

Route 100

VILLAGE SAFETY STUDY

Westfield, Vermont



Submitted to:
Northeast Vermont
Development
Association

By:

**DuBois
& King** inc.

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Randolph, Vermont 05060
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September 2012

ENGINEERING • PLANNING • DEVELOPMENT • MANAGEMENT



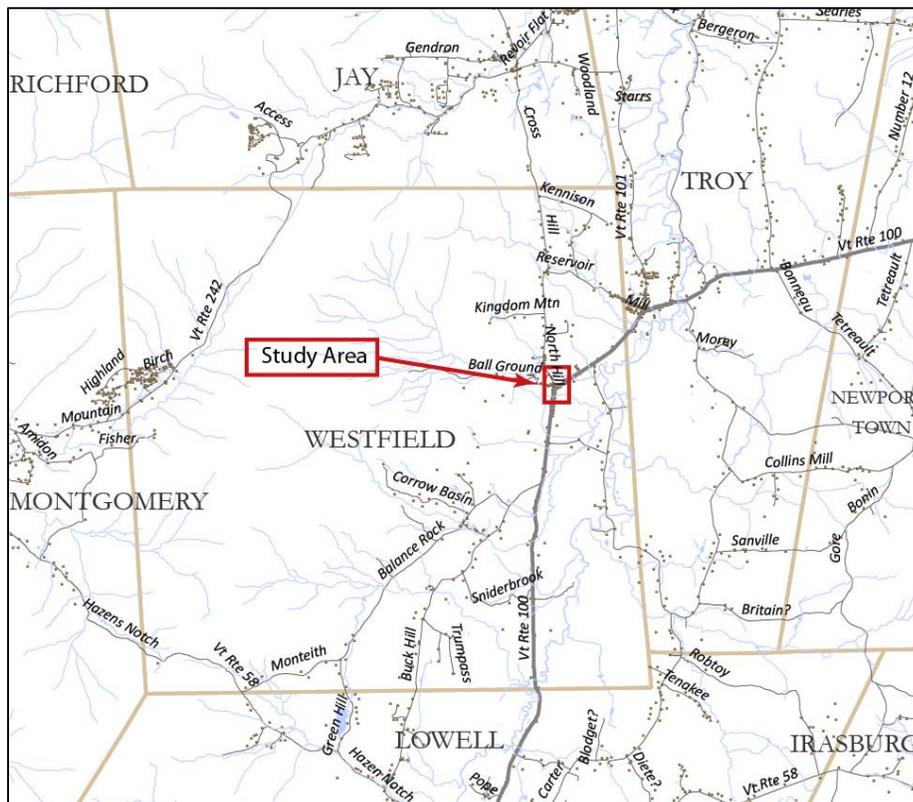
VT 100 Village Safety Study-Westfield

Introduction

The Town of Westfield is seeking to address safety concerns in the village area, particularly for pedestrians walking along and across VT 100. In 2005, the *Jay Peak Transportation Infrastructure Study* was conducted by the Northeast Vermont Development Association (NVDA), and focused on traffic impacts and transportation infrastructure in the area affected by Jay Peak. The 2005 report provided a set of enhancement recommendations for Westfield’s village center (see Appendix 1).

This study considers if the improvements identified in 2005 are desired and feasible, and looks at other alternatives for addressing the safety concerns. A Local Concerns Meeting and Alternatives Presentation were conducted to obtain input on project needs and alternatives. The minutes from these meetings are attached (see Appendix 2). Figure 1 is a map showing the study area.

Figure 1: Study Area Location



Purpose and Need

The purpose of this study is to identify transportation improvements and other actions that will improve the safety for all users, especially pedestrians, of the VT 100 corridor through the village area of Westfield, Vermont.

The need exists because there are several destinations that generate pedestrian and bicycle travel along VT 100, including the library, recreation area and playground, the town offices, a store, and a farm stand.

On a daily basis, residents of the senior housing walk to the store, as well as the community center and library. Children walk between the library and the playground at the community center on a regular basis, especially during summer months. The shoulders are too narrow to safely accommodate children or elderly pedestrians.

Bicycle activity in the study area includes children riding bicycles between the library and the playground area next to the town offices. Recreational road bike riding is also popular along VT 100, and sometimes large groups ride together through the study area. Because the vehicle traffic volumes are low, and sight distance is mostly very good, the existing shoulders offer reasonable facilities for experienced bicyclists. However, the narrow shoulders do not provide an adequate facility for young or less experienced bicyclists.

Project Area Conditions

Westfield village has a concentration of land uses and activities surrounded by a very rural landscape, shown in Figure 2 on the next page. VT 100 has a posted speed limit of 35 mph. The road's width is typically 28 feet through the study area, with 11 foot travel lanes and 3 foot shoulders. VT 100 has an average annual daily traffic volume (AADT) of 1,600 vehicles per day, with 9.8% truck traffic. There is also agricultural activity in the study area, which sometimes requires very wide agricultural vehicles of up to 15 feet wide to travel on VT 100 through the village. There are no high crash locations in the study area. Other features include a village green at the intersection of North Hill Road, and a bridge on VT 100 over Mill Brook north of the library.

Figure 2: Route 100 Westfield Village Study Area



The following photographs show typical conditions in the study area.



Northbound view toward Scenic View Senior Housing



Southbound view of Westfield General Store



Northbound view of village green from store entrance



Looking north at Mill Brook Bridge from library

The following are further considerations in the project design:

- Right of way width is assumed to be 49.5 feet, typical of Vermont state highways.
- Utility poles are located primarily on the west/northwest side of VT 100, and are typically 6 to 8 feet from the edge of the pavement.
- There are no sensitive environmental resources along the VT 100 corridor in the study area (see Appendix 3)
- There are some areas of potential archaeological significance adjacent to VT 100 in the study area. These would require further investigation and testing for any projects that might disturb those areas. (see Appendix 4)

Alternatives

The following sections present alternative improvements for consideration to address the primary project needs and objectives.

- 1) Provide a safe route for pedestrians and bicyclists along VT 100 between the Scenic View Senior Housing, the Westfield General Store and the library.
- 2) Provide a marked pedestrian crossing near the south end of the village green.
- 3) Improve pedestrian and bicycle safety through managing or reducing traffic speeds in the study area.

1) Pedestrian Improvements

Two alternatives are described below to address the need for a safe pedestrian route in the study area.

Alternative 1a: Construct Sidewalk

Pedestrians could be accommodated in Westfield’s village center with a sidewalk and a marked crosswalk that will provide a safe route between the senior housing and the store and library. A sidewalk separates pedestrians from the traffic with either a vertical or horizontal buffer. Figure 4 shows a proposed alignment of a sidewalk that would essentially connect the primary land uses shown above. The crosswalks are shown at the south end of the green, which provide adequate sight distance for the pedestrians.

The sidewalk should be at least 5 feet wide, and the cross section will vary along the length, depending on the utility locations and other features. Several options are shown below. In locations where the utility poles are not on the same side as the sidewalk, there is greater flexibility in the location and alignment of a sidewalk. It could either be adjacent to the road shoulder edge with a vertical granite curb, or separated from the road’s edge by a greenbelt. The following graphics show these options in cross-section.

Figure 3: Sidewalk Cross Sections

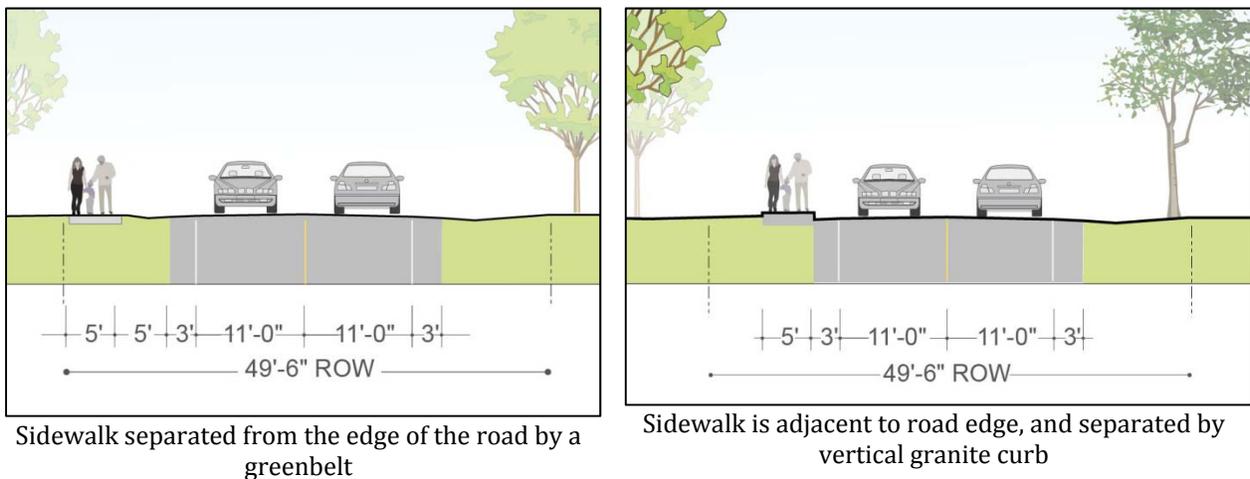
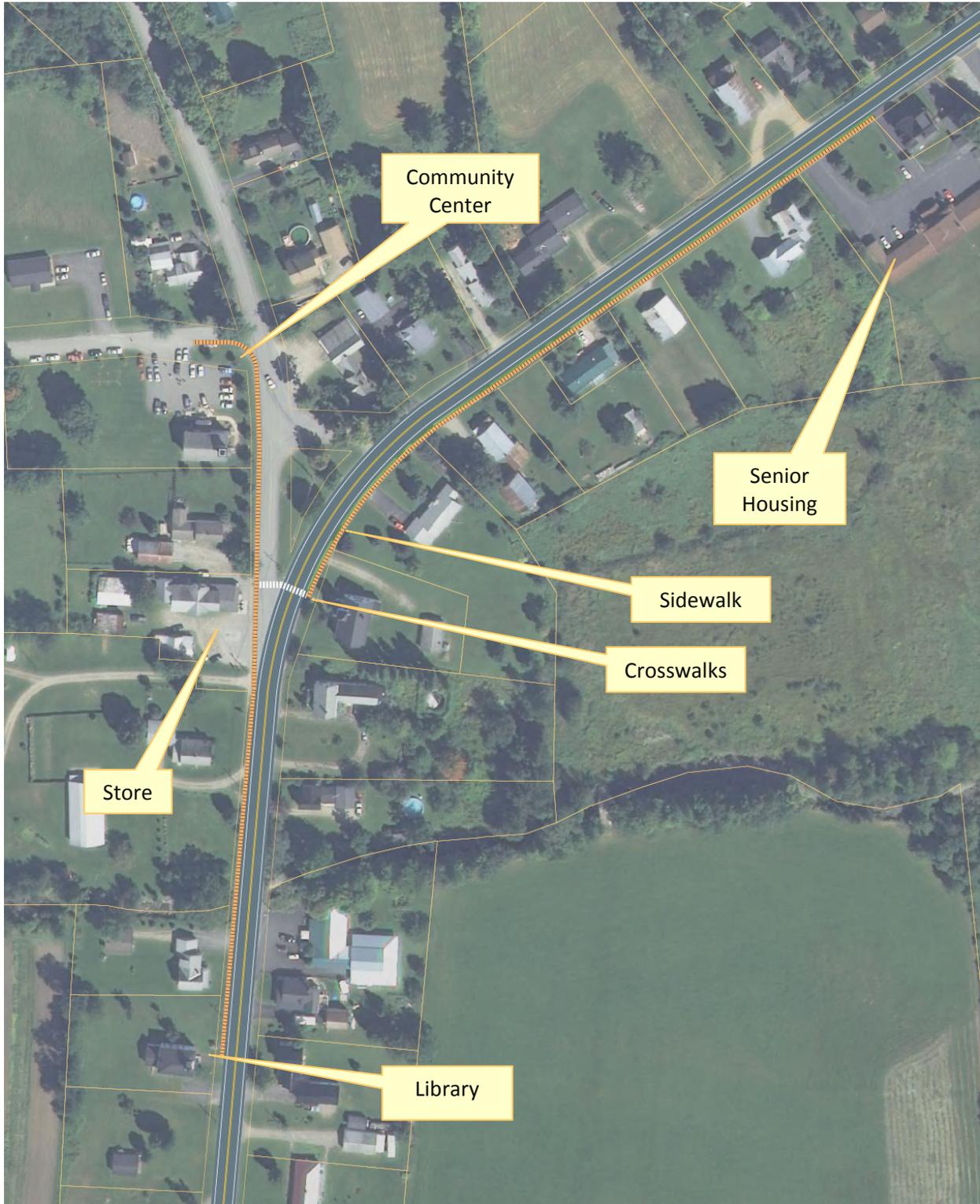


Figure 4: Proposed Sidewalk



Photos of sidewalks in similar settings in Vermont are shown below.



Sidewalk separated by uncurbed greenbelt



Sidewalk separated by curbed greenbelt and trees



Sidewalk with curb adjacent to shoulder



Sidewalk with curbed edge next to shoulder

Other design considerations include:

- The bridge over Mill Brook would need to be evaluated to determine if it could accommodate a sidewalk on its west side. If not, either the bridge would need to be widened or a separate pedestrian bridge would need to be provided. (see photo to right showing where sidewalk would cross the bridge)
- A Phase 1B archaeological assessment would be required for several sections of the sidewalk, as described in the attached Archaeological and Historic Resource Assessment.
- If state or federal funds are used to construct the sidewalk, the Town of Westfield would likely be required to provide winter maintenance of the sidewalk.



Estimated Cost: A planning level construction cost estimate has been developed using the VTrans Unit costs for sidewalk projects from 2010. This is not an detailed cost estimate, and actual costs could vary depending on design details. The following cost estimate assumes a concrete sidewalk, granite curb in appropriate locations, and includes an allowance for drainage, signs, and landscaping. It is assumed that

utility relocation is not required, as the sidewalks can be aligned to avoid conflicts. Because of the size of the project, it could be conducted in phases, with phase 1 providing the connection between Scenic View and the store and, and phase 2 extending the sidewalk north to the recreation area/community center and south to the library.

Phase	Description	Construction Cost
1	Sidewalk from Scenic View to Westfield General Store (830 linear feet of concrete sidewalk with no curb)	\$128,600
2	Sidewalk from Town Office to Library (960 linear feet of concrete sidewalk with granite curb)	\$247,700
Total		\$376,300

There will be additional costs for design, project administration, right-of-way acquisition, and inspection that are not included in the above estimate, and could increase the total project cost by about 30%.

Alternative 1b: Pedestrian Shoulder

Another option is to provide a wider shoulder to improve safety for pedestrians along VT 100. The current roadway has shoulder widths of about 3 feet. In order to provide a reasonable degree of safety for pedestrians, the paved shoulder width should be increased to 4 or 5 feet, and be kept clear of debris or gravel. Wider shoulders could be incorporated into the future VTrans resurfacing project, which might require some cost sharing with the town.

2) Provide Crosswalk

Due to the regular travel patterns of seniors in the village, a marked crosswalk should be considered. The location shown to the right is recommended, as it provides adequate sight distance and convenient routing between the senior housing and the store. The crossing of North Hill Road will be protected by the existing stop sign. The crosswalk safety could be further enhanced by the following:



- An active warning system, such as a rectangular rapidly flashing beacon (rrfb) sign.
- A colored, and/or textured crosswalk surface would highlight the crosswalk to oncoming motorists.

Any type of crosswalk marking and signage would need to meet the VTrans crosswalk guidelines. The VTrans warrant for a crosswalk requires that 20 or more pedestrians must cross at that location during a morning or afternoon peak hour of traffic. While there are far fewer than this number in Westfield, exceptions are often made for locations with elderly or school-aged pedestrians.

Alternative 2a: Basic Crosswalk

The estimated cost of a basic marked crosswalk is shown below. It should be noted that this cost does not include mobilization, but is the marginal cost if a contractor was already conducting work in the area. Mobilization could more than double the cost shown below.

Item	Number	Unit Cost	Total Cost
Durable Pavement Markings	28 ft	\$20	\$560
Sign Assembly (high reflective pedestrian xing)	2	285	570
Other costs (installation, admin)			170
TOTAL			\$1,300

Alternative 2b: Enhanced Crosswalk

The estimated costs of an enhanced crosswalk with active warning sign and a textured/colored surface is provided below:

Item	Number	Unit Cost	Total Cost
Textured Crosswalk	1	\$7,000	\$7,000
Active Pedestrian Warning Sign Assembly (RRFB)	2	\$10,000	\$20,000
Other (Admin, Eng, Inspection, Contingency)			\$7,200
TOTAL			\$34,200



Example of a textured/colored crosswalk



Rapid Flashing Beacon at Crosswalk

3) Speed Reduction and Management

While speed data is not currently available for VT 100 in Westfield, there is a perception that the majority of traffic exceeds the 35 mph speed limit. Speeds in this range particularly put pedestrians walking along the road at risk, especially elderly pedestrians. The following describe some alternative measures to reduce speeds.

Alternative 3a-Enforcement

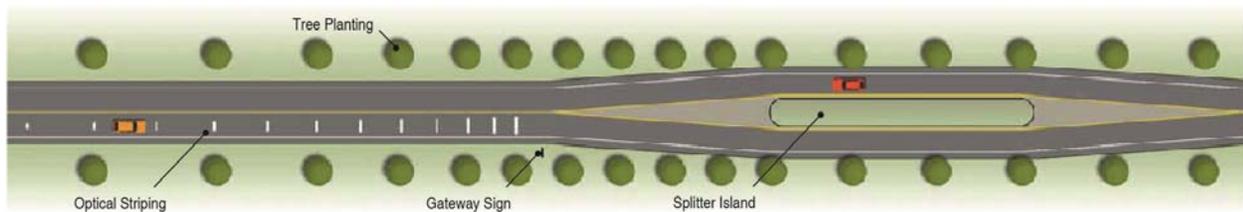
Enforcement of the existing speed limit is generally the most effective way to reduce travel speeds, and can be conducted alone or in combination with any of the following options.

Alternative 3b-Gateway and Transition Treatments

Installation of gateway treatments can reinforce the transition into the reduced speed zone in the village. Among the elements that could be included in gateways are:

- Gateway signs announcing the entrance to the village
- Radar feedback signs inside the reduced speed zone to alert speeding drivers.
- Roadside tree planting at the gateway, and/or throughout the study area, to form a sense of transition and enclosure.
- Splitter islands at the gateway to mark the transition and deflect traffic, causing reduced speeds.
- Optical striping to alert drivers to transition

The following figure shows a schematic of how these types of elements can be combined to form a speed transition area.



The following photos show some of the elements that can be used in gateway transitions.



Radar Feedback Signs



Splitter Islands (under construction in Danville)



Optical Striping

Some of these elements, such as splitter islands or optical striping, should be considered for implementation in combination with the future resurfacing project, Troy-Lowell STP 2934 (). Other items could be implemented sooner by the town through the VTrans Transportation Alternatives funding program. The following table shows the costs of these items.

Item	Number	Unit Cost	Total Cost
Gateway Signs (allowance – cost can vary greatly)	2	\$1,500	\$3,000
Radar Feedback Signs	2	12,500	24,000
Landscaping at gateway (allowance)	2	5,000	10,000
Other Costs (mobilization, admin, final design)	1	12,400	12,400
TOTAL			\$50,400

Alternative 3c-Roadway Treatments

There are several measures that could help narrow the road's appearance to drivers, resulting in lower speeds. The travel lanes should be maintained at 11 feet or narrowed to 10 feet. Colored asphalt could be used on the shoulders in the village's reduced speed zone to reinforce the perception that the road is narrow and speeds should be reduced. The following photos show typical colored shoulder treatments. A variety of materials and techniques have been used in other states.



Implementation of this treatment could be accomplished as part of the upcoming Troy-Lowell STP 2934 () resurfacing project. The Town would likely be responsible for maintenance of the surface, and the cost and effort involved with that would depend on the type of treatment used. Ideally, the color would be integrated into the asphalt rather than a surface treatment that could wear off.

Recommendations

Based on input from the Alternatives Presentation and the above analysis of the alternatives, the following actions are recommended.

Short Term (6 months to 1 year)

- Request a speed study and a reduced speed limit of 25 or 30 mph in the village area and a speed study of VTrans.
- Conduct enforcement of speed limits.
- Request a marked crosswalk from VTrans.
- Consider a Transportation Alternatives application for funding to reinforce the transition to a lower speed zone, and install a crosswalk (if approved by VTrans). Specific elements could include:
 - Gateway signs at village entrance
 - Landscaping (primarily tree planting) at transition to reinforce change in character of the roadway and encourage lower speeds
 - Solar powered Radar feedback signs
 - Marked or textured/colored crosswalk
 - Solar powered RRFB Crosswalk signs

Medium Term (2 to 3 years)

The town could request enhancements to address safety as part of the Lowell-Troy resurfacing project, which is scheduled for design engineering in 2014. There may be some cost sharing requirement, depending on the total costs of these improvements and VTrans policies. The enhancements could include the following:

- Further reinforce gateway transition with measures such as splitter islands or optical speed bars.
- Provide 4 to 5 feet colored asphalt shoulders to provide a safe place for walking and visually narrow the road's appearance to reinforce lower traffic speeds.
- Any other improvements described above that have not been implemented through other activities.

Long Term (5+ years)

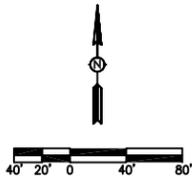
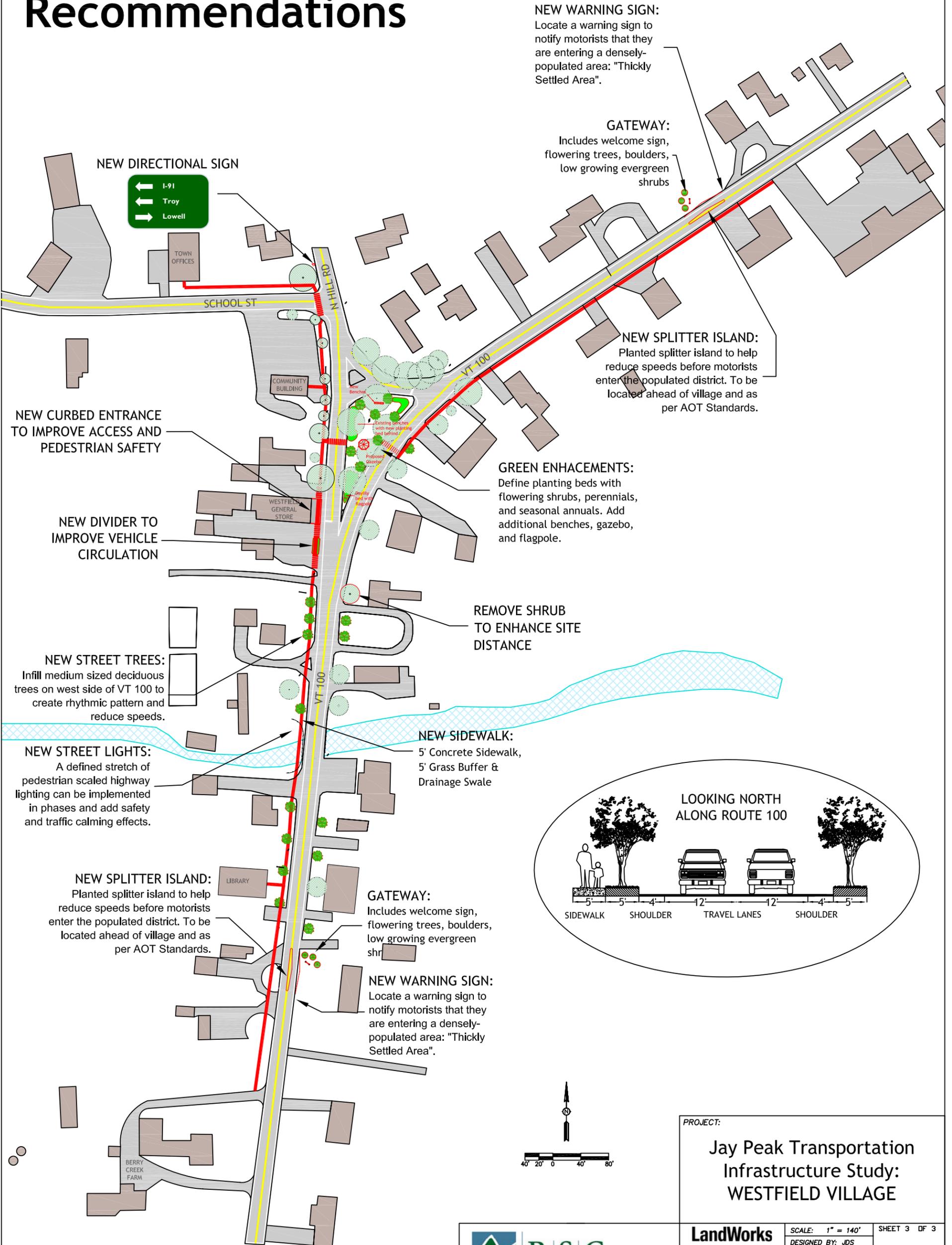
The town can work with NVDA to monitor speeds and safety records. If the above measures do not adequately address the pedestrian safety concerns in the village, the Town could consider the construction of a sidewalk at that time.

Appendices

- 1) Westfield Enhancements from Jay Transportation Infrastructure Study, 2005.
- 2) Local Concerns Meeting and Alternatives Presentation Meeting Minutes and Powerpoint
- 3) Natural Resource Review
- 4) Historic and Archaeological Resource Review

REV. NO.	DATE	DESCRIPTION	BY	CHECKED BY

Westfield Village Enhancement Recommendations



PROJECT:
**Jay Peak Transportation
 Infrastructure Study:
 WESTFIELD VILLAGE**



SCALE: 1" = 140'	SHEET 3 OF 3
DESIGNED BY: JDS	3
DRAWN BY: JDS, BI	
CHECKED BY: JDS, JS	
DATE: 10/6/06	SHEET NO.
PROJ. NO.: 06020	

NOTE: BASE MAP BASED ON 1998 ORTHOPHOGRAPHY.

**Town of Westfield
Village Safety and Enhancement Project**

**Local Concerns Meeting Notes
August 13, 2012 6:00 p.m.**

Attending:

Yves Daigle
Connie LaPlume
Richard Degre
Jacques Couture
Mike Piper
LaDonna Dunn
Lucy Gibson, DuBois & King
Doug Morton, NVDA

Doug Morton provided project background information. The Town has recognized that there are pedestrian safety concerns related to the Scenic View Senior Housing residents walking along Route 100 to the village store. In 2005, a transportation study focusing on traffic impacts and needs from Jay Peak was conducted, and provided a series of recommendation for Westfield's village center to improve the pedestrian safety. This is now a follow up study to determine if these improvements are desired and feasible, or to look at other options for addressing the safety concerns. NVDA has hired DuBois & King to conduct the study

Lucy Gibson outlined the process of the study. Tonight's meeting is to learn about the town's concerns, goals of the study, and to gather information. In the next several weeks, several alternatives will be developed to address the project needs, and these will be presented at an upcoming meeting. Following that, a set of feasible recommendations will be developed, along with cost estimates and an assessment of resource impacts.

The recommendations from the 2005 Jay Traffic Study were reviewed, which included new sidewalks and crosswalks in the village area. The possibility of widening the shoulder as a walking area was discussed, rather than construct a sidewalk, in order to make it easier to maintain.

Other options were also discussed, such as features to reduce speeds through the village.

Travel patterns in the village were discussed. Seniors walk regularly from the housing to the store. In addition, children regularly travel from the library to the store and town recreation area.

It was observed that traffic volumes seem to be increasing substantially due to the growth at Jay Peak.

The bridge near the library was discussed, as it is not wide enough to support a wider shoulder. Options might include some widening of the deck, or installing a separate pedestrian bridge adjacent to this bridge.

It was asked if the shoulder could be surfaced with textured or colored material, so that it looks different from a road shoulder.

Different pedestrian crossing options to get from the senior housing to the store were identified. These will be compared for safety, visibility, and convenience in the alternatives study.

The alternatives meeting was scheduled for Wednesday, September 5 at 6:00 p.m. The public should be invited, and the meeting should be warned properly.

Minutes of Village Safety and Enhancement Project Alternatives Presentation
September 5, 2012

This meeting was held at the Westfield Town Office. It was warned in the Newport Daily and posted at the town office and Westfield General Store.

The meeting opened at 6:08 p.m.

Present were Yves Daigle, Jacques Couture, Lucy Gibson, Doug Morton, Mike Piper, Ladonna Dunn, Richard Degre and Connie LaPlume.

Lucy did a slide presentation showing the village core.

The key concern is of the pedestrians that currently use the shoulder of Route 100 to walk from the community care home to the store. Currently there is a 3 foot shoulder and an 11 foot travel lane.

In the slide presentation was many images of a proposed layout for a side walk that could be stamped, painted or otherwise marked to make it obvious it is not a travel lane. Some options are to extend the shoulder to five feet or to put in an actual sidewalk. In this part of the presentation was also included information regarding a crosswalk.

The crosswalk would be crossing from the north side of the high way to the common. There is the possibility of using a light at the crosswalk.

The sidewalk would be continued to the library/museum and possibly to the last house on the right which is berry creek farm.

The discussion around the sidewalk that would go to the community center was that the town may do that one on their own, rather than include it in the grant.

To slow the traffic down were options of signage, traffic lights or an island that would split the lanes in the hopes of slowing down traffic.

The signage was to lower the speed limit with a solar powered radar sign below the speed limit that would actually show the driver the speed he is traveling.

There is grant money available. All criteria must be met in order to apply for federal funds. The information provided by Lucy Gibson is part of the requirement.

Doug will continue to work on our behalf and will keep the board of selectmen informed as to what the next step will be.

Meeting adjourned at 7:30 p.m.

Minutes taken by:

Connie LaPlume CVC



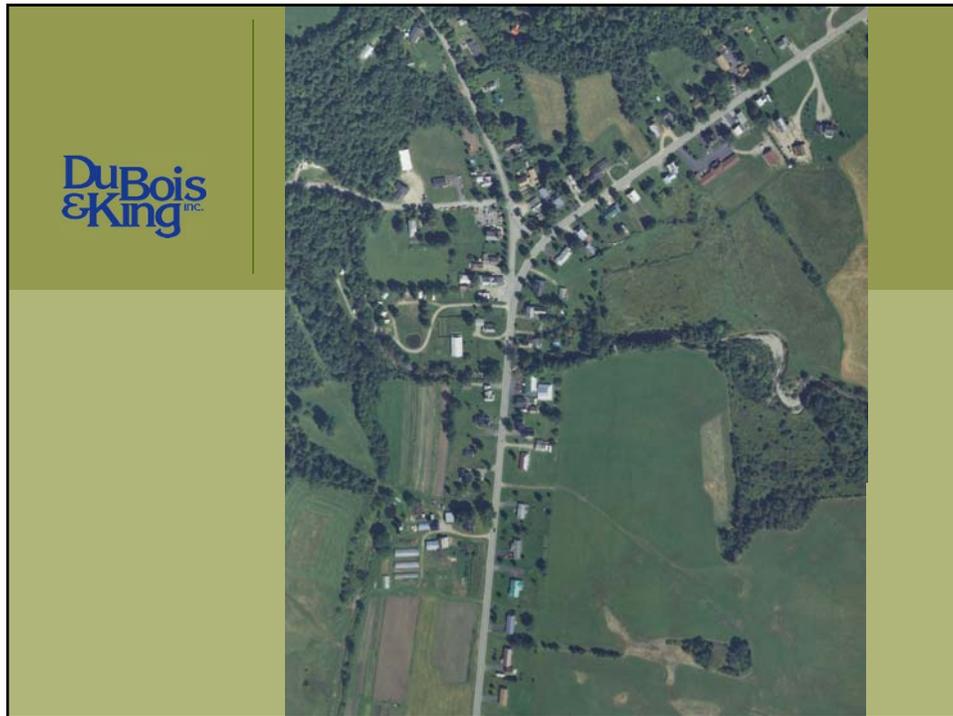
Town of Westfield

Village Safety Study
September 5, 2012



Study Process

- Local Concerns Meeting: August 13, 2012
- Alternatives Presentation: Tonight
- Final Report: September 30, 2012



Goal of the Study

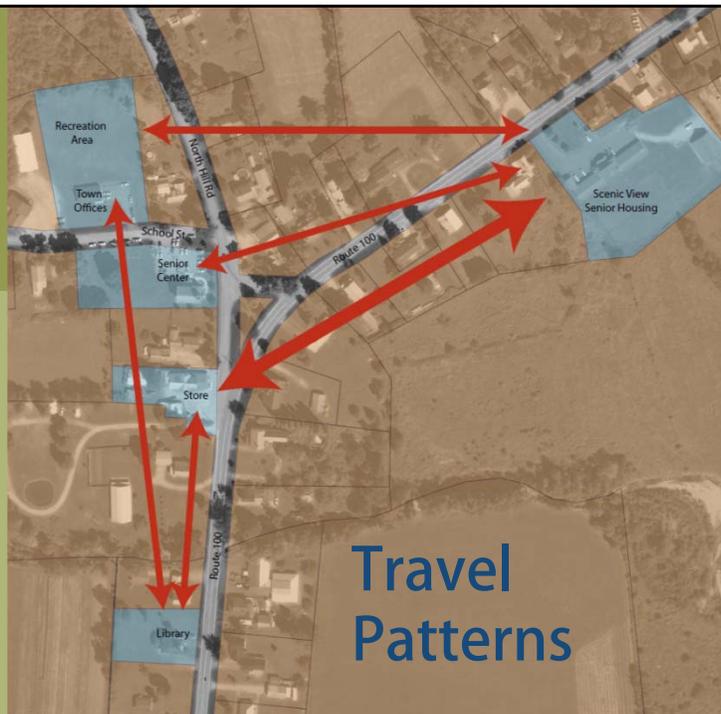
Define projects that the town can pursue for implementation funding.

- Conceptual designs
- Identify issues to be resolved in next design steps
- Cost estimates



Concerns

- Safety for pedestrians and others in Westfield Village
 - Senior Housing Residents walking to store and other locations
 - Children traveling between library and playground
- Maintenance of Pedestrian Facilities





Three feet shoulders



Can shoulders be marked with a distinct pattern?

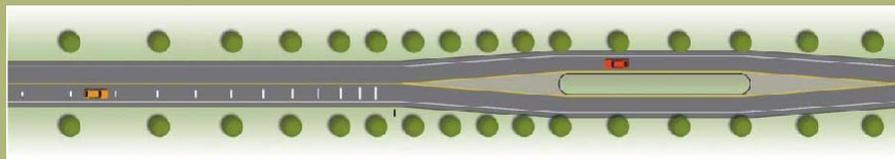




Radar Feedback Signs



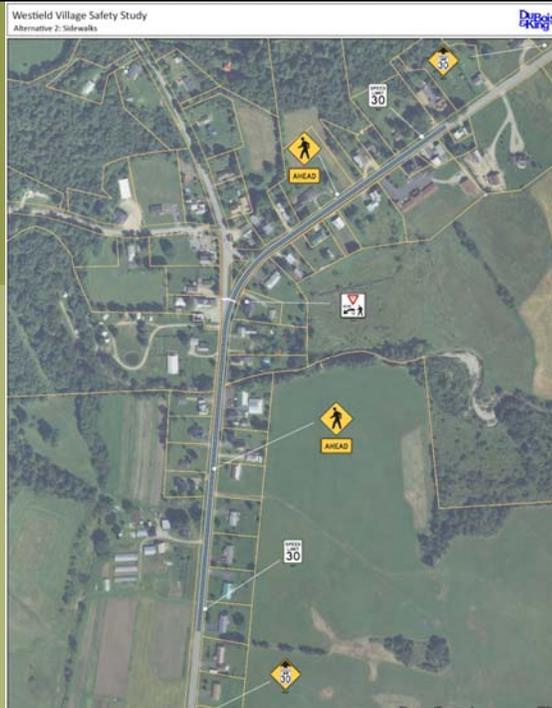
Traffic Calming Islands

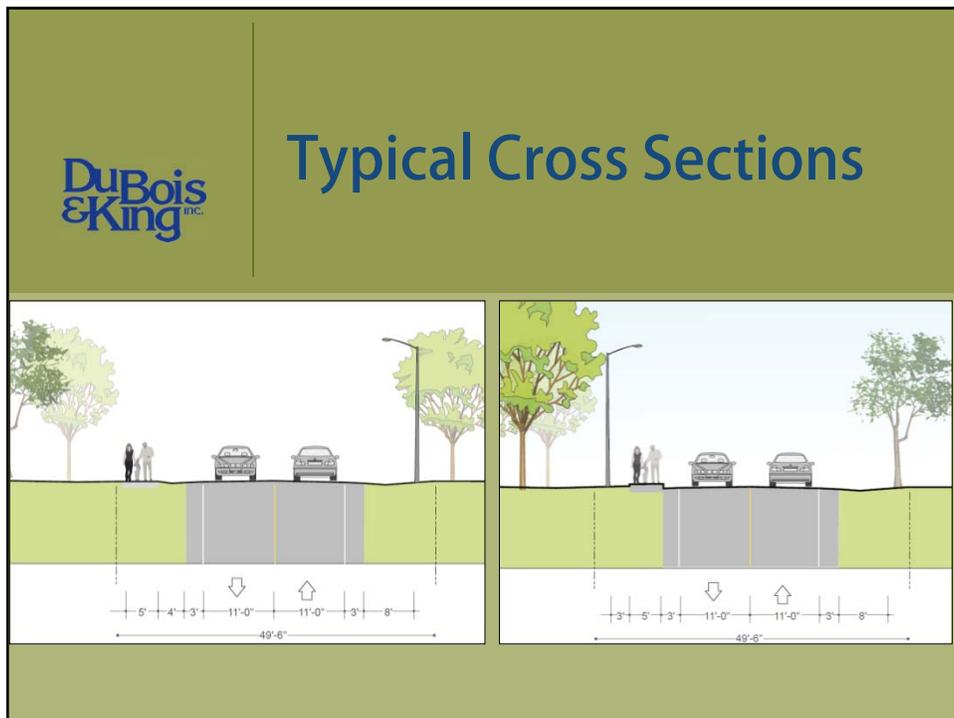




Cost Estimate

- Highly Uncertain
- Some improvements could be incorporated into a VTrans Resurfacing project scheduled for 2016







DuBois
& King
INC.

Mill Brook Bridge

- Built in 1970
- Good condition





Sidewalk Cost Estimate

Phase 1: Scenic View to Town Office		20% Match
Construction	\$196,000	
Engineering/Contingency	\$35,000	
Total	\$231,000	\$46,000

Phase 2: Store to Library		20% Match
Sidewalk Construction	\$123,000	
Bridge	\$100,000	
Engineering/Contingency	\$40,000	
Total	\$263,000	\$52,500



Alternatives Summary

- Alternative 1: Shoulders
 - Least costly to build and maintain
 - Limited safety improvement from current conditions
- Alternative 2: Sidewalk
 - More costly to build and maintain
 - Construction Funding available from VTrans
 - Safest alternative for pedestrians



Short Term Recommendations

- Request VTrans:
 - Speed limit reduction to 25 or 30 mph due to pedestrian safety concerns
 - Marked crosswalk of Route 100
- Consider Radar Feedback Signs



Issues to Resolve

- VTrans Resurfacing planned for 2016+ – what can be included?
- *Transportation Alternatives* local match undefined (10% to 20%)
- Will a wider shoulder on one side be approved? With color or texture? Traffic calming features?



Discussion



Natural Resource Review

Route 100 Village Safety Study - Westfield, Vermont

Wetlands – There are no VSWI-indexed wetlands (Class I or Class II) within the immediate VT Route 100 corridor. Depending on the extent of disturbance beyond the existing roadway associated with the preferred alternative, a field review of wetlands may be warranted. This may include identification of Class III wetlands and/or delineation of wetland boundaries.

Surface Waters – The VT Route 100 corridor within the project area includes one stream crossing of the Mill Brook. If physical modifications to the existing bridge are proposed, streambank impacts will need to be assessed.

Floodplains – There is a Zone A mapped floodplain associated with Mill Brook. The area directly adjacent to the Route 100 crossing of Mill Brook appears to be outside of this mapped floodplain and adverse impacts to the floodplain are therefore unlikely as a result of this project.

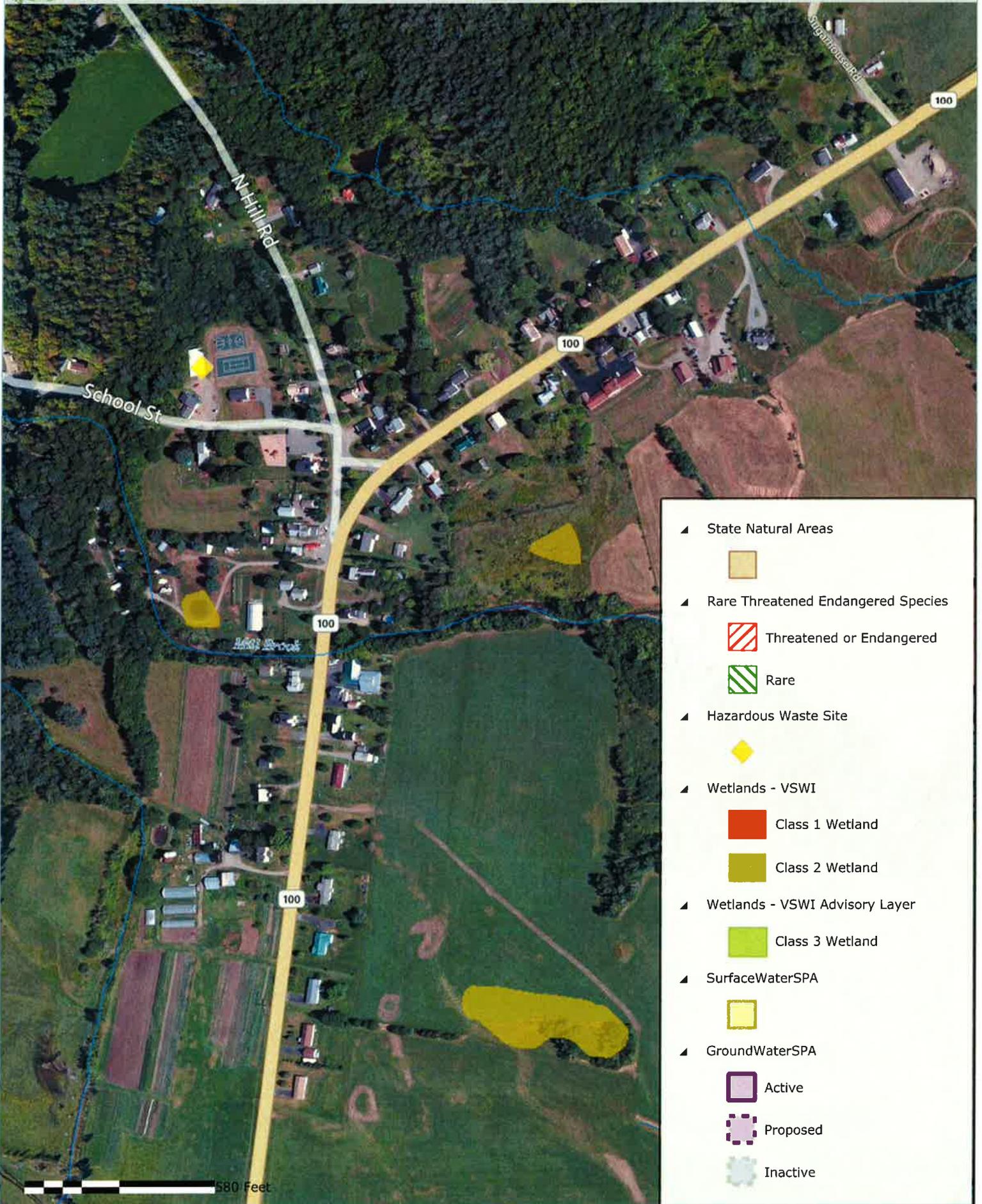
Endangered Species/Flora/Fauna – There are no species of concern or deer wintering yards identified within the project area.

Stormwater – There are no existing stormwater permits identified within the project area. As this project progresses through the design phase, the amount of total earth disturbance and additional impervious area should be reviewed to determine if either a construction or operational stormwater permit is required. Even if the project falls below jurisdictional thresholds, standard erosion control and sediment prevention practices should be employed during construction.

Hazardous wastes – There are no hazardous waste sites identified within the project corridor. There is a hazardous site listed at the Meunier Construction Garage related to contamination detected during the removal of underground storage tanks in 1998. This site is located on School Street, beyond the project limits and ground disturbance is unlikely in the area of contamination.



Natural Resource Atlas - Rt 100 Westfield



- ▲ State Natural Areas
 -  State Natural Areas
- ▲ Rare Threatened Endangered Species
 -  Threatened or Endangered
 -  Rare
- ▲ Hazardous Waste Site
 -  Hazardous Waste Site
- ▲ Wetlands - VSWI
 -  Class 1 Wetland
 -  Class 2 Wetland
 -  Class 3 Wetland
- ▲ Wetlands - VSWI Advisory Layer
 -  Class 3 Wetland
- ▲ SurfaceWaterSPA
 -  SurfaceWaterSPA
- ▲ GroundWaterSPA
 -  Active
 -  Proposed
 -  Inactive



MAP REVISED

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Federal Insurance Administration

TOWN OF WESTFIELD, VT
 (ORLEANS CO.)

MAP REVISED
12/24/76

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



HARTGEN

archeological associates inc

ARCHEOLOGICAL RESOURCE ASSESSMENT AND HISTORIC ARCHITECTURE ASSESSMENT

VT Route 100 Village Pedestrian and Safety Study

Towns of Lowell and Westfield
Orleans County, Vermont

HAA # 4538-11

Submitted to:

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An ACRA Member Firm
www.acra-crm.org

August 2012

ABSTRACT

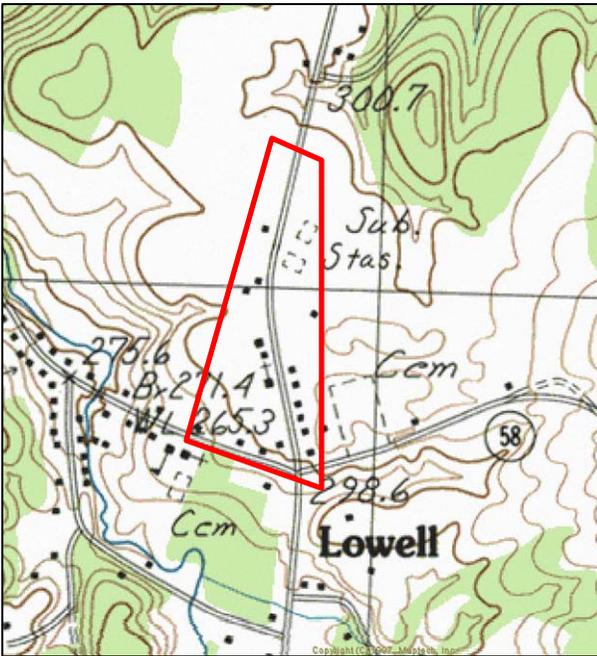
The Route 100 Village Pedestrian and Safety Study project is located in the Towns of Lowell and Westfield, Orleans County, Vermont. Thomas R. Jamison and Walter R. Wheeler of Hartgen Archeological Associates, Inc. were the project manager and architectural historian for the project, respectively. The project requires review under Section 106 of the National Historic Preservation Act of 1966, as amended and the lead agency is the Vermont Agency of Transportation (VTrans).

The area of potential effects (APE) in Lowell extends from the intersection of Route 100 and Hazen Notch Road approximately 1,173 meters (3,850 ft) north to the town offices. The high bank in the southwest quadrant of the intersection is being considered for removal as a traffic hazard, obstructing traffic sight lines. In addition, the 321 meter (1,053 ft) alignment of a VAST trail between Route 100 and Hazen Notch Road was included in the investigation as a possible additional pathway. These project components encompass approximately 9,130.8 sq meters/98,247.4 sq ft or 0.91 ha (2.26 ac).

In Westfield, the APE consists of 580 meters (1,903 ft) along Route 100, 100 meters (328 ft) along North Hill Road and 77 meters (253 ft) along School Street. The APE is assumed to be approximately 2.5 meters (8 ft) in width, making the total APE in Westfield approximately 11,506.4 sq meters/123,809 sq ft or 1.15 ha (2.84 ac).

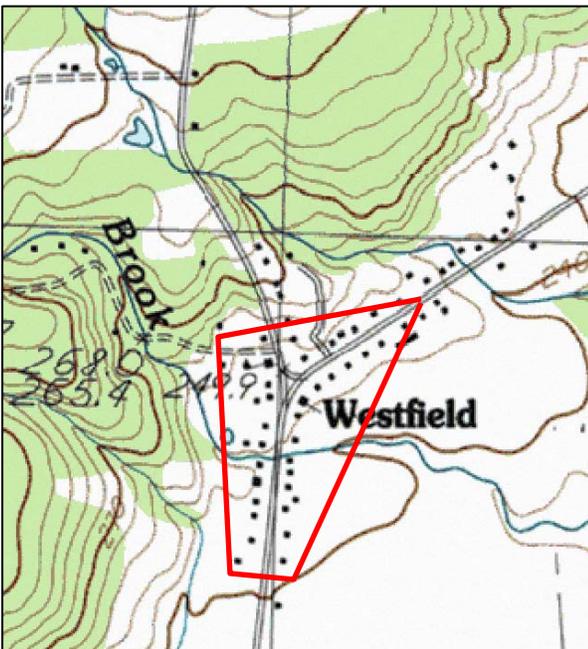
Background research and a site visit to the project area on July 24, 2012 identified areas of archeological sensitivity and historic structures along the APE. In addition, areas of disturbance were defined as could be determined based on evidence of buried utilities and roadside cutting and filling. Areas of archeological sensitivity for precontact and historic deposits were defined in Lowell at the north end of the alignment, along the VAST trail alignment and at the high bank to be removed. In Westfield, areas of archeological sensitivity were defined along the north leg of the alignment on Route 100, in the village green and south of the green on either side of Mill Brook. These areas of sensitivity should be avoided if possible, but if not, a Phase IB archeological reconnaissance survey is recommended. Prior to defining such a survey, precise location of underground utilities should be determined to provide better definition to the boundaries of disturbance.

The architectural survey identified nine structures in Lowell and 19 structures in Westfield which are within the project APEs and which are in excess of 50 years in age. Photographs of each of these structures are presented to assist VTrans in determining whether any additional documentation of historical architecture will be necessary for the project.



Lowell UTM's (NAD 83):

NE: 180701895E, 4964518N
NW: 180701820E, 4964539N
SE: 180701919E, 4963802N
SW: 180701642E, 4963889N



Westfield UTM's (NAD 83):

NE: 180703323E, 4974092N
NW: 180702913E, 4974008N
SE: 180703094E, 4973522N
SW: 180702945E, 4973511N