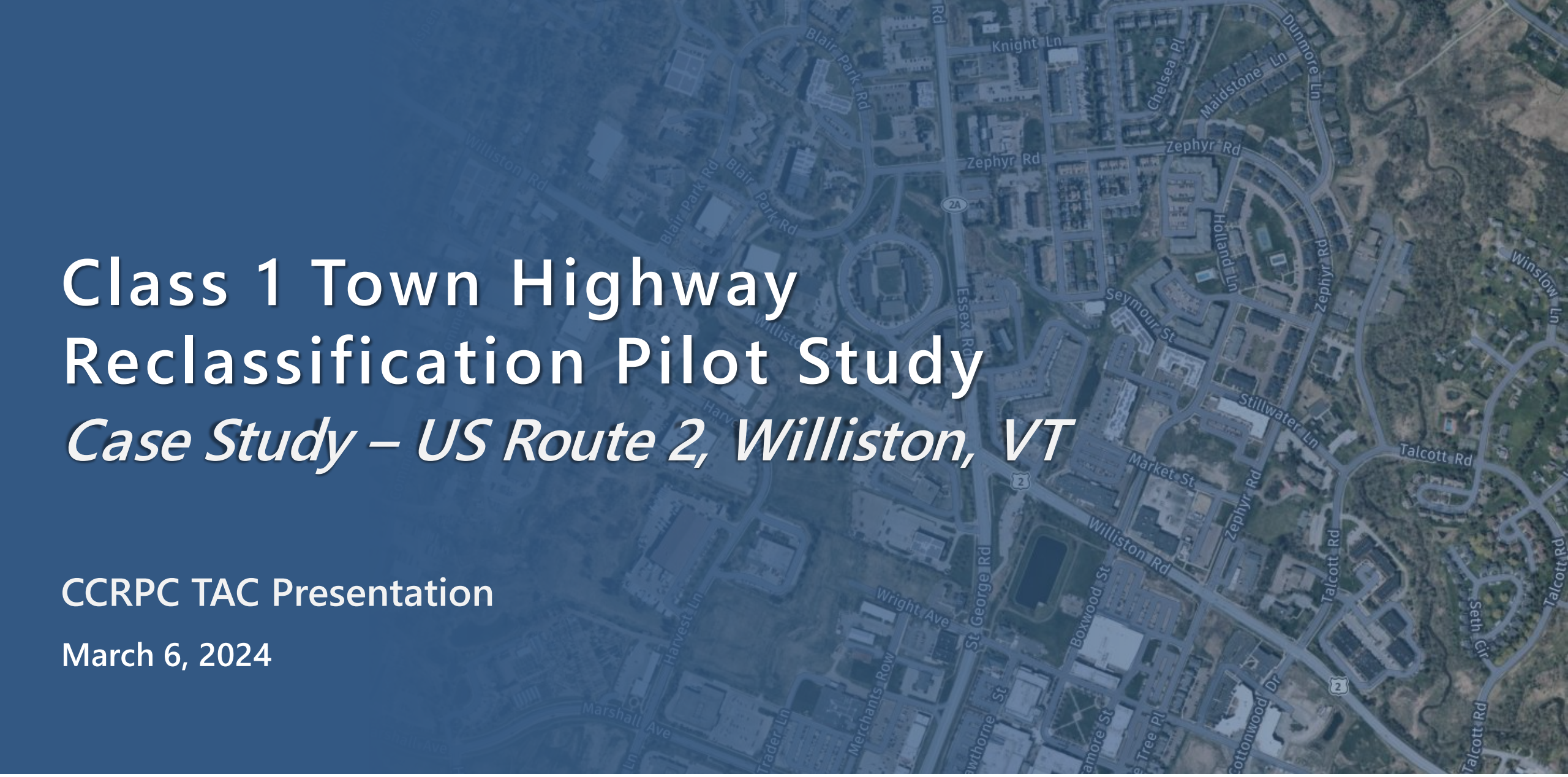


Class 1 Town Highway Reclassification Pilot Study

Case Study – US Route 2, Williston, VT

CCRPC TAC Presentation

March 6, 2024

Chittenden County RPC
Communities Planning Together

Vermont Agency of Transportation

Williston Vermont

vhb

Project Overview

- **Project Overview**
  - Funded through the CCRPC's annual work program
  - Study looking broadly at *opportunities to encourage reclassification of State highways to Class 1 Town Highways*, and specifically examining the feasibility of reclassifying US 2 through Taft Corners to a Class 1 Town Highway.
  - US 2 was selected as a *case study* as it is located within a suburban context with complex features (e.g. traffic signals and bike lanes), is the subject of upcoming VTrans programmed efforts (i.e US 2 Corridor Study & US 2 Slab Removal project), and the recent adoption of the Taft Corners Form Based Code.

- **Project Schedule**

– Project Kick-off Meeting	January 2023
– Roadway Inventory & Cost Estimate	January - February 2023
– Identify Strategies to Encourage Reclassification	March - July 2023
– Stakeholder Discussions	March – August 2023
– Draft Report	August 2023
– Selectboard Meeting	September 2023
– Final Report	October 2023

Class 1 Town Highway Overview

- **Comparison of Maintenance Responsibilities:**
  State Highway vs.
  Class 1 Town Highway

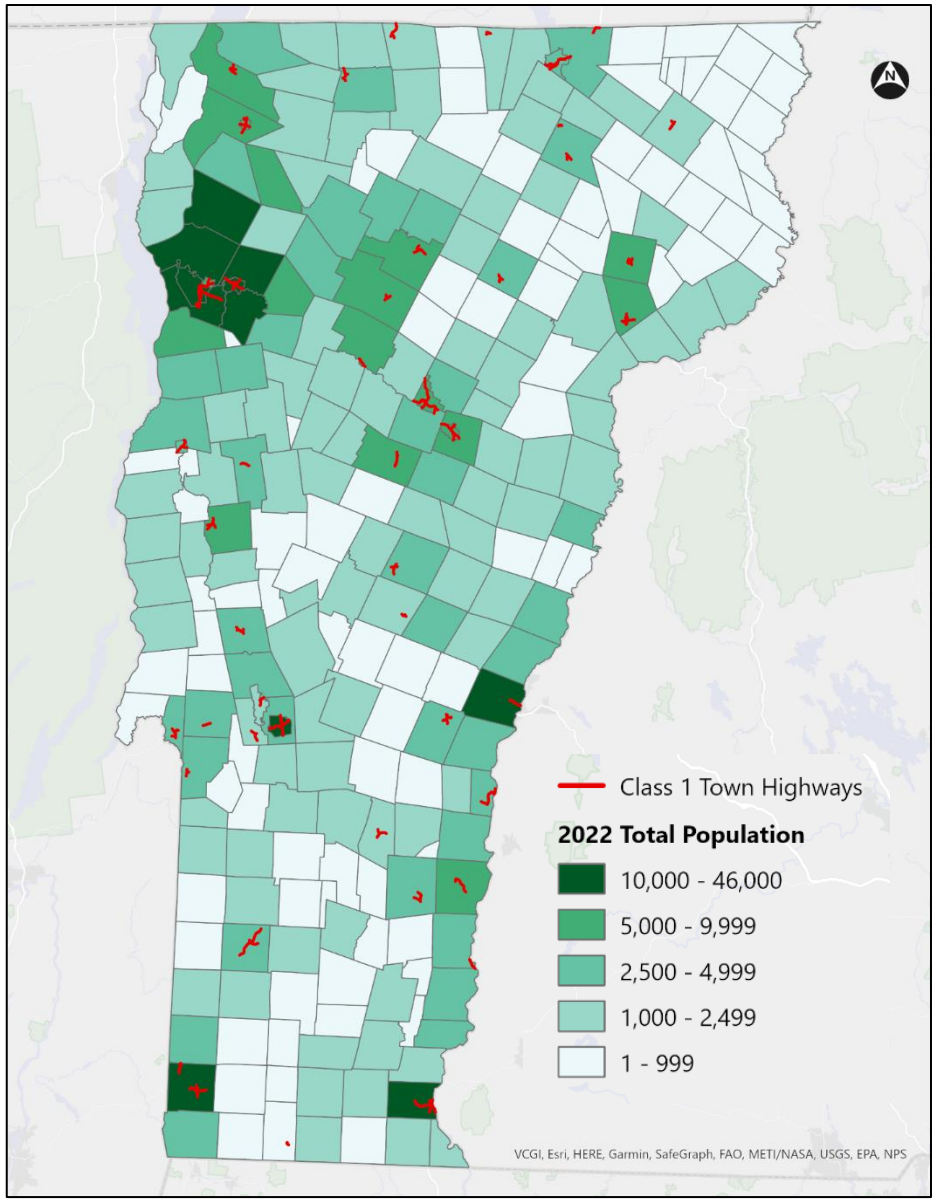
Item	State Highway		Class 1 Town Highway	
	Town	VTrans	Town	VTrans
Traffic Signal Maintenance		x	x	
Street Lights- Pedestrian	x		x	
Street Lights – Highway Safety		x	x	
Maintenance and Repair of Bridges / Culverts		x	x	
Sidewalks	x		x	
Striping - Centerline		x		x
Striping - Stop Bars		x	x	
Striping - Edge Lines		x	x	
Striping - On-street Parking	x		x	
Striping - Crosswalks on Side Streets	x		x	
Striping - Crosswalks across State Highway		x	x	
Striping - Bike Lanes		x	x	
Plowing – Travel Lanes		x	x	
Plowing – On-Street Parking	x		x	
Plowing – Sidewalks	x		x	
Pavement – Major Resurfacing		x		x
Pavement – Patching and Crack Sealing		x	x	
Stormwater – Management and Compliance		x	x	
Stormwater – Maintaining and Cleaning		x	x	
Replacing or Repairing Signs		x	x	x

= Depicts change in responsibility from VTrans to municipality with reclassification

Class 1 Town Highways Across the State

Table 3. Population vs Miles of Class 1 Town Highway

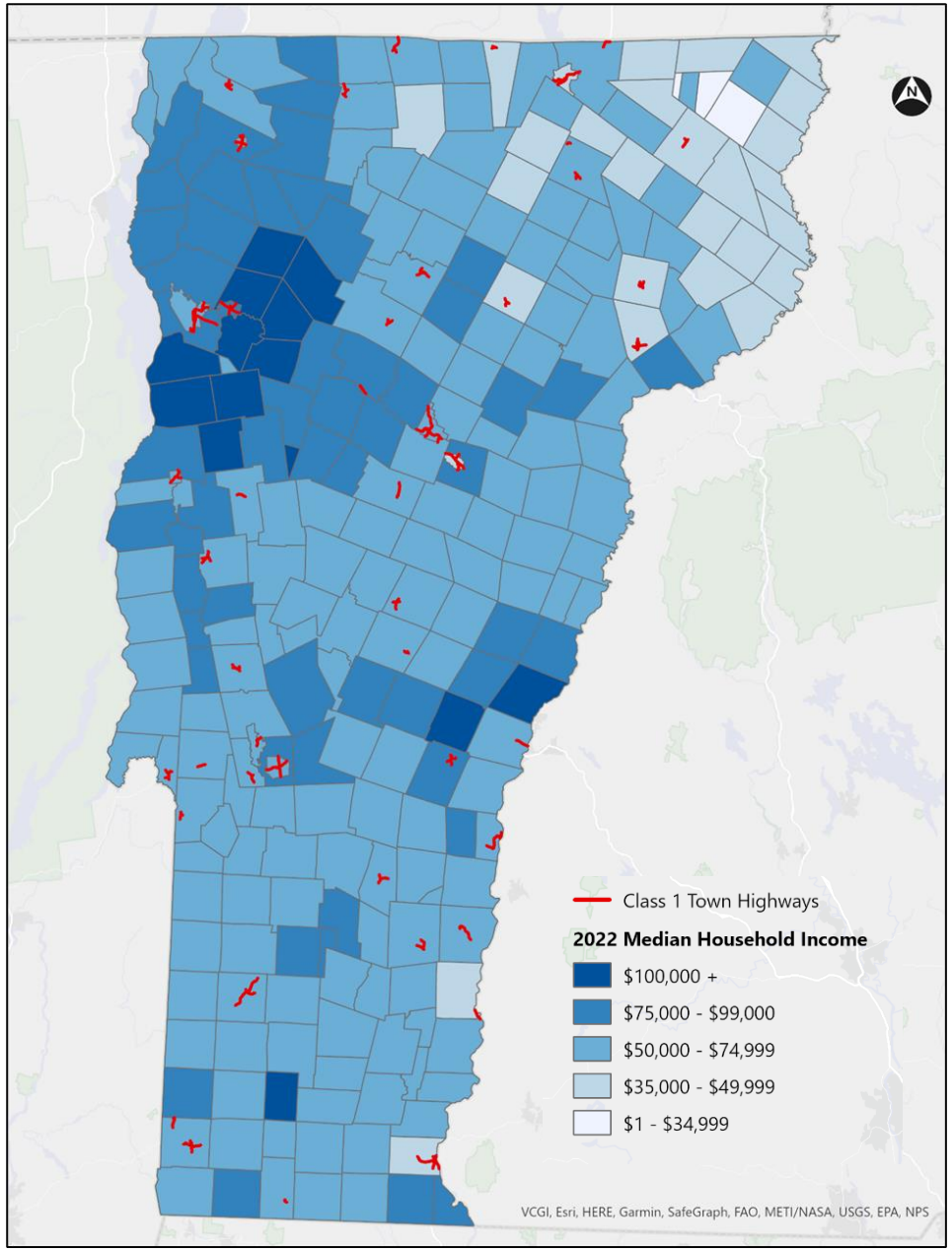
#	Municipality	Population	Miles of Class 1 TH
1	Burlington	44,703	7.1
2	Essex Town	21,851	0
3	South Burlington	20,042	2.3
4	Colchester	17,547	0
5	Rutland City	15,934	6.0
6	Bennington	15,345	3.6
7	Brattleboro	12,187	6.4
8	Milton	10,688	0
9	Hartford	10,604	1.7
10	Essex Junction	10,473	5.0
11	Williston	9,980	0
12	Springfield	9,089	2.9
13	Middlebury	9,029	3.9
14	Barre City	8,514	5.5
15	Winooski	8,015	2.0
16	Montpelier	7,966	10.5
17	Barre Town	7,848	0
18	Shelburne	7,682	0
19	St. Johnsbury	7,403	4.7
20	St. Albans City	6,866	4.3



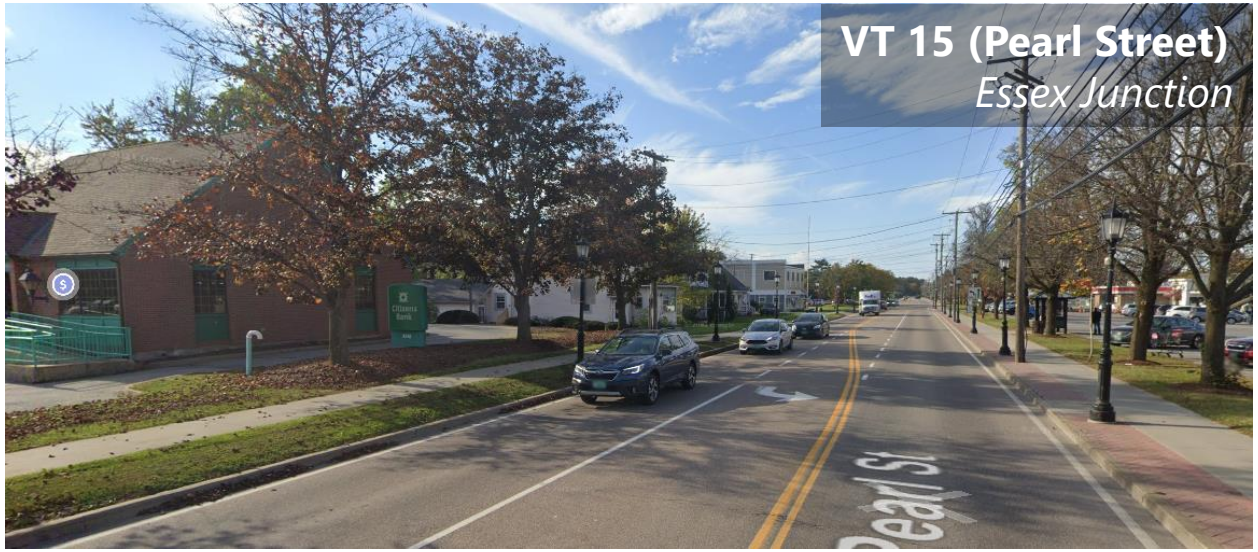
Class 1 Town Highways Across the State

Table 4. Miles of Class 1 TH vs Grand List/Population[2]

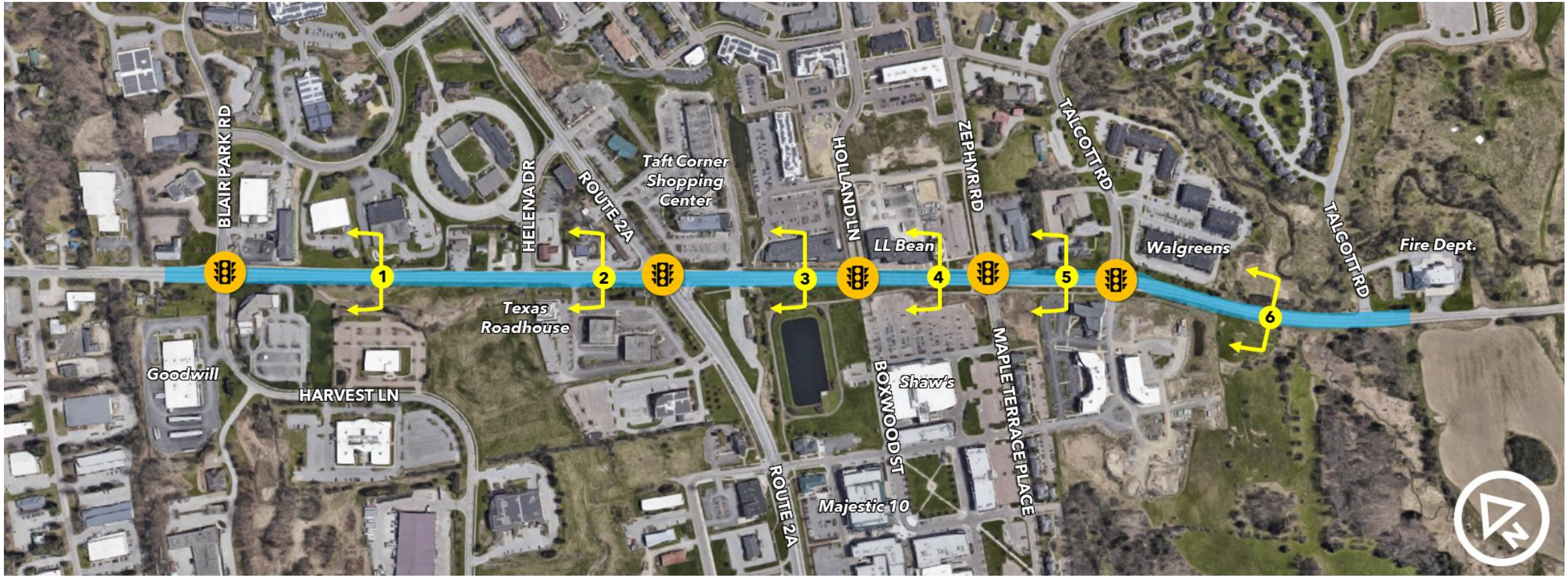
#	Municipality	2020 Population	2023 Equalized Municipal Property Value	Property Value / Population	Miles of Class 1 TH
1	Shelburne	7,682	$2,112,226,900	$274,957.94	0
2	Williston	9,980	$2,729,616,400	$273,508.66	0
3	South Burlington	20,042	$4,367,506,300	$217,917.69	2.3
4	Colchester	17,547	$3,055,164,400	$174,113.20	0
5	Hartford	10,604	$1,828,213,600	$172,407.92	1.7
6	Essex Town	21,851	$3,480,621,100	$159,288.87	0
7	Montpelier	7,966	$1,168,881,300	$146,733.78	10.5
8	Milton	10,688	$1,493,043,200	$139,693.41	0
9	Burlington	44,703	$6,084,896,700	$136,118.31	7.1
10	Middlebury	9,029	$1,170,724,000	$129,662.64	3.9
11	Barre Town	7,848	$961,453,600	$122,509.38	0
12	Essex Junction	10,473	$1,200,000,000	$114,580.35	5.0
13	St. Albans City	6,866	$781,700,500	$113,850.93	4.3
14	Brattleboro	12,187	$1,368,427,600	$112,285.85	6.4
15	Winooski	8,015	$857,725,100	$107,014.98	2.0
16	Bennington	15,345	$1,254,561,200	$81,757.00	3.6
17	St. Johnsbury	7,403	$588,663,000	$79,516.82	4.7
18	Rutland City	15,934	$1,210,218,000	$75,951.93	6.0
19	Springfield	9,089	$654,915,200	$72,055.80	2.9
20	Barre City	8,514	$607,299,400	$71,329.50	5.5



Class 1 Town Highways Across the State



US 2 / Williston Road Corridor Overview



2021 AADT = 10,764

2021 AADT = 10,764

2021 AADT = 9,853

2021 AADT = 8,117

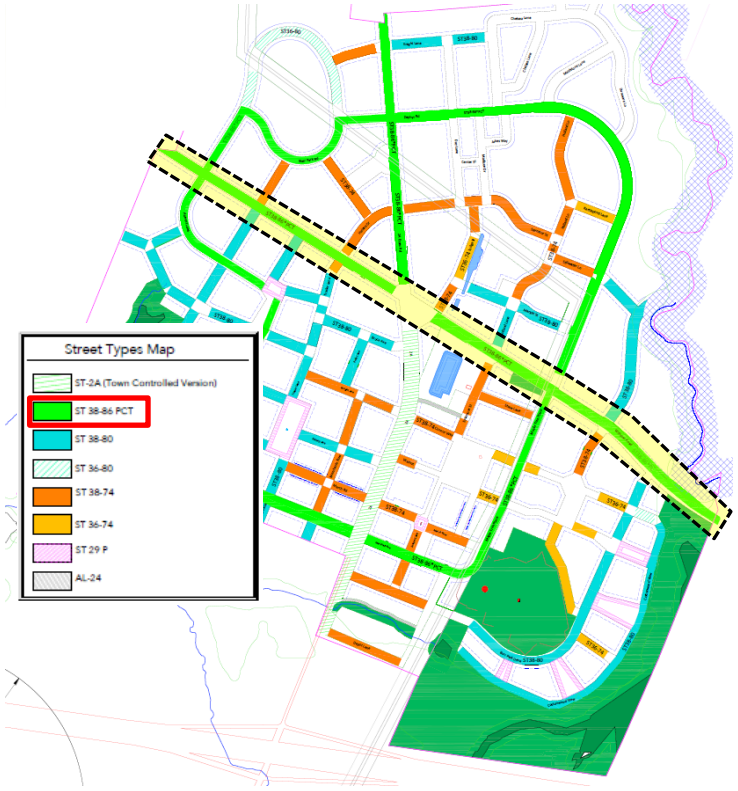
2021 AADT = 11,593

2021 AADT = 10,079

US 2 / Williston Road Corridor Overview

Corridor Data	
Length	1.07 miles
Right-of-Way Width	66 feet (4 rods) – 132 feet (8 rods)
Paved Roadway Width	30 feet – 56 feet
Number of Vehicle Lanes	2 – 4 lanes (turn lanes at intersections)
Pavement Condition	Good / Fair
Major Intersections + Traffic Control	• US Route 2 at Harvest Lane – Fully Actuated Signal • US Route 2 at VT Route 2A - Fully Actuated Signal • US Route 2 at Taft Shopping Center - Unsignalized • US Route 2 at Boxwood Street - Fully Actuated Signal • US Route 2 at Maple Tree Place - Fully Actuated Signal • US Route 2 at Talcott Road - Unsignalized
Traffic Volumes	9,000 – 11,600 vehicles per day (vpd)
Speed Limit	35 mph posted speed limit within study segment
Safety Data	US Route 2 at VT Route 2A – High Crash Intersection (HCL)
Bridges & Culverts	VTrans culvert inventory identifies 70 state small culverts within the study area

Williston Form Based Code: Overview

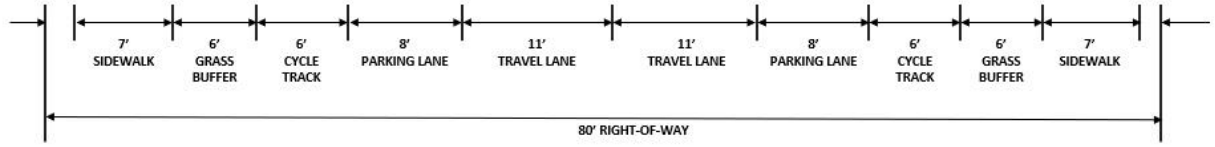


FBC Street Typology Map

FBC-Specified Williston Road Cross-Section

EXISTING CROSS SECTION
(STATE HIGHWAY)

POTENTIAL CROSS SECTION
(RECLASSIFIED TO CLASS 1 TOWN HIGHWAY)



Williston Form Based Code: Cross-Section Elements

Streetscape Elements Not Permitted in State ROW

1. **Curbed Bump-outs**
2. **On-Street Parking**
3. **11’ Offset to Curb**
4. **Street Trees**

Class 1 Town Highway Overview

- **Comparison of Maintenance Responsibilities:**
  State Highway vs.
  Class 1 Town Highway

Item	State Highway		Class 1 Town Highway	
	Town	VTrans	Town	VTrans
Traffic Signal Maintenance		x	x	
Street Lights- Pedestrian	x		x	
Street Lights – Highway Safety		x	x	
Maintenance and Repair of Bridges / Culverts		x	x	
Sidewalks	x		x	
Striping* - Centerline		x		x
Striping* - Stop Bars		x	x	
Striping* - Edge Lines		x	x	
Striping* - On-street Parking	x		x	
Striping* - Crosswalks on Side Streets	x		x	
Striping* - Crosswalks across State Highway		x	x	
Striping* - Bike Lanes		x	x	
Plowing – Travel Lanes		x	x	
Plowing – On-Street Parking	x		x	
Plowing – Sidewalks	x		x	
Pavement – Major Resurfacing		x		x
Pavement – Patching and Crack Sealing		x	x	
Stormwater – Management and Compliance		x	x	
Stormwater – Maintaining and Cleaning		x	x	
Replacing or Repairing Signs		x	x	x

= Depicts change in responsibility from VTrans to municipality with reclassification

Class 1 TH: Operational & Maintenance Cost Estimate

- Cost estimates developed with input from Williston DPW, VTrans District 5, VTrans Average Bid Pricing, 2017 Class 1 TH White Paper
- Estimate of Annual Unmet Maintenance & Labor Costs: **$24,200/Year**
  - Approximately **1.4%** increase in Town DPW Budget *($1.7M for FY 2023)*

Item	State Highway		Class 1 Town Highway	
	Town	VTrans	Town	VTrans
Traffic Signal Maintenance		x	x	
Street Lights- Pedestrian	x		x	
Street Lights – Highway Safety		x	x	
Maintenance and Repair of Bridges / Culverts		x	x	
Sidewalks	x		x	
Striping* - Centerline		x		x
Striping* - Stop Bars		x	x	
Striping* - Edge Lines		x	x	
Striping* - On-street Parking	x		x	
Striping* - Crosswalks on Side Streets	x		x	
Striping* - Crosswalks across State Highway		x	x	
Striping* - Bike Lanes		x	x	
Plowing – Travel Lanes		x	x	
Plowing – On-Street Parking	x		x	
Plowing – Sidewalks	x		x	
Pavement – Major Resurfacing		x		x
Pavement – Patching and Crack Sealing		x	x	
Stormwater – Management and Compliance		x	x	
Stormwater – Maintaining and Cleaning		x	x	
Replacing or Repairing Signs		x	x	x

= Depicts change in responsibility from VTrans to municipality with reclassification

Item	Unit Cost		# Units		Cost
Traffic Signal Maintenance	$1,500	per signal	5	signals	$7,500
Street Lights – Highway Safety	$250	per light (electricity + maintenance)	10	street lights	$2,500
Maintenance and Repair of Bridges / Culverts	$1,500	allowance	1	unit	$1,500
Striping: Stop Bars	$7	per linear foot	600	linear feet	$1,400
Striping: Edge Lines	$0.6	per linear foot	10,560	linear feet	$2,112
Striping: Crosswalks across State Highway	$20	per linear foot	620	linear feet	$4,133
Striping: Bike Lanes (Green Markings)	$9	per square foot	3,280	square feet	$5,904
Plowing – Travel Lanes	$3,500	per mile	1.07	miles	$3,745
Pavement – Patching and Crack Sealing	$3,000	allowance	1	unit	$3,000
Stormwater – Management and Compliance	$1,000	allowance	1	unit	$1,000
Stormwater – Maintaining and Cleaning	$2,500	allowance	1	unit	$2,500
Replacing or Repairing Signs	$500	allowance	1	unit	$500
				Total Maintenance Costs:	**$35,794**
				Class 1 TH Allocation:	$12,784
				Additional Annual Town Maintenance Costs:	**$23,010**
				Unmet Municipal Labor Costs:	**$1,126**
				Total Annual Unmet Maintenance & Labor Cost Estimate:	**$24,137**

Potential Opportunities & Recommendations – Part 1

Opportunities for Shared Maintenance Responsibilities		
Recommendation	**Rationale**	**Municipal Benefit (Williston-Specific)**
1) VTrans Continues to Maintain Traffic Signals	Difficult to find and procure signal maintenance contractors. Not a specialty service most DPWs can provide	Reduces annual maintenance costs by approximately $7,500 (21% decrease)
2) VTrans Continues to Maintain Pavement Markings	Difficult to find and procure pavement marking contractors.	Reduces annual maintenance costs by approximately $14,045 (38% decrease)
Other Opportunities to Incentivize Reclassification		
Recommendation	**Rationale**	**Municipal Benefit (Williston-Specific)**
3) Transfer US 2 to Williston in a "State of Good Repair" *(i.e. bring all pavement up to "good" condition; address any drainage and/or safety issues)*	Transferring the roadway in "good" condition ensures that the road remains safe and functional through the transfer and reduces municipal maintenance costs in the first few years following the transfer.	Reduces annual maintenance costs during first few years following transfer
4) VTrans provides lump sum payment to municipality to compensate for maintenance costs to bring roadway up to "State of Good Repair"	Providing a lump sum payment to a municipality prior to reclassification ensures that the municipality has sufficient funds to improve the roadway to "good" condition to reduce municipal maintenance costs in the first few years following the transfer.	Reduces annual maintenance costs during first few years following transfer
5) VTrans agrees to construct programmed capital projects along roadway within a mutually agreed-upon timeframe	In addition to (or in lieu of) bringing the roadway up to a *State of Good Repair*, ensuring all programmed projects along a roadway are constructed will reduce capital and maintenance costs for the municipality.	New traffic signal and turn lanes at US 2/Trader Lane ($570,000 estimated construction cost)

Potential Opportunities & Recommendations – Part 2

Current Rates - Fiscal Quarter 4 - April-June FY 2024

Class 1 - 13365.588867

Class 2 - 4916.011230

Class 3 - 1825.447510

Other Opportunities to Incentivize Reclassification		
Recommendation	**Rationale**	**Municipal Benefit (General)**
6) State Adjust Town Highway Aid Allocation Formula	Enhance the equity of the Town Highway Aid program by better aligning annual distribution amounts with roadway characteristics. For example, rather than distributing aid based only on roadway class, characteristics such as AADT, population density, rural vs. urban setting, and level of regional traffic served could be additional factors used to distribute aid.	Better aligns Town Highway Aid allocations to specific roadway needs
7) State Increase Town Highway Aid Allocation	Additional funding for the Town Highway Aid program will increase the amount of funds available to reimburse municipalities for Town Highway maintenance and may help incentivize municipalities to initiate Class 1 Town Highway reclassifications.	Provides additional funding for Town Highway capital and maintenance costs
8) State Revisit Town Highway Aid Program.	Identify optimal State highway network (eg. National average), then identify funding needed to transfer state highway mileage to municipal ownership.	Better aligns Town Highway Aid allocations to specific roadway needs

Potential Scenarios

Item	Unit Cost		# Units		Cost	Scenario 1 VTrans Maintains Signals	Scenario 2 VTrans Maintains Striping	Scenario 3 VTrans Maintains Signals & Striping
Traffic Signal Maintenance	$1,500	per signal	5	signals	$7,500	--	$7,500	--
Street Lights – Highway Safety	$250	per light (electricity + maintenance)	10	street lights	$2,500	$2,500	$2,500	$2,500
Maintenance and Repair of Bridges / Culverts	$1,500	allowance	1	unit	$1,500	$1,500	$1,500	$1,500
Striping: Stop Bars	$7	per linear foot	600	linear feet	$1,400	$1,400	--	--
Striping: Edge Lines	$0.6	per linear foot	10,560	linear feet	$2,112	$2,112	--	--
Striping: Crosswalks across State Highway	$20	per linear foot	620	linear feet	$4,133	$4,133	$4,133	$4,133
Striping: Bike Lanes (Green Markings)	$9	per square foot	3,280	square feet	$5,904	$5,904	--	--
Plowing – Travel Lanes	$3,500	per mile	1.07	miles	$3,745	$3,745	$3,745	$3,745
Pavement – Patching and Crack Sealing	$3,000	allowance	1	unit	$3,000	$3,000	$3,000	$3,000
Stormwater – Management and Compliance	$1,000	allowance	1	unit	$1,000	$1,000	$1,000	$1,000
Stormwater – Maintaining and Cleaning	$2,500	allowance	1	unit	$2,500	$2,500	$2,500	$2,500
Replacing or Repairing Signs	$500	allowance	1	unit	$500	$500	$500	$500
				Total Maintenance Costs:	**$35,794**	**$28,294**	**$26,378**	**$18,878**
				Class 1 TH Allocation:	$12,784	$12,784	$12,784	$12,784
				Additional Annual Town Maintenance Costs:	**$23,010**	**$15,510**	**$13,594**	**$6,094**
				Unmet Municipal Labor Costs:	**$1,126**	**$1,126**	**$1,126**	**$1,126**
				Total Annual Unmet Maintenance & Labor Cost Estimate:	**$24,137**	**$16,637**	**$14,720**	**$7,220**

State DOT Examples

Louisiana DOT Road Transfer Program:

- Actively trying to reduce percent of roads owned by State from 27% to national average of 19% (about 5,000 lane miles)
- Established mileage criteria (maximum miles of state roads in any town) and density criteria to identify candidate roads for transfer
- DOT upgrades road condition to "Good" or "Very Good" before transfer
- Participating communities receive financial credit for 40 years of maintenance
- State Allocation = $6,046 per mile, exclusive of traffic signals
- http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Multimodal/Road_Transfer/Documents/Right-Sizing%20the%20State%20Highway%20System.pdf

PennDOT Turnback Program:

- Targets roads that have low average daily traffic or would benefit the municipality both socially and economically
- PennDOT either rehabilitates the roadway before the transfer or pays the municipality for rehabilitating the roadway to bring into a satisfactory condition.
- Reimbursement rate of $4,000/mile provided annually after initial 2-year period
- Highway Transfer Turnback Program (pa.gov)

State DOT Examples

Minnesota DOT State Highway Turnback Program:

- Seeks to align roadway ownership with the right governmental agency
- MNDOT "restores" the roadway to acceptable condition (per negotiation between State and municipality) before transfer
- Reimbursement based on negotiation between State and municipality; takes into consideration available funding
- Turnback Program (revize.com)

Texas DOT Municipal Highway Turnback Program:

- Transferred roads will be in satisfactory condition before a transfer occurs
- Candidate roads have low daily traffic volume and/or benefit local communities economically and socially
- Before turnback, projects in STIP and 4-year paving program will be implemented
- Bridges retain Federal eligibility and remain in TxDOT's bridge inspection program
- Reimbursement based on negotiation between State and municipality
  - Example:

1. The city would gain property needed for the expansion of the convention center
2. TxDOT pays $250,000 for enhancements in the Lackland/SW Military corridor, and $150,000 toward a Wurzbach Parkway traffic study
3. Broadway gets a complete street reconstruction for curbs, sidewalks and landscaping that's outside the streetcar route
4. TxDOT pays for necessary one-time maintenance of the state roads before they're handed over to the city

Chittenden County RPC
Communities Planning Together

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AGENCY OF TRANSPORTATION

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