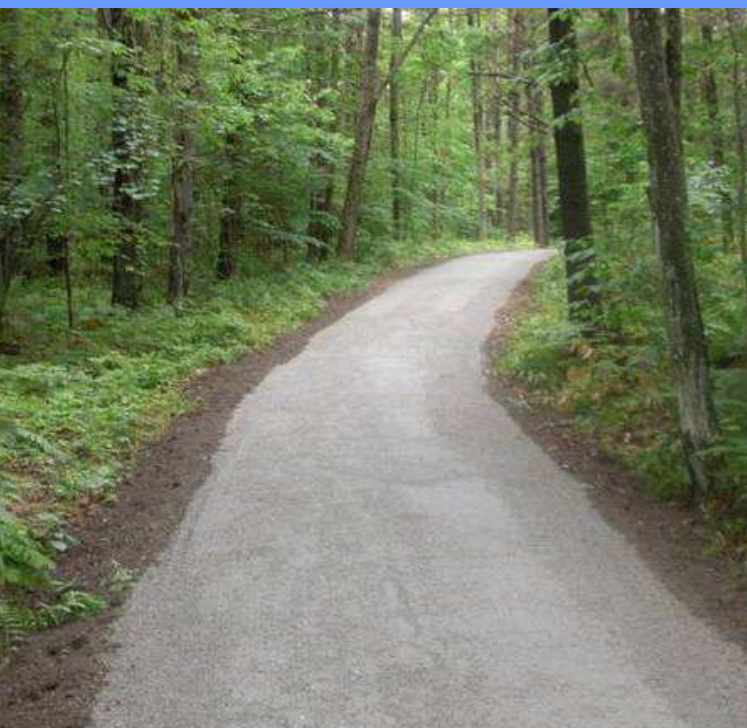




## Bicycling and Walking: Conceptual Design Supplement

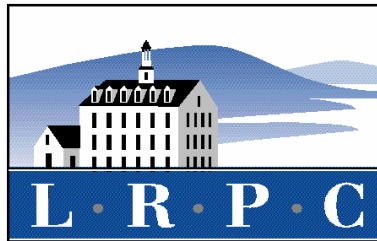


March 2012



Cover: (top) Mural along the WOW Trail painted by Sarah Snow, Jami Harmon and Megan Buckner; (bottom left) Sewall Woods Trail, Wolfeboro; (bottom right) Meredith boardwalk

# Bicycling and Walking: Design Supplement



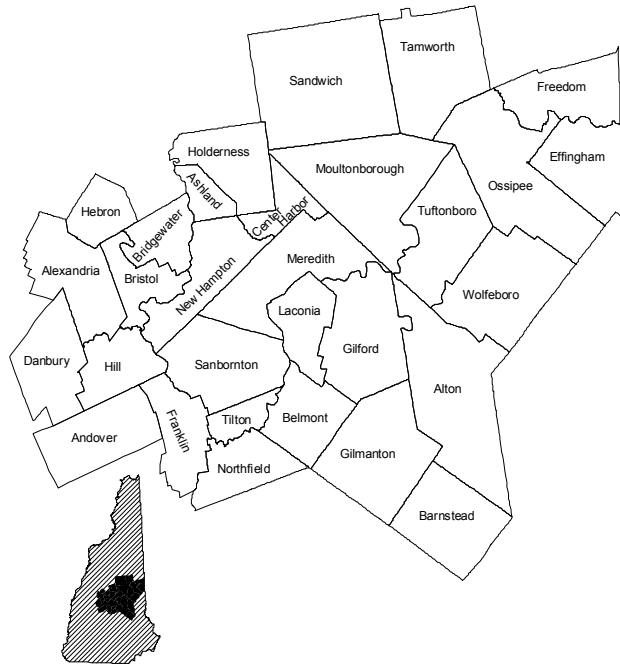
Prepared by the  
Lakes Region Planning Commission  
103 Main Street, Suite 3  
Meredith, NH 03253

January 2012

[www.lakesrpc.org](http://www.lakesrpc.org)

This report was funded in part through grants from the Federal Highway Administration, U.S. Department of Transportation (U.S. DOT) and administered by the New Hampshire Department of Transportation (NH DOT). The views and opinions expressed herein do not necessarily state or reflect those of the U.S. DOT or the NH DOT.

**THE LAKES REGION PLANNING COMMISSION**



**LRPC COMMISSIONERS  
2011-2012**

**Alexandria**  
Janet Towse

**Belmont**  
Vacant

**Franklin**  
Robert Sharon

**Hill**  
Vacant

**New Hampton**  
Dr. George Luciano

**Tamworth**  
Patricia Farley  
Karen McNiff  
Tom Peters, Alt.

**Alton**  
David Hussey

**Bridgewater**  
Vacant

**Freedom**  
Vacant

**Holderness**  
Todd Elgin  
Robert Snelling

**Northfield**  
Wayne Crowley  
Douglas Read

**Tilton**  
Joseph Jesseman

**Andover**  
John Cotton  
Nancy Teach  
John Warzocha, Alt.

**Bristol**  
Steve Favorite

**Gifford**  
Scott Dunn  
Richard Waitt

**Laconia**  
Dean Anson, II  
Warren Hutchins

**Ossipee**  
Dr. Patricia Jones  
Roger terKuile

**Tuftonboro**  
Dan Duffy  
Stephen Wingate

**Ashland**  
Gordon McCormack, Jr.

**Danbury**  
Vacant

**Gilmanton**  
Stanley O. Bean, Jr.  
Ralph Lavin

**Meredith**  
William Bayard  
Herbert Vadney

**Sanbornton**  
Ralph Carter

**Wolfeboro**  
Roger Murray, III  
Chuck Storm  
Donald St. Germain,  
Alt.

**Barnstead**  
David Kerr

**Effingham**  
George Bull

**Hebron**  
Mitch Manseau

**Moultonborough**  
Herbert Farnham  
Barbara Perry

**Sandwich**  
Toby Eaton  
H. Boone Porter

**LAKES REGION PLANNING COMMISSION STAFF**

Michael Izard Principal Planner  
David Jeffers Regional Planner  
Eric Senecal Regional Planner

Kimon G. Koulet Executive Director  
Dari Sassan Regional Planner  
Michelle Therrien GIS Coordinator

Rosemarie Gelinas Administrative Assistant  
Barbara Sullivan Bookkeeper  
Lynn Montana Office Clerk  
Anthony Belmonte Planning Intern

## TABLE OF CONTENTS

<b>BELMONT</b> – Multi-Use Path Connection and US Route 3 Crossing .....	<b>1</b>
<b>LACONIA</b> – McIntyre Circle Crossing .....	<b>5</b>
<b>TILTON</b> – Town Line-Winnisquam High School Multimodal Enhancements .....	<b>8</b>
<b>WOLFEBORO</b> – Pedestrian Connection Through the Town Center .....	<b>11</b>
<b>SANBORNTON</b> – Library / Elementary School Connection.....	<b>18</b>
<b>BRIDGEWATER/HEBRON</b> – NH Route 3A - Brook Road to North Shore Road.....	<b>21</b>
<b>BRISTOL</b> – Central Square.....	<b>23</b>
<b>FRANKLIN</b> – Northern Rail Trail Access in West Franklin .....	<b>27</b>
<b>HEBRON</b> – NH Route 3A/North Shore Road Intersection .....	<b>30</b>
<b>HOLDERNESS</b> – NH Routes 113 and 175 Bicycle Improvements.....	<b>33</b>
<b>CENTER HARBOR</b> –Village Core Pedestrian and Bicycle Connectivity .....	<b>35</b>
<b>FREEDOM</b> – Ossipee Lake Road Bicycle Lanes .....	<b>39</b>
<b>GILFORD</b> – Cherry Valley Road Bicycle Lanes (Intervale Road to Alton Town Line) .....	<b>42</b>
<b>MEREDITH</b> – Main Street/Waukegan Street Intersection.....	<b>44</b>
<b>MOULTONBOROUGH</b> – NH Routes 25/109 Intersection .....	<b>45</b>
<b>APPENDIX A:</b> Site Nomination Request Letter and List of Nominations Received .....	<b>50</b>



## DESIGN SUPPLEMENT

As part of the effort to characterize existing conditions in the Lakes Region, LRPC engaged Resource Systems Group, Inc., a transportation planning firm with offices in Concord, NH, and Ironwood Design Group, LLC, a landscape architecture, urban design, and environmental planning firm located in Exeter, NH, to assess bicycle and pedestrian access and safety improvements in 15 municipalities in the Lakes Region and provide graphics depicting conceptual solutions.

The purpose of this work is to provide preliminary assessment to a mix of sites throughout the region. Communities with similar challenges may also find this information useful.

Technical assessment of these 15 sites should help to inform a more comprehensive understanding of the challenges facing pedestrians and cyclists and the communities and organizations working to improve the situation. A narrative assessment and discussion of alternative designs accompanies graphics depicting existing conditions and conceptual solutions. The challenges present at these sites are related to many of the topics discussed in *Bicycling and Walking: Transportation Choices for New Hampshire's Lakes Region*, and help to highlight the types of needs that must be addressed in order for Lakes Region communities to be more walkable, bikeable, and livable.

The team of engineering and design professionals assessed each of the sites that were selected. Sites were visited over three days with LRPC staff and local representatives familiar with the particular challenges to safe and enjoyable biking and walking. Following site visits, the team got together to review findings and discuss conceptual solutions that would address the challenges that were observed and conveyed by local stakeholders.

### **Belmont - Multi-Use Path Connection and US Route 3 Crossing**

#### Overview:

US Route 3 (Daniel Webster Highway) is a major arterial route between Tilton (Interstate 93) and communities to the east such as Laconia. This region of NH has a number of existing and proposed bicycle and multi-use paths. It is expected that bicycling will see a steady growth in years to come through the Lakes Region.

The subject area on US Route 3 lies between Dutile Shore Road, Union Road, Sunset Drive, and the Lake Winnisquam Scenic Trail. The goal of the project is to develop a viable safe road crossing to connect Phase 1 and Phase 2 of the Lake Winnisquam Scenic Trail project.



*Aerial view of trail crossing location*

## Bicycling and Walking: Design Supplement

Design Narrative:

The proposed new multi-use path will avert the need for expensive construction and property impacts by rerouting the trail-with-rail from Dutile Shore Road, the site of the initial plan for Phase 1 of the Lake Winnisquam Scenic Trail. The town has secured an agreement with Agway to run the trail at the new proposed location along the perimeter of their parking lot. This solution will be a six to eight foot-wide multi-use path with a pedestrian/bicyclist actuated signal across the Daniel Webster Highway. Trail users will travel along the edge of Old Route 3 at the perimeter of New Hampshire state property. This segment may be marked on the road with striping, if deemed necessary. A culvert will be added beneath a portion of this trail segment thru a wet area that may potentially be classified as wetlands. This trail segment will match up with Phase 2 of the Lake Winnisquam Scenic Trail.

Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to realize project goals.

Action	Stakeholders	Conceptual Cost Estimate
Construct a new 6'-8' wide multi-use path from the rail corridor, across Rt.3, and continue the path parallel to Rt.3 with a min. 5' separation to the proposed trailhead at the culmination of the old Rt.3. Provide a pedestrian/bicyclist actuated signal and pavement marking at Rt.3 and pavement marking along Old Rt.3. Provide "Share the Road" signage.	Town of Belmont, NHDOT, Abutting Property Owners	\$575,000

*US Route 3 existing conditions*





*Agway site along US Route 3*

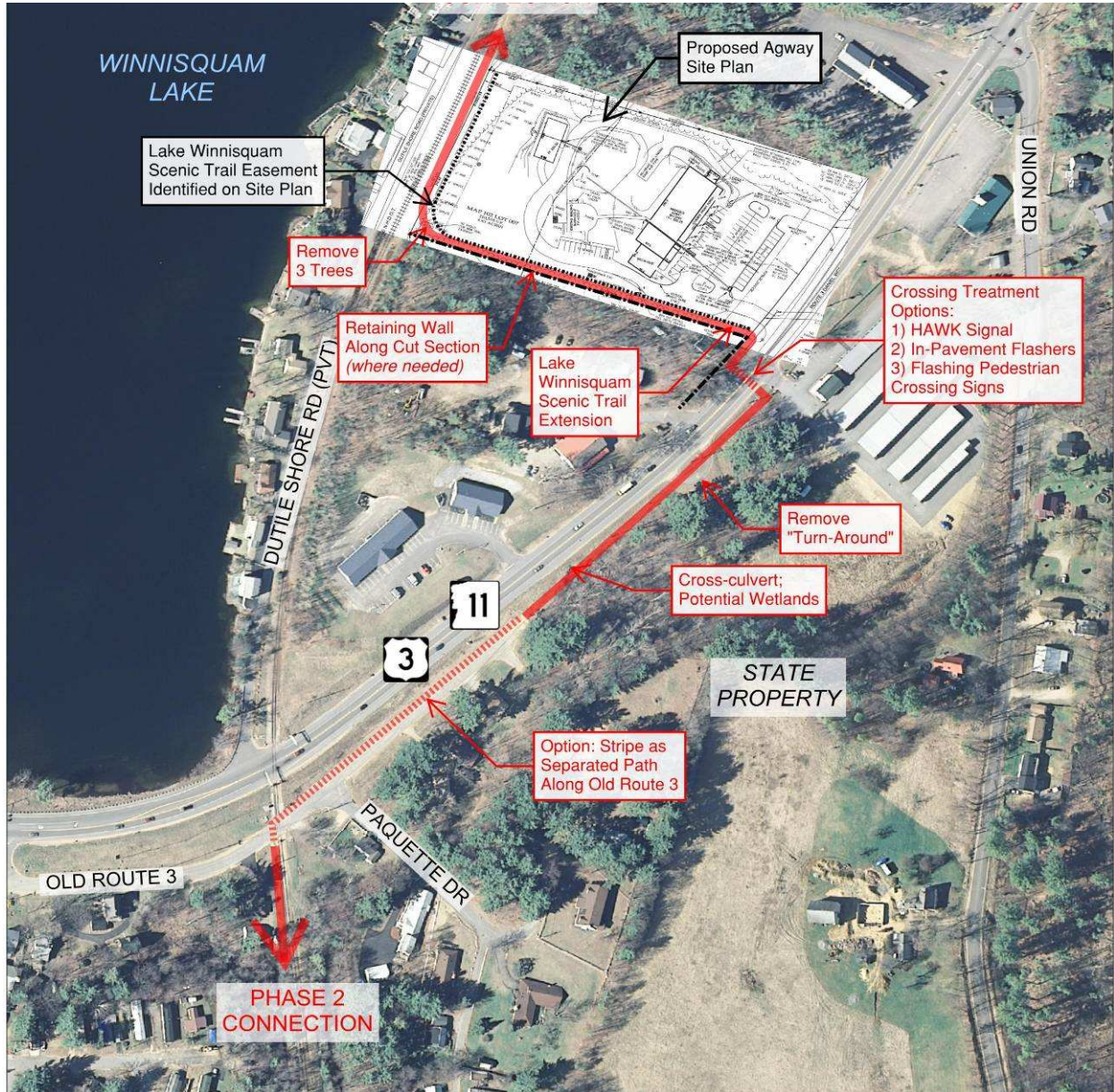


*Proposed Trail Alignment and Crossing*



**BELMONT DANIEL WEBSTER HIGHWAY - ROADWAY CROSSING  
BEFORE AND AFTER**

*Belmont Multi-Use Path Connection (recommendations)*



**Laconia - McIntyre Circle Crossing**

Overview:

This major intersection is the junction of Route 107(Union Avenue), Route 3 (Lake Street), and Blaisdell Avenue. The intersection has no accommodations for pedestrians and bicyclists. The abutting land uses include restaurants, gas stations, grocery stores, pharmacy, cemetery and retail. With several areas for lodging close by, there is no safe connection to the many amenities and services in the immediate area. The intersection is bisected by the Laconia-Gilford town line.

McIntyre Circle has the potential to draw much pedestrian and bicycle activity to the many large stores and grocery. Clients seek the services here on foot from nearby motels, trailer parks, and the recently completed bicycle and pedestrian trail on Blasdell Avenue ending on Black Brook Industrial Drive. (Potentially negotiations with abutters along an un-built segment of this rail trail could bring a connection to the Wow trail.) Vehicular, bicycle and foot traffic also comes from the resort area along Lake Street.

Design Narrative:

A number of suggestions improve the crossing opportunities for bicyclists and pedestrians at McIntyre Circle. The pedestrian’s needs are addressed by the addition of sidewalks and new crosswalks with pedestrian signal heads. One new signalized crosswalk extends across Blaisdell Avenue, south of the main intersection. This will bring townspeople coming from Laconia along Union Avenue and users of the trail ending on Black Brook Industrial Drive to the big stores and site of future development to the south. A new five-foot concrete sidewalk within the Right of Way will carry pedestrians East of the Circle to a new signalized road crossing over Lakeshore Drive. This pedestrian connection will provide safer passage across to the home improvement store, grocery store and other shopping destinations sited to the north. A new sidewalk at the drive entry carries pedestrians across this large shopping plaza that is crisscrossed by vehicular traffic. This new five-foot wide concrete sidewalk will bring travelers to separate shopping destinations at the south and north boundaries of the parking lot.

Bicyclists will benefit from dedicated lane striping marked in the existing right turn lanes. One dedicated striping is suggested for cyclists coming from Lakeshore Drive to the west of McIntyre Circle moving into Lake Street. A second striping is located for cyclists entering into the Circle from Lake Street at the north and transferring into Union Ave.

Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to realize project goals.

Action	Stakeholders	Cost Estimate
Construct two segments of 5' sidewalk on both public and private land. Install crosswalk striping for two crossings. Install bike lane striping adjacent to two right turn lanes and provide "Share the Road" signage.	City of Laconia, , Town of Gilford, NHDOT, Abutting Property Owners	\$175,000

Laconia – McIntyre Circle (overview)

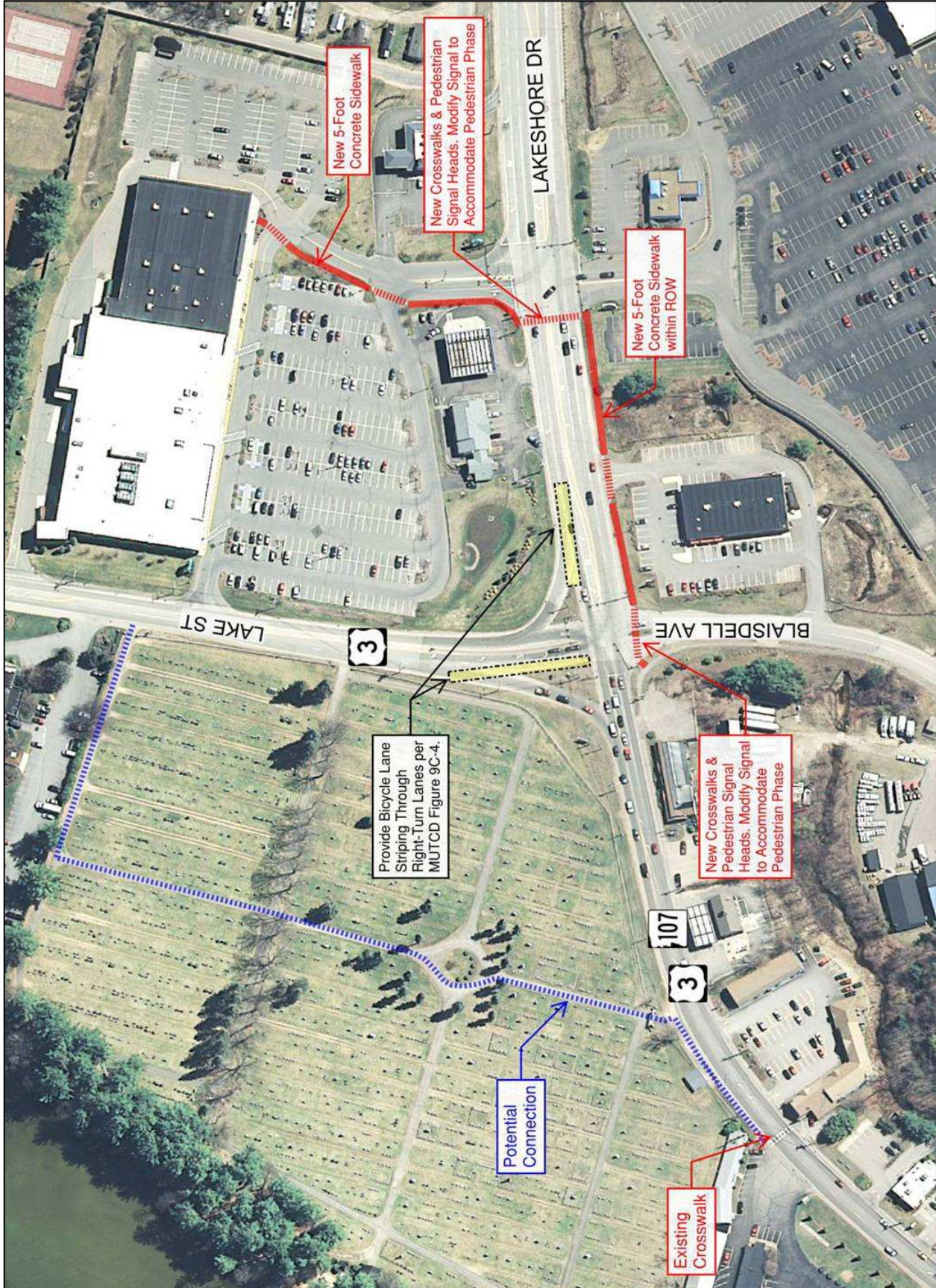


*View to destination grocery shopping from Union Street*



*View across traffic circle to Blaisdell Avenue*

Laconia – McIntyre Circle (recommendations)



### **Tilton – Town Line-Winnisquam High School Multimodal Enhancements**

#### *Overview:*

Although safe crossings and sidewalks exist in the downtown center, the segment extending out from the Tractor Supply/Cinema plaza to the Winnisquam High School and Middle School is without street enhancements. There is no safe way for the townspeople to get on and off buses or cars, walk or bicycle along this stretch of road or cross the street. Further, the poor sight lines at the crest of the hill which coincides with the High School entrance makes a road crossing here without a crosswalk particularly dangerous. Student parking which abuts the street at the western side of the High School further complicates traffic interaction. The east-west configuration of the road here brings an additional risk for poor visibility during sunrise and sunset, typically busy travel times that could conflict with student convening and adjourning.

#### *Design Narrative:*

The rural setting for Tilton gives the community an imperative for connectivity. For this reason, continuing the connection for residents outward from the town center and the Tractor Supply Plaza to the Winnisquam High School is an important goal. Proposed improvements achieve this in two ways: by sidewalk and bicycle lane designations with a safe crossing. Sidewalks are extended on the school side of the street, a necessity for providing children/teenagers with a safe route to school while also fostering daily exercise through walking. To encourage student cycling and the townspeople generally to cycle through the town, three-foot on street bicycle lanes are striped with “Share the Road” signage along both sides of US Route 3. Dedicated bicycle lanes alert vehicular traffic to a “share the road” mind set as well as safely separate pedestrians from bicyclists by discouraging bicyclists from using sidewalks. A safe crossing across US Route 3 is also provided for students and family members, school staff, and local residents sharing in school-based opportunities. The crossing is by necessity in front of the school- a location of short sight lines- and so requires an actuated signal.



*Existing conditions along US Route 3*

A bus pull-off area is created in front of the Dunkin Donuts store, a destination for many residents without private means for transportation. This new paved space will provide for safer street traffic and promote pedestrian safety by bringing Dunkin Donuts clients, many of whom are elderly, to a safe entry into the parking area and restaurant. A dedicated stopping place, this pull-off area will become known and anticipated by motorists, and limit sudden stops of the bus and cars in mainstream traffic. A sidewalk here with ornamental plantings also establishes a small landmark meeting area for residents throughout the Tilton community.

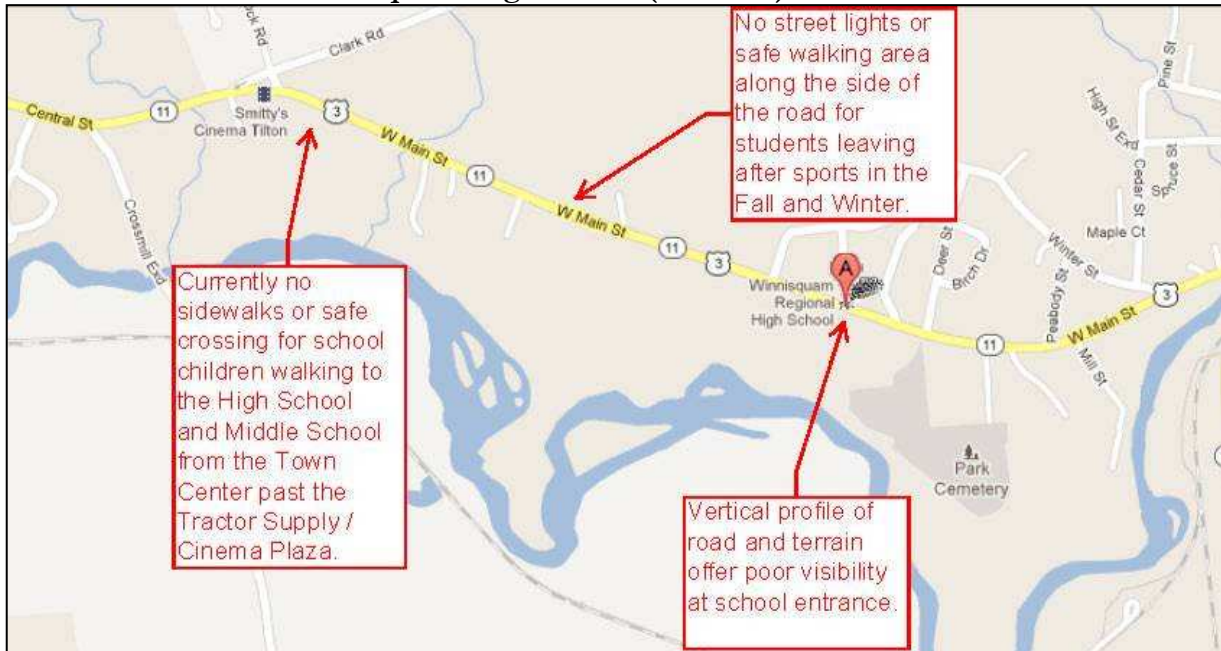
## Bicycling and Walking: Design Supplement

### Recommendations:

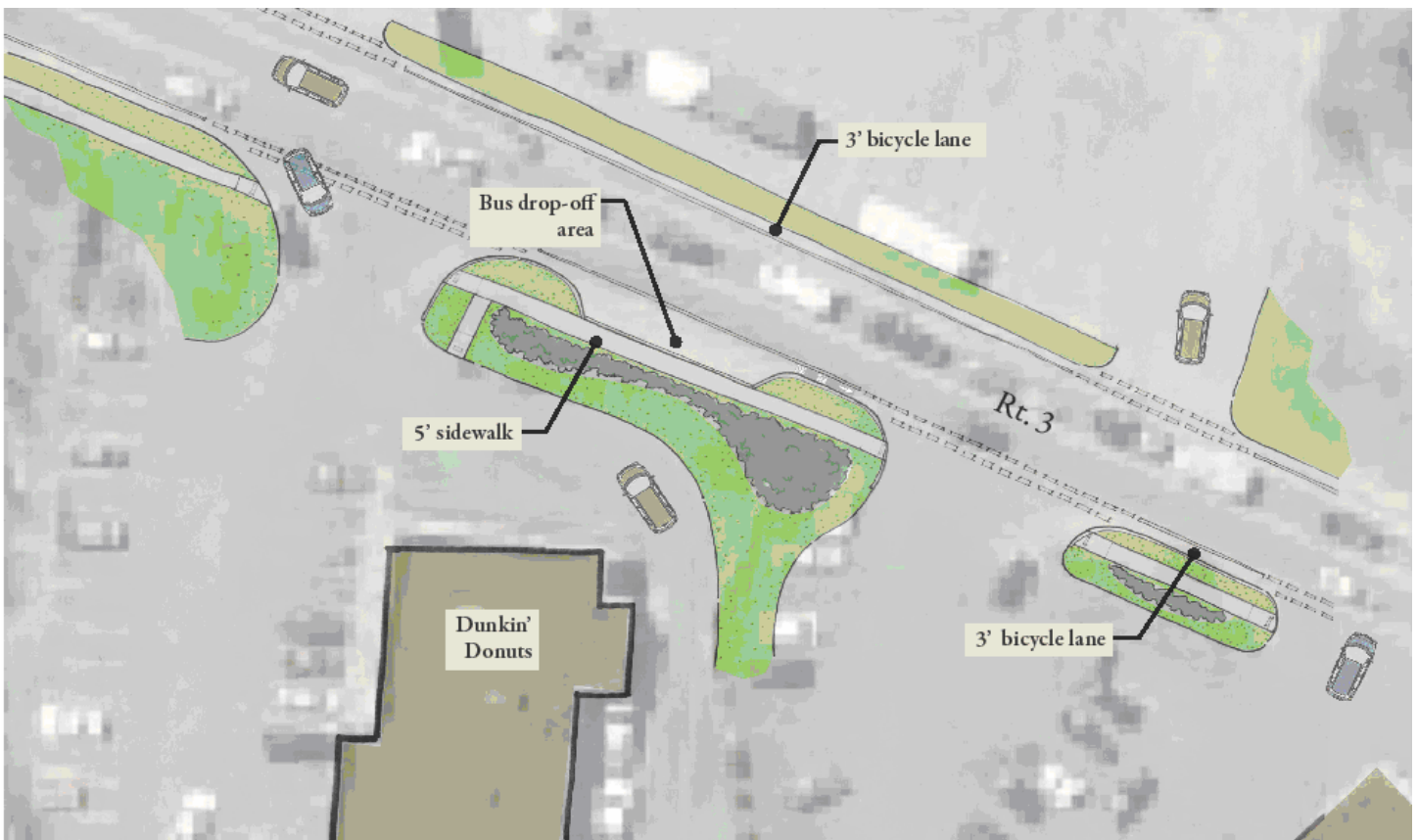
Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to realize project goals.

Action	Stakeholders	Conceptual Cost Estimate
Widen roadway shoulders and construct 3'-bike lanes. Provide bike lane striping and "Share the Road" signage.	Town of Tilton, NHDOT	\$275,000
Construct a roadway crossing with actuated signal at the Winnisquam Regional High School.	Town of Tilton, NHDOT	\$195,000
Install bus turn-off area with associated curbing, and 5' sidewalk segment	Town of Tilton, NHDOT, CAP-BM, Abutting Property Owners	\$145,000
Future commercial redevelopment along the northern side of Rt.3 should be required to construct 5' sidewalks.	Town of Tilton, NHDOT, Abutting Property Owners	\$0

### Tilton – Town Line-Winnisquam High School (overview)



*Typical existing shoulder conditions along US Route 3*



TILTON - ROUTE 3 TRANSIT OPTION AND SAFETY IMPROVEMENTS  
CONCEPTUAL ILLUSTRATION



**Wolfeboro – Pedestrian Connection Through the Town Center**

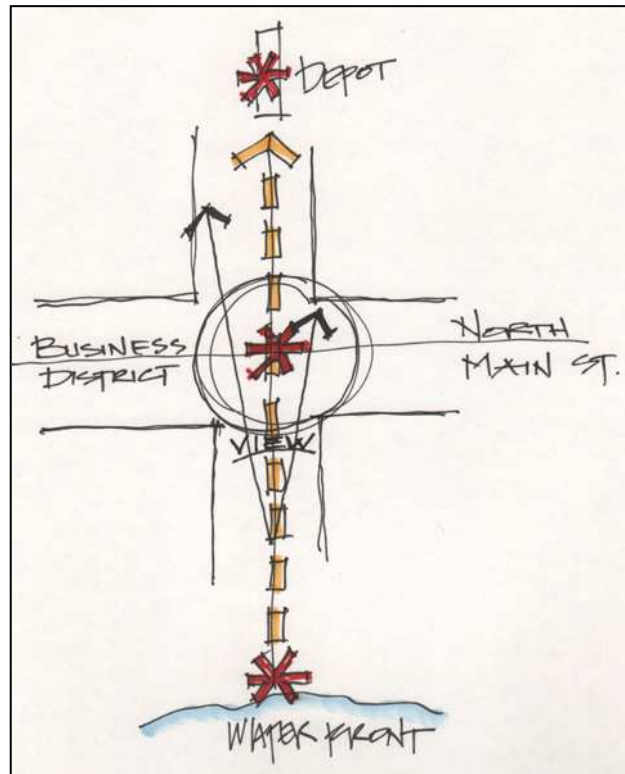
*Overview:*

Wolfeboro can be considered the quintessential New England community. It is located on the eastern shores of Lake Winnepesaukee and is distinguished as "The Oldest Summer Resort in America". The "Nantucket of the North Country," Wolfeboro features a wonderful selection of attractions and special events throughout the year and is well known for its shops and restaurants. In the context of its booming popularity concerns over traffic congestion and pedestrian and cyclists safety are a growing concern. The sheer volume of tourists and summer residents including those arriving aboard commercial buses tax the Town's aging infrastructure.

The greatest need for the Town is the safe passage for all visitors and residents in the town center. Clear way finding coupled with street enhancements to minimize pedestrian, vehicular and bicyclist conflicts is the challenge.

*Design Narrative:*

Guiding participants in an active street life safely through the town and in a way that meets community goals, requires the integration of the streetscape on a number of levels. Concept streetscape improvements help guide visitors and townspeople to business destinations, recreation opportunities such as trails and the Waterfront, community gathering spaces such as pocket parks, and visitor facilities such as rest rooms and information centers. The narrowing of the street at the chosen location with bump outs and sidewalk design changes slows thru-traffic and offers pedestrians shorter and safer crossings. Pedestrian and bicycle travel is directed up from the waterfront along Railroad Avenue: new sidewalks, an accented travel node circle and a view of a community marker/public art piece/ornamental planter draws attention from tourists arriving at the waterfront on private and commercial boats. Together these new elements forge an axial alignment from the waterfront through North Main Street to the Depot location with the Chamber of Commerce and available rest rooms. The widening of sidewalks at the travel node facilitates greater communication between customers and the businesses along the street. Wide sidewalks enable amenities (such as street trees) and street furniture (such as benches and tables) that draw visitors to a business door. Wide sidewalks offer opportunities for placards, the select exhibition of business goods, sidewalk sales, al fresco dining possibilities, and simply enable a passerby to more easily stop and linger in front of a storefront. Four-foot wide on-road bicycle lanes help to limit bicycle and pedestrian conflicts by concentrating bicycle flows. Dedicated bike lanes also alert vehicular traffic to "share the road".



*Illustration of axial alignment from waterfront through North Main Street to the depot*

## Bicycling and Walking: Design Supplement

A similar concept is illustrated in Alternative A (page 15) without an elaborate crossing feature with accent paving. The alternative concept which was developed with cost reductions in mind also reduces the aesthetic value of features that create a sense of place. Alternative B (page 16) illustrates the potential for back-in angled parking on Main Street.

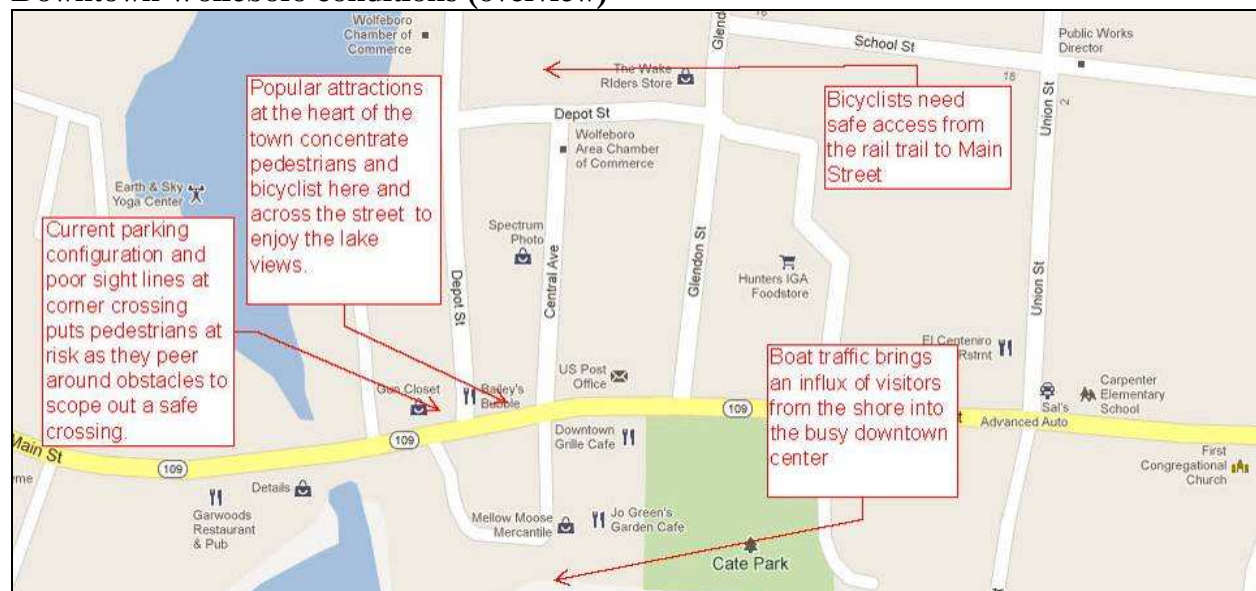
Exciting new Depot Pocket park improvements absorb some of the excess tourist traffic during times of peak visitation. Sidewalks and stronger delineation of travel paths for pedestrians, bicyclist and vehicles achieves better and greater usage of the area and safer connection to the Cotton Valley Trail and Back Bay. These strategic streetscape improvements meet the specific design needs of Wolfeboro – particularly in times of high visitation – and go much further toward reinforcing place making and establishing Wolfeboro as a community of significance.

### Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to realize project goals.

Action	Stakeholders	Conceptual Cost Estimate
Main Street streetscape improvements - Including curbing reconfiguration, sidewalks, crosswalks, bicycle lane marking	Town of Wolfeboro, NHDOT, Abutting Property Owners, residents, local community groups and organizations.	\$650,000-\$950,000
Accent paving, lighting, site amenities, signage, and landscaping.	Town of Wolfeboro, NHDOT, Abutting Property Owners, residents, local community groups and organizations.	\$275,000-\$400,000
Depot Street and parking lot improvements - Including curbing, sidewalks, crosswalks, accent paving, lighting, site amenities, bicycle lane marking, signage, and landscaping.	Town of Wolfeboro, Abutting Property Owners, residents, local community groups and organizations.	\$475,000-\$1,000,000

### Downtown Wolfeboro conditions (overview)

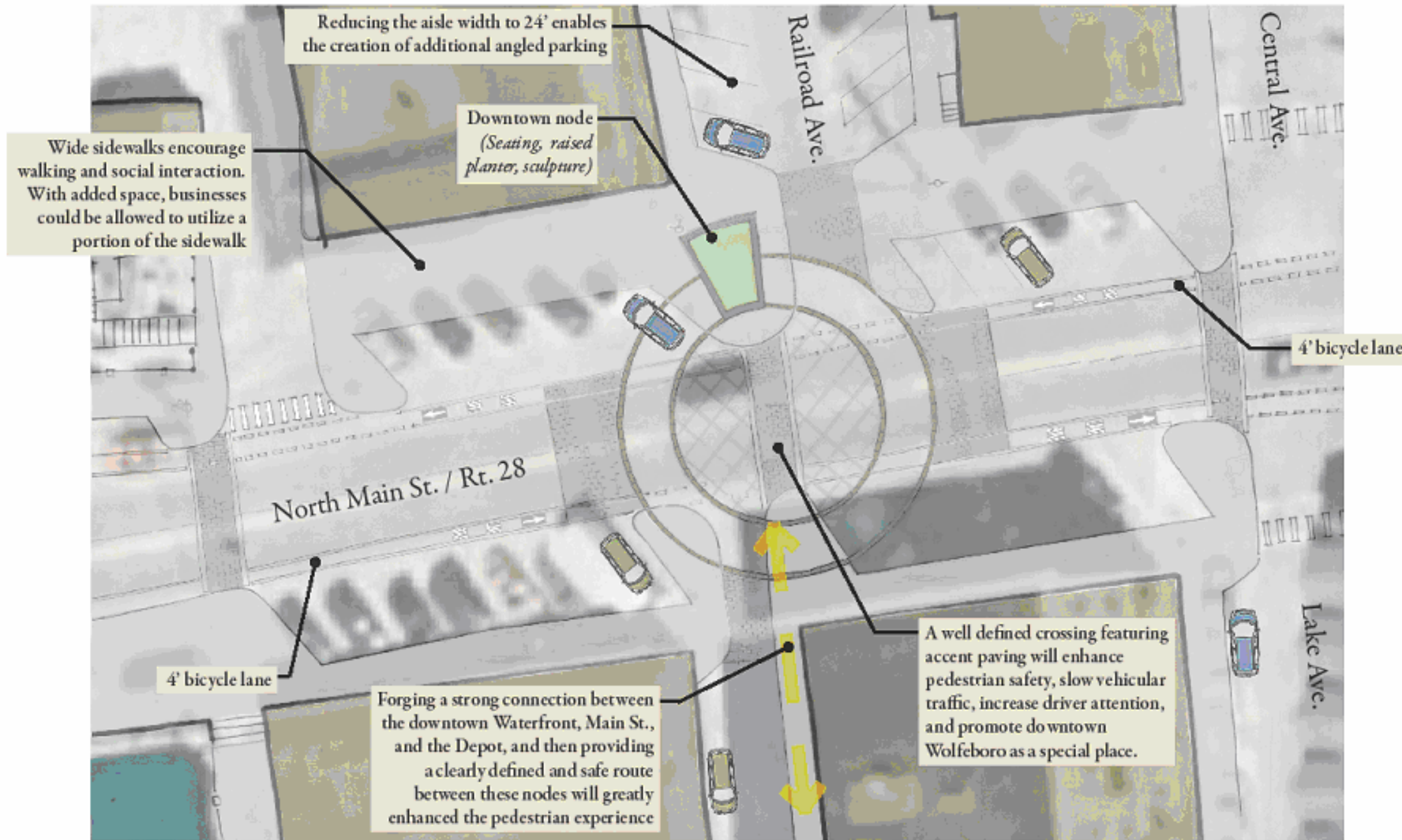




*Depot Street looking towards Main Street – note poor alignment with waterfront views*



*Main Street / Depot Street Intersection – note dangerous parking configuration*



Wolfboro - North Main Street Streetscape & Connectivity Improvements

Conceptual Illustration

WOLFEBORO NORTH MAIN STREET - STREETScape AND CONNECTIVITY IMPROVEMENTS  
CONCEPTUAL ILLUSTRATION



Wolfeboro - North Main Street  
Streetscape & Connectivity  
Improvements

Alternative A  
Conceptual Illustration

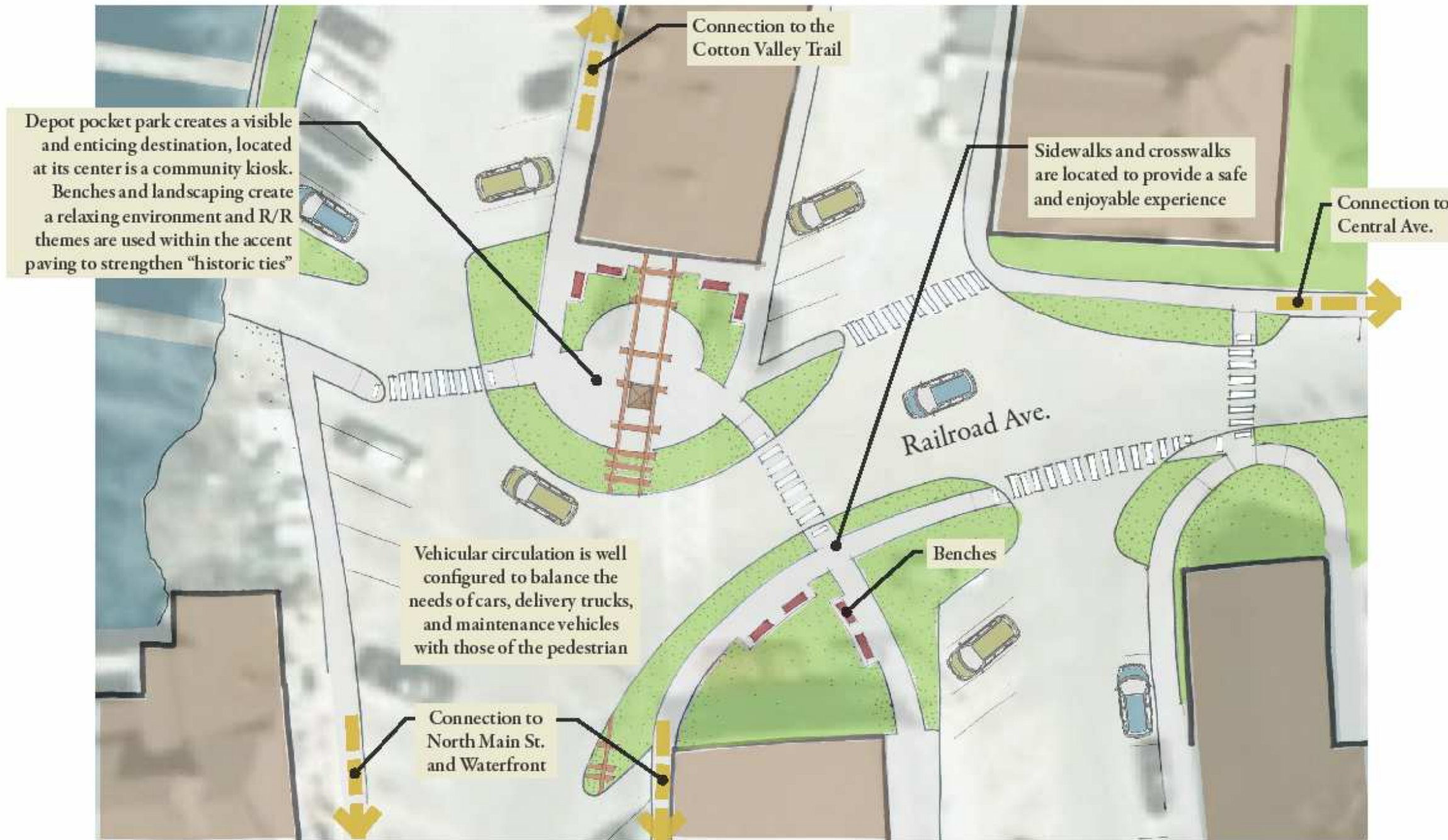
WOLFEBORO NORTH MAIN STREET - STREETScape AND CONNECTIVITY IMPROVEMENTS  
ALTERNATIVE A - CONCEPTUAL ILLUSTRATION



Wolfeboro - North Main Street  
Streetscape & Connectivity  
Improvements

Alternative B  
Conceptual Illustration

WOLFEBORO NORTH MAIN STREET - STREETScape AND CONNECTIVITY IMPROVEMENTS  
ALTERNATIVE B - CONCEPTUAL ILLUSTRATION



Wolfboro - Railroad Ave.  
Parking Lot & Pedestrian  
Connectivity Improvements

Conceptual Illustration

WOLFEBORO RAILROAD AVE. - PARKING LOT AND PEDESTRIAN CONNECTIVITY IMPROVEMENTS  
CONCEPTUAL ILLUSTRATION

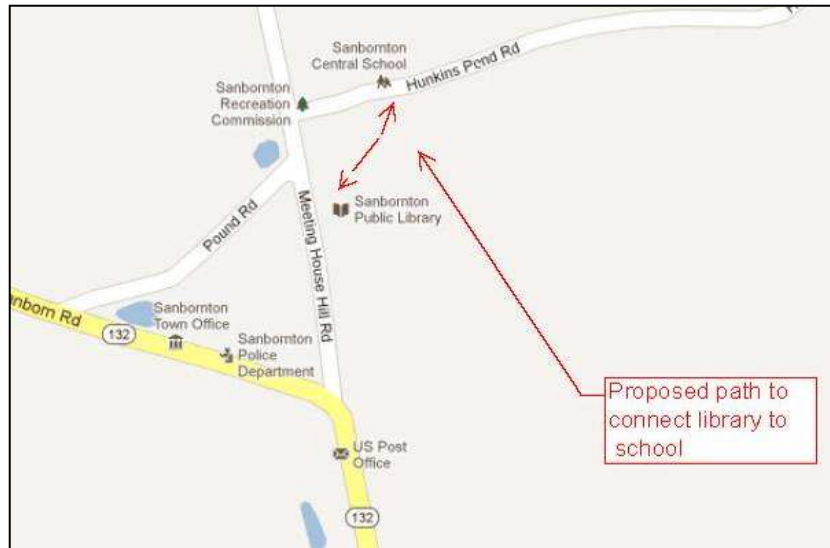
This page intentionally left blank



## **Sanbornton - Library / Elementary School Connection**

### *Overview:*

Sanbornton embodies all that one expects to find in an old New England town. It is a small tight knit community with a strong commitment to its residents. The focus of this project is to create a pedestrian and bicycle connection between the Town library and Sanbornton Central School (elementary). Presently, to travel between the two locations one must walk along Meeting House Road which lacks both the space and suitable surface for the safe passage of pedestrians or bicyclists. For this reason during large events such as Old Home Day a shuttle bus is provided that connects the elementary school parking lot to the field behind the library (along with other venues).



For this reason during large events such as Old Home Day a shuttle bus is provided that connects the elementary school parking lot to the field behind the library (along with other venues).

### *Design Narrative:*

A new six to eight-foot wide path will limit the need for bus shuttling and provide an accessible connection between the Sanbornton Public Library and the Sanbornton Central School. The proposed sidewalk will meet up with a relocated pedestrian crosswalk across Hankins Pond Road in front of the Central School to allow the elementary school children safe travel to the library for research, after school events and pick-up by their parents, etc. This new crosswalk will include a landscaped median for these reasons: 1) to shorten the crossing distance and allow young children and others a chance to pause in the road crossing; 2) to make the crossing more visible to vehicles; and 3) the median island will reinforce the institutional locations of the school and library for the community while offering excellent decorative landscape opportunities for school children, local garden clubs, or other interested townspeople.

A proposed walk segment will meet from this new median crossing to another crosswalk across the entrance of the Central School parking lot which meets an existing painted sidewalk leading to the parking slots. We recommend that existing stone walls (at the start of the new path and the existing Sugar Maple grove) be reconstructed for strong ornamental effect and location reinforcement for the path. Environmental study opportunities will follow with the construction of a new nature trail with a bog bridge. The nature trail leads from the interior edge of the Central School parking lot across a poorly drained portion of the property to meet with the main path. We envision this will be a much used short-cut for adults and children alike.



Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to realize project goals.

Action	Stakeholders	Conceptual Cost Estimate
Construct a new 6'-8' wide multi-use path with associated amenities from the Town Library to the Sanbornton Central Elementary School. Install a roadway crossing and accessible route to the Central Elementary School entrance. Install a sidewalk segment and crosswalk to the existing parking lot. Construct a nature trail and bog bridge from the multi-use trail to the southern end of the existing school parking lot.	Town of Sanbornton, SAU 59, Library Trustees, residents	\$55,000-\$85,000



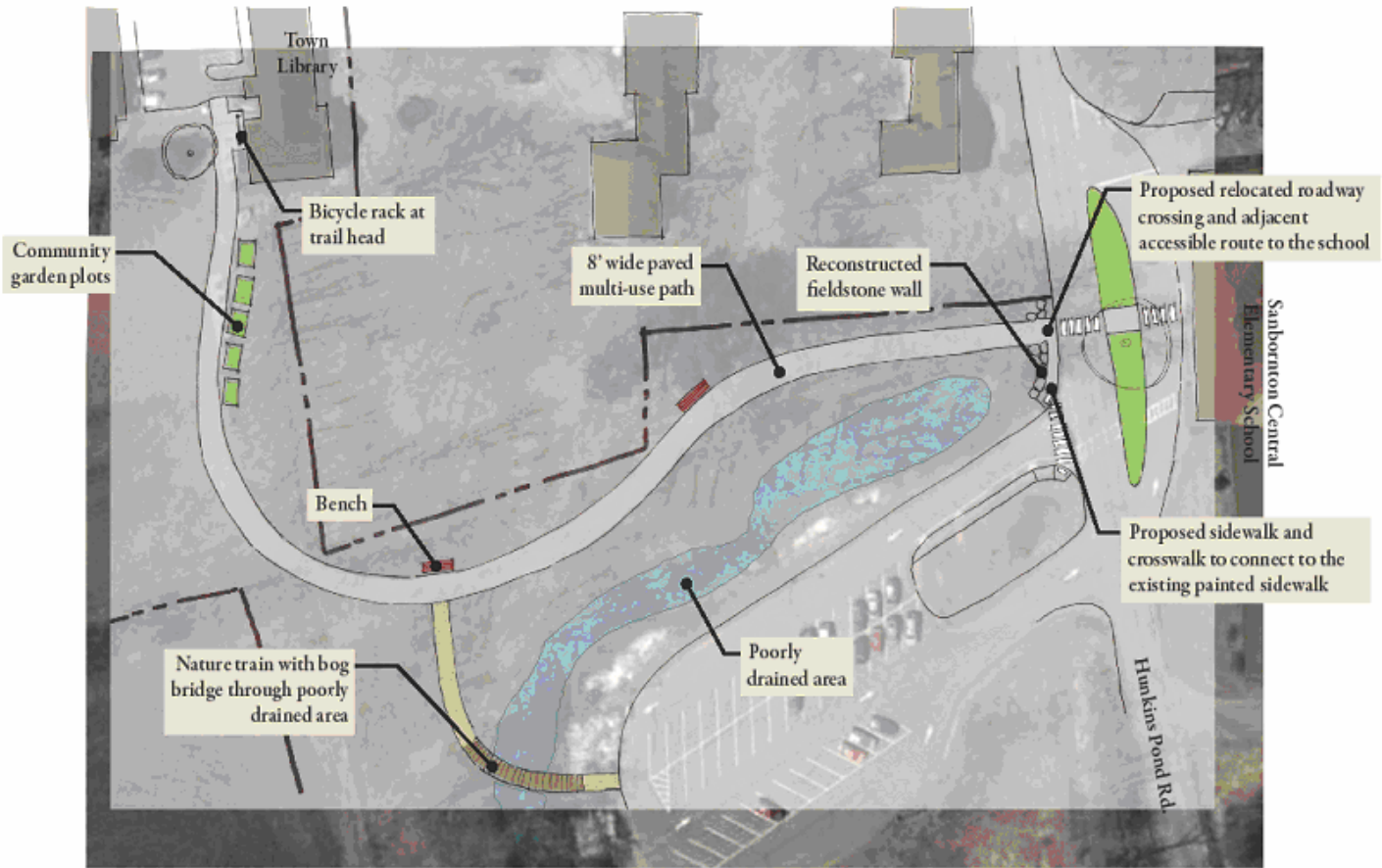
*Location of the proposed trailhead at the Library*



*Site of future path, the existing community garden plots to remain with minor adjustments to location*



*Site of the proposed trailhead at the Sanbornton Central Elementary School*



SANBORNTON - PATH CONNECTING THE PUBLIC LIBRARY AND ELEMENTARY SCHOOL  
 CONCEPTUAL ILLUSTRATION

## **Bridgewater/Hebron – NH Route 3A - Brook Road to North Shore Road**

### Overview:

NH Route 3A (Mayhew Turnpike) serves as a popular route for bicycling and walking around Newfound Lake, particularly during the summer months when the large boys and girls camps located along the route are in session and the seasonal residents are in the area. Based on a 2008 NHDOT traffic count, the average daily traffic on NH Route 3A at the Hebron Town Line is 2,600 vehicles. However, the traffic volumes are likely significantly higher during the summer months. NH Route 3A is posted at 50 miles per hour through Bridgewater and Hebron. The travel lanes are generally 11.5– 12 feet wide through this area.

Heading north from West Shore Road in Bristol, NH Route 3A has relatively wide shoulders, ranging from 3-8 feet in width in certain locations. In the area of the stream crossing north of Brook Road, the shoulder widths decrease significantly to less than 1 foot in many places. Additionally, the shoulder pavement surface is uneven, the result of multiple resurfacings that did not extend to the edge of pavement, which causes additional difficulties for bicyclists.

The identification of improvements to bicycle and pedestrian access around Newfound Lake are currently being spearheaded by the Newfound Lake Pathway Committee, whose vision is to create “a system of biking and walking pathways around Newfound Lake to encourage walking and cycling as a safe, healthy, and environmentally sound means of recreation and travel”. This section of NH Route 3A in Hebron has been identified by the Pathway Committee as the first section they would target for improvements. Specific to this segment, the Pathway Committee is examining the possibility of utilizing a portion of an overhead utility line right-of-way (which is separated from NH Route 3A between Hunt Road and Camp Onaway) to provide an alternative trail connection through this area.

### Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to improve bicycle and pedestrian safety in this area.

<b>Action</b>	<b>Stakeholders</b>	<b>Conceptual Cost Estimate</b>
Remove edge line pavement markings on both sides of NH Route 3A from Brook Road to North Shore Road (2.95 miles) and re-stripe to provide 10.5-11 foot lane widths. This will increase the available shoulder widths from less than 1 foot to 1-2 feet in this area.	NHDOT	\$10,000
Install two “Share the Road” signs and two “Pedestrian Crossing” signs at locations shown on recommendations graphic.	NHDOT	\$500
Install radar speed feedback sign at various locations along section to encourage slower speeds.	NHDOT, Hebron Police Department	\$0

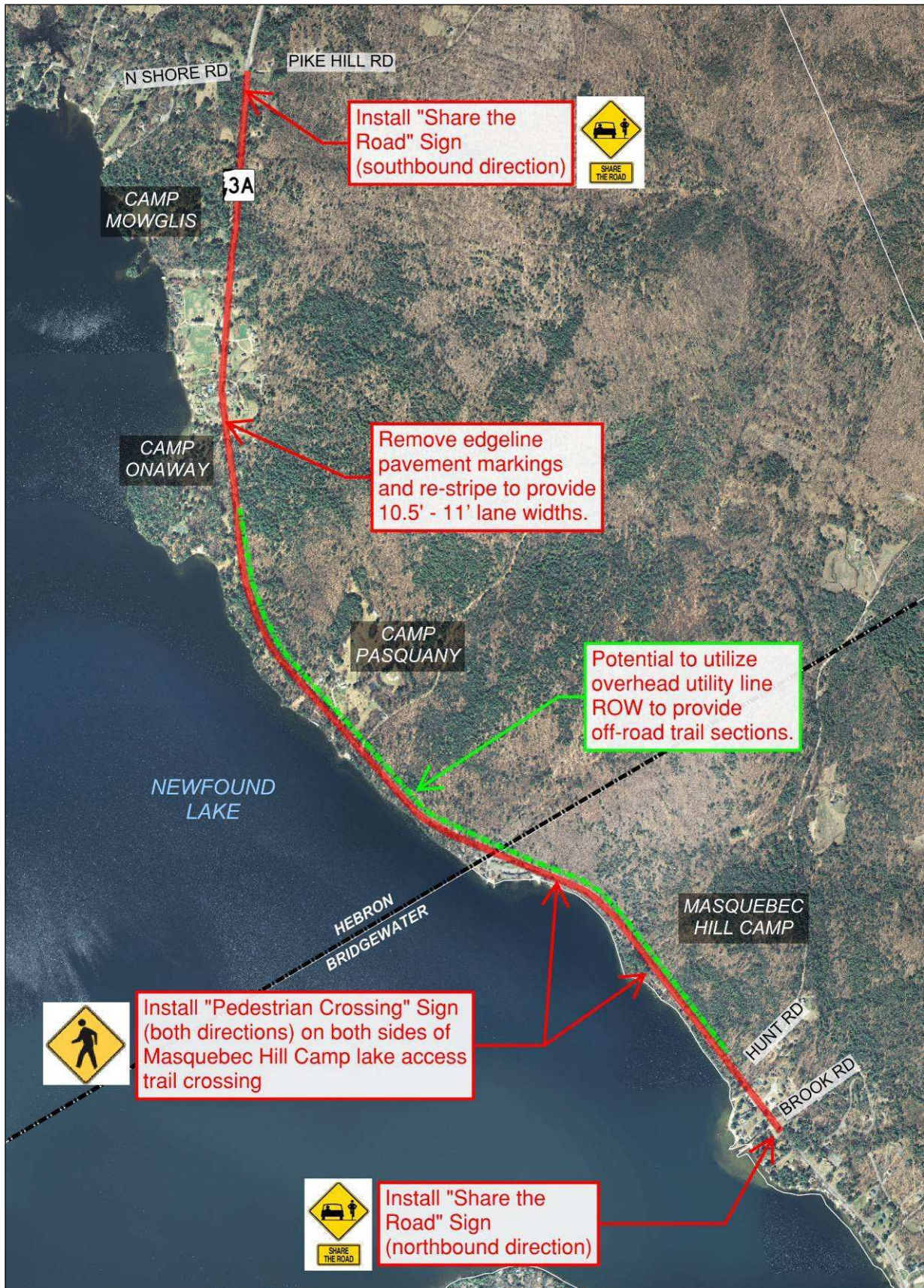
**Photo simulation of narrower lanes and wider shoulders using existing pavement width along NH Route 3A in through Bridgewater and Hebron**



Before (11.5'-12' Lanes)



After (10.5' - 11' Lanes)



Overview:

Over the last two years, the town of Bristol has been proceeding through a comprehensive planning and design initiative that involves improvements in and around the Central Square area. These improvements include realignment of US Route 4 through the village along with significant enhancements to pedestrian accommodations, parking, traffic circulation, and public green space.

The town requested a conceptual assessment of potential extensions of these village improvements in four directions to provide the basis for subsequent planning and design phases. Specifically, the Town requested an assessment of the following areas:

- ❖ North Main Street north of Central Square: This area extends from the Community Building north to the Newfound Middle School. Within this section of North Main Street there are a number of important bicycle and pedestrian destinations (e.g. Elementary School, Middle School, Kelley Park, and Community Center). The town is interested in opportunities to increase bicycle and pedestrian connectivity in this area, as well as provide improvements for the Elementary School bus drop-off area along North Main Street.
- ❖ Central Street southeast of Central Square: The town anticipates the demolition of three buildings between Central Street and the river and the conversion of this property into a riverfront park. The vision for this area includes a pedestrian connection through the riverfront park to connect Central Square with the park and provide access to the proposed river trail just east of the riverfront park
- ❖ NH Route 104/Summer Street east of Central Square to the Rite Aid Pharmacy: The town has expressed interest in extending the curbed sidewalk along the south side of NH Route 104 to better connect the village to the Dunkin Donuts, Rite Aid, and other commercial uses east of the village center. This connection would provide enhanced pedestrian connectivity and safety along this relatively busy stretch of NH Route 104.
- ❖ Pleasant Street west of Central Square to the traffic lights at Lake Street: This section provides access to the library (which the town hopes to expand in the near future) and could be combined with a path coming in from Lake Street that would complete bicycle access from Newfound Lake. This section has existing curbed sidewalks and 1-2 foot shoulders along NH Route 104/Pleasant Street.

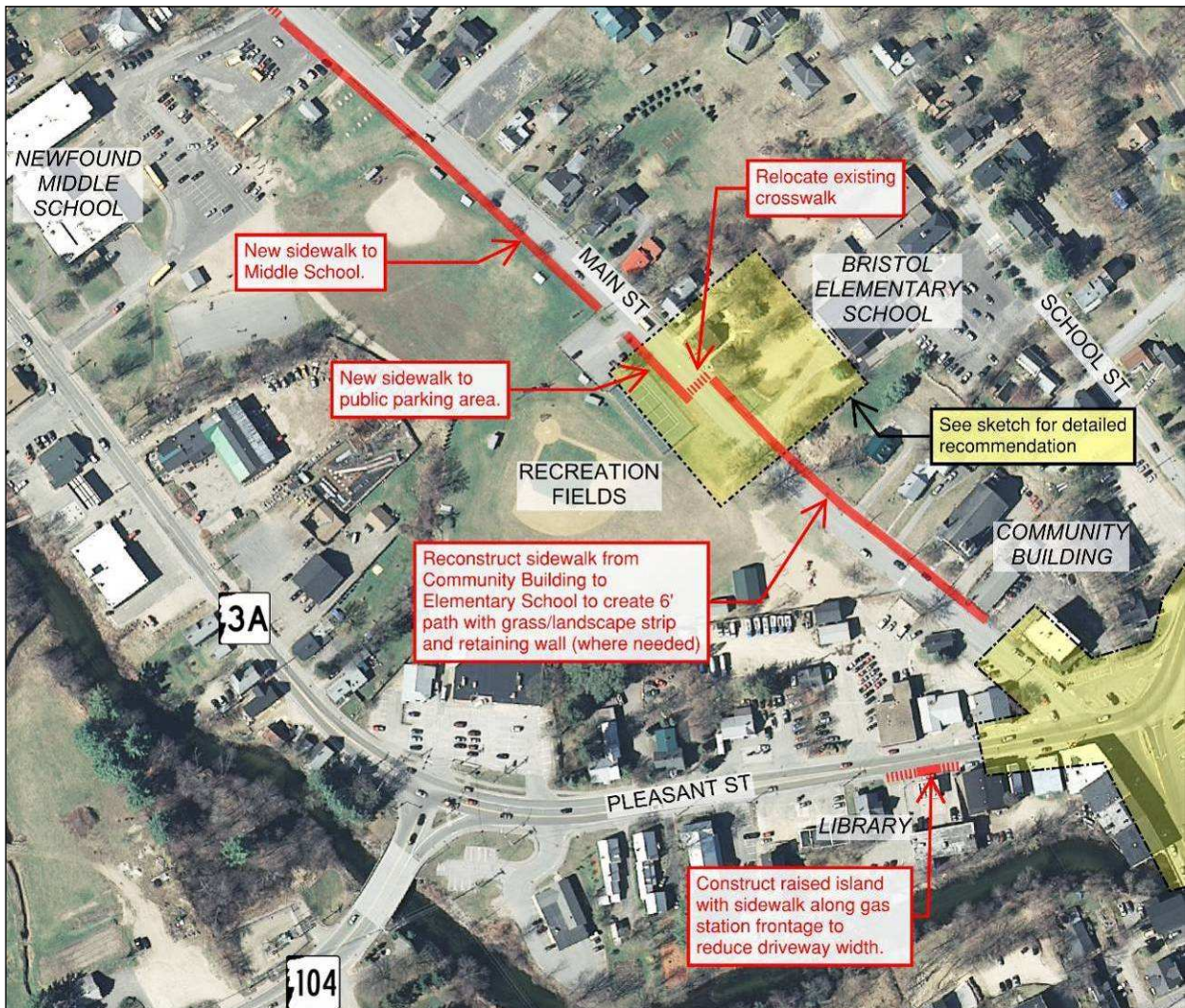
Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to improve bicycle and pedestrian safety in and around Bristol Village.

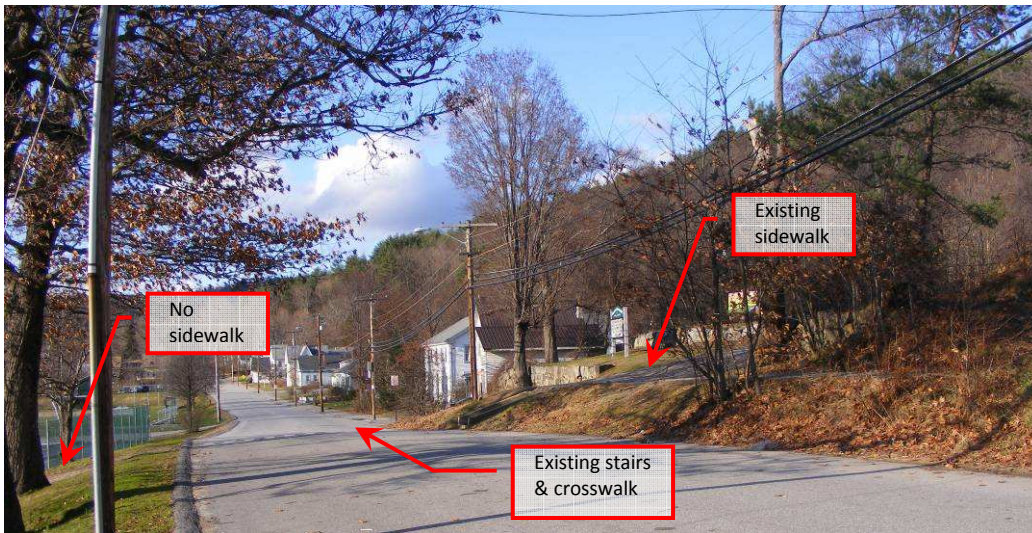
Action	Stakeholders	Conceptual Cost Estimate
<u>North Main Street:</u> Reconstruct 6 – 8 foot asphalt path with granite curb along the east side of North Main Street from the Community Building to the Elementary School.	Town of Bristol, Elementary School	\$275,000
<u>North Main Street:</u> Construct a new 5 foot asphalt sidewalk with granite curb and associated drainage improvements along the west side of North Main Street from the new crosswalk adjacent to the bus pull-off to the Middle School.	Town of Bristol, Middle School	\$200,000
<u>NH Route 104 (Pleasant Street):</u> Construct a new raised island with sidewalk and crosswalk striping (or	Town of Bristol, NHDOT, Service	\$15,000

Action	Stakeholders	Conceptual Cost Estimate
stamped, colored asphalt) along the service station frontage to reduce the driveway width and improve pedestrian safety in this area.	Station Property Owner	
<u>NH Route 104 (Summer Street)</u> : Construct a new asphalt sidewalk with granite curb and appropriate drainage improvements along the south side of NH Route 104 from the current end of sidewalk to Dunkin Donuts/Rite Aid area.	Town of Bristol, NHDOT	\$600,000
<u>Central Street</u> : Construct a new 8-10 foot asphalt path through proposed riverfront park.	Town of Bristol	\$70,000

**Bristol Village – Western Portion (recommendations)**





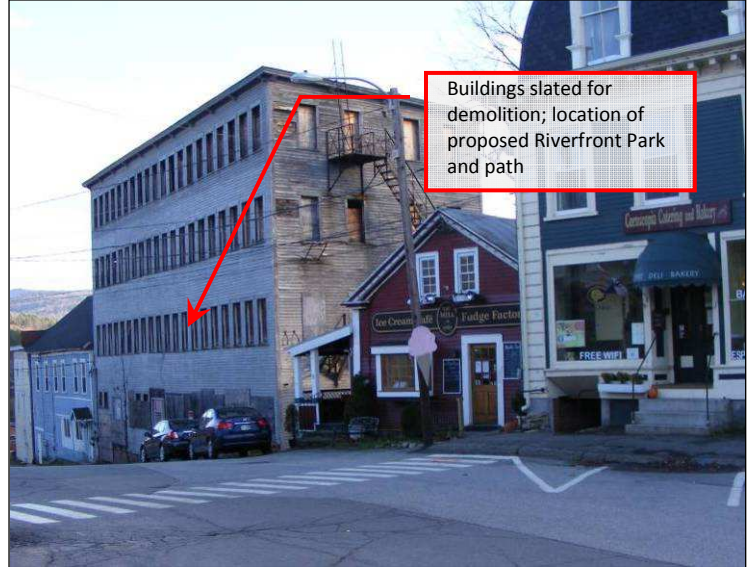


*North Main Street Adjacent to Proposed Bus Drop-Off and Crossing*



*North Main Street at Elementary School (Detailed Improvements)*

**Bristol Village – Eastern Portion (recommendations)**



*Central Street looking southwest from Central Square*



*Pleasant Street looking west from Central Square*

## **Franklin – Northern Rail Trail Access in West Franklin**

### Overview:

The Northern Rail Trail provides multi-use recreational trail connections through Merrimack and Grafton Counties. The rail trail passes through West Franklin with several informal access points, however, no defined trailhead access has been established. The development of a formal trailhead in West Franklin would improve accessibility for residents and visitors.

The Northern Rail Trail group has determined that an access point adjacent to the Franklin Mini Mart, which is located at 221 South Main Street, would be a suitable location for a trailhead to the Northern Rail Trail. The Mini Mart has ample parking which goes largely unused, the owner is open to the idea of the shared trailhead use, and the gas station/mini mart could provide important services to trail users.

There is currently an informal trail access at the Mini Mart which climbs up a relatively steep grade before connecting to the rail trail. It was reported that several snowmobile crashes have occurred at this location due to the steep approach grade. A more desirable approach would provide a gradual climb to the rail trail and a level landing immediately adjacent to the trail.

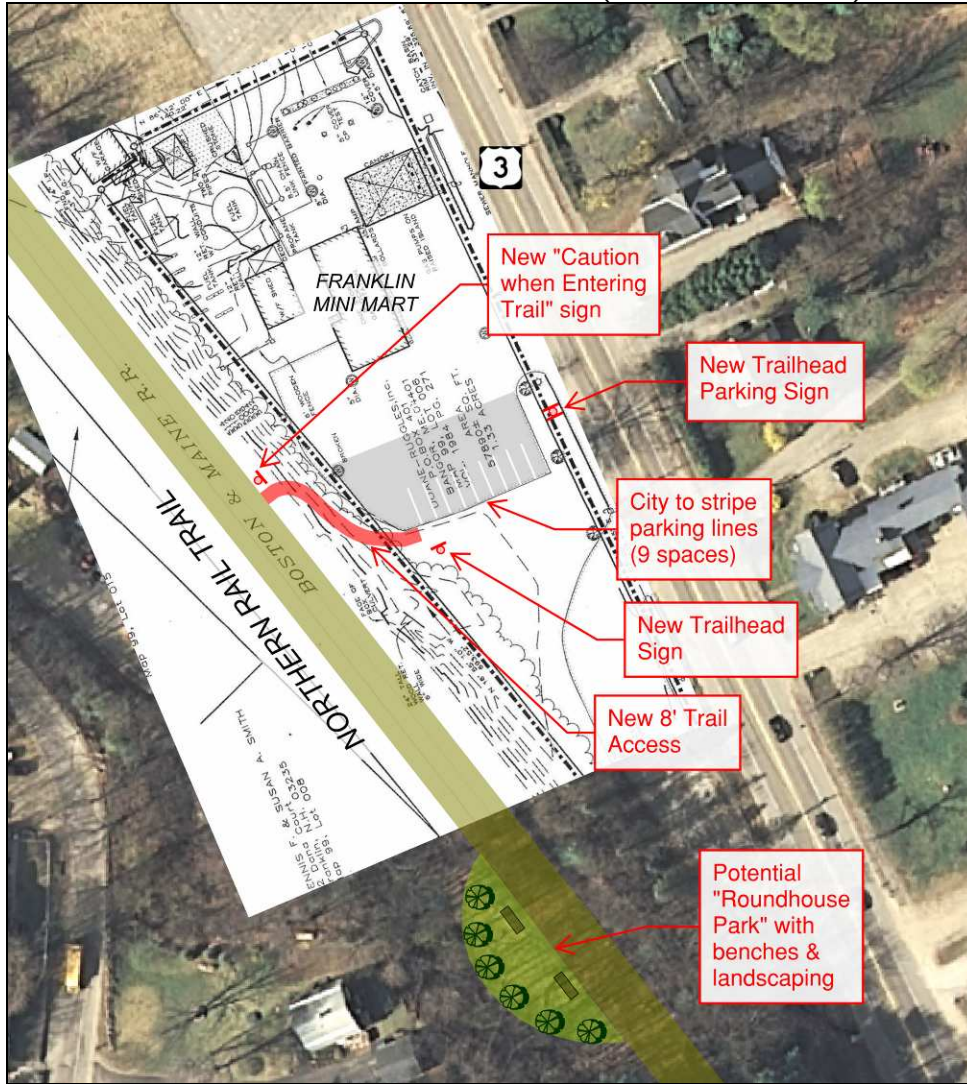
Approximately 1,000 feet to the south of this access point is the site of a former railroad roundhouse. The remains include a semi-circular area framed in granite blocks. A local contractor has recently cleared and grubbed the area immediately around the semi-circle. This area provides a convenient location for a pocket park, with some benches and landscape treatments.

### Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to establish a trail head access point in West Franklin.

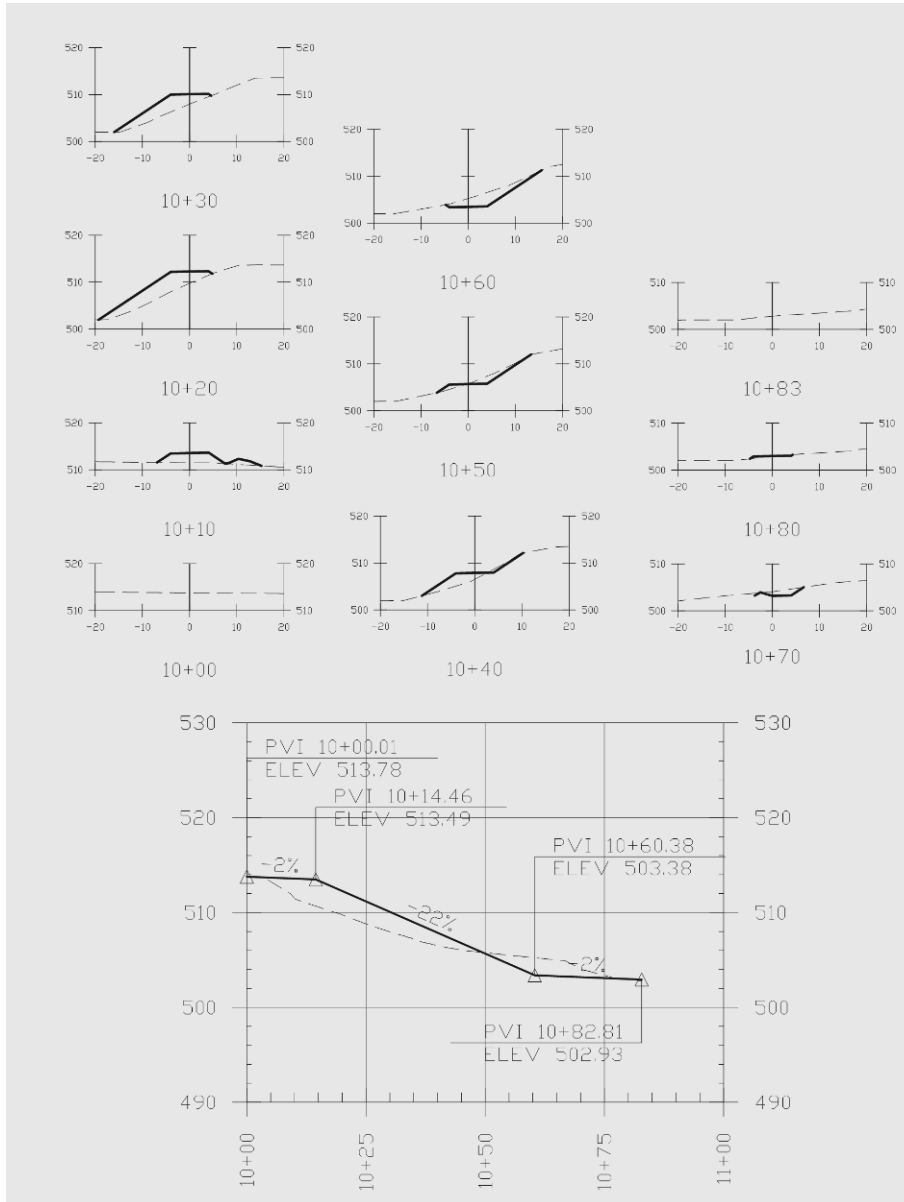
<b>Action</b>	<b>Stakeholders</b>	<b>Conceptual Cost Estimate</b>
Finalize proposed access plan and circulate to NHDOT for review and approval.	NHDOT, Friends of the Northern Rail Trail, City of Franklin	TBD – based on level of detail needed for plans.
Execute binding agreement or easement with Mini Mart owner to allow for trailhead parking, access, and maintenance activities.	Friends of the Northern Rail Trail, Franklin Mini Mart Owner	Negligible ( <i>assuming no legal assistance needed</i> )
Construct rail trail access ramp	Friends of the Northern Rail Trail, Contractor, City of Franklin	\$1,500
Install trail head parking sign & trail head information sign	Friends of the Northern Rail Trail, Franklin Mini Mart Owner	Negligible ( <i>assuming FNRT sign fabrication</i> )
Stripe trail head parking area	City of Franklin DPW, Franklin Mini Mart Owner	\$0 ( <i>assuming part of City's regular spring striping program</i> )

### West Franklin – Northern Rail Trail Access (recommendations)



*Location of Potential Trailhead and New Connector Path Conceptual Alignment*

## Cross-Sections and Vertical Profile of Proposed Trail Connection (note stationing runs from west to east along access path)



## **Hebron – NH Route 3A/North Shore Road Intersection**

### Overview:

The Newfound Lake area is a popular destination for summer vacationers, and, not surprisingly, the volume of pedestrians and bicyclists increases in the area during the warmer months. A popular on-road walking and bicycling route around Newfound Lake travels through the NH Route 3A/North Shore Road intersection. The intersection has been the site of several vehicle accidents of varying severity over the years<sup>1</sup>. The roadway deficiencies noted at the site include a relatively steep North Shore Road approach, vegetation blocking sight lines looking south from the North Shore Road approach along NH Route 3A, the lack of a deceleration lane for southbound NH Route 3A vehicles preparing to turn right onto North Shore Road, and difficult road crossings for bicyclists and pedestrians.

Based on conversations with a Hebron Police Officer, the majority of recent crashes can be attributed to the lack of a southbound deceleration lane, as southbound trailing vehicles often pull into the oncoming lane to pass a turning vehicle, and then collide with either a northbound vehicle or a vehicle pulling out of North Shore Road.

New Hampshire Department of Transportation (NHDOT) District 2 office has identified a need for improvements at the intersection and has conceptually scoped out an improvement that would raise the North Shore Road approach grade to create more of a level landing proximate to the intersection. The NHDOT's preliminary cost estimate for this improvement is \$38,000, but is subject to revision pending a more detailed survey and design. No design or construction funds have been officially programmed for this improvement.

### Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to improve conditions at this intersection.

<b>Action</b>	<b>Stakeholders</b>	<b>Conceptual Cost Estimate</b>
Raise North Shore Road approach to establish a level landing ( <i>NHDOT project</i> ).	NHDOT, Town of Hebron	\$40,000
Construct a new, 100 foot long, 8 foot wide paved shoulder/ deceleration lane for southbound vehicles approaching the intersection.	NHDOT, Town of Hebron	\$25,000
Trim vegetation to improve sight distance south of the intersection.	NHDOT, Town of Hebron	\$0 ( <i>routine maintenance</i> )
Provided sufficient pedestrians and bicyclists crossing through the intersection, install two "Pedestrian Crossing" signs on either side of the intersection.	NHDOT	\$250

---

<sup>1</sup> NHDOT crash records indicate three reported crashes at the intersection between 2002 and 2010, with one fatality.

Hebron - NH Route 3A/North Shore Road Intersection (recommendations)



## **Holderness – NH Routes 113 and 175 Bicycle Improvements**

### Overview:

The town of Holderness has expressed interest in potential improvements for bicyclists and pedestrians along NH Route 113 around Squam Lake (a popular route for recreational bicyclists), and along NH Route 175 from US Route 3 to Sargent Road (to provide improved access to the Holderness Central School).

Both routes are similar in character with winding, hilly terrain, and a typical roadway cross-section that has 12 foot travel lanes and shoulders that vary from few inches to up to a foot wide. Town representatives understand that shoulder widening to provide 4 – 5 foot bicycle lanes will likely be cost prohibitive. As an alternative approach, the town is interested in pursuing the idea of narrowing the travel lanes from the current 12 foot widths down to 10.5 or 11 feet, to create a slightly wider shoulder for bicyclists and pedestrians. This widening could happen as part of an upcoming resurfacing project or be conducted as a separate re-striping project. Town representatives indicated that the section of NH Route 113 from the Squam Lake Natural Science Center to the northeast side of Cotton Cove should be considered a priority for improvement, due to the sharp horizontal and vertical curves and limited sight lines in this area.

### Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to improve bicycle and pedestrian safety in this area.

<b>Action</b>	<b>Stakeholders</b>	<b>Conceptual Cost Estimate</b>
Remove edge line pavement markings and re-stripe to provide 10.5-11 foot lane widths.	NHDOT	\$3-5,000/mile
Add “Share the Road” signs	NHDOT	\$125/sign



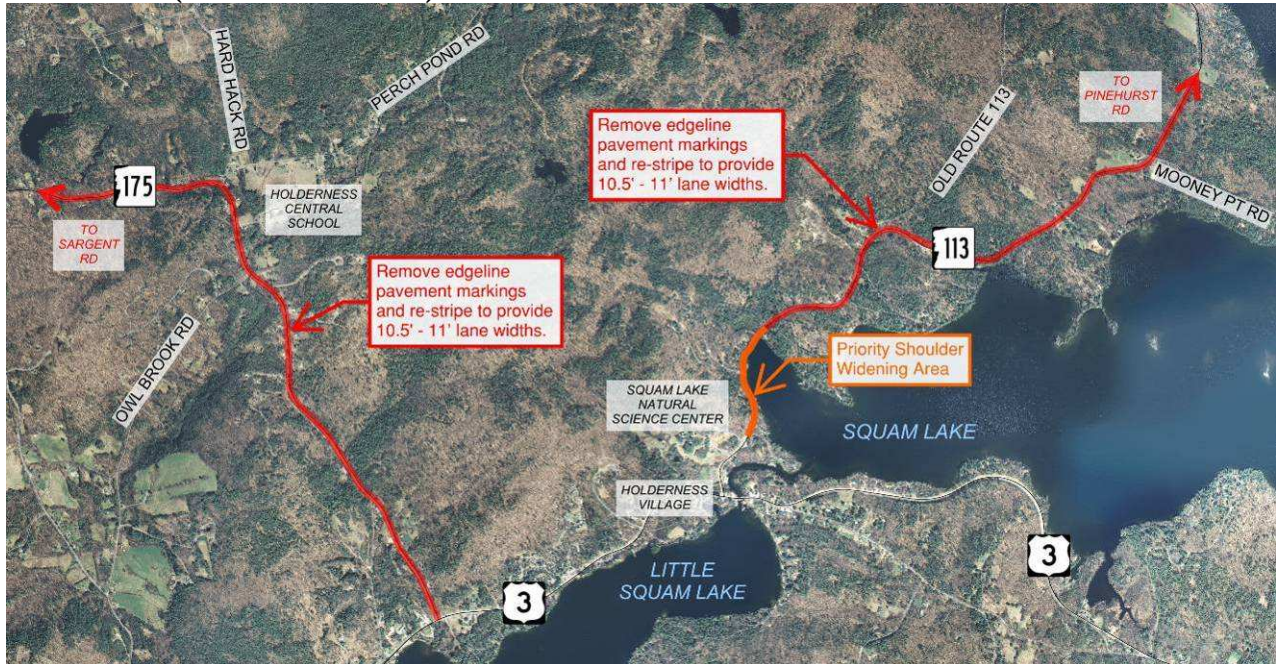
*NH Route 113 Priority Area – Narrow Shoulders, Horizontal Curves, Limited Sight Distance*



### NH Route 113 Lane Narrowing: Before (11.5' -12' lanes) and After (10.5'-11' lanes)



### Holderness (recommendations)



## **Center Harbor –Village Core Pedestrian and Bicycle Connectivity**

### Overview:

Center Harbor's village center is located along NH Route 25, which provides regional connections to other communities in the Lakes Region and beyond. The average daily traffic along NH Route 25 is approximately 12,000 vehicles and the road is posted at 30 miles per hour through the village area. There are a number of town facilities along both sides of the state route including: the town beach, boat ramp, and waterfront recreation park, and town green with band stand. Main Street closely parallels NH Route 25 for the limits of the village district, separated by the town green and commercial property. Main Street provides access to the town offices, fire station, library, post office, and community park.

Three roadway intersections along NH Route 25 are within 475 feet of each other: Lake Street, Main/NH Route 25B, and Bean Road. Between Lake and Main Streets there is also a commercial driveway that provides a cut through connection. The Main Street/25B and Bean Road intersections are signalized and approximately 100 feet apart from each other, providing inadequate vehicle storage and leading to congested conditions during peak periods. The Lake Street/NH Route 25 intersection is a four-way, unsignalized intersection with stop control on the minor approaches to NH Route 25.

There are two existing pedestrian crossings of NH Route 25:

- Lake Street Crossing: Located on the southerly intersection approach and connects painted asphalt/roadside walks on the south side of Lake Street. This crossing provides direct access to Lake Winnepesaukee where summer boaters dock as well as access to the waterfront park for community residents.
- Main Street Crossing: Located on the southerly intersection approach and connects to a raised asphalt and curbed sidewalk on the west (Main Street) side. There is a pedestrian signal but no sidewalk on the east side of the crosswalk.

There are no crosswalks along Main Street between the municipal buildings and the village green/bandstand. Pedestrians must cross a large three-way intersection at the Plymouth Street/Main Street intersection where there is large decorative fountain in the center.

The existing sidewalk along Main Street ends at the western extent of the library parcel. Continuation of this sidewalk to Chase Street and installation of a new crosswalk will provide connection to an existing sidewalk on Plymouth Street accessing the residential neighborhoods to the north.

There are hazards in the existing sidewalk system that should be corrected:

1. Southwest corner of Main Street-NH Route 25B/Lake Street Intersection: To transition the grade around the corner, the existing sidewalk has steps which limits universal accessibility. Pedestrians can avoid the steps by walking out into the roadway. The grade at this intersection presents inadequate sight distance for northbound traffic to safely pull out onto Main Street-NH Route 25B.

2. Crosswalk across NH Route 25 at the Main Street/NH Route 25B Intersection The crosswalk has a storm drain catch basin grate that is depressed below the grade of the road and falls within the walkway. This grate should be raised to grade and replaced with one that accommodates pedestrian/bicycle traffic.

The following primary objectives have been identified:

- Safe crossings of NH Route 25 and Main Street that are aligned with pedestrian ‘desire lines’
- Improved connections to the existing park behind the library and residential areas to the north of the village
- Improve sidewalk conditions throughout the village

Recommendations:

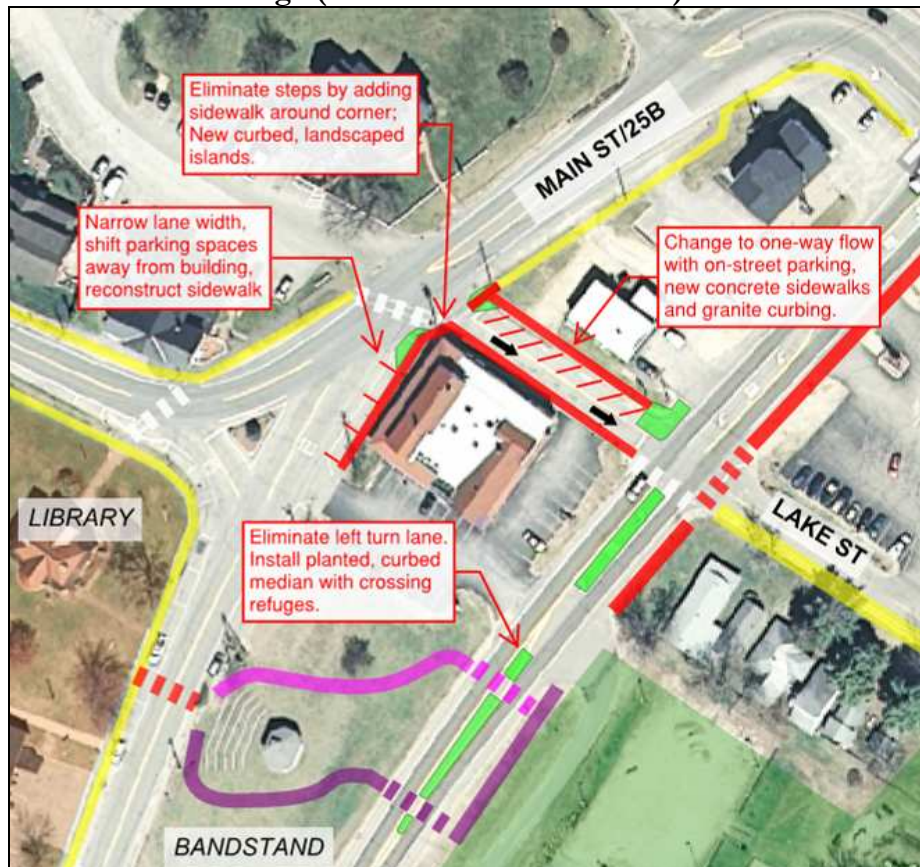
Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to improve pedestrian connectivity and safety in Center Harbor Village.

Action	Stakeholders	Conceptual Cost Estimate
Add sidewalk from library to Chase Street with crosswalk across Plymouth Street (NH 25B)	NHDOT, Town of Center Harbor	\$45,000
Add sidewalks along the east side of NH 25 from south of Lake Street to Bean Road, with a new crosswalk and pedestrian signal equipment at the NH 25/Bean Road intersection, and a new sidewalk to the shopping center	NHDOT, Town of Center Harbor	\$300,000
New pedestrian crossing of NH 25 connecting village green/ bandstand to waterfront (Lake St.)	NHDOT, Town of Center Harbor	\$1,000
Reconstruct sidewalks, curbing, drainage, and on-street parking at the corner of Main and Lake Streets. Consider option of turning Lake Street into one-way with on-street parking.	Town of Center Harbor	\$60,000

## Center Harbor Village (recommendations - overview)



## Center Harbor Village (recommendations - detail)



**Center Harbor Sidewalk Hazards**



**NH Route 25/Lake Street Intersection (Looking West) - Current**



**NH Route 25/Lake Street Intersection (Looking West) - Proposed Improvements**



## **Freedom – Ossipee Lake Road Bicycle Lanes**

### Overview:

In 2004, 4 foot wide bicycle lanes were constructed along both sides of Ossipee Lake Road for approximately 2 miles from Babcock Road to Pequawket Trail. The town has expressed interest in continuing the bicycle lanes making a connection to NH Route 153. This eastern segment is approximately 3.5 miles long and has eighteen intersections with public side roads. One of these intersections is a dangerous three-way intersection at the crest of Ossipee Lake, Bennett and East Danforth Roads. Along this 3.5 mile section there are approximately 500 homes as well as a summer camp that houses 350 kids and staff that hike and bike to trails, stores, ice cream shops, etc.

Ossipee Lake Road is a segment of a regionally recognized recreational bicycle loop (#402). Starting at the eastern end of road intersection with NH Routes 3 and 153, it extends north to Conway, then south through Madison on NH Routes 113 and 41 where it connects to the western end of Ossipee Lake Road. The Pequawket – NH Route 153 segment will extend the needed safety improvements where the existing shoulders are narrow and vehicle speeds typically exceed the posted limit. With the long-term vision of safer routes and desired bicycle connections, future infrastructure improvements to Ossipee Lake Road, including a new bridge at Danforth Ponds and culvert crossing at Square Brook, have been planned/designed to accommodate bike lanes on both sides of the road.

The project involves the installation of new bicycle lanes on the shoulder of Ossipee Lake Road. The shoulders can be “boxed out”, removing the shoulder material, extending it 4 feet with new base gravels and asphalt. The widening will require side slopes to be blended into the existing grade. Where grades are steep, guardrail may be required.

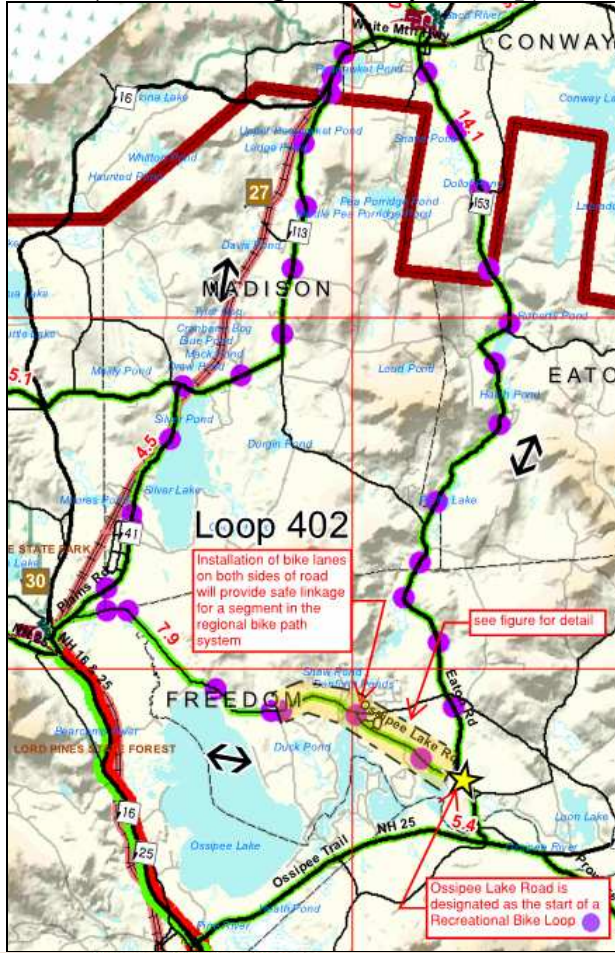
To fully address safety issues with the intersection of Ossipee Lake/Bennet/East Danforth roads, the horizontal and vertical geometry needs to be studied in more detail as it relates to sight distances and vehicle turning movements. The installation of pedestrian crossings and signage at this intersection will increase the visibility of pedestrians and bicycles and improve safety over the existing condition.

### Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to improve bicycle accessibility and safety in this area.

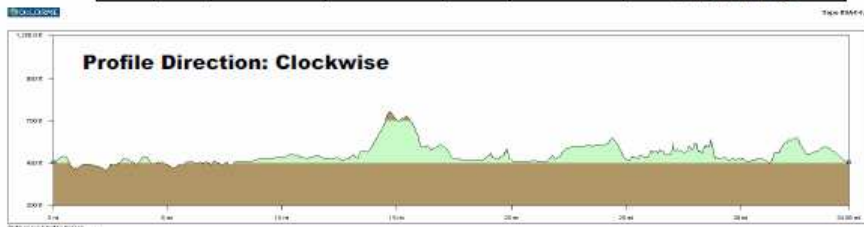
<b>Action</b>	<b>Stakeholders</b>	<b>Conceptual Cost Estimate</b>
Box out shoulders/widen and construct 4 foot bike lanes	NHDOT, Town of Freedom	\$1,000,000
Install “Pedestrian Crossing” and “Share the Road” signs as appropriate.	Town of Freedom	\$125/sign

# Ossipee Lake Road Bicycle Route Details (NHDOT Regional Bicycle Map)



RECREATIONAL LOOP 402

Map Grid	Loop ID	Start Location	Recommended Direction of Travel	Distance Miles	Experience Level	Loop Features
G3	402	Freedom	Either	34.6	Intermediate	Madison Boulder Ossipee Lake Silver Lake Conway Covered Bridge

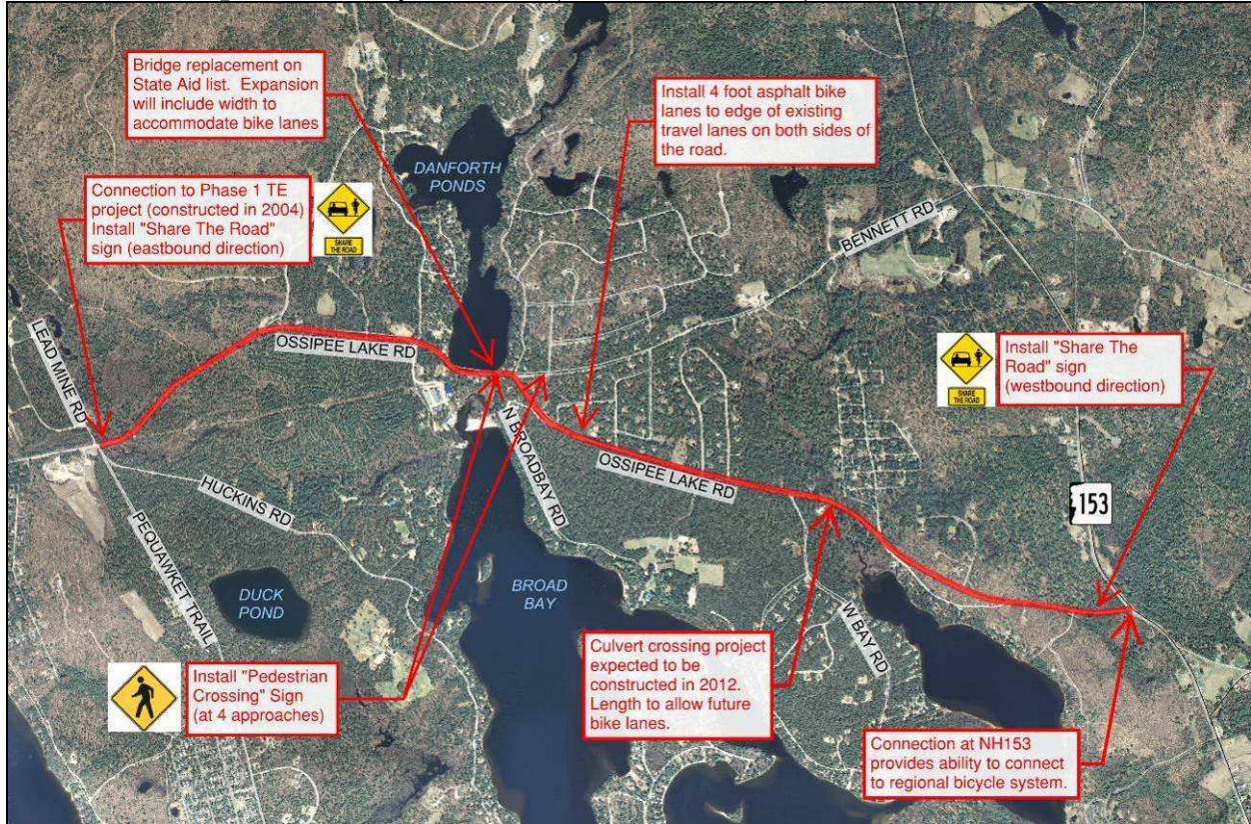


QUE Sheet Loop 402

Turn	Road	Dist (Miles)	Total Dist (Miles)
Start	at Ossipee Lake Rd / NH 153		
Straight (WNN)	on Ossipee Lake Rd	2.12	2.12
Turn Left (WL)	on Ossipee Lake Rd	5.58	7.71
Turn Right (NNE)	on NH 41	4.47	12.18
Turn Right (NNE)	on NH 113	6.60	18.78
Turn Right (NE)	on NH 113 / NH 16	2.00	20.78
Turn Right (S)	on NH 153	13.77	34.55
Finish	at NH 153 / Ossipee Lake Rd		



## Freedom – Ossipee Lake Bicycle Route (recommendations)





## **Gilford - Cherry Valley Road Bicycle Lanes (Intervale Road to Alton Town Line)**

### Overview:

Cherry Valley Road/NH Route 11A from Intervale Road/ NH Route 11B to the Alton town line is narrow and winding and is difficult for bicycling and walking. The roadway section is approximately 5.7 miles long and generally consists of two 12 foot travel lanes with a paved shoulder that varies from 1 to 2 feet wide.

This bicycle lane project would connect the Gilford Village area with the Gunstock Ski Area and Gunstock Acres where a large percentage of the town's population lives. Gunstock Ski Area has year round recreation opportunities including mountain biking, zipline rides, hiking, and camping. Continuation of bicycle lanes to Route 11 in Alton could provide significant regional bicycle connections.

Maintaining 12 foot wide vehicle travel lanes and accommodating new bicycle lanes on the shoulder of the exiting road will require shoulders to be “boxed out”, removing the shoulder material, extending it 4 feet with new base gravels and asphalt. The widening will require side slopes to be blended into the existing grade. Where grades are steep, guardrail may be required. Understanding that full shoulder widening will likely be cost prohibitive, an alternative approach is the idea of narrowing the travel lanes from the current 12 foot widths down to 10.5 or 11 feet, to create a slightly wider shoulder for bicyclists and pedestrians. This widening could happen as part of an upcoming resurfacing project or be conducted as a separate re-striping project.

The segment of Cherry Valley Road from Gilford Village area (School House Hill Road) to Intervale Road has adequate paved shoulder widths for bicycling and walking. The intersection of Cherry Valley Road and School House Hill Road was the subject of a recent Road Safety Audit focusing on reduction of vehicle accidents by addressing sight distance obstructions. In addition to the vehicular safety, pedestrians and bicyclists moving through this intersection would benefit from the installation of a crosswalk and signage.

### Recommendations:

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to provide adequate safety for bicyclists and pedestrians in this area.

<b>Action</b>	<b>Stakeholders</b>	<b>Conceptual Cost Estimate</b>
Remove edge line pavement markings and re-stripe to provide 10.5-11 foot lane widths.	NHDOT	\$3-5,000/mile
Add “Share the Road” signs	NHDOT	\$125/sign
Box out shoulders/widen and construct 4’	NHDOT, Town of Gilford	\$1,500,000
Extend drainage culvert crossings	NHDOT, Town of Gilford	\$10,000 (each)
Install crosswalk at School House Hill Road, relocate/remove sightline obstructions – guardrail and embankment	NHDOT, Town of Gilford	Embankment removal: NHDOT District Betterment funds Crosswalk \$1,000

# Gilford NH Route 11A (recommendations)



## **Meredith - Main Street/Waukewan Street Intersection**

### **Overview:**

The Main Street/Waukewan Street intersection is a three-legged intersection of Main Street, South Main Street and Waukewan Street. The intersection experiences relatively high traffic volumes and does not have clearly defined travel paths. The “openness” of the intersection is felt to contribute to excessive speeds through the intersection. The high level of traffic and lack of definition are further compounded by three crosswalks that intersect in the middle of the intersection. Together, these challenges contribute to an environment that is not conducive to safe and comfortable pedestrian and bicycle activity. Recently, a local walking group identified safety concerns at this intersection as a priority for improvement.

This intersection serves as a center node of a sidewalk network that radiates out, connecting the village center (north), residential area and Lake Waukewan (west), scenic rail station (south), and to the Meredith Bay waterfront (east). Improvements to the intersection is vital to pedestrian safety and their connection to adjacent areas such as town beach, retail shops, residential homes, waterfront walkways, and alternative modes of transportation.

The sidewalks to the north and west are raised with vertical curbing and provide adequate safety into the intersection. At the intersection there is sidewalk and curbing over 12 inches above the road grade creating a tripping and falling hazard, as well as being problematic for municipal snow removal equipment trying to clear the walks. This reveal can be reduced by shifting the west curbing to the east, closing up the intersection radius. This will also address the openness feeling and serve to slow southbound and westbound traffic.

The sidewalks to the south are made of sloped/bermed up asphalt that covers over a rock outcropping and is heavily damaged from snow plowing. This should be removed and replaced with vertical curbing, constructed to standard cross sections. This will provide safer connection to the newly installed crosswalks at Lang Street. This section will provide connection to future pedestrian improvements planned for Maple Street and the Winnepesaukee Scenic Railroad Station that was part of Plan NH Charrette.

### **Recommendations:**

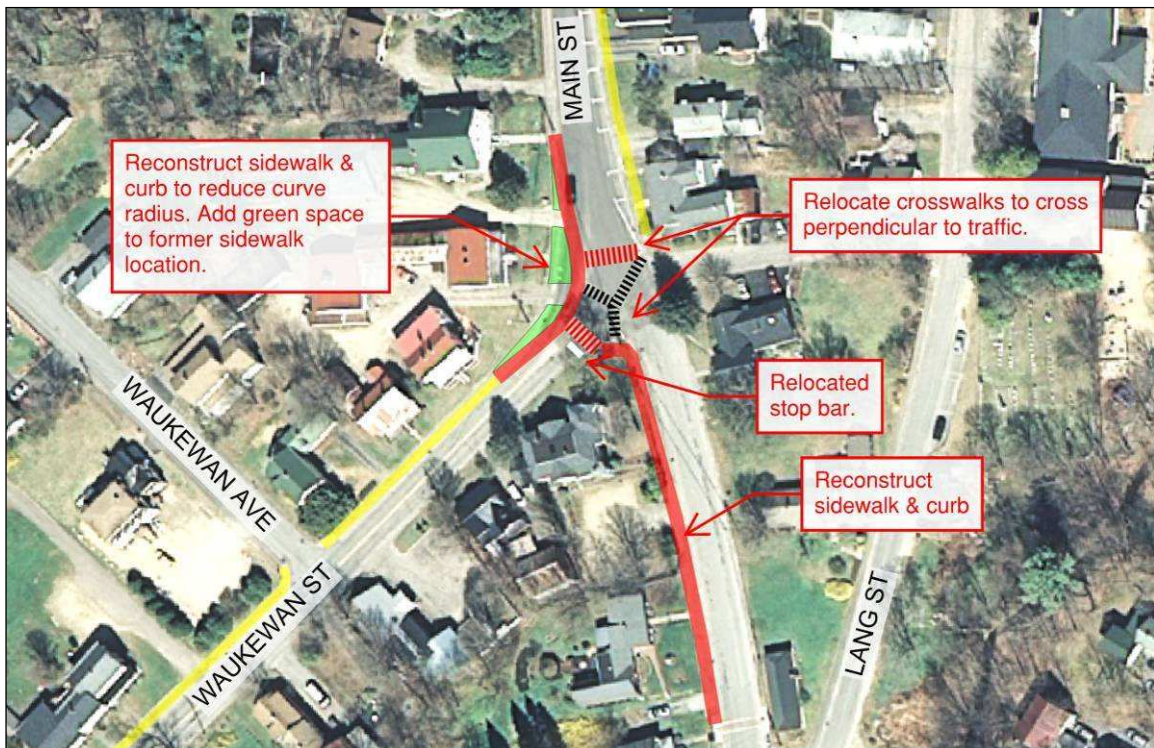
Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to improve pedestrian safety in this area.

<b>Action</b>	<b>Stakeholders</b>	<b>Conceptual Cost Estimate</b>
Reconstruct sidewalk, curbing, and crosswalks to narrow and better define vehicle and pedestrian paths through the intersection.	Town of Meredith	\$35,000
Reconstruct 5 foot concrete sidewalk with granite curb along the west side of South Main Street from Waukewan Street to Lang Street	Town of Meredith	\$45,000

Meredith – Main Street/Waukewan Street Intersection (recommendations - overview)



Meredith – Main Street/Waukewan Street (recommendations - detail)



## **Moultonborough - NH Routes 25/109 Intersection**

### **Overview:**

The Moultonborough village center is located along NH Route 25, which is a high volume, east-west corridor. There are no formal sidewalks along NH Route 25 in the village and shoulder widths are inconsistent and not wide enough in most locations to provide adequate safety for bicyclists or pedestrians. There is a need to provide safe pedestrian access along the corridor between Blake Road where the schools are located to Old Route 109 just east of the NH Route 25/109 intersection.

The NH 25/109 intersection has a “T” configuration with a stop-control on the southbound NH Route 109 approach. An overhead flashing signal and left turn lanes were recently added to the intersection. The additional turn lanes on NH Route 25 make it difficult for pedestrians to cross the wider street. Sight distance looking to the east from the NH Route 109 approach could be improved by cutting back the slope leading up to the library.

As part of a Safe Routes to School study conducted in 2010, opportunities were identified that an improved sidewalk along NH route 25 would provide connection between the village center and two schools on Blake Road, Moultonborough Central School (K-6) and Moultonborough Academy (7-12). The study also looked at off-road linkages to the school and potential drop-off areas and determined for safety reasons, the only viable trail for students to utilize is between Moultonborough Academy and the Laconia Savings Bank.

The highest priority at this location is to make the village center safer for pedestrian and bicyclists. Many of the community services including the public library, town hall, recreation center, police & fire departments, Methodist Church, the Old Country Store, a convenience store, and several small businesses are located in the immediate vicinity of this intersection.

The following primary objectives have been identified:

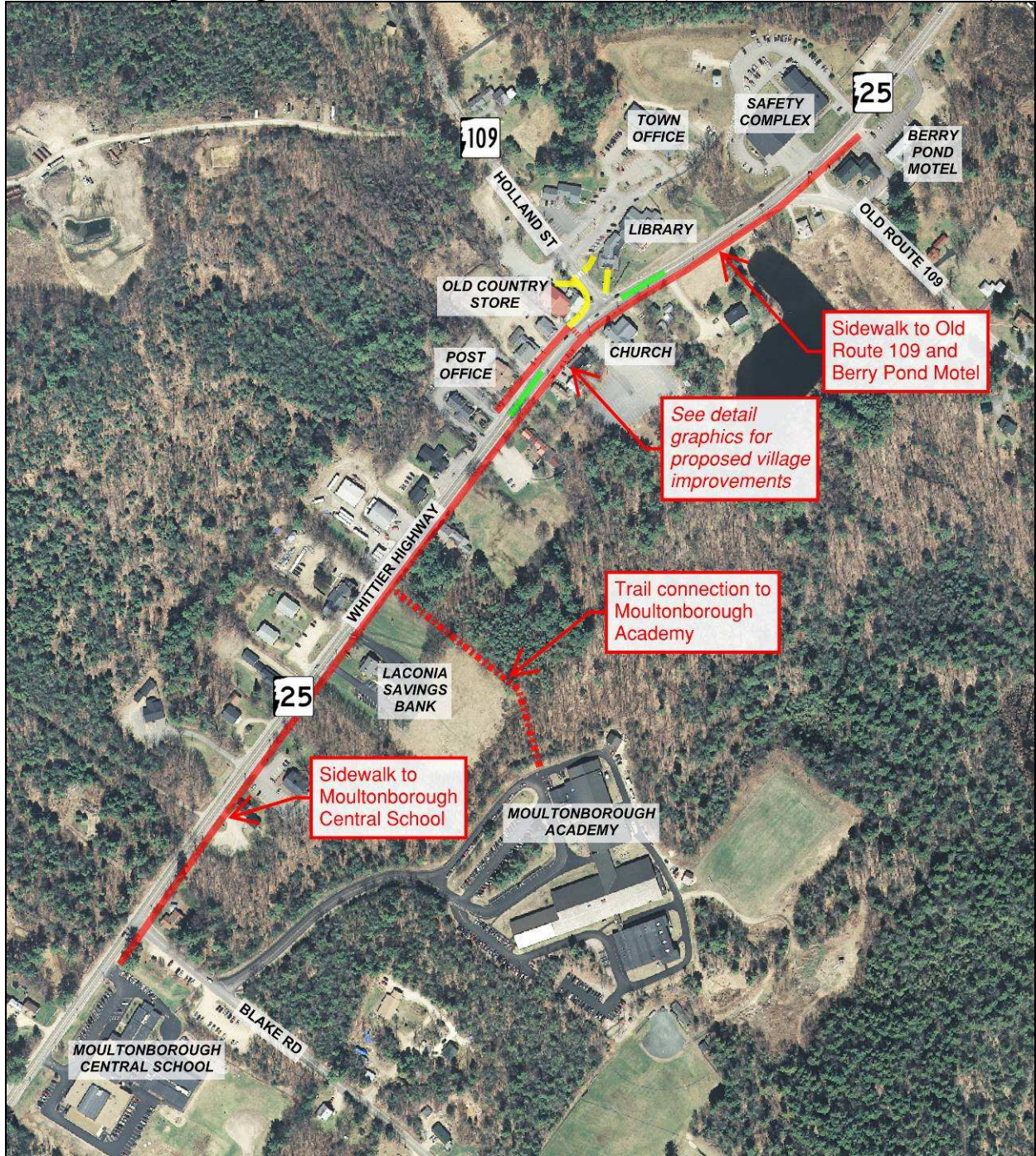
- Improve pedestrian and bicycle crossing safety at the NH Route 25/109 intersection
- Provide defined sidewalk along NH Route 25
- Provide safe crossing opportunities across NH Route 25
- Add pedestrian connection to school path/trail system and to Blake Road

### **Recommendations:**

Based on a thorough site review and discussions with local stakeholders, the following measures are recommended to improve pedestrian and bicycle safety in this area.

<b>Action</b>	<b>Stakeholders</b>	<b>Conceptual Cost Estimate</b>
Streetscape, sidewalk, parking, traffic calming, and pedestrian crossing improvements in Village area	NHDOT, Town, Property Owners	\$150,000 - \$300,000
New 5' concrete sidewalk and curbing on south side of NH 25 from Post Office to Moultonborough Central School (2,000 feet)	NHDOT, Town, Property Owners, School District	\$300,000
New 6-8' path from NH 25 to Moultonborough Academy (700 feet)	Town, Property Owner(s), School District	\$40,000
New 5' concrete sidewalk and curbing on south side of NH 25 from NH 109 intersection east to Old Route 109 and Berry Pond Motel (900 feet)	NHDOT, Town, Property Owners	\$175,000

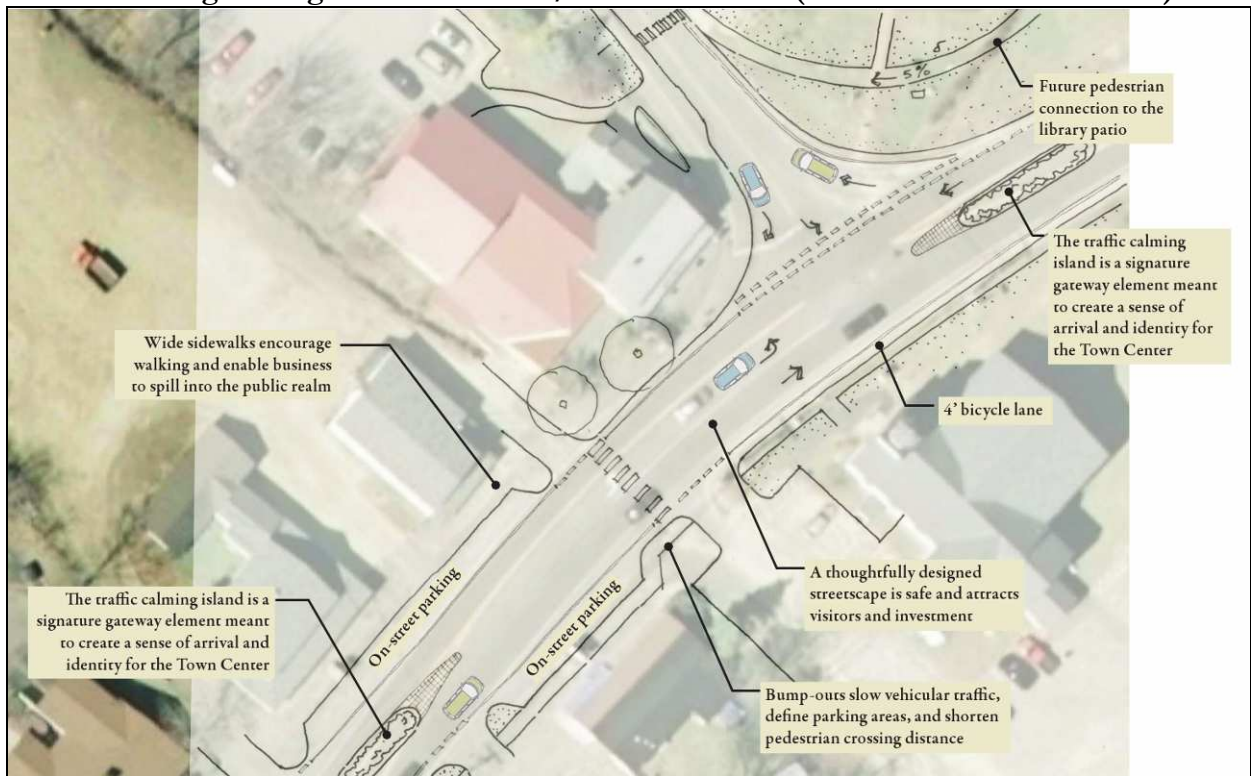
Moultonborough Village – NH Route 25/109 Intersection (recommendations - overview)



**Moultonborough Village – NH Route 25/109 Intersection (recommendations - detail)**



**Moultonborough Village – NH Route 25/109 Intersection (recommendations - sketch)**



APPENDIX A:  
SITE NOMINATION REQUEST LETTER AND LIST OF NOMINATIONS  
RECEIVED

October 24, 2011

As part of the Regional Bicycle and Pedestrian Plan update, the Lakes Region Planning Commission will employ professional consultants to review up to 12 Lakes Region locations that present challenges to bicycle and pedestrian access and/or safety. The consultant, with guidance from LRPC staff, will develop and illustrate conceptual improvements at the identified locations. LRPC is seeking nominations for specific intersections, road segments, trail crossings, or other local conditions that do not presently accommodate pedestrians or cyclists safely or adequately.

Examples of conditions for improvement include, but are not limited to:

- ❖ Planned infrastructure in an area of need
- ❖ On-road connections to adjacent areas where access is suitable
- ❖ Areas with demonstrated safety concerns
- ❖ Impacts of state highways on the community
- ❖ Expansion of pedestrian or bicycle usage

LRPC will select up to 12 locations to review in detail in order to generate conceptual graphical renderings of alternative designs that consider current problems, supportive documentation, space constraints, and technical feasibility.

Sites will be selected based on the ability of the municipality to provide supportive documentation that assists in accurate characterization of the site, and on the basis of geographic distribution. The alternative designs will be included in the final plan in order to highlight alternatives to existing conditions and the potential for improved accessibility throughout the region.

**The deadline for site nominations is Thursday, November 10 at 2:00 PM**

You may nominate a location one of two ways:

**Online** – Go to [www.surveymonkey.com/s/SiteNomination](http://www.surveymonkey.com/s/SiteNomination) and complete the online survey

**By Mail or Fax** – Complete one copy of the enclosed printed survey per site, and return to:

Lakes Region Planning Commission  
103 Main Street #3  
Meredith, NH 03253

OR      FAX (603) 279-0200

Call Eric Senecal at 279-817- with any questions or if you would like to discuss a particular site.

cc: Town Administrator/Manager, Road Agent, Recreation Director, Select Board Chair, Planning Board Chair, Planner



Site Nominations			
Municipality	Nominee	Location Description	Supportive Materials
Belmont	Rick Ball	Daniel Webster Hghwy, Dutile Shore Road, Sunset Drive, Lake Winnisquam Scenic Trail - This is the road crossing that will connect Phase 1 & 2 of the Lake Winnisquam Scenic Trail project.	Existing Transportation Enhancement Plan/Preliminary Engineering Plans/Utility or Railroad Easement Locations/Adjacent Property Considerations/Photographs
Belmont	Terri Paige CAPBMCI	Route 3 from 99 restaurant in Tilton to Belknap Mall in Belknap. There are few sidewalks, no cross walks and poor lighting on this section. The road shoulders are also very narrow. It is dangerous to pull the bus over to pick up passengers on almost any section of this stretch of Route 3.	None indicated
Bridgewater	Carol S LaFontaine	In the area of Masquebec Hill Route 3A is very narrow, has no shoulder and 2 travel lanes. The road surface at the edges is very uneven, the result of multiple resurfacings, which cause the bicycle rider to travel more into the traffic lane(in both N and S directions).	Local Bicycle and/or Pedestrian Plan, Preliminary Engineering Plans, Photographs
Bristol	Michael Capone	Pleasant Street out of Central Square to the lights Lake Street. The last of our extensions out of Central Square was to continue improvements included in our Transportation Enhancement. This area of Roadway provides access to the Library as well and could be combined with a path coming in from Lake Street that would complete access all the way from Newfound Lake.	Existing Transportation Enhancement Plan/Local Bicycle and Pedestrian Plan/Other Conceptual Plans
Bristol	Michael Capone	Central Street out of Central Square. This area will service the anticipated Riverfront Park on Central Street as well as provide access to the proposed River Trail just east of the Riverfront park. Given the increase in pedestrian and bicycle traffic generated by these two new additions to Downtown Bristol, improved access is required.	Existing Transportation Enhancement Plan/Other Conceptual Plans/EPA Brownfields proposal showing the repurposing of the Mica Building into a riverfront park / Proposal to the Army Corps of Engineers for the Riverside trail just below the park that will provide access to Profile Falls along the Pemi.
Bristol	Michael Capone	North Main Street out of Central Square. A bicycle lane to augment the existing sidewalk area along North Main Street Heading out of Central Square. Another area of heavy travel particularly with the Middle School, The Elementary School, Kelley Park and the Community Center all nearby. This would augment some of the work done in the recently completed Phase 3 Safe Routes to School Project and the anticipated Phase 5 work recently approved by the State.	Existing Transportation Enhancement Plan/Local Bicycle and Pedestrian Plan/Safe Routes to School Travel Plan
Bristol	Michael Capone	Route 3A/Lake Street south of the existing bike path. This would be an extension of the existing pedestrian/bike path the currently extends from Newfound Lake down to the Town Parcel on Route 3A/Lake Street. It would provide a bicycle link to downtown Bristol and supplement pedestrian access in areas where there are no existing sidewalks	Local Bicycle and/or Pedestrian Plan
Bristol	Michael Capone	West Shore Road from the intersection of Rte. 3A/Lake Street to Wellington State Park @ Alexandria Town Line. In season, this road is heavily traveled and would benefit from having a bicycle/pedestrian lane to provide a measure of safety for those accessing the beaches along the road.	State traffic counts and assessing records would provide a good indicator of the density of the population in the area relative to the volume of traffic in season.
Bristol	Michael Capone	Extending out from Central Square up Route 104/Summer Street to the Rite Aid Pharmacy. The South side of the roadway would be the perfect location for a pedestrian/bicycle pathway as no safe area of travel for either presently exists. There are a number of businesses along that section of the roadway and it is heavily traveled. The pathway would provide for pedestrian and bicycle traffic to access these businesses from our densely populated downtown area.	Existing Transportation Enhancement Plan/This section of Route 104 has been considered by the LRPC as a possible 10 year project
Center Harbor	Jeff Haines	Connectivity in the Center Harbor village core (see paper submission)	2010 Master Plan Section 5.4.3 Pedestrian Circulation and Section 5.6.2 Additional Recommendations
Franklin	Elizabeth Dragon	As part of the great work of the Friends of the Northern Rail Trail, we would like to ask that a trail head access point for the Northern Rail Trail be evaluated. Currently in West Franklin there is no "good" way to access the northern rail trail. On US Route 3 across from the congregational church there is an allowed access point but the embankment is steep. If this area could be reviewed and recommendations made to address the steep grade it would assist our partner "the Friends of the Northern Rail Trail" in doing the work to improve this area. This would create an opportunity for more trail use by enhancing access in the west Franklin area.	We don't currently have any plans or conceptual designs. We are requesting your assistance and recommendations at creating a concept to address the steep grade so that the Friends of the Northern Rail trail can then work to make those changes happen.
Freedom	Scott Brooks	The Ossipee Lake Road from NH Rt. 153 to the Existing Bike Path at the intersection of Ossipee Lake Road and Pequawket Trail. This section of road is approximately 3 miles long; it has eighteen intersections with public side roads. One of these intersections is a dangerous 3 way, at the crest of Ossipee Lake, Bennett and East Danforth Roads. Along this 3 mile section there are approximately 500 homes, including the ones on the side roads. There is also a summer boys and girls camp that houses 350 kids and staff. They hike and bike to trails, stores, ice cream shops etc.	Local Bicycle and/or Pedestrian Plan/Preliminary Engineering Plans/Utility or Railroad Easement Locations
Gilford	John Ayer	Cherry Valley Road/Route 11-A from Intervale Road/Route 11-B to the Alton town line (or a segment thereof such as to Gunstock Mountain Resort or Yasmin Drive). This length of road is narrow and winding and cannot safely be traveled on bicycle or foot, although there are a number of bicyclists who use the road. This would connect the Gilford Village area with Gunstock Ski Area, and Gunstock Acres where a large percentage of the Town's population lives.	I am not aware of any supportive documentation.
Gilford	John Ayer	Lake Shore Road/Route 11 from the Alton town line to Lake Shore Park. This area is narrow and heavily traveled. It is a main route along the lake front area and would connect commercial and more densely populated shorefront areas on the Alton end of Route 11 with Ellacoya State Park, Scenic Drive, Glendale, and the Gilford Town Beach areas.	I am not aware of any supportive documentation.

Site Nominations			
Municipality	Nominee	Location Description	Supportive Materials
Gilford	John Ayer	All of Schoolhouse Hill Road, Watson Road, and Old Lake Shore Road from its intersection with Watson Road to Lake Shore Road/Route 11. This would connect the Gilford Village area with the Town's commercial area.	I am not aware of any supportive documentation.
Gilford	John Ayer	Gilford Avenue/Route 11-A from Savage Road to Intervale Road/Route 11-B in various locations, particularly along guard rails. Part of Timberman Triathlon bicycle route.	I am not aware of any supportive documentation.
Gilford	John Ayer	Gilford Avenue/Route 11-A from Savage Road to Intervale Road/Route 11-B in various locations, particularly along guard rails. Part of Timberman Triathlon bicycle route.	I am not aware of any supportive documentation.
Hebron	Carol S LaFontaine	Intersection of Route 3A and North Shore Road. This intersection is hazardous for vehicles, pedestrians and cyclists. Numerous accidents have happened here and the area is recognized by the DOT as dangerous. Estimates of approximately 30K have been made by the DOT but nothing has been scheduled to this date due to lack of available funding.	Existing Transportation Enhancement Plan/Local Bicycle and or Pedestrian Plan/Preliminary Engineering Plans/Photographs
Holderness	Leo Sanfacon	Rte. 3 from the Meredith line to Downtown Holderness. Roads are too narrow for bicycles and walkers. The lake region would benefit in a myriad of ways if we were to develop bike/walking paths.	None indicated
Holderness	Peter Webster	Rt. 113 and US Rt. 3 with a bicycle/pedestrian path 1-2 miles towards Sandwich Rt. 175 and US Rt. 3 with a bicycle/pedestrian path 1-2 miles towards Plymouth	DOT had a plan 10 -15 years ago to put a path along Rt. 175
Laconia	Kevin Dunleavy	Laconia Riverwalk - Rotary Park - Mill Plaza Access behind the historic Belknap Mill along the Winnepesaukee River, the Laconia Riverwalk crosses Rotary Park and accesses Mill Plaza via a decaying and substandard concrete stairway. The stairway does not provide adequate accessibility for all.	Local Bicycle and Pedestrian Plan/Adjacent Property Considerations/Conceptual Plans/Photographs/Site plans and boundary information are available at the Laconia DPW office.
Laconia	Kevin Dunleavy	Laconia Riverwalk-Landmark Inn-Main Street Bridge Access - The Laconia Riverwalk is a proposed multiuse trail that follows the Winnepesaukee River in Downtown Laconia. Several segments have been completed. Along the south side of the Winnepesaukee River at the Main Street bridge, the Riverwalk will need to traverse an eight foot drop to access pedestrian easements that have already been acquired across the river frontage of the Landmark Inn property.	Local Bicycle and Pedestrian Plan/Preliminary Engineering Plans/Adjacent Property Considerations/Other Conceptual Plans/Photographs/Site plans and boundary information for abutting properties exist and are on file at Laconia DPW./ The Main Street bridge is slated for major work in the near future, and engineering plans are available as well.
Laconia	Kevin Dunleavy	WOW Trail street crossing at North Main Street. Currently, the WOW Trail Phase 1 ends on the east side of North Main Street. No marked or designed crossing over North Main Street exists to accommodate pedestrians and bicyclists.	Local Bicycle and Pedestrian Plan/Adjacent Property Considerations/Conceptual Plans/Photographs/Site plan and boundary plan information exists for some of the abutting properties. Right of way and various utility plans exist and are on file with at the Laconia DPW.
Laconia	Kevin Dunleavy	McIntyre Circle - This major intersection is the junction of Route 107(Union Avenue), Route 3 (Lake Street), and Blaisdell Avenue. The intersection has no accommodations for pedestrians and bicyclists. The abutting land uses include restaurants, gas stations, grocery stores, pharmacy, cemetery and retail. With several areas for lodging close by, there is no safe connection to the amenities and services at this intersection. The intersection is bisected by the Laconia-Gilford town line, and the maintenance responsibilities split between the City of Laconia, Town of Gilford and the NHDOT.	Utility or Railroad Easement Locations/Adjacent Property Considerations/Photographs/various site plans of the surrounding properties exist and are available. Also, NHDOT has highway plans for this intersection.
Meredith	Liz Lapham	Waukewan Street at Waukewan Beach - Waukewan Street, a Class V road that connects NH Route 104 to Main Street in Meredith Village. Waukewan Street experiences high vehicle traffic, due in large part to traffic seeking to avoid congestion on US 3 via an alternative bypass route. High vehicle speeds are known to the MPD as an on-going safety concern. Waukewan Beach (a town beach), the Waukewan boat ramp and a pocket park are located immediately lakeside of Waukewan Street. Public bathrooms, on-street parking and the Winnepesaukee Rowing Club's yard are located on the opposite side of Waukewan Street. This area experiences high pedestrian and bicycle activity generally, and pedestrian crossing activity in particular. There is a need to safely accommodate pedestrians and bicyclists that utilize these public facilities through some level of improved signage, pavement markings, traffic calming, etc.	Site Photos
Meredith	Liz Lapham	Wall Street extension to the Winona Forest neighborhood - Wall Street is a low volume, Class V road that intersects with Waukewan St. At the Wall Street/Waukewan Street intersection, there is an existing raised sidewalk that connects this area to Meredith Village. In 2008, the Board of Selectmen accepted a dedicated ROW as a Class VI road. This undeveloped ROW extends from the end of Wall Street to another Class V road in the Winona Forest neighborhood (Winona Shores Road). This segment is approximately 900 ft. in length. The intent of this acceptance was to leave the door open for future connectivity for pedestrian, vehicular and utility purposes. The Winona Forest neighborhood consists of approximately 103 properties. At present, if a resident in this neighborhood wanted to go to the village, they would have to travel by vehicle onto Winona Road (state road), then onto NH Route 104, then down Waukewan Street to Main Street. Development of the dedicated ROW into a multi-purpose pathway would directly connect bicyclists and pedestrians from the Winona Forest neighborhood to Wall Street, the existing sidewalk on Waukewan Street and on to Meredith Village.	This connection is specifically mentioned in the 2002 Community Plan (aka Master Plan) as a potential improvement worthy of future consideration.
Meredith	Liz Lapham	Hawkins Brook Trail - The Village Pathways Committee is currently taking under consideration the prospect of an off road trail in the heart of Meredith Village. As currently envisioned, this trail would extend from the north side of NH Route 25 at Meredith Bay along the edge of the Hawkins Brook wetland to Prescott Park. Prescott Park consists of ball fields, tennis courts, parking and public restrooms. Prescott Park is linked to the Inter-Lakes School campus, the Community Center, a nearby town forest and an adjacent 70 unit retirement community. The Hawkins Brook Trail would also connect with existing pathways mapped and promoted by the Village Pathways Committee. The Hawkins Brook Trail would provide a unique in-town, off road experience offering significant scenic and educational opportunities. It is envisioned that this trail would be enjoyed by residents, students and visitors alike.	This trail is specifically mentioned in the 2002 Community Plan (aka Master Plan) as a potential improvement worthy of future consideration. This trail was also identified in the Meredith Village Core Revitalization Design Charrette (PLAN NH), May 2005. - Site Photos

Site Nominations			
Municipality	Nominee	Location Description	Supportive Materials
Meredith	Liz Lapham	Maple Street, South Main Street, and Meredith Rail Yard - The Winnepesaukee Scenic Railroad operates out of the Meredith Rail Yard which is located at the corner of Maple Street and South Main Street. The Winnepesaukee Scenic Railroad is a destination in and of itself, but also draws visitors to the greater village area. The intersection of Maple and Mill Streets is poorly defined and devoid of pedestrian/ bicycle accommodation. The current condition represents a significant disconnect between the rail yard and Main Street.	The Meredith Village Core Revitalization Design Charrette (PLAN NH), May 2005 notes: "South Main, Mill, Maple and Waukewan Streets are important links at the southern end of the village core. The Scenic Railroad Station, Gerrity property and other redevelopment opportunities exist at this end of the village. A reduced streetscape effort focused on enhanced sidewalks and lighting needs to occur at these locations to complete the pedestrian network desired." The resolution of the dysfunctional aspects of this area has significant stand-alone value, it will also complement the Meredith US 3/NH 25 Improvements Transportation Planning Study, June 2009. This study places a major emphasis on pedestrian accommodation and specifically identifies a potential link between Rt. 3 and the public waterfront with the Maple Street/rail yard/ South Main Street area. The reconstruction of Main Street has been identified as an important project as part of our Capital Improvement Program. At present the project is loosely defined and not scheduled for a specific year. This future project would benefit greatly from additional conceptual design guidance in the South Main Street area discussed above. - Site Photos
Meredith	Liz Lapham	Main Street, Waukewan Street Intersection - This location is a three-legged intersection involving Main Street, South Main Street and Waukewan Street. The intersection experiences very significant traffic volumes and is not well defined. The "openness" of the intersection contributes to vehicle speeds above posted limits. The situations are further compounded by three crosswalks that intersect in the middle of the intersection. Together these challenges contribute to an environment that is not conducive to safe and comfortable pedestrian and bicycle activity. Recently, a local walking group identified safety concerns at this intersection.	At major intersections including Main St. and Waukewan St., the Meredith Village Core Revitalization Design Charrette (PLAN NH), May 2005, recommended reworking this intersection to make it pedestrian friendly. The reconstruction of Main Street has been identified as an important project as part of our Capital Improvement Program. At present the project is loosely defined and not scheduled for a specific year. This future project would benefit greatly from additional conceptual design guidance in the South Main Street area discussed above. Site Photos
Meredith	Liz Lapham	US Rt. 3 Segment at Boynton Road - Pine Crest Apartments and the Frances Court manufactured housing park are located near the easterly end of Boynton Rd. A sidewalk on Boynton Rd. connects these developments to US Rt. 3. A sidewalk exists on the westerly (opposite) side of US Route 3, located approximately 200' south of the Boynton Road/US Route 3 intersection. There is no crosswalk on US Route 3 in this area. The existing sidewalk connects with one on Plymouth Street which connects to Main Street. A sidewalk exists on the easterly side of US Route 3 at Circle Drive/Community Center. This sidewalk is approximately 1000' south of the Boynton Road intersection. There exists a barrier (gap) between the Boynton Road intersection and improvements to the south creating an unsafe condition for pedestrians. The Village Pathways recently experienced this challenging condition first hand while hosting a "Walking School Bus" program in this area.	Site Photos
Moultonborough	Joanne Coppinger	NH Route 25 from the Central School to the library.	Safe Routes to School Travel Plan
Moultonborough	Bruce Woodfruff	The NH Rte. 25, Whittier Highway, roadway segment in the main village center. This includes the 30MPH zone segment. Barriers to pedestrian travel include no sidewalks, no shoulders, high vehicular speeds for the area and high traffic volumes during summer months and peak tourist times. The concentration of businesses, institutional and schools underscores the need for special treatment concept designs along this roadway segment.	Route 25 Corridor Study/Moultonborough Master Plan
Moultonborough	Bruce Woodfruff	NH Rte. 25 and NH Rte. 109 Intersection. There is a demand for both pedestrian and bicycle crossings across Rte. 25 at this intersection. The facility is the transportation node for the village's religious, institutional, and commercial uses and is a location along a bicycle route where cyclists want to turn north towards Sandwich. The intersection has several geometric issues for vehicles, pedestrians and bicyclists.	Route 25 Corridor Study/Moultonborough Master Plan/Town GIS
Sanbornton	Bob Veloski	Walking path from Sanbornton Central School to the Sanbornton Library. Presently the elementary school students walk along the side of the road, where there is no sidewalk.	Conceptual Plans/Photographs/Grant Application Project Description on Data Central
Tilton	Terri Paige CAPBMCI	Route 3 starting at Tractor Supply shopping plaza on the Town line of Franklin and Tilton to Winnisquam High School. There are no sidewalks on either side of the street, little lighting and no safe way to cross the streets in this section.	None indicated
Wolfeboro	Robert Houseman	Main Street in the downtown core (from Union Street to Mill Street). Evaluate conflict/solution to on-street parking (door zone issues for bicyclists), vehicle traffic (including turning movements), pedestrian safety (including crosswalk site distance) and bicycle pedestrian conflict. Evaluate the use of sharrows, traffic calming, crosswalk bumpouts and wayfinding.	Other Conceptual Plans /Photographs /This area was identified as the #1 unfunded lake region TE project in 2009. However, NHDOT removed it from the plan.