

VTrans efforts to make Vermont safe and accessible for walking and bicycling

PRESENTATION BEFORE THE SENATE COMMITTEE ON TRANSPORTATION

WEDNESDAY, FEBRUARY 8, 2023

Overview

- **Part 1 – Context and Planning Efforts**
- Part 2 – Complete Streets, Projects, Expenditures
- Part 3 – Safety, VT State Standards and Future state/wrap up

Part 1 – Context and Planning

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DAVE PELLETIER – POLICY AND PLANNING

Why Walking and Bicycling?

Vision for Vermont's transportation system:

“A safe, reliable and multimodal transportation system that grows the economy, is affordable to use and operate, and serves vulnerable populations.”

Millennials and baby boomers want walkable, mixed-use neighborhoods.



80%

Well maintained, safe and accessible streets

82%

Conveniently-located grocery stores

83%

Safe Parks

87%

Well-maintained health care facilities

Age
doesn't
define us

Why Walking and Bicycling?

Supports Healthy Activity*

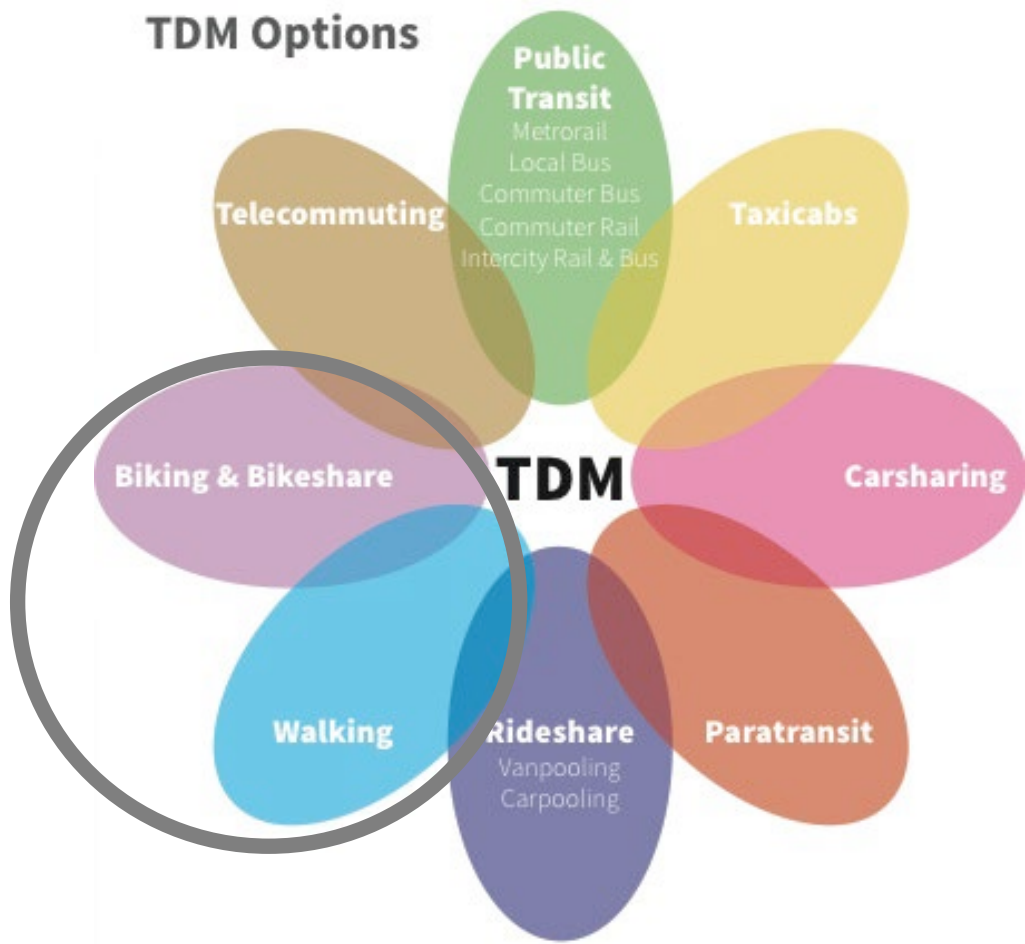
Regular physical activity can help prevent and manage chronic conditions, such as diabetes, heart disease and some cancers, conditions that are among the leading causes of death for Vermonters. **These also tend to be higher in priority populations, such as BIPOC, LGBTQ+, and people with disabilities.**

Regular **physical activity** is **one of the most important things we can do for our health**, and **biking and walking are great ways** to get the recommended amounts of physical activity. ([CDC Benefits of Physical Activity](#)) Walking, for example does not require any special equipment, memberships, or skills ([CDC Walking](#)) and when **doing it as a part of “everyday” activities, such as walking to school, work, or to do errands**, can help increase everyday activity.

*Information provided by VT Department of Health Chronic Disease Program



Transportation Demand Management (TDM)



Intentional efforts to counterbalance the incentives and societal norms that encourage personal vehicle use (e.g., paved roads, convenient and free parking vs. well maintained sidewalks and bike paths).



Carbon Reduction

Relative Cost-Effectiveness of Strategies

Table 6. Cost-Effectiveness of Clean Transportation Strategies

Strategy	GHG	PM2.5	New non-SOV trips	Jobs	Health benefits
Light duty EVs	+++	+++	-	+	++
Electric transit buses	+++	+++	-	+	+++
Electric school buses	+++	+++	-	+	++
Electric trucks	+++	+++	-	++	++
Hydrogen trucks	+++	+++	-	++	++
Shared ride incentives	+	+	+++	+	+
Micromobility: Shared e-scooters & e-bikes	+	+	++	+	++
Micromobility: E-bike ownership	++	++	+++	+	++
Land use/smart growth	+++	++	-	++	++
Bicycle investment	++	++	+++	++	+++
Pedestrian investment	+	+	+++	++	+++
Travel demand & mobility management	++	++	+++	++	++
Bus rapid transit	+	+	+++	++	+
Commuter/intercity rail	+	+	++	++	+
Bus service: Expansion	+	-	++	+++	+
Bus service: Efficiency	++	+	++	+++	++
Electric microtransit	+	+	+++	++	+
Traffic flow improvements	+++	-	-	+++	-

Table 5. Benefits Key

Benefits Range	GHG tons/\$M	PM2.5 lbs/\$M	New non-SOV trips per \$M	New jobs per \$M	Value of health benefits per \$M
-	<10	<1	<1,000	<1	<\$0.1M
+	10 – 100	1 – 10	1,000 – 50,000	1 – 10	\$0.1 – \$0.25M
++	100 – 1,000	10 – 100	50,000 – 250,000	10 – 20	\$0.25M – \$2.5M
+++	>1,000	>100	>250,000	>20	>\$2.5M

Note: A typical car emits about 4 to 5 tons of GHG per year, so 100 tons is equivalent to taking 20 cars off the road, and 1,000 tons is equivalent to taking 200 cars off the road.

Source: Rhode Island Clean Transportation and Mobility Innovation Report (2020)

Measures contributing to decreased VMT, lower emissions, and co-benefits



Mobility and Transportation Innovations – (MTI) Grant Program

Enabled by the Legislature in the 2020 Transportation Bill (Act 121)

Goals:

- improve both mobility and access to services for transit-dependent Vermonters
- reduce the use of single occupancy vehicles
- reduce greenhouse gas emissions.

2021 Grants included:

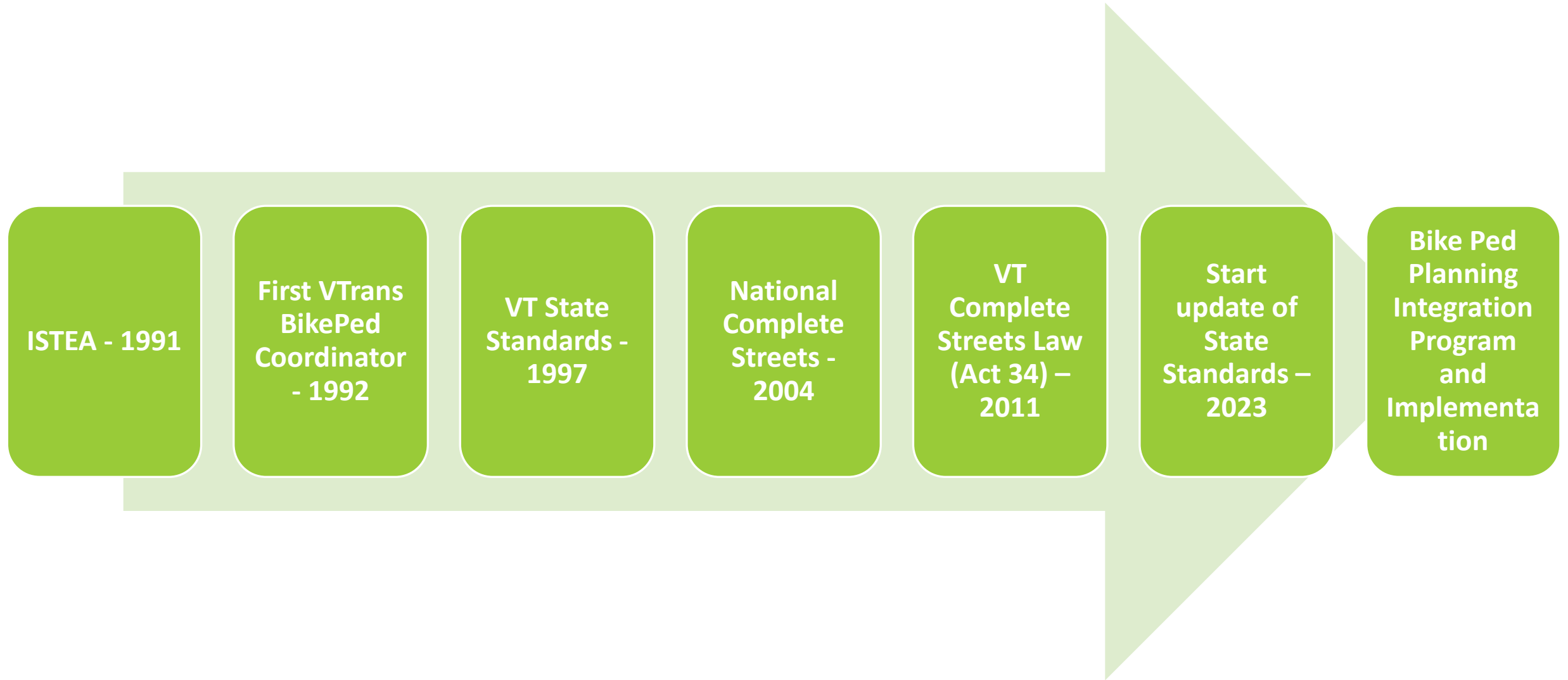
- \$50k CCRPC Greenride Bikeshare Ebikes and Expansion
- \$50k LocalMotionProviding Bike Parking at High Traffic Destinations to Increase Bicycling Mode Share for Vermonters and Satellite E-Bike Lending Libraries
- \$31.5k Vital Communities Upper Valley E-Bike Subsidy Program

Relationship with Transit

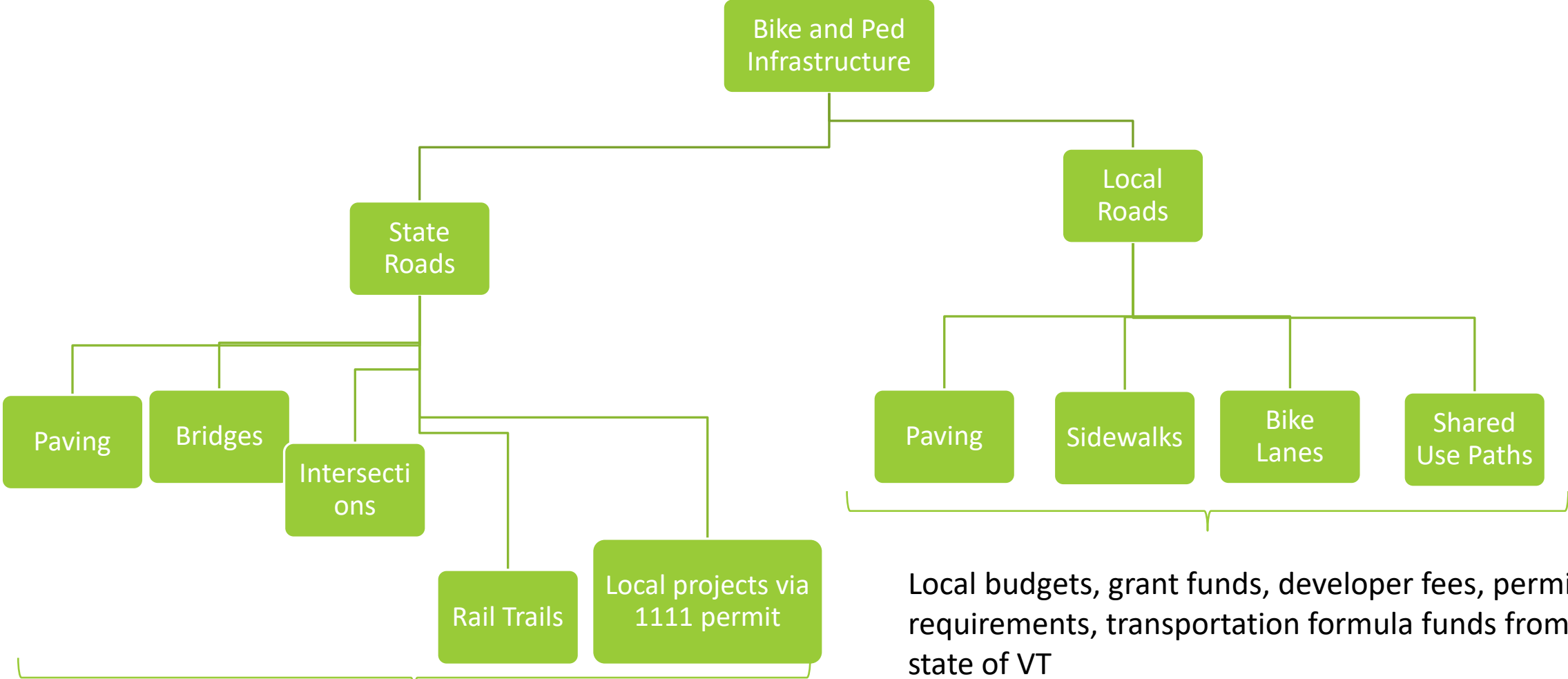
- Virtually all bus riders become pedestrians at one or both ends of their transit trip. The walking trip from home to the boarding bus stop, and then from the exiting bus stop to the workplace (or other destination) **needs to be safe and comfortable.**
- Strong local connections (**bike access**, scooters, feeder routes) can help expand the market for a bus route beyond its immediately surrounding neighborhood



Evolution of BikePed in VT



How are bike/ped improvements developed in Vermont?



Federal and State Funds (some local match)

Local budgets, grant funds, developer fees, permit requirements, transportation formula funds from state of VT

Equity - bicycling and walking

1. An equitable transportation system fosters fairness and helps facilitate access to opportunities for **all** community members* **including** those identified by FHWA as traditionally underserved.
2. Walking and bicycling can be an accessible, affordable means of transportation for ALL populations, including those for which personal automobiles are out of reach.

FHWA identifies traditionally underserved populations as including, but not limited to:

- Low Income
- Minority
- Older Adults
- Limited English Proficiency (LEP)
- Persons with Disabilities



*Credit: pedbikeinfo.org

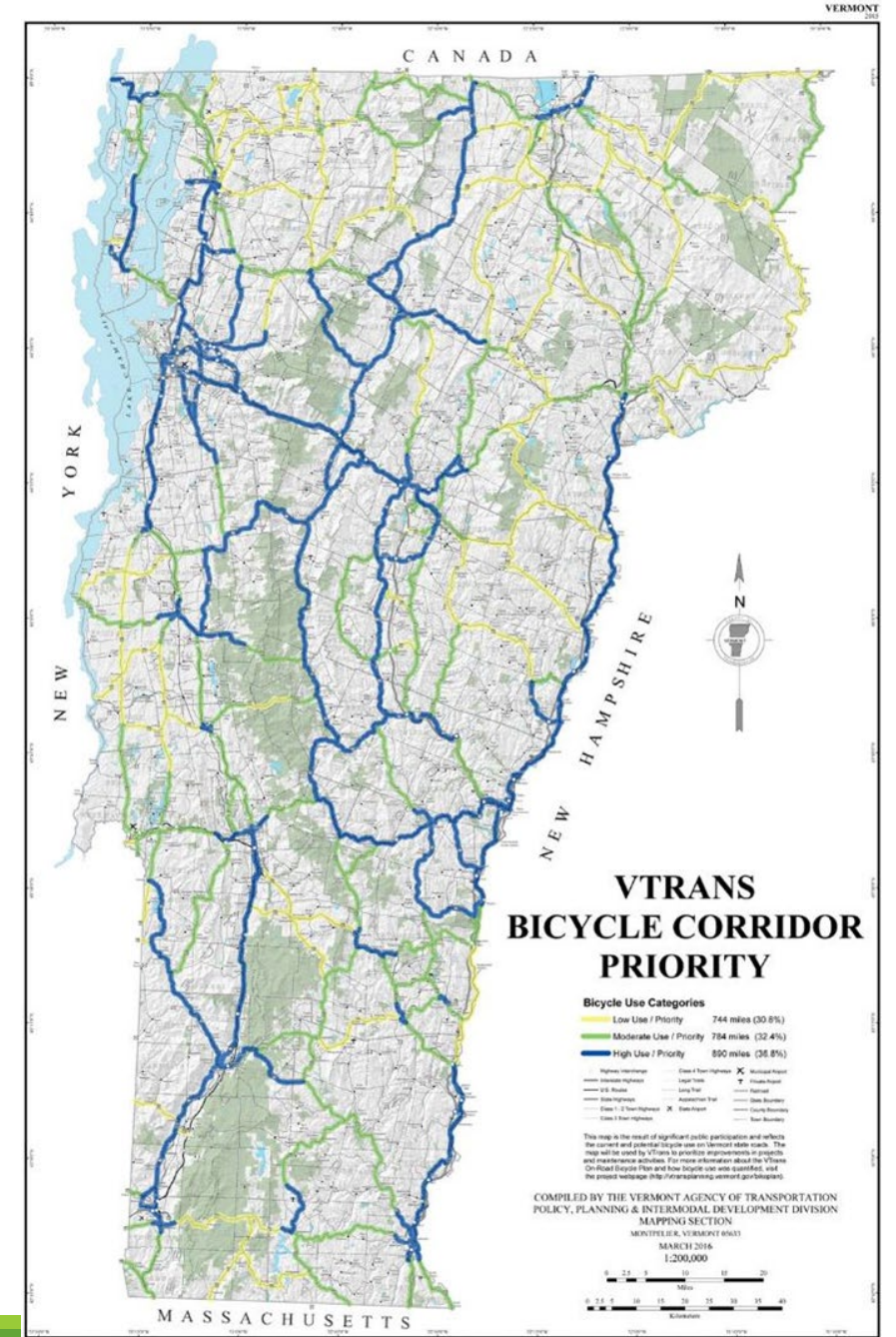
On-road Bike Plan –

Phase I - 2015

Categorize state roads:

- Into high-, moderate-, and low use/priority
- Based on current and potential bicycle use
- Accounts for transportation and recreational use

Result:

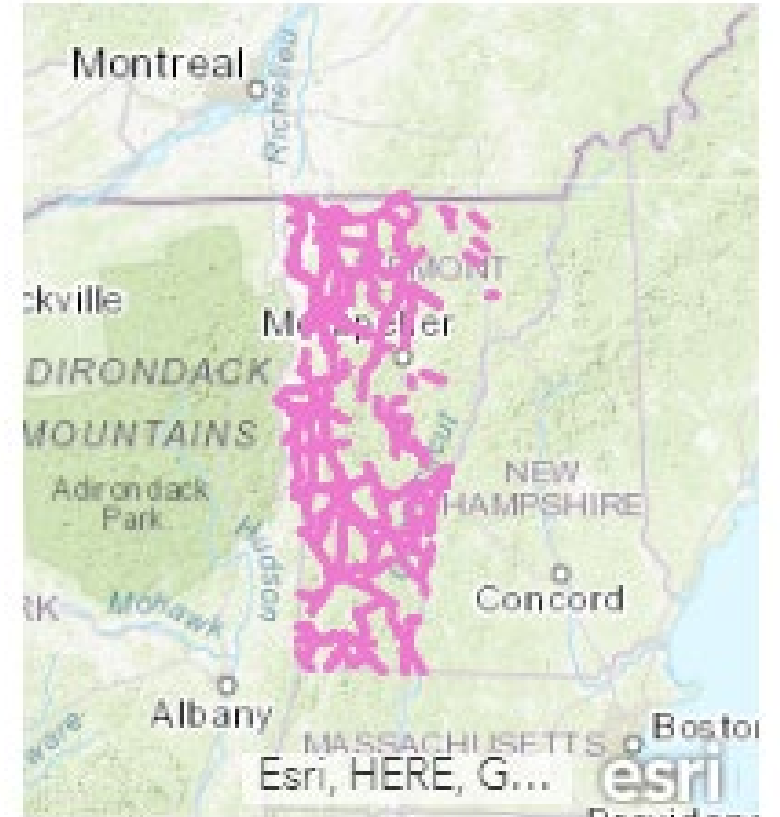


On-road Bike Plan

How are the results used:

- Project Prioritization
- Maintenance Activities
- Project Definition
- Corridor Planning

Street Sweeping Progress 2022

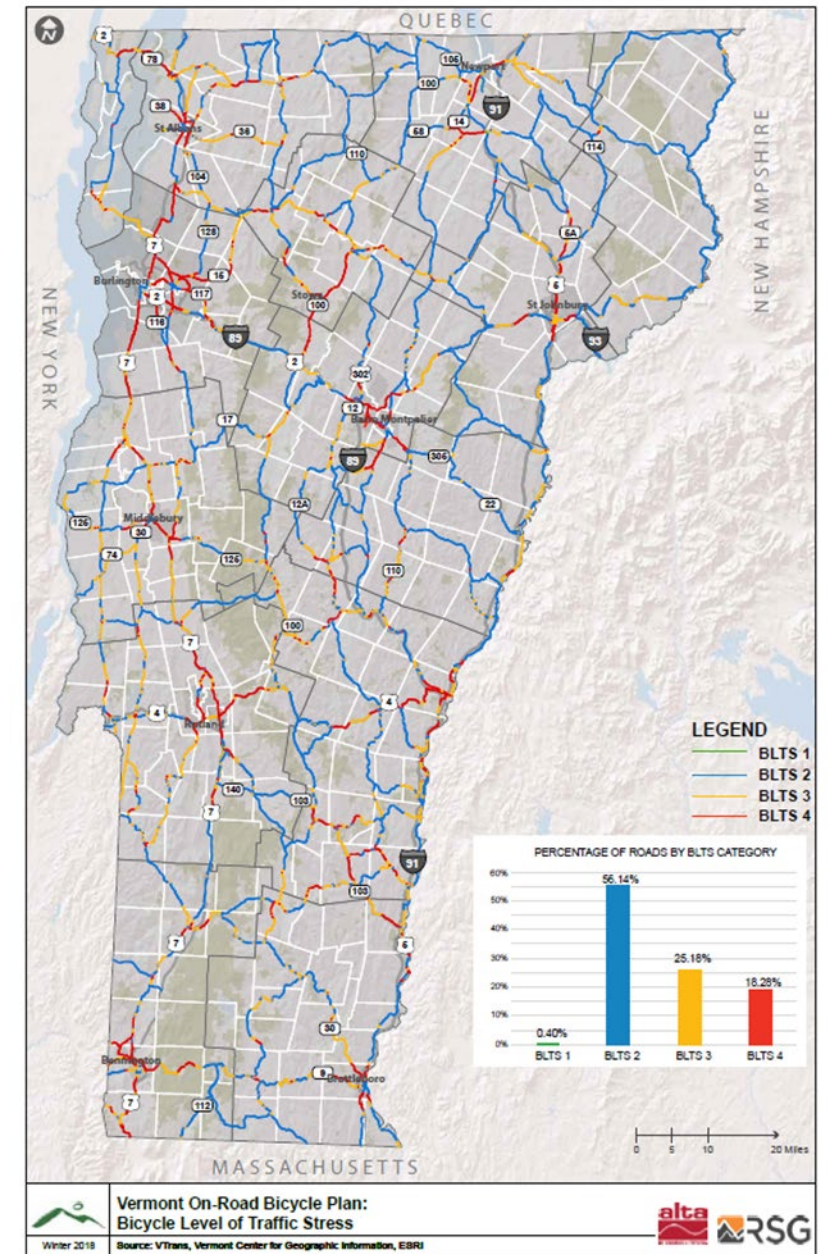


[View larger map](#)

On-road Bike Plan – Phase II - 2016

Bicycle Level of Comfort

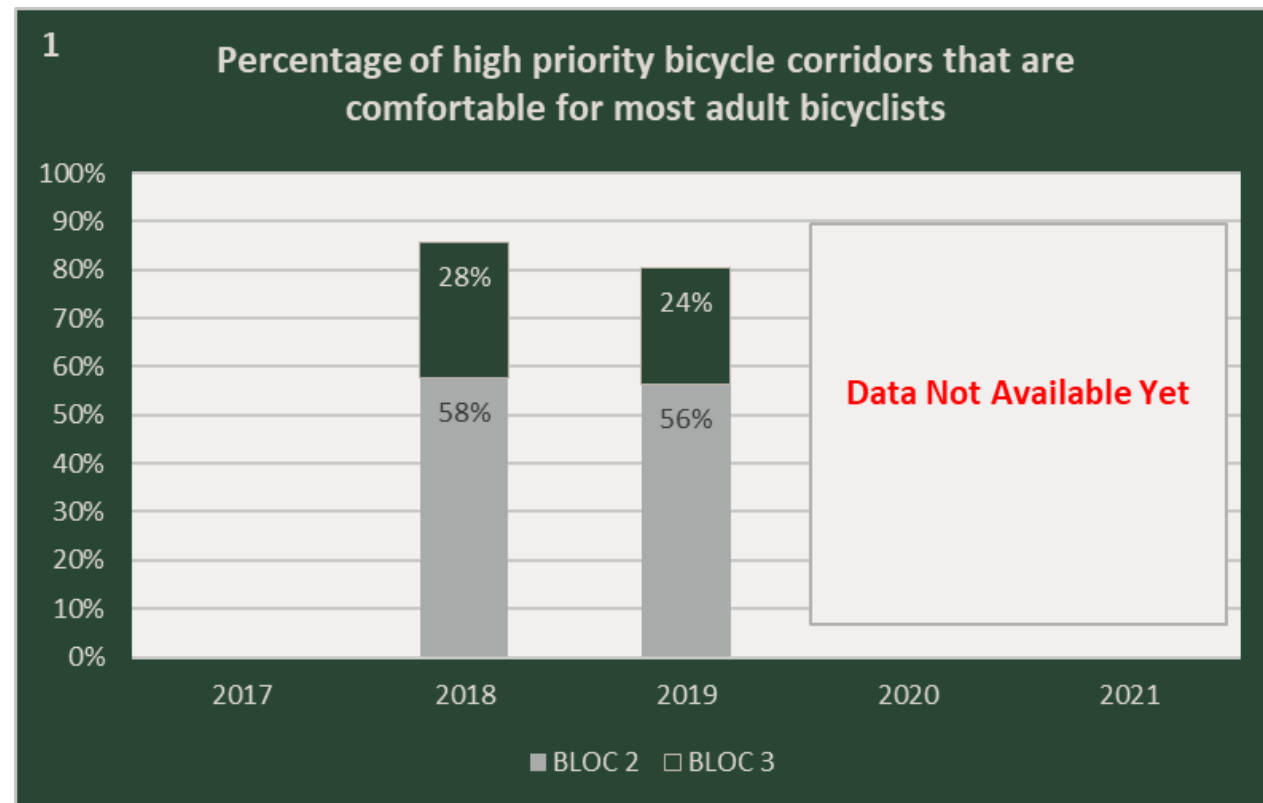
- 1- Welcoming to most bicyclists.
- 2 – Comfortable for most adult bicyclists.
- 3 – Comfortable for experienced and confident bicyclists.
- 4 – Uncomfortable for most bicyclists.



On-road Bike Plan – Phase II

How are the results used:

- Performance Measures – Increase miles of roads with lower BLOC (IE: make them more comfortable for bicycling)
- Identify key gaps
- Communication with public



Bike Ped Strategic Plan - 2021



The needs of people walking and bicycling of all ages and abilities will be considered in all VTrans activities.

VTrans staff will continue to work collaboratively internally and with external partners to improve safety, connectivity, and access to promote walking and bicycling.

MISSION: Safety, health, economic, environmental, and quality of life benefits resulting from an increase in walking and bicycling will be achieved through education and training, innovative planning and design practices, the consideration of community needs, and effective communication. Clearly define expectations for VTrans staff of the importance of creating equitable and maintainable transportation networks.

BPSP Goals



Safety & Network Improvement

Invest in readily maintainable infrastructure to ensure safety, mobility, accessibility, and comfort for those walking and bicycling within available resources. Prioritize network improvements which emphasize safety as well as stimulate outdoor recreation, environmental benefits, tourism, economic growth, productivity, and competitiveness for Vermont businesses.



Education & Innovation

Educate VTrans staff and external partners about the needs of those walking and bicycling and promote innovative practices that improve the safety and performance of existing and future walking and bicycling networks.



Inclusion & Integration

Develop and foster a culture where the needs of those walking and bicycling are considered in all VTrans activities.



Communication & Collaboration

Identify the needs and resources of those walking and bicycling through frequent and effective communication and collaboration regarding VTrans activities.

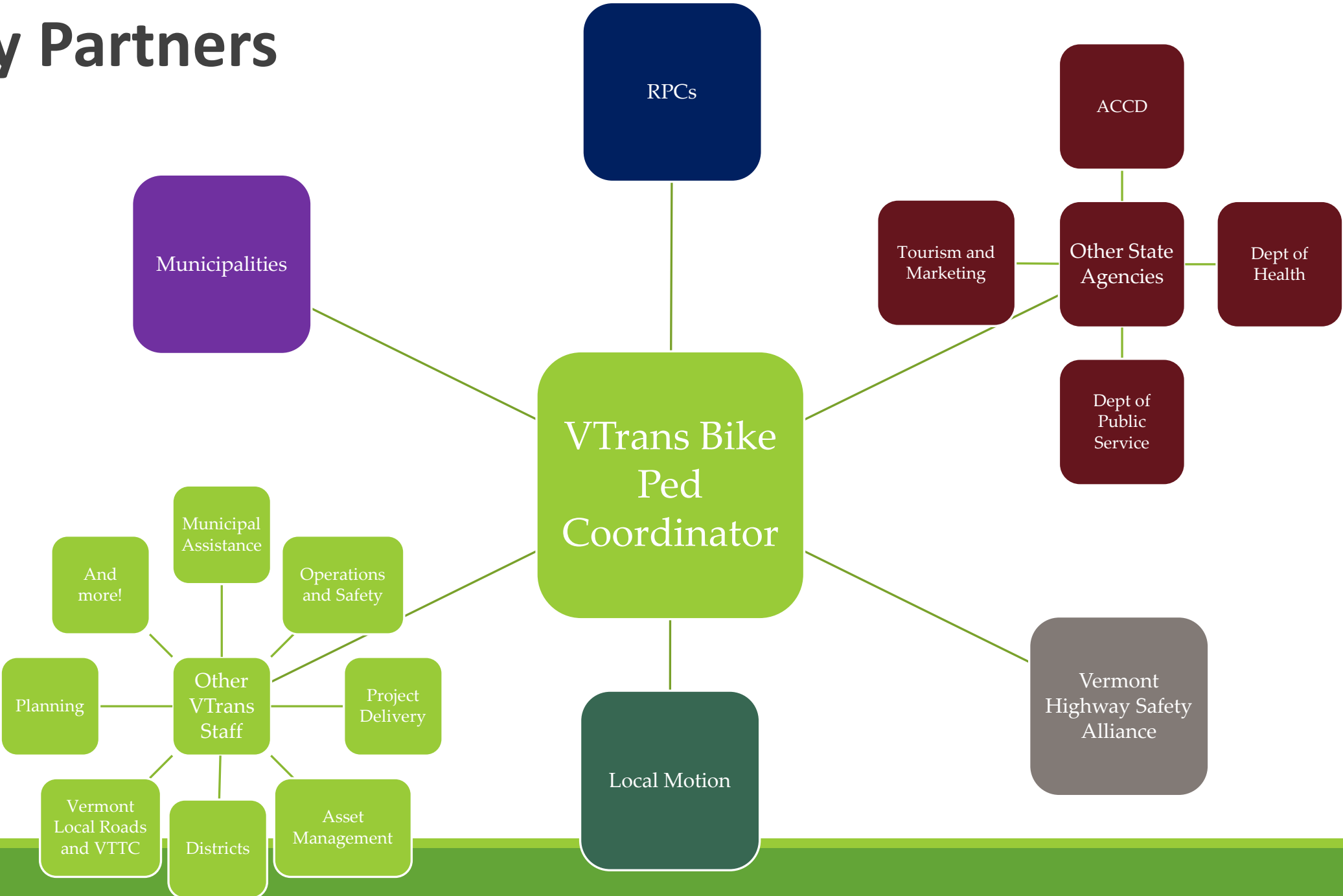


Effectiveness, Accountability, & Community Needs

Improve VTrans' effectiveness in implementation of strategies for those walking and bicycling through clear employee expectations, greater accountability, and consideration for the desires of local communities.



Many Partners



Bicycle and Pedestrian Planning Integration Program*

- VTrans and RPCs are developing a framework to ensure alignment and integration of municipal and state bicycle and pedestrian infrastructure deployment.
- Creating a statewide GIS inventory of local plans and needs to fold into State asset-management projects when feasible.
- Will also identify gaps in bicycle and pedestrian infrastructure to feed needs into VPSP2 project prioritization system.

*As directed in Section 25, Act 184, 2022

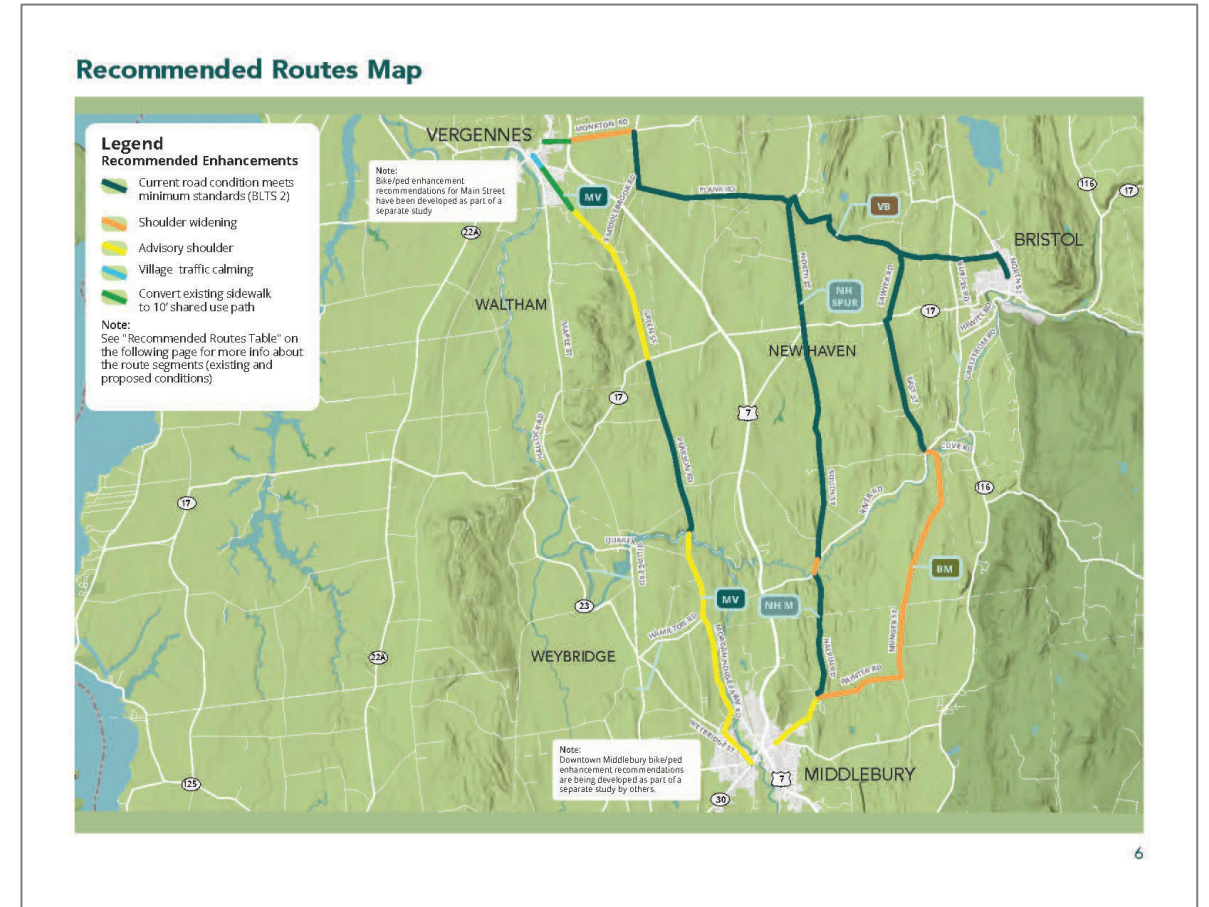


Scope of Work

1. Statewide Bicycle and Pedestrian Network planning-level GIS layer reflecting existing infrastructure and plans.
2. Bicycle routes generally oriented around the statewide network but also inclusive of adjacent / connected local and regional routes.
3. Pedestrian infrastructure plans generally focused on villages, downtowns, other densely developed areas.

Existing Information

- Existing conditions on state network thanks to the **On-road Bike Plan** (see previous slides)
- Numerous bicycle and pedestrian plans at municipal and multi-town levels. (example at right)
- Identification of gaps will also be helpful.



Triangle Bike Loop Master Plan – Addison County

Next Steps

1. Working Group comprised of VTrans Planning, Asset Management, and Mapping staff, RPC staff, and Local Motion formed in November 2022 will continue to meet to guide development of the program.
2. Initial work will focus on integrating existing municipal plans into existing state bicycle network information.
3. FFY23 goal for each of the eleven RPCs will be based on staff capacity and level of planning already completed in each area.

Questions / Comments?