

TOWN OF BRISTOL, VERMONT**Bristol TAP TA 22(1)****SCOPE OF WORK****Project Description**

The project is located at the intersection of VT Route 17 (East Street) with Mountain Street and Basin Street. The Town's stated project goals are to stabilize the sloughing slope embankment, improve stormwater infrastructure to mitigate erosion, and modify the intersection to improve the line of sight for vehicular traffic and make navigating the intersection easier for persons with disabilities, pedestrians, other non-vehicle traffic, and motorists. Basin Street intersects Main and East Streets at a 20% slope. Mountain Street is slightly offset from the intersection across from Basin Street. Due to the steep slope, motorists have a very limited line of sight when making turns onto either East Street to the right or Main Street to the left. There is a crosswalk at the Basin Street intersection with a 20% cross slope making it difficult for pedestrians, cyclists, or those using a wheelchair or pushing a stroller to successfully navigate. The area lacks an adequate stormwater collection system, and current drainage patterns have led to substantial erosion. The embankment is chronically sloughing and frequently requires the Town to invest time and resources into routine repairs. The area of the embankment is utilized by the Town to dump snow and construction debris.

Phase A – Project Definition

The primary purpose of this phase is to advance the project through Revised Conceptual Design and Environmental Documentation.

Task 1: Project Kick-off

Task 1.1 Prepare for and attend Kickoff Meeting. D&K will coordinate, schedule and lead a Project Kick-off meeting to discuss the project development process, goals, scope of the project, objectives and schedule. Prior to the meeting, D&K will develop and submit an agenda for the Project Team's review. At the meeting, D&K will take notes to document the discussions and decisions made during the meeting. Additional topics of discussion at this meeting could include, but are not limited to:

- Safety considerations
- Drainage improvements
- Property owner concerns
- Project Stakeholders
- Typical Section
- Access management
- Material types and thicknesses

The meeting will be held in person with D&K staff. Immediately following the meeting, D&K will visit the site, take notes and observations to better understand the project site and constraints.

1.2 – Meeting minutes. D&K will prepare minutes and distribute to all interested parties for review and approval. The minutes will document decisions made by the project team, design clarifications, and other topics of discussion.

Deliverable: Meeting minutes.

Task 2: Topographic Survey, Borings and Base Mapping

2.1 - Right-of-Way and Deed Information. D&K understands that the Municipality will provide all available roadway plans, land records, property deeds and tax maps on file for the properties within the project limits. With this understanding D&K has only assumed compiling this information onto the plans. If during the design process research is required by D&K this will be handled under a separate agreement.

2.2 - Utility Location. To locate existing utilities within the project area, D&K will make contact with the appropriate utility owners. Requests will be made for all available information including record drawings, sketches, as-builts, etc. All information received will be transferred to the basemap for subsequent use in the project development process. One site visit with utility providers has been allocated to this task. If additional site visits are required, then this work will be performed under a supplemental agreement. Services for coordinating and subsurface stormdrain locating have been provided.

The existing utility poles are located along the south side of East Street and the west side of Basin Street. The one pole located within the anticipated construction limits on Basin Street may require relocation depending on the final geometric improvements. It is anticipated that no below ground utility providers will be affected by this project.

2.3 - Ground Survey. D&K will perform a topographic survey of the project area. The survey envelope will include an approximate 50' swath either side of Basin Street for approximately 500', a 35' swath both side of West Street for approximately 500' and will include the majority of the parcel located in the Southwest quadrant of the intersection of West Street and Basin Street. Features including the roadway and shoulder widths, drainage, utilities, appropriate contour intervals, and other information required to properly design the improvements will be collected.

Vertical and horizontal control points and benchmarks will be established and will be shown on the drawings with the applicable tie information. Project control will be based on NAD 83(1996) datum and the Vermont State Plane Coordinates. D&K will incorporate into the existing base plan.

Prior to entering on private property, D&K understands that the Municipal Project Manager (MPM) will notify adjacent property owners.

2.4 - Borings. D&K's subconsultant will perform subsurface investigation and provide a geotechnical report summarizing the subsurface conditions, stabilized slope type recommendations and geotechnical parameters of retaining wall design if required. Depending on the wall type chosen, either D&K or the wall supplier will utilize the report to design the retaining walls under a supplemental agreement.

Task 3: Conceptual Plans

3.1 – Local Concerns Meeting. To satisfy VTrans MAS process requirements, D&K will attend and participate in a local concerns meeting to gather concerns property owners, town folks and the Select board. These concerns will be considered while developing alternatives and conceptual plans.

3.2 – Purpose & Need Statement. To satisfy VTrans MAS process requirements, a purpose and need statement will be developed, as this does not appear to have been included in the previous scoping study. D&K will develop the statement and submit it to VTrans and the Town for Review and Approval.

3.3 – Development of Alternatives. To satisfy VTrans MAS process requirements, D&K will develop alternatives for the Select board to consider. These alternatives will be as follows.

Basin Street

- Alternative 1: Re-profile Basin Street on its current alignment to improve grading with the East Street intersection.
- Alternative 2: Re-Aligning Basin Street to the west increasing the length to allow grading to improve with the east Street intersection. Assumes removal/replacement of existing wall is not required.
- Alternative 3: No Build

East Street Slope

Slope stability alternative will be determined after evaluation of the geotechnical boring investigations, but could likely include:

- Alternative 1: Stone Fill Slope
- Alternative 2: Earth Fill Embankment Slope Stabilization
- Alternative 3: No Build

Alternatives and associated budgetary opinion of probable cost will be presented to the Select board. D&K can present in person or virtually.

3.4 - Conceptual plans. D&K will prepare Conceptual plans for the proposed improvements. The plans will indicate the existing topography as well as the revised sidewalk alignment.

- Vermont Pedestrian and bicycle Facility Planning and Design Manual
- 2023 VTrans Standard Specifications for Construction
- Current Vermont State Standards
- The Public Rights of Way Accessibility Guidance (US Access Board)
- Manual on Uniform Traffic Control Devices
- VTrans Guidelines for Pedestrian Crossing Treatments

- Other guidelines as applicable

Identified rights-of-way, utilities, natural and cultural resources, and other features affecting the design will be indicated on the plans. The plans are anticipated to consist of:

- Title Sheet
- Conventional Symbology Legend Sheet
- Typical Section Sheet
- Quantity Sheet(s)
- Plan Sheet(s)
- Traffic Sign Summary Sheets
- Cross Section Sheet(s)

3.5 - Measurement of Pay Item quantities. Based upon the information shown in the Conceptual plans, D&K will develop pay item quantities. Non-standard construction items will be paid for by a special provision pay item. Based upon this project type, the amount of special provision pay items are anticipated to be minimal.

3.6 - Cost Opinion. A cost opinion will be prepared in conjunction with the Conceptual plan development. The cost opinion will be based primarily upon the VTrans IPDweb cost estimating software. The Cost Opinion will utilize and individual item and unit price basis and will be summarized in a table format.

Deliverables: Conceptual plans and Cost Opinion.

3.7 – Traffic Management Plan. D&K will determine the significance of this project based upon Table 4 of the VTrans Work Zone Safety and Mobility Policy and Guidance document. Based upon previous experience, it is anticipated that this project will be of type C project significance. The Traffic Management Plan (TMP) checklist will be developed and submitted with the Preliminary plans. It is assumed that Temporary Traffic Control (TCC) plans, Traffic Operation (TO) requirements and Public Information (PI) strategies will not be required.

Task 4 - Resource Constraints and CE Documentation

In order to obtain State and Federal clearances, certain environmental resource identification and inventory must be conducted.

4.1 – Natural resource identification. D&K's Wetland Scientist will conduct a site visit to document wetlands, rare species, and any other notable natural resources along the project limits. A formal wetland delineation will be conducted during the growing season. Any wetlands in the vicinity of the project area will be delineated in accordance with the current Army Corps of Engineers methodology. Wetland boundaries will be flagged in the field, recorded using a GPS unit with sub-meter accuracy, and transferred to a base plan. Results of the wetland delineation will be summarized in a memorandum.

Deliverables: Natural resources memorandum

4.2 – *Cultural resource identification.* The purpose of this task is to further document any cultural resources that may be impacted by the project.

D&K’s subconsultant, University of Vermont Consulting Archaeology Program (UVM CAP) will perform the required investigations for these resources. This will involve studying existing conditions, the physiography and hydrology of the project area, review of historical maps, and an assessment of precontact and potential historical resources in the project area. This information will be summarized in a report and submitted with the Categorical Exclusion document. In the reports, UVM CAP will recommend if additional investigations may be necessary. This will be confirmed by VTrans’s Archaeology Officer under NEPA review.

Deliverables: Historical and Archaeological resource assessment report.

4.3 *Other Permitting and Investigations.* Not used - see Phase B - Project Design - Task 5 Preliminary plans.

4.4 - *Preparation of the Categorical Exclusion document.* Because Federal funding is involved with this project, the National Environmental Policy Act (NEPA) process and requirements must be followed. D&K will prepare a CE Environmental Analysis Sheet based on the accepted Conceptual Plan design and coordinate with the appropriate resource agencies for the necessary reviews. This analysis sheet and the appropriate supporting documentation will be forwarded to the Town and VTrans for review and concurrence.

Deliverables: CE Documentation.

Phase B - Project Design

The purpose of this phase is to advance the project through final design and permitting, conduct utility coordination, secure any right-of-way that’s needed, and to get authorized by VTrans to advertise the project for construction.

Task 5 - Preliminary Plans.

5.1 - *Address VTrans OLSR comments.* Comments received during the review of the Conceptual plan submission by the Town and VTrans will be addressed and incorporated into the Preliminary plans. A response document will be developed and submitted to VTrans when Preliminary plans are complete.

Deliverable: Response document to VTrans OLSR review.

5.2 - *Preliminary Plans.* As part of the Preliminary Design, D&K will develop the design and prepare plans to show the improvements. The Preliminary Plans are anticipated to consist of:

- Title Sheet
- Typical Section Sheets
- Conv. Symb. and Legend Sheet
- Tie Sheets (control)

- General Notes Sheet
- Detail Sheets (roadway, sidewalk, wall, driveway)
- Layout Sheets (2)
- Erosion Control Construction Conditions Plan Sheets
- Erosion Control Details
- Traffic Control Notes sheet
- Construction Approach Signing Sheet
- Traffic Sign Summary Sheet
- Cross Section Sheets

They will illustrate the information necessary to define the project and will include information such as slope, roadway and sidewalk details, construction limits, existing and required right-of-way, existing utilities, pavement width and depth transitions, cut-to-fill transitions, driveway improvements, drainage, environmentally sensitive features, traffic signs and pavement markings, and traffic control measures. In addition, cross sections will be templated and construction limits and notes will be indicated on the Layout Sheet.

5.3 – Measurement of Pay Item Quantities. The Preliminary plan quantities will be updated based upon the Conceptual plan review comments and to reflect the proposed improvements shown in the Preliminary plans.

5.4 - Cost Opinion. The Conceptual Plan Cost Opinion will be updated to reflect the level of detail indicated on the Preliminary Plans. The unit pricing will be based primarily upon the VTrans IPDweb software.

Deliverables: D&K will electronically submit the Preliminary Plans and Cost Opinion to the Town and VTrans for review and comment.

Task 5.5 - Permitting

Based on our knowledge of the existing conditions, D&K anticipates the following for permitting:

5.5.1 - State Highway Access (1111) permit. Since this project resides within the Class 1 limits, a State Highway access permit will not be required. If coordination is required, then this work will occur under a supplemental agreement.

Vermont Individual Wetlands Permit. The project corridor is in an existing developed neighborhood near downtown Bristol. Additionally, no wetlands were identified on initial GIS review. It is likely no permit will be required. After field verification, it is possible either no permit will be required or an Individual Wetland permit will be required. If the latter then this additional effort will be performed under a supplemental agreement.

ACT 250. D&K is not aware of any parcels falling under ACT 250 permits. It is assumed that this project will not trigger this permit. If this permit is triggered, then this work will be performed under a supplemental agreement.

USACOE General Permit. It is assumed that this permit will not be required. If this permit is required, then this work will be performed under a supplemental agreement.

5.5.2 - Construction Stormwater General Permit. Reviewing the 2019 study alternatives the total project area is likely to exceed 1 Acre. Based upon this, a Construction Stormwater General Permit will be required.

Construction Stormwater Operational Permit. The current threshold to trigger this permit is ½ of an acre of impervious pavements. It is assumed that this project will not trigger this permit. If this permit is triggered, then this work will be performed under a supplemental agreement.

Stream Alteration Permit. D&K does not anticipate the need for a Stream Alteration Permit. If this permit is required, then this work will be performed under a supplemental agreement.

Local Zoning. D&K is unaware of any local zoning requirements that would require permitting, hearings, meetings, etc. If any local permitting or coordination is required, then this work will be performed under a supplemental agreement.

Deliverables: None

Task 6 - Right-of-Way Plans and acquisition process

D&K will assist the Town throughout the right-of-way acquisition process. New permanent easements or right-of-way may be required along portions of Basin Street and temporary easements will be required to facilitate construction. Because of the use of Federal money, we will follow the VTrans right-of-way acquisition process.

6.1 – Draft Right-of-Way Plans. Draft Right-of-Way Plans will be prepared under the direction of our Project Manager and will be reviewed by our Land Surveyor with experience in municipally managed projects that follow the VTrans requirements for right-of-way acquisition. These plans will clearly indicate the existing roadway right-of-way limits, property lines, property owner’s names, as well as new permanent and temporary easements required for construction of the project. The Draft Right-of-Way Plans will be provided to the MPM for the preparation of draft Easement Agreements by the town attorney for each affected property owner. D&K anticipates the following sheets for the Right-of-Way plans:

- Right-of-Way Title Sheet
- Right-of-Way Detail Sheet
- Right-of-Way Plan Sheets

The right-of-way plans will be simplistic in nature, and be suitable for filing for the Town’s records. They will show beginning/end of any permanent easements, lengths of permanent easements, and call out any and all temporary easements. Metes and Bounds on each easement will not be required. D&K anticipates the need to acquire temporary or permanent easements for nine (9) parcels of land:

Once the Easement Agreements are drafted by the MPM and/or Town attorney, D&K will submit all copies of the draft Easement Agreements and Right-of-Way Plans to VTrans for approval. Upon approval of the draft Right-of-Way Plans and Easement Agreements, the Town will initiate the acquisition process to obtain any rights-of-way and easements necessary to construct the project.

6.2 – Right-of-Way Coordination. D&K anticipates that the MPM will conduct any needed property owner meetings. However, D&K may be needed for property owner meetings to explain specific impacts to each owner's property, and work to resolve any issues or concerns to the satisfaction of the owner. For the purposes of this proposal, D&K has anticipated the need to attend three (4) in person property owner meetings and to answer questions from property owners.

Under this task, D&K understands that the municipality shall be responsible for waiver valuations, appraisals, negotiations and acquisitions. Additionally, D&K assumes no Necessity and Condemnation procedures will be required. If this process is required, and assistance is needed from D&K, this work shall be performed under a supplemental agreement.

6.3 – Final Right-of-Way plans. Upon completion of the right-of-way negotiations between the Town and affected property owners, D&K will prepare Final Right-of-Way Plans for this project. These plans will show the final limits of permanent and temporary easements and takings. The plans will be suitable for filing at the Town office and for inclusion into the Final Plans. These plans will reflect final discussions, negotiations, and agreements between the Town and property owners. The Final Right-of-Way plans have been assumed to be submitted on mylar paper, and mailed to the Town for recording.

Deliverables: Draft and Final Right-of-Way plans.

Task 7 - Final Design/Bidding

Upon completion and receipt of all permits and utility and right-of-way clearances, D&K will prepare the Final Design portion of this project. Final Design will include the preparation of Final Plans, an updated Cost Opinion, and Special Provisions.

7.0 - Incorporate private property owner accommodations in the contract documents. There may be specific property owner accommodation requests that occur during the Right-of-Way acquisition process. These accommodations will be incorporated into the contract documents. The effort required under this task is to update the plans, specifications and/or estimate with these additional contract requirements.

7.1 - Address VTrans OLSR comments. Comments received during the review of the Preliminary plan submittal by the Town and VTrans will be addressed and incorporated into the Final plans. A response document will be developed and submitted to VTrans when Final plans are complete.

7.1.2 - Final (85%) Plans. The Preliminary Plans will be updated to address any comments generated as a result of reviews, permitting agency requirements and property owner negotiations. The Final plans will include the final details, Right-of-Way plans, construction plans, etc.

7.2 - Specifications.

7.2.1 - *Draft Specifications.* D&K will prepare the Draft Specifications package. The document will be based upon the VTrans Bid Document template. The Draft Specifications package will include:

- Invitation to Bid
- Instructions to Bidders
- Bid Form
- Special Provisions (see task 7.2.2)
- Permits
- Federal Documents
- Necessary clearance documents (Design Certification, Right-of-Way, Utility & Railroad)
- TMP checklist

7.2.2 - *Special Provisions.* D&K will prepare Special Provisions for this project. These pay items will cover items not included in the VTrans 2018 Standard Specifications for Construction. The documents will inform the contractor:

- Description of the work to be performed
- Measurement of the pay item
- Material requirements
- Basis of payment
- Construction requirements

Also included with this submission will be the remainder of the bidding documents so that VTrans will have the opportunity to review the documents twice. From past experience, this has resulted in a reduced schedule in order to get Notice to Proceed to bid the project.

7.3 Final Estimate

7.3.1 - *Measurement of Pay Item Quantities.* The Final plan quantities will be updated based upon the Preliminary plan review comments, and permitting requirements, property owner accommodations and to reflect the additional proposed improvements shown in the Final plans.

7.3.2 *Cost Opinion.* A Construction Cost Opinion will be prepared as part of the Final Plan development. The VTrans IPDweb Cost Opinion previously prepared will be revised to reflect the additional level of project detail.

Deliverables: D&K will electronically submit the Final Plans, Special Provisions, and the Cost Opinion to the Town and VTrans for final review and comment.

Task 8 - Contract Plans.

D&K will resolve any outstanding issues, finalize the contract documents, and obtain authorization from VTrans for advertisement for construction.

8.1 Contract plans. Once the Final Plans, Special Provisions, and Cost Opinion have been reviewed, D&K will address any final design review comments. The Contract Documents will be finalized and be the basis for the Town to advertise and procure contractor services to construct the project.

8.2 Construction Bid Package. D&K will develop the Construction Bid Package which will include the Contract plans, Cost Opinion and Bid Documents. The Specifications (Bid Documents) and Cost Opinion will be updated to reflect any comments from the VTrans On-Line Shared Review (OSLR) process.

8.3 - Bid Process. D&K will assist the Town during the bid phase, as outlined below:

8.3.1 -Draft a Bid Advertisement for publishing

8.3.2 - Publish and distribute bid packages to prospective contractors

8.3.3 - Answer questions to provide clarification of the design

8.3.4 – Issuance of addendum (1)

8.3.5 - Prepare a bid tabulation

8.3.6 - Perform bid analysis in narrative format to establish the lowest responsive bidder

8.3.7 - Prepare a Recommendation of Award letter based on the results of our bid analysis

The Bid Advertisement will not go in the local paper. It will be submitted to at least three electronic sites. Additionally, at the Town's request, D&K will contact specific contractors to inform them of the project.

D&K will not attend the public bid opening. The MPM or Town staff shall facilitate the bid opening, then submit the bid packages to D&K to perform the analysis of the bids.

Based upon recent guidance from VTrans, D&K understands a pre-bid meeting with prospective contractors will not be required.

Deliverables: Bid tabulation, Bid analysis and Recommendation of Award

Phase C – Construction Phase Assistance Services.

D&K will assist the Town during the construction of the project by providing design services during construction.

Task 9 – Construction Services

D&K assistances during this task will include:

9.1 - Preparation and attendance of pre-construction conference

9.2 - Answer questions (up to six Request for Information (RFI) requests assumed)

9.3 - Site Visits (up to four assumed)

9.4 - Shop Drawing/submittal reviews. D&K will review construction shop drawings for this project. This may include the traffic control plan, EPSC plan and retaining wall (if necessary). All other contractor submittals will be the responsibility of the construction inspector.

9.5 - Change Order Review. D&K will review and make recommendations on any suggested change orders. Up to Two reviews have been anticipated.

9.6 - Substantial Completion meeting

Project Assumptions and Understandings

1. For estimating purposes this proposal assumes no engineering time for wall designs. If deemed to be required after borings and alternatives have been completed then the chosen wall type will be used to amend this contract as wall design costs can vary greatly. We have assumed slope can be incorporated to eliminate the need for walls.
2. No Necessity or Compensation proceedings will be necessary for right-of-way acquisition.
3. VTrans certified Appraiser will not be required for right-of-way acquisition.
4. All permit fees will be the responsibility of the Town.
5. A VTrans State Highway Access (1111) Permit will not be required or included.
6. A Vermont Individual Wetland Permit will not be required or included.
7. A USACOE General Permit will not be required or included.
8. The 2023 Vermont Agency of Transportation Standard Specifications for Construction will be applicable for this project.
9. The Town will provide all available roadway plans and property ownership, property line research and how R.O.W was established (if required by VTrans)
10. The Towns desire is to construct the project in 2026. If the project is delayed, direct and overhead rates may require adjustment.

BRISTOL, VERMONT
Bristol TAP TA 22(1)



Fee Estimate

Round trip, Bristol - Randolph = 120 miles
Round trip, Bristol - S. Burlington = 70 miles

Project Phases & Tasks	Labor Categories											
	Project Principal	Project Manager	Sr. Project Engineer	Project Engineer	Sr. Design Technician	Structural Engineer	Wetland Scientist	Licensed Surveyor	2-Person Survey Crew	Survey Tech	Permitting Specialist	Total Hours
Phase A - Project Definition												
Task												
Site Visit: S. Burlington Randolph												
1 Project Kick-off												
1.1 Preparation and attendance of kick-off meeting 1		6		4								10
1.2 Meeting minutes		1										1
2 Topographic Survey, Borings and Base Mapping												
2.1 Right-of-Way and Deed Information 1		1										1
Review and incorporate into plans		2		2	6			8				18
2.2 Utility Location												
verify existing information		1		2	2							5
Site visit with utility providers 1		4	4									8
Underground locating of drainage coordination		4		4								8
2.3 Ground Survey												
Topographical survey 3		1						10	28			39
Reduce data		1								18		19
Development of base map		1			24							25
2.4 Boring and geotechnical Report												
Coordination and Evaluations		8		4		4						16
3 Conceptual Plans												
3.1 Local Concerns Meeting 1		4	4	6								14
3.2 Purpose and Need Statement		2										2
3.3 Development of Alternatives (1 presentation) 1		16	16	48	60							140
3.4a Conceptual Plans (Highway)	2	12	8	16	40	16						94
3.4b Conceptual Plans (Stormwater)		1	8	8	16							33
3.5 Measurement of Pay Items Quantities		1		12	8							21
3.6 Cost Opinion		1		4	4							9
3.7 Traffic management Plan		2		6	6							14
4 Resource Constraints and CE Documentation												
4.1 Natural Resource Identification 1		1					12					13
4.2 Cultural Resource identifications		4										4
4.3 Other permitting and Investigations												
4.4 Preparation of the Categorical Exclusion Document		1		8			20					29
4.5 Management and Coordination		4										4
Phase B - Project Design												
5 Preliminary Plans												
5.1 Address VTrans OLSR comments		6		12	16							34
5.2a Preliminary plans (Highway)	1	16	24	48	60	16						165
5.2b Preliminary plans (Stormwater)		4	16	16	24							60
5.3 Measurement of Pay Item Quantities		1		12	16							29
5.4 Cost Opinion		1		1								2
5.5 Permitting												
5.5.1 State Highway Access (1111) Permit (Not included)												
5.5.2 Vermont Individual Wetland permit (Not included)												
5.5.3 USACOE General Permit (Not included)												

BRISTOL, VERMONT
Bristol TAP TA 22(1)



Fee Estimate

Round trip, Bristol - Randolph = 120 miles
Round trip, Bristol - S. Burlington = 70 miles

Project Phases & Tasks	Labor Categories											Total Hours
	Project Principal	Project Manager	Sr. Project Engineer	Project Engineer	Sr. Design Technician	Structural Engineer	Wetland Scientist	Licensed Surveyor	2-Person Survey Crew	Survey Tech	Permitting Specialist	
6 Right-of-Way Plans and Acquisition Process												
6.1 Draft Right-of-Way Plans	1	4		8	16			4				33
6.2 Right-of-Way Coordination		8		8						2		18
6.3 Final Right-of-Way Plans		2		2	4			4		2		14
7 Final Design/Bidding												
7.0 Incorporate private property owner accommodations		4		8	8							20
7.1 Final (85%) Plans	1											1
7.1.1 Address VTrans OLSR comments		4		10	10							24
7.1.2a Final (85%) Plans (Highway)	1	8	4	16	16							45
7.1.2b Final (85%) Plans (Stormwater)		2	4		8							14
7.2 Specifications												
7.2.1 Draft Specifications	1	2	4	4								11
7.2.2 Special Provisions			2	4								6
7.3 Final Estimate												
7.3.1 Measurement of Pay Item Quantities		2	4	12	8							26
7.3.2 Cost Opinion		1	2									3
8 Contract Plans												
8.1 Contract Plans												
8.1.1 Respond and Address VTrans/Town comments		4		8								12
8.1.2 Prepare and finalize plans	1	8	2	16	30							57
8.2 Construction Bid Package	1	2	6	6	4							19
8.3 Bid Process												
8.3.1 Draft a Bid Advertisement for publishing		1										1
8.3.2 Publish and distribute bid packages		1										1
8.3.3 Answer questions		2		4								6
8.3.4 Issuance of addendum (1)		1		2								3
8.3.5 Prepare a Bid Tabulation		1		6								7
8.3.6 Bid Analysis		1	6	6								13
8.3.7 Recommendation of Award	1	1										2
Phase C - Construction												
9 Construction Services												
9.1 Preparation and attendance of pre-construction conference		4		2								6
9.2 Answer questions (up to four RFI's assumed)		4	8	8								20
9.3 Site visits (up to 4 included)		16		20								36
9.4 Shop Drawings/submittal reviews		2	16									18
9.5 Change Order Review		2	2	1								5
9.6 Substantial Completion meeting		4										4
10 Stormwater Best Management Practice (BMP) Final Report and Operations Maintenance Plan												
### Prepare and Submit Plan		2	24	12								38
Total Hours:	10	200	164	376	386	36	32	26	28	22		1,280

BRISTOL, VERMONT
Bristol TAP TA 22(1)



Fee Estimate

Round trip, Bristol - Randolph = 120 miles
Round trip, Bristol - S. Burlington = 70 miles

Project Phases & Tasks	Labor Categories												Total Hours
	Project Principal	Project Manager	Sr. Project Engineer	Project Engineer	Sr. Design Technician	Structural Engineer	Wetland Scientist	Licensed Surveyor	2-Person Survey Crew	Survey Tech	Permitting Specialist		
Direct Labor	Total Hours:	10	200	164	376	386	36	32	26	28	22	0	1,280
	Direct Rate:	\$75.00	\$64.00	\$54.00	\$45.00	\$38.00	\$75.00	\$44.00	\$55.00	\$75.00	\$35.00	\$54.00	
	Labor Cost:	\$750	\$12,800	\$8,856	\$16,920	\$14,668	\$2,700	\$1,408	\$1,430	\$2,100	\$770	\$0	\$62,402
Direct Expenses													
I. Subsistence													
Transportation:	Vehicles	1,370				Miles @			\$0.655		/ Mile =	\$897	
									Travel-Air / Ground / Parking Allowance =			\$0	
Meals:	Partial Per Diem	0				Days @			\$38.00		/ Day =	\$0	
	Full Per Diem	0				Days @			\$76.00		/ Day =	\$0	
Rooms & Lodging:	Hotel	0				Days @			\$172.00		/ Day =	\$0	
									Subsistence Total			= \$897	
II. Support Expenses													
											Telephone/Fax =	\$25	
											Postage =	\$25	
											Reproduction =	\$50	
											Copying =	\$26	
											Support Expenses Total		= \$126
III. Subcontractors													
											UVM CAP =	\$5,000	
											Geodesign =	\$56,922	
											Underground Locating =	\$3,500	
											Subcontractor Total		= \$65,422
IV. Miscellaneous Expenses													
											5/8" x 36" Rebar 10 @ \$5.00 =	\$50	
											Miscellaneous Expenses Total		= \$50
											Total Direct Expenses		= \$66,495
Cost Summary													
	Direct Labor Cost	\$62,402				Total Labor Cost			\$163,880				
	General & Administrative Cost	\$101,478	162.62%			Direct Expenses			\$66,495				
						Fixed Fee	10%		<u>\$16,388</u>				
						Total Price			\$246,763				