

2023 VTrans Small Scale Bicycle and Pedestrian Grant Application

1. Project Title:
2. Applicant Name(s):
3. Project Contact Info:
 - a. Name:
 - b. Mailing Address:
 - c. Town:
 - d. Zip Code:
 - e. Email Address:
 - f. Phone Number:
4. Fiscal Information:
 - a. Accounting System Automated Manual Combination
 - b. Unique Entity Identifier #
 - c. Fiscal Year End Month
5. RPC(s)

RPC Notified about this application?
6. Project Description: Please give a brief description of the project (100 words or less.) Detailed information should be submitted as part of addressing the selection criteria. Be sure to include identifying streets or landmarks served by the proposed project.
7. **TOTAL SMALL-SCALE PROJECT CONSTRUCTION AMOUNT APPLIED FOR (including 50% local share)**

**Note: Maximum of \$150,000 (\$75,000 state/
\$75,000 local)**

Burlington Old North End (ONE) Greenway Construction 2023 VTrans Small Scale Grant Application



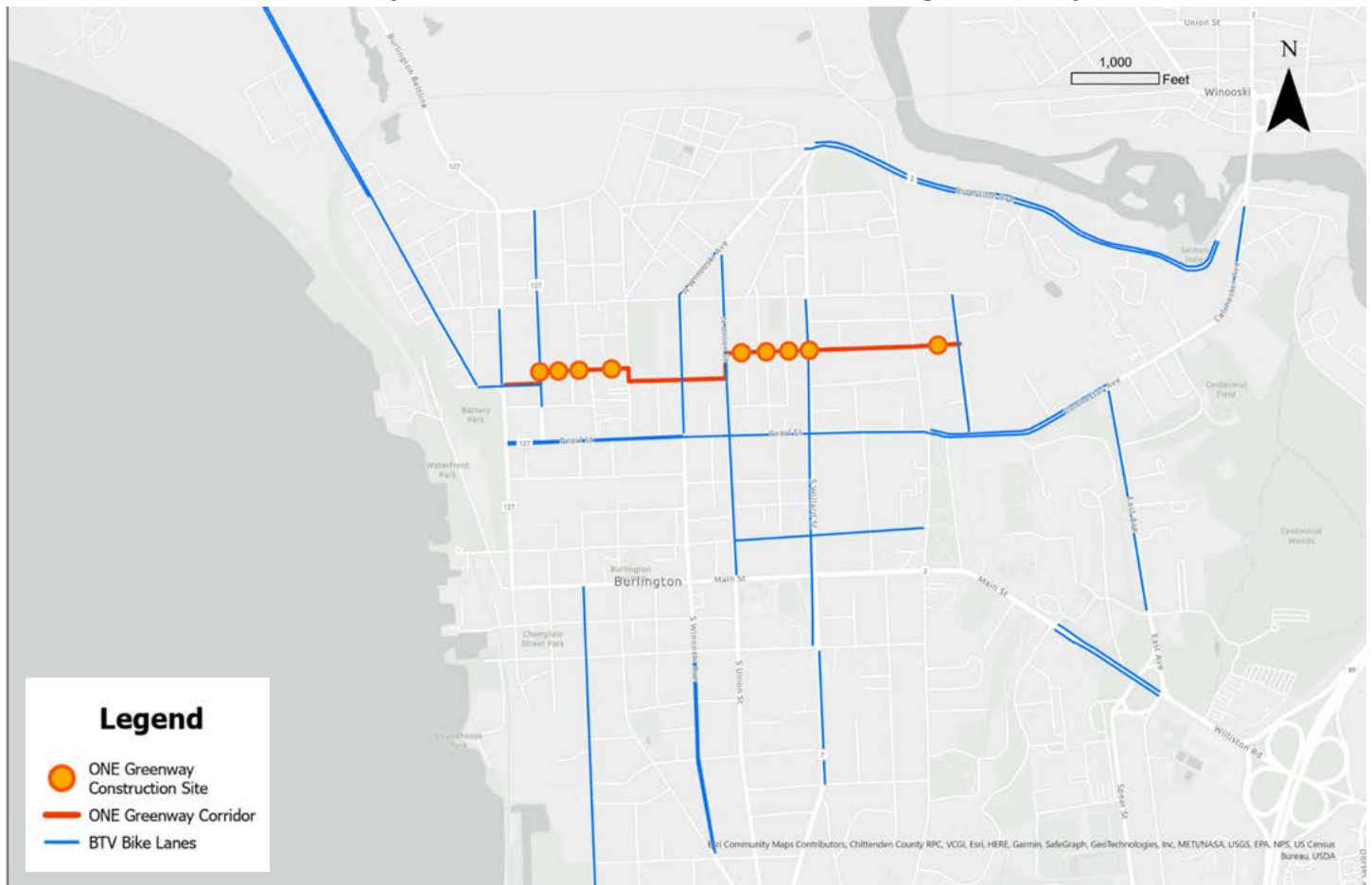
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For any questions or clarifications regarding this application, please contact:

Dayton Crites
Senior Transportation Planner, Burlington Department of Public Works
dcredits@burlingtonvt.gov
802.923.9218

ONE Greenway Maps & Site Photography

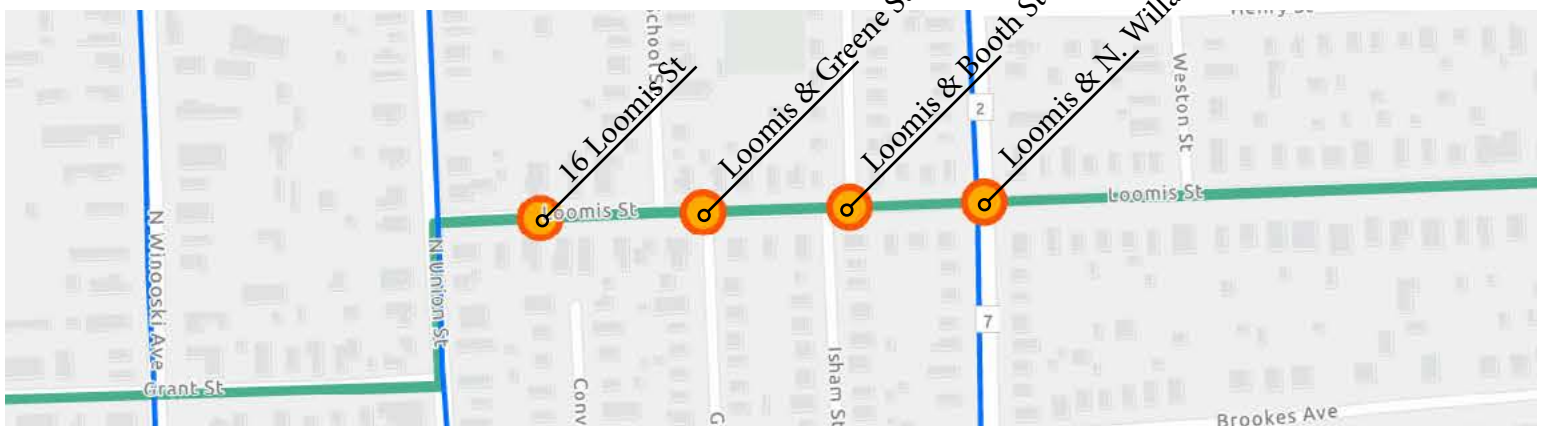
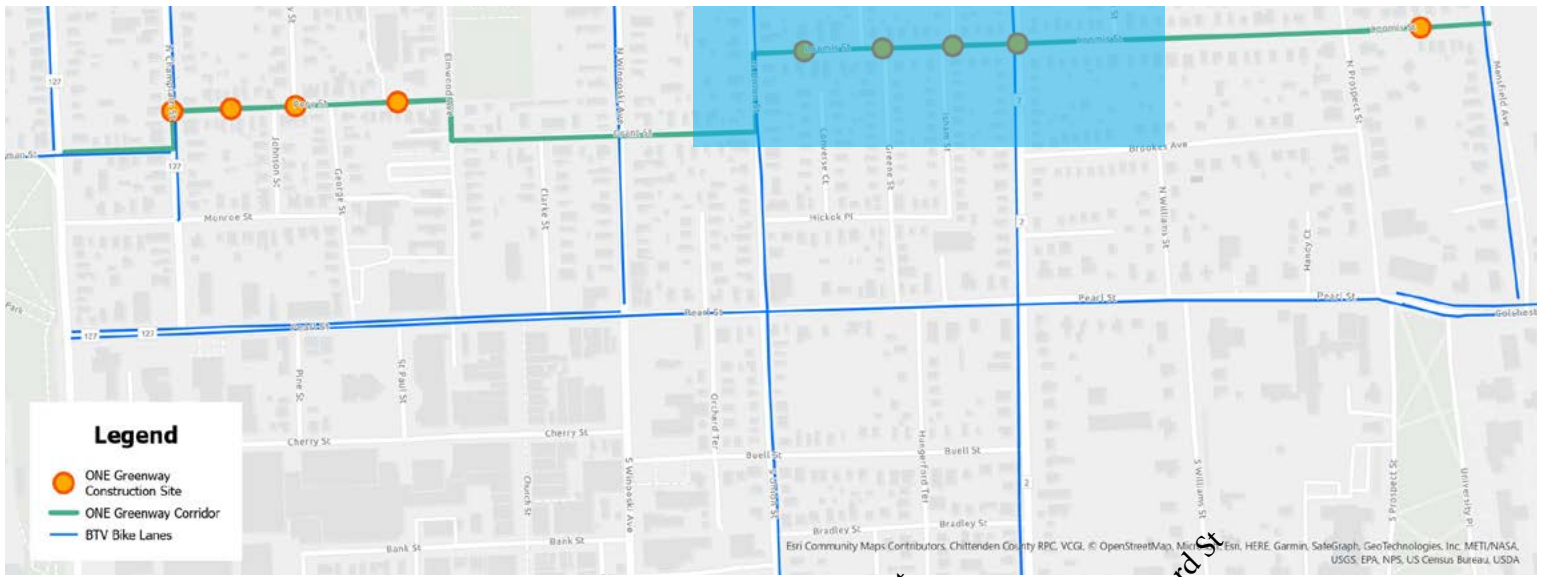


ONE Greenway Project Context

This overview map illustrates how these 9 construction locations will create a key east west greenway along quiet residential streets. This route was specifically chosen for relatively low-stress roadways with AADT much less than Pearl/Colchester roads, as well as relatively minimal grade changes to provide an easier east-west corridor for human powered transportation.

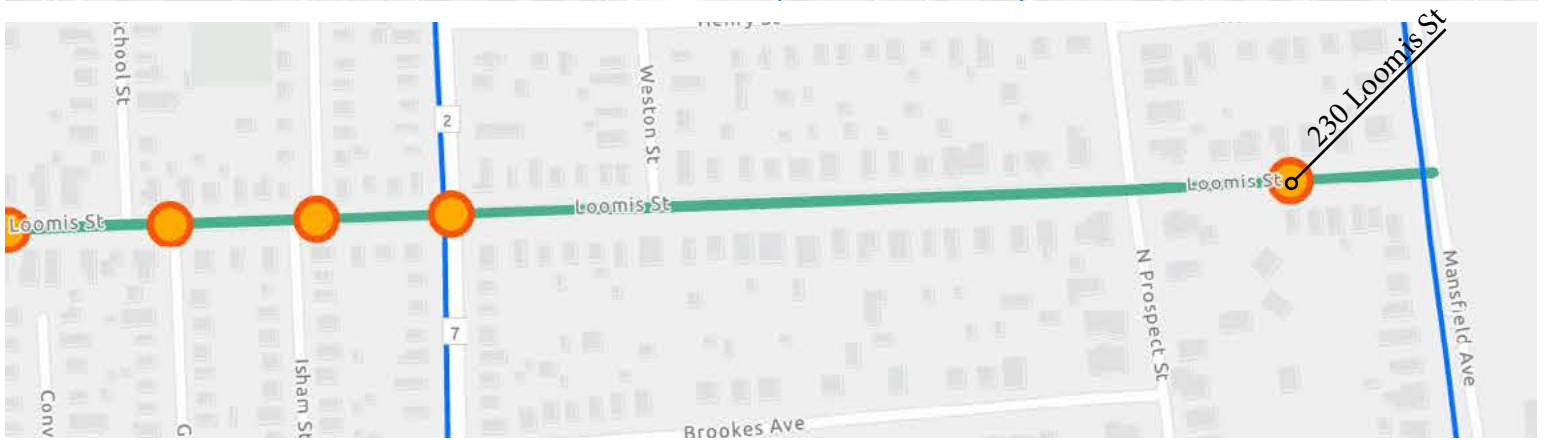
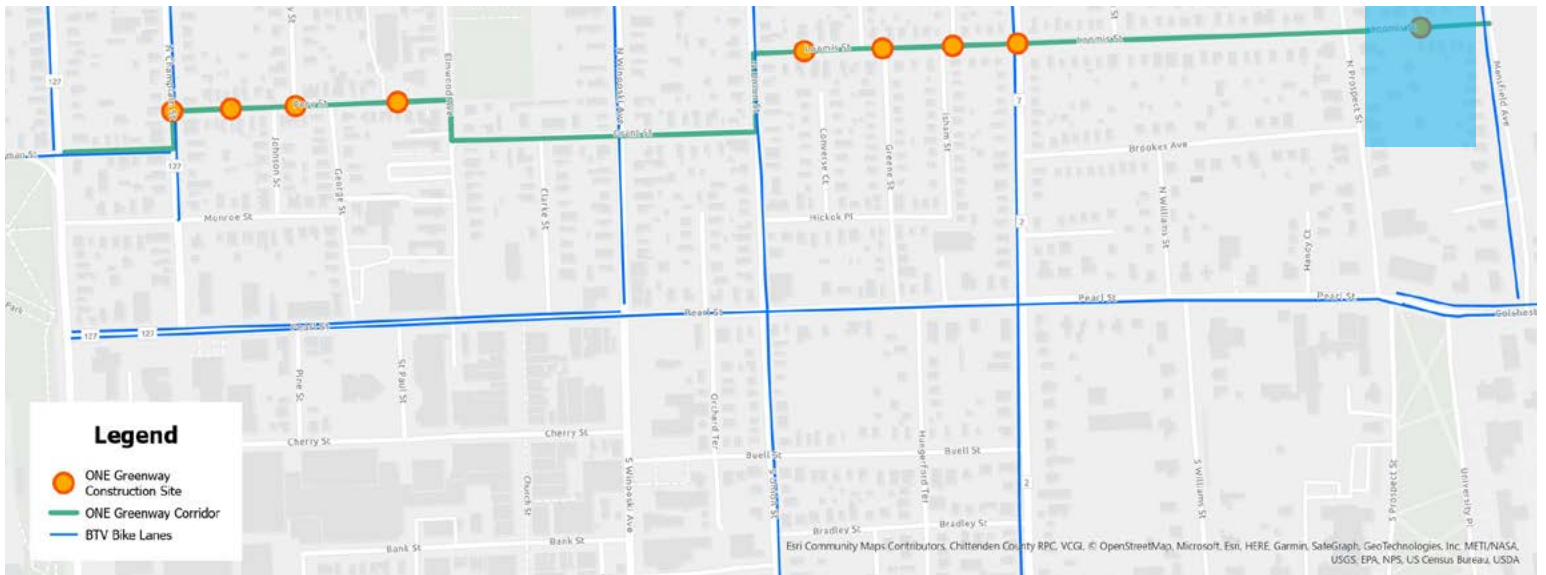
The following pages provide a higher level of detail for this corridor's specific interventions, as well as site-specific photography of the current quick build elements that will be converted into hardscape.





16 Loomis St





These photos and maps illustrate the ‘quick build’ infrastructure that the city intends to replace with the support of VTrans Bike/Ped funding.

Additional detail is available regarding each proposed improvement by reviewing completed construction documents which can be viewed via the following hyperlink: <https://tinyurl.com/ONEGreenwayCDs>

Upon notice of successful grant funding, the City is ready to put this project to bid.

Project Evaluation Criteria

SMALL SCALE BIKE/PED PROJECTS

1. **Community Need—20 Points:** What walking and/or bicycling access or safety problem are you trying to solve? Describe the length and/or type of facility being proposed. What key destinations will be served by this project? Describe the project area and how the proposed project will improve conditions. If proposing an improvement to an existing pedestrian crossing, is the improvement one of the measures identified in the FHWA STEP initiative (https://safety.fhwa.dot.gov/ped_bike/step/resources/)?

If applying for a specific pedestrian crossing improvement, such as Rectangular Rapid Flashing Beacons, be sure to include information such as the posted speed, traffic volumes and other factors that support the need for these devices. See the VTrans Ped Crossing Guide for technical guidance - <https://tinyurl.com/ped-crossing-guide>.

This 1.5 mile greenway is built along a series of quiet residential streets through the heart of Burlington's Old North End Neighborhood. This corridor was a key identified community need in Burlington's comprehensive 2017 plan BTV Walk/Bike plan.

This corridor acts as a key East-West bikeway across the city – providing a safe and low-stress / low traffic route between numerous destinations across downtown, UVM, and North Ave.

This facility is built as a series of quiet streets where bike lanes, sharrows, and signage clearly illustrate the intended city scale connectivity. The low traffic speeds are encouraged through a series of (currently temporary) curb extensions through the corridor, narrowing roadway widths and diverting automotive through traffic to nearby collector roadways. This project will replace all current temporary facilities with permanent ones. Funding will replace planters, bollards, and paint with physical curb extensions and rain gardens.

This formalization of a successful greenway design that has been in place since 2018 solves multiple problems:

- **Makes permanent 1.5 miles of low-speed, low stress active transportation network.** The temporary curb extensions were just that, temporary. This investment ensures that these streets will remain priority segments of Burlington's active transportation network for generations.
- **Reduces ongoing maintenance costs.** Currently, when planters are graffitied, or an errant plow blade or personal automobile damages a bollard, City crews must

find time to go maintain these elements. In some of these installations, maintenance has been delayed to the point of causing neighborhood complaints. This project will reduce maintenance cost and improve aesthetics while formalizing the greenway as a key east-west active transportation route for Burlington.

- **Provides Environmental Benefits.** Due to the areas inherently sandy soils, Burlington transportation engineers have partnered with City water resources staff to incorporate rain gardens into nearly half of the curb extensions. No funds for the rain gardens are being requested of this grant, but the creative partnership allows the local funds to be stretched further and do more.
- **Beautifies the neighborhood.** In recent years, the age of the plastic planters, condition of the bollards, and fading paint have degraded, creating neighborhood complaints about aesthetics, despite established traffic calming values. This investment will replace these temporary elements with landscaping, curb, gutter, and rain gardens, removing the old and graffitied planters.

Adding to the value of this corridor, The City is preparing to leverage this corridor by building protected bikeways on N.Champlain Street and improvements to Sherman and Battery Street to improve multi modal connectivity on the western end of this corridor.

12-20 Points – Project completes a missing gap in a pedestrian or bicycling network and serves obvious bike/ped generators.

6-11 Points – Reconstruction of important facility in a local network.

0-5 Points – Unclear how proposed facility contributes to a network or solves a safety problem

Higher scores are given for quantifiable evidence of safety issues or documented deficiencies such as ADA compliance, demonstration of facility as high need via planning documents or connecting segments of an existing network, and increasing access to destinations and/or areas of denser land use.

- 1. Project Budget—10 Points:** Describe how the project construction budget was developed. Provide detailed budget backup if available.

The included project budget is reflective of a March 2023 construction level engineers estimate completed by Dubois & King. This was developed alongside construction documents (also included in this application) which the City is preparing for bid at this time. See pages 10 through 18 of this application for summary of cost estimates.

This project will cost approximately \$265,000 to complete. In requesting \$75,000 from the VTrans Small Scale Grant, The City of Burlington is committed to the 72% project match.

6-10 Points – Cost is consistent with bid history on similar projects and/or detailed backup information provided

0-5 Points – Cost is significantly less than similar projects or no detail provided

Higher scores are given for detailed project budgets that are realistic and have adequate backup.

- 2. Complexity—10 points:** Is the project straightforward and easy to implement? Is it within existing highway right of way? Do you anticipate the need for any environmental permits? Are there design challenges like structures or new subsurface drainage?

This project's construction, which has been fully vetted by qualified engineering consultants:

- Has been successfully piloted for 5 years, ensuring ongoing community support.
- Only one site is adjacent to a Class 1 Town Highway - VT Route 2 (N. Willard Street). Final design is being reviewed with VTrans representatives. All other sites will be built on Town Highways.
- Will be constructed entirely within the city's right of way (inside of existing curb lines)
- Creates a reduction in overall impervious area, and environmental permits are not anticipated
- rain garden locations have been sited based on soil infiltration rates and avoiding conflicts with utilities

- creative approaches to drainage minimize impacts, such as using tear-drop shaped curb extensions to keep water along the curb line.
- 3 new catch basins will be installed as part of this project that will connect into the City's stormwater collection system

6-10 Points – Project likely to be within existing town highway right of way. Little or no technical challenges

0-5 Points – Project is in VTrans Right of Way or needs additional rights. Historic resources impacted. Technical difficulties such as structures or drainage required.

Higher scores for fewer complexities and likelihood that project can be built within existing highway right of way.

- 3. Project coordination – 5 points:** To your knowledge, are there other state or local projects in the same area that might impact the project timeline and schedule for completion? Is the project on a state-maintained route?

To our knowledge, this project will not conflict with other local projects. See overview map on page 2 and construction documents at this link <https://tinyurl.com/ONEGreenwayCDs> for details. The small impact to Class 1 Highway (N. Willard / Route 2) is being discussed currently with VTrans representatives.

Higher score for no conflicting projects, lower score for several coordination needs.

Cost Estimates & Construction Documents

**Click Here to download
and review the project's
construction documents**

Or visit

<https://tinyurl.com/ONEGreenwayCDs>

Summary of Individual OPCC Estimates

Segment	Transportation OPCC		Stormwater OPCC
Peru & N Champlain	\$	48,000.00	
20 Peru	\$	15,000.00	
Peru & Murray	\$	14,000.00	\$ 4,000.00
79 Peru	\$	10,000.00	
16 Loomis	\$	15,000.00	
Loomis & Greene	\$	34,000.00	
Loomis & Booth	\$	24,000.00	
Loomis & N. Willard	\$	53,000.00	\$ 5,000.00
230 Loomis	\$	19,000.00	
	\$	232,000.00	\$ 9,000.00
		TOTAL OPCC	\$ 241,000.00
		VTrans Small Scale Grant Request	\$ 75,000.00
		Local Match	\$ 166,000.00



PROJ. 428109 BTV Old North End Greenway

SHEET NO. 1 OF 1

- Randolph, VT 05060 802.728.3376
- Bedford, NH 03110 603.883.0463
- S. Burlington, VT 05403 802.878.7661
- Laconia, NH 03246 603.524.1166

CALCULATED BY: ZWM DATE: 3/6/2023

CHECKED BY: GJO DATE: 3/13/2023

Engineering • Planning • Development • Management

OLD NORTH END GREENWAY CURB EXTENSIONS (PERU ST & N CHAMPLAIN ST)

Transportation

ITEM NO.	DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT
203.15	COMMON EXCAVATION	CY	33	\$25.63	\$845.79
203.31	SAND BORROW	CY	38	\$55.09	\$2,093.42
204.20	TRENCH EXCAVATION OF EARTH	CY	38	\$28.17	\$1,070.42
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	11	\$64.04	\$704.44
301.26	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	3	\$62.50	\$187.50
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	17	\$56.42	\$959.14
404.65	EMULSIFIED ASPHALT	CWT	1	\$172.00	\$172.00
406.25	MARSHALL BITUMINOUS CONCRETE PAVEMENT	TON	6	\$300.00	\$1,800.00
601.0905	12" CPEP	LF	34	\$59.70	\$2,029.80
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA	2	\$6,420.80	\$12,841.60
609.10	DUST CONTROL WITH WATER	MGAL	1	\$133.39	\$133.39
616.27	CAST-IN-PLACE CONCRETE CURB, TYPE A	LF	0	\$74.57	\$0.00
616.28	CAST-IN-PLACE CONCRETE CURB, TYPE B	LF	50	\$49.71	\$2,485.50
616.41	REMOVAL OF EXISTING CURB	LF	45	\$10.27	\$462.15
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	7	\$122.86	\$860.02
618.30	DETECTABLE WARNING SURFACE	SF	11	\$45.79	\$503.69
630.15	FLAGGERS	HR	36	\$40.00	\$1,440.00
635.11	MOBILIZATION/DEMOBILIZATION	LS	1	\$4,979.43	\$4,979.43
641.10	TRAFFIC CONTROL	LS	1	\$3,319.62	\$3,319.62
646.311	CROSSWALK MARKING, WATERBORNE PAINT	LF	0	\$25.00	\$0.00
646.85	REMOVAL OF EXISTING PAVEMENT MARKINGS	SF	388	\$1.96	\$760.48
649.11	GEOTEXTILE FOR ROADBED SEPERATOR	SY	21	\$2.88	\$60.48
651.15	SEED	LB	1	\$15.49	\$15.49
651.18	FERTILIZER	LB	3	\$6.29	\$18.87
651.20	AGRICULTURAL LIMESTONE	TON	0.1	\$947.50	\$94.75
651.35	TOPSOIL	CY	13	\$65.18	\$847.34
653.10	HAY MULCH	TON	0.1	\$1,157.90	\$115.79
653.41	INLET PROTECTION DEVICE, TYPE II	EA	1.0	\$246.70	\$246.70
656.65	LANDSCAPE WATERING	MGAL	1	\$119.35	\$119.35
656.85	TREE PROTECTION	LS	1	\$1,000.00	\$1,000.00
659.11	EXPOSING OF ROOTS FOR STREET TREES	EA	1	\$500.00	\$500.00
675.20	TRAFFIC SIGN, TYPE A	SF	0	\$31.21	\$0.00
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	0	\$20.58	\$0.00
675.50	REMOVING SIGNS	EA	1	\$25.84	\$25.84
675.60	RESETTING SIGNS	EA	1	\$52.22	\$52.22
900.645	BOLLARD & PLANTER REMOVAL	LS	1	\$750.00	\$750.00
900.675	10MM LINER (TRANSPORTATION)	SY	0	\$2.88	\$0.00

Subtotal **\$41,495.22**

15% +/- Contingency **\$47,719.50**

Transportation Subtotal **\$48,000.00**

Stormwater

622.10	INSULATION BOARD	MFBM	0	\$4,209.84	\$0.00
704.02B	WASHED 3/4" STONE	CY	0	\$61.10	\$0.00
900.608	SPECIAL PROVISION (4 - 6" ROUNDED STONE FOR INLET PROTECTION)	CY	0	\$75.00	\$0.00
900.608	SPECIAL PROVISION (3/8" WASHED CIRCULAR PEA STONE)	CY	0	\$215.00	\$0.00
900.608	SPECIAL PROVISION (BIORETENTION SOIL MIXTURE)	CY	0	\$170.00	\$0.00
900.62	RAIN GARDEN PLANTS	EA	0	\$22.00	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - NON-WOVEN)	SY	0	\$2.95	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - GEOGRID)	SY	0	\$5.00	\$0.00
900.675	10MM LINER (STORMWATER)	SY	0	\$2.88	\$0.00

Subtotal **\$0.00**

15% +/- Contingency **\$0.00**

Stormwater Subtotal **\$0.00**

Construction Total **\$48,000.00**

In providing opinions of probable construction cost, the Client understands that D&K has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that our Opinion of Probable Construction Costs are made on the basis of our professional judgment and experience. D&K makes no warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from the Opinion of Probable Construction Cost provided herein.



PROJ. 428109 BTV Old North End Greenway

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- Laconia, NH 03246 603.524.1166

CALCULATED BY: ZWM DATE: 3/6/2023

CHECKED BY: GJO DATE: 3/13/2023

Engineering • Planning • Development • Management

OLD NORTH END GREENWAY CURB EXTENSIONS (20 PERU ST)

Transportation

ITEM NO.	DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT
203.15	COMMON EXCAVATION	CY	45	\$25.63	\$1,153.35
203.31	SAND BORROW	CY	0	\$55.09	\$0.00
204.20	TRENCH EXCAVATION OF EARTH	CY	0	\$28.17	\$0.00
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	0	\$64.04	\$0.00
301.26	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	0	\$62.50	\$0.00
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	8	\$56.42	\$451.36
404.65	EMULSIFIED ASPHALT	CWT	1	\$172.00	\$172.00
406.25	MARSHALL BITUMINOUS CONCRETE PAVEMENT	TON	3	\$300.00	\$900.00
601.0905	12" CPEP	LF	0	\$59.70	\$0.00
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA	0	\$6,420.80	\$0.00
609.10	DUST CONTROL WITH WATER	MGAL	1	\$133.39	\$133.39
616.27	CAST-IN-PLACE CONCRETE CURB, TYPE A	LF	0	\$74.57	\$0.00
616.28	CAST-IN-PLACE CONCRETE CURB, TYPE B	LF	37	\$49.71	\$1,839.27
616.41	REMOVAL OF EXISTING CURB	LF	35	\$10.27	\$359.45
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	0	\$122.86	\$0.00
618.30	DETECTABLE WARNING SURFACE	SF	0	\$45.79	\$0.00
630.15	FLAGGERS	HR	36	\$40.00	\$1,440.00
635.11	MOBILIZATION/DEMOBILIZATION	LS	1	\$1,546.39	\$1,546.39
641.10	TRAFFIC CONTROL	LS	1	\$1,030.93	\$1,030.93
646.311	CROSSWALK MARKING, WATERBORNE PAINT	LF	0	\$25.00	\$0.00
646.85	REMOVAL OF EXISTING PAVEMENT MARKINGS	SF	167	\$1.96	\$327.32
649.11	GEOTEXTILE FOR ROADBED SEPERATOR	SY	7	\$2.88	\$20.16
651.15	SEED	LB	2	\$15.49	\$30.98
651.18	FERTILIZER	LB	4	\$6.29	\$25.16
651.20	AGRICULTURAL LIMESTONE	TON	0.1	\$947.50	\$94.75
651.35	TOPSOIL	CY	6	\$65.18	\$391.08
653.10	HAY MULCH	TON	0.1	\$1,157.90	\$115.79
653.41	INLET PROTECTION DEVICE, TYPE II	EA	0.0	\$246.70	\$0.00
656.65	LANDSCAPE WATERING	MGAL	1	\$119.35	\$119.35
656.85	TREE PROTECTION	LS	1	\$1,000.00	\$1,000.00
659.11	EXPOSING OF ROOTS FOR STREET TREES	EA	1	\$500.00	\$500.00
675.20	TRAFFIC SIGN, TYPE A	SF	3	\$31.21	\$93.63
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	15	\$20.58	\$308.70
675.50	REMOVING SIGNS	EA	0	\$25.84	\$0.00
675.60	RESETTING SIGNS	EA	0	\$52.22	\$0.00
900.645	BOLLARD & PLANTER REMOVAL	LS	1	\$750.00	\$750.00
900.675	10MM LINER (TRANSPORTATION)	SY	29	\$2.88	\$83.52

Subtotal **\$12,886.58**

15% +/- Contingency **\$14,819.56**

Transportation Subtotal **\$15,000.00**

Stormwater

622.10	INSULATION BOARD	MFBM	0	\$4,209.84	\$0.00
704.02B	WASHED 3/4" STONE	CY	0	\$61.10	\$0.00
900.608	SPECIAL PROVISION (4 - 6" ROUNDED STONE FOR INLET PROTECTION)	CY	0	\$75.00	\$0.00
900.608	SPECIAL PROVISION (3/8" WASHED CIRCULAR PEA STONE)	CY	0	\$215.00	\$0.00
900.608	SPECIAL PROVISION (BIORETENTION SOIL MIXTURE)	CY	0	\$170.00	\$0.00
900.620	RAIN GARDEN PLANTS	EA	0	\$22.00	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - NON-WOVEN)	SY	0	\$2.95	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - GEOGRID)	SY	0	\$5.00	\$0.00
900.675	10MM LINER (STORMWATER)	SY	0	\$2.88	\$0.00

Subtotal **\$0.00**

15% +/- Contingency **\$0.00**

Stormwater Subtotal **\$0.00**

Construction Total **\$15,000.00**

In providing opinions of probable construction cost, the Client understands that D&K has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that our Opinion of Probable Construction Costs are made on the basis of our professional judgment and experience. D&K makes no warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from the Opinion of Probable Construction Cost provided herein.



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OLD NORTH END GREENWAY CURB EXTENSIONS (PERU ST & MURRAYST)

Transportation

ITEM NO.	DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT
203.15	COMMON EXCAVATION	CY	66	\$25.63	\$1,691.58
203.31	SAND BORROW	CY	0	\$55.09	\$0.00
204.20	TRENCH EXCAVATION OF EARTH	CY	0	\$28.17	\$0.00
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	0	\$64.04	\$0.00
301.26	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	0	\$62.50	\$0.00
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	10	\$56.42	\$564.20
404.65	EMULSIFIED ASPHALT	CWT	1	\$172.00	\$172.00
406.25	MARSHALL BITUMINOUS CONCRETE PAVEMENT	TON	3	\$300.00	\$900.00
601.0905	12" CPEP	LF	0	\$59.70	\$0.00
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA	0	\$6,420.80	\$0.00
609.10	DUST CONTROL WITH WATER	MGAL	1	\$133.39	\$133.39
616.27	CAST-IN-PLACE CONCRETE CURB, TYPE A	LF	0	\$74.57	\$0.00
616.28	CAST-IN-PLACE CONCRETE CURB, TYPE B	LF	45	\$49.71	\$2,236.95
616.41	REMOVAL OF EXISTING CURB	LF	0	\$10.27	\$0.00
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	0	\$122.86	\$0.00
618.30	DETECTABLE WARNING SURFACE	SF	0	\$45.79	\$0.00
630.15	FLAGGERS	HR	36	\$40.00	\$1,440.00
635.11	MOBILIZATION/DEMOBILIZATION	LS	1	\$1,831.35	\$1,831.35
641.10	TRAFFIC CONTROL	LS	1	\$1,220.90	\$1,220.90
646.311	CROSSWALK MARKING, WATERBORNE PAINT	LF	0	\$25.00	\$0.00
646.85	REMOVAL OF EXISTING PAVEMENT MARKINGS	SF	208	\$1.96	\$407.68
649.11	GEOTEXTILE FOR ROADBED SEPERATOR	SY	8	\$2.88	\$23.04
651.15	SEED	LB	0	\$15.49	\$0.00
651.18	FERTILIZER	LB	0	\$6.29	\$0.00
651.20	AGRICULTURAL LIMESTONE	TON	0.0	\$947.50	\$0.00
651.35	TOPSOIL	CY	0	\$65.18	\$0.00
653.10	HAY MULCH	TON	0.0	\$1,157.90	\$0.00
653.41	INLET PROTECTION DEVICE, TYPE II	EA	1.0	\$246.70	\$246.70
656.65	LANDSCAPE WATERING	MGAL	1	\$119.35	\$119.35
656.85	TREE PROTECTION	LS	1	\$0.00	\$0.00
659.11	EXPOSING OF ROOTS FOR STREET TREES	EA	0	\$500.00	\$0.00
675.20	TRAFFIC SIGN, TYPE A	SF	3	\$31.21	\$93.63
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	15	\$20.58	\$308.70
675.50	REMOVING SIGNS	EA	0	\$25.84	\$0.00
675.60	RESETTING SIGNS	EA	0	\$52.22	\$0.00
900.645	BOLLARD & PLANTER REMOVAL	LS	1	\$750.00	\$750.00
900.675	10MM LINER (TRANSPORTATION)	SY	0	\$2.88	\$0.00

Subtotal **\$12,139.48**

15% +/- Contingency **\$13,960.40**

Transportation Subtotal **\$14,000.00**

Stormwater

622.10	INSULATION BOARD	MFBM	0	\$4,209.84	\$0.00
704.02B	WASHED 3/4" STONE	CY	8	\$61.10	\$488.80
900.608	SPECIAL PROVISION (4 - 6" ROUNDED STONE FOR INLET PROTECTION)	CY	1	\$75.00	\$75.00
900.608	SPECIAL PROVISION (3/8" WASHED CIRCULAR PEA STONE)	CY	2	\$215.00	\$430.00
900.608	SPECIAL PROVISION (BIORETENTION SOIL MIXTURE)	CY	6	\$170.00	\$1,020.00
900.620	RAIN GARDEN PLANTS	EA	40	\$22.00	\$880.00
900.675	SPECIAL PROVISION (GEOTEXTILES - NON-WOVEN)	SY	16	\$2.95	\$47.20
900.675	SPECIAL PROVISION (GEOTEXTILES - GEOGRID)	SY	16	\$5.00	\$80.00
900.675	10MM LINER (STORMWATER)	SY	35	\$2.88	\$100.80

Subtotal **\$3,121.80**

15% +/- Contingency **\$3,590.07**

Stormwater Subtotal **\$4,000.00**

Construction Total **\$18,000.00**

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PROJ. 428109 BTV Old North End Greenway

SHEET NO. 1 OF 1

- Randolph, VT 05060 802.728.3376
- Bedford, NH 03110 603.883.0463
- S. Burlington, VT 05403 802.878.7661
- Laconia, NH 03246 603.524.1166

CALCULATED BY: ZWM DATE: 3/6/2023

CHECKED BY: GJO DATE: 3/14/2023

Engineering • Planning • Development • Management

OLD NORTH END GREENWAY CURB EXTENSIONS (79 PERU ST)

Transportation

ITEM NO.	DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT
203.15	COMMON EXCAVATION	CY	9	\$25.63	\$230.67
203.31	SAND BORROW	CY	0	\$55.09	\$0.00
204.20	TRENCH EXCAVATION OF EARTH	CY	0	\$28.17	\$0.00
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	0	\$64.04	\$0.00
301.26	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	0	\$62.50	\$0.00
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	7	\$56.42	\$394.94
404.65	EMULSIFIED ASPHALT	CWT	1	\$172.00	\$172.00
406.25	MARSHALL BITUMINOUS CONCRETE PAVEMENT	TON	2	\$300.00	\$600.00
601.0905	12" CPEP	LF	0	\$59.70	\$0.00
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA	0	\$6,420.80	\$0.00
609.10	DUST CONTROL WITH WATER	MGAL	1	\$133.39	\$133.39
616.27	CAST-IN-PLACE CONCRETE CURB, TYPE A	LF	0	\$74.57	\$0.00
616.28	CAST-IN-PLACE CONCRETE CURB, TYPE B	LF	30	\$49.71	\$1,491.30
616.41	REMOVAL OF EXISTING CURB	LF	26	\$10.27	\$267.02
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	0	\$122.86	\$0.00
618.30	DETECTABLE WARNING SURFACE	SF	0	\$45.79	\$0.00
630.15	FLAGGERS	HR	36	\$40.00	\$1,440.00
635.11	MOBILIZATION/DEMOBILIZATION	LS	1	\$1,003.97	\$1,003.97
641.10	TRAFFIC CONTROL	LS	1	\$669.31	\$669.31
646.311	CROSSWALK MARKING, WATERBORNE PAINT	LF	0	\$25.00	\$0.00
646.85	REMOVAL OF EXISTING PAVEMENT MARKINGS	SF	126	\$1.96	\$246.96
649.11	GEOTEXTILE FOR ROADBED SEPERATOR	SY	6	\$2.88	\$17.28
651.15	SEED	LB	1	\$15.49	\$15.49
651.18	FERTILIZER	LB	1	\$6.29	\$6.29
651.20	AGRICULTURAL LIMESTONE	TON	0.1	\$947.50	\$94.75
651.35	TOPSOIL	CY	3	\$65.18	\$195.54
653.10	HAY MULCH	TON	0.1	\$1,157.90	\$115.79
653.41	INLET PROTECTION DEVICE, TYPE II	EA	0.0	\$246.70	\$0.00
656.65	LANDSCAPE WATERING	MGAL	1	\$119.35	\$119.35
656.85	TREE PROTECTION	LS	1	\$0.00	\$0.00
659.11	EXPOSING OF ROOTS FOR STREET TREES	EA	0	\$500.00	\$0.00
675.20	TRAFFIC SIGN, TYPE A	SF	3	\$31.21	\$93.63
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	15	\$20.58	\$308.70
675.50	REMOVING SIGNS	EA	0	\$25.84	\$0.00
675.60	RESETTING SIGNS	EA	0	\$52.22	\$0.00
900.645	BOLLARD & PLANTER REMOVAL	LS	1	\$750.00	\$750.00
900.675	10MM LINER (TRANSPORTATION)	SY	0	\$2.88	\$0.00

Subtotal **\$8,366.38**

15% +/- Contingency **\$9,621.33**

Transportation Subtotal **\$10,000.00**

Stormwater

622.10	INSULATION BOARD	MFBM	0	\$4,209.84	\$0.00
704.02B	WASHED 3/4" STONE	CY	0	\$61.10	\$0.00
900.608	SPECIAL PROVISION (4 - 6" ROUNDED STONE FOR INLET PROTECTION)	CY	0	\$75.00	\$0.00
900.608	SPECIAL PROVISION (3/8" WASHED CIRCULAR PEA STONE)	CY	0	\$215.00	\$0.00
900.608	SPECIAL PROVISION (BIORETENTION SOIL MIXTURE)	CY	0	\$170.00	\$0.00
900.620	RAIN GARDEN PLANTS	EA	0	\$22.00	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - NON-WOVEN)	SY	0	\$2.95	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - GEOGRID)	SY	0	\$5.00	\$0.00
900.675	10MM LINER (STORMWATER)	SY	0	\$2.88	\$0.00

Subtotal **\$0.00**

15% +/- Contingency **\$0.00**

Stormwater Subtotal **\$0.00**

Construction Total **\$10,000.00**

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PROJ. 428109 BTV Old North End Greenway

SHEET NO. 1 OF 1

- Randolph, VT 05060 802.728.3376
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- Laconia, NH 03246 603.524.1166

CALCULATED BY: ZWM DATE: 3/6/2023

CHECKED BY: GJO DATE: 3/14/2023

Engineering • Planning • Development • Management

OLD NORTH END GREENWAY CURB EXTENSIONS (16 LOOMIS ST)

Transportation

ITEM NO.	DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT
203.15	COMMON EXCAVATION	CY	19	\$25.63	\$486.97
203.31	SAND BORROW	CY	0	\$55.09	\$0.00
204.20	TRENCH EXCAVATION OF EARTH	CY	0	\$28.17	\$0.00
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	0	\$64.04	\$0.00
301.26	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	0	\$62.50	\$0.00
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	9	\$56.42	\$507.78
404.65	EMULSIFIED ASPHALT	CWT	1	\$172.00	\$172.00
406.25	MARSHALL BITUMINOUS CONCRETE PAVEMENT	TON	3	\$300.00	\$900.00
601.0905	12" CPEP	LF	0	\$59.70	\$0.00
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA	0	\$6,420.80	\$0.00
609.10	DUST CONTROL WITH WATER	MGAL	1	\$133.39	\$133.39
616.27	CAST-IN-PLACE CONCRETE CURB, TYPE A	LF	0	\$74.57	\$0.00
616.28	CAST-IN-PLACE CONCRETE CURB, TYPE B	LF	44	\$49.71	\$2,187.24
616.41	REMOVAL OF EXISTING CURB	LF	36	\$10.27	\$369.72
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	0	\$122.86	\$0.00
618.30	DETECTABLE WARNING SURFACE	SF	0	\$45.79	\$0.00
630.15	FLAGGERS	HR	36	\$40.00	\$1,440.00
635.11	MOBILIZATION/DEMOBILIZATION	LS	1	\$1,511.67	\$1,511.67
641.10	TRAFFIC CONTROL	LS	1	\$1,007.78	\$1,007.78
646.311	CROSSWALK MARKING, WATERBORNE PAINT	LF	0	\$25.00	\$0.00
646.85	REMOVAL OF EXISTING PAVEMENT MARKINGS	SF	68	\$1.96	\$133.28
649.11	GEOTEXTILE FOR ROADBED SEPERATOR	SY	7	\$2.88	\$20.16
651.15	SEED	LB	1	\$15.49	\$15.49
651.18	FERTILIZER	LB	2	\$6.29	\$12.58
651.20	AGRICULTURAL LIMESTONE	TON	0.1	\$947.50	\$94.75
651.35	TOPSOIL	CY	11	\$65.18	\$716.98
653.10	HAY MULCH	TON	0.1	\$1,157.90	\$115.79
653.41	INLET PROTECTION DEVICE, TYPE II	EA	0.0	\$246.70	\$0.00
656.65	LANDSCAPE WATERING	MGAL	1	\$119.35	\$119.35
656.85	TREE PROTECTION	LS	1	\$1,000.00	\$1,000.00
659.11	EXPOSING OF ROOTS FOR STREET TREES	EA	1	\$500.00	\$500.00
675.20	TRAFFIC SIGN, TYPE A	SF	3	\$31.21	\$93.63
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	15	\$20.58	\$308.70
675.50	REMOVING SIGNS	EA	0	\$25.84	\$0.00
675.60	RESETTING SIGNS	EA	0	\$52.22	\$0.00
900.645	BOLLARD & PLANTER REMOVAL	LS	1	\$750.00	\$750.00
900.675	10MM LINER (TRANSPORTATION)	SY	0	\$2.88	\$0.00

Subtotal **\$12,597.26**

15% +/- Contingency **\$14,486.85**

Transportation Subtotal **\$15,000.00**

Stormwater

622.10	INSULATION BOARD	MFBM	0	\$4,209.84	\$0.00
704.02B	WASHED 3/4" STONE	CY	0	\$61.10	\$0.00
900.608	SPECIAL PROVISION (4 - 6" ROUNDED STONE FOR INLET PROTECTION)	CY	0	\$75.00	\$0.00
900.608	SPECIAL PROVISION (3/8" WASHED CIRCULAR PEA STONE)	CY	0	\$215.00	\$0.00
900.608	SPECIAL PROVISION (BIORETENTION SOIL MIXTURE)	CY	0	\$170.00	\$0.00
900.620	RAIN GARDEN PLANTS	EA	0	\$22.00	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - NON-WOVEN)	SY	0	\$2.95	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - GEOGRID)	SY	0	\$5.00	\$0.00
900.675	10MM LINER (STORMWATER)	SY	0	\$2.88	\$0.00

Subtotal **\$0.00**

15% +/- Contingency **\$0.00**

Stormwater Subtotal **\$0.00**

Construction Total **\$15,000.00**

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PROJ. 428109 BTV Old North End Greenway

SHEET NO. 1 OF 1

- Randolph, VT 05060 802.728.3376
- Bedford, NH 03110 603.883.0463
- S. Burlington, VT 05403 802.878.7661
- Laconia, NH 03246 603.524.1166

CALCULATED BY: ZWM DATE: 3/6/2023

CHECKED BY: GJO DATE: 3/14/2023

Engineering • Planning • Development • Management

OLD NORTH END GREENWAY CURB EXTENSIONS (LOOMIS ST & GREENE ST)

Transportation

ITEM NO.	DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT
203.15	COMMON EXCAVATION	CY	42	\$25.63	\$1,076.46
203.31	SAND BORROW	CY	0	\$55.09	\$0.00
204.20	TRENCH EXCAVATION OF EARTH	CY	0	\$28.17	\$0.00
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	0	\$64.04	\$0.00
301.26	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	8	\$62.50	\$500.00
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	27	\$56.42	\$1,523.34
404.65	EMULSIFIED ASPHALT	CWT	1	\$172.00	\$172.00
406.25	MARSHALL BITUMINOUS CONCRETE PAVEMENT	TON	6	\$300.00	\$1,800.00
601.0905	12" CPEP	LF	0	\$59.70	\$0.00
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA	0	\$6,420.80	\$0.00
609.10	DUST CONTROL WITH WATER	MGAL	1	\$133.39	\$133.39
616.27	CAST-IN-PLACE CONCRETE CURB, TYPE A	LF	0	\$74.57	\$0.00
616.28	CAST-IN-PLACE CONCRETE CURB, TYPE B	LF	89	\$49.71	\$4,424.19
616.41	REMOVAL OF EXISTING CURB	LF	62	\$10.27	\$636.74
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	22	\$122.86	\$2,702.92
618.30	DETECTABLE WARNING SURFACE	SF	51	\$45.79	\$2,335.29
630.15	FLAGGERS	HR	36	\$40.00	\$1,440.00
635.11	MOBILIZATION/DEMOBILIZATION	LS	1	\$2,516.18	\$2,516.18
641.10	TRAFFIC CONTROL	LS	1	\$1,258.09	\$1,258.09
646.311	CROSSWALK MARKING, WATERBORNE PAINT	LF	28	\$25.00	\$700.00
646.85	REMOVAL OF EXISTING PAVEMENT MARKINGS	SF	631	\$1.96	\$1,236.76
649.11	GEOTEXTILE FOR ROADBED SEPERATOR	SY	37	\$2.88	\$106.56
651.15	SEED	LB	2	\$15.49	\$30.98
651.18	FERTILIZER	LB	4	\$6.29	\$25.16
651.20	AGRICULTURAL LIMESTONE	TON	0.1	\$947.50	\$94.75
651.35	TOPSOIL	CY	24	\$65.18	\$1,564.32
653.10	HAY MULCH	TON	0.1	\$1,157.90	\$115.79
653.41	INLET PROTECTION DEVICE, TYPE II	EA	0.0	\$246.70	\$0.00
656.65	LANDSCAPE WATERING	MGAL	1	\$119.35	\$119.35
656.85	TREE PROTECTION	LS	1	\$1,000.00	\$1,000.00
659.11	EXPOSING OF ROOTS FOR STREET TREES	EA	2	\$500.00	\$1,000.00
675.20	TRAFFIC SIGN, TYPE A	SF	17	\$31.21	\$530.57
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	30	\$20.58	\$617.40
675.50	REMOVING SIGNS	EA	1	\$25.84	\$25.84
675.60	RESETTING SIGNS	EA	0	\$52.22	\$0.00
900.645	BOLLARD & PLANTER REMOVAL	LS	1	\$1,250.00	\$1,250.00
900.675	10MM LINER (TRANSPORTATION)	SY	0	\$2.88	\$0.00

Subtotal **\$28,936.08**

15% +/- Contingency **\$33,276.49**

Transportation Subtotal **\$34,000.00**

Stormwater

622.10	INSULATION BOARD	MFBM	0	\$4,209.84	\$0.00
704.02B	WASHED 3/4" STONE	CY	0	\$61.10	\$0.00
900.608	SPECIAL PROVISION (4 - 6" ROUNDED STONE FOR INLET PROTECTION)	CY	0	\$75.00	\$0.00
900.608	SPECIAL PROVISION (3/8" WASHED CIRCULAR PEA STONE)	CY	0	\$215.00	\$0.00
900.608	SPECIAL PROVISION (BIORETENTION SOIL MIXTURE)	CY	0	\$170.00	\$0.00
900.620	RAIN GARDEN PLANTS	EA	0	\$22.00	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - NON-WOVEN)	SY	0	\$2.95	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - GEOGRID)	SY	0	\$5.00	\$0.00
900.675	10MM LINER (STORMWATER)	SY	0	\$2.88	\$0.00

Subtotal **\$0.00**

15% +/- Contingency **\$0.00**

Stormwater Subtotal **\$0.00**

Construction Total **\$34,000.00**

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PROJ. 428109 BTV Old North End Greenway

SHEET NO. 1 OF 1

- Randolph, VT 05060 802.728.3376
- Bedford, NH 03110 603.883.0463
- S. Burlington, VT 05403 802.878.7661
- Laconia, NH 03246 603.524.1166

CALCULATED BY: ZWM DATE: 3/6/2023

CHECKED BY: GJO DATE: 3/14/2023

Engineering • Planning • Development • Management

OLD NORTH END GREENWAY CURB EXTENSIONS (LOOMIS ST & BOOTH ST)

Transportation

ITEM NO.	DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT
203.15	COMMON EXCAVATION	CY	21	\$25.63	\$538.23
203.31	SAND BORROW	CY	0	\$55.09	\$0.00
204.20	TRENCH EXCAVATION OF EARTH	CY	0	\$28.17	\$0.00
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	0	\$64.04	\$0.00
301.26	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	3	\$62.50	\$187.50
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	17	\$56.42	\$959.14
404.65	EMULSIFIED ASPHALT	CWT	1	\$172.00	\$172.00
406.25	MARSHALL BITUMINOUS CONCRETE PAVEMENT	TON	4	\$300.00	\$1,200.00
601.0905	12" CPEP	LF	0	\$59.70	\$0.00
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA	0	\$6,420.80	\$0.00
609.10	DUST CONTROL WITH WATER	MGAL	1	\$133.39	\$133.39
616.27	CAST-IN-PLACE CONCRETE CURB, TYPE A	LF	20	\$74.57	\$1,491.30
616.28	CAST-IN-PLACE CONCRETE CURB, TYPE B	LF	43	\$49.71	\$2,137.53
616.41	REMOVAL OF EXISTING CURB	LF	58	\$10.27	\$595.66
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	9	\$122.86	\$1,105.74
618.30	DETECTABLE WARNING SURFACE	SF	11	\$45.79	\$503.69
630.15	FLAGGERS	HR	36	\$40.00	\$1,440.00
635.11	MOBILIZATION/DEMOBILIZATION	LS	1	\$2,491.14	\$2,491.14
641.10	TRAFFIC CONTROL	LS	1	\$1,660.76	\$1,660.76
646.311	CROSSWALK MARKING, WATERBORNE PAINT	LF	0	\$25.00	\$0.00
646.85	REMOVAL OF EXISTING PAVEMENT MARKINGS	SF	430	\$1.96	\$842.80
649.11	GEOTEXTILE FOR ROADBED SEPERATOR	SY	19	\$2.88	\$54.72
651.15	SEED	LB	2	\$15.49	\$30.98
651.18	FERTILIZER	LB	4	\$6.29	\$25.16
651.20	AGRICULTURAL LIMESTONE	TON	0.1	\$947.50	\$94.75
651.35	TOPSOIL	CY	25	\$65.18	\$1,629.50
653.10	HAY MULCH	TON	0.1	\$1,157.90	\$115.79
653.41	INLET PROTECTION DEVICE, TYPE II	EA	0.0	\$246.70	\$0.00
656.65	LANDSCAPE WATERING	MGAL	1	\$119.35	\$119.35
656.85	TREE PROTECTION	LS	1	\$1,000.00	\$1,000.00
659.11	EXPOSING OF ROOTS FOR STREET TREES	EA	1	\$500.00	\$500.00
675.20	TRAFFIC SIGN, TYPE A	SF	3	\$31.21	\$93.63
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	15	\$20.58	\$308.70
675.50	REMOVING SIGNS	EA	1	\$25.84	\$25.84
675.60	RESETTING SIGNS	EA	1	\$52.22	\$52.22
900.645	BOLLARD & PLANTER REMOVAL	LS	1	\$1,250.00	\$1,250.00
900.675	10MM LINER (TRANSPORTATION)	SY	0	\$2.88	\$0.00

Subtotal **\$20,759.53**

15% +/- Contingency **\$23,873.45**

Transportation Subtotal **\$24,000.00**

Stormwater

622.10	INSULATION BOARD	MFBM	0	\$4,209.84	\$0.00
704.02B	WASHED 3/4" STONE	CY	0	\$61.10	\$0.00
900.608	SPECIAL PROVISION (4 - 6" ROUNDED STONE FOR INLET PROTECTION)	CY	0	\$75.00	\$0.00
900.608	SPECIAL PROVISION (3/8" WASHED CIRCULAR PEA STONE)	CY	0	\$215.00	\$0.00
900.608	SPECIAL PROVISION (BIORETENTION SOIL MIXTURE)	CY	0	\$170.00	\$0.00
900.620	RAIN GARDEN PLANTS	EA	0	\$22.00	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - NON-WOVEN)	SY	0	\$2.95	\$0.00
900.675	SPECIAL PROVISION (GEOTEXTILES - GEOGRID)	SY	0	\$5.00	\$0.00
900.675	10MM LINER (STORMWATER)	SY	0	\$2.88	\$0.00

Subtotal **\$0.00**

15% +/- Contingency **\$0.00**

Stormwater Subtotal **\$0.00**

Construction Total **\$24,000.00**

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PROJ. 428109 BTV Old North End Greenway

SHEET NO. 1 OF 1

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CALCULATED BY: ZWM DATE: 3/6/2023

CHECKED BY: GJO DATE: 3/13/2023

Engineering • Planning • Development • Management

OLD NORTH END GREENWAY CURB EXTENSIONS (LOOMIS ST & N WILLARD ST)

Transportation

ITEM NO.	DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT
203.15	COMMON EXCAVATION	CY	60	\$25.63	\$1,537.80
203.31	SAND BORROW	CY	13	\$55.09	\$716.17
204.20	TRENCH EXCAVATION OF EARTH	CY	13	\$28.17	\$366.20
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	6	\$64.04	\$384.24
301.26	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	6	\$62.50	\$375.00
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	31	\$56.42	\$1,749.02
404.65	EMULSIFIED ASPHALT	CWT	1	\$172.00	\$172.00
406.25	MARSHALL BITUMINOUS CONCRETE PAVEMENT	TON	7	\$300.00	\$2,100.00
601.0905	12" CPEP	LF	0	\$59.70	\$0.00
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA	1	\$6,420.80	\$6,420.80
609.10	DUST CONTROL WITH WATER	MGAL	1	\$133.39	\$133.39
616.27	CAST-IN-PLACE CONCRETE CURB, TYPE A	LF	0	\$74.57	\$0.00
616.28	CAST-IN-PLACE CONCRETE CURB, TYPE B	LF	148	\$49.71	\$7,357.08
616.41	REMOVAL OF EXISTING CURB	LF	73	\$10.27	\$749.71
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	17	\$122.86	\$2,088.62
618.30	DETECTABLE WARNING SURFACE	SF	21	\$45.79	\$961.59
630.15	FLAGGERS	HR	72	\$40.00	\$2,880.00
635.11	MOBILIZATION/DEMOBILIZATION	LS	1	\$5,938.97	\$5,938.97
641.10	TRAFFIC CONTROL	LS	1	\$3,959.31	\$3,959.31
646.311	CROSSWALK MARKING, WATERBORNE PAINT	LF	0	\$25.00	\$0.00
646.85	REMOVAL OF EXISTING PAVEMENT MARKINGS	SF	535	\$1.96	\$1,048.60
649.11	GEOTEXTILE FOR ROADBED SEPERATOR	SY	35	\$2.88	\$100.80
651.15	SEED	LB	2	\$15.49	\$30.98
651.18	FERTILIZER	LB	5	\$6.29	\$31.45
651.20	AGRICULTURAL LIMESTONE	TON	0.1	\$947.50	\$94.75
651.35	TOPSOIL	CY	32	\$65.18	\$2,085.76
653.10	HAY MULCH	TON	0.1	\$1,157.90	\$115.79
653.41	INLET PROTECTION DEVICE, TYPE II	EA	1.0	\$246.70	\$246.70
656.65	LANDSCAPE WATERING	MGAL	2	\$119.35	\$238.70
656.85	TREE PROTECTION	LS	1	\$1,000.00	\$1,000.00
659.11	EXPOSING OF ROOTS FOR STREET TREES	EA	3	\$500.00	\$1,500.00
675.20	TRAFFIC SIGN, TYPE A	SF	0	\$31.21	\$0.00
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	0	\$20.58	\$0.00
675.50	REMOVING SIGNS	EA	1	\$25.84	\$25.84
675.60	RESETTING SIGNS	EA	1	\$52.22	\$52.22
900.645	BOLLARD & PLANTER REMOVAL	LS	1	\$1,250.00	\$1,250.00
900.675	10MM LINER (TRANSPORTATION)	SY	0	\$2.88	\$0.00

Subtotal **\$45,711.49**

15% +/- Contingency **\$52,568.22**

Transportation Subtotal **\$53,000.00**

Stormwater

622.10	INSULATION BOARD	MFBM	0.1	\$4,209.84	\$420.98
704.02B	WASHED 3/4" STONE	CY	8	\$61.10	\$488.80
900.608	SPECIAL PROVISION (4 - 6" ROUNDED STONE FOR INLET PROTECTION)	CY	1	\$75.00	\$75.00
900.608	SPECIAL PROVISION (3/8" WASHED CIRCULAR PEA STONE)	CY	2	\$215.00	\$430.00
900.608	SPECIAL PROVISION (BIORETENTION SOIL MIXTURE)	CY	6	\$170.00	\$1,020.00
900.620	RAIN GARDEN PLANTS	EA	55	\$22.00	\$1,210.00
900.675	SPECIAL PROVISION (GEOTEXTILES - NON-WOVEN)	SY	17	\$2.95	\$50.15
900.675	SPECIAL PROVISION (GEOTEXTILES - GEOGRID)	SY	17	\$5.00	\$85.00
900.675	10MM LINER (STORMWATER)	SY	0	\$2.88	\$0.00

Subtotal **\$3,779.93**

15% +/- Contingency **\$4,346.92**

Stormwater Subtotal **\$5,000.00**

Construction Total **\$58,000.00**

In providing opinions of probable construction cost, the Client understands that D&K has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that our Opinion of Probable Construction Costs are made on the basis of our professional judgment and experience. D&K makes no warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from the Opinion of Probable Construction Cost provided herein.

Project Area Photographs

As a point of contrast with the early year / install photos on the prior pages, this page illustrates the current condition of the plastic planters as graffiti targets, and the worn condition of many bollards and paint along the greenway - further illustrating the need and value of converting these elements to permanent curb extensions, improving overall neighborhood aesthetics.



Peru Street



Peru Street



Loomis Street



Loomis Street



Loomis Street



Grant and North Union Street



Loomis Street



Peru Street



Loomis Street

CCRPC Letter of Support



110 West Canal Street, Suite 202
Winooski, VT 05404-2109
802-846-4490
www.ccrpcvt.org

May 12, 2023

Peter Pochop
VT Agency of Transportation
219 North Main Street
Barre, VT 05641

Dear Peter:

This letter is in support of the City of Burlington's application to the VTrans 2023 small-scale Bicycle and Pedestrian Grant Program to convert temporary pilot bollards and planters on the Old North End Greenway into permanent hardscaping with curb extensions and rain gardens. The ONE Greenway is a critical east-west connection through Burlington's most diverse neighborhood and this project will formalize the Greenway as a low-speed, low-stress neighborhood connector.

This project is supported by several sections of the CCRPC's ECOS Plan. One of the four broad goals established at the beginning of the document states:

"Make public and private investments in the built environment to minimize environmental impact, maximize financial efficiency, optimize social equity and benefits, and improve public health." ECOS Plan page 8

In the transportation discussion of key issues there's this finding:

"More robust investment in transportation options – transit, walking/biking, carsharing and ridesharing – could reduce congestion, vehicle miles traveled, use of single occupancy vehicles, social exclusion, and could improve public health, and enhance the economic well-being of our residents, businesses and visitors." ECOS Plan page 63

Under future transportation investments, one of the identified focal areas is to:

"Expand walking and biking infrastructure to support active transportation and to provide interconnection with the region's transit system." ECOS Plan page 93

The Public Health section also includes this as a priority strategy:

"Obesity -- Create policies and environmental supports that increase access to active transportation, active recreation, and healthy foods." ECOS Plan Page 103

The financial section of the transportation element of ECOS also notes a recommended shift in new transportation funding away from roadway investments and more into transportation alternatives like walking and cycling projects (see ECOS Plan page 180).

The Plan section on implementing transportation corridor improvements identifies this priority:

“Expanding the bicycle and pedestrian networks with on- and off-road facilities and more sidewalks.” ECOS Plan page 181

This project is also supported by the following goals from our 2017 Active Transportation Plan:

- *“Provide accessible, safe, efficient, interconnected, secure, equitable and sustainable mobility choices for our region’s businesses, residents and visitors.”*
- *“Encourage walking and biking in local communities through work with towns, schools, businesses and community walk-bike groups.”*
- *“Expand walking and biking infrastructure to provide interconnection with the region’s transit system.”*

Thank you for your consideration of this project.

Sincerely,



Bryan Davis
Senior Transportation Planner

Burlington Letter of Commitment



OFFICE OF THE CLERK/TREASURER

City of Burlington

City Hall, Room 20, 149 Church Street, Burlington, VT 05401

Voice (802) 865-7000

Fax (802) 865-7014

June 9, 2023

Peter Pochop
Vermont Agency of Transportation
219 North Main St.
Barre, VT 05641

Dear Peter,

Please accept this letter as a commitment from the City of Burlington acknowledging the local match and future maintenance responsibility for our proposed small-scale and large-scale construction projects.

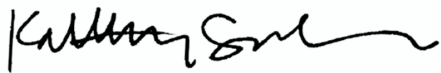
The proposed small-scale construction project will cement a 1.5-mile greenway as a low-stress east-west bikeway through Burlington's Old North End neighborhood. Project elements include a number of curb extensions, bike lane markings, and sharrow markings. This project was identified in the 2017 PlanBTV Walk Bike Master Plan. The city has conducted a successful long term pilot of this project using quick build materials, and now aims to hardscape the project. The city has already developed construction documents and is fully committed to the buildout of this project. The local match and additional local funding for this project will come from a voter-approved \$1.5 million bond measure allocated for traffic calming and bicycle and pedestrian projects. We are prepared to provide more than the required 20 percent local match. We are requesting \$75,000 from VTrans Bike/Ped Small Scale Grant and will contribute \$195,000 of local funding for construction; as well as commit to ongoing post-construction maintenance.

The proposed large-scale design/construction project will reconstruct and improve the North Beach Overpass. The overpass currently enables non-motorized travelers along the Burlington Greenway / Island Line Trail to pass over the North Beach access road. Bridge inspections revealed a level of deterioration that requires full replacement rather than continued maintenance. The reconstructed bridge will greatly improve walking and biking travel and connectivity along the Greenway / Island Line and along North Beach access road itself, and the bridge will be constructed to AREMA standards in case rail

travel replaces the Greenway during the life of the overpass. This will be a multi-year project. The city is fiscally constrained for several years while Burlington High School's \$170m+ bond restricts the city's borrowing capacity. As a non-motorized bridge outside of the federal aid system, there are very few discretionary grants at the state and federal level to support this type of project. The city is prioritizing reconstruction of this failing structure and plans to stack capital funds to complete this project by using more local funds, if they become available, or pursuing additional funding through future grant applications. We have also applied for a USDOT RAISE grant for this project but awards will not be announced until the end of June 2023. We are requesting \$1,000,000 in grant funds under this year's Bike/Ped program. The city's \$200,000 local match will come from a voter-approved bond for this project. Although the city cannot commit the additional \$403,500 required to complete this project while the BHS bond limits additional borrowing, the city will reevaluate the capital budget each year and determine if additional grants will be required to fully fund and reconstruct this project before the bridge becomes impassable.

The City of Burlington shares the State's vision of fostering more accessible, walkable, and bikeable communities. Thank you for your consideration of these important projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Katherine Schad", written over a thin vertical line.

Katherine Schad
Chief Administrative Officer

VTrans District 5 Office Communications

 Reply  Reply All  Forward  IM



Thu 5/25/2023 8:39 AM

Dayton Crites

ONE Greenway Construction Coordinatoin @ N.Willard /Route 2

To: Ernie.Petnoe@vermont.gov

Cc: Ravi Venkataraman; Julia Ursaki; Pochop, Peter

Ernie -

I'm reaching out to you as you're [the VTrans District 5 coordinator listed online](#). Here at the City of Burlington, we're planning to approach the VTrans Small Scale funding opportunity to build permanent versions of quick-build traffic calming elements along Loomis Ave and other roadways in the Old North End neighborhood to create a permanent traffic calmed cycling route.

As part of that application process, I wanted to share preliminary plan sets with you and get your guidance on what type of coordination we should anticipate taking in the coming years as a very small portion of these curb extensions would effect North Willard Street (Route 2) at Loomis. See pdf page 20 in the linked plan set for detail.

You can view and comment on "BTV ONE Greenway Bid Planset 2023-03-20.pdf" at: <https://acrobat.adobe.com/link/review?uri=urn:aaid:scds:US:3b310f1b-60c1-4a5b-97db-4c7fab44f288>

If you could please provide your take (or advise if there are others I should be reaching out to) before the end of next week, it would be greatly appreciated as we assemble our grant materials. Don't hesitate to get ahold of me directly if you have any other questions. Thank you.

Dayton Crites, AICP he/his

Senior Transportation Planner

City of Burlington Department of Public Works

645 Pine Street, Burlington, VT 05401

802.923.9218

www.burlingtonvt.gov/dpw

Please note that this communication and any response to it will be maintained as a public record and may be subject to disclosure under the Vermont Public Records Act.