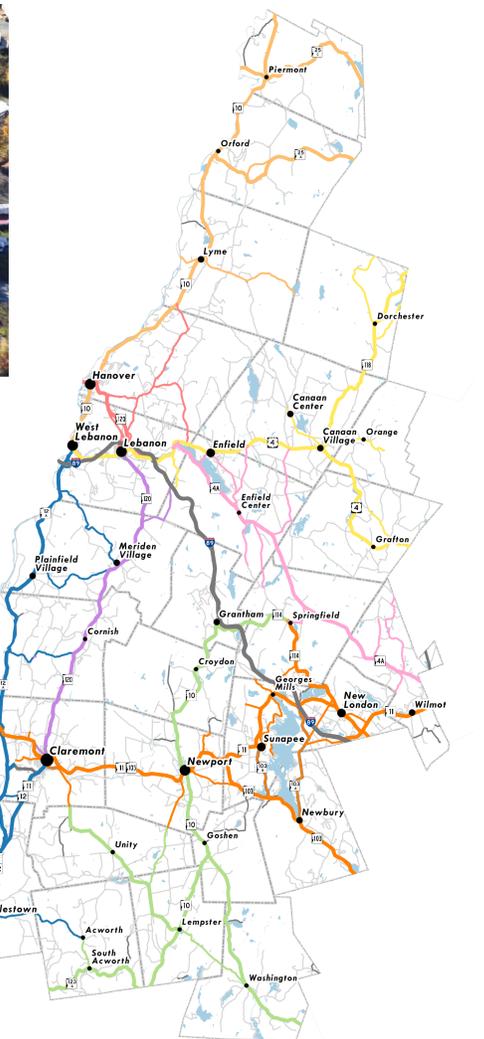




# UPPER VALLEY LAKE SUNAPEE REGIONAL CORRIDOR TRANSPORTATION PLAN



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*The Action Plan is a process for turning transportation needs and concepts into projects that are ready to compete for funding and get implemented. An individual Action Plan is presented for each major transportation corridor in the Upper Valley Lake Sunapee region. Consult the Overview on page 6 for more information.*

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## REGIONAL TRANSPORTATION CORRIDORS

*This plan identifies eight major regional transportation corridors that connect communities in the Upper Valley Lake Sunapee region. For each corridor, an **overview** and **action plan** consisting of transportation improvement projects is presented. A brief **data summary** is also provided for each corridor. A **map of transportation corridors** is provided on page 4.*

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Transport icons courtesy Freepik.

### Adopted by UVLSRPC Transportation Advisory Committee, 1/11/2022

*Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC) is one of nine Regional Planning Commissions (RPC) in New Hampshire enabled through state legislation (RSA 36:45). RPCs were created to coordinate all aspects of planning, act as a liaison between local and state/federal governments and provide advisory technical assistance. Regional Planning Commissions seek to promote intergovernmental collaboration and coordination throughout the regions they serve. UVLSRPC serves in advisory role to 27 towns in New Hampshire across Grafton, Sullivan, and Merrimack Counties.*

*This plan is funded in part by the New Hampshire Department of Transportation and the Federal Highway Administration (FHWA), U.S. Department of Transportation. The contents of this plan do not necessarily reflect the official views or policies of the funding agencies.*

# REGIONAL CORRIDOR TRANSPORTATION PLAN

## INTRODUCTION



Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC) is charged with creating a **long-range regional transportation plan** for the 27 communities in the Upper Valley Lake Sunapee region of New Hampshire. The **Regional Corridor Transportation Plan** focuses on the region's major transportation corridors to present a 15-year vision for an improved transportation system.

### PURPOSE OF THE PLAN

- Identify **needed improvements** to the regional transportation system - based on public input, data analysis, and existing plans and studies.
- Create **action plans** to help needed transportation improvement projects compete for various funding opportunities, such as New Hampshire's *Ten-Year Transportation Improvement Program* ("Ten-Year Plan").

### REGIONAL HIGHWAY TRANSPORTATION CORRIDORS

This plan identifies eight major state highway corridors that connect communities in the Upper Valley Lake Sunapee region. For each corridor, an **overview** and **action plan** (see page 10) consisting of transportation improvement projects is presented.

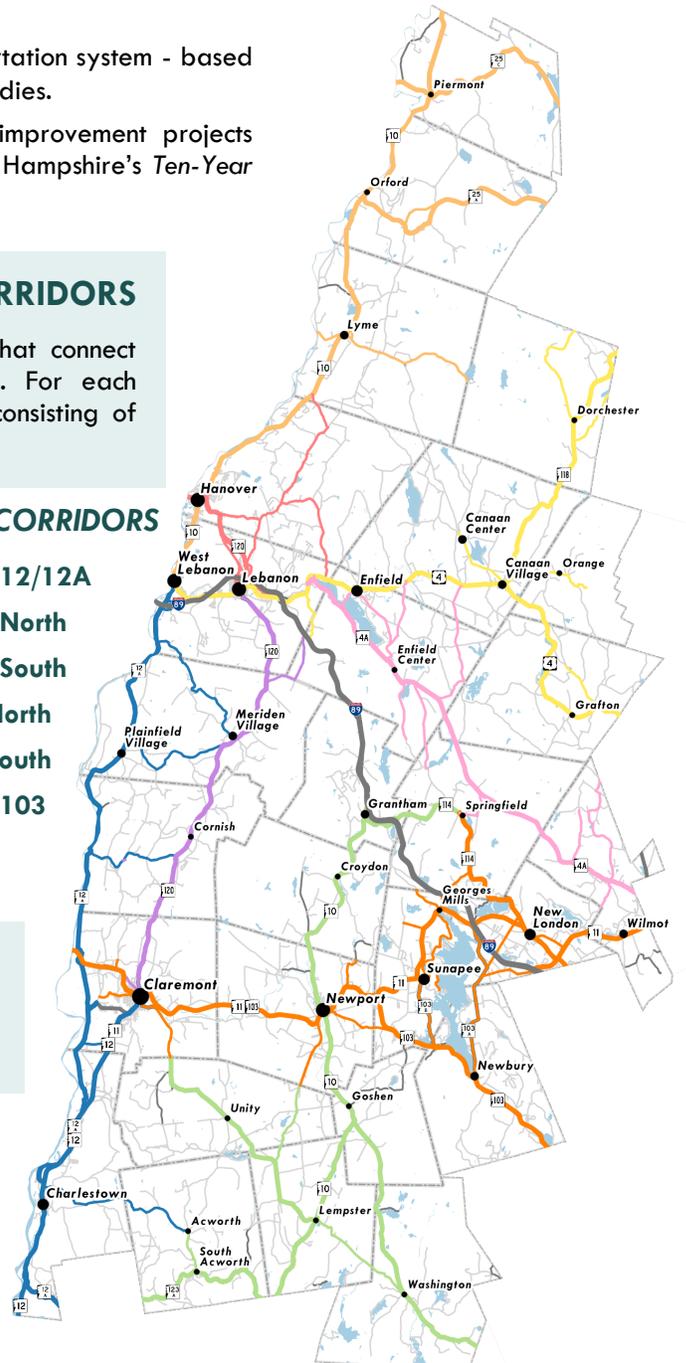
#### Interstate Corridors

The Upper Valley Lake Sunapee region is also served by two Interstate highways. **Interstate 89** runs from Vermont into Lebanon south to Sunapee before terminating in Concord. **Interstate 91** runs along the west side of the Connecticut River in Vermont, but is used by regional residents as a north-south connector.

These Interstate corridors are critical for regional mobility. The *Regional Corridor Transportation Plan* focuses on state highway corridors, including where these corridors access Interstate highways.

#### LIST OF REGIONAL CORRIDORS

- NH Routes 11/12/12A
- NH Route 120 North
- NH Route 120 South
- NH Route 10 North
- NH Route 10 South
- NH Routes 11/103
- NH Route 4A
- US Route 4



### MODES OF TRANSPORTATION

This is a **multi-modal** regional transportation plan, focusing on motor vehicle travel, walking, bicycling, public transit, and freight transportation. While the region has rail and aeronautic infrastructure, these modes of transportation are not a primary focus of this plan.



# REGIONAL CORRIDOR TRANSPORTATION PLAN

## INTRODUCTION

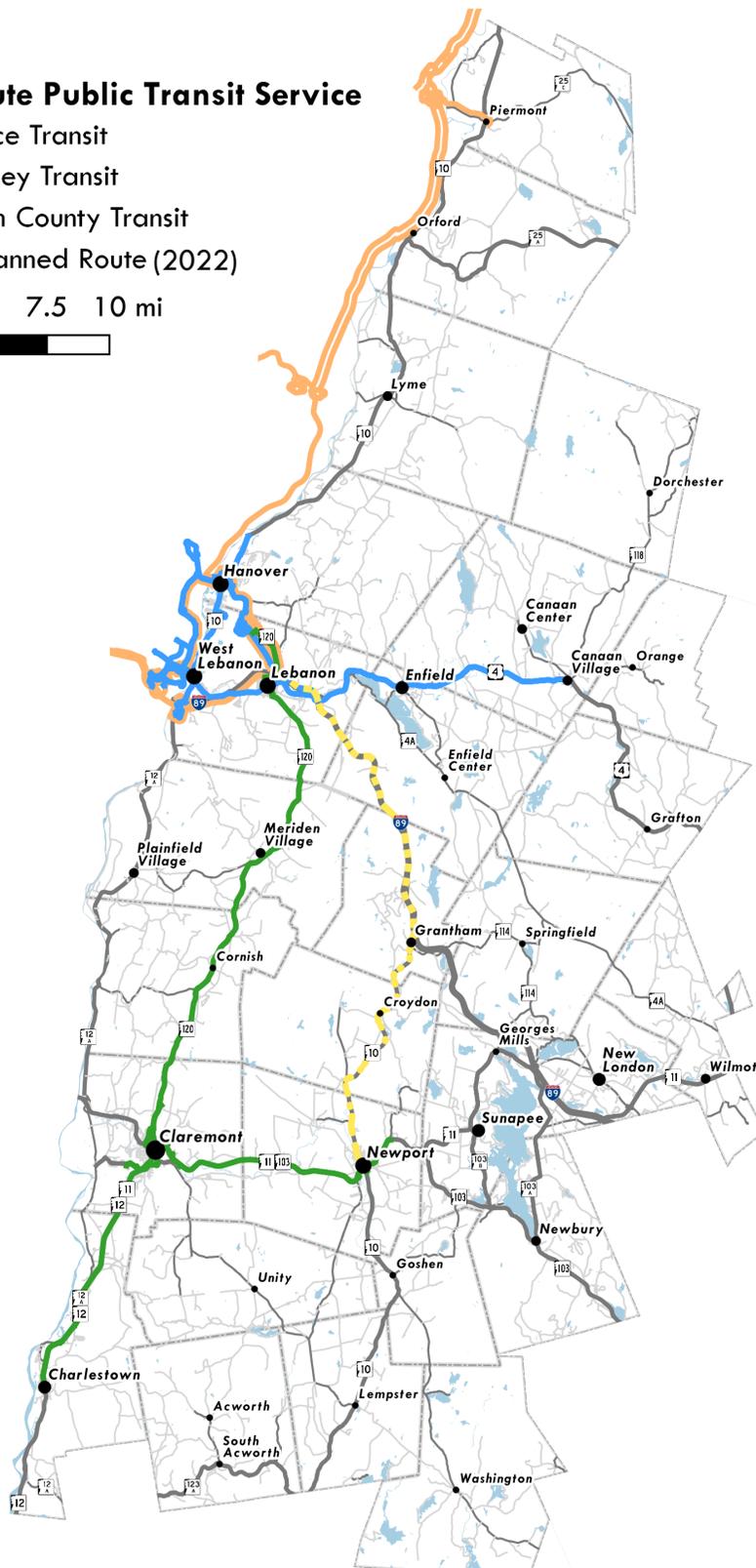


### REGIONAL OVERVIEW: FIXED-ROUTE BUS SERVICE

#### Fixed-Route Public Transit Service

- Advance Transit
- Tri-Valley Transit
- Sullivan County Transit
- SCT Planned Route (2022)

0 2.5 5 7.5 10 mi



Fixed-route bus service is available in seven of the 27 UVLSRPC-region communities. The frequency of service varies depending the destination. Some bus routes offer deviated service to destinations within close proximity to the main route.

In addition to local fixed-route bus services, intercity bus service to Boston and New York City is provided along I-89 and I-91 by Dartmouth Coach.

# REGIONAL CORRIDOR TRANSPORTATION PLAN

## INTRODUCTION



### REGIONAL OVERVIEW: RAIL & AERONAUTIC INFRASTRUCTURE

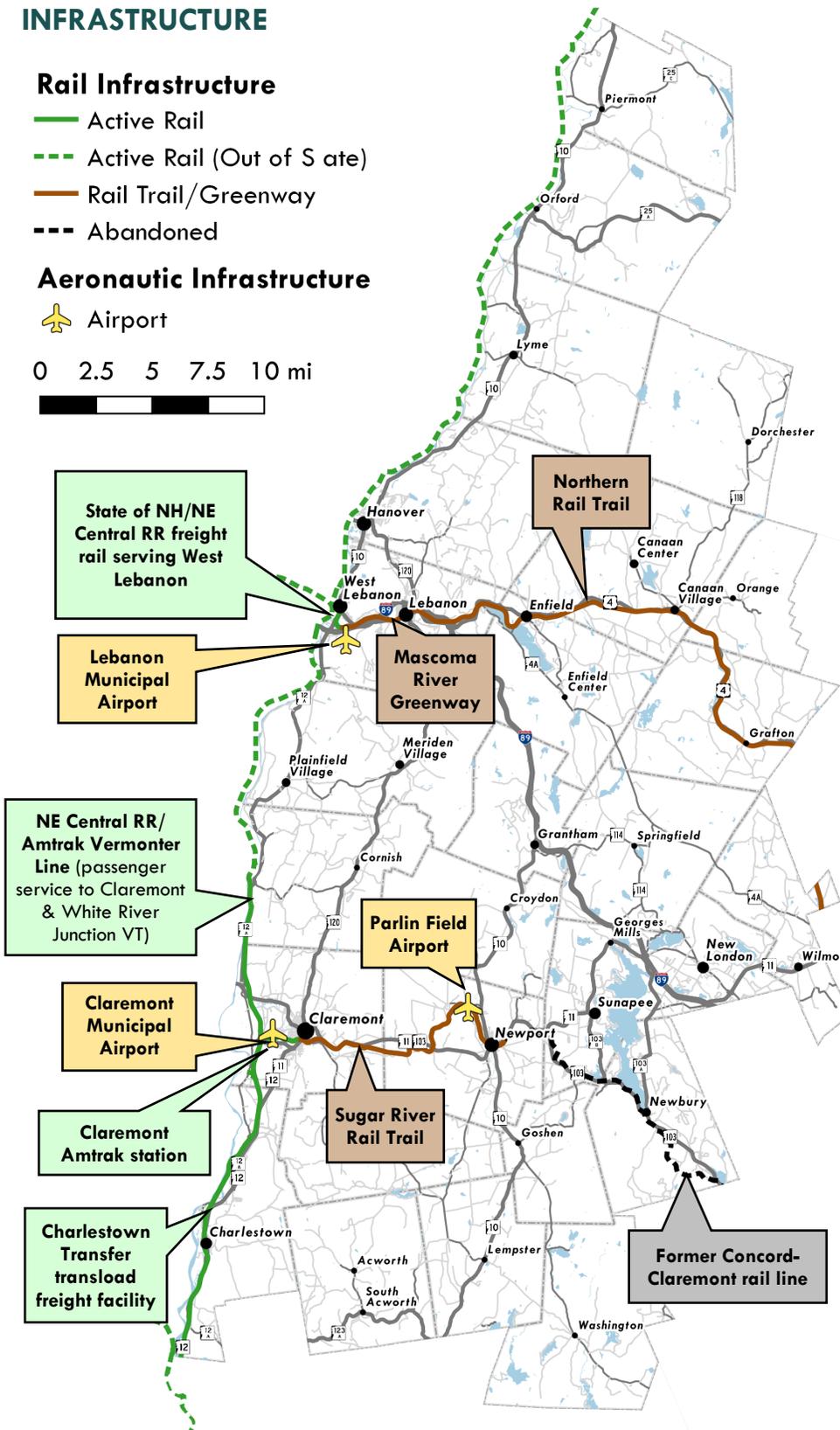
#### Rail Infrastructure

- Active Rail
- - - Active Rail (Out of State)
- Rail Trail/Greenway
- - - Abandoned

#### Aeronautic Infrastructure

- Airport

0 2.5 5 7.5 10 mi



#### RAIL INFRASTRUCTURE

Passenger rail service is available in Claremont via Amtrak, one of only two passenger service rail lines in New Hampshire. Amtrak service also available in nearby White River Junction, Vermont. Freight rail operators also utilize this rail corridor.

The Upper Valley Lake Sunapee region contains 70 miles of rail trails utilizing former railroad corridors. The Concord-Lake Sunapee Rail Trail has been proposed as long-term vision to convert the abandoned Concord-Claremont rail line in Newbury into a rail trail.

#### AERONAUTIC INFRASTRUCTURE

The Upper Valley Lake Sunapee region features three airports. The Lebanon Municipal Airport is a commercial service facility offering regularly-scheduled passenger air travel via Cape Air, while the Claremont Municipal Airport and Parlin Field are general aviation facilities without scheduled service.

# REGIONAL CORRIDOR TRANSPORTATION PLAN

## INTRODUCTION

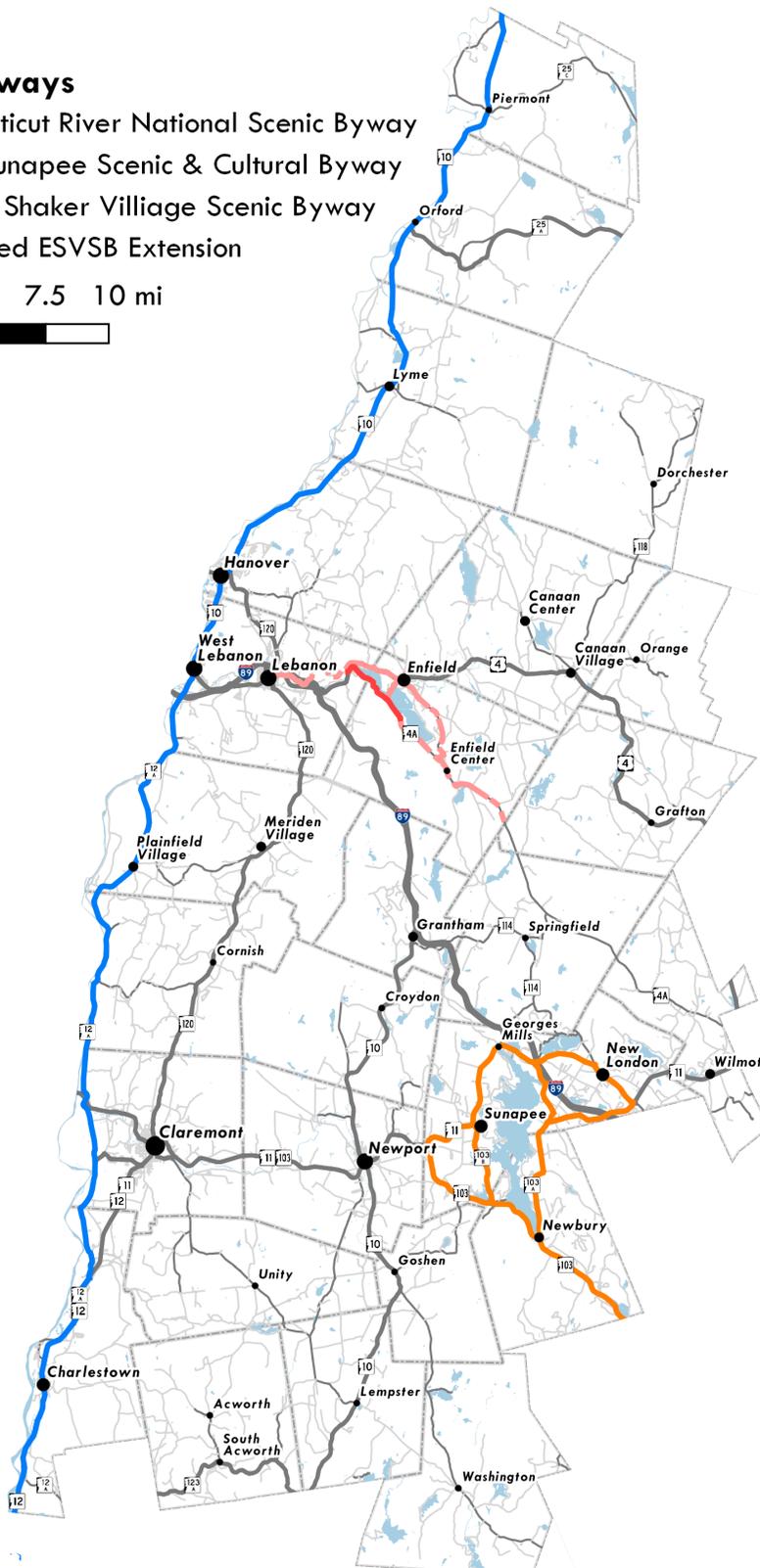


### REGIONAL OVERVIEW: SCENIC & CULTURAL BYWAYS

#### Scenic Byways

- Connecticut River National Scenic Byway
- Lake Sunapee Scenic & Cultural Byway
- Enfield Shaker Village Scenic Byway
- - - Proposed ESVSB Extension

0 2.5 5 7.5 10 mi



#### BYWAYS OVERVIEW

Scenic and cultural byways are touring routes designated by either the State of New Hampshire or federal government. These routes are intended to highlight the scenic, natural, cultural, and/or historic resources of the communities they traverse.

#### CONNECTICUT RIVER NATIONAL SCENIC BYWAY

The Connecticut River National Scenic Byway runs the length of New Hampshire through the Connecticut River Valley and highlights the scenery and history of the region. A companion route runs along the Vermont side of the Connecticut River.

#### LAKE SUNAPEE SCENIC & CULTURAL BYWAY

The Lake Sunapee Scenic & Cultural Byway loops around Lake Sunapee and connects historic town centers to the lakes and mountains of the region.

#### ENFIELD SHAKER VILLAGE SCENIC BYWAY

The Enfield Shaker Village Scenic Byway runs along the shore Mascoma Lake and connects to the historic Lower Shaker Village. The byway has been proposed to be extended to connect to additional scenic and cultural destinations in Enfield and Lebanon.

# REGIONAL CORRIDOR TRANSPORTATION PLAN

## INTRODUCTION

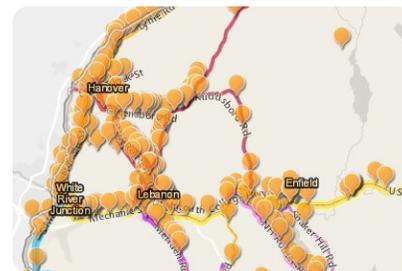


### PUBLIC INVOLVEMENT

This plan was informed by a robust program of public outreach, including:

- 1,475 online survey responses;
- 501 comments on an online interactive map;
- 2 in-person public forums and 7 virtual public forums;
- Meetings with local officials.

The development and implementation of this plan is overseen by the **UVLSRPC Transportation Advisory Committee (TAC)**. The TAC will periodically review and update this plan as needed.



Members of public marked locations on an interactive map where they experience transportation challenges.

## REGIONAL TRANSPORTATION GOALS

### SAFETY

Improve safety for all roadway users, using a Complete Streets approach.

### ACCESSIBILITY

Improve access to destinations via walking, bicycling, and public transit.

### ELECTRIFICATION

Build out a regional public electric vehicle charging network.

### INCREASE FUNDING

Ensure the region is competing strongly for state and federal funding.

### EQUITY & HEALTH

Prioritize equity, public health, and environmental justice in transportation investments.

### RESILIENCY

Mitigate and/or adapt to natural hazards that threaten the transportation network.

### COVID-19 RECOVERY

Address impacts of the COVID-19 pandemic on regional travel needs.

### BALANCED MOBILITY

Balance local versus regional mobility needs in downtown areas and Main Streets.

### LIVABLE COMMUNITIES

Align transportation investments with community planning goals.

### MANAGE DEMAND

Reduce need for single-occupant vehicle travel, esp. in congested areas.

### EMISSIONS REDUCTION

Promote reduced fossil fuel consumption and fewer vehicle miles traveled.

### MAINTENANCE

Prioritize maintenance and improvement of existing infrastructure; reduce the number of Red List bridges.

# REGIONAL CORRIDOR TRANSPORTATION PLAN

## ACTION PLAN OVERVIEW



Turning transportation needs into “fundable” projects.

The Action Plan is a process for turning transportation needs and concepts into projects that are ready to compete for funding and be implemented.

An individual Action Plan is presented for each major transportation corridor in the UVLSRPC region.

### ACTION PLAN COMPONENTS:

#### PROJECT DEVELOPMENT

UVLSRPC staff will provide assistance to project partners with project development, including any needed planning, feasibility, and/or engineering studies; public input; and data collection.

The goal of this process is to develop projects that are ready to compete for funding and be implemented.

#### PROJECT TIERS

Projects in the Action Plan are assigned to tiers based on level of need and project readiness. Projects in **Tier I** are considered the highest priority and are ready to compete for funding.

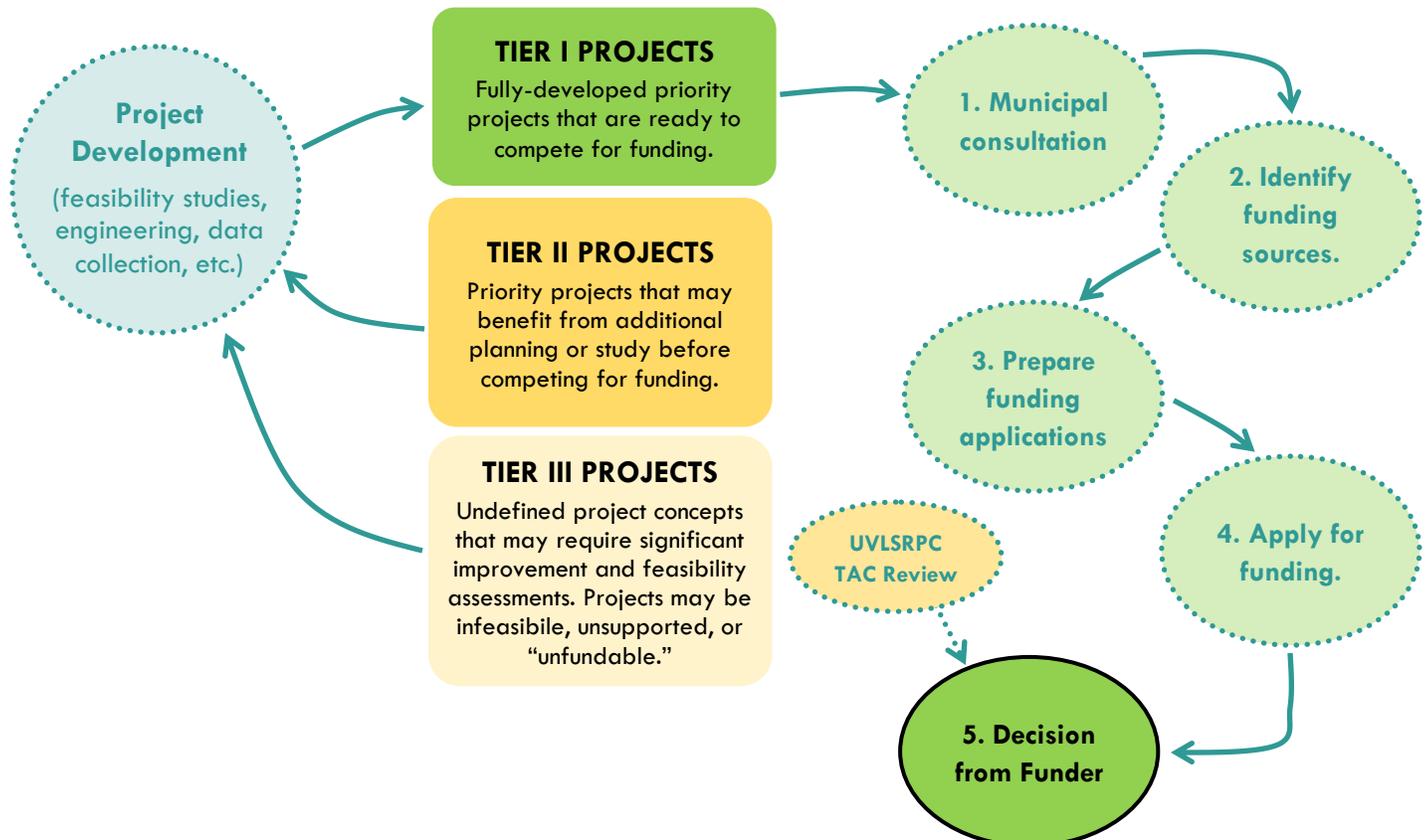
Projects can advance to higher tiers by moving through the **Project Development** process. See **page 7** for a more detailed descriptions of project tiers.

#### APPLY FOR FUNDING

UVLSRPC staff will assist partners in identifying and applying for funding for **Tier I** projects.

For some statewide funding sources, the UVLSRPC **Transportation Advisory Committee (TAC)** is asked to rank proposed projects from the region. The TAC will use the Action Plan to inform their review and prioritization of proposed projects.

### ACTION PLAN: PROJECT DEVELOPMENT PROCESS:



# REGIONAL CORRIDOR TRANSPORTATION PLAN

## ACTION PLAN OVERVIEW



All projects in the Action Plan are assigned to **tiers**. Projects in **Tier I** are priority projects that are ready to compete for funding or be implemented.

Projects in **lower tiers** (II, III) may be able move up to higher tiers by completing needed **data collection, planning, and/or feasibility studies**.

## Project Tiers

### TIER I

1. Project directly addresses a defined transportation need.
2. Project scope is clear and well-defined.
3. Needed data collection and studies are completed.
4. Project is ready to compete for and receive funding in order to be implemented.

### TIER II

1. The need for the project may need to be better understood through data collection and further study.
2. Project scopes may need to be refined or finalized.
3. More data collection, planning work, and/or studies may be useful for refining the scope of the project.

### TIER III

1. The need for the project is unclear or not well understood.
2. Project scopes are vague or not well-defined.
3. Needed data collection and studies are not yet completed.
4. Project may be infeasible, unsupported, not needed, and/or “unfundable.”

## Information Included in the Action Plan

The Action Plan provides information on every project in each transportation corridor. The Action Plan will also be used to **track the status** of strategies and project ideas as they are developed into projects that are ready to compete for funding.

The table to the right describes the categories of information that are presented in the Action Plan for each corridor.

In addition to what is presented in the table, UVLSRPC will also track potential funding opportunities and needed studies for each project in the Action Plan.

CATEGORY	DESCRIPTION
<b>Tier</b>	The priority level and “readiness” of the project.
<b>Municipality</b>	City/Town name(s)
<b>Project Partners</b>	Entities that would be involved in project development and implementation, including municipalities, state agencies, transit operators, and other non-profit/private partners.
<b>Location Description</b>	Roadway name(s) or location.
<b>Project Description</b>	Project scope and goals.
<b>Land Use</b>	Types of land uses and development patterns in the project area.
<b>Mode Focus</b>	The mode(s) of transportation that the project addresses.
<b>Planning Notes</b>	Relevant plans/efforts, project constraints, and/or other comments by UVLSRPC staff.

# REGIONAL CORRIDOR TRANSPORTATION PLAN

## ACTION PLAN OVERVIEW



### Key Funding Sources

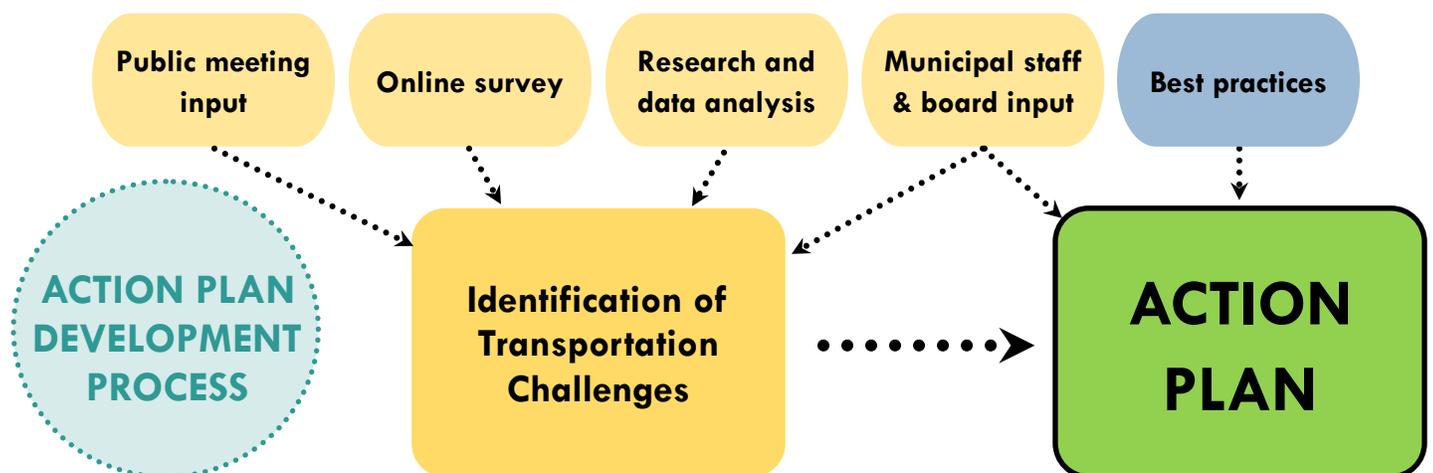
The goal of each corridor Action Plan is to get transportation projects ready to compete for funding. Major transportation funding programs are listed below.

*Not all projects listed in the Action Plan will be eligible/appropriate for these programs; some projects may require local funding for implementation.*

PROGRAM	SOURCE	DESCRIPTION
NH Ten-Year Transportation Improvement Program (“Ten-Year Plan”)	FHWA	UVLSRPC region currently allocated \$3.77 million in federal aid every-other year. Many types of transportation improvements are eligible.
Transportation Alternatives Program (TAP)	FHWA	Federal aid program focused on pedestrian and bicycle infrastructure improvements.
Congestion Mitigation & Air Quality Program (CMAQ)	FHWA	Federal aid program focused on air quality improvements; eligible projects focus on pedestrian, bicycle, public transit, and/or vehicular
Highway Safety Improvement Program (HSIP)	FHWA	Federal aid program focused on design improvements at locations with severe crash history. Improvements typically must be identified through a
RAISE Discretionary Grants	USDOT	Major federal aid program with funding awards up to \$25 million. Many types of transportation improvements are eligible.
Infrastructure Investment & Jobs Act (2021)	USDOT	The IJA bolstered some existing federal aid transportation infrastructure programs, as well as created new funding programs.
State Economic & Infrastructure Development Investment Program	NBRC	Federal grants to support transportation infrastructure improvements or repair; funding amounts vary by community income levels.
State Aid Bridge Program (SAB)	State of NH	State program for improving locally-owned bridges and culverts.

Each corridor Action Plan was developed using a combination of public input, consultation with municipal boards and staff, research and data analysis, and best practices for transportation planning.

### Development of the Action Plan





# PERFORMANCE MEASURES

*The following performance measures will be tracked by UVLSRPC to monitor progress towards implementation of the Regional Corridor Transportation Plan:*

### PROJECT DEVELOPMENT

Number of technical assistance requests completed by UVLSRPC for developing projects identified in the *Regional Corridor Transportation Plan*, by transportation mode.

### FUNDS PURSUED

Number and monetary amount of funding proposals submitted for state and federal aid programs for projects identified in the *Regional Corridor Transportation Plan*, by transportation mode.

### FUNDS AWARDED

Number and monetary amount of local, state, and federal aid funding awards for constructing projects identified in the *Regional Corridor Transportation Plan*, by transportation mode.





# NH ROUTE 4A

## TRANSPORTATION CORRIDOR

*Lebanon to Wilmot*



UVLSRPC

The logo for the University of Vermont Lake Champlain Regional Corridor Transportation Plan, featuring a stylized mountain range with a river or lake in the foreground.

REGIONAL CORRIDOR  
TRANSPORTATION PLAN  
2021 → 2035

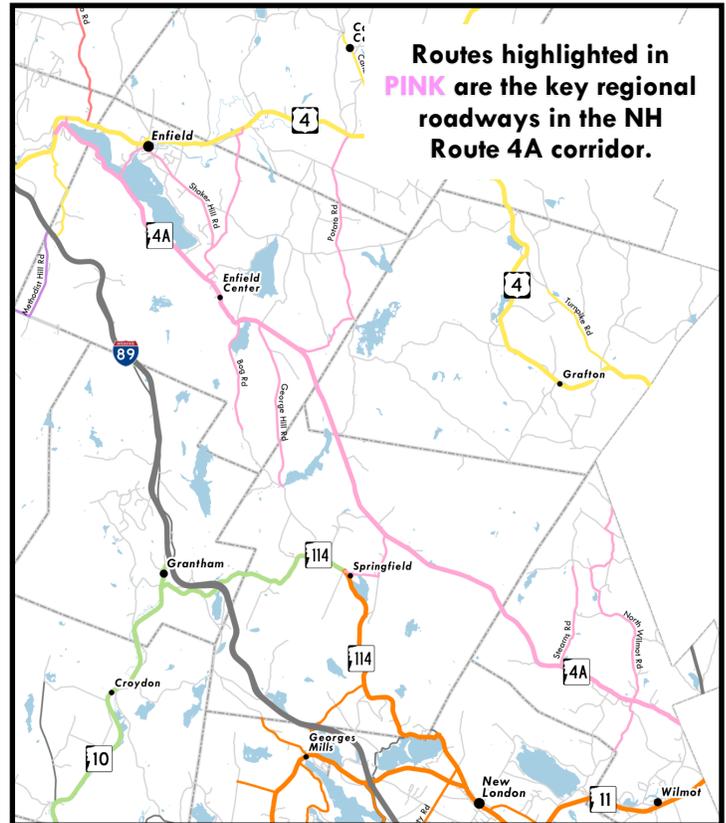


# CORRIDOR OVERVIEW



## NH Route 4A Corridor - At a Glance

- **Municipalities:** Lebanon, Enfield, Grafton, Springfield, Wilmot
- **Major Destinations:** Downtown Enfield, Mascoma Lake, Enfield Shaker Village Scenic Byway, Lower Shaker Village
- **Primary Regional Functions:** Commuting; Freight; Tourism; Recreation
- **Land Use Patterns:** Mostly rural, with some clustered residential development along Mascoma Lake
- **Natural Features:** Rolling hills and valleys, lakes and bogs, streams



# REGIONAL TRANSPORTATION GOALS

The following transportation system goals were identified for NH Route 4A corridor, based on public input. These are in addition to the overall Upper Valley Lake Sunapee region goals presented in the Plan Introduction.

**SAFETY**

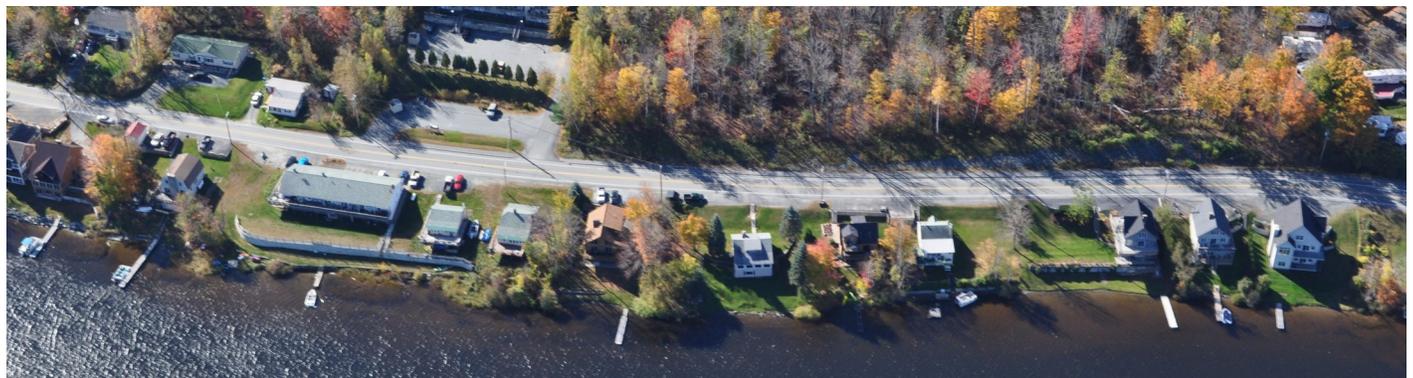
Improve safety for all roadway users, with a focus on NH Route 4A intersections.

**RECREATIONAL ACCESS**

Improve access to recreational destinations, including via walking, bicycling.

**BIKE CONNECTIONS**

Improve bicycle access along NH Route 4A, both within and between communities.

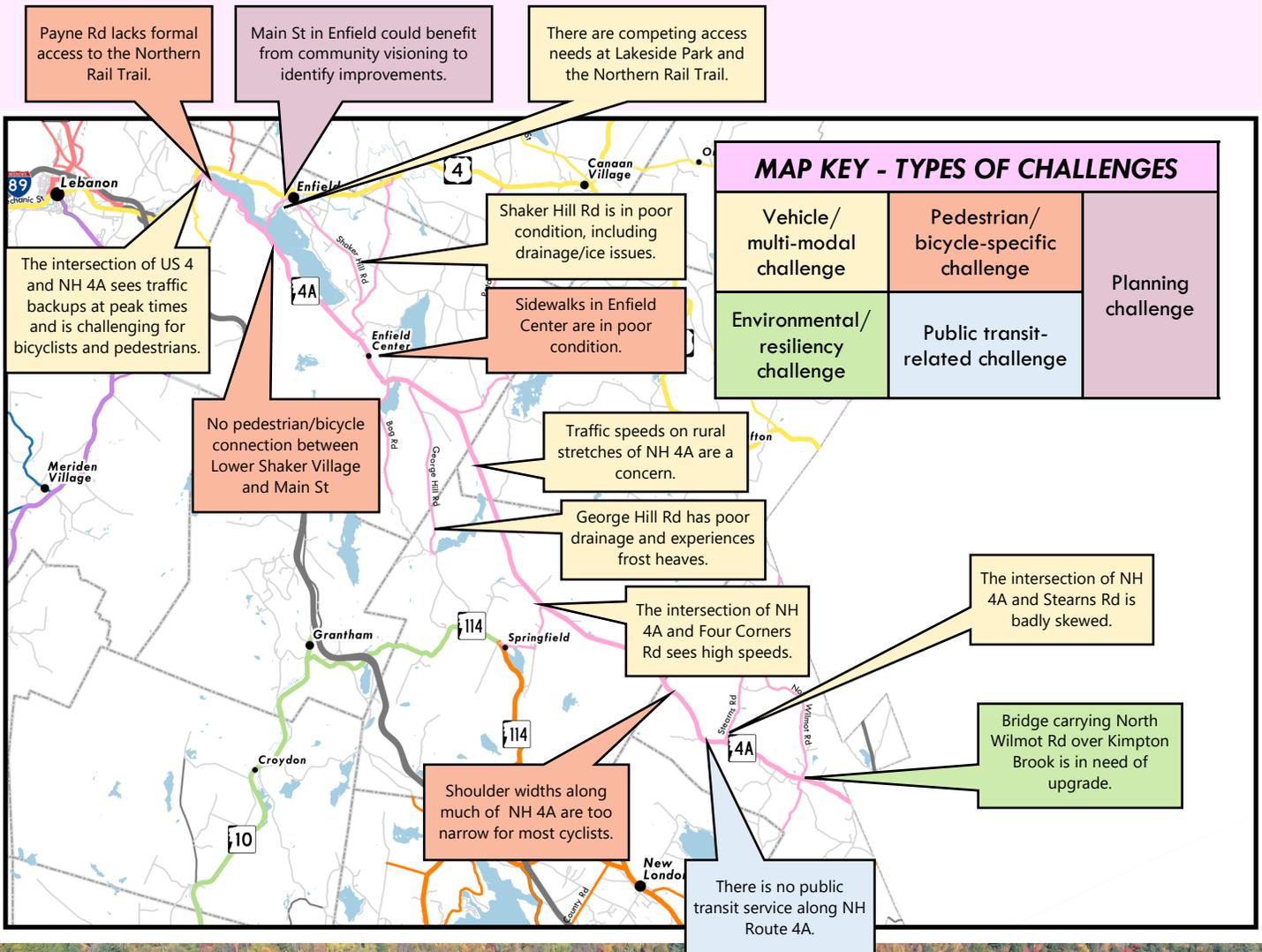


# 4A

## TRANSPORTATION CHALLENGES MAP



This map identifies the primary **transportation mobility, safety, and accessibility** challenges in the NH Route 4A Corridor. Major roadways in the NH Route 4A corridor are highlighted in **PINK**.





# CORRIDOR ACTION PLAN



The Action Plan is a process for turning transportation needs and concepts into projects that are ready to compete for funding. An individual Action Plan is presented for each major transportation corridor in the UVLSRPC region. For more information on UVLSRPC's process for implementing corridor Action Plans, please refer to the [Action Plan Overview](#) in the [Plan Introduction](#).

## Currently Funded Regional Transportation Projects

The projects listed below are regionally-significant projects that are already funded and on track for implementation. To help implement these projects, UVLSRPC staff will provide technical assistance and support, as needed or requested.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

TOWN/CITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	PROJECT TIMELINE	PROJECT COST	FUNDING SOURCE(S)	PLANNING NOTES
Enfield	Town of Enfield; NHDOT	Shaker Boulevard	Rehabilitation of bridge carrying Shaker Boulevard over Knox River	Construction: FY 2029	\$525,000	NH State Aid Bridge Program	
Enfield	NHDOT	NH Route 4A	Light capital paving of NH 4A from Shaker Hill Rd to Springfield town line	2023	N/A	NHDOT Paving Program	Opportunity to consider lane striping changes and modest shoulder widening to accommodate bicycle travel.
Enfield, Springfield, Wilmot	Towns; NHDOT	NH Route 4A	Replace cable guardrail and terminals on NH Route 4A	Construction: FY 2022	TBD	Highway Safety Improvement Program	
Lebanon	NHDOT	NH Route 4A	Pavement preservation work on NH Route 4A from US Route 4 to Enfield town line	2023	N/A	NHDOT Paving Program	
Springfield	NHDOT	Four Corners Rd	Light capital paving of Four Corners Rd from NH 4A to NH 114	2022	N/A	NHDOT Paving Program	



# ACTION PLAN: TIER I PROJECTS



## Tier I Project Description

- Project directly addresses a defined transportation need.
- Project scope is well-defined.
- Needed data collection and studies are completed.
- Project is ready to compete for funding.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental	Public Transit	

## Tier I Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Enfield	Town of Enfield	Main St	Conduct Main St visioning study that includes pedestrian and bicycle access, traffic flow and safety, and streetscape.	Downtown Core/Mixed Use	Vehicle; Pedestrian & Bicycle; Public Transit	
Enfield	Town of Enfield; NHDOT	Shaker Hill Rd	Rehabilitate/reconstruct Shaker Hill Rd east of Lockhaven Rd, including improved drainage, lighting and pedestrian/bicycle access.	Rural; Suburban	Vehicle; Pedestrian & Bicycle	Shaker Hill Rd is a Tier IV state highway and is not eligible for federal aid through the NH Ten-Year Plan. The roadway is in poor condition and has suffered from deferred maintenance. Identifying a funding source is the primary barrier to completing improvements.
Enfield	Town of Enfield; NHDOT	NH Route 4A	Improve signage for snowmobile trail crossings across NH Route 4A.	Rural	Vehicle	
Enfield; Lebanon	Town of Enfield; City of Lebanon; NHDOT	NH Route 4A	Implement recommendations from Enfield Shaker Village Scenic Byway Corridor Management Plan	Rural; Suburban	Vehicle; Pedestrian & Bicycle	
Corridor	Towns; NHDOT	NH Route 4A	Add school bus stop signs to alert drivers in high-speed areas of NH Route 4A.	Rural	Vehicle	



# ACTION PLAN: TIER II PROJECTS



## Tier II Project Description

- The need for the project may need to be better understood through data collection and further study.
- Project scopes may need to be refined or finalized.
- More data collection, planning work, and/or studies may be useful for refining the scope of the project.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier II Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Corridor-wide	Towns/Cities; NHDOT	NH Route 4A	Construct bicycle shoulders (5+ feet) along NH Route 4A.	Rural; Suburban	Bicycle; Pedestrian	Further assessment is needed to understand barriers to shoulder expansion (e.g., culverts, guardrails, right-of-way) and priority sections.
Corridor-wide	Towns/Cities; Advance Transit; NHDOT	NH Route 4A	Conduct a transit needs assessment for the NH Route 4A corridor.	Multiple	Public Transit	This study could also include the identification of park-and-ride locations or pedestrian/bicycle improvements to connect residents to existing transit services along US Route 4.
Enfield	Town of Enfield	George Hill Rd	Address pavement condition, drainage, and frost heaving on George Hill Rd.	Rural	Vehicle; Pedestrian & Bicycle	Further assessment is needed to identify appropriate improvement strategies and costs.
Enfield	Town of Enfield; NHDOT	NH Route 4A; Main St	Improve parking and pedestrian access to Shakoma Beach.	Rural	Vehicle; Pedestrian	This area is in need of a comprehensive strategy including parking and safe pedestrian crossings across NH Route 4A.
Enfield	Town of Enfield; NHDOT	Lakeside Park; Main St	Develop comprehensive access improvements for Lakeside Park and Northern Rail Trail.	Suburban	Vehicle; Pedestrian & Bicycle	Limited parking availability is a challenge for park and trail access.
Enfield	Town of Enfield; NHDOT	NH Route 4A	Upgrade existing sidewalks through Enfield Center and implement additional pedestrian access improvements.	Village Center	Pedestrian	Existing sidewalks are in poor condition and have minimal grade separation with the roadway. Sidewalk network could potentially be expanded westward. Sidewalk improvement project would be an opportunity for additional traffic calming.



# ACTION PLAN: TIER II PROJECTS



## Tier II Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Enfield	Town of Enfield; NHDOT	NH Route 4A; Lower Shaker Village	Improve pedestrian access in Lower Shaker Village; including NH 4A crossing.	Village Center	Pedestrian	Pedestrian circulation is a challenge particularly during events. Need identified in Scenic Byway Corridor Management Plan.
Enfield	Town of Enfield; NHDOT	Main St; Northern Rail Trail	Improve underpass under Northern Rail Trail, including drainage	Downtown Core/Mixed Use	Vehicle; Pedestrian & Bicycle	Bridge carrying Northern Rail Trail is in poor condition; narrow underpass has poor drainage. Main St is a Tier IV state highway and is not eligible for federal aid through the NH Ten-Year Plan.
Enfield	Town of Enfield; NHDOT	NH Route 4A	Improve pedestrian access along NH Route 4A from the Lebanon city line to Shaker Bridge/Main St.	Suburban	Pedestrian	Sidewalks exist along NH Route 4A in Lebanon, ending at the Enfield town line. This section of NH Route 4A has many residences and sees many crossing pedestrians. Narrow right-of-way and adjacent development/terrain are challenges for sidewalk construction.
Enfield	Town of Enfield; NHDOT	NH Route 4A	Improve pedestrian and bicycle access along NH Route 4A from the Shaker Bridge/Main St to Shaker Dog Park.	Rural	Pedestrian & Bicycle	This section of NH Route 4A is an important recreation corridor connecting Main St to Mascoma Lake, Lower Shaker Village, and several public land areas. A utility right-of-way running along NH Route 4A could host a multi-use path in this area. Further planning work is needed to identify potential improvements.
Enfield	Town of Enfield	NH Route 4A	Add guardrail to NH 4A along shoreline of Mascoma Lake approximately 0.5 mile east of the Lebanon city line	Suburban	Vehicle	Further study needed to assess feasibility of adding guardrail.
Lebanon	City of Lebanon; Friends of NRT; U.V. Trails Alliance	Northern Rail Trail; Payne Rd	Create a formal access to the Northern Rail Trail from Payne Rd.	Suburban	Pedestrian; Bicycle	Feasibility assessment is needed to determine access route.



# ACTION PLAN: TIER II PROJECTS



## Tier II Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	City of Lebanon; NHDOT	NH Route 4A; US Route 4	Improve intersection of US Route 4 and NH Route 4A	Rural	Vehicle; Pedestrian; Bicycle	This intersection was improved recently; however, it is still a challenge for vehicles entering US Route 4 from NH Route 4A due to high vehicle traffic volumes and speeds. Further planning is needed to identify and justify potential improvements.
Springfield	Town of Springfield; NHDOT	Four Corners Rd; NH Route 4A	Conduct intersection study to identify safety concerns and potential improvements.	Rural	Vehicle	Further analysis of crash history, speeds, and intersection design is warranted before considering potential improvements.
Springfield	Town of Springfield; NHDOT	NH Route 114, Bowman Rd; Four Corners Rd	Improve pedestrian and bicycle travel around Kolelemook Lake	Rural	Pedestrian & Bicycle	



# CORRIDOR POPULATION



## Who Lives in the NH Route 4A Corridor?

COMMUNITIES	2018 POPULATION (estimated)	2040 POPULATION (projected)	PROJECTED % CHANGE IN POPULATION	PROJECTED TOTAL POPULATION CHANGE
Lebanon	13,522	15,342	13.5%	+1,820
Enfield	4,714	4,944	4.9%	+ 230
Grafton	1,373	1,595	16.2%	+ 222
Springfield	1,349	1,512	12.1%	+ 163
Wilmot	1,384	1,591	15.0%	+ 207

Source: NH Office of Strategic Initiatives, NH Office of Employment Security

SPECIAL POPULATIONS IN THE CORRIDOR	TOTAL SPECIAL POPULATION IN CORRIDOR	% OF TOTAL CORRIDOR POPULATION
Youth (Age 15 and Under)	3,113	13.9%
Young Adult (Age 16-34)	6,055	27.1%
Middle Age (Age 35-64)	8,623	38.6%
Seniors (65+)	4,397	19.7%
Racial Minorities	1,606	7.2%
Low Income (<150% of Poverty Level)	3,138	14.0%

Source: American Communities Survey 5-Year Estimates, 2014-2018

## Who Works in the NH Route 4A Corridor?

Notably, the NH Route 4A corridor does not have any major employers. Commuting patterns along NH Route 4A mostly involve **regional travel** to access employment hubs via US Route 4 and Interstate 89, such as downtown Lebanon and Dartmouth-Hitchcock Medical Center. Some of the larger employers located in the corridor are the Town of Enfield and Evarts & Company lumber in Springfield. **Downtown Enfield** is a minor employment hub featuring a variety of retail, restaurant, and service-oriented employers.



McDaniels Marsh, Springfield



# TRANSPORTATION DATA



## Vehicle Traffic Volumes on Regional Roadways

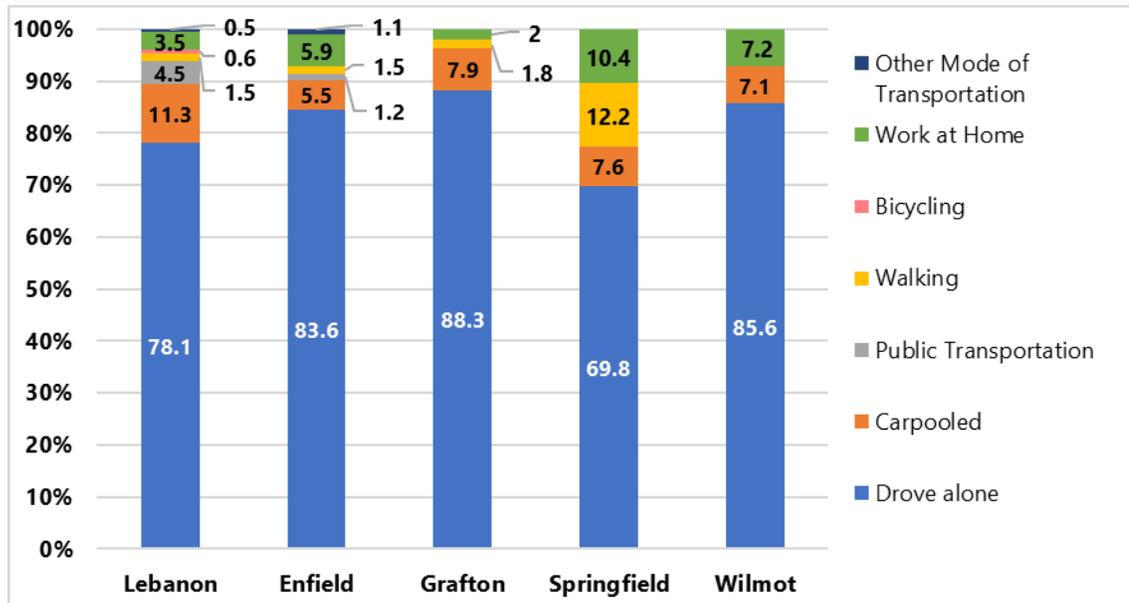
ROAD	TOWN/CITY	COUNT LOCATION	2019 AADT*
NH 4A	Lebanon/Enfield	NH 4A at Lebanon/Enfield town line	3,100
Main St	Enfield	Main Street under Northern Rail Trail	1,300
Shaker Hill Rd	Enfield	Shaker Hill Rd over Mascoma River	2,800
Shaker Hill Rd	Enfield	Shaker Hill Rd over Knox River	1,000
NH 4A	Enfield	NH 4A East of Cogswell Way	2,600
Potato Rd	Canaan	Potato Rd over Indian River	500
NH 4A	Springfield	NH 4A west of Four Corners Rd	840
Four Corners Rd	Springfield	Four Corners Rd south of Hazzard Rd	770
NH 4A	Springfield/Wilmot	NH 4A at Springfield/Wilmot town line	460
NH 4A	Wilmot	NH 4A west of Stearns Rd	480
North Wilmot Rd	Wilmot	North Wilmot Rd south of Richards Rd	360

### COVID-19 Impacts on Travel

The COVID-19 pandemic has resulted in reductions in travel, increased unemployment, and increases in the number of employees working from home. Continued monitoring of these trends is needed to understand their long-term impacts on the transportation system.

\*AADT = estimated Annual Average Daily Traffic (2019). Source: New Hampshire Department of Transportation

## Means of Transportation to Work



Source: American Community Survey 2014-2018 5-Year Estimate

The vast majority of residents of the NH Route 4A corridor drive to work alone. A high percentage of residents in Springfield (12.2%) walk to work, which is atypical for such a rural community. Commutes account for less than 20% of all personal trips nationwide; however, analysis of commute data is helpful for understanding travel patterns in the corridor.



# MULTI-MODAL TRANSPORTATION



**Multi-modal mobility** refers to the ability of people to move around using modes of transportation other than a personal vehicle. Key factors for multi-modal mobility are **infrastructure** (e.g., sidewalks, bus stops), **services** (e.g., bus service), and **land use patterns** (i.e., the distance between various destinations, density of development). The **connections** between multi-modal infrastructure and services are also important - for example, the ability walk or bike safely to a bus stop encourages higher use of bus services.

This page presents an inventory of multi-modal infrastructure and services in the corridor.

## Pedestrian & Bicycle Infrastructure

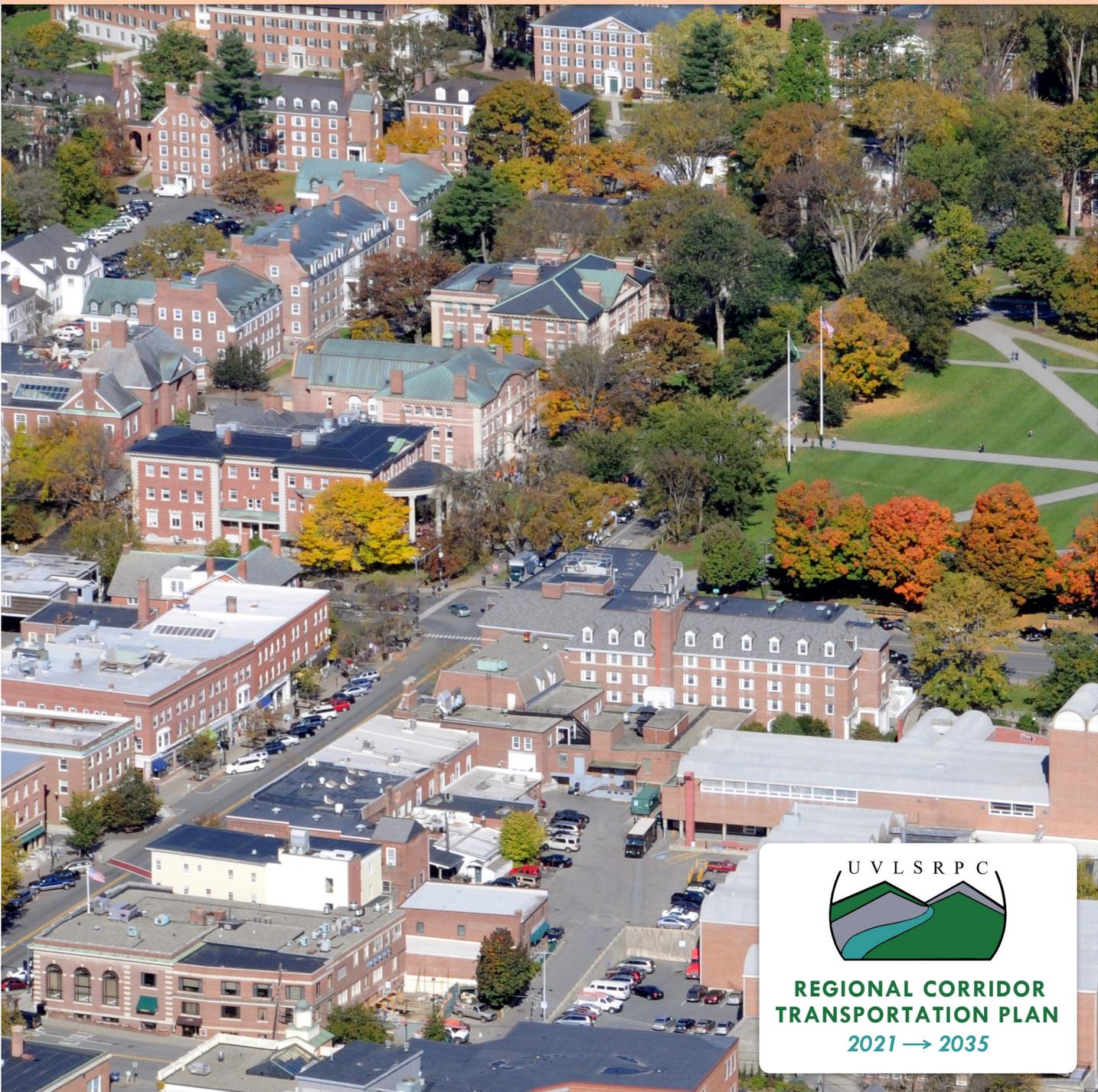
TYPE	TOWN/CITY	LOCATION
Multi-Use Paths	n/a	n/a
Rail Trails	Lebanon, Enfield, Canaan, Grafton	Northern Rail Trail (covered in US Route 4 chapter)
Sidewalks	Lebanon	NH 4A from Payne Rd to Enfield town line
	Enfield	Main St, Shaker Hill Rd, High St
Painted Bike Lanes	n/a	n/a
Sharrows	n/a	n/a
Painted Shoulders ≥5 feet	n/a	n/a

## Transportation Services

TYPE	COMMUNITY	SERVICE PROVIDERS
Door-to-door services (senior and disabled residents)	Lebanon, Enfield, Canaan, Grafton	Grafton County Senior Citizens



# NH ROUTE 10 NORTH TRANSPORTATION CORRIDOR *West Lebanon to Piermont*



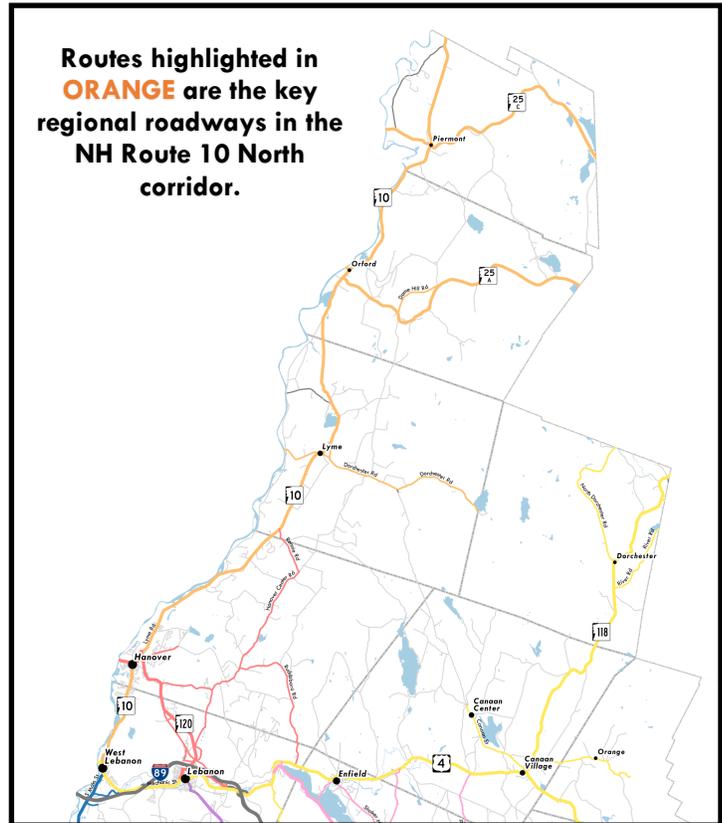


# CORRIDOR OVERVIEW



## NH Route 10 North Corridor - At a Glance

- **Municipalities:** Lebanon, Hanover, Lyme, Orford, Piermont
- **Major Destinations:** West Lebanon Main Street, downtown Hanover, Dartmouth College, Lyme Green
- **Primary Regional Functions:** Commuting; Commercial/Retail
- **Land Use Patterns:** Downtown core centers in West Lebanon and Hanover; Rural village centers in Lyme and Orford; Rural stretches in between centers
- **Natural Features:** Connecticut River Valley; rolling hills; stream crossings



# REGIONAL TRANSPORTATION GOALS

The following transportation system goals were identified for NH Route 10 North corridor, based on public input, in addition to the overall Upper Valley Lake Sunapee region goals presented in the Plan Introduction.

### SAFETY

Improve safety for all roadway users, with a focus on NH Route 10 intersections.

### DOWNTOWN MOBILITY

Prioritize walking, bicycling, and public transit access in downtown areas of Hanover and West Lebanon.

### BIKE CONNECTIONS

Improve bicycle access along NH Route 10, both within and between communities, including access to transit.



NH 10 & Dorchester Rd in Lyme

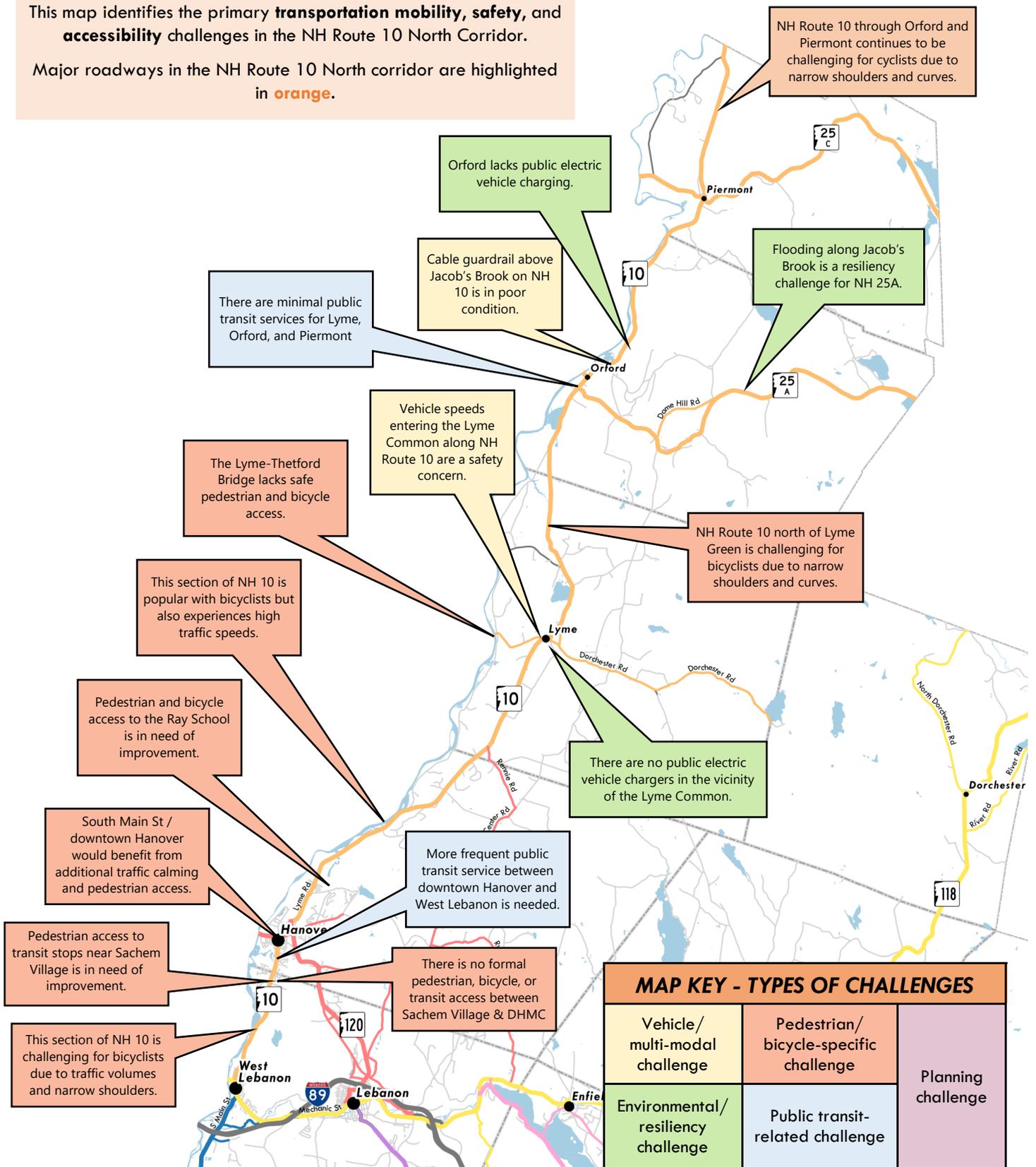


# TRANSPORTATION CHALLENGES MAP



This map identifies the primary **transportation mobility, safety, and accessibility** challenges in the NH Route 10 North Corridor.

Major roadways in the NH Route 10 North corridor are highlighted in **orange**.



MAP KEY - TYPES OF CHALLENGES		
Vehicle/ multi-modal challenge	Pedestrian/ bicycle-specific challenge	Planning challenge
Environmental/ resiliency challenge	Public transit- related challenge	



# CORRIDOR ACTION PLAN



The Action Plan is a process for turning transportation needs and concepts into projects that are ready to compete for funding. An individual Action Plan is presented for each major transportation corridor in the UVLSRPC region. For more information on UVLSRPC’s process for implementing corridor Action Plans, please refer to the [Action Plan Overview](#) in the [Plan Introduction](#).

## Currently Funded Regional Transportation Projects

The projects listed below are regionally-significant projects that are already funded and on track for implementation. To help implement these projects, UVLSRPC staff will provide technical assistance and support, as needed or requested.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

TOWN/CITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	PROJECT TIMELINE	PROJECT COST	FUNDING SOURCE(S)	PLANNING NOTES
Lebanon	NHDOT	NH Route 10	Light capital paving of NH 10 from West Lebanon to Hanover town line	2022	N/A	NHDOT Paving Program	Opportunity to consider narrowing travel lane striping for wider shoulder
Lyme	Town of Lyme; NHDOT	East Thetford Rd	Rehabilitation of Lyme-Thetford Bridge over Connecticut River	Construction: FY 2022-2023	\$7,300,000	NH Ten-Year Transportation Improvement Plan	Project will rehabilitate existing structure. Additional countermeasures for improving ped-bike access across bridge should be considered after project completion.
Orford	Town of Orford; NHDOT	NH Route 25A	Address bridge carrying NH 25A over Baker Pond Brook	Construction: FY 2025	\$1,662,000	NH Ten-Year Transportation Improvement Plan	



# ACTION PLAN TIER I PROJECTS



## Tier I Project Description

- Project directly addresses a defined transportation need.
- Project scope is well-defined.
- Needed data collection and studies are completed.
- Project is ready to compete for funding.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi- Environmental	Pedestrian & Public Transit	Plan or Study

## Tier I Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Hanover	Town of Hanover; NHDOT	NH Route 10	Construct pedestrian access and crosswalk across NH Route 10 to multi-use path at Ivy Point Way	Suburban	Pedestrian	Location may benefit from pedestrian beacon to alert traffic of crossing pedestrians
Hanover	Town of Hanover; Dartmouth College; NHDOT	NH Route 10/E. Wheelock St	Construct mid-block pedestrian crossing at Zimmerman Fitness Center	Downtown Core/Mixed Use	Pedestrian	
Hanover	Town of Hanover; Dartmouth College; NHDOT	<i>Dartmouth Green:</i> NH Route 10/E. Wheelock St; College St; Wentworth St; North Main St	Multi-modal transportation improvements around the Dartmouth Green included raised intersections, mid-block crossings, improved parking and drainage, and separated bicycle facilities	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle; Public Transit	Project envisioned to implemented in several phases.
Hanover	Town of Hanover; NHDOT	NH Route 10; Reservoir Rd	Construct multi-use path from NH Route 10 traffic circle to Ray School along Reservoir Rd	Suburban	Pedestrian; Bicycle	
Hanover	Town of Hanover	Chase Field to Reservoir Rd	Construct multi-use path from Chase Field to Reservoir Rd/Ray School.	Downtown Core/Mixed Use; Suburban	Pedestrian; Bicycle	
Hanover; Lebanon	Town of Hanover; City of Lebanon; NHDOT	NH Route 10	Conduct engineering feasibility study for constructing separated multi-use path along NH Route 10 from West Lebanon to downtown Hanover	Downtown Core/Mixed Use; Suburban; Rural	Pedestrian; Bicycle	Study could include feasibility assessment of terrain challenges, as well as projected usage of path, maintenance costs, and design alternatives



# ACTION PLAN TIER I PROJECTS



## Tier I Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Hanover; Lebanon	Advance Transit; Town of Hanover; City of Lebanon; NHDOT	NH Route 10	Add second bus to Advance Transit Orange Route serving White River Junction, West Lebanon, and Hanover	Downtown Core/Mixed Use	Public Transit	Identified in Advance Transit's 2018 <i>Transit Development Plan</i> ; could include new stop at Boston Lot
Lebanon	Lyme Properties; Advance Transit	NH Route 10; River Park	Move Advance Transit bus queue from Kilton Library to future River Park development	Downtown Core/Mixed Use	Public Transit	Current bus queue limits outdoor use of pedestrian plaza at Kilton Library
Lebanon	City of Lebanon; NHDOT	NH Route 10	Reconstruct sidewalks along NH Route 10 from Sachem Village to Hanover town line	Suburban	Pedestrian	Sidewalks vary in condition and lack adequate grade separation with NH Route 10
Orford	Town of Orford; NHDOT	NH Route 10	Replace deteriorated cable guardrail along section of NH Route 10 above steep Jacob's Brook stream bank near Dublin Rd	Rural	Vehicle	

## Tier II Project Description

- The need for the project may need to be better understood through data collection and further study.
- Project scopes may need to be refined or finalized.
- More data collection, planning work, and/or studies may be useful for refining the scope of the project.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier II Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Corridor	Municipalities; Rails-to-Trails Conservancy; Upper Valley Trails Alliance	NH Route 10; River Rd (Hanover/Lyme); River Rd (Piermont)	Establish Connecticut River Bikeway along Connecticut River	Multiple	Bicycle	This is an envisioned as a largely on-road bicycle route connecting the Mascoma River Greenway in Lebanon with the Ammonoosuc Rail Trail in Haverhill as part of the larger northern New England network of rail trails. Signage and spot improvements along existing roadways will assist with route establishment.
Hanover	Town of Hanover; NHDOT	NH Route 10/South Main St	Reconfiguration of South Main St and streetscape for improved pedestrian access, traffic calming, and public space	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle; Public Transit	Town recently led visioning process for several alternatives.
Hanover	Town of Hanover; NHDOT	NH Route 10	Improve bicycle access along NH Route 10 from Kendal to River Rd	Rural	Bicycle	Shoulder width is generally suitable for bicycle travel; however, the width is variable and traffic speeds are high. Options for additional visual separation and traffic calming should be examined.
Hanover	Town of Hanover; Dartmouth College	NH Route 10; Downtown Hanover	Develop bike share program between downtown Hanover and Garipay Field	Downtown Core/Mixed Use; Suburban	Bicycle	
Hanover	Town of Hanover	NH Route 10; Downtown Hanover	Install additional electric vehicle chargers in downtown	Downtown Core/Mixed Use	Vehicle	Hanover Coop stores and DHMC Lot 9 are potential locations.



# ACTION PLAN TIER II PROJECTS



## Tier II Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Hanover; Lebanon	City of Lebanon; Town of Hanover; Dartmouth College	NH Route 10; Sachem Village	Develop shuttle bus service between Sachem Village, downtown Hanover, and Dartmouth College	Downtown Core/Mixed use; Suburban	Public Transit	Identified in <i>Dartmouth Strategic Master Plan</i>
Lebanon	City of Lebanon; Advance Transit	NH Route 10; Sachem Village	Improve pedestrian access to Advance Transit bus stops along NH Route 10 from Quail Hollow Rd to Sachem Village	Suburban	Pedestrian; Public Transit	
Lebanon	City of Lebanon; River Park	NH Route 10	Extend sidewalk along NH Route 10 from Beyerle St to future River Park development	Downtown Core/Mixed Use	Pedestrian	
Lebanon	City of Lebanon	NH Route 10; Downtown West Lebanon	Install public electric vehicle charging station(s) in West Lebanon	Downtown Core/Mixed Use; Rural	Vehicle	
Lebanon	Lyme Properties	NH Route 10; River Park	Construct off-road path along Connecticut River from Bridge St in West Lebanon to the Wilder Dam	Downtown Core/Mixed Use	Pedestrian; Bicycle	
Lyme; Orford; Piermont	Towns; NHDOT	NH Route 10	Improve bicycle access along the NH Route 10 corridor north of the Lyme Common through Orford and Piermont; evaluate potential multi-use path connections.	Rural	Bicycle	Various feasibility challenges in different locations include terrain constraints, utilities, impacts to scenery, and private property. Identification of priority sections of roadway is needed as well.
Lyme	Town of Lyme; NHDOT	NH Route 10	Calm vehicular traffic and improve pedestrian crossing safety where traffic enters the Lyme Common area	Village	Vehicle; Pedestrian	Aesthetics of traffic calming approaches should match local character.



# ACTION PLAN TIER II PROJECTS



## Tier II Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lyme	Town of Lyme; NHDOT	East Thetford Rd	Improve pedestrian and bicycle access and safety across the Lyme-Thetford Bridge	Rural	Pedestrian; Bicycle	This could include warning signage for drivers, as well as other strategies to increase driver awareness.
Lyme	Town of Lyme	NH Route 10; Lyme Green	Install public electric vehicle chargers in the vicinity of the Lyme Common	Village	Vehicle	
Lyme; Orford; Piermont	Towns	NH Route 10	Study potential public transit connections	Rural; Village	Public Transit	Include connections to existing Tri-Valley Transit and Advance Transit services
Orford	Town of Orford; NHDOT	NH Route 25A	Improve flood resiliency of NH 25A along Jacob's Brook	Rural	Vehicle	2017 flooding washed out NH 25A. Further planning and study needed to identify improvements as well as strategies for maintaining/improving stream health.
Orford	Town of Orford; NHDOT	NH Route 10; Bridge St	Improve parking and pedestrian access at NH 10 and NH 25A/Bridge St	Village	Vehicle; Pedestrian	This intersection features a corner store and library, but lacks crosswalks and sidewalks.



# ACTION PLAN TIER III PROJECTS



## Tier III Project Description

- The need for the project may not be clear or well-understood.
- Project scopes are vague or not well-defined.
- Needed data collection and studies are not yet completed.
- Project may be infeasible, unsupported, not needed, and/or “unfundable.”

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier III Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Hanover	Town of Hanover; NHDOT	NH Route 10/South Main St	Construct sidewalk on east side of South Main St between Brook Rd and Dorrance Pl	Downtown Core/Mixed Use; Suburban	Pedestrian	Difficult project given narrow road right-of-way and terrain. Alternate approach would be improve pedestrian crossings at intersections along east side of South Main St.
Hanover; Lebanon	Town of Hanover; City of Lebanon; NHDOT	NH Route 10	Study options for reduction of through traffic speed to as low as 25 MPH on NH Route 10 between downtown Hanover and West Lebanon	Downtown Core/Mixed Use; Suburban; Rural	Vehicle; Pedestrian; Bicycle; Public Transit	Reducing traffic speeds could make NH Route 10 a more accessible, efficient, safe, and comfortable bicycle and transit connection between West Lebanon and Hanover. High speed regional traffic could opt to use US Route 5, I-91, and NH Route 120. <i>Significant planning, study, and public outreach needed to determine feasibility, effectiveness, and public support.</i>
Lebanon	City of Lebanon; Dartmouth College; NHDOT	Sachem Village; DHMC	Construct limited access pedestrian, bicycle, and transit connection from Sachem Village to DHMC	Suburban	Pedestrian; Bicycle; Public Transit	Identified in <i>Dartmouth Strategic Master Plan</i> . Costs, benefits, feasibility, and environmental impacts of constructing significant new infrastructure should be analyzed.
Lebanon	City of Lebanon	NH Route 10; Oak Ridge Rd	Reconfiguration of current intersection design to improve safety and reduce confusion	Suburban	Vehicle; Pedestrian; Bicycle	This intersection was upgraded recently; current striping pattern may result in driver confusion and safety concerns.



# CORRIDOR OVERVIEW



## Who Lives in the NH Route 10 North Corridor?

COMMUNITIES	2019 POPULATION (estimated)	2040 POPULATION (projected)	PROJECTED % CHANGE IN POPULATION	PROJECTED TOTAL POPULATION CHANGE
Hanover	11,467	12,428	8%	961
Lebanon	13,623	15,342	13%	1,719
Lyme	1,852	1,820	-2%	-32
Orford	1,444	1,407	-3%	-37
Piermont	868	874	1%	6

Source: NH Office of Strategic Initiatives, NH Office of Employment Security, 2015-2019 American Communities Survey 5-Year Estimates

SPECIAL POPULATIONS IN THE CORRIDOR	TOTAL SPECIAL POPULATION IN CORRIDOR	% OF TOTAL CORRIDOR POPULATION
Youth (Age 15 and Under)	3,756	13%
Young Adult (Age 16-34)	11,140	38%
Middle Age (Age 35-64)	9,189	31%
Seniors (65+)	51,66	18%
Racial Minorities	4,237	14%
Low Income (<150% of Poverty Level)	3,831	13%

Source: American Communities Survey 5-Year Estimates, 2015-2019

## Who Works in the NH Route 10 North Corridor?

	EMPLOYER	INDUSTRY	EMPLOYEES
Major Employers	Dartmouth-Hitchcock Medical Center	Health Care Services	8,117
	Dartmouth College	Education	3,497
	Hypertherm	Manufacturing	1,061
	FujiFilm	Technology	506

Source: NH Office of Employment Security (2019), City of Lebanon (2019)



### Vehicle Traffic Volumes on Regional Roadways

ROAD	TOWN/CITY	COUNT LOCATION	2019 AADT*
NH 10	Hanover	NH 10 (Lyme Rd) South of River Rd	4,000
NH 10	Hanover	NH 10 (So. Main St) South of Dorrance Place	5,500
NH 10	Hanover	NH 10 (So. Main St) at Lebanon TL	6,900
NH 10	Hanover	NH 10 (No. Park St) North of East	8,300
NH 10	Hanover	NH 10 (Lyme Rd) at Girl Brook North of	8,500
NH 10	Lebanon	NH 10 (No. Main St) South of Lakeview Dr at Wilder Dam	6,400
Dorchester Rd	Lyme	Dorchester Rd East of Acorn Hill Rd	570
Dorchester Rd	Lyme	Dorchester Rd West of Franklin Hill Rd	1,100
NH 10	Lyme	NH 10 (Orford Rd) North of No. Thetford Rd	1,752
E Thetford Rd	Lyme	East Thetford Rd at Vermont SL	2,100
NH 10	Lyme	NH 10 (Lyme Rd) at Lyme TL	2,800
NH 10	Lyme	NH 10 (Union St) North of Brook Ln	3,800
NH 25A	Orford	NH 25A East of Orfordville Rd	140
Dame Hill Rd	Orford	Dame Hill Rd North of NH 25A	310
NH 10	Orford	NH 10 (Dartmouth College Hwy) South of	1,500
NH 10	Orford	NH 10 (Orford Rd) at Lyme TL	1,800
NH 10	Orford	NH 10 (Orford Rd) South of Sawyer	2,100
NH 25A	Orford	NH 25A East of NH 10	2,300
NH 25A	Orford	NH 25A (Bridge St) at Vermont SL	3,900
NH 25C	Piermont	NH 25C (Lake Tarleton Rd) at Warren TL	600
NH 25C	Piermont	NH 25C (Lake Tarleton Rd) West of	890
NH 10	Piermont	NH 10/NH 25 (Dartmouth College Hwy)	1,300
NH 10	Piermont	NH 10 (Dartmouth College Hwy) at Piermont TL	1,350
NH 25	Piermont	NH 25 at Vermont SL	2,800

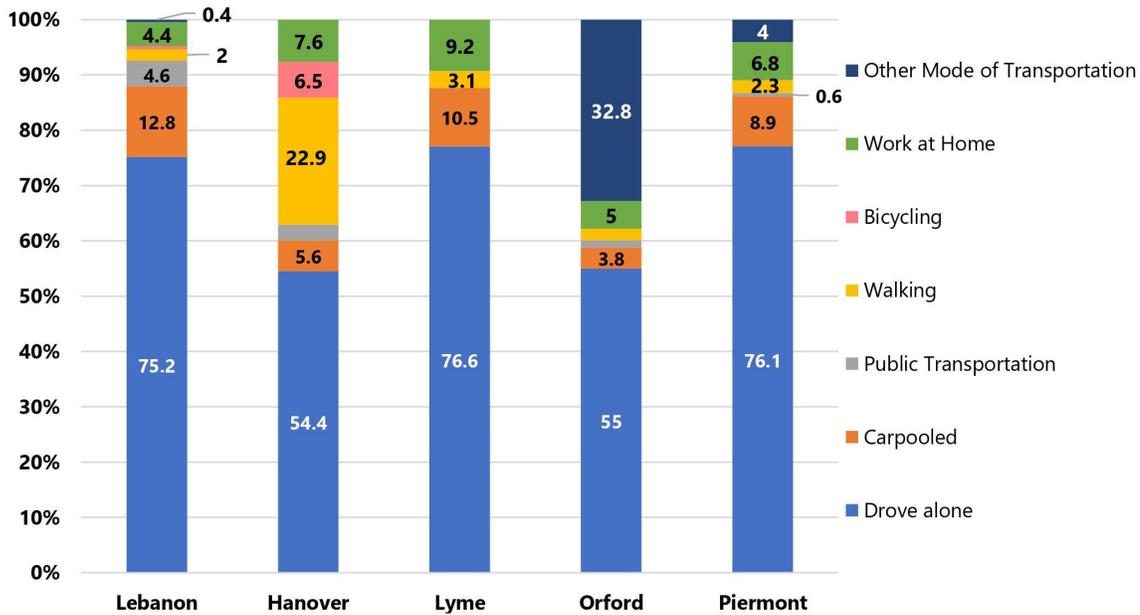
#### COVID-19 Impacts on Travel

The COVID-19 pandemic has resulted in reductions in travel, increased unemployment, and increases in the number of employees working from home. Continued monitoring of these trends is needed to understand their long-term impacts on the transportation system.

\*AADT = estimated Annual Average Daily Traffic (2019). Source: New Hampshire Department of Transportation



**Means of Transportation to Work**



Source: American Community Survey 2015-2019 5-Year Estimate



# MULTI-MODAL TRANSPORTATION



**Multi-modal mobility** refers to the ability of people to move around using modes of transportation other than a personal vehicle. Key factors for multi-modal mobility are **infrastructure** (e.g., sidewalks, bus stops), **services** (e.g., bus service), and **land use patterns** (i.e., the distance between various destinations, density of development). The **connections** between multi-modal infrastructure and services are also important - for example, the ability walk or bike safely to a bus stop encourages higher use of bus services.

This page presents an inventory of multi-modal infrastructure and services in the corridor.

## Pedestrian & Bicycle Infrastructure

TYPE	TOWN/CITY	LOCATION
Sidewalks	Lebanon	NH 10/N. Main St; West Lebanon downtown
	Hanover	NH 10/S. Main St; Main St; E. Wheelock St, N. Park St, Lyme Rd
Multi-Use Path	Hanover	NH 10/Lyme Rd
Painted Bike Lanes	Hanover	NH 10/Lyme Rd
Painted Shoulders > 5ft	Hanover; Lyme	NH 10 between Kendal and Lyme Green

## Public Transit

TYPE	TOWN/CITY	SERVICE PROVIDERS
Fixed Route Bus	Lebanon; Hanover	Advance Transit
Demand-Response Bus	Lebanon; Hanover	Advance Transit paratransit

## Transportation Services

TYPE	COMMUNITY	SERVICE PROVIDERS
Volunteer driver program	Lebanon; Hanover	Grafton County Senior Citizens Council



# NH ROUTE 10 SOUTH

## TRANSPORTATION CORRIDOR

*Grantham to Washington*



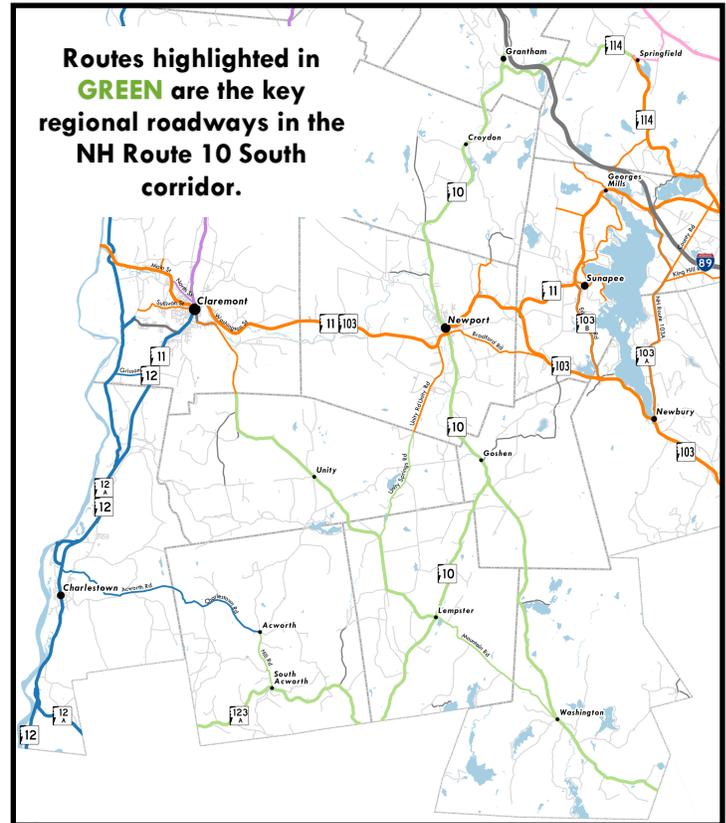
U V L S R P C

A stylized logo for the Regional Corridor Transportation Plan, showing a green mountain range with a blue river winding through it.

**REGIONAL CORRIDOR  
TRANSPORTATION PLAN**  
2021 → 2035

## NH Route 10 South Corridor - At a Glance

- **Municipalities:** Grantham, Springfield, Croydon, Newport, Goshen, Unity, Lempster, Acworth, Washington
- **Major Destinations:** Interstate 89; downtown Newport; Eastman; Grantham commercial area
- **Primary Regional Functions:** Commuting; Access to other regional corridors
- **Land Use Patterns:** Largely rural; downtown core area in Newport; village/suburban development in Grantham; small village areas in Croydon, Acworth, South Acworth, and Goshen
- **Natural Features:** Sugar River and tributaries; steep stream and river valleys; small mountains and rolling hills



# REGIONAL TRANSPORTATION GOALS

The following transportation system goals were identified for NH Route 10 South corridor, based on public input, in addition to the overall Upper Valley Lake Sunapee region goals presented in the Plan Introduction.

### SAFETY

Improve safety for all roadway users.

### FLOOD RESILIENCY

Address repeated flood damage to NH Route 10 and key connecting roadways.

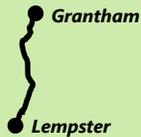
### TRANSIT ACCESS

Support and expand regional public transit access.





# TRANSPORTATION CHALLENGES MAP



This map identifies the primary **transportation mobility, safety, and accessibility** challenges in the NH Route 10 South corridor.

Major roadways in the NH Route 10 South corridor are highlighted in **GREEN**.

## MAP KEY - TYPES OF CHALLENGES

Vehicle/ multi-modal challenge	Pedestrian/ bicycle-specific challenge	Planning challenge
Environmental/ resiliency challenge	Public transit- related challenge	

Inconsistent shoulder widths and vehicle speeds are challenges for bicycle access along NH 10 between Newport and Grantham.

Access to the I-89 Exit 13 park-and-ride is in need of improvement.

NH 114 has an aging road base and vertical alignment challenges.

There are no park-and-ride facilities in Newport.

Pedestrian access between downtown Newport and the Middle High School is in need of improvement.

NH 10 in Goshen and Lempster has an aging road base and suffers from poor pavement condition.

Vehicle speeds entering Mill Village along NH Route 10 are a safety concern.

Flooding along NH 10 in Goshen is a natural hazard resiliency concern.

2nd NH Turnpike experiences periodic flood damage.

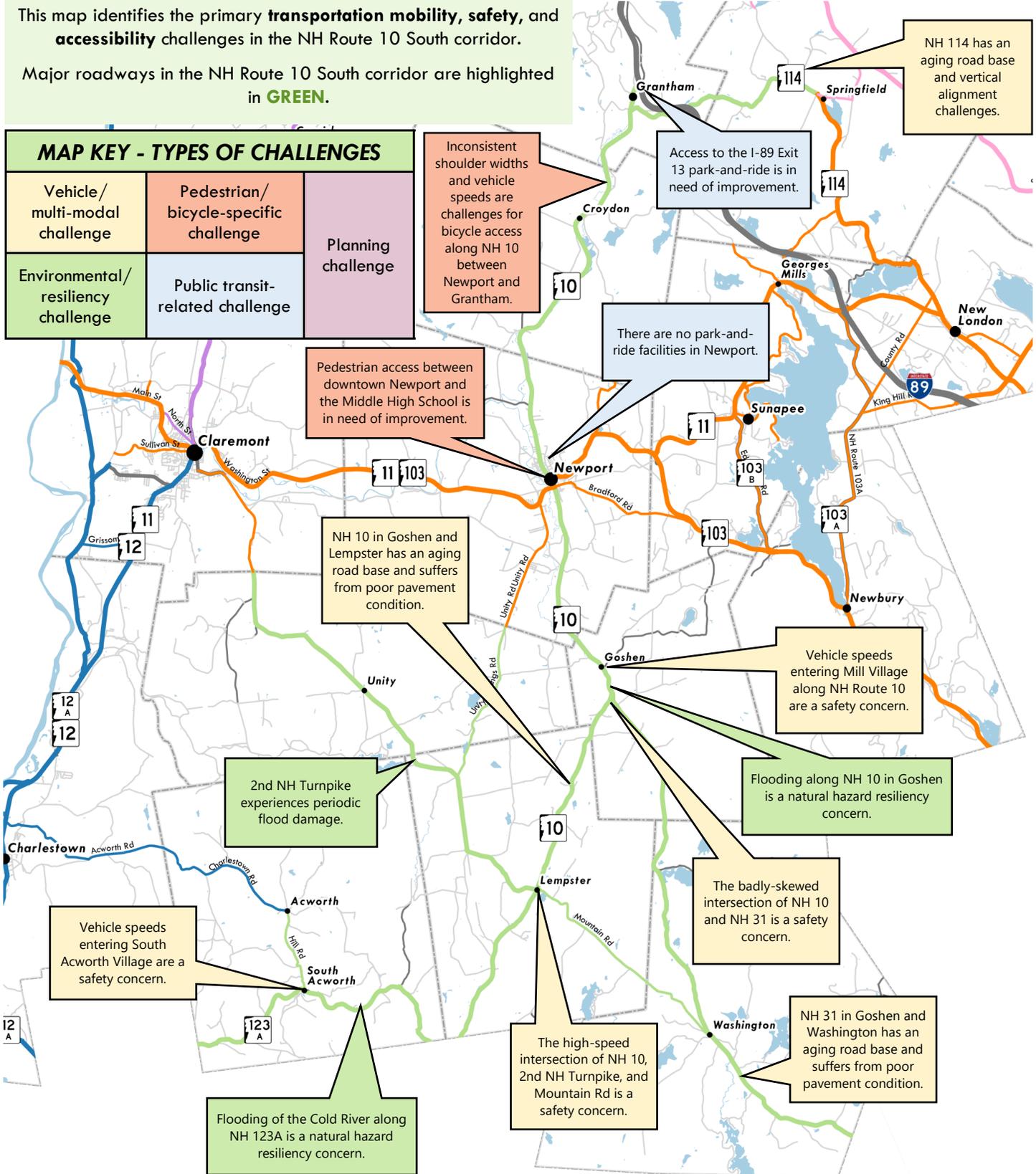
The badly-skewed intersection of NH 10 and NH 31 is a safety concern.

Vehicle speeds entering South Acworth Village are a safety concern.

The high-speed intersection of NH 10, 2nd NH Turnpike, and Mountain Rd is a safety concern.

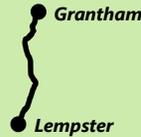
NH 31 in Goshen and Washington has an aging road base and suffers from poor pavement condition.

Flooding of the Cold River along NH 123A is a natural hazard resiliency concern.





# CORRIDOR ACTION PLAN



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## Currently Funded Regional Transportation Projects

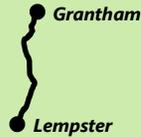
The projects listed below are regionally-significant projects that are already funded and on track for implementation. To help implement these projects, UVLSRPC staff will provide technical assistance and support, as needed or requested.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

TOWN/CITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	PROJECT TIMELINE	PROJECT COST	FUNDING SOURCE(S)	PLANNING NOTES
Grantham; Croydon; Newport	Sullivan County Transit; NHDOT	NH Route 10; Interstate 89	Commuter bus service along NH Route 10 from downtown Newport to I-89 ending at Dartmouth-Hitchcock Medical Center	2021 – 2022	N/A	Federal Transit Administration; other funding sources	Route is scheduled to begin in 2021.
Grantham; Croydon	NHDOT	NH Route 10	Light capital paving of NH 10 from Interstate 89 to Croydon Brook Rd	2022	N/A	NHDOT Paving Program	Opportunity to consider narrowing travel lane striping for wider shoulder
Goshen	NHDOT	Brook Rd	Pavement preservation work on Brook Rd in Goshen	2022	N/A	NHDOT Paving Program	



# ACTION PLAN TIER I PROJECTS



## Tier I Project Description

- Project directly addresses a defined transportation need.
- Project scope is well-defined.
- Needed data collection and studies are completed.
- Project is ready to compete for funding.

Note: projects are presented in **alphabetical order** by municipality.

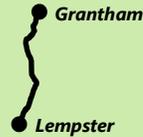
PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-	Pedestrian &	Plan or Study
Environmental Resiliency	Public Transit	

## Tier I Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Acworth	Town of Acworth; NHDOT	NH Route 123A in South Acworth	Install speed feedback signs to reduce vehicle speeds entering South Acworth Village	Village	Vehicle	
Goshen	Town of Goshen; NHDOT	NH Route 10 in Mill Village	Install speed feedback signs to reduce vehicle speeds entering Mill Village in Goshen	Village	Vehicle	
Goshen; Lempster	Towns; NHDOT	NH Route 10	Conduct a comprehensive corridor study focusing on flood resiliency, intersection safety, and infrastructure condition	Rural; Village	Vehicle; Pedestrian; Bicycle	Flooding has impacted NH 10 as recently at summer 2021. Reconstruction/rehabilitation of NH 10 in Goshen and Lempster has been proposed previously for the NH Ten-Year Plan. Further study is needed to identify and prioritized potential improvements.
Grantham	Town of Grantham; NHDOT	NH Route 10; NH Route 114	Add reflective signage at triangle intersection of NH 10 and NH 114	Village	Vehicle	Intersection has poor visibility at night.
Newport	Town of Newport	NH Route 10	Construct a park-and-ride lot along NH Route 10 near the Newport Middle High School, including pedestrian crossing and sidewalk connection	Downtown Core/Mixed Use	Vehicle; Pedestrian; Public Transit	Potential future stop for Sullivan County Transit commuter bus



# ACTION PLAN TIER II PROJECTS



## Tier II Project Description

- The need for the project may need to be better understood through data collection and further study.
- Project scopes may need to be refined or finalized.
- More data collection, planning work, and/or studies may be useful for refining the scope of the project.

Note: projects are presented in **alphabetical order** by municipality.

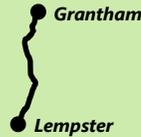
PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier II Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Croydon	Town of Croydon; NHDOT	NH Route 10 at Spectacle Pond	Mitigate periodic flooding across NH Route 10 at Spectacle Pond	Rural	Vehicle	
Grantham	Town of Grantham; Eastman Community Association; Sullivan County Transit; NHDOT	I-89 Exit 13 park-and-ride	Improve access to Sullivan County Transit I-89 commuter bus service stop at Exit 13 Park & Ride, including potential shuttle service(s)	Suburban	Vehicle; Pedestrian; Bicycle; Public Transit	Park-and-ride will be a key access point for this bus route; a variety of access improvements should be considered.
Grantham; Springfield	Towns; NHDOT	NH Route 114	Reconstruct/rehabilitate NH Route 114 from NH Route 10 in Grantham to Four Corners Rd in Springfield	Village; Rural	Vehicle; Pedestrian; Bicycle	Roadway condition and safety suffers from aging road base, vertical alignment challenges, and narrow shoulders.
Newport	Town of Newport; NHDOT	NH Route 10	Improve sidewalks from downtown Newport to Middle High School, including pedestrian crossings.	Downtown Core/Mixed Use	Pedestrian	Considerations include construction of new sidewalk along west side of roadway north of Oak St; potential future connections to proposed senior housing development north of the Middle High School and proposed park-and-ride.



# ACTION PLAN TIER III PROJECTS



## Tier III Project Description

- The need for the project may not be clear or well-understood.
- Project scopes are vague or not well-defined.
- Needed data collection and studies are not yet completed.
- Project may be infeasible, unsupported, not needed, and/or “unfundable.”

Note: projects are presented in **alphabetical order** by municipality.

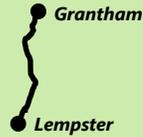
PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier III Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Acworth	Town of Acworth; NHDOT	NH Route 123A along Cold River	Improve flood resiliency of NH Route 123A along Cold River	Rural; Village	Vehicle	Further study of flood hazard reduction strategies is needed, including strategies to protect/improve river health.
Acworth	Town of Acworth	Crane Brook Rd	Improve flood resiliency of Crane Brook Rd along Crane Brook	Rural	Vehicle	Key connecting road serving Bascoms Maple Farm; roadway was badly damaged by flooding in 2021 after being reconstructed.
Grantham; Croydon; Newport	Towns; NHDOT	NH Route 10	Construct 5-foot shoulders for bicycle access along NH Route 10 between Newport and Grantham	Rural; Village; Downtown Core/Mixed Use	Bicycle	Shoulder widths are inconsistent along this section. Further planning needed to examine feasibility and project area needs.
Lempster; Unity	Towns; NHDOT	2nd NH Turnpike/ Lempster Rd	Address s-curves, visibility challenges, and flood resiliency along 2nd NH Turnpike/Lempster Rd	Rural	Vehicle	Roadway is not eligible for federal aid; consider curve warning signage and similar intermediate improvements.



# CORRIDOR OVERVIEW



## Who Lives in the NH Route 10 South Corridor?

COMMUNITIES	2019 POPULATION (estimated)	2040 POPULATION (projected)	PROJECTED % CHANGE IN POPULATION	PROJECTED TOTAL POPULATION CHANGE
Acworth	906	916	1%	10
Croydon	863	796	-8%	-67
Goshen	702	836	19%	134
Grantham	2,945	3,394	15%	449
Lempster	923	1,258	36%	335
Newport	6,374	6,387	0%	13
Springfield	1,084	1,512	39%	428
Unity	1,613	1,669	3%	56
Washington	1,199	1,230	3%	31

Source: NH Office of Strategic Initiatives, NH Office of Employment Security, 2015-2019 American Communities Survey 5-Year Estimates

SPECIAL POPULATIONS IN THE CORRIDOR	TOTAL SPECIAL POPULATION IN CORRIDOR	% OF TOTAL CORRIDOR POPULATION
Youth (Age 15 and Under)	2,147	13%
Young Adult (Age 16-34)	3,273	20%
Middle Age (Age 35-64)	7,478	45%
Seniors (65+)	3,711	22%
Racial Minorities	607	4%
Low Income (<150% of Poverty Level)	2,397	14%

Source: American Communities Survey 5-Year Estimates, 2015-2019

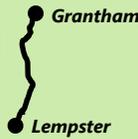
## Who Works in the NH Route 10 South Corridor?

	EMPLOYER	INDUSTRY	EMPLOYEES
Major Employers	Sturm Ruger & Co.	Manufacturing	1,250
	Bar Harbor Bank and Trust	Finance	110
	LaValley Building Supply	Retail	97

Source: NH Office of Employment Security (2019)



# TRANSPORTATION DATA



## Vehicle Traffic Volumes on Regional Roadways

ROAD	TOWN/CITY	COUNT LOCATION	2019 AADT*
NH 123A	Acworth	NH 123A east of Cold River	380
NH 10	Croydon	NH 10 at Grantham town line	3,700
NH 10	Croydon	NH 10 east of Croydon Brook Rd	3,800
NH 10	Goshen	NH 10 at Newport town line	2,800
NH 10	Goshen	NH 10 south of NH 31	1,900
NH 10	Goshen	NH 10 at Lempster town line	1,800
NH 31	Goshen	NH 31 east of NH 10	950
Brook Rd	Goshen	Brook Rd east of NH 10	880
NH 10	Grantham	NH 10 south of I-89 exit 13	7,300
NH 114	Grantham	NH 114 east of NH 10	2,000
NH 10	Lempster	NH 10 at Marlow town line	1,400
Mountain Rd	Lempster	Mountain Rd east of NH 10	800
NH 10	Newport	NH 10 north of Corbin Rd	3,900
NH 10	Newport	NH 10/N. Main St north of Pearl St	8,300
NH 10/NH 11/NH 103	Newport	NH 10/11/103/N. Main St north of Central St	11,000
NH 10/NH 11/NH	Newport	NH 10/11/103/N. Main St north of Elm	13,800
NH 10	Newport	NH 10 south of Maple St	4,000
NH 114	Springfield	NH 114 at Springfield town line	770
2nd NH Turnpike	Unity	2nd NH Turnpike north of Potato Hill Rd	1,600
NH 31	Washington	NH 31 at Goshen town line	490

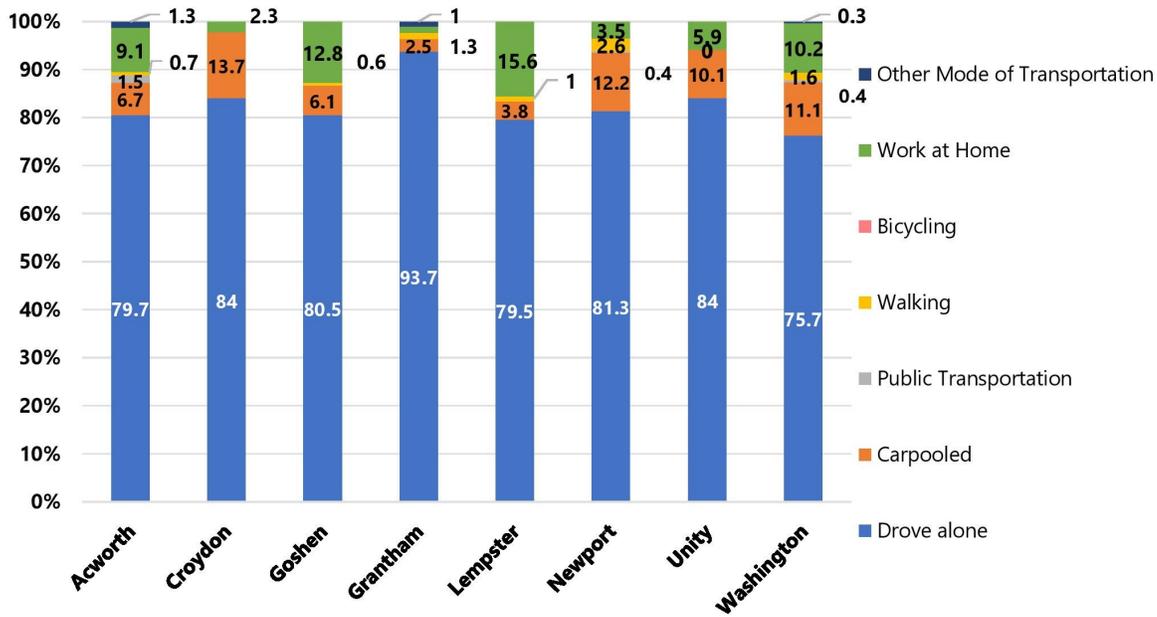
### COVID-19 Impacts on Travel

The COVID-19 pandemic has resulted in reductions in travel, increased unemployment, and increases in the number of employees working from home. Continued monitoring of these trends is needed to understand their long-term impacts on the transportation system.

\*AADT = estimated Annual Average Daily Traffic (2019). Source: New Hampshire Department of Transportation



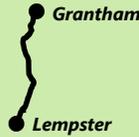
**Means of Transportation to Work**



Source: American Community Survey 2015-2019 5-Year Estimate



# MULTI-MODAL TRANSPORTATION



**Multi-modal mobility** refers to the ability of people to move around using modes of transportation other than a personal vehicle. Key factors for multi-modal mobility are **infrastructure** (e.g., sidewalks, bus stops), **services** (e.g., bus service), and **land use patterns** (i.e., the distance between various destinations, density of development). The **connections** between multi-modal infrastructure and services are also important - for example, the ability walk or bike safely to a bus stop encourages higher use of bus services.

This page presents an inventory of multi-modal infrastructure and services in the corridor.

## Pedestrian & Bicycle Infrastructure

TYPE	TOWN/CITY	LOCATION
Sidewalks	Newport	NH 10/Main St
Painted Shoulders > 5ft	Newport; Croydon; Grantham	NH 10

## Public Transit

TYPE	TOWN/CITY	SERVICE PROVIDERS
Fixed Route Bus	Newport; Grantham	Sullivan County Transit



# NH ROUTES 11/12/12A

## TRANSPORTATION CORRIDOR



### Charlestown to West Lebanon



WALK YOUR HORSES OR PAY TWO DOLLARS FINE.

COVERED BRIDGE

CORNISH-WINDSOR  
1890-1924

NO PARKING  
FIRE  
HOOK  
UP

WEIGHT  
LIMIT  
10  
TONS



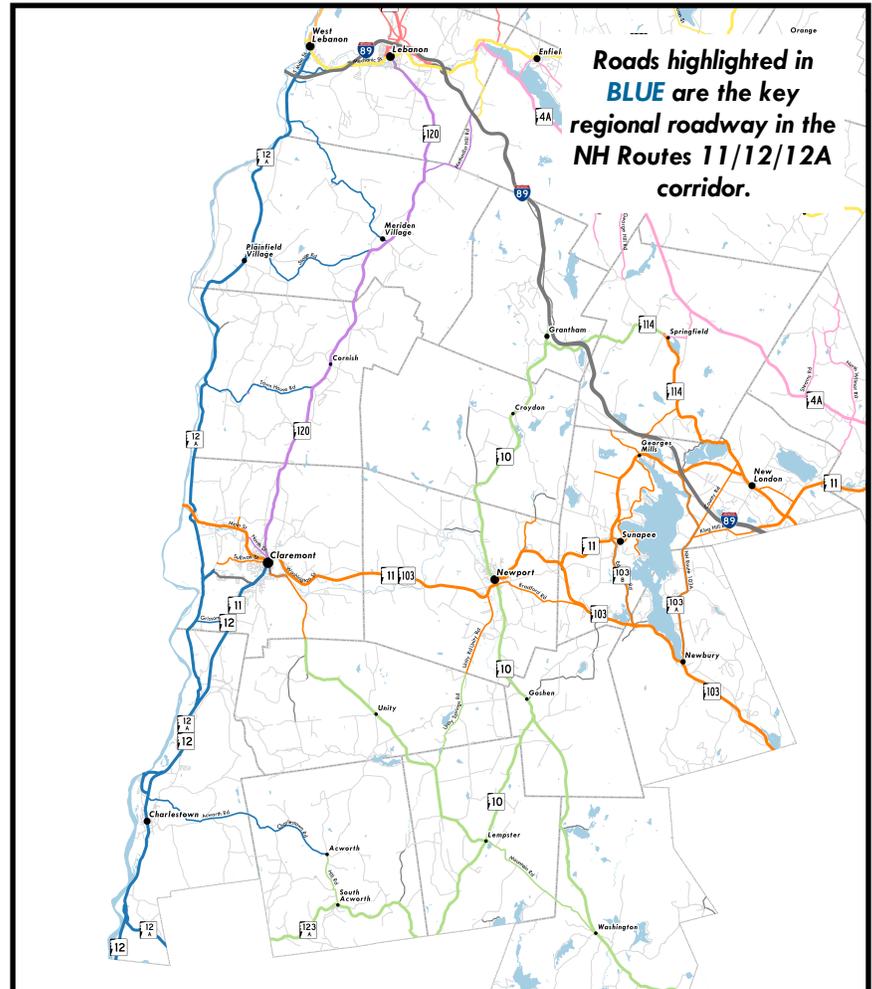
REGIONAL CORRIDOR  
TRANSPORTATION PLAN

2021 → 2035

Pictured: Cornish-Windsor Covered Bridge

## NH Routes 11/12/12A Corridor - At a Glance

- **Municipalities:** Lebanon, Plainfield, Cornish, Claremont, Charlestown, Acworth
- **Major Destinations:** West Lebanon Main Street, West Lebanon commercial center, Claremont downtown, Claremont industrial area, Charlestown Main Street, Connecticut River Byway, Saint-Gaudens National Historical Park
- **Primary Regional Functions:** Commuting; Freight; Tourism; Commercial/Retail
- **Land Use Patterns:** Highway commercial areas in West Lebanon and along NH 11/NH 12/ Charlestown Rd in Claremont; Main Street/village areas in Charlestown and Plainfield; largely rural in other areas
- **Natural Features:** Connecticut River Valley; rolling hills and stream valleys



# REGIONAL TRANSPORTATION GOALS

The following transportation system goals were identified for NH Routes 11/12/12A corridor, based on public input, in addition to the overall Upper Valley Lake Sunapee region goals presented in the Plan Introduction.

### SAFETY

Improve safety for all roadway users.

### DOWNTOWN SAFETY

Calm traffic speeds at gateways to downtown, village, and commercial areas along state highways.

### BIKE CONNECTIONS

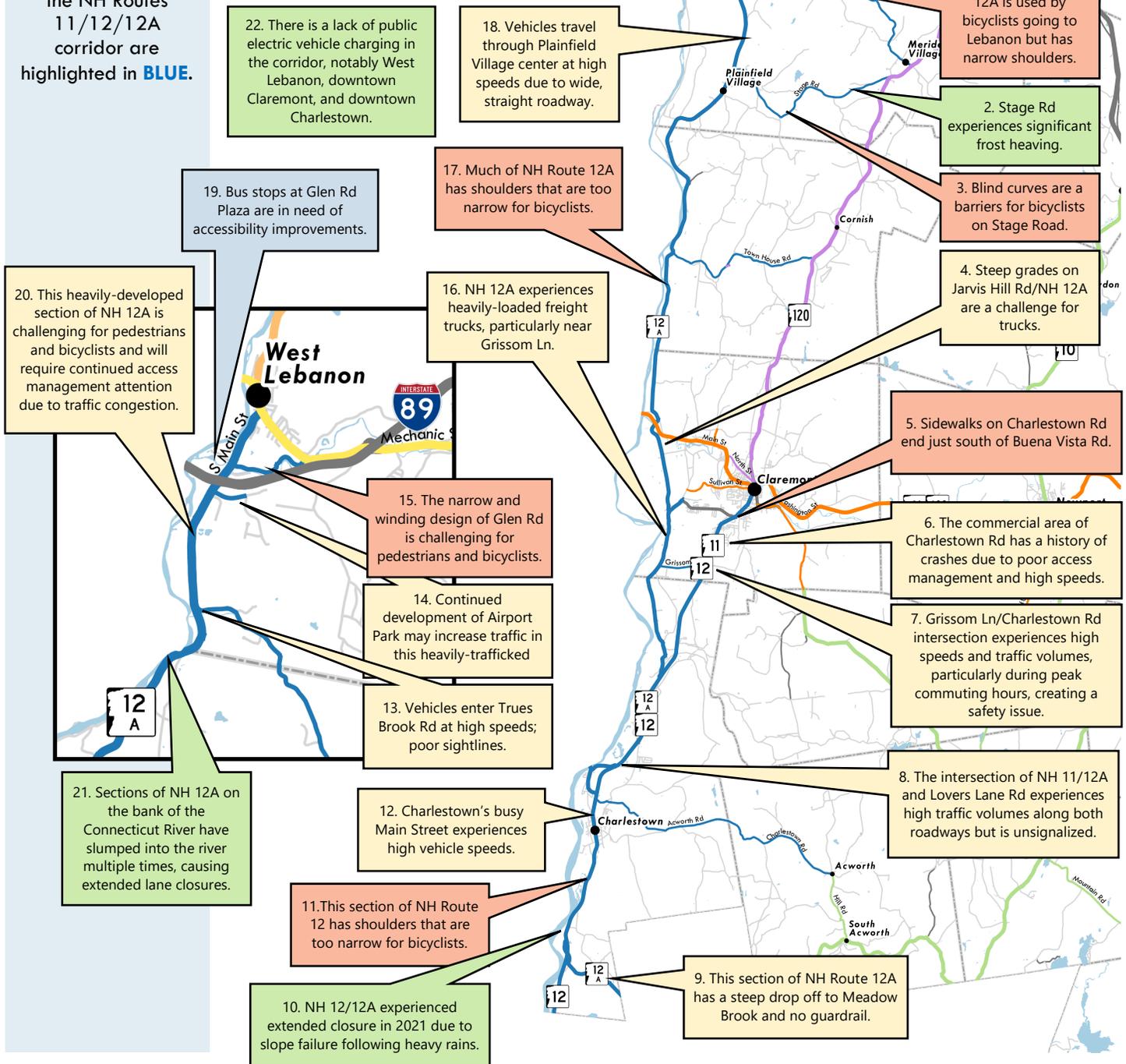
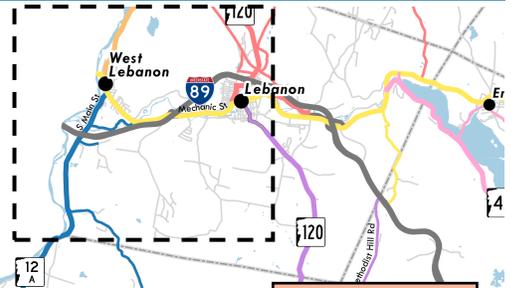
Improve bicycle connections along NH Route 12A between communities



This map identifies the primary **transportation mobility, safety, and accessibility** challenges in the NH Route 11/12/12A Corridor.

Major roadways in the NH Routes 11/12/12A corridor are highlighted in **BLUE**.

MAP KEY - TYPES OF CHALLENGES		
Vehicle/ multi-modal challenge	Pedestrian/ bicycle-specific challenge	Planning challenge
Environmental/ resiliency challenge	Public transit- related challenge	





The Action Plan is a process for turning transportation needs and concepts into projects that are ready to compete for funding. An individual Action Plan is presented for each major transportation corridor in the UVLSRPC region. For more information on UVLSRPC's process for implementing corridor Action Plans, please refer to the [Action Plan Overview](#) in the [Plan Introduction](#).

## Currently Funded Regional Transportation Projects

The projects listed below are regionally-significant projects that are already funded and on track for implementation. To help implement these projects, UVLSRPC staff will provide technical assistance and support, as needed or requested.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

TOWN/CITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	PROJECT TIMELINE	PROJECT COST	FUNDING SOURCE(S)	PLANNING NOTES
Claremont	City of Claremont	NH 11/Pleasant St	Convert Pleasant St to one-way and construct wider sidewalks.	Construction: 2021 - 2022	\$4,500,000	Locally-funded	
Lebanon	City of Lebanon; NHDOT	NH 12A/South Main St	Replacement of NH 12A "dry bridge" over B&M Railroad, including pedestrian access to Westboro Yards area.	Construction: FY 2024	\$7,799,000	NH Ten-Year Transportation Improvement Plan	Project is an opportunity to add wider shoulders for bicycle travel.
Lebanon	City of Lebanon; NHDOT	NH 12A/South Main St	Reconstruction of one-quarter mile of NH 12A/South Main St as part of CSO-13 project to separate City sewer.	Construction: 2021 - 2022	-	Locally-funded	Project designs include wider shoulder for bicycle travel.



## Tier I Project Description

- Project directly addresses a defined transportation need.
- Project scope is well-defined.
- Needed data collection and studies are completed.
- Project is ready to compete for funding.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental	Public Transit	

## Tier I Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Acworth; Charlestown	Town of Acworth; Town of Charlestown; NHDOT	Acworth Rd/ Charlestown Rd	Conduct truck study for Acworth Rd/ Charlestown Rd.	Rural	Freight	
Charlestown	Town of Charlestown; NHDOT	Acworth Rd	Add fog line and curve warning signage on Acworth Rd.	Rural	Vehicle	Lack of fog line is a safety issue for nighttime driving.
Charlestown	Town of Charlestown; NHDOT	NH 11/12/12A; Lovers Lane Rd	Intersection safety study for intersection of NH 11/12/12A and Lovers Lane Rd.	Rural; Suburban	Vehicle	High traffic volumes through this unsignalized intersection.
Charlestown	Town of Charlestown	Healy Hill Rd	Implement improvements from Healy Hill Rd report.	Suburban	Vehicle	Address steep drops, truck access, drainage.
Claremont	City of Claremont	NH 11/Charlestown Rd	Construct sidewalks, improve access management, and improve roadway condition along Charlestown Rd from Lane Ridge Rd to Highlandview Rd.	Commercial/ Suburban	Vehicle; Pedestrian; Bicycle	NHDOT Road Safety Audit completed in 2021. Drainage and water/sewer improvements are needed along this section of road as well.
Claremont	City of Claremont	NH 11/Charlestown Rd	Add sidewalk along Charlestown Rd from Arch Rd to Buena Vista Rd.	Suburban	Pedestrian	



**Tier I Projects (continued)**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Claremont	City of Claremont	NH 12A/Jarvis Hill Rd	Conduct freight access study for NH 12A in Claremont.	Rural	Freight	Steep grades are a challenge along Jarvis Hill Rd section of NH 12A, particularly in winter with drainage issues and road surface freezing. Other challenges include narrow roadway width and skewed intersections.
Cornish	Town of Cornish; NHDOT	NH 12A at Balloch's Crossing	Address skewed at-grade railroad crossing of NH 12A at Balloch's Crossing	Rural	Vehicle; Bicycle	
Lebanon	City of Lebanon; Advance Transit	NH 12A commercial area	Add bus shelters to Advance Transit bus stops in NH 12A commercial area.	Commercial/ Employment Hub	Public Transit	
Lebanon	City of Lebanon; NHDOT	NH 12A commercial area	Project-level and/or corridor study covering traffic congestion, access management, pedestrian and bicycle access, urban design, and development.	Commercial/ Employment Hub	Vehicle; Pedestrian; Bicycle; Transit	This could include development and access along Airport Rd, and incorporate a proposed urban design study.
Lebanon	City of Lebanon	NH 12A commercial area	Add public electric vehicle charging stations in NH 12A commercial area.	Commercial/ Employment Hub	Vehicle	
Lebanon	City of Lebanon	NH 12A	Improve pedestrian crossing of NH 12A at Walmart, including adding a crosswalk.	Commercial/ Employment Hub	Pedestrian	
Lebanon	City of Lebanon; NHDOT	NH 12A; Glen Rd	Add signage along NH 12A northbound for left turn-only lane at Hannaford.	Commercial/ Employment Hub	Vehicle	



**Tier I Projects (continued)**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	City of Lebanon	NH 12A commercial area	Install pedestrian countdown signals at all pedestrian crossings.	Commercial/ Employment Hub	Pedestrian	
Lebanon; Plainfield	City of Lebanon; Town of Plainfield	Trues Brook Rd (Lebanon) / Brook Rd (Plainfield)	Study roadway for multimodal safety and maintenance needs. Consider curve warning signage.	Rural	Vehicle; Bicycle	Used as a cutoff by trucks. Winds along Trues Brook. Primary route from Plainfield to West Lebanon.
Lebanon; Plainfield; Cornish	City of Lebanon; Town of Plainfield; Town of Cornish; NHDOT	NH 12A; NH 120; Trues Brook Rd/Brook Rd; Townhouse Rd	Add bicycle signage along this popular cycling route (part of State of NH bike route).	Rural; Village Center	Bicycle	
Plainfield	Town of Plainfield; NHDOT	NH 12A through Plainfield Village	Visioning study for traffic calming and streetscape improvements along NH 12A through Plainfield Village.	Village Center	Vehicle; Pedestrian; Bicycle	NH 12A is very wide through Plainfield Village. Ample right-of-way exists. Potential opportunity for street trees and other streetscape improvements.
Plainfield	Town of Plainfield; NHDOT	Stage Rd	Add fog line and bicycle signage.	Rural	Vehicle; Bicycle	Fog line will help with vehicle safety at curves.



## Tier II Project Description

- The need for the project may need to be better understood through data collection and further study.
- Project scopes may need to be refined or finalized.
- More data collection, planning work, and/or studies may be useful for refining the scope of the project.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier II Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Charlestown	Town of Charlestown; NHDOT	Main St	Complete Streets improvements along Main Street, including pedestrian crossings, bus stop locations, and access to Charlestown Middle School.	Village	Vehicle; Pedestrian; Bicycle	2003 Main Street Corridor Study includes potential designs.
Charlestown	Town of Charlestown; NHDOT	NH 12A south of Pecor Rd	Safety improvements along short stretch of NH 12A, including potential structural/geometric improvements and guardrail installation.	Rural	Vehicle	Steep embankment at curve is a safety concern; guardrail installation will likely require other improvements. Further feasibility work is needed to understand project scope and costs.
Charlestown	Town of Charlestown; NHDOT	NH 11/Springfield Rd	Improve pedestrian and bicycle access along NH 11/Springfield Rd to Connecticut River bridge and Main St.	Suburban	Pedestrian; Bicycle	Further study and public outreach is needed to determine preferred type and extent of improvements. Potential to improve connection to Toonerville Rail Trail in Springfield, VT.
Charlestown	Town of Charlestown; NHDOT	NH 11/12/12A; Old Claremont Rd	Address skew and sightline issues at intersection of NH 11/12/12A and Old Claremont Rd.	Suburban	Vehicle	Further study is needed to identify issues and potential improvements.
Charlestown	Town of Charlestown	Downtown/Main St	Install public electric vehicle chargers in downtown Charlestown	Village	Vehicle	



**Tier II Projects (continued)**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Claremont	City of Claremont; NHDOT	NH 11/Charlestown Rd; Grissom Ln	Intersection improvements at NH 11/Charlestown Rd and Grissom Ln.	Rural	Vehicle; Freight	High speeds and traffic volumes at this intersection, particularly during peak commute times. Used by oversized trucks. Further study is needed to evaluate design alternatives.
Claremont	City of Claremont; NHDOT	Downtown Claremont	Install public electric vehicle chargers in downtown Claremont	Downtown Core/Mixed Use	Vehicle	
Cornish	Town of Cornish; NHDOT	NH 12A; Cornish-Windsor Bridge	Improve tourist access to Cornish-Windsor Bridge, including safer pedestrian facilities and improved parking.	Rural	Vehicle; Pedestrian	Terrain constraints with river bank are a challenge in this location.
Cornish	Town of Cornish; NHDOT	NH 12A; Town House Rd	Improve intersection safety at NH 12A and Town House Rd	Rural	Vehicle	
Lebanon	City of Lebanon; Advance Transit	NH 12A commercial area	Improve pedestrian access to Advance Transit stop at Glen Rd Plaza. Consider potential stop relocation/improvement.	Commercial/Employment Hub	Public Transit	
Lebanon	City of Lebanon	NH 12A commercial area	Create "bike bypass" or around NH 12A commercial area, including potential riverside multi-use path or off-road trail.	Commercial/Employment Hub	Pedestrian; Bicycle	Bike access along NH 12A could be looked at as part of 12A corridor study (Tier I project). Potential challenges with maintenance and private property in developing alternate bike route.



**Tier II Projects (continued)**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	City of Lebanon	NH 12A commercial area	Install public electric vehicle chargers in the NH 12A commercial area	Commercial/ Employment Hub	Vehicle	
Lebanon; Plainfield	Towns/Cities; NHDOT	NH 12A	Construct 5-foot shoulders along NH 12A between Stage Rd in Plainfield and the Lebanon Landfill	Rural	Bicycle	Various terrain/environmental constraints exist, particularly the bog and steep stream valley between Old County Rd and Pierce Rd. May need to be considered as part of larger roadway reconstruction/rehabilitation project.



**Tier III Project Description**

- The need for the project may not be clear or well-understood.
- Project scopes are vague or not well-defined.
- Needed data collection and studies are not yet completed.
- Project may be infeasible, unsupported, not needed, and/or “unfundable.”

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

**Tier III Projects**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Cornish; Claremont	Municipalities; NHDOT	NH Route 12A from St. Gaudens Rd in Cornish to NH Route 12/103 in Claremont	Construct wider shoulders along NH Route 12A	Rural; Village	Pedestrian; Bicycle	Narrow roadway and right-of-way are significant challenges. Further planning needed to identify priority sections of NH 12A and feasibility challenges. May need to be considered as part of larger roadway reconstruction/rehabilitation project.



### Who Lives in the NH Route 12A Corridor?

COMMUNITIES	2018 POPULATION (estimated)	2040 POPULATION (projected)	PROJECTED % CHANGE IN POPULATION	PROJECTED TOTAL POPULATION CHANGE
Lebanon	13,522	15,342	13.5%	+1,820
Plainfield	2,379	2,435	2.4%	+56
Cornish	1,625	1,603	-1.4%	-22
Claremont	12,967	12,984	0.1%	+17
Charlestown	5,012	5,211	4.0%	+199
Acworth	892	916	2.7%	+24

Source: NH Office of Strategic Initiatives, NH Office of Employment Security

SPECIAL POPULATIONS IN THE CORRIDOR	TOTAL SPECIAL POPULATION IN CORRIDOR	% OF TOTAL CORRIDOR POPULATION
Youth (Age 15 and Under)	6,017	16.3%
Young Adult (Age 16-34)	9,647	26.2%
Middle Age (Age 35-64)	14,242	38.7%
Seniors (65+)	6,906	18.8%
Racial Minorities	2,976	8.1%
Low Income (<150% of Poverty Level)	7,444	20.2%

Source: American Communities Survey 5-Year Estimates, 2014-2018

### Who Works in the NH Route 12A Corridor?

	EMPLOYER	INDUSTRY	EMPLOYEES
Major Employers	Whelen Engineering	Manufacturing	1,100
	Claremont School District	Civic	446
	Valley Regional Hospital	Healthcare	281
	Walmart (Claremont)	Retail	209

Source: NH Office of Employment Security, 2019



### Vehicle Traffic Volumes on Regional Roadways

ROAD	TOWN/CITY	COUNT LOCATION	2019 AADT*
NH 12A	Lebanon	NH 12A (So. Main St) at State of NH Railroad	9,400
NH 12A	Lebanon	NH 12A (So. Main St) South of Glen Rd	14,000
Glen Rd	Lebanon	Glen Rd under State of NH Railroad	3,600
Trues Brook Rd	Lebanon	Trues Brook Rd east of Derby Ln	1,100
Willow Brook Rd	Plainfield	Willow Brook Rd south of Jenney Rd	930
NH 12A	Plainfield	NH 12A north of Stage Rd	3,300
Stage Rd	Plainfield	Stage Rd west of Hell Hollow Rd	700
NH 12A	Plainfield/ Cornish	NH 12A at Plainfield town line	2,600
NH 12A	Cornish	NH 12A north of Cornish-Windsor Covered Bridge	2,800
Cornish-Windsor Bridge	Cornish	Cornish-Windsor Covered Bridge	2,700
Town House Rd	Cornish	Town House Rd west of Parsonage Rd	700
NH 12A	Cornish	NH 12A south of Town House Rd	2,000
NH 12A	Cornish/ Claremont	NH 12A at Cornish town line	1,900
NH 12A	Claremont	NH 12A north of NH 12/NH 103	2,000
NH 11/NH 12 (Pleasant St)	Claremont	NH 11/NH 12 (Pleasant St) North of Green St	8,600
NH 11/NH 12 (Charlestown Rd)	Claremont	NH 11/NH 12 (Charlestown Rd) south of Clifton Ave	12,000
NH 11/NH 12 (Charlestown Rd)	Claremont	NH 11/NH 12 (Charlestown Rd) at Charlestown town line	8,100
Grissom Lane	Claremont	Grissom Ln east of NH 12A	1,230
NH 12A	Claremont	NH 12A south of Ainsworth Rd	1,100
NH 12A	Claremont	NH 12A south of Ferry Rd	2,000
NH 12A	Charlestown	NH 12A at Charlestown town line	1,300
NH 12A	Charlestown	NH 12A (River Rd) at Little Sugar River Bridge	1,300
NH 11/NH 12	Charlestown	NH 11/NH 12 (CTValley Highway) south of	7,300
NH 11/NH 12	Charlestown	NH 11/NH 12 (Connecticut Valley Highway) south of NH 12A	8,900
Lovers Lane Rd	Charlestown	Lovers Lane Rd over NE Central Railroad	4,200

#### COVID-19 Impacts on Travel

The COVID-19 pandemic has resulted in reductions in travel, increased unemployment, and increases in the number of employees working from home. Continued monitoring of these trends is needed to understand their long-term impacts on the transportation system.

\*AADT = estimated Annual Average Daily Traffic (2019). Source: New Hampshire Department of Transportation

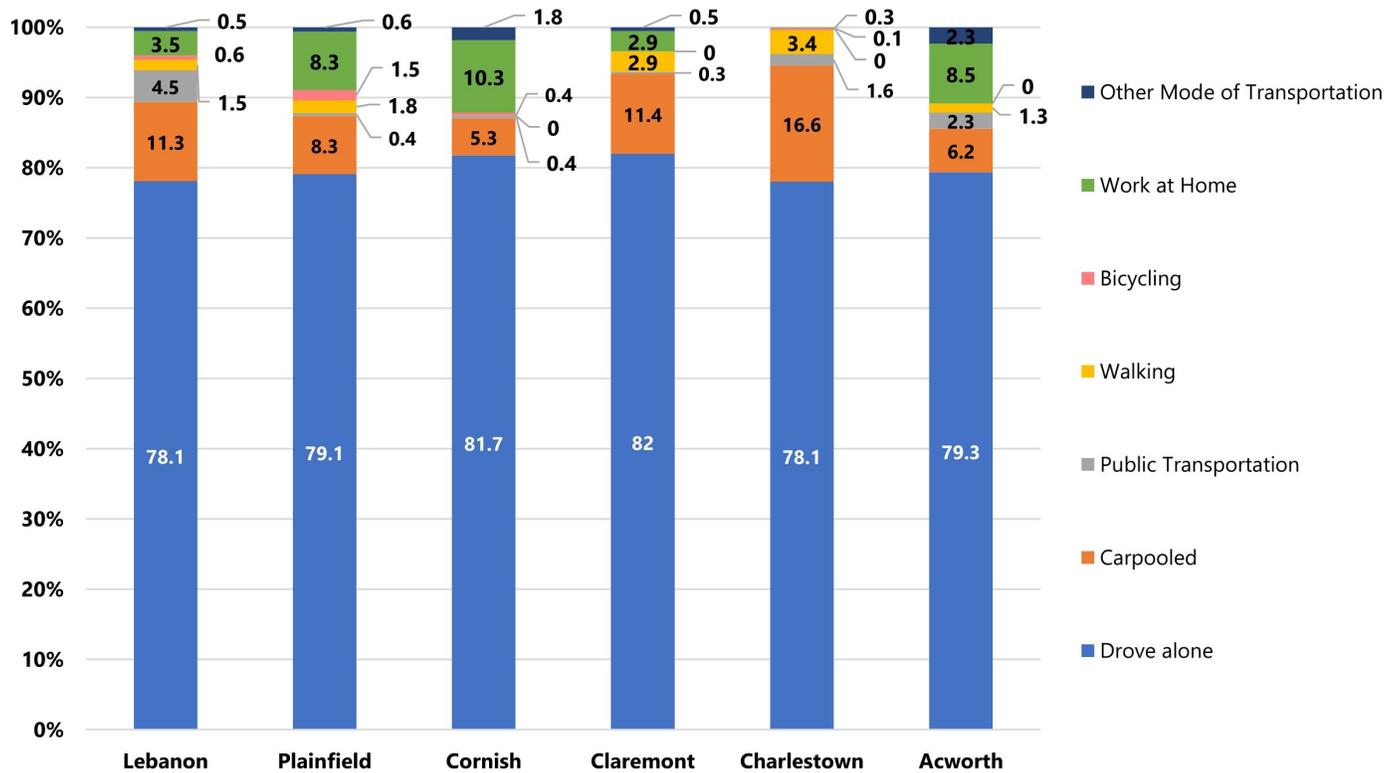


**Vehicle Traffic Volumes on Regional Roadways (cont'd)**

ROAD	TOWN/CITY	COUNT LOCATION	2019 AADT*
NH 11/NH 12	Charlestown	NH 11/NH 12 (Connecticut Valley Highway) north of NH 11	4,700
NH 11	Charlestown	NH 11 west of NH 12	3,400
NH 12/NH12A	Charlestown	NH 12 (Connecticut Valley Hwy) So of NE RR crossing	5,100
NH 12A	Charlestown	NH 12A east of NH 12	1,400
NH 12	Charlestown	NH 12 at Walpole town line	3,600

\*AADT = estimated Annual Average Daily Traffic (2019). Source: New Hampshire Department of Transportation

**Means of Transportation to Work**



Source: American Community Survey 2014-2018 5-Year Estimate



**Multi-modal mobility** refers to the ability of people to move around using modes of transportation other than a personal vehicle. Key factors for multi-modal mobility are **infrastructure** (e.g., sidewalks, bus stops), **services** (e.g., bus service), and **land use patterns** (i.e., the distance between various destinations, density of development). The **connections** between multi-modal infrastructure and services are also important - for example, the ability walk or bike safely to a bus stop encourages higher use of bus services.

This page presents an inventory of multi-modal infrastructure and services in the corridor.

## Pedestrian & Bicycle Infrastructure

TYPE	TOWN/CITY	LOCATION
Multi-Use Paths	n/a	n/a
Rail Trails	Claremont	Bobby Woodman Trail
Sidewalks	Lebanon	NH Route 12A
	Plainfield	Brook Road (Meriden Village)
	Claremont	Charlestown Rd; Pleasant St
	Charlestown	Main Street/downtown area
Painted Bike Lanes	Lebanon	NH 12A adjacent to I-89 Exit 20
Sharrows	Lebanon	Glen Rd; NH Route 12A
Painted Shoulders ≥5 feet	Plainfield	NH 12A near Plainfield Village
	Charlestown	Claremont Rd/NH 11/12A

## Public Transit

TYPE	TOWN/CITY	SERVICE PROVIDERS
Fixed Route Bus	Claremont; Charlestown	Southwest Community Services
	Lebanon	Advance Transit
Demand-Response Bus	Claremont; Charlestown	Southwest Community Services deviated route service
Intercity Bus	n/a	n/a

## Transportation Services

TYPE	COMMUNITY	SERVICE PROVIDERS
Volunteer driver program	Sullivan County	Southwest Community Services

## Rail Service

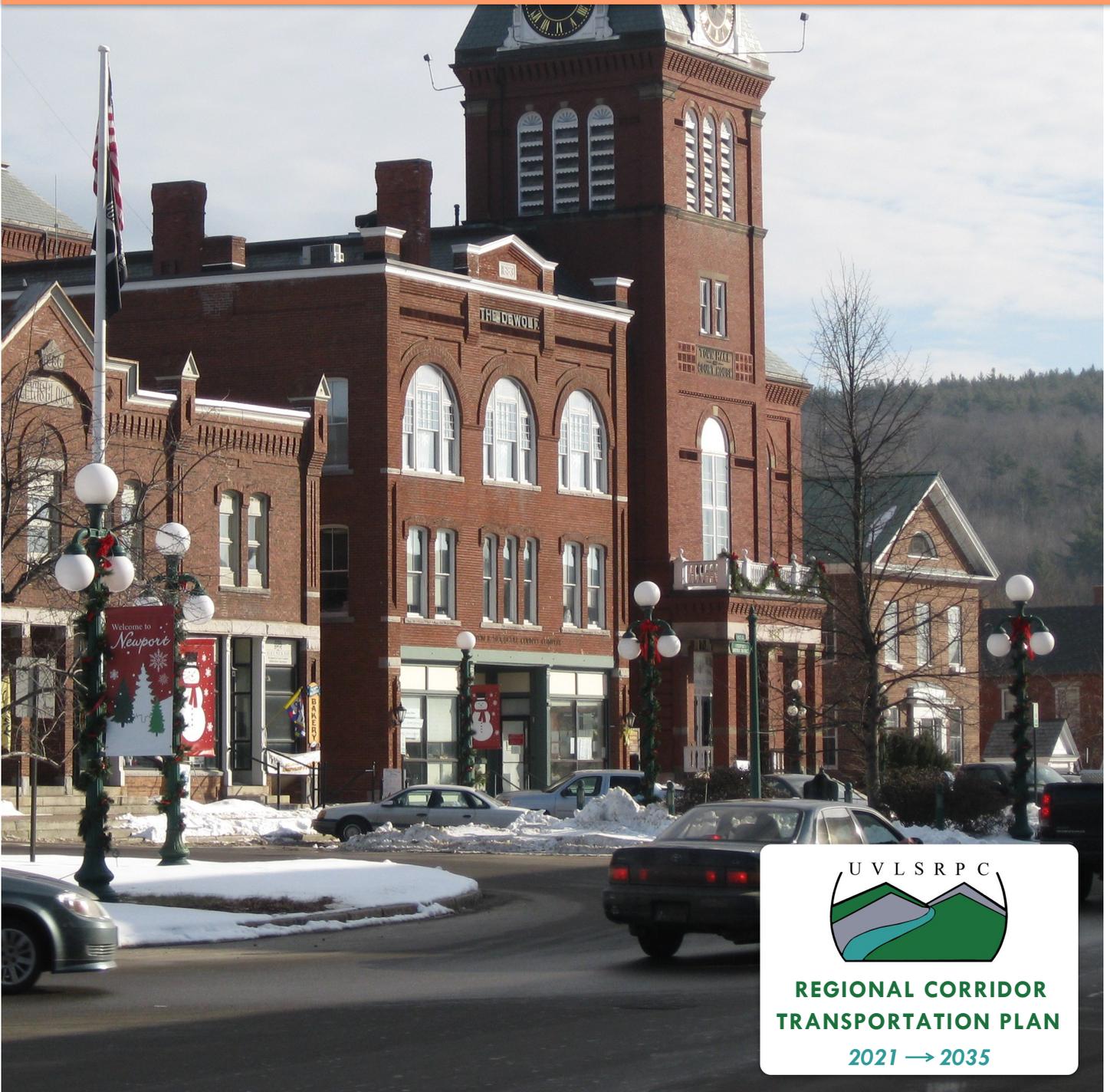
TYPE	TOWN/CITY	SERVICE PROVIDERS
Passenger rail service	Claremont	Amtrak



# NH ROUTES 11/103

## TRANSPORTATION CORRIDOR

*Claremont to Lake Sunapee Region*

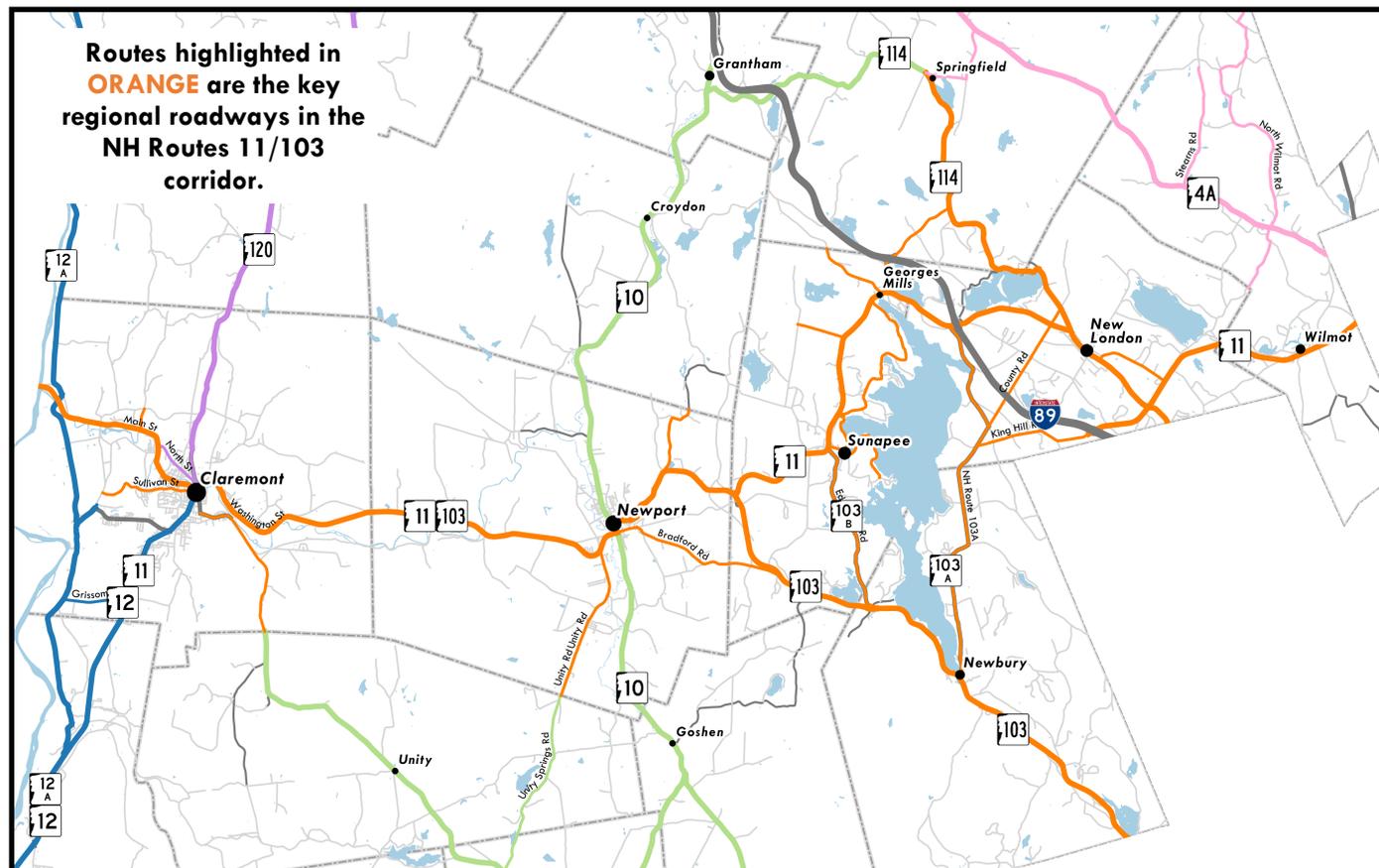


U V L S R P C

**REGIONAL CORRIDOR  
TRANSPORTATION PLAN**

2021 → 2035

# 11 CORRIDOR 103 OVERVIEW



## NH Routes 11 & 103 Corridor - At a Glance

- **Municipalities:** Claremont, Newport, Sunapee, Newbury, New London, Wilmot, Springfield
- **Major Destinations:** Downtown Claremont, Newport Main Street, Lake Sunapee, New London Main Street, Mt. Sunapee Resort
- **Primary Regional Functions:** Commuting; Freight; Tourism
- **Land Use Patterns:** downtown core areas in Claremont, Newport, and New London; highway commercial development along NH 11/Washington St in Claremont and Newport Rd in New London; village center areas in New London, Sunapee; lakeside development along Lake Sunapee, Little Sunapee Lake, and Pleasant Lake
- **Natural Features:** large lakes; Sugar River valley; rolling hills and valleys; small mountains

## REGIONAL TRANSPORTATION GOALS

The following transportation system goals were identified for NH Routes 11/103 corridor, based on public input. These are in addition to the overall Upper Valley Lake Sunapee region goals presented in the Plan Introduction.

### BIKE CONNECTIONS

Improve bicycle access along state highways, both within and between communities.

### SAFETY

Improve safety for all roadway users, with a focus on highway intersections.

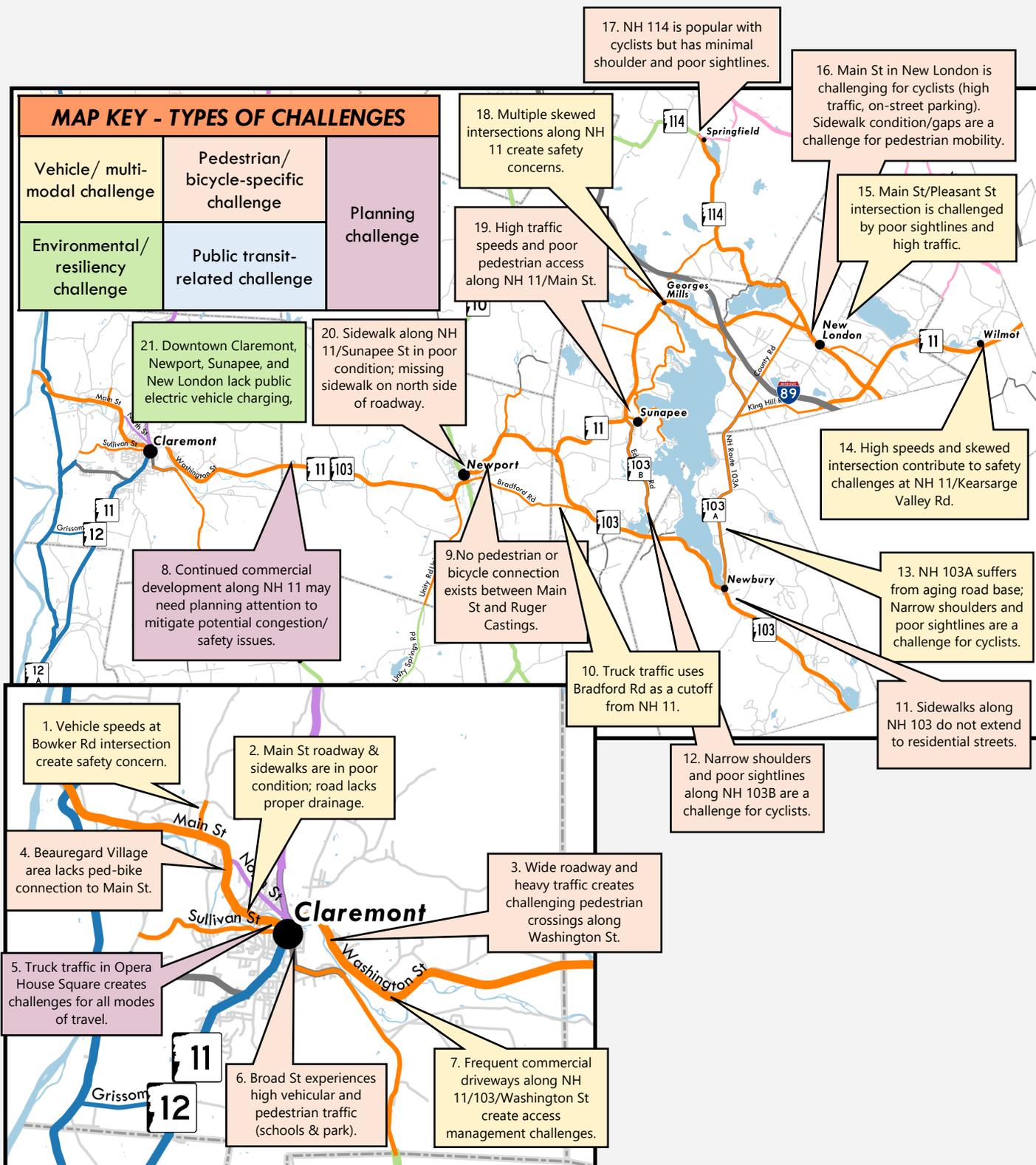
### DOWNTOWN MOBILITY

Balance regional mobility needs with safety and accessibility needs in downtown areas, including managing vehicle speeds.

# 11 TRANSPORTATION CHALLENGES MAP



This map identifies the primary **transportation mobility, safety, and accessibility** challenges in the NH Routes 11 & 103 Corridor. Major roadways in the NH Routes 11 & 103 corridor are highlighted in **ORANGE**.





The Action Plan is a process for turning transportation needs and concepts into projects that are ready to compete for funding. An individual Action Plan is presented for each major transportation corridor in the UVLSRPC region. For more information on UVLSRPC's process for implementing corridor Action Plans, please refer to the [Action Plan Overview](#) in the [Plan Introduction](#).

## Currently Funded Regional Transportation Projects

The projects listed below are regionally-significant projects that are already funded and on track for implementation. To help implement these projects, UVLSRPC staff will provide technical assistance and support, as needed or requested.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

TOWN/CITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	PROJECT TIMELINE	PROJECT COST	FUNDING SOURCE(S)	PLANNING NOTES
Claremont	City of Claremont; NHDOT	NH 12/103/ Main St; North St	Intersection improvements at North St and Main St	Construction: FY 2022	\$4,596,685	NH Ten-Year Transportation Improvement Plan	Improvement is related to City of Claremont Truck Route Plan
Claremont	City of Claremont; NHDOT, VTrans	NH 12/103	Preservation of bridge carrying NH 12/103 over Connecticut River	Preliminary Engineering: FY 2023 Construction: FY 2024	\$3,267,845	NH Ten-Year Plan; State of Vermont	
Claremont	City of Claremont; NHDOT	NH 11/ Washington St	Traffic signal timing improvements along NH 11/ Washington St	Construction: FY 2025	\$798,553	Congestion Mitigation & Air Quality Program	
Claremont	City of Claremont; NHDOT	NH 12/103/ Main St	Reconstruct NH 12/103/Main St between Citizens St and Westside Ave; improve drainage; construct pedestrian and bicycle connection	Preliminary Engineering: FY 2027 Construction: FY 2032	\$4,083,828	NH Ten-Year Plan (80%); City of Claremont (20%)	<b>Subject to adoption of draft FY 2023-2032 NH Ten-Year Plan.</b> Covers Phase I of this project; full project area extends to Elm St (Phase II), and is currently unfunded.
Claremont	City of Claremont; NHDOT	Broad St; Monadnock Park	Construct multi-use path along Broad St from Stevens High School to Bobby Woodman Trail; construct pedestrian path through Monadnock Park	Preliminary Engineering: FY 2023 Construction: FY 2028	\$982,613	Transportation Alternatives Program	<b>Subject to adoption of draft FY 2023-2032 NH Ten-Year Plan.</b>



### Currently Funded Regional Transportation Projects (cont'd)

TOWN/CITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	PROJECT TIMELINE	PROJECT COST	FUNDING SOURCE(S)	PLANNING NOTES
New London	NHDOT	I-89 Exit 11; NH 11	Expand New London park-and-ride by 50 spaces	Construction: FY 2022	\$787,248	Congestion Mitigation and Air Quality Program	Parking lot expansion should minimize impacts to adjacent wetlands.
Newport	Town of Newport; NHDOT	NH 11/103/Sunapee St	Reconstruct 2,800 linear feet of sidewalk along NH 11/103/Sunapee St extending east from Main St	Preliminary Engineering: FY 2023 Construction: FY 2028	\$850,569	Transportation Alternatives Program	<b>Subject to adoption of draft FY 2023 -2032 Ten-Year Plan.</b>



**Tier I Project Description**

- Project directly addresses a defined transportation need.
- Project scope is well-defined.
- Needed data collection and studies are completed.
- Project is ready to compete for funding.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-	Pedestrian &	Plan or Study
Environmental Resiliency	Public Transit	

**Tier I Projects**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Claremont	City of Claremont; NHDOT	NH 12/103/Main St	Main St Phase II - road reconstruction, drainage improvements, sidewalk replacement, and streetscape improvements from Westside Ave to Elm St	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle	Phase I is included in draft FY 2023-2032 NH Ten-Year Transportation Improvement Plan
Claremont	City of Claremont; NHDOT	NH 11; NH 12/103; Opera House Square	Monitor traffic impacts following implementation of truck route diverting truck traffic out of Opera House Square.	Downtown Core/Mixed Use	Freight	Truck route signs installed in fall 2021.
New London	Town of New London; NHDOT	NH 11; NH 114	Monitor intersection safety at “Four Corners” (NH 11 & NH 114).	Suburban	Vehicle; Bicycle	This intersection was improved in 2011; continue monitoring safety performance.
New London	Town of New London	NH 114/Main St	Install public electric vehicle charging infrastructure at Town Hall and/or Main St public parking lot	Downtown Core/Mixed Use	Vehicle	
Sunapee	Town of Sunapee; NHDOT	NH 11; 7 Hearths Rd	Install a two-way left turn lane by eliminating the remainder of the passing lane along NH 11	Rural	Vehicle	Identified in NH 11 Road Safety Audit report
Wilmot	Town of Wilmot; NHDOT	NH 11/Kearsarge Valley Rd	Implement intersection safety improvements at high-crash intersection of NH 11 and Kearsarge Valley Rd	Village	Vehicle	Intersection skew, sightlines, and traffic speeds contribute to safety challenges. Right-hand turn lane eastbound along NH 11 identified by NHDOT as potential improvement.



**Tier II Project Description**

- The need for the project may need to be better understood through data collection and further study.
- Project scopes may need to be refined or finalized.
- More data collection, planning work, and/or studies may be useful for refining the scope of the project.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

**Tier II Projects**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Claremont	City of Claremont; NHDOT	NH 12/103/Opera House Square	Improve pedestrian crossings in Opera House Square	Downtown Core/Mixed Use	Pedestrian	Potential approaches could include pedestrian beacons, visibility improvements, or roadway design changes.
Claremont	City of Claremont	Broad St	Implement traffic calming, safety, and Complete Streets improvements along Broad St	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle; Public Transit	Includes evaluating safety improvements at intersections with Summer St and Chestnut St.
Claremont	City of Claremont	Downtown	Install electric vehicle charging infrastructure in downtown Claremont.	Downtown Core/Mixed Use	Vehicle	
Claremont	City of Claremont	Union St; Allen St	Improve intersection design for freight movement.	Downtown Core/Mixed Use	Freight	
Claremont	City of Claremont; NHDOT	NH 11/Washington St	Traffic calming, turning movement, and pedestrian safety improvements along NH 11/Washington St commercial area	Commercial	Vehicle; Pedestrian	Evaluation of potential “road diet” including center turn lanes, pedestrian refuge islands, and other traffic calming devices. Potential alignment with CMAQ-funded signal timing improvement project along NH 11.
New London	Town of New London; NHDOT	Newport Rd	Add pedestrian crossing near Colonial Pharmacy	Commercial	Pedestrian	May need to include pedestrian beacon(s), landing areas, and/or additional sidewalk along north side of roadway.



**Tier II Projects (continued)**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
New London	Town of New London; NHDOT	NH 114/Little Sunapee Rd	Widen shoulders along NH 114 for improved bicycle access	Suburban/Rural	Bicycle	Further planning and study needed to identify feasibility and need for improvements.
New London	Town of New London	Downtown New London	Identify and implement bicycle loop in downtown New London bypassing NH 114/Main St	Downtown Core/Mixed Use	Bicycle; Pedestrian	Additional planning and outreach needed to identify desired loop and specific project(s) needed for implementation.
New London	Town of New London; NHDOT	NH 114/Main St	Improve sidewalk condition and connectivity along Main St	Downtown Core/Mixed Use	Pedestrian	
New London	Town of New London	County Rd	Construct sidewalks along County Rd from Parkside Rd to NH 114/Little Sunapee rd	Suburban	Pedestrian	
New London	Town of New London; NHDOT	NH 114/Main St; Pleasant St; South Pleasant St	Improve intersection safety at NH 114/Main St; Pleasant St, and South Pleasant St	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle	Sightlines and steep approach angle are challenges at this busy intersection.
New London	Town of New London; NHDOT	NH 114/Main St; Seamans Rd	Evaluate converting Seamans Rd to one-way from Gould Rd to Main St	Downtown Core/Mixed Use	Vehicle	Seamans Rd is used as a bypass for NH 11 and NH 114, creating traffic and safety concerns.
New London	Town of New London; NHDOT	NH 103A; County Rd	Address skewed intersection of NH 103A and County Rd	Rural	Vehicle	Further evaluation needed to define safety challenges and potential improvements.
New London	Town of New London; NHDOT	NH 114/Main St; NH 114/Little Sunapee Rd; Newport Rd	Improve sightlines and pedestrian access at three-way intersection	Suburban	Vehicle; Pedestrian; Bicycle	Further planning and study needed to identify needed/feasible improvements.
Newbury	Town of Newbury; NHDOT	NH 103/Sunapee Circle	Improve wayfinding signage through Sunapee Circle to reduce drive confusion	Rural	Vehicle	Identified in 2017 Road Safety Audit report.



**Tier II Projects (continued)**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Newbury	Concord-Lake Sunapee Rail Trail; Town of Newbury	NH 103 corridor	Complete Concord-Lake Sunapee Rail Trail to Newbury	Rural	Pedestrian; Bicycle	
Newbury	Town of Newbury; NHDOT	NH 103	Extend sidewalk along NH 103 from Velie playground to Old Post Rd	Rural	Pedestrian	
Newbury	Town of Newbury, Mt. Sunapee	Mt Sunapee	Install electric vehicle chargers at Mt Sunapee Resort	Rural	Vehicle	
Newport	Town of Newport; NHDOT	NH 11/Sunapee St	Construct sidewalk on north side of Sunapee St beginning at Main St	Downtown Core/Mixed Use	Pedestrian	
Newport	Town of Newport	NH 11/Sunapee St corridor	Formalize pedestrian and bicycle path from Main St to Ruger Castings	Downtown Core/Mixed Use	Pedestrian; Bicycle	
Newport	Town of Newport	Downtown	Install public electric vehicle charging in downtown Newport.	Downtown Core/Mixed Use	Vehicle	
Sunapee	Town of Sunapee; NHDOT	NH 11/Main St	Traffic calming and pedestrian access improvements along NH 11/Main St	Village	Pedestrian	
Sunapee	Town of Sunapee; NHDOT	NH 103B	Widen shoulders and improve sightlines for bicyclists on NH 103B	Rural	Bicycle	Additional planning and study needed to identify specific improvements and feasibility.
Sunapee	Town of Sunapee	Town-wide	Install public electric vehicle charging in Sunapee	Multiple	Vehicle	



**Tier III Project Description**

- The need for the project may not be clear or well-understood.
- Project scopes are vague or not well-defined.
- Needed data collection and studies are not yet completed.
- Project may be infeasible, unsupported, not needed, and/or “unfundable.”

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

**Tier III Projects**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Claremont	City of Claremont; NHDOT	NH 12/103/Main St & Bowker St	Intersection safety improvements at NH 12/103/Main St & Bowker St	Suburban	Vehicle	Skew and steep approach angle are challenges for implementing improvements.
Claremont	City of Claremont; NHDOT	NH 12/103/Main St & Plains Rd	Intersection safety improvements at NH 12/103/Main St & Plains Rd	Suburban	Vehicle	Skew and steep approach angle are challenges for implementing improvements.
Corridor	Municipalities; NHDOT	NH 11; NH 103; NH 103A	Construct passing lanes where needed along major corridor highways.	Multiple	Vehicle	Further planning and study needed to identify needed/feasible improvements.
Sunapee; Newbury; New London	Municipalities; NHDOT	Lake Sunapee; Little Sunapee Lake	Reduce runoff and road salt entering Lake Sunapee and Little Sunapee Lake	Multiple	Vehicle	Further planning and study needed to identify priority areas and potential improvements.



### Who Lives in the NH Routes 11 & 103 Corridor?

COMMUNITIES	2019 POPULATION (estimated)	2040 POPULATION (projected)	PROJECTED % CHANGE IN POPULATION	PROJECTED TOTAL POPULATION CHANGE
Claremont	13,016	12,984	0%	-32
New London	4,490	5,151	15%	661
Newbury	1,900	2,618	38%	718
Newport	6,386	6,387	0%	1
Springfield	1,110	1,512	36%	402
Sunapee	3,432	3,594	5%	162
Wilmot	1,669	1,591	-5%	-78

Source: NH Office of Strategic Initiatives, NH Office of Employment Security

SPECIAL POPULATIONS IN THE CORRIDOR	TOTAL SPECIAL POPULATION IN CORRIDOR	% OF TOTAL CORRIDOR POPULATION
Youth (Age 14 and Under)	4,783	14.9%
Young Adult (Age 15-34)	8,145	25.4%
Middle Age (Age 35-64)	12,293	38.4%
Seniors (65+)	6,792	21.2%
Racial Minorities	2,936	9.2%
Low Income (<150% of Poverty Level)	3,138	18.5%

Source: American Communities Survey 5-Year Estimates, 2015-2019

### Who Works in the NH Routes 11 & 13 Corridor?

	EMPLOYER	INDUSTRY	EMPLOYEES
Major Employers	Sturm Ruger & Co	Manufacturing	1,125
	New London Hospital	Healthcare	520
	Claremont School District	Education	446
	Colby-Sawyer College	Education	300

Source: NH Office of Employment Security, 2019



**Vehicle Traffic Volumes on Regional Roadways**

ROAD	TOWN/CITY	COUNT LOCATION	2019 AADT*
NH 11/103	Claremont	NH 11/NH 103 (Washington St) at Newport Town Line	10,100
NH 11/103	Claremont	NH 11/NH 103 (Washington St) east of Tutherly Heights Rd	10,800
NH 11/103	Claremont	NH 11/NH 103 (Washington St) north of Moody Ave	20,500
NH 11/103	Claremont	NH 11/NH 103 (Washington St) east of North St	23,000
NH 11/103	Claremont	NH 11/NH 103 (Broad St) east of North St	18,000
NH 11/12/103	Claremont	NH 11/12/103 (Opera House Square) east of Pleasant St	6,200
Broad St	Claremont	Broad St north of Summer St	12,600
Chesnut St	Claremont	Chesnut St east of Benton Rd	4,400
NH 12/103	Claremont	NH 12/NH 103 (Main St) south of Central St	4,500
NH 12/103	Claremont	NH 12/NH 103 (Main St) over Sugar River	6,100
NH 12/103	Claremont	NH 12/NH 103 (Main St) north of Bank Ave	4,800
NH 12/103	Claremont	NH 12/NH 103 (Main St) east of Bowker St	10,000
NH 12/103	Claremont	NH 12/NH 103 east of NH 12A	9,800
NH 12/103	Claremont	NH 12/NH 103 east of Vermont State Line	9,400
Sullivan St	Claremont	Sullivan St east of Walnut St	1,700
Sullivan St	Claremont	Sullivan St east of Albion Ave	1,400
NH 11	New London	NH 11 east of NH 114	4,500
NH 11	New London	NH 11 west of NH 114	5,500
NH 11	New London	NH 11 at Wilmot Town Line	5,600
NH 11	New London	NH 11 (Newport Rd) at Sunapee Town Line	6,100
NH 114	New London	NH 114 (Sutton Rd) at Sutton Town Line	1,100
NH 114	New London	NH 114 (Main St) North of Route 11	3,400
NH 114	New London	NH 114 (Main St) East of Pleasant St	7,700
NH 114	New London	NH 114 (Newport Rd) West of Otterville Rd	6,000
NH 103A	New London	NH 103A South of Davis Hill Rd	1,100
NH 103A	New London	NH 103A at Newbury Town Line	2,400
NH 103	Newbury	NH 103 East of Traffic Circle	5,700
NH 103	Newbury	NH 103 West of Deer Run Rd	5,700

**COVID-19 Impacts on Travel**

The COVID-19 pandemic has resulted in reductions in travel, increased unemployment, and increases in the number of employees working from home. Continued monitoring of these trends is needed to understand their long-term impacts on the transportation system.

\*AADT = estimated Annual Average Daily Traffic (2019). Source: New Hampshire Department of Transportation



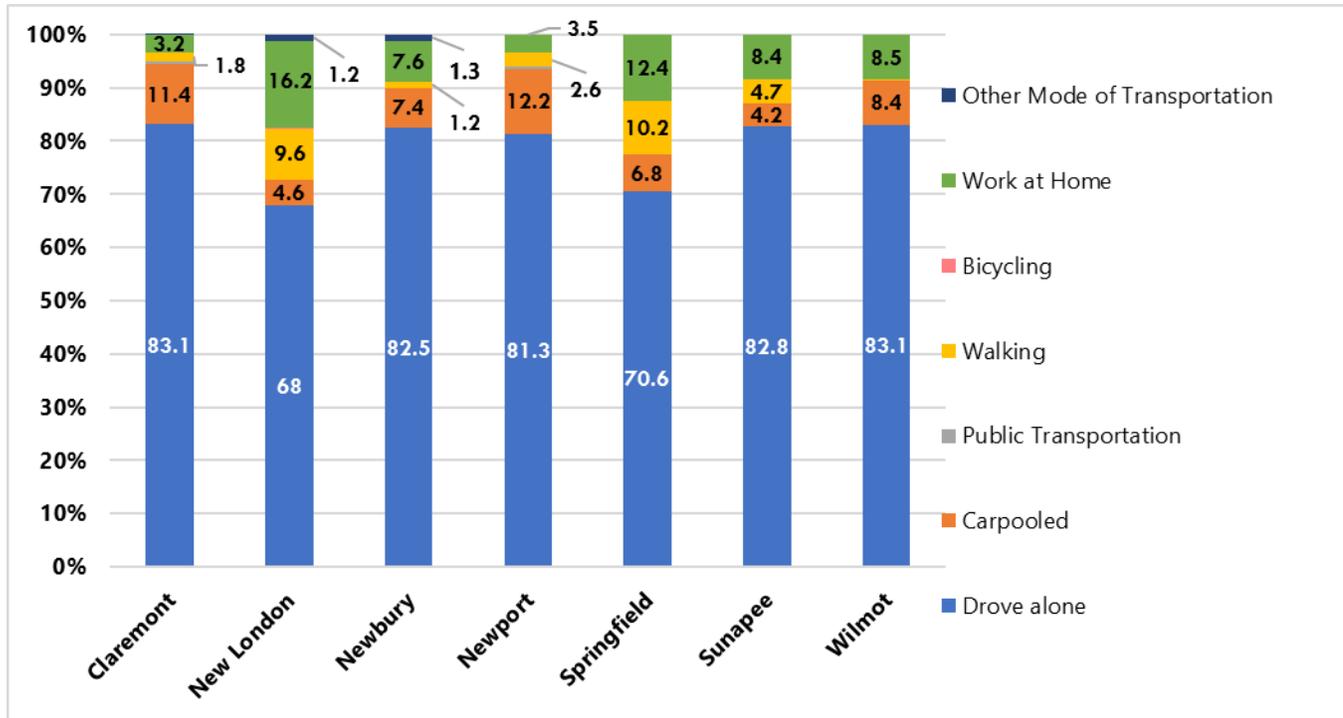
**Vehicle Traffic Volumes on Regional Roadways (cont'd)**

ROAD	TOWN/CITY	COUNT LOCATION	2019 AADT*
NH 103	Newbury	NH 103 South of Sutton Rd	4,700
NH 103	Newbury	NH 103 at Bradford Town Line	4,700
NH 11/NH 103	Newport	NH 11/NH 103 (Sunapee St) West of Paradise Rd	6,500
NH 11/NH 103	Newport	NH 11/NH 103 (Sunapee St) East of Summit Rd	9,600
NH 11/NH 103	Newport	NH 11/NH 103 (Sunapee St) West of Cheney St	6,900
NH 11/NH 103	Newport	NH 11/NH 103 (Elm St) Over Sugar River	15,500
NH 11/NH 103	Newport	NH 11/NH 103 (John Stark Hwy) East of East Unity Rd	10,800
NH 11/NH 103	Newport	NH 11/NH 103 (John Stark Hwy) West of Elm St West Intersection	10,900
NH 11/NH 103	Newport	NH 11/NH 103 (John Stark Hwy) West of Whitcher Rd	9,500
NH 11/NH 103	Newport	NH 11/NH 103 (John Stark Hwy) West of Sugar River	8,800
NH 10/NH 11/NH 103	Newport	NH 10/NH 11/NH 103 (N Main St) North of Central St	11,200
NH 10/NH 11/NH 103	Newport	NH 10/NH 11/NH 103 (N Main St) North of Elm St	13,800
Central Street	Newport	Central St. East of Main St.	2,600
Reeds Mill Rd	Newport	Reeds Mill Rd South of Aspen Rd	700
Unity Rd	Newport	East Unity Rd North of Bascom Rd	3,000
Unity Rd	Newport	East Unity Rd at Unity Town Line	1,400
NH 114	Springfield	NH 114 (Main St) South of Jones Rd	1,300
NH 114	Springfield	NH 114 (Main St) South of Colby Hill Rd	700
Cooper St	Sunapee	Cooper St over Otter Pond Outlet	200
Main St	Sunapee	Main St (Georges Mills) West of Springfield Rd	400
Springfield Rd	Sunapee	Springfield Rd over Otter Pond Outlet	2,400
NH 11	Sunapee	NH 11 East of Trow Hill Rd	6,700
NH 11	Sunapee	NH 11 North of Sargent Rd	7,100
NH 11	Sunapee	NH 11 over Sugar River	6,800
NH 11	Sunapee	NH 11 East of Post Office Rd	5,700
NH 103B	Sunapee	NH 103B (Edgemont Rd) East of Chase St & NH 11	2,100
NH 103B	Sunapee	NH 103B (Edgemont Rd) at Newbury Town Line	1,900
NH 103	Sunapee	NH 103 at Newbury Town Line	4,500
NH 103	Sunapee	NH 103 over Sugar River	2,800
NH 11	Wilmot	NH 11 (Sunapee Lake Rd) at Andover Town Line	4,900

\*AADT = estimated Annual Average Daily Traffic (2019). Source: New Hampshire Department of Transportation



**Means of Transportation to Work**



Source: American Community Survey 2015-2019 5-Year Estimate



**Multi-modal mobility** refers to the ability of people to move around using modes of transportation other than a personal vehicle. Key factors for multi-modal mobility are **infrastructure** (e.g., sidewalks, bus stops), **services** (e.g., bus service), and **land use patterns** (i.e., the distance between various destinations, density of development). The **connections** between multi-modal infrastructure and services are also important - for example, the ability walk or bike safely to a bus stop encourages higher use of bus services.

This page presents an inventory of multi-modal infrastructure and services in the corridor.

**Pedestrian & Bicycle Infrastructure**

TYPE	TOWN/CITY	LOCATION
Rail Trails	Claremont	Bobby Woodman Trail
	Claremont/Newport	Sugar River Rail Trail
Sidewalks	Claremont	Washington St; Broad St; Main St; Sullivan St
	New London	Newport Rd; Main St
	Newbury	NH 103 (Bell Cove area)
	Newport	Sunapee St; Main St; NH 11/103
	Sunapee	Main St
Painted Shoulders ≥5 feet	Claremont	NH 11/103 east of Washington St
	New London	NH 11; Newport Rd east of Hilltop Pl
	Sunapee	NH 11

**Public Transit**

TYPE	TOWN/CITY	SERVICE PROVIDERS
Fixed Route Bus	Claremont; Newport	Sullivan County Transit
Demand-Response Bus	n/a	n/a
Intercity Bus	New London	Dartmouth Coach

**Transportation Services**

TYPE	COMMUNITY	SERVICE PROVIDERS
Volunteer driver program	Sullivan County	Southwest Community Services
Volunteer driver program	New London; Newbury; Wilmot	Mid-State Transit

**Rail Service**

TYPE	TOWN/CITY	SERVICE PROVIDERS
Passenger rail service	Claremont	Amtrak



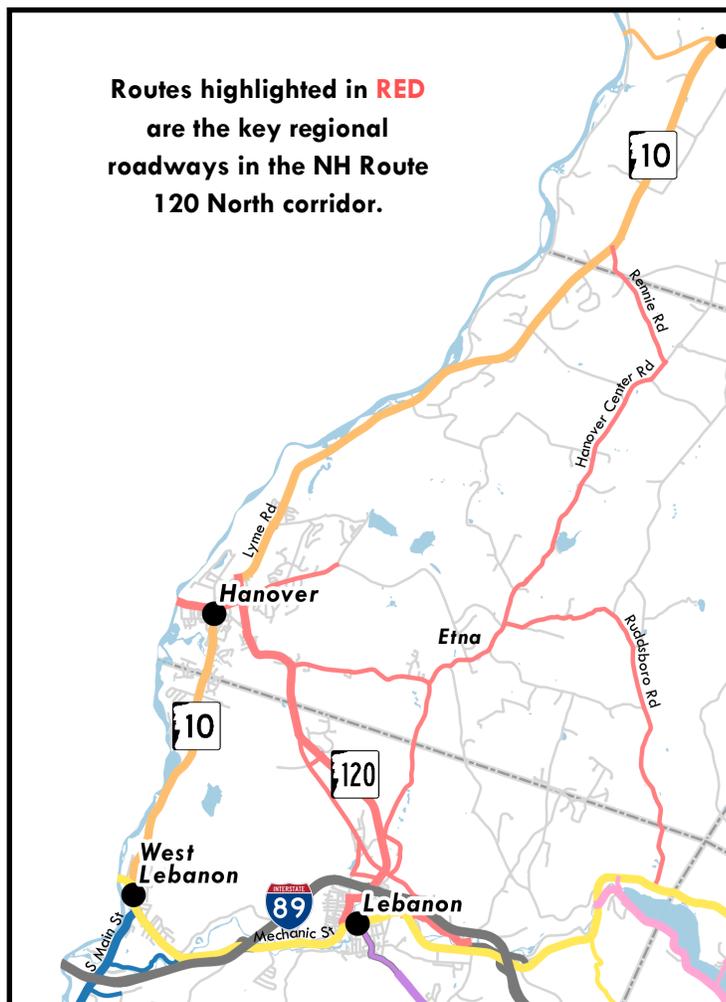
# NH ROUTE 120 NORTH CORRIDOR

*Lebanon to Hanover*



## NH Route 10 North Corridor - At a Glance

- **Municipalities:** Hanover; Lebanon
- **Major Destinations:** Dartmouth-Hitchcock Medical Center; Dartmouth College; downtown Lebanon; downtown Hanover; Interstate 89; Centerra Park; Schools
- **Primary Regional Functions:** Commuting; Healthcare access; Commercial/Retail
- **Land Use Patterns:** Downtown core centers in Hanover and Lebanon; Commercial/employment hubs at D-HMC/Centerra Park, Etna Rd, and Heater Rd; Suburban development along Greensboro Rd; Village center in Etna; Rural connecting roadways
- **Natural Features:** Mt. Support; Rix Ledges; Mink Brook



# REGIONAL TRANSPORTATION GOALS

The following transportation system goals were identified for NH Route 120 North corridor, based on public input, in addition to the overall Upper Valley Lake Sunapee region goals presented in the Plan Introduction.

### MANAGE DEMAND

Reduce need/demand for single-occupant vehicle travel in the corridor, particularly during peak commuting times.

### DHMC/CENTERRA ACCESS

Improve pedestrian, bicycle, and public transit access to and from Dartmouth-Hitchcock Medical Center, Centerra Park, downtown Hanover and downtown Lebanon.

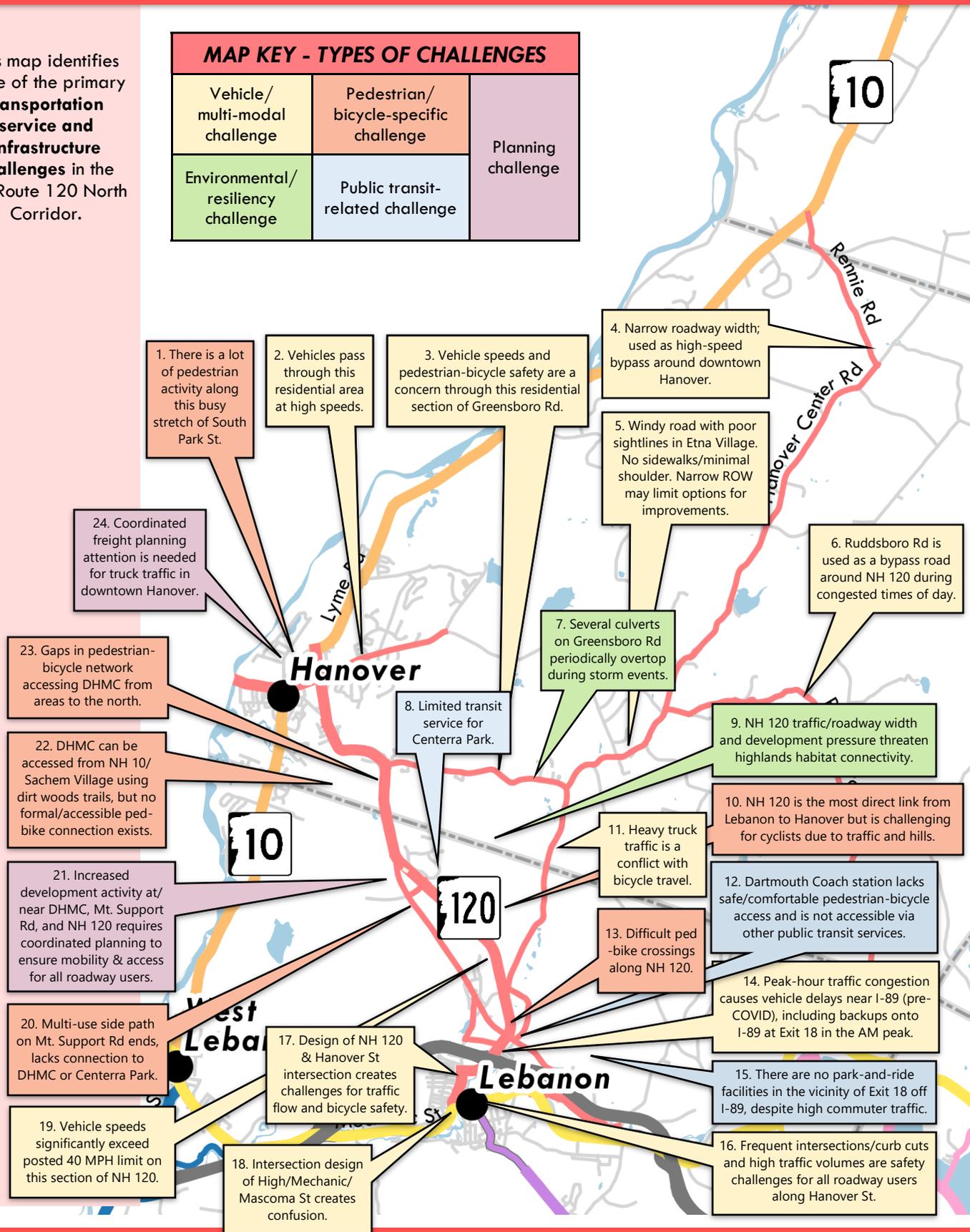
### BUS CONNECTIONS

Increase frequency of public transit services in the corridor, and improve pedestrian access to bus stops.



This map identifies some of the primary **transportation service and infrastructure challenges** in the NH Route 120 North Corridor.

MAP KEY - TYPES OF CHALLENGES		
Vehicle/ multi-modal challenge	Pedestrian/ bicycle-specific challenge	Planning challenge
Environmental/ resiliency challenge	Public transit- related challenge	



1. There is a lot of pedestrian activity along this busy stretch of South Park St.
2. Vehicles pass through this residential area at high speeds.
3. Vehicle speeds and pedestrian-bicycle safety are a concern through this residential section of Greensboro Rd.
4. Narrow roadway width; used as high-speed bypass around downtown Hanover.
5. Windy road with poor sightlines in Etna Village. No sidewalks/minimal shoulder. Narrow ROW may limit options for improvements.
6. Ruddsboro Rd is used as a bypass road around NH 120 during congested times of day.
7. Several culverts on Greensboro Rd periodically overtop during storm events.
8. Limited transit service for Centerra Park.
9. NH 120 traffic/roadway width and development pressure threaten highlands habitat connectivity.
10. NH 120 is the most direct link from Lebanon to Hanover but is challenging for cyclists due to traffic and hills.
11. Heavy truck traffic is a conflict with bicycle travel.
12. Dartmouth Coach station lacks safe/comfortable pedestrian-bicycle access and is not accessible via other public transit services.
13. Difficult ped-bike crossings along NH 120.
14. Peak-hour traffic congestion causes vehicle delays near I-89 (pre-COVID), including backups onto I-89 at Exit 18 in the AM peak.
15. There are no park-and-ride facilities in the vicinity of Exit 18 off I-89, despite high commuter traffic.
16. Frequent intersections/curb cuts and high traffic volumes are safety challenges for all roadway users along Hanover St.
17. Design of NH 120 & Hanover St intersection creates challenges for traffic flow and bicycle safety.
18. Intersection design of High/Mechanic/Mascoma St creates confusion.
19. Vehicle speeds significantly exceed posted 40 MPH limit on this section of NH 120.
20. Multi-use side path on Mt. Support Rd ends, lacks connection to DHMC or Centerra Park.
21. Increased development activity at/near DHMC, Mt. Support Rd, and NH 120 requires coordinated planning to ensure mobility & access for all roadway users.
22. DHMC can be accessed from NH 10/ Sachem Village using dirt woods trails, but no formal/accessible ped-bike connection exists.
23. Gaps in pedestrian-bicycle network accessing DHMC from areas to the north.
24. Coordinated freight planning attention is needed for truck traffic in downtown Hanover.



# CORRIDOR ACTION PLAN



The Action Plan is a process for turning transportation needs and concepts into projects that are ready to compete for funding. An individual Action Plan is presented for each major transportation corridor in the UVLSRPC region. For more information on UVLSRPC's process for implementing corridor Action Plans, please refer to the [Action Plan Overview](#) in the [Plan Introduction](#).

## Currently Funded Regional Transportation Projects

The projects listed below are regionally-significant projects that are already funded and on track for implementation. To help implement these projects, UVLSRPC staff will provide technical assistance and support, as needed or requested.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

TOWN/CITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	PROJECT TIMELINE	PROJECT COST	FUNDING SOURCE(S)	PLANNING NOTES
Lebanon	City of Lebanon; NHDOT	Mechanic St; Mascoma St; High St	Construct roundabout at intersection of Mechanic St, Mascoma St, and High St.	Construction: FY 2023	\$2,640,000	NH Ten-Year Transportation Improvement Plan	
Lebanon	City of Lebanon; NHDOT	Interstate 89 Exit 18; NH 120	Multi-modal transportation improvements along NH 120 between Hanover St and Etna Rd; including I-89 Exit 18	Engineering/ROW: FY 2022-2023 Construction: FY 2024-2026	\$18,133,581 <i>(proposed budget in draft FY 2023-2032 Ten-Year Plan)</i>	NH Ten-Year Transportation Improvement Plan	Significant public interest in this project area. Shifts in travel demand resulting from COVID-19 pandemic may affect transportation needs in project area. Congestion-related improvements should be balanced with multi-modal safety/access. Project should consider multi-modal mobility/access needs at nearby intersections and roadways (Evans Dr, Etna Rd, Heater Rd, Hanover St, Mt. Support Rd).
Lebanon	City of Lebanon; NHDOT	Lahaye Drive; NH 120	Pedestrian and bicycle improvements along Lahaye Drive between Mt. Support Rd and Centerra Parkway, incl. pedestrian crossing improvements at NH 120.	Construction: FY 2026	\$738,000	Transportation Alternatives Program (80%); City of Lebanon (20%)	
Lebanon	Sullivan County Transit; NHDOT	NH Route 120	Commuter bus service along NH Route 120 from downtown Claremont to Dartmouth-Hitchcock Medical Center	2021	N/A	Federal Transit Administration; other funding sources	Bus service had a soft launch in 2021



# ACTION PLAN: TIER I PROJECTS



## Tier I Project Description

- Project directly addresses a defined transportation need.
- Project scope is well-defined.
- Needed data collection and studies are completed.
- Project is ready to compete for funding.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier I Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Hanover	Town of Hanover; NHDOT	NH Route 120; Buck Rd	Intersection safety and design study for the NH Route 120/Buck Rd intersection.	Suburban	Vehicle; Pedestrian; Bicycle	Issues to be studied could include left-hand turning movements, sightlines, and pedestrian safety. Project could be aligned with other NH 120 studies/projects looking at pedestrian access.
Hanover	Town of Hanover	Downtown Hanover	Conduct freight study/planning for downtown Hanover.	Downtown Core/Mixed Use	Freight	
Hanover	Town of Hanover	Chase Field to Reservoir Rd	Construct multi-use path from Chase Field to Reservoir Rd/Ray School.	Downtown Core/Mixed Use; Suburban	Pedestrian; Bicycle	
Hanover; Lebanon	Advance Transit; Grafton County Senior Citizens Center; Health & Human Services	Corridor-wide	Implement the <i>Coordinated Public Transit and Human Services Transportation Plan for Southern Grafton County</i> .	Multiple	Public Transit; Vehicle; Pedestrian	
Hanover; Lebanon	Advance Transit	Advance Transit Blue Route - NH Route 120	Increase Blue Route service to 15-minute headways.	Multiple	Public Transit	Identified in 2018 <i>Transit Development Plan</i> .



# ACTION PLAN: TIER I PROJECTS



## Tier I Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	City of Lebanon	Hanover Street between NH 120 and Colburn Park	Road reconstruction; complete street/safety improvements including reconfiguration NH 120/Hanover St intersection and roundabout at Hanover St/High St/Hough St intersection.	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle; Public Transit	Project area is adjacent to I-89 Exit 18 Ten-Year Plan project area - improvements from these two projects should be complimentary. Construction schedules should be coordinated to minimize traffic impacts.
Lebanon	City of Lebanon; DHMC	Lahaye Dr	Address pavement condition east of Mt. Support Rd.	Commercial/Employment Hub	Vehicle; Pedestrian; Bicycle	
Lebanon	City of Lebanon; Advance Transit; Centerra Park	Centerra Park	Add Advance Transit bus stop and service to Centerra Park.	Commercial/Employment Hub	Public Transit	Need for service to Centerra identified in 2018 <i>Transit Development Plan</i> .
Lebanon	City of Lebanon	Mount Support Rd	Coordinated planning strategy for Mt. Support Rd developments including limiting new curb cuts to existing multi-use path, new transit facilities, safe pedestrian connections, and intersection improvements.	Suburban	Vehicle; Pedestrian; Bicycle; Public Transit	Significant development activity/pressure in this location has potential for regional transportation impacts.
Lebanon	City of Lebanon; Advance Transit; Dartmouth Coach	NH Route 120; Labombard Rd	Add Advance Transit bus stop and service to Dartmouth Coach.	Commercial/Employment Hub	Transit	Need for service to Centerra identified in 2018 <i>Transit Development Plan</i> .
Lebanon	Dartmouth-Hitchcock Medical Center; City of Lebanon	Lahaye Drive / Mt. Support Rd	Improve multi-modal safety and access at the intersection of Lahaye Dr & Mt. Support Rd.	Commercial/Employment Hub	Vehicle; Pedestrian; Bicycle	Shifts in teleworking and travel patterns from the COVID-19 pandemic may change travel demand and transportation needs in this area.



# ACTION PLAN: TIER I PROJECTS



## Tier I Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	City of Lebanon	Downtown Lebanon	Install public electric vehicle charger(s) in downtown Lebanon	Downtown Core/Mixed Use	Vehicle	



# ACTION PLAN: TIER II PROJECTS



## Tier II Project Description

- The need for the project may need to be better understood through data collection and further study.
- Project scopes may need to be refined or finalized.
- More data collection, planning work, and/or studies may be useful for refining the scope of the project.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier II Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Hanover	Town of Hanover; NHDOT	NH Route 120	Pedestrian and bicycle improvements between downtown Hanover and Medical Center Drive.	Downtown Core/Mixed Use; Commercial/Employment Hub	Pedestrian; Bicycle	Further study and planning is needed for potential project alternatives such as lane reduction, multi-use path, sidewalk, guardrail relocation, and/or painted bike lanes. DHMC campus can currently be accessed via sidewalk to Buck Rd and pedestrian path to Gile Drive Apartments.
Hanover	Town of Hanover; NHDOT	Greensboro Road	Calm vehicle traffic and improve pedestrian and bicycle safety along Greensboro Rd.	Suburban; Rural	Pedestrian; Bicycle	Further study and planning is needed to identify current safety issues and appropriate improvements. Needs may differ along the more developed section of road closer to NH Route 120. Any larger roadway improvement project should address drainage issues as well.
Hanover	Town of Hanover; NHDOT	Hanover Center Road	Improve storm drainage on Hanover Center Rd	Rural	All	Drainage improvements would ideally be included in a larger roadway improvement project.
Hanover	Town of Hanover	NH Route 10; Downtown Hanover	Install additional electric vehicle chargers in downtown Hanover	Downtown Core/Mixed Use	Vehicle	Hanover Coop stores and DHMC Lot 9 are potential locations.
Hanover	Town of Hanover; NHDOT	Hanover Center Road	Improve storm drainage on Hanover Center Rd	Rural	All	Drainage improvements would ideally be included in a larger roadway improvement project.



# ACTION PLAN: TIER II PROJECTS



## Tier II Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Hanover	Town of Hanover; NHDOT	Park St	Improve stormwater management on Park St.	Downtown Core/Mixed Use	All	Drainage improvements could be factored into a larger roadway/streetscape improvement project. Potential opportunity for green infrastructure (e.g., bioswales).
Hanover	Town of Hanover; NHDOT	NH Route 120 over Mink Brook	Add wildlife crossing at Mink Brook.	Suburban	N/A	Wildlife crossing would improve linkage between preserved highlands areas and Mink Brook Preserve. Further study/engineering needed to understand cost and constraints.
Hanover	Town of Hanover; NHDOT	Hanover Center Rd	Improve bike access along Hanover Center Rd	Rural	Pedestrian; Bicycle	Narrow right-of-way and terrain challenges.
Hanover; Lebanon	City of Lebanon; Town of Hanover; NHDOT	NH Route 120	Bicycle access improvements along NH Route 120.	Multiple	Bicycle	Further study is needed to determine if bicycle facilities along NH Route 120 are appropriate given high traffic volumes and existence of alternate routes (e.g., Mt. Support Rd).
Hanover; Lebanon	City of Lebanon; Town of Hanover; NHDOT	NH Route 120	Address gaps in pedestrian network along NH Route 120.	Multiple	Pedestrian	Further study is needed to identify highest-priority gaps and feasibility/efficacy of improvements. Maintenance challenges should be considered as well.
Hanover; Lebanon	City of Lebanon; Town of Hanover; NHDOT	NH Route 120	Corridor access management planning for NH Route 120, including identification of driveway/access points, need for medians, barriers, or other improvements to control turning movements, etc.	Commercial/Employment Hub; Rural	Vehicle	With high development pressures along NH Route 120, corridor access management planning can proactively identify strategies to ensure safe roadway access and turning movements. Further consultation with municipal staff and boards is needed to understand the level of need.



# ACTION PLAN: TIER II PROJECTS



## Tier II Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Hanover; Lebanon	City of Lebanon; Town of Hanover; NHDOT	Etna Rd/Great Hollow Rd	Pedestrian and bicycle improvements along Etna Rd (Lebanon)/Great Hollow Rd (Hanover)	Rural; Commercial/ Employment Hub	Pedestrian; Bicycle	Roadway is being resurfaced in 2021, potentially an opportunity to narrow travel lanes/widen shoulders. Rural location, but does connect to employment hub. Further study is needed to understand constraints/opportunities for further improvements.
Lebanon	City of Lebanon; NHDOT	Lebanon Green/Park St	Revisiting NH 120/US 4 around Colburn Park/Lebanon Green, including potentially diverting northbound NH 120/US 4 traffic to South Park St, reducing number of lanes on North Park St, and complete streets improvements.	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle; Public Transit	Design concepts are included in City of Lebanon <i>Downtown Vision Study</i> ; project has been considered for future City Capital Improvement Program funding.
Lebanon	City of Lebanon; Dartmouth Hitchcock Medical Center	Mount Support Road	Pedestrian and bicycle improvements from Lahaye Drive to Colburn Hill Offices and Lot 20 at DHMC.	Commercial/ Employment Hub	Pedestrian; Bicycle	Further study is needed to understand need/constraints for pedestrian-bicycle facility along this stretch of road and current safety performance of existing crosswalk at Colburn Hill/Lot 20.
Lebanon	City of Lebanon; NHDOT	NH Route 120 / Etna Rd / Old Etna Rd	Pedestrian improvements, including sidewalks and pedestrian crossing across NH Route 120.	Suburban; Commercial/ Employment Hub	Pedestrian; Bicycle	Given very high traffic volumes, further feasibility and/or engineering studies should be conducted in order to identify safe design alternatives for a formal pedestrian crossing of NH Route 120. <b><i>Pedestrian crossing improvements at NH Route 120 should be examined as I-89 Exit 18 project that is currently in the NH Ten-Year Plan.</i></b>

**Tier II Projects (continued)**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	City of Lebanon; NHDOT; Dartmouth Coach	Heater Rd; Labombard Rd	Connect sidewalk along Heater Rd and Labombard Rd to Dartmouth Coach; improve visibility of pedestrian crossing at Heater Rd.	Commercial/ Employment Hub	Pedestrian; Transit	Further study is needed to determine extent of pedestrian crossing improvements needed.
Lebanon	Major employers in NH Route 120 corridor	DHMC Campus	Examine opportunities for increased teleworking and strategies for increased carpooling and transit use.	Commercial/ Employment Hub	Vehicle; Transit	DHMC and Dartmouth College both currently have significant workforce working remote indefinitely; continued monitoring of travel patterns/impacts is needed.
Lebanon	Major employers in NH Route 120 corridor	DHMC Campus	Examine opportunities for increased teleworking and strategies for increased carpooling and transit use.	Commercial/ Employment Hub	Vehicle; Transit	DHMC and Dartmouth College both currently have significant workforce working remote indefinitely; continued monitoring of travel patterns/impacts is needed.
Lebanon	City of Lebanon	NH Route 120	Develop park-and-ride facility near Interstate 89 Exit 18.	Commercial/ Employment Hub	Vehicle; Public Transit	Need for a park-and-ride is identified in NHDOT <i>Statewide Strategic Transit Assessment</i> . Further study/planning needed to identify potential location(s) and demand.
Lebanon	City of Lebanon	Heater Rd; Mt. Support Rd; Old Etna Rd	Intersection capacity and safety improvements at the intersection of Heater Rd, Old Heater Rd, and Mt. Support Rd.	Suburban	Vehicle; Pedestrian; Bicycle	This 4-way stop intersection sees many rolling stops and is located at the base of a steep hill. Pedestrians and cyclists travel through this area to access to the multi-use path located on Mt. Support Rd. Significant development activity is planned for Mt. Support Rd which may create additional traffic safety and capacity issues. Additional study is needed to determine appropriate improvements.
Lebanon	City of Lebanon; Advance Transit	Heater Rd	Add safe pedestrian connection to bus stop at corner of Heater Rd and Old Etna Rd.	Suburban; Commercial/ Employment Hub	Pedestrian; Public Transit	Need to develop engineering plans and identify any right-of-way challenges.

**Tier II Projects (continued)**

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	City of Lebanon; Timberwood Apartments	Mount Support Road	Add crosswalk for transit stop at Timberwood Apartments	Suburban	Pedestrian; Public Transit	This improvement could potentially be factored into future development plans along Mt. Support Rd. ADA-compliant curb cuts and landings would need to be incorporated.
Lebanon	City of Lebanon; NHDOT	NH Route 120; Evans Drive	Improve intersection safety at Evans Drive and NH Route 120.	Suburban	Vehicle	Further study and planning is needed to identify level of need and appropriate improvements at this intersection. <b>Improvements at this intersection should be examined as part of the I-89 Exit 18 project that is currently in the NH Ten-Year Plan.</b>
Lebanon	City of Lebanon; NHDOT	NH Route 120; Etna Rd	Implement intersection improvements at Etna Rd to improve multi-modal safety and access.	Commercial/ Employment Hub	Vehicle; Pedestrian; Bicycle; Public Transit	Further study and planning is needed to determine level of improvement that is needed. <b>Improvements at this intersection should be examined as part of the I-89 Exit 18 project that is currently in the NH Ten-Year Plan.</b>
Lebanon	City of Lebanon; NHDOT	NH Route 120; Heater Rd	Improve pedestrian crossing across NH Route 120 at Heater Rd.	Commercial/ Employment Hub	Pedestrian	Further study and planning is needed to understand pedestrian volumes and design constraints. <b>Improvements at this intersection should be examined as part of the I-89 Exit 18 project that is currently in the NH Ten-Year Plan.</b>
Lebanon	City of Lebanon; NHDOT	Bank St Extension	Pedestrian improvements along Bank St Ext east of Heater Rd.	Downtown Core/Mixed Use	Pedestrian	Narrow roadway and adjacent terrain/property is a challenge for adding sidewalks. Improving connection to the Northern Rail Trail may provide a similar benefit for some residents at a lower cost.
Lebanon	City of Lebanon; NHDOT	NH Route 120 between Etna Rd and Centerra	Upgrade 2 culverts to larger box culverts to facilitate wildlife crossing.	Rural	N/A	Need identified in 2016 <i>Lebanon's Wildlife Corridors</i> study - recommended minimum 4'x4' box culverts. Further study/engineering needed to understand site constraints.



# ACTION PLAN: TIER III PROJECTS



## Tier II Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	Advance Transit; City of Lebanon; NHDOT	DHMC; Centerra; Dartmouth Coach, Alice Peck Day Hospital	Create new fixed-route bus service connecting DHMC, Centerra Park, Dartmouth Coach, and Alice Peck Day Hospital	Downtown Core/Mixed Use; Commercial/Employment Hub	Public Transit	This route concept was identified in Advance Transit's 2018 <i>Transit Development Plan</i> .

### Tier III Project Description

- The need for the project may not be clear or well-understood.
- Project scopes are vague or not well-defined.
- Needed data collection and studies are not yet completed.
- Project may be infeasible, unsupported, not needed, and/or “unfundaible.”

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

### Tier III Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Hanover	Town of Hanover; NHDOT	NH Route 120; Greensboro Rd	Construct roundabout or other intersection improvement at NH Route 120/Greensboro Rd.	Suburban	Vehicle	This intersection was improved recently, further evidence of safety, congestion, or design issues is needed to justify additional improvements.
Hanover	Town of Hanover; NHDOT	NH Route 120/ Lebanon St	Add median at sharp curve on Lebanon St to calm traffic and reduce lane departures.	Downtown Core/Mixed Use	Vehicle	Further study and planning is needed to understand site constraints. May require roadway widening to preserve existing shoulders and sidewalks. Adjacent property/terrain is a challenge for roadway widening.
Hanover	Town of Hanover; NHDOT	Etna Rd	Pedestrian and bicycle improvements along Etna Rd in Etna Village	Village Center	Pedestrian; Bicycle	Narrow roadway width, terrain, and adjacent property are challenges for constructing pedestrian and bicycle facilities. These constraints require further study.
Lebanon	City of Lebanon; Dartmouth College; NHDOT	Sachem Village; DHMC	Construct limited access pedestrian, bicycle, and transit connection from Sachem Village to DHMC	Suburban	Pedestrian; Bicycle; Public Transit	Identified in <i>Dartmouth Strategic Master Plan</i> . Costs, benefits, feasibility, and environmental impacts of constructing significant new infrastructure should be analyzed.
Lebanon	City of Lebanon; NHDOT	NH Route 120/ Hanover St	Reconnect Hanover St with vehicle bridge over Interstate 89.	Downtown Core/Mixed Use; Suburban	Vehicle; Public Transit	Feasibility of this proposal is limited by high project and maintenance costs, physical site constraints, and potential traffic impacts in residential areas north of I-89. <b>This concept may be evaluated as alternative for the I-89 Exit 18 project that is currently in the NH Ten-Year Plan.</b>



# ACTION PLAN: TIER III PROJECTS



## Tier III Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	Lebanon/NHDOT	NH Route 120	Review existing speed limits on NH Route 120.	Multiple	Vehicle	Speed limit changes are typically effective only when combined with targeted enforcement measures, land use changes, and/or transportation infrastructure projects. Enforcement or design alternatives should be considered prior to speed limit changes.
Lebanon	City of Lebanon; NHOT	NH Route 120	Designate express/local lanes on NH Route 120.	Multiple	Vehicle	Significant study and planning is required to understand if this strategy would be effective, and what the necessary infrastructure/ intersection improvements would be. Travel demand management strategies can help alleviate need for costly congestion improvement projects.



# CORRIDOR POPULATION



## Who Lives in the NH Route 120 North Corridor?

COMMUNITIES	2017 POPULATION (estimated)	2040 POPULATION (projected)	PROJECTED % CHANGE IN POPULATION	PROJECTED TOTAL POPULATION CHANGE
Lebanon	13,522	15,342	13.5%	+1,820
Hanover	11,485	12,428	8.2%	+943

Source: NH Office of Strategic Initiatives, NH Office of Employment Security

SPECIAL POPULATIONS IN THE CORRIDOR	TOTAL SPECIAL POPULATION IN CORRIDOR	% OF TOTAL CORRIDOR POPULATION
Youth (Age 15 and Under)	6,279	25%
Young Adult (Age 16-34)	6,902	28%
Middle Age (Age 35-64)	7,876	32%
Seniors (65+)	3,915	16%
Racial Minorities	3,932	16%
Low Income (Population at/ under 150% of Poverty Level)	3,274	13%

Source: American Communities Survey 5-Year Estimates, 2014-2018

## Who Works in the NH Route 120 North Corridor?

	EMPLOYER	INDUSTRY	EMPLOYEES
Major Employers	Dartmouth-Hitchcock Medical Center	Healthcare	8,117 (2019)
	Dartmouth College	Education	3,497 (2017)
	Hypertherm	Manufacturing	1,061 (2017)
	Alice Peck Day	Healthcare	564 (2019)

Source: NH Office of Employment Security (2017), US Census On-The-Map (2017), City of Lebanon (2019)



# TRANSPORTATION DATA



## Vehicle Traffic Volumes on Regional Roadways

ROAD	TOWN/CITY	COUNT LOCATION	2019 AADT*
NH 120	Lebanon	NH 120 One-Mile South of Hanover Town Line	20,000
NH 120	Hanover	NH 120 (Lebanon St) South of Barrymore Rd	16,000
NH 120	Hanover	NH 120 (Lebanon St) North of Greensboro Rd	16,000
NH 120	Lebanon	NH 120 at Hanover Town Line	12,000
NH 120	Lebanon	NH 120 West of I-89 Exit 18	11,000
NH 10/NH 120	Hanover	NH 10 (N Park St) North of East Wheelock St	8,500
NH 120	Hanover	NH 120 (S Park St) South of East Wheelock St.	8,200
NH 120	Lebanon	NH 120 (Hanover St) South of Taylor St	6,000
Mount Support Rd	Lebanon	Mount Support Rd North of Dartmouth Ave	3,700
East Wheelock St	Hanover	East Wheelock St East of Park St	3,500
Greensboro Rd	Hanover	Greensboro Rd East of NH 120	2,800
Great Hollow Rd	Hanover	Great Hollow Rd over Mink Brook	2,400
Etna Rd	Hanover	Etna Rd North of Ruddsboro Rd	1,900
Ruddsboro Rd	Hanover	Ruddsboro Rd East of Etna Rd	750

### COVID-19 Impacts on NH Route 120

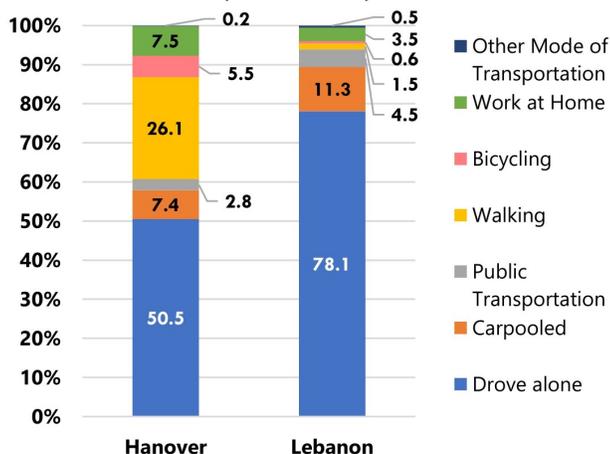
The COVID-19 pandemic led to a **significant reduction in traffic volumes** on NH Route 120 in spring 2020.

Average weekday traffic volumes were down **56%** in April 2020 versus April 2019, and down **38%** in June 2020 versus June 2019. Peak AM and PM hour traffic declined by similar percentages as well.

**Continued monitoring** of traffic volumes is needed to understand the short-term and long-term impacts on travel demand and infrastructure needs.

\*AADT = estimated Annual Average Daily Traffic (2019). Source: New Hampshire Department of Transportation

## Means of Transportation to Work (2014-2018)



Source: American Community Survey 2014-2018 5-Year Estimate



# MULTI-MODAL TRANSPORTATION



**Multi-modal mobility** refers to the ability of people to move around using modes of transportation other than a personal vehicle. Key factors for multi-modal mobility are **infrastructure** (e.g., sidewalks, bus stops), **services** (e.g., bus service), and **land use patterns** (i.e., the distance between various destinations, density of development). The **connections** between multi-modal infrastructure and services are also important - for example, the ability walk or bike safely to a bus stop encourages higher use of bus services.

This page presents an inventory of multi-modal infrastructure and services in the corridor. See page 7 for a description of land use patterns.

## Pedestrian & Bicycle Infrastructure

TYPE	TOWN/CITY	LOCATION
Multi-Use Paths	Lebanon	Mt. Support Rd, NH Route 120 (Centerra to Alteria)
Sidewalks	Lebanon	NH 120 (not continuous); Heater Rd; Hanover St; Evans Dr
	Hanover	NH 120; N Park St; S Park St; E Wheelock; Lebanon St
Ped-Bike Bridge	Lebanon	Hanover St bridge over I-89
Painted Bike Lanes / Sharrows	Lebanon	Hanover St
	Hanover	N. Park St; S. Park St; Lebanon St
Painted Shoulders ≥5 feet	Lebanon/Hanover	NH 120
Rail Trails	Lebanon	Mascoma River Greenway; Northern Rail Trail
Bike Share/Micromobility	Hanover & Lebanon	Upper Valley E-Bike Initiative

## Public Transit

TYPE	TOWN/CITY	SERVICE PROVIDERS
Fixed Route Bus	Lebanon/Hanover	Advance Transit; Tri-County Transit; Sullivan County Transit
Demand-Response Bus	Lebanon/Hanover	Advance Transit; Tri-County Transit
Intercity Bus	Lebanon/Hanover	Dartmouth Coach

## Transportation Services

TYPE	COMMUNITY	SERVICE PROVIDERS
Door-to-Door Services (Senior & Disabled Residents)	Lebanon/Hanover	Grafton County Senior Citizens Council



# NH ROUTE 120 SOUTH

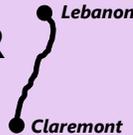
## TRANSPORTATION CORRIDOR

*Lebanon to Claremont*



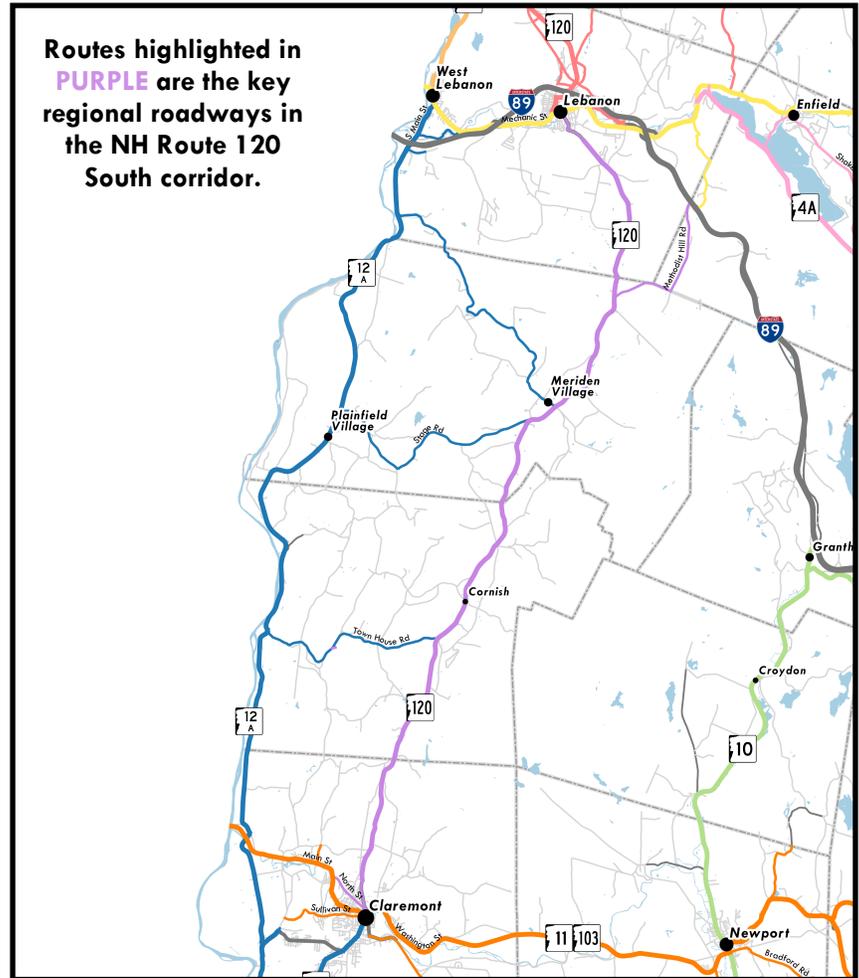


# CORRIDOR OVERVIEW



## NH Route 120 South Corridor - At a Glance

- **Municipalities:** Lebanon, Plainfield, Cornish, Claremont
- **Major Destinations:** downtown Lebanon, downtown Claremont, Kimball Union Academy, Cornish Flat
- **Primary Regional Functions:** Commuting; Local trips
- **Land Use Patterns:** Largely rural; downtown core areas in Lebanon and Claremont; village areas in Meriden and Cornish Flat
- **Natural Features:** Rolling hills; streams



# REGIONAL TRANSPORTATION GOALS

The following transportation system goals were identified for NH Route 10 South corridor, based on public input, in addition to the overall Upper Valley Lake Sunapee region goals presented in the Plan Introduction.

### SAFETY

Improve safety for all roadway users.

### TRANSIT ACCESS

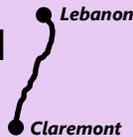
Improve access to existing public transit services in the NH 120 corridor.

### PED-BIKE ACCESS

Improve pedestrian and bicycle access and safety along NH 120.



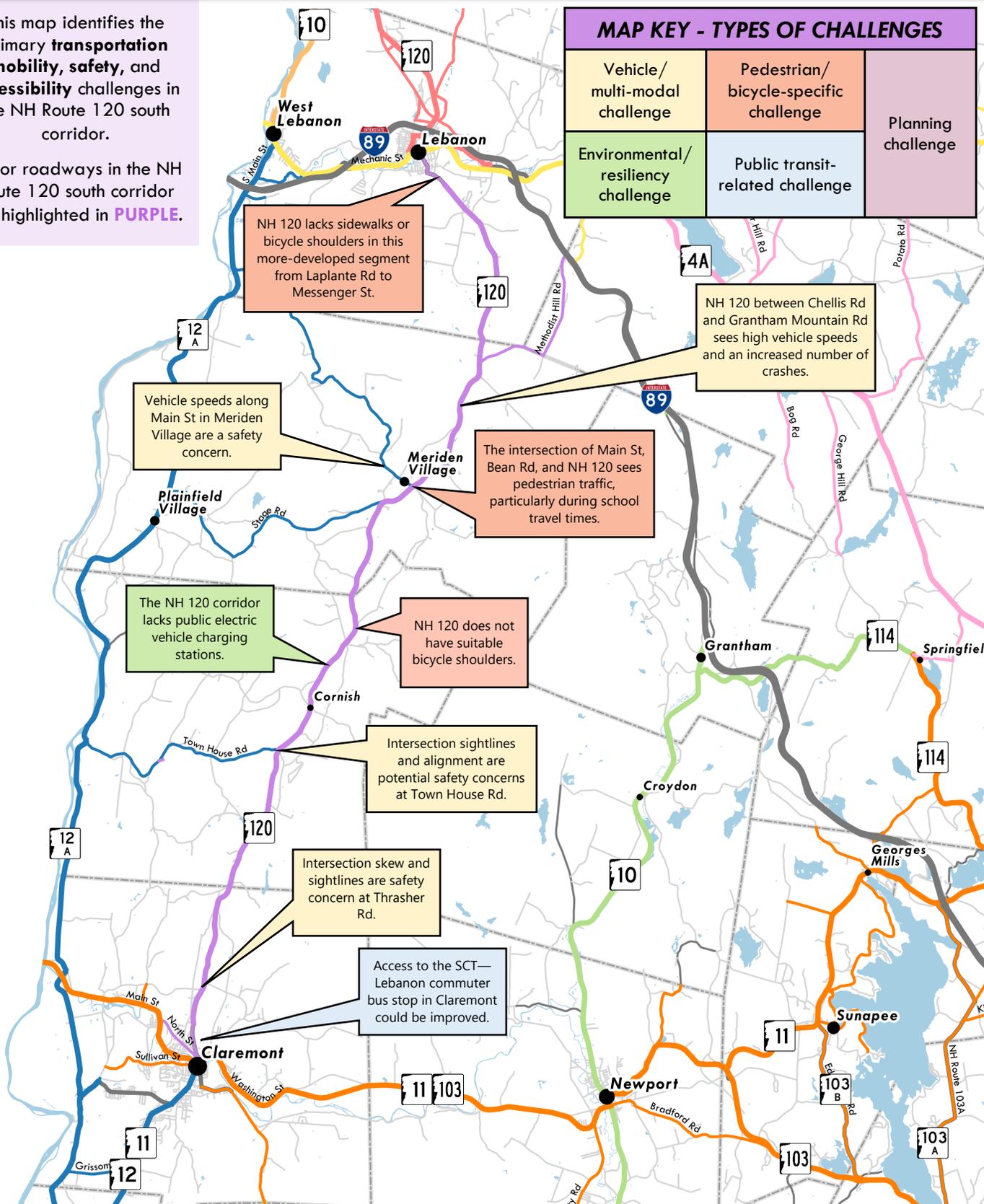
# TRANSPORTATION CHALLENGES MAP



This map identifies the primary **transportation mobility, safety, and accessibility** challenges in the NH Route 120 south corridor.

Major roadways in the NH Route 120 south corridor are highlighted in **PURPLE**.

MAP KEY - TYPES OF CHALLENGES		
Vehicle/ multi-modal challenge	Pedestrian/ bicycle-specific challenge	Planning challenge
Environmental/ resiliency challenge	Public transit- related challenge	





# CORRIDOR ACTION PLAN



The Action Plan is a process for turning transportation needs and concepts into projects that are ready to compete for funding. An individual Action Plan is presented for each major transportation corridor in the UVLSRPC region. For more information on UVLSRPC's process for implementing corridor Action Plans, please refer to the [Action Plan Overview](#) in the [Plan Introduction](#).

## Currently Funded Regional Transportation Projects

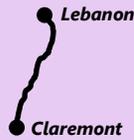
The projects listed below are regionally-significant projects that are already funded and on track for implementation. To help implement these projects, UVLSRPC staff will provide technical assistance and support, as needed or requested.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

TOWN/CITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	PROJECT TIMELINE	PROJECT COST	FUNDING SOURCE(S)	PLANNING NOTES
Claremont; Cornish; Plainfield; Lebanon	Sullivan County Transit; NHDOT	NH Route 120	Commuter bus service along NH Route 120 from downtown Claremont to Dartmouth-Hitchcock Medical Center	2021	N/A	Federal Transit Administration; other funding sources	Bus service had a soft launch in 2021
Lebanon; Plainfield	NHDOT	NH Route 120	Light capital paving of NH 120 from Messenger St in Lebanon to Stage Rd in Plainfield	2022	N/A	NHDOT Paving Program	Potential opportunity for modest shoulder widening/lane restriping for more consistent shoulder width
Cornish; Claremont	NHDOT	NH Route 120	Light capital paving of NH 120 from Town House Rd in Cornish to Claremont urban compact boundary	2023	N/A	NHDOT Paving Program	Potential opportunity for modest shoulder widening/lane restriping for more consistent shoulder width



# ACTION PLAN TIER I PROJECTS



## Tier I Project Description

- Project directly addresses a defined transportation need.
- Project scope is well-defined.
- Needed data collection and studies are completed.
- Project is ready to compete for funding.

Note: projects are presented in **alphabetical order** by municipality.

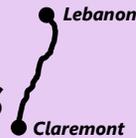
PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier I Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Claremont	City of Claremont	Claremont Visitors Center	Install public electric vehicle charger(s) at the Claremont Visitors Center	Downtown Core/Mixed Use	Vehicle	
Lebanon; Plainfield; Cornish; Claremont	Municipalities; NHDOT	NH Route 120	Install bicycle safety signage along NH 120	Rural; Village; Suburban	Bicycle	Safe passing distance signage already installed along NH 120 in Claremont



# ACTION PLAN TIER II PROJECTS



## Tier II Project Description

- The need for the project may need to be better understood through data collection and further study.
- Project scopes may need to be refined or finalized.
- More data collection, planning work, and/or studies may be useful for refining the scope of the project.

Note: projects are presented in **alphabetical order** by municipality.

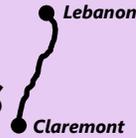
PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier II Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Claremont	City of Claremont; NHDOT	NH Route 120; Thrasher Rd	Improve safety at intersection of NH 120 and Thrasher Rd	Rural	Vehicle	Intersection is badly skewed and has poor sightlines. Further study needed to determine feasible improvements.
Claremont	Sullivan County Transit; City of Claremont; NHDOT	Downtown Claremont	Develop shuttle bus connecting downtown Claremont to NH Route 120 commuter bus	Downtown Core/Mixed Use	Public Transit	
Cornish	Town of Cornish; NHDOT	NH Route 120; Town House Rd	Improve intersection safety at NH Route 120 and Town House Rd	Rural	Vehicle	Sightlines, traffic speeds, and lack of alignment with Lower East Rd are potential safety challenges to be addressed.
Lebanon	City of Lebanon; NHDOT	NH Route 120 between Messenger St and Laplante Rd	Improve pedestrian and bicycle access along NH 120 between Messenger St and Laplante Rd	Suburban	Pedestrian; Bicycle	Sidewalk and bike lanes currently end at Messenger St; narrow right-of-way and steep banks are feasibility challenges for adding new infrastructure.
Lebanon	City of Lebanon; NHDOT	NH Route 120/School St; Spring St/Dulac St; Water St	Deter regional/through traffic from using local streets (Spring St/Dulac St and Water St)	Downtown Core/Mixed Use	Vehicle	Chicanes and speed humps have been installed on Dulac St; further examination of other approaches is needed.
Plainfield	Town of Plainfield; NHDOT	Main St	Calm traffic speeds and improve pedestrian safety along Main St near Kimball Union Academy campus	Village	Vehicle; Pedestrian	



# ACTION PLAN TIER II PROJECTS



## Tier II Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Plainfield	Town of Plainfield; NHDOT	NH 120 between Main St and Stage Rd	Construct 5-foot shoulders from Main St to Stage Rd along NH 120	Village; Rural	Bicycle	This section of NH 120 connects two lower-stress bicycling roads (Stage Rd and Main St).
Plainfield	Town of Plainfield; NHDOT	NH Route 120; Chellis St; Grantham Mountain Rd	Improve safety along NH 120 between Chellis Rd and Grantham Mountain Rd	Rural	Vehicle	Rural stretch of roadway experiences high speeds; intersections with Chellis St and Grantham Mountain Rd are badly skewed.
Plainfield	Town of Plainfield	Main St	Install public electric vehicle charging station(s) near Main St	Village	Vehicle	
Plainfield	Town of Plainfield; NHDOT	NH Route 120; Main St; Bean Rd	Improve pedestrian crossing safety at the intersection of NH 120, Main St, and Bean Rd	Village	Pedestrian	Crossing experience intermittent pedestrian traffic from Kimball Union. Sidewalks exist on Main St and Bean Rd; intersection lacks crosswalk and pedestrian signage/beacon.

### Tier III Project Description

- The need for the project may not be clear or well-understood.
- Project scopes are vague or not well-defined.
- Needed data collection and studies are not yet completed.
- Project may be infeasible, unsupported, not needed, and/or “unfundable.”

Note: projects are presented in **alphabetical order** by municipality.

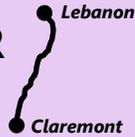
PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

### Tier III Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon; Plainfield; Cornish; Claremont	Municipalities; NHDOT	NH Route 120	Construct wider shoulders along NH Route 120	Rural; Village	Pedestrian; Bicycle	Narrow roadway and right-of-way are significant challenges. Further planning needed to identify priority sections of NH 120 and feasibility challenges. May need to be considered as part of larger roadway reconstruction/rehabilitation project.
Cornish; Plainfield	Municipalities; Sullivan County Transit	Cornish Flat; Meriden Village	Add stops to Lebanon-Claremont commuter bus route in Cornish and Plainfield	Village	Public Transit	Current door-to-door times from Claremont to DHMC range from 45 to 60 minutes; additional stops may be too disruptive without adding additional service. Future study could include examination of alternating express and local service routes.



# CORRIDOR OVERVIEW



## Who Lives in the NH Route 120 South Corridor?

COMMUNITIES	2019 POPULATION (estimated)	2040 POPULATION (projected)	PROJECTED % CHANGE IN POPULATION	PROJECTED TOTAL POPULATION CHANGE
Claremont	12,977	12,984	0%	7
Cornish	1,783	1,603	-10%	-180
Lebanon	13,623	15,342	13%	1,719
Plainfield	2,555	2,435	-5%	-120

Source: NH Office of Strategic Initiatives, NH Office of Employment Security, 2015-2019 American Communities Survey 5-Year Estimates

SPECIAL POPULATIONS IN THE CORRIDOR	TOTAL SPECIAL POPULATION IN CORRIDOR	% OF TOTAL CORRIDOR POPULATION
Youth (Age 15 and Under)	4,723	15%
Young Adult (Age 16-34)	8,774	28%
Middle Age (Age 35-64)	11,349	37%
Seniors (65+)	6,092	20%
Racial Minorities	2,146	7%
Low Income (<150% of Poverty Level)	6,456	21%

Source: American Communities Survey 5-Year Estimates, 2015-2019

## Who Works in the NH Route 120 South Corridor?

	EMPLOYER	INDUSTRY	EMPLOYEES
Major Employers	Dartmouth-Hitchcock Medical Center	Health Care Services	8,117
	Alice Peck Day	Health Care	610
	FujiFilm	Technology	506
	Hypertherm	Manufacturing	451
	Claremont School District	Education	446

Source: NH Office of Employment Security (2019), City of Lebanon (2019)



# TRANSPORTATION DATA



## Vehicle Traffic Volumes on Regional Roadways

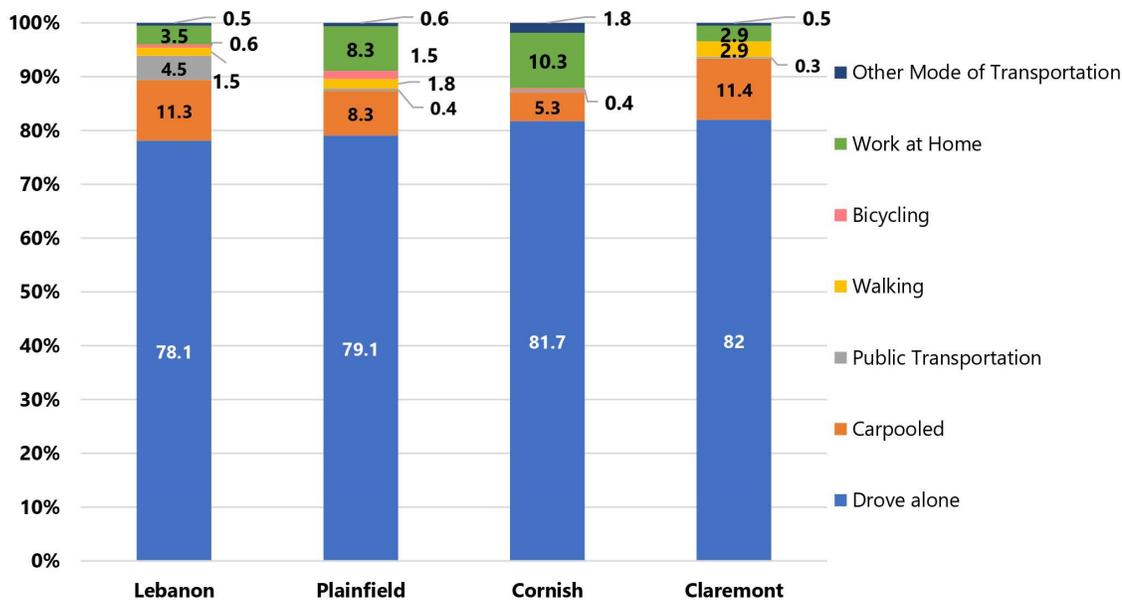
ROAD	TOWN/CITY	COUNT LOCATION	2019 AADT*
NH 120	Claremont	NH 120 south of Thrasher Rd	2,200
NH 120	Claremont	NH 120 south of Dunning St	2,700
NH 120	Claremont	NH 120 south of Lincoln Heights	11,200
North St	Claremont	North St west of Barnes St	8,600
NH 120	Cornish	NH 120 at Plainfield town line	2,100
NH 120	Cornish	NH 120 south of Town House Rd	2,200
NH 120	Cornish	NH 120 at Claremont city line	2,300
NH 120	Lebanon	NH 120 south of Messenger St	3,500
NH 120	Lebanon	NH 120 at Plainfield town line	2,800
NH 120	Plainfield	NH 120 south of Bonner Rd	2,900

### COVID-19 Impacts on Travel

The COVID-19 pandemic has resulted in reductions in travel, increased unemployment, and increases in the number of employees working from home. Continued monitoring of these trends is needed to understand their long-term impacts on the transportation system.

\*AADT = estimated Annual Average Daily Traffic (2019). Source: New Hampshire Department of Transportation

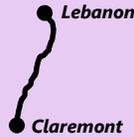
## Means of Transportation to Work



Source: American Community Survey 2015-2019 5-Year Estimate



# MULTI-MODAL TRANSPORTATION



**Multi-modal mobility** refers to the ability of people to move around using modes of transportation other than a personal vehicle. Key factors for multi-modal mobility are **infrastructure** (e.g., sidewalks, bus stops), **services** (e.g., bus service), and **land use patterns** (i.e., the distance between various destinations, density of development). The **connections** between multi-modal infrastructure and services are also important - for example, the ability walk or bike safely to a bus stop encourages higher use of bus services.

This page presents an inventory of multi-modal infrastructure and services in the corridor.

## Pedestrian & Bicycle Infrastructure

TYPE	TOWN/CITY	LOCATION
Sidewalks	Lebanon	NH 120/School St
	Plainfield	Main St; Bean Rd
	Claremont	NH 120/Hanover St; North St
Painted Bike Lanes	Lebanon	NH 120/School St

## Public Transit

TYPE	TOWN/CITY	SERVICE PROVIDERS
Fixed Route Bus	Lebanon; Claremont	Sullivan County Transit
Demand-Response Bus	Claremont	Sullivan County Transit

## Transportation Services

TYPE	COMMUNITY	SERVICE PROVIDERS
Volunteer driver program	Lebanon	Grafton County Senior Citizens Council
	Claremont	Sullivan County Transit



# US ROUTE 4

## TRANSPORTATION CORRIDOR

*West Lebanon to Grafton*



UVLSRPC

**REGIONAL CORRIDOR  
TRANSPORTATION PLAN**

2021 → 2035

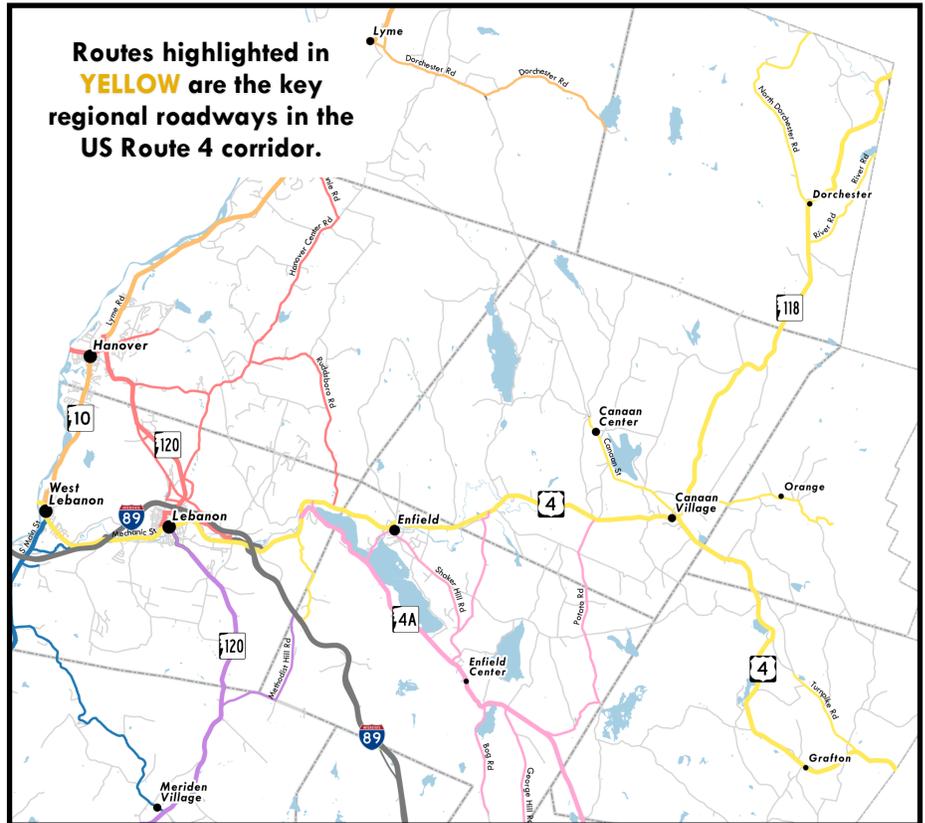


# CORRIDOR OVERVIEW



## US Route 4 Corridor - At a Glance

- **Municipalities:** Lebanon, Enfield, Canaan, Orange, Dorchester, Grafton
- **Major Destinations:** Downtown Lebanon; West Lebanon; downtown Enfield; Mascoma Lake; Canaan Village; Mt. Cardigan State Park; I-89
- **Primary Regional Functions:** Commuting; Freight; Tourism; Recreation
- **Land Use Patterns:** Several downtown core areas; highway commercial areas in Lebanon and Enfield; rural areas in Canaan, Dorchester and Orange
- **Natural Features:** Rolling hills and valleys, lakes and bogs, streams, mountainous terrain in Orange and Dorchester



# REGIONAL TRANSPORTATION GOALS

The following transportation system goals were identified for US Route 4 corridor, based on public input. These are in addition to the overall Upper Valley Lake Sunapee region goals presented in the Plan Introduction.

**SAFETY**

Improve safety for all roadway users.

**DOWNTOWN MOBILITY**

Balancing local vs regional mobility needs in downtown areas for all roadway users.

**TRANSIT CONNECTIONS**

Enhance pedestrian connections to public transit service.

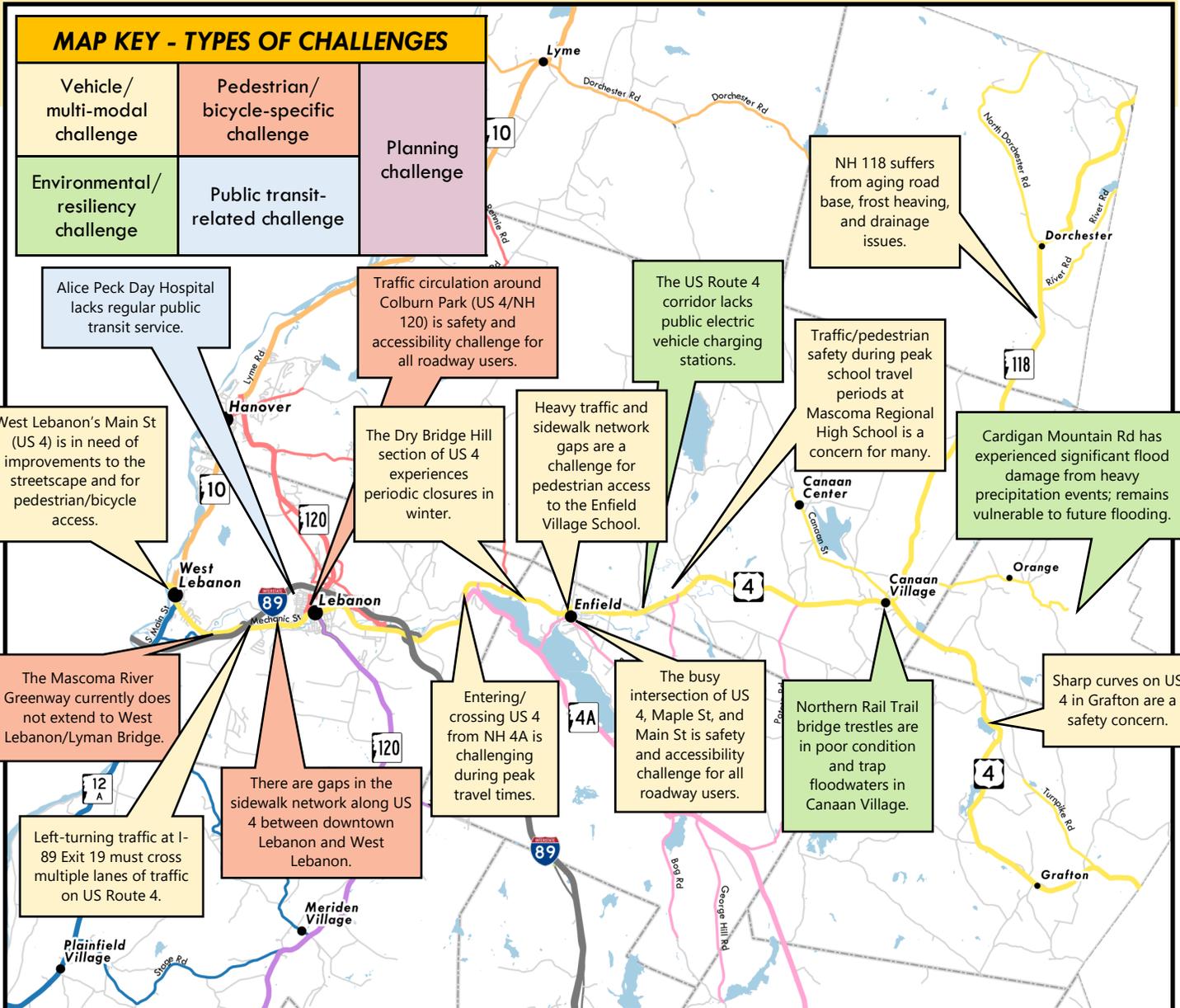


# 4

## TRANSPORTATION CHALLENGES MAP



This map identifies the primary **transportation mobility, safety, and accessibility** challenges in the US Route 4 corridor. Major roadways in the US Route 4 corridor are highlighted in **yellow**.





# CORRIDOR ACTION PLAN



The Action Plan is a process for turning transportation needs and concepts into projects that are ready to compete for funding. An individual Action Plan is presented for each major transportation corridor in the UVLSRPC region. For more information on UVLSRPC's process for implementing corridor Action Plans, please refer to the Action Plan Overview in the Plan Introduction.

## Currently Funded Regional Transportation Projects

The projects listed below are regionally-significant projects that are already funded and on track for implementation. To help implement these projects, UVLSRPC staff will provide technical assistance and support, as needed or requested.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

TOWN/CITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	PROJECT TIMELINE	PROJECT COST	FUNDING SOURCE(S)	PLANNING NOTES
Enfield	Town of Enfield; NHDOT	US Route 4	Implement infrastructure improvements along US Route 4 between the Lebanon city line and Main St/Maple St in Enfield	Construction: FY 2025-2026	\$7,439,170	NH Ten-Year Transportation Improvement Program	There a variety of transportation needs in the project area and the final scope of improvements has not yet been determined; several potential infrastructure improvements are listed in Tier II of this Action Plan (see p. 110 - 111).
Lebanon	City of Lebanon; NHDOT	US Route 4/ Mechanic St; Mascoma St; High St	Construct roundabout at intersection of US 4/Mechanic St, Mascoma St, and High St in Lebanon	Construction: FY 2023		NH Ten-Year Transportation Improvement Program	
Lebanon	City of Lebanon; NHDOT	US Route 4/ Mechanic St; Slayton Hill Rd	Construct roundabout or other intersection improvement at the intersection of US Route 4/ Mechanic St and Slayton Hill Rd	Construction: FY 2029	\$4,712,731	NH Ten-Year Transportation Improvement Program	



# ACTION PLAN: TIER I PROJECTS



## Tier I Project Description

- Project directly addresses a defined transportation need.
- Project scope is well-defined.
- Needed data collection and studies are completed.
- Project is ready to compete for funding.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier I Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Canaan	Town of Canaan; NHDOT; US EDA	Northern Rail Trail	Upgrade two bridge trestles carrying the Northern Rail Trail over the Indian River	Village	Pedestrian; Bicycle	Bridge trestles are in poor condition; bridge spans proposed to be increased as part of larger flood hazard mitigation project.
Lebanon	City of Lebanon; NHDOT	US Route 4/ Mechanic St	Construct sidewalk from Slayton Hill Rd to American Legion along US Route 4	Downtown Core/Mixed Use	Pedestrian	
Lebanon	City of Lebanon; NHDOT	US Route 4/ Miracle Mile	Construct formal ped-bike connection between Mascoma River Greenway and US 4/Miracle Mile	Commercial	Pedestrian; Bicycle	
Lebanon	City of Lebanon; NHDOT	US Route 4/ Miracle Mile	Construct sidewalk and pedestrian crossing from Price Chopper to Poverty Lane along US Route 4	Commercial	Pedestrian	
Lebanon	City of Lebanon	US Route 4/S. Park St	Construct public electric vehicle charging station(s) in downtown Lebanon	Downtown Core/Mixed Use	Vehicle	
Lebanon	Advance Transit	Alice Peck Day Hospital	Provide fixed-route bus service to Alice Peck Day Hospital	Downtown Core/Mixed Use	Public Transit	Would likely be accomplished via development of new service route.



# ACTION PLAN: TIER II PROJECTS



## Tier II Project Description

- The need for the project may need to be better understood through data collection and further study.
- Project scopes may need to be refined or finalized.
- More data collection, planning work, and/or studies may be useful for refining the scope of the project.

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

## Tier II Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Canaan	Town of Canaan	Canaan Village	Install public electric vehicle charger(s) in Canaan Village	Village	Vehicle	
Enfield	Town of Enfield	Downtown Enfield	Install public electric vehicle charger(s) in downtown Enfield	Downtown Core/Mixed Use	Vehicle	
Enfield	Town of Enfield; NHDOT	US Route 4	Add passing/breakdown lane and improve drainage on Dry Bridge Hill on US Route 4	Rural	Vehicle	Periodic road closures occur in winter when trucks are unable to make it up the hill. Significant terrain constrains exist for expanding the roadway. <b>This improvement should be examined as part of the Ten-Year Plan project #40526 on US Route 4 in Enfield.</b> A high-friction pavement treatment may be beneficial as an interim measure.
Enfield	Town of Enfield; Advance Transit; NHDOT	US Route 4	Add bus pull-off and pedestrian access along US Route 4 at Daniel's Mobile Home Park	Suburban	Public Transit; Pedestrian	Advance Transit Blue Route bus stops here, as well as school buses, resulting in traffic backups. Further of examination site conditions and drainage needed, as well as maintenance place. <b>This improvement should be examined as part of the Ten-Year Plan project #40526 on US Route 4 in Enfield.</b>
Enfield	Town of Enfield; Advance Transit; NHDOT	US Route 4; High Street; Main St; Main St	Implement comprehensive vehicular, pedestrian, bicycle, and public transit access improvements along US Route 4 between High St and Main St/Maple St	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle; Public Transit	There are a number transportation challenges in this area, including heavy through-traffic on US Route 4, safety challenges at the intersection of Maple St/Main St, pedestrian access to Enfield Village School, gaps in the sidewalk network, and access to the Advance Transit bus stop. Balancing regional versus local mobility needs is critical. <b>These improvements should be examined as part of the Ten-Year Plan project #40526 on US Route 4 in Enfield.</b>



# ACTION PLAN: TIER II PROJECTS



## Tier II Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Enfield	Town of Enfield; NHDOT	US Route 4	Add 5-foot shoulders along US Route 4 from the Lebanon city line to Main St.	Suburban/ Rural/ Downtown Core	Vehicle; Pedestrian; Bicycle	Shoulder widening would need to be done in phases, likely as part of larger roadway improvement projects. <b><i>This improvement should be examined as part of the Ten-Year Plan project #40526 on US Route 4 in Enfield.</i></b>
Grafton	Town of Grafton; NHDOT	US Route 4	Add curve warning signage along US Route 4 in Grafton	Rural	Vehicle	
Lebanon	City of Lebanon; Advance Transit; NHDOT	US Route 4/NH Route 120; Colburn Park	Revising US 4/NH 120 around Colburn Park, including converting North Park St to one-way and diverting through traffic to south side of Colburn Park along with additional traffic calming and multi-modal safety improvements	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle; Public Transit	Project is included in City of Lebanon <i>Downtown Vision Study</i> and has been considered for local Capital Improvement Program funding.
Lebanon	City of Lebanon; Upper Valley Trails Alliance; NHDOT	Mascoma River Greenway; Glen Rd	Extend the Mascoma River Greenway to Riverside Park from the current terminus near Glen Rd	Suburban	Pedestrian; Bicycle	Includes ped-bike connection from railroad corridor to park.
Lebanon	City of Lebanon; Upper Valley Trails Alliance; NHDOT	Mascoma River Greenway	Extend Mascoma River Greenway from Riverside Park to West Lebanon	Downtown Core/Mixed Use; Commercial	Pedestrian; Bicycle	Section of railroad between current trail terminus and West Lebanon is active; alternate trail alignments could be pursued, including through redevelopment of Iron Horse Park property.
Lebanon	City of Lebanon; NHDOT	Mascoma River Greenway; Mechanic St	Construct accessible path(s) between Mascoma River Greenway and residences on Mechanic St	Downtown Core/Mixed Use	Pedestrian; Bicycle	
Lebanon	City of Lebanon; NHDOT	I-89; US Route 4	Improve intersections of I-89 exit ramps and US 4 at Exit 19	Commercial	Vehicle; Pedestrian	Further study needed to identify potential improvements, such as dual roundabouts.



# ACTION PLAN: TIER II PROJECTS



## Tier II Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	City of Lebanon; Advance Transit	US Route 4/ Mechanic St	Identify suitable bus stop location(s) along US 4/ Mechanic St	Downtown Core/Mixed Use	Pedestrian; Public Transit	New residential development and planned/proposed sidewalk extensions along Mechanic St necessitate evaluation of current/future Advance Transit bus stops.
Lebanon	City of Lebanon; NHDOT	US Route 4/ Seminary Hill Rd	Improve visibility of pedestrian crossings along US Route 4/ Seminary Hill Rd	Suburban	Pedestrian	Steep grades contribute to high vehicle speeds; consider use of pedestrian crossing signage, flashing beacon(s).
Lebanon	City of Lebanon; Advance Transit; NHDOT	US Route 4/Main St in West Lebanon	Implement pedestrian, bicycle, traffic calming, and streetscape improvements along US 4/Main St in West Lebanon	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle; Public Transit	Design alternatives are being identified by West Lebanon Revitalization Advisory Committee.
Lebanon	City of Lebanon; NHDOT	US Route 4/Main St in West Lebanon	Construct roundabout or other intersection safety improvement at intersection of US 4/Main St and Bridge St	Downtown Core/Mixed Use	Vehicle; Pedestrian; Bicycle	Design alternatives are being identified by West Lebanon Revitalization Advisory Committee.
Lebanon	City of Lebanon	US Route 4/Main St in West Lebanon	Install public electric vehicle chargers along/near US 4/ Main St in West Lebanon	Downtown Core/Mixed Use	Vehicle	
Lebanon	City of Lebanon	Westboro Yard	Construct multi-use path through former Westboro Yard in West Lebanon to Lyman Bridge	Downtown Core/Mixed Use	Pedestrian; Bicycle	Multi-use path could connect to future Mascoma River Greenway terminus, as well as complete envisioned West Lebanon Greenway along Connecticut River
Lebanon	City of Lebanon; NHDOT	US Route 4/ Mechanic St/ Miracle Mile	Address sidewalk network gaps along US 4 Route/Mechanic St/ Miracle Mile between downtown Lebanon and West Lebanon	Downtown Core/Mixed Use; Commercial	Pedestrian	Several site-specific sidewalk construction projects have been proposed or conceptualized (Slayton Hill Rd to American Legion, Price Chopper to Poverty Lane); major gaps include Rivermill to Slayton Hill Rd and American Legion to Poverty Lane.
Lebanon	City of Lebanon; NHDOT	US Route 4	Add 5-foot shoulders along US Route 4 from Bank St Ext in Lebanon to the Enfield town line	Suburban/ Rural	Pedestrian; Bicycle	Shoulder widening would need to be done in phases, likely as part of larger roadway improvement project(s).



## ACTION PLAN: TIER III PROJECTS



### Tier III Project Description

- The need for the project may not be clear or well-understood.
- Project scopes are vague or not well-defined.
- Needed data collection and studies are not yet completed.
- Project may be infeasible, unsupported, not needed, and/or “unfundable.”

Note: projects are presented in **alphabetical order** by municipality.

PROJECT TYPES (COLOR-CODED)		
Vehicle/Multi-Modal	Pedestrian & Bicycle	Plan or Study
Environmental Resiliency	Public Transit	

### Tier III Projects

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Canaan	Town of Canaan; NHDOT	US Route 4; Potato Rd; Roberts Rd	Improve intersection safety along US Route 4 between Potato Rd and Roberts Rd	Rural	Vehicle	This location experiences sightline challenges; further study is needed to examine potential improvements.
Canaan	Mascoma Valley Regional High School; Town of Canaan; NHDOT	US Route 4; Blackwater Rd; Royal Rd	Monitor/address traffic safety at intersection of US Route 4, Blackwater Rd, and Royal Rd at Mascoma Valley Regional High School	Rural	Vehicle; Pedestrian	Current intersection design was implemented per NHDOT permit approval. Significant variations in travel behavior during the day due to school pick-up/drop-off periods. Collaborative approach involving local, regional, state, and school officials is warranted.
Canaan; Dorchester	Towns; NHDOT	NH Route 118	Address old road base and drainage issues along NH 118	Rural	Vehicle	Further study is needed to identify potential improvements; may require rehabilitation or reconstruction in areas.
Canaan; Enfield	Towns; NHDOT	US Route 4	Create park-and-ride near Enfield/Canaan town line	Rural	Vehicle	Further study is needed to identify demand/need for park-and-ride, as well as suitable location.
Lebanon	City of Lebanon; NHDOT	US Route 4; NH Route 4A	Improve intersection of US Route 4 and NH Route 4A	Rural	Vehicle; Pedestrian; Bicycle	This intersection was improved recently; however, it is still a challenge for vehicles entering US Route 4 from NH Route 4A due to high vehicle traffic volumes and speeds. Further planning is needed to identify and justify potential improvements.
Lebanon	City of Lebanon; NHDOT	US Route 4/ Bridge St	Construct bicycle shoulders along US 4/Bridge St between Main St and Lyman Bridge over Connecticut River	Downtown Core/Mixed Use	Bicycle	Steep terrain and narrow right-of-way are potential constraints.



# ACTION PLAN: TIER III PROJECTS



## Tier III Projects (continued)

MUNICIPALITY	PROJECT PARTNERS	LOCATION DESCRIPTION	PROJECT DESCRIPTION	LAND USE(S)	MODE FOCUS	PLANNING NOTES
Lebanon	City of Lebanon; NHDOT	Connecticut River rail bridge from West Lebanon to White River Junction, VT	Provide pedestrian and bicycle access along rail bridge over Connecticut River between Westboro Yard and White River Junction, VT	Downtown Core/Mixed Use	Pedestrian; Bicycle	Feasibility study completed by Upper Valley Trails Alliance in 2007; bridge is actively used by rail operator.
Orange	Town of Orange; NHDOT	Cardigan Mountain Rd	Improve flood resiliency of Cardigan Mountain Rd	Rural	Vehicle	Primary access to Cardigan Mountain State Park; steep terrain enhances potential for damaging flash floods.



# CORRIDOR POPULATION

West Lebanon



Grafton



## Who Lives in the US Route 4 Corridor?

COMMUNITIES	2019 POPULATION (estimated)	2040 POPULATION (projected)	PROJECTED % CHANGE IN POPULATION	PROJECTED TOTAL POPULATION CHANGE
Canaan	3,920	4,511	15%	591
Dorchester	401	389	-3%	-12
Enfield	4,545	4,944	9%	399
Grafton	1,362	1,595	17%	233
Lebanon	13,623	15,342	13%	1719
Orange	264	370	40%	106

Source: NH Office of Strategic Initiatives, NH Office of Employment Security, 2015-2019 American Communities Survey 5-Year Estimates

SPECIAL POPULATIONS IN THE CORRIDOR	TOTAL SPECIAL POPULATION IN CORRIDOR	% OF TOTAL CORRIDOR POPULATION
Youth (Age 15 and Under)	3,331	14%
Young Adult (Age 16-34)	6,776	28%
Middle Age (Age 35-64)	9,325	39%
Seniors (65+)	4,683	19%
Racial Minorities	1,901	8%
Low Income (<150% of Poverty Level)	3,560	15%

Source: American Communities Survey 5-Year Estimates, 2015-2019

## Who Works in the US Route 4 Corridor?

	EMPLOYER	INDUSTRY	EMPLOYEES
Major Employers	Dartmouth-Hitchcock Medical Center	Healthcare	8,117
	Hypertherm	Manufacturing	1,061
	Alice Peck Day	Healthcare	564
	Fujifilm	Manufacturing	451

Source: NH Office of Employment Security (2019), City of Lebanon (2019)



# TRANSPORTATION DATA



## Vehicle Traffic Volumes on Regional Roadways

ROAD	TOWN/CITY	COUNT LOCATION	2019 AADT*
Orange Rd	Canaan	Orange Rd over Indian River	1,200
Cardigan Mountain Rd	Canaan	Cardigan Mountain Rd West of New Colony Rd	310
US 4	Canaan	US 4 East of Lafortune Rd	6,700
US 4	Canaan	US 4 West of Gristmill Hill Rd	5,800
Canaan St	Canaan	Canaan St South of Prospect Hill Rd	1,300
Grafton Turnpike Rd	Canaan	Grafton Tpk Rd Over Mascoma River	750
US 4	Canaan	US 4 at Orange TL	2,500
NH 118	Dorchester	NH 118 Over Merrill Brook	1,200
North Dorchester Rd	Dorchester	North Dorchester Rd West of Clough Rd	28
River Rd	Dorchester	River Rd Over Merrill Brook	54
NH 118	Dorchester	NH 118 at Canaan TL	1,200
US 4	Enfield	US 4 (Prospect St) West of Baltic St	8,600
Eastman Hill Rd	Enfield	Eastman Hill Rd Over I-89 Exit 16	2,150
US 4	Grafton	US 4 (Mascoma Valley Rd) East of Davis Rd	1,800
Turnpike Rd	Grafton	Turnpike Rd West of Lower Meadow Rd	150
US 4	Lebanon	US 4 At Lebanon TL	10,000
US 4	Lebanon	US 4 East of Stoney Brook Rd	14,000
US 4	Lebanon	US 4 West of I-89 at Exit 17	5,000
US 4	Lebanon	US 4 (Bank St) West of Elm St	4,600
S Park St	Lebanon	US 4/NH120 (So. Park St) West of School St	8,200
US 4	Lebanon	US 4 (Mechanic St) East of Foundry St	9,500
US 4	Lebanon	US 4 (Mechanic St) West of Blacksmith St	10,000
US 4	Lebanon	US 4 (Mechanic St) East of Buckingham Place	14,000
US 4	Lebanon	US 4/NH 10 (Mechanic St) West of Poverty Lane	14,000
US 4	Lebanon	US 4/NH 10 (Seminary Hill Rd) South of Johnson Ave	9,100
US 4	Lebanon	US 4/NH 10 (So. Main St) North of Tracy St	15,000
US 4	Lebanon	US 4 (Bridge St) at Vermont SL	12,000

### COVID-19 Impacts on Travel

The COVID-19 pandemic has resulted in reductions in travel, increased unemployment, and increases in the number of employees working from home. Continued monitoring of these trends is needed to understand their long-term impacts on the transportation system.

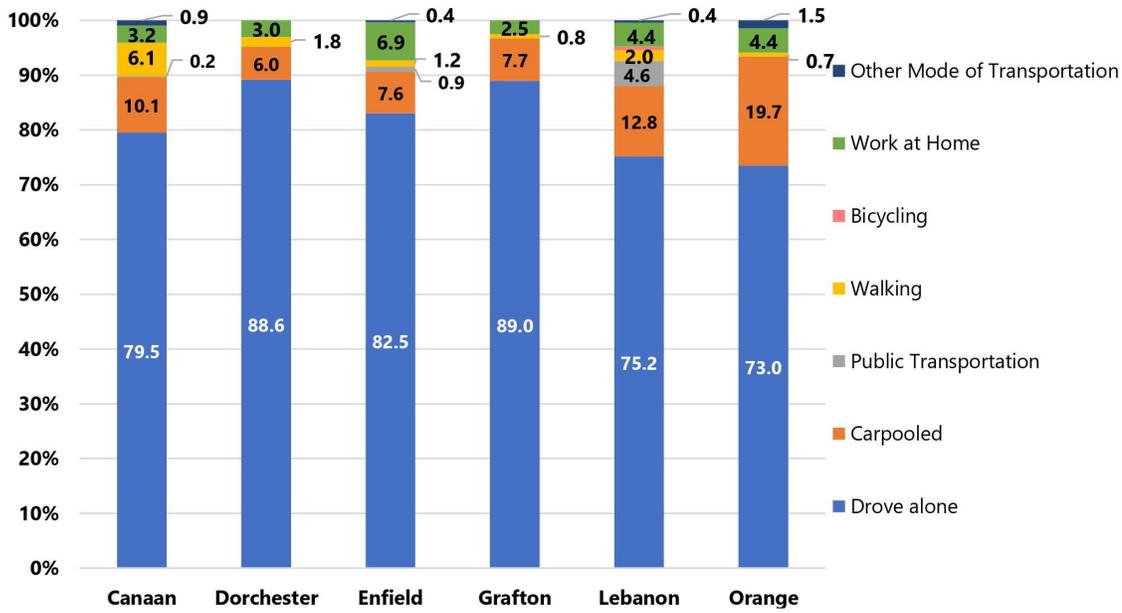
\*AADT = estimated Annual Average Daily Traffic (2019). Source: New Hampshire Department of Transportation



# TRANSPORTATION DATA (cont'd)



## Means of Transportation to Work



Source: American Community Survey 2015-2019 5-Year Estimate



# MULTI-MODAL TRANSPORTATION



**Multi-modal mobility** refers to the ability of people to move around using modes of transportation other than a personal vehicle. Key factors for multi-modal mobility are **infrastructure** (e.g., sidewalks, bus stops), **services** (e.g., bus service), and **land use patterns** (i.e., the distance between various destinations, density of development). The **connections** between multi-modal infrastructure and services are also important - for example, the ability walk or bike safely to a bus stop encourages higher use of bus services.

This page presents an inventory of multi-modal infrastructure and services in the corridor.

## Pedestrian & Bicycle Infrastructure

TYPE	TOWN/CITY	LOCATION
Rail Trails	Lebanon, Enfield, Canaan, Grafton	Northern Rail Trail
	Lebanon	Mascoma River Greenway
Sidewalks	Lebanon	US 4/N. Main St., Seminary Hill Rd, Mechanic St, Bank St, Colburn Park Streets
	Enfield	US 4, Main St
	Canaan	US 4, Canaan St, Depot St
Painted Bike Lanes	Lebanon	US Route 4/Seminary Hill Rd, Bank St
Sharrows	Lebanon	US Route 4 - Colburn Park, Miracle Mile

## Public Transit

TYPE	TOWN/CITY	SERVICE PROVIDERS
Fixed Route Bus	Lebanon; Enfield; Canaan	Advance Transit
	Lebanon	Sullivan County Transit
Demand-Response Bus	Lebanon	Advance Transit paratransit
Intercity Bus	Lebanon	Dartmouth Coach

## Transportation Services

TYPE	COMMUNITY	SERVICE PROVIDERS
Volunteer driver program	Lebanon; Enfield	Grafton County Senior Citizens Council