead Civil Engineer Jeremy Stephens, PE, and Senior Electrical Engineer Bob Kischko, PE, will prepare and present the preliminary plans during a public meeting, which may be as part of a regular or special Selectboard meeting. The D&K team will also record comments received at the meeting and present them as minutes to the Town for further consideration. Team members will follow up with any question not answered during the public meeting.

4B - DRC Meeting

After incorporating public comments from the Selectboard meeting, Jeremy and Bob will prepare and present the preliminary plans to the Bristol Design Review Commission (DRC). They will again record comments received and present them as minutes to the Town for further consideration. D&K team members will follow up with any question not answered during the DRC meeting.

Task 5. Task 5. Permitting

D&K will begin the permitting processes upon incorporation of all public, Town, and stakeholder comments into the preliminary plans. At this time the D&K anticipates that a Construction Permit Application through the Vermont Department of Public Safety, Division of Fire Safety is the only permit needed. Accessibility will be discussed with Department of Public Safety during preliminary design and is not expected to require significant time during this task. Electrical or plumbing should not require permitting or inspection as long as designed and installed by licensed professionals. Permitting will be lead by Lead Civil Engineer Jeremy Stephens, PE, with preliminary plan document assistance from D&K Civil Designer Pat Day, EI.

Task 6. Final Design

Upon completion and receipt of necessary permits and clearances, Final Design will begin, including:

6A - Final Plans

D&K will prepare the Final Plans to address all comments received from meetings and permit processes. The Final Plans will include the sheets from the preliminary plan submission, unless omitted or added to during previous reviews. This work will have participation from each civil and electrical D&K staff member listed, with general oversight provided by Project Manager/Principal Engineer David Conger, PE, and QA/QC provided by Senior Transportation Engineer Chris Lathrop, PE.

6B - Final EOPCC

The D&K team will review the EOPCC as part of the final plan development. The EOPCC will be revised to reflect the additional level of project detail and the revisions made after the development of the final plans. D&K

will measure and recalculate pay item quantities based on VTrans standard procedures and items. Any items not defined under a VTrans standard item will be categorized as a Special Provision Item. Changes to the final plans, either through utility coordination or Town/public comments will result in modifications to the items and quantities.

6C - Draft Contract Documents

D&K team members will prepare draft contract documents for the project, including:

- Bidding Requirements
- Contract Forms
- Specifications (VTrans Standard Specifications for Construction, 2011 Edition)

The draft contract documents will be based on the standard documents that VTrans uses for their municipally-managed projects and can be augmented as required by the Town. Other document examples may be used if preferred.

6D - Final Construction Documents

Once the final plans, draft contract documents, and EOPCC have been reviewed and approved by the Town, D&K will address any final design review comments. The team will finalize construction documents that will be used by the Town to advertise and procure contractor services to construct the project. The final construction documents will include the final permits, clearances, and any other items necessary.

6E - Bid Phase Services

D&K Lead Civil Engineer Jeremy Stephens, PE, and Senior Electrical Engineer Bob Kischko, PE, will remain available for questions received during advertising for construction bids. Jeremy will also be available to assist the Town by preparing a bid tabulation and Recommendation of Award letter based on the results of D&K's bid analysis.

Task 7. Construction Phase

7A - Construction Management & Inspection

D&K will review the Contractor's proposed project schedule and schedule of values. Any aspect that D&K deems questionable will be brought to the attention of the Town.

D&K proposes to inspect work in the field at least once each day construction activities occur. We will request Town approval before making adjustments to this schedule. Inspections activities will include, updating record drawings, tracking work completed, and documenting any issues.

Payment requisitions or change orders will be reviewed by D&K, with recommendations to either provide payment or provide further clarification from the contractor.

D&K Lead Civil Engineer Jeremy Stephens, PE, and Senior Electrical Engineer Bob Kischko, PE, will remain available provide assistance throughout the construction phase, including answering questions relative to the

design and participating in decisions relative to field changes. Any questions not immediately answered via phone or email will be followed up shortly after all information is presented.

D&K will review and approve shop drawings required for the project. This may entail reviewing concrete pedestals, traffic control plans, or lamppost products. The intent will be to review the submittal for general conformance with the design intent.

D&K will continue to facilitate weekly scheduled project meetings during construction. Progress of work, payment of work performed, any issues requiring resolution and any other items deemed appropriate by those in attendance will be discussed. At the conclusion of each weekly meeting, minutes will be prepared for the Town to review and approve.

The majority of the construction management and inspection tasks are expected to be carried out by a Construction Inspector. We have breadth at this position and intend to use one of several options throughout the project in order to save costs to the Town while providing the best possible feedback. D&K Senior Transportation Engineer Chris Lathrop, PE, will be available to coordinate with the ongoing Route 116 resurfacing project.

7B - Substantial Completion Inspection

D&K Lead Civil Engineer Jeremy Stephens, PE, and Senior Electrical Engineer Bob Kischko, PE, will conduct a site visit following substantial completion of the construction. Chris Lathrop will also join to make sure that there are no outstanding concerns for the adjacent Route 116 resurfacing project. During the site visit D&K will observe the work, take notes of remaining work to be completed, and compare the construction against the contract plans. Any work that appears unacceptable will be brought to the attention of the Town, with recommendation that the Town not accept the work. Work still needing to be completed and unacceptable work will be compiled into a punch list.

7C - Final Inspection

D&K will conduct a follow up final inspection to check that items noted on the punch list have been completed. Our team anticipates that the contractor will have addressed all items on the punch list by this time and no additional inspections will be necessary. Jeremy Stephens will perform the final inspection and will develop a Notice of Final Completion memorandum recommending to the Town that final payment should be authorized.

7D - Record Drawings

Upon recommendation for final payment to the contractor, Jeremy Stephens and Pat Day will finalize the record drawings and submit to the Town for approval and project completion.

Capacity and Availability of Disciplines

Our staff has considerable experience and “project-tested” technical capabilities to complete the project. D&K has assembled a team of professionals to complete the project in an efficient and focused manner. D&K has supported VTrans and municipalities with a wide range of transportation services for decades. We have advanced planning studies, conceptual design, final design, environmental documentation, right-of-way determinations,

and services during construction on hundreds of projects. D&K offers a dedicated and knowledgeable staff to assist the Town with this project.

DuBois & King’s Project Manager and other team members identified herein will be dedicated to this assignment for the life of the project. This will effectively facilitate communications, assuring quality control, and meeting the schedule of deliverables so that the project can remain on the schedule defined in Bristol’s RFP and within budget.

Firm Overview

Founded in 1962, DuBois & King is a consulting engineering firm providing multidisciplinary planning, design, and construction services to state, federal, and municipal clients. We have offices in Randolph, South Burlington, Brandon, and Springfield, Vermont, and in New Hampshire, Maine, and New York. The firm employs 120 engineers, scientists, planners, designers, surveyors, technicians, permitting specialists, and support personnel. Firm professionals have assisted clients with projects involving transportation, environmental compliance, water supply and wastewater, civil structures, and building services.

D&K has supported municipalities, regional commissions, and state agencies with a wide range of planning and engineering services on hundreds of projects. In-house services include:

- Transportation Planning
- Construction Phase Services
- Roadway Design
- Construction Cost Estimating
- Bridge Design
- Public Participation
- Bicycle & Pedestrian Facility Design
- Landscape Design
- Traffic Analysis & Signalization
- Survey
- Right-of-Way
- Utility Identification & Coordination
- Permitting and NEPA
- Drainage and Stormwater Management
- Hydraulic Design
- Highway Resurfacing

DuBois & King staff includes planners and engineers experienced in working with communities, agencies, and the public on a variety of transportation projects. The firm’s approach is to be well informed of public and community concerns, consider the important influences between land use and transportation design, and incorporate community goals and visions into the plans. Transportation staff are versed in the latest stormwater BMPs necessary to support transportation infrastructure projects. The D&K team also has experience developing streetscape design concepts, street design guidelines, and construction documents for improvements that incorporate bicycles, pedestrians, transit, parking, and automobiles in a limited space.

In working with communities, D&K routinely uses various graphic techniques to enhance public presentations. PowerPoint, display boards, SketchUp modeling, and drone and other aerial photographs are all part of the “toolkit” that we use to present information and convey ideas; engage the public, agency officials, clients, and other interested parties; and help the audience visualize what our projects will look like.

Project Team

David Conger, PE, Project Manager, has 26 years of experience as a Civil Engineer and Project Manager for municipal, private, and federal clients. The Director of D&K's Site and Land Division, David's experience includes management of multidisciplinary design teams for significant term contracts and large-scale projects. His technical expertise includes stormwater utility, design, MS4 permits, an understanding of Total Maximum Daily Loads, and other engineering functions specific to the design of alternatives for stormwater management, drainage, and water quality systems. David is thoroughly familiar with the FEMA HMGP program, USACE standards, environmental permitting and NPDES stormwater program compliance.

Chris Lathrop, PE, Quality Assurance Quality Control, is a Senior Transportation Engineer and the Highway Department Manager at D&K with 22 years of experience in transportation improvement projects. His professional experience includes the preliminary and final design of a variety of transportation projects for the Vermont Agency of Transportation, New Hampshire Department of Transportation, and numerous municipalities. Mr. Lathrop's experience includes the reconstruction of local roadways and state highways, resurfacing and safety improvements for interstate highways, intersection improvements, pathways, and sidewalks. He has been involved in all phases of project development from project conception through construction including design, public participation, contract documents, utility coordination, traffic management plans, bidding, and construction administration and inspection.

Jeremy Stephens, PE, Lead Civil Engineer/Point of Contact, is a senior project manager and civil engineer with a broad range of experience that includes term contract management with state and municipal clients. A veteran of the U.S. Navy, Jeremy's project experience spans the civil/site, transportation, environmental, maritime, and heavy construction sectors. He has significant roadway design, road and utility reconstruction, and construction administration and management experience. Jeremy is an efficient leader of multidisciplinary teams and a confident communicator.

Bob Kischko, PE, Lead Electrical Engineer, is a Senior Electrical Engineer with over 40 years of experience in electrical design and project management. Over his career, Bob's responsibilities have included the design and review of electrical engineering documents and specifications for utility, commercial, institutional, and municipal projects. His specific experience includes layout and design of high and medium voltage power distribution, interior and exterior lighting, control systems, computer/data systems, fire alarm intrusion/security systems, and utility high voltage electrical systems. Projects include a variety of electrical building inspections, investigations, and evaluations including historic preservation and educational buildings.

Sylvia Miller, Electrical Designer, has 27 years of electrical and civil drafting experience. She is responsible for computer assisted drafting and design (CADD) in the production and management of electrical plans, such as overhead and underground distribution utility maps, substation construction plans, and drawings for a wide variety of educational, utility, commercial, institutional, and medical projects. Sylvia is an expert user of Autodesk Building Systems and SoftDesk's Building Systems.

Pat Day, Civil Designer, has 15 years of experience supporting municipal and state transportation projects. As an outdoor recreationist and engineer residing in Duxbury, his focus in recent years has been bicycle and pedestrian projects. His projects have included the US 2 Sidewalk in East Montpelier, the Killington Road Walkway, Burlington's Great Streets project, the Essex Crescent Connector Road, the Montpelier-Berlin Shared-

Use Path, and the Barre City Smith Street Shared-Use Path. John will assist with the development of designs and will provide quantity and cost estimates.

Randy Otis, LS, Senior Survey, is a licensed land surveyor and senior party chief with 16 years of experience in boundary and topographic surveying. The head of DuBois & King’s Survey Department, Randy has performed survey services for municipal, state, private, and public clients throughout New England and New York. His specific experience includes performing topographic and boundary surveys, right of way determination, monumentation, stakeout, boundary research and plats, and deed preparation and research.

Proposed Project Schedule

Our proposed schedule is provided below:

- | | |
|---|------------------------|
| 1. Project Kick-off Meeting & Site Visit | February 6, 2019 |
| a. Meet with Town and stakeholders | |
| b. Site visit with Town and stakeholders | |
| 2. Field Reconnaissance | February 7-28, 2019 |
| a. Topographic Survey | |
| b. Electrical Investigation | |
| 3. Preliminary Plans | March 1-31, 2019 |
| a. Findings, products, and design alternatives | |
| b. Plan preparation and review | |
| c. EOPCC preparation and review | |
| 4. Public Meetings | April 1-May 31, 2019 |
| a. Selectboard | |
| b. DRC | |
| 5. Permitting | June 1-15, 2019 |
| a. Construction Permit Application (Vermont Department of Public Safety, Division of Fire Safety) | |
| b. Others, if identified | |
| 6. Final Design | June 15-30, 2019 |
| a. Final plans | |
| b. Final EOPCC | |
| c. Draft contract documents | |
| d. Final contract documents | |
| e. Begin bid phase | |
| Construction Bidding & Award | July 1-August 31, 2019 |

7. Construction Phase
- a. Construction management and inspection
 - b. Substantial completion inspection
 - c. Final inspection
 - d. Record Drawings

September 1-November 30, 2019

References

DuBois & King is in its 56th year of providing professional engineering services. We understand that the quality of our work is the key to our success and longevity. The D&K team has achieved an excellent track record of controlling costs, providing high-quality work, and meeting scheduled deadlines. Through our successful completion of numerous sidewalk design projects, the D&K project team has a clear understanding of the expectations that the Town has for the performance of the consultant and is prepared to meet the Town's expectations with high quality services provided in a timely manner. Please contact the following references who will be able to speak to D&K's competence, qualifications, and ability to proactively coordinate between project stakeholders to keep projects on track.

Contact: Lisa Schaeffler, Assistant Director, Public Works

Client: City of Burlington, Vermont

Phone: 802.878.1239

Project: Williston STP SDWK(15): VT Route 2A – Knight Lane Sidewalk Project

Contact: Adam Lougee, Municipal Project Manager

Client: Addison County Regional Planning Commission

Phone: 802.388.3141

Project: Bristol Green

Contact: Kirsten Merriman-Shapiro, SHED, Senior Projects and Policy Specialist

Client: City of Burlington

Phone: 802.865.7284

Project: Great Streets BTV

Similar Projects Completed by the Firm

Highway Design Experience in Vermont. The team understands that this project will be developed in coordination with the reconstruction of Main/Maple Street and the Mountain Road, to be designed by VTrans. Members of our Transportation Division have designed hundreds of miles of state highway projects in constrained urban areas as well as rural settings and have well-established lines of communication with VTrans Highway staff. Since 2007, D&K has provided design (or is currently providing design for) 260 miles of state and federal highways throughout Vermont that follow the same standards addressed by the reconstruction of Stowe's Class I Town Highways.

Examples of projects D&K has performed similar to those requested by the Town of Bristol follow:



Bristol Green Bristol, Vermont

DuBois & King provided lighting design and park amenities improvements to Bristol's village green. Electrical service upgrades included modifications to address codes and standards, metering, capacity, panel boards, wiring, and grounding and lightning protection. Three site lighting alternatives were presented and preliminary and construction documents of the preferred alternative were developed. The project also included landscaping hardscapes considerations, including benches and park features possibly including alterations to the existing fountain.

Design and construction was carefully coordinated with ongoing construction projects adjacent to the green. The project was funded through the VTrans Local Transportation Facilities (LTF) program and followed LTF, AASHTO, and IESNA guidelines for design and procedures. Professional services provided included:

- Lighting analysis
- Alternatives analysis
- Archeological and historic resource review
- Categorical Exclusion documentation
- Utility coordination
- Cost estimates
- Conceptual and final design plans and specifications
- Bid documents



West Pleasant Street Sidewalk Design Bristol, Vermont

This Safe Routes to School project was for the evaluation and design of a 425-ft sidewalk along West Pleasant Street within Bristol Village. The sidewalk extends from Munsill Avenue to Liberty Street, and along Liberty Street to the existing pathway on the Mount Abraham Union High School property. The project included design of two crosswalks. Professional services included:

- Alternatives analysis and conceptual designs
- Survey
- Right-of-Way and easement plans
- Wetlands and natural resources review
- Categorical Exclusion documentation
- Preliminary and Final Design Plans
- Bid phase services
- Contract documents
- Relocation of utilities

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Sidewalk and Lighting Improvements Hardwick, Vermont

Design of sidewalk and lighting improvements to downtown Hardwick. The project included the design of a new granite curb and reconstruction of approximately 200 ft of 5 ft wide sidewalk along Main Street, cutting down an existing concrete retaining wall and installing a new decorative metal railing on top of the wall, paving of approximately 600 ft of Daniels Road, and the addition of street lights along Daniels Road. The project also included the design of a new parking area and short pathway crossing the former Lamoille Valley Rail Line to provide access from the parking lot to the Historical Society (former rail station). Project was administered through Local Transportation Facilities (LTF) Section and funded through a Federal earmark. Tasks included topographic survey, preparation of environmental documentation, development of preliminary and final design plans, property owner coordination, preparation of bid documents, and construction engineering services.



Lighting, Utilities, Roadway Design Main Street Reconstruction Randolph, Vermont

DuBois & King provided design and construction inspection services to complete improvements to bring aging municipal utilities (water, sewer and stormwater) within the downtown commercial district into conformance with current design standards, to improve water distribution and wastewater collection system integrity, and to enhance the hydraulics of the water distribution and fire protection systems. The project also included replacement of all services lines within the road right-of-way. Firm engineers assisted with the development of conceptual plans for alignments, road sections, sidewalks, streetscapes, and cost estimates.

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Depot Square Sidewalk Village of Northfield, Vermont

Design for sidewalks, lighting, and roadway reconstruction along the north and west sides of the Village common in the center of downtown Northfield. The project includes the replacement of existing sidewalks, regrading and reconstruction of the adjacent roadway segments to improve the curb reveal and roadway drainage, relocation of overhead electric lines to underground positions, and the addition of decorative street lights. The project is funded in part with a Transportation Enhancement Grant and is consequently being developed to follow the VTrans Local Transportation Facilities (LTF) project development process and requirements. Services include field survey; permitting; conceptual, preliminary, and final design plans; utility coordination and design; and the preparation of contract documents.

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Taylor Street Reconstruction and Stormwater Demonstration Project Montpelier, Vermont

DuBois & King is leading roadway, sidewalk, utilities, lighting, and stormwater design; survey; and hazardous materials coordination for a 425 LF roadway reconstruction project. The \$1M project serves as a green stormwater demonstration project and significantly improves motor vehicle and pedestrian connectivity between the new transit center and State Street. D&K staff coordinated Taylor Street reconstruction design with the ongoing design of the transit center, the reconstruction of State Street, the extension of the Montpelier Bike Path, and the reconstruction of an at-grade railroad crossing. The project is funded by a variety of federal grants. Project elements include:

- 600-ft x 5-ft portland cement concrete sidewalks
- Left turn lane for vehicles accessing State Street
- Pervious pavement and stormwater infiltration systems
- Rain gardens, and street trees
- Groundwater infiltration analysis for an adjacent, leaking fuel tank
- Water and sewer line improvements
- Streetlights

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** Above image, simplified illustration of proposed improvements; remaining images, the project is in the construction phase*



Lighting Design, Plainfield Pathway Plainfield, Vermont

DuBois & King provided lighting and distribution design for a historic bridge and public park. Upgrades included historically appropriate fixtures using LEDs and extension of existing service to the Plainfield Pathway. D&K provided preliminary through final design. This project was administered by the Vermont Agency of Transportation Local Transportation Facilities section.

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Electrical Design Main Street, St. Albans, Vermont

D&K provided electrical engineering to support the St. Albans Main Street area downtown improvements. The project which consisted of redevelopment in the historic center of St. Albans that included new LED luminaries as well as updated vehicular and pedestrian traffic signals. D&K's work included the design of the underground distribution for the lighting and power systems. D&K provided consultation and electrical layouts for the new lighting system's power and conduit requirements, utility interfaces as well as support for the power needs for various community events that are held throughout the seasons for street vendors and festival lighting. D&K also designed power access points for Taylor Park that included a 200 amp service that supports the annual Maple Festival. Other projects included adjoining streets that support the new luminaries connecting to Main Street.

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Weirs Community Park Laconia, New Hampshire

DuBois & King worked with the City's Parks and Recreation Department to design a new park on Lucerne Ave. The proposed park includes a restroom building, amphitheatre, playground, and pavilion. D&K worked with the Town Planner, and assistant department of public works director to pursue Low Impact Development at the site.

The site utilizes new and existing swales and a new rain garden to manage drainage on the site.

D&K provided part-time construction observation services and contract administration services through the construction phase. D&K oversaw concrete foundation testing by a subconsultant.

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Sidewalk & Multi-Use Pathway Experience Vermont & New Hampshire

- Belvidere Bicycle & Pedestrian Path, Belvidere, VT
- Berlin-Montpelier Bike Path, Berlin and Montpelier, VT
- Bicycle and Pedestrian Path, Springfield, VT
- Bicycle, Pedestrian and Traffic Calming Plan, Sharon, VT
- Bradford Sidewalk Enhancement, Bradford, VT
- Brooklyn Street Sidewalk, Morristown, VT
- Brownsville Sidewalk, West Windsor, VT
- Cross-Railroad Street Sidewalks, Town of Brighton, VT
- Elm Street Sidewalk, Derby, VT
- Essex STP Walk (21), Essex, VT
- Exit 16 Sidewalks Project, Colchester, VT
- Graniteville and Websterville Sidewalk, Barre, VT
- Hardwick Pedestrian & Multi-Use Pathway, Hardwick, VT
- Highgate Bicycle & Pedestrian Feasibility Study, Highgate, VT
- Main Street Sidewalk, Wells River, VT
- Maple Street Sidewalk Improvements, Hartford, VT
- Millstone Hill West Bicycle Path, Barre Town, VT
- Missisquoi Riverwalk, Highgate, VT
- Newfane Sidewalk Construction Phase Services, Newfane, VT
- Peavine Trail Feasibility Study, Stockbridge, VT
- Plainfield Village U.S. 2/Main Street Intersection Study, VT
- Rail to Trail Feasibility Study, Canaan, VT
- Roadway/Sidewalk Upgrade, Route 7, Shelburne Road, VT
- Rte. 7A North Sidewalk Construction, Manchester, VT
- Sharon Village Sidewalk, Sharon, VT
- Sherburne Bicycle Path, Sherburne (Killington), VT
- Sidewalk & Street Improvements, Epping, NH
- Sidewalk Design, Woodstock, VT
- Sidewalk Feasibility Study, Weathersfield, VT
- Sidewalk Improvements, Barre, VT
- South Pleasant Street Sidewalk, Randolph, VT
- Street/Sidewalk Design at Waterfront, Manchester, NH
- Three Rivers Transportation Path, St. Johnsbury, VT
- Transportation Path Project, Burlington STP Bike, VT
- Village Transportation Enhancements, Thetford, VT
- VTrans, Bicycle and Pedestrian Path Technical Assistance, VT
- Warners Corner Sidewalks Project, Colchester, VT
- West Rutland Sidewalk, West Rutland, VT
- Whetstone Brook Pathway & Bridge, Brattleboro, VT
- Williamstown Sidewalk, Williamstown, VT
- Williston Bicycle & Pedestrian Path, Williston, VT



David Conger, PE

Project Manager

EDUCATION

B.S., Civil Engineering,
University of Vermont, 1992

REGISTRATIONS

Professional Engineer: VT 7689

LENGTH OF EMPLOYMENT

Total years of Experience: 26
Experience with D&K: 8

Mr. Conger has 26 years of experience as a Civil Engineer and Project Manager for municipal, private, and federal clients. The Director of D&K's Site and Land Division, David's experience includes management of multidisciplinary design teams for significant term contracts and large-scale projects. His technical expertise includes stormwater utility, design, MS4 permits, an understanding of Total Maximum Daily Loads, and other engineering functions specific to the design of alternatives for stormwater management, drainage, and water quality systems. David is thoroughly familiar with the FEMA HMGP program, USACE standards, environmental permitting and NPDES stormwater program compliance.

Market Street Improvements, South Burlington, VT. Project Manager for a utility improvements between Dorset Street and Hinesburg Road. Modification of all utilities took into account the increased requirements of the proposed redevelopment of this area with upwards of a million square feet of retail, office and residential space. Specific upgrades include increased size of electrical and communications ductbanks and sewer pump station for future capacity. For the water system, a WaterCAD model was developed for the nearby CWD system.

Civil Site and Electrical Improvements, Governor Prouty Apartments, Newport, VT. Project Manager for civil site and electrical site lighting design for the rehabilitation of a 3 building elderly housing rental complex in Newport, Vermont for the Rural Edge housing authority. Rehabilitation incorporated site inspections and evaluations to develop new perimeter building foundation drainage systems with upgrade of foundation crack sealing and insulation. The project included site grading, sidewalks, access ramps, stairs and pedestrian and parking lighting, which were removed and replaced to upgrade the aging facility. Work included design, bidding and construction support services in conjunction with internal building and fascia work.

Construction Phase Services, US Route 7 Segment 6, Brandon, VT. Manager of Construction Phase Services for full-time construction administration and observation for a major roadway improvement project in the heart of downtown Brandon. The project includes reconstruction of more than a mile-long section of US 7 roadway, all associated intersections and two parks. D&K is providing four full-time construction inspectors to support the improvements. The project was developed through the Municipal Assistance Bureau (MAB) of VTrans.

US Route 2 Pedestrian Improvements, East Montpelier, VT. Senior Transportation Engineer for LTF-administered transportation study to identify options, issues, and costs to develop safety improvements for pedestrians along U.S. Route 2 in the center of East Montpelier. The study considered both traditional pedestrian enhancements and streetscape element improvements in response to recommendations included in the Central Vermont Regional Planning Commission's Village Study Report on East Montpelier. Considerations included sidewalk lighting and landscaping, crosswalks, signing, traffic calming measures, and access control.

Knight Lane Sidewalk, Williston, VT. Project Manager for the design and construction phase services for over 242 LF of sidewalk in a highly commercial area. The new 5-ft-wide concrete sidewalk is being designed to match the existing connecting sidewalk while considering the existing roadside drainage swale and bordering stormwater detention basin. The design accommodates steep side slopes on either side of the walkway. This project includes survey, right of way, conceptual through final plans, bidding assistance, environmental resource impacts, and cultural resource review. This ongoing municipally managed project is being developed through the VTrans MAB Section.

Maple and Union Street Sidewalks, VTrans, Brandon, VT. Project Manager for design of new sidewalks along Maple and Union Streets in the Town of Brandon. This municipally managed project was developed through the VTrans LTF Section. The new sidewalks extend a length of approximately 2,500 ft and include a new pedestrian bridge over the Neshobe River, as well as an at-grade crossing of the Vermont Railway. Design services include conceptual layout and alignment of sidewalks, development of preliminary plans, utility coordination, development of right-of-way plans, attendance at local concerns and alternatives presentation meetings, bridge alternatives report, preparation of CE documentation, permitting, and final design plans.

Conditions Assessment, Church Street Marketplace, Burlington, VT. Project Manager assisting the Marketplace, CCRPC, and City DPW to evaluate conditions along one of the premiere outdoor pedestrian malls. Three primary tasks for this effort: topographic survey for two intersections and distressed area in front of City Hall, GIS site evaluation & mapping for maintenance items, and capital planning development for major, minor, and deferred maintenance items.



Christopher Lathrop, PE

Quality Assurance/Quality Control

EDUCATION

B.S., Civil Engineering,
Norwich University, 1995

A.S., Civil Engineering,
Vermont Technical College, 1992

REGISTRATIONS

Professional Engineer: VT 8769; NH 10682

LENGTH OF EMPLOYMENT

Total years of Experience: 22
Experience with D&K: 12

Mr. Lathrop is a Senior Transportation Engineer and D&K Highway Department Manager with 22 years of experience in transportation improvement projects. His professional experience includes the preliminary and final design of a variety of transportation projects for the Vermont Agency of Transportation, New Hampshire Department of Transportation, and numerous Vermont and New Hampshire Municipalities.

Mr. Lathrop's pathway and roadway experience ranges from the reconstruction of low volume local roadways and intersection improvement projects, to pathways and sidewalks. He has been involved in all phases of project development from project conception through construction including design, public participation, contract documents, utility coordination, traffic management plans, bidding, and construction administration and inspection.

Lighting and Improvements to the Bristol Green, Bristol, VT. Construction Inspector for lighting design and park amenity improvements to the village green. Addressed codes and standards, metering, capacity, panel boards, wiring, and grounding and lightning protection. Presented three site lighting alternatives and preliminary and construction documents of the preferred alternative. The project included landscaping hardscape considerations including benches and park features. Design and construction is being coordinated with ongoing construction projects adjacent to the green. The project is funded through the VTrans Local Transportation Facilities (LTF) Section and follows LTF, AASHTO, and IESNA guidelines for design and procedures.

Sidewalk Design, Mt. Philo Road, Shelburne, VT. Project Manager responsible for the preliminary and final design of a 5-ft-wide concrete sidewalk. The sidewalk, which includes a 5-ft green strip, begins at Wild Ginger Road and extends 2,500 ft along the east side of Mount Philo Road to Falls Brook Road. The project included crosswalks, pedestrian ramps, concrete curbing, drainage improvements, environmental permitting, erosion control narrative, and utility relocation coordination.

Exit 16 Sidewalk Project, Colchester, VT. Senior Project Engineer for design and construction phase services for 1,800 lf of new sidewalk along US Route 2/7 near Exit 16 of I-89. Responsibilities included Deed and ROW research, as well as sidewalk alternatives and plan QA/QC.

Design and Lighting Improvements, Multi-Use Pathway, Phase II, Hardwick, VT. Senior Project Engineer for the design of sidewalk and lighting improvements to downtown. The project included the design of new granite curb and reconstruction of approximately 200 feet of 5-foot-wide sidewalk along Main Street, cutting down an existing concrete retaining wall and installing a new decorative metal railing on top of the wall, paving of approximately 600 feet of Daniels Road, and the addition of street lights along Daniels Road. Project was administered through Local Transportation Facilities (LTF) Program and funded through a Federal earmark. Responsible for the design development, technical support, and quality control reviews.

Bristol Sidewalk Feasibility Study, Safe Routes to School, STP SRIN(1), Bristol, VT. Project Manager responsible for a feasibility study to determine the feasibility of constructing sidewalks and pathways along several streets within the Village of Bristol. The study, which involved evaluating the feasibility of constructing 5-ft concrete sidewalks and 10-ft pathways, included evaluating the potential impacts on ROW, utilities, drainage, and the cost of using different materials. Conducted public participation meetings and coordinated with the Town Manager and Selectboard.

Sidewalk Design, West Pleasant Street, Safe Routes to School Program, VTrans, Bristol, VT. Project Manager for evaluation and design of a 425-ft sidewalk along West Pleasant Street within Bristol Village. The sidewalk extends from Munsill Avenue to Liberty Street and along Liberty Street to the existing pathway on the Mount Abraham Union High School property. In addition to the sidewalk along West Pleasant, the project includes two or three crosswalks. Chris also provided construction inspection services for the construction phase of the project.

Sidewalk Design, Route 116, Safe Routes to School Program, VTrans, Hinesburg, VT. Project Manager responsible for the preliminary and final design of a 5-ft-wide concrete sidewalk along Route 116. The sidewalk includes a 5-ft green strip beginning at the Hinesburg Elementary School and extends 950 ft along the west side of Hinesburg Road to Charlotte Road. The project included ROW acquisition, utility relocation, crosswalks, pedestrian ramps, concrete curbing, drainage improvements, environmental permitting, erosion control narrative, and parking and driveway improvements to a number of properties.



Jeremy Stephens, PE

Lead Civil Engineer/Point of Contact

EDUCATION

B.S. Civil Engineering, University of Kansas, 2009

REGISTRATIONS

Professional Engineer: AK 14863

CERTIFICATIONS

American Traffic Safety Services Association
Certified Traffic Control Supervisor

LENGTH OF EMPLOYMENT

Total years of Experience: 8
Experience with D&K: < 1

Mr. Stephens is a senior project manager and civil engineer with a broad range of experience that includes term contract management with state and municipal clients. A veteran of the U.S. Navy, Jeremy's project experience spans the civil/site, transportation, environmental, maritime, and heavy construction sectors. He has significant roadway design, road and utility reconstruction, and construction administration and management experience. Jeremy is an efficient leader of multidisciplinary teams and a confident communicator.

Civil/Site for Construction of New Office Facilities, USDA Forest Service, Green Mountain Finger Lakes Region. Project Manager for site design, utility and geotechnical services for the new construction of a 10,000-sq. ft. Supervisors Office and accessory buildings, including a heated warehouse, cold storage, a new access road, and parking area. Services include survey, roadway, permitting and utilities. Design includes lighting for pedestrian walkways, parking areas, and security.

Construction Inspection, US Route 7 Segment 6, Brandon, VT. Providing submittal management and Petroleum Clean-up Fund (PCF) reimbursement support for construction inspection services for a major roadway and underground infrastructure reconstruction project through the heart of downtown Brandon. The project consists of roadway widening, sidewalks and curbs, pavement markings, traffic signs, signal, water main, sanitary sewer, aerial and underground utilities and stormwater improvements for the Brandon Village portion of U.S. Route 7. Included are portions of Franklin Street, Park Street, Center Street, Conant Square, Grove Street, and associated intersections and side roads. The project reconstructs a major north-south highway link through downtown to create a geometric configuration that will serve the high traffic volumes and access of abutting properties.

Construction Inspection for Sidewalk Improvements, US Route 7 Bridge 114 (Center Street), Brandon, VT. Providing Construction Administration Services to reconstruct Bridge 114 to reestablish its structural integrity and upgrade its sidewalks and aesthetics to complement the work being done on Segment 6. Responsible for submittal management and analyzing contractors Critical Path Method schedule.

Haines Ferry Terminal Improvements, State of Alaska, Department of Transportation & Public Facilities (DOT&PF), Haines, AK. Project Manager for the replacement of the cellular sheet pile dock structure with a riprap slope, sheet pile retaining walls, and pile supported mooring dolphin fender system and associated access structures. The work included offshore dredging to provide sufficient water depths along the face of the berth for safe vessel use. Additional upland areas were also developed to offset land area losses as a result of the removed sheet pile structures and to allow reconfiguration and expansion of the uplands for the provision of two separate vehicle staging areas. Upland work also included the relocation of the generator and storage buildings, installing high-mast light poles, and all associated underground utility work. High-mast light poles included security cameras, PA systems, and weather data collection, with special coating requirements to withstand the winter and salt-water environment.

Montpelier Ice Jam Induced Flood Mitigation Feasibility Study, Montpelier, VT. Senior Civil Engineer for a feasibility study evaluating design alternatives to mitigate flooding caused by ice jams on the Winooski River. Services include compiling in-house reports related to historical resources, wetlands, environmental impacts, structural engineering, and design.

Construction Administration, State of Alaska, Department of Transportation & Public Facilities (DOT&PF), Southcoast Region, AK. Contract Manager to provide construction administration services for projects throughout the southern coastal region of Alaska. Tasks included providing construction administration staff for projects that DOT was unable to staff, manage hand-offs to each designated project manager, and maintain communications with the client to confirm project satisfaction and staff needs. Projects included Shelter Cove Road Reconstruction (Ketchikan), Front/Mill/Stedman Streets Reconstruction (Ketchikan), Clark Bay Ferry Terminal & Seaplane Float Expanded Parking (Hollis), and Evergreen Road Improvements & Pedestrian Access (Wrangell).



Robert Kischko, PE

Lead Electrical Engineer

EDUCATION

American Electric Power School of Substation Design, 1971

REGISTRATIONS

Professional Engineer: VT 5977

Confined Space Entry Certified: 845

OSHA-10 Hour Construction Course: 001665833

LENGTH OF EMPLOYMENT

Total years of Experience: 45

Experience with D&K: 9

Mr. Kischko is a Senior Electrical Engineer with over 40 years of experience in electrical design and project management. Over his career, Bob's responsibilities have included the design and review of electrical engineering documents and specifications for utility, commercial, institutional, and municipal projects. His specific experience includes layout and design of high and medium voltage power distribution, interior and exterior lighting, control systems, computer/data systems, fire alarm intrusion/security systems, and utility high voltage electrical systems. Projects include a variety of electrical building inspections, investigations, and evaluations including historic preservation and educational buildings.

Lighting and Improvements to the Bristol Green, Bristol, VT. Project Manager for lighting design and park amenity improvements to the village green. Addressed codes and standards, metering, capacity, panel boards, wiring, and grounding and lightning protection. The project included landscaping hardscape considerations including benches and park features. Design and construction was coordinated with ongoing construction projects adjacent to the green. The project was funded through the VTrans Local Transportation Facilities (LTF) Section and followed LTF, AASHTO, and IESNA guidelines for design and procedures.

Construction of New Office Facilities, USDA Forest Service, Green Mountain Finger Lakes Region.

Senior Electrical Engineer for site design and utility services for the new construction of a 10,000-sq.ft. Supervisors Office and accessory buildings, including a heated warehouse, cold storage, a new access road, and parking area. Firm services include survey, roadway, permitting and utilities. Design includes lighting for pedestrian walkways, parking areas, and security.

Weirs Community Park, Laconia, NH. Senior Electrical Engineer in responsible charge of electrical design for a new infill park on Lucerne Ave. The park includes a restroom building, amphitheatre, playground, and pavilion. Site lighting consisted of low wattage, low-lumen output, full cut-off, LED architectural style pole-mounted luminaires to produce low-level lighting of the park, roadway, pavilion, and amphitheatre. Lighting system utilized occupancy and motion sensors and photocells to control lighting and optimize energy savings.

Main Street, St. Albans, VT. Senior Electrical Project Manager for electrical improvements for downtown/Main Street. Electrical design review of conduit and wiring design to support new LED luminaires as well as updated vehicular and pedestrian traffic signals.

Taylor Street Reconstruction, Montpelier, VT. Senior Electrical Engineer for a \$1M roadway, pedestrian, and green stormwater demonstration project. Completed lighting analysis for replacement of street lights. This project involves reconstruction of 425 LF of roadway, water/sewer lines, and 600 LF of sidewalk; installation of pervious pavement, street trees, streetlights, stormwater infiltration systems, rain gardens; and roadway reconfiguration.

US Route 7 Segment 6, Brandon, VT. Senior Electrical Engineer for park lighting design and review as part of a major roadway improvement project in the heart of downtown Brandon. The project includes reconstruction of more than a mile-long section of US Route 7 roadway, all associated intersections and two parks.

Quechee Covered Bridge #6 Engineering Evaluation, Design, and Construction Inspection Services, Hartford, VT. Electrical Engineer for replacement of the covered bridge following damage by Tropical Storm Irene. Designed LED lighting of the bridge and attached walkway. Project included distribution panel board for lighting system and lighting controls.

Historic Main Street Bridge Lighting, Plainfield, VT. Electrical Engineer for design of new bridge and sidewalk LED lighting for historic Main Street Bridge. Bridge lighting is automatically controlled via astronomical programming and photocell. Project developed through VTrans Local Transportation Facilities (LTF) Section.

Salisbury Village Lighting & Sidewalk Study, ARPC, Salisbury, VT. QA/QC review of electrical services for conceptual lighting plan, final lighting plan and photometrics for the preferred alternative. Attended the final presentation for the Selectboard.

Riverfront Green Park Lighting, Hudson River, NY. Senior Electrical Designer for lighting layout/design for a park along the Hudson River consisting of electrical underground service and design of period style fixtures.

Milford Downtown Renovation, Electrical Engineering & Downtown Street Lighting, Milford, NH. Electrical engineering support and design for downtown lighting upgrade in conjunction with downtown renovation.



Sylvia Miller

Senior Electrical Designer

EDUCATION

A.S., Computer Science, Hillsborough Community College, Tampa, Florida, 1980

MEMBERSHIPS

Illuminating Engineering Society (IES)

LENGTH OF EMPLOYMENT

Total years of Experience: 27

Experience with D&K: 7

Mr. Kischko is a Senior Electrical Engineer with over 40 years of experience in electrical design and project management. Over his career, Bob's responsibilities have included the design and review of electrical engineering documents and specifications for utility, commercial, institutional, and municipal projects. His specific experience includes layout and design of high and medium voltage power distribution, interior and exterior lighting, control systems, computer/data systems, fire alarm intrusion/security systems, and utility high voltage electrical systems. Projects include a variety of electrical building inspections, investigations, and evaluations including historic preservation and educational buildings.

Lighting and Improvements to the Bristol Green, Bristol, VT. Senior Designer for lighting design and park amenity improvements to Bristol's village green. Addressed codes and standards, metering, capacity, panel boards, wiring, and grounding and lightning protection. Presented three site lighting alternatives and preliminary and construction documents of the preferred alternative. The project included landscaping hardscape considerations including benches and park features. Design and construction was coordinated with adjacent projects. The project is funded through the VTrans Local Transportation Facilities (LTF) Section and follows AASHTO, and IESNA guideline

Weirs Community Park, Laconia, NH. Senior Electrical Designer working with the City to design a new park on Lucerne Ave. The proposed park includes a restroom building, amphitheatre, playground, and pavilion. Coordinated with Town Planner and assistant DPW Director to pursue Low Impact Development at the site. Site lighting consisted of low wattage, low-lumen output, full cut-off, LED architectural style pole-mounted luminaires to produce low-level lighting of the park, roadway, pavilion, and amphitheatre. Lighting system utilized occupancy and motion sensors and photocells to control lighting and optimize energy savings.

Taylor Street Reconstruction, Montpelier, VT. Senior Electrical Designer for a \$1M roadway, pedestrian, and green stormwater demonstration project. Completed lighting analysis for replacement of street lights. This project involves reconstruction of 425 LF of roadway, water/sewer lines, and 600 LF of sidewalk; installation of pervious pavement, street trees, streetlights, stormwater infiltration systems, rain gardens; and roadway reconfiguration.

Quechee Covered Bridge #6 Engineering Evaluation, Design, and Construction Inspection Services, Hartford, VT. Senior Electrical Designer for LED lighting of bridge and attached walkway. Project included distribution panel board for lighting system and lighting controls.

Historic Main Street Bridge Lighting, Plainfield, VT. Senior Electrical Designer for electrical design of new bridge and sidewalk LED lighting for historic Main Street Bridge. Bridge lighting is automatically controlled via astronomical programming and photocell. Project developed through Local Transportation Facilities (LTF) Program.

Salisbury Village Lighting & Sidewalk Study, ARPC, Salisbury, VT. Senior Designer for conceptual lighting plan for the Town. Also attended the presentation for conceptual alternatives to the Selectboard and prepare the final lighting plan and photometrics for the preferred alternative.

Stonehenge Parking Lot, Lyndon State College, Lyndonville, VT. Electrical Designer for LED lighting for reconstruction and expansion of existing parking lot and other amenities. Project involved reconstruction and expansion of 3 acres of parking, site lighting, new basketball court and outdoor skating rink, new paved area for skate park, and associated pathways and lighting.

Bennington Putnam Block Redevelopment, Bennington, VT. Senior Designer for electrical design services for the redevelopment of the historic downtown area. The Putnam Block Redevelopment is a community-led development revitalizing the Putnam Hotel and the surrounding block will create a vibrant, mixed-use downtown space with offices, in-town living, restaurants, and retail.

Barre City Place, Barre, VT. Senior Electrical Designer for exterior lighting; provided permitting for a design-build team to construct a 70,000-sf, four-story office building on Main Street in downtown Barre City. This project included include civil/site design; utility services; mechanical and electrical design; preparation of a demolition plan, which included the removal of two buildings; a foundation and existing utilities; preparation of local and State permit applications; floodplain analysis and permits; and an ALTA survey.



Patrick Day, EI

Civil Design Engineer

EDUCATION

B.S. Civil Engineering, University of Vermont, 2016

REGISTRATIONS

Engineer Intern: VT

LENGTH OF EMPLOYMENT

Total years of Experience: 2

Experience with D&K: 2

Mr. Day is a design engineer with experience providing drafting and design, field support, survey, construction observation, calculations, estimating, and contract administration for bridge, culvert, and roadway projects. He is fluent in the use of AutoCAD, MicroStation, Revit, Microsoft Office, and ArcGIS.

Smith Street Shared Use Pathway, Barre City, VT. Design Engineer for construction of approximately 1,500 feet of bituminous concrete sidewalk that provides connectivity between Berlin Street and Blackwell Street. This segment serves as the first constructed phase of the Granite Museum Segment of the Barre City Path.

Highway Resurfacing IDC, VTrans, Statewide, VT. Design Engineer for multi-year on-call contracts (2016-2019). Providing preliminary and final design services for pavement resurfacing and rehabilitation projects statewide. Design elements include initial field reconnaissance, typical section development, pavement markings, roadway signing, guardrail and bridge rail upgrades, sidewalk ramp upgrades, traffic signal equipment upgrades, traffic control, development of banking diagrams, cross sections, and minor drainage improvements. Projects include "mill and fill" resurfacing, pavement widening, and pavement reclamation projects. Design services are in English units and Microstation/InRoads. Projects include:

- **NH 2931 (2) VT 117 Reclaim, Essex, VT.** Design Engineer for repaving 3.204 miles of VT Route 117. The project included roadway banking improvements, pavement markings, signage, pedestrian ramps, guardrail improvements, and rehabilitation of drainage structures. Completed a field visit and provided drafting and design.
- **STP 2931 (1) VT 117 Reclaim, Jericho-Richmond, VT.** Design Engineer for repaving 3.614 miles of VT Route 117. The project included roadway banking improvements, pavement markings, signage, guardrail improvements, rehabilitation of drainage structures. Provided drafting and design.

Roadway and Safety Engineering Services Retainer Contract, VTrans, Statewide, VT. Design Engineer for on-call retainer contract with the Vermont Agency of Transportation to assist with the development of roadway, intersection, and other safety related transportation projects throughout the State. Projects include:

- **VT 22A, Fair Haven to Orwell.** Survey technician for ongoing survey support over 12 miles of route surveying for VTrans Highway engineers. This survey included a wide swath that extended 50 feet off the edge of pavement through mostly rural Vermont.
- **Signing, Northwest VT.** Design Engineer providing drafting for re-signing of VT 36 and 104.
- **Green Mountain Drive Intersection Improvements, Montpelier, VT.** Transportation Design Engineer providing estimating for the intersection of Memorial Drive and Green Mountain Drive. Users of the intersection are currently experiencing significant queuing turning left onto Memorial Drive during peak hours. The project included traffic counts/turning movements at this intersection and National Life and US 2/Bailey Avenue intersections and designs for alternatives to add a center merge/acceleration lane.
- **Embankment Protection and Roadway Reconstruction, VT 125, VTrans, Ripton, VT.** Served as Design Engineer under a multi-year on-call contract for Roadway and Safety projects including the design of multiple slope stabilization sites, drainage improvements, construction vehicle access to a river channel, guardrail improvements and traffic control phasing on VT 125 in Ripton.

VTR Culvert MP 99.10 (Replacement), VTrans Rail Contract, Ferrisburgh, VT. Staff Engineer for replacement of a deteriorated 50 ft long stone/concrete culvert under Vermont Rail Line. Design for replacement of existing culvert with a 5.0 ft diameter cement-lined steel pipe. Pipe was installed using jack and bore technology to alleviate disruption to train traffic. Provided design, drafting, construction observation, and submittal review.

VTR Culvert MP 91.90 (Replacement), VTrans Rail Contract, New Haven, VT. Design for replacement of deteriorated 100 ft long concrete box culvert under Vermont Rail Line. Design for replacement of existing culvert with a 5.5 ft diameter cement-lined steel pipe. Pipe was installed using jack and bore technology to alleviate disruption to train traffic. Provided design, drafting, construction observation, and submittal review.



Randall Otis, LS

Survey Department Manager

EDUCATION

A.S., Survey and Applied Science, Paul Smith's College of Arts and Sciences, 2002

REGISTRATIONS

Land Surveyor: VT 60852
OSHA 40-Hour HAZWOPER Certification

LENGTH OF EMPLOYMENT

Total years of Experience: 16
Experience with D&K: 12

Mr. Otis is a licensed land surveyor and senior party chief with 16 years of experience in boundary and topographic surveying. The head of DuBois & King's Survey Department, Randy has performed survey services for municipal, state, private, and public clients throughout New England and New York. His specific experience includes performing topographic and boundary surveys, right of way determination, monumentation, stakeout, boundary research and plats, and deed preparation and research.

Great Streets BTV, Burlington, VT. Survey Party Chief for existing conditions of roadway, pedestrian facilities, and utilities supporting the redesign of City Hall Park and two blocks of Main Street/US 2 in downtown Burlington. Completed a detailed survey of the sidewalks, roadways, paint markings, building party walls, utilities, tree type and size. Record documents were compared with existing utilities to establish locations that could not be built on, as well as establish both private/public boundaries.

Essex STP Walk (21), Essex, VT. Surveying services for new 1,330 ft long by eight ft wide bituminous sidewalk along a segment of VT 15.

Maple and Union Street Sidewalk, Brandon, VT. Topographic survey for new sidewalk along Maple and Union Streets in the Town of Brandon. The project is a municipally managed project developed through the VTrans LTF Section.

Route 130 TE Sidewalk, Brookline, NH. Survey Party Chief for 4,800 lf of new sidewalk along Route 130. The sidewalk connects the Town's safety complex with an existing sidewalk on the north side of the Town's center and Sargent Road with the intersection of Main and Elm Streets. Project is funded by a Transportation Enhancement (TE) grant.

Kearsarge Ave and Maple Street Sidewalks and Traffic Calming, Hopkinton, NH. Survey Party Chief for new sidewalks and implementation of traffic calming measures along Maple Street. This project received Federal funding through the NHDOT Safe Routes to School program and follows the New Hampshire Local Public Agency (LPA) process.

Road and Utility Reconstruction, Maple Street, Randolph, VT. Chief of Survey for the water/sewer/stormwater utility improvements and road reconstruction for 2,900 LF of roadway in a mixed-use area including Gifford Hospital and various residences. Responsible for leading the firm's field survey and desktop services supporting project basemapping.

One Taylor Street Retaining Wall, Montpelier, VT. Survey Party Chief to oversee the survey of river cross sections to support repairs to a retaining wall supporting the development of a new transit center, parking lot, and bike path. The stone retaining wall runs along the Winooski River.

Barre City Place, Barre, VT. Survey Technician for an ALTA survey for a 70,000-sf, four-story office building on Main Street in downtown Barre City. This project included civil/site design; utility services; mechanical and electrical design; preparation of a demolition plan, which included the removal of two buildings; a foundation and existing utilities; preparation of local and State permit applications; and floodplain analysis and permits.

Prescott Road Reconstruction, Brentwood, NH. Survey Party Chief for a topographic and boundary survey for a municipal road reconstruction project. Project control was established with static GPS observations and reduced with OPUS software from NGS. Services included reconnaissance for existing property corners and field survey locating existing features. Final deliverable consisted of revised Right of Way for highway improvements and the setting of new highway bounds.

Ledge Removal, VTrans, Hartford-Newbury, VT. Topographic survey for ledge removal project on Interstate 91 between Hartford and Newbury, Vermont.

Market Street, South Burlington, VT. Survey Party Chief for reconstruction of Market Street. Responsible for data collection, traverses, deed preparation and research, and topographic survey.

January 9, 2019

Cost Proposal

Town of Bristol

Main Street Lighting and Sidewalk Improvements Project

Submitted via email to:

Valerie Capels, Bristol Town Administrator
townadmin@bristolvt.org

**DuBois
& King**^{inc.}



425097X

January 9, 2019

Valerie Capels
Bristol Town Administrator
PO Box 249
Bristol, Vermont 05443

Submitted via email to: townadmin@bristolvt.org

Re: Proposal – Bristol Main Street Lighting & Sidewalk Improvements

Dear Ms. Capels,

Enclosed is the Cost Proposal for the Main Street Lighting and Sidewalk Improvements project from DuBois & King (D&K).

The D&K team appreciates the opportunity to submit a proposal for this project. Please do not hesitate to contact me at 802.728.7225 or dconger@dubois-king.com.

Sincerely,
DuBois & King, Inc.

A handwritten signature in cursive script that reads 'David Conger'.

David Conger, PE
Project Manager

Cost Proposal



Town of Bristol
Main Street Lighting & Sidewalk Improvements
Project No.: 425097X

Project Phases & Tasks	Labor Categories							Total Hours		
	Principal	Lead Senior Civil Engineer	Senior Electrical Engineer	Civil Designer	Electrical Designer	Land Surveyor	Land Survey Technician		QA/QC Engineer	Const. Inspector
Task 1 A. Project Kick-Off & Site Visit B. Meet with Town & Stakeholders C. Site Visit with Town & Stakeholders		4	4							8
Task 2 A. Field Reconnaissance B. Topographic Survey C. Electrical Investigation		4			8	20	10			8
Task 3 A. Preliminary Plans B. Findings, Products, & Design Alternatives C. Plan Preparation & Review D. EOPCC Preparation & Review	1	3	1	8	8			1		22
Task 4 A. Public Meetings B. Selectboard Meeting C. DRC Meeting	1	10	10	72	72			1		166
Task 5 A. Permitting B. Construction Permit Application (VT Dept. of PS)		1		4	2					8
Task 6 A. Final Design B. Final Plans C. Final EOPCC D. Draft Contract Documents E. Final Construction Documents F. Bid Phase Services	1	8	8	56	56			1		130
Task 7 A. Construction Phase B. Construction Management & Inspection C. Substantial Completion Inspection D. Final Inspection E. Record Drawings		1	1	4	2					8
		1	1	2	1					3
		2	2	1						2
		8	4	4	4			4	80	88
		4	4	4						12
		4	4	4						4
		2	2	2	4					6
Total Hours:	3	62	37	155	148	20	10	7	80	492



Town of Bristol
Main Street Lighting & Sidewalk Improvements
 Project No.: 425097X

Project Phases & Tasks	Labor Categories										Total Hours
	Principal	Lead Senior Civil Engineer	Senior Electrical Engineer	Civil Designer	Electrical Designer	Land Surveyor	Land Survey Technician	QA/QC Engineer	Const. Inspector	Total Hours	
Direct Labor	3 \$140.00 \$420	62 \$120.00 \$7,440	37 \$120.00 \$4,440	155 \$80.00 \$12,400	148 \$80.00 \$11,840	20 \$98.00 \$1,960	10 \$65.00 \$650	7 \$130.00 \$910	80 \$100.00 \$8,000	492	
Direct Expenses											\$48,060

(see next tab for billing rates)

I. Subsistence	Vehicles	2,250	Miles @	\$0.545	/ Mile =	\$1,226
	Transportation:		Travel-Air / Ground / Parking Allowance =			\$0
	Meals:	0	Days @	\$6.00	/ Day =	\$0
		0	Days @	\$25.00	/ Day =	\$0
	Rooms & Lodging:	0	Days @	\$70.00	/ Day =	\$0
					Subsistence Total =	\$1,226

II. Support Expenses	Telephone / Fax =	\$0
	Postage =	\$0
	Reproduction =	\$100
	Copying =	\$100
	Support Total =	\$200

III. Subcontractors	Survey & Topographic Survey	\$0
	Hydrogeology Study	\$0
	Subcontractor Total =	\$0

IV. Miscellaneous Expenses	Survey Robot/GPS =	\$250
	Plotting Charges =	\$50
	Special Equipment =	\$0
	Miscellaneous =	\$0
	Miscellaneous Total =	\$300
	Total Direct Expenses =	\$1,726
	Administrative Fee =	\$207
	Total Cost =	\$1,933

Cost Summary

Labor Cost \$48,060
 Direct Expenses \$1,933

Total Price \$49,993

<u>Project</u>	<u>Date</u>
<u>SCHEDULE OF FEES AND CONTRACT CONDITIONS</u>	
	<u>Hourly Rate</u>
Principals.....	\$140.00
QA/QC Engineer.....	\$130.00
Project Managers.....	\$130.00
Senior Engineers.....	\$120.00
Environmental Planner, Specialists, Permitting.....	\$125.00
Senior Project Engineers.....	\$105.00
Environmental Documentation Specialist.....	\$105.00
Environmental Scientists/Field Naturalist.....	\$ 94.00
Project Engineers.....	\$ 92.00
Construction Inspector.....	\$ 90.00
Landscape Architects/Designers.....	\$ 80.00
Staff Engineer/Designers.....	\$ 80.00
Registered Land Surveyors.....	\$ 98.00
Land Surveyor Technicians.....	\$ 65.00
Administrative Support.....	\$ 60.00

Notes:

1. Expert Witness Assistance will be quoted separately.
2. DuBois & King, Inc., reserves the right to periodically modify the hourly billing rates detailed above at the sole discretion of DuBois & King, Inc., with or without notice. Invoiced amounts will be based on the Schedule of Fees in effect at the time of invoicing.
3. Overtime labor provided by non-exempt personnel will be invoiced at one and one-half (1 & 1/2) times the appropriate hourly rate as detailed above.

REIMBURSABLE EXPENSES and OTHER DIRECT COSTS including, but not limited to, the following items will be invoiced at cost plus Administrative Fee of 12%:

1. Transportation and subsistence expenses incurred.
2. Shipping charges and insurance for hardware, samples, field test equipment, etc.
3. Long distance telephone calls, telegrams and cables.
4. Transportation to and from jobs.
 - a. Internal Revenue Service standard mileage reimbursement rate for business travel.
 - b. The use of rental cars, trucks, boats, airplanes or other means of transportation at our cost.
5. Reproduction of drawings, reports, and documents and photographs for project records.
6. Direct materials.

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