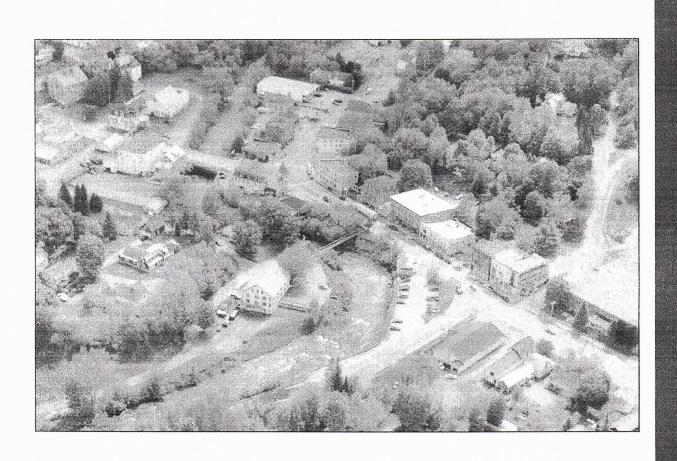


Hardwick Village VT 15 Transportation Assessment

Hardwick, Vermont









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Report Prepared for:

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1.0 INTRODUCTION

The Hardwick Village Transportation Assessment is a joint effort of the Town of Hardwick, the Northeast Vermont Development Association, the Vermont Agency of Transportation (VTrans), and local residents and business owners to develop a comprehensive corridor transportation assessment of the VT 15 corridor through Hardwick Village. In particular, the project focuses on the section of VT 15 running from VT 14 (Craftsbury Road) south through Hardwick Village to Glenside Avenue.

This interim report evaluates and summarizes the existing transportation, infrastructure, and land use characteristics along the VT 15 study corridor and present preliminary recommendations for improvement. In particular, this interim report includes the following items:

- Transportation Conditions Assessment:
- Infrastructure Conditions Assessment;
- Land Use Assessment; and
- Preliminary Recommendations.

The assessment contained in this report, along with the preliminary recommendations identified, will be presented to town officials and the public at a public meeting. The recommendations will then be revised based on comment and input and revised for the final report.

2.0 EXISTING CONDITIONS — TRANSPORTATION ASSESSMENT

This section examines the existing transportation conditions in the project area, from roadway jurisdiction and maintenance responsibilities to traffic volume trends and truck flows through the village.

2.1 Roadway Jurisdiction

VTrans has established a roadway classification scheme to identify the levels of jurisdiction over each section of road across the state. These classifications identify whether, for example, VTrans or the Town is responsible for pot hole patching on a particular section of road. The following categories are used by VTrans:¹

- <u>State Route</u>: Roadways that form the primary transportation network through the State. State routes include all state numbered highway routes not designated as Class 1 town highways and are the responsibility of VTrans.
- Class 1 Town Highway: Roadways that form the extension of state numbered highway routes through a town and carry a state highway route number. Class 1 town highways are subject to concurrent responsibility and jurisdiction between the Municipality and VTrans on several matters. VTrans is responsible for scheduled surface maintenance or resurfacing while municipalities are responsible for pot hole patching, crack filling, etc. VTrans is responsible for center line pavement markings, while municipalities are responsible for sidewalks, crosswalks and parking. VTrans has exclusive authority to designate Class 1 highways.
- Class 2 Town Highway: Those town highways selected as the most important highways in each town. As far as practicable they shall be selected with the purposes of securing trunk lines of improved highways connecting two towns and to places which by their nature have more than a normal amount of traffic. The selectmen, with the approval of the Vermont Agency of



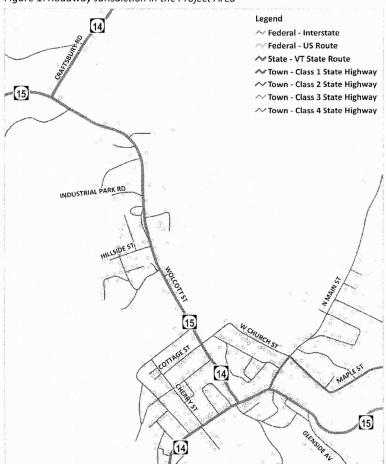
¹ Road classification description sources: VTrans "Handbook for Local Officials" (2004) and NVDA Online Transportation Glossary.

Transportation, shall determine which highways are to be Class 2 highways. Class 2 highways are primarily the responsibility of municipalities. VTrans is responsible for center line pavement markings if municipalities notify VTrans of the need to replace them, while municipalities are responsible for sidewalks, crosswalks and parking. Class 2 mileage normally may not exceed 25 percent of the total Class 2 and Class 3 mileage in the municipality.

- <u>Class 3 Town Highway</u>: All other town highways that are "negotiable under normal conditions all seasons of the year by a standard pleasure car." Class 3 town highways, including sidewalks, crosswalks, and parking, are the responsibility of municipalities.
- Class 4 Town Highway: All other town highways are considered Class 4 town highways. The majority of these receive limited or no maintenance. They are negotiable at your own risk, usually impassable in winter, and referred to as "jeep trails" at other times of the year. Class 4 town highways, including sidewalks, crosswalks, and parking, are the responsibility of municipalities.

Figure 1 shows the road jurisdiction classifications in and around Hardwick Village. As the map shows, VT 15 (Wolcott Street) is classified as a Class 1 Town Highway from just south of Industrial Park Road to just south of Glenside Avenue. VTrans and the Town share maintenance responsibilities and jurisdiction over this section of VT 15. VT 15 beyond these boundaries is a State route and is fully under VTrans' jurisdiction. The dots shown in the map below represent structures identified through the E-911 mapping program.

Figure 1: Roadway Jurisdiction in the Project Area



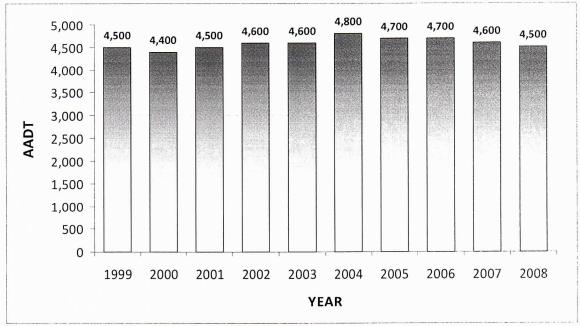


2.2 Traffic Volumes & Congestion Trends

2.2.1 Traffic Volume Trends

Figure 2 below shows the Average Annual Daily Traffic (AADT) volume on VT 15, just west of the VT 14 (Craftsbury Road) intersection over the previous ten years. The figure shows that traffic volumes at this location, and presumably in Hardwick Village, have remained relatively steady over the past ten years.

Figure 2: AADT Trend (1999-2008) on VT 15 west of VT 14 (Craftsbury Road)

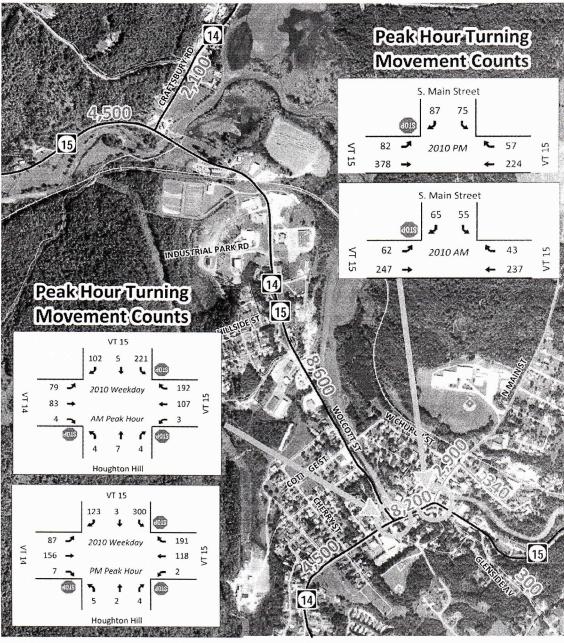




2.2.2 Traffic Count Data

Figure 3 below shows 2008 AADT volumes on selected road segments along and adjacent to the project area, along with current morning and evening peak hour turning movement count volumes at the VT 15/VT 14/Houghton Hill and VT 15/South Main Street intersections. The map shows the highest daily volumes on VT 15 (Wolcott Street) and VT 15 (Main Street) through the village. The predominant traffic flow at the VT 15/VT14/Houghton Hill intersection during both peak hours follows VT 15. However, turns onto and from VT 14 are of a similar magnitude as those on VT 15.

Figure 3: Average Annual Daily Traffic (AADT) Volumes in Red and Peak Hour Intersection Turning Movement Count Data





2.2.3 Intersection Congestion Analysis

Intersection Levels of Service (LOS) and average delays were examined for the VT 15/VT 14/Main Street and the VT 15/South Main Street intersection utilizing the morning and evening peak hour turning movement volumes shown in Figure 3 above. The results of this congestion analysis are shown in Figure 4 below and show that all intersection approaches operate under acceptable LOS and delay (per VTrans standards) during both peak periods.

Figure 4: Level of Service and Average Delay (sec) along VT 15 in Hardwick Village

		PM Pe	ak Hour	
	2010		2015	
Unsignalized Intersections	LOS	Delay	LOS	Delay
STOR VT 14/VT 15/Wolcott St/Main Street				
EB Left/Through, along VT 14/S Main St	C	19	С	21
WB Through/Right, along VT 15/S Main St	C	16	С	18
NB Left/Through/Right, exiting School	Α	3	Α	3
SB Left/Through/Right, along VT 15/Wolcott St	Α	6	Α	6
VT 15/South Main St/Mill St				
EB Left/Through, along VT 15/S Main St	Α	2	Α	2
SB Left/Through, along N Main St	С	16	С	18

2.2.4 Truck Traffic in the Village

Figure 5 below looks at the percentages of trucks in the overall traffic mix at three locations in the study are and compares these with the statewide average for minor arterial roadways. The table shows the percentage of the traffic stream comprised of all classes of trucks and broken down by medium duty (i.e., single-unit) and heavy duty (i.e., tractor trailer) trucks. The data show truck traffic at both locations along VT 15 are slightly below the statewide average, while the truck percentage on VT 14 south of the village is significantly higher than the statewide average.

Figure 5: 2008 Truck Percentages in Hardwick & Statewide Average

	All Trucks	% Medium Duty Trucks	% Heavy Duty Trucks
VT 15 at Granite Street	8%	6%	2%
VT 15 - West of VT 16	8%	5%	3%
VT 14 at Town Farm Road	13%	7%	5%
Statewide Average Minor Arterials	9%	6%	3%

2.3 Projects Programmed in Study Area

There are two projects adjacent to the project area that have been scheduled for construction in the current VTrans transportation improvement program. The two projects are detailed below.

- <u>VT 14/15 Bridge Replacement</u>: This project consists of removing the existing superstructure, construction of a new steel beam and cast-in-place concrete deck over Cooper Brook, new sidewalks, and related approach work. The project is expected to be completed by December 2009.
- <u>Multi-Use Trail</u>: This project involves construction and/or rehabilitation of the second phase of a 0.75 mile packed gravel path connecting Hardwick Village to the Old Lamoille Valley Railroad right-of-way. Construction on this project is anticipated to start in the summer of 2009.



2.4 Safety Assessment

VTrans maintains a statewide database of all reported crashes along all state highways and federal aid road segments. A reportable crash is a collision with at least one of the following results caused by the event:

- property damage exceeding \$1,000
- personal injury
- fatality

The most recent 5-year set of crash data reported by VTrans covers the 2003-2007 period. The crash data from this period are shown in Figure 6 below. The reported crashes, which are depicted with yellow circles, can be seen to cluster in certain locations.

In addition to identifying crash locations, VTrans also identifies High Crash Locations (HCLs) throughout the State. To be classified as an HCL, a road segment or intersection must meet the following two conditions: 1) it must have at least 5 crashes over a 5-year period, and 2) the Actual Crash Rate must exceed the Critical Crash Rate. As shown in Figure 6, VTrans has identified two High Crash Location segments and one High Crash Location intersection based on the current crash data set.

Figure 6 also highlights three particular areas of interest:

- 1. <u>VT 15 (Wolcott Street) between the Fire Station and Cottage Street</u>:
 - This segment of Wolcott Street, which is part of a High Crash Location segment, had 10 reported crashes between 2003 and 2007. The crashes resulted in two injuries. The predominant crash type was a rear-end collision, which represented 5 of the 10 crashes. Of note in this section are large, uncontrolled curb cuts at the Fire Station, the general goods store at the Granite Street intersection, and the auto shop at the Cottage Street intersection. Also of note is a pedestrian crosswalk adjacent to the Cottage Street intersection which does not have appropriate pedestrian crossing warning signs. The combination of uncontrolled access points and unsigned pedestrian crossing may likely be contributing the high crash density in this area.
- 2. VT 15 / VT 14 / Main Street Intersection:

Although this intersection is not identified as an HCL intersection² or part of an HCL segment, there were a number of crashes that occurred at the intersection during the 2003-2007 period. In particular, there were 19 reported crashes occurring during this period, resulting in 4 injuries. There was a wide range of collision types reported, with rear-end collisions being the most commonly reported (33%) collision type. There are a number of factors likely contributing to the crash rate at this intersection including a confusing horizontal alignment with 3-way stop control, a vertical grade change approaching from the north, a confluence of Vermont State routes with potentially confusing route marker signs, and on-street parking within the operating portion of the intersection.

- 3. VT 15 / Glenside Avenue Intersection:
 - This intersection falls within the VT 15 High Crash Location segment and has been identified for years as a potentially unsafe intersection due to poor sight distances for vehicles turning onto VT 15 and the perception of high speed vehicles traveling on VT 15 at the intersection. The crash data from 2003-2007 shows no reported crashes occurring at the intersection, with 6 crashes being reported proximate to the intersection (but likely not directly related to the conditions at the intersection). In addition, a speed count was conducted on VT 15 500 feet west of the

² The VT 14/VT 15/Main Street intersection was identified as an HCL intersection under the previous year's HCL reporting.



¹ This data is exempt from Discovery or Admission under 23 U.S.C. 409.

Glenside Avenue intersection in August 2009. The speed count found the 85^{th} percentile speed to be 28 miles per hour in both directions. The posted speed limit in this area is 30 miles per hour

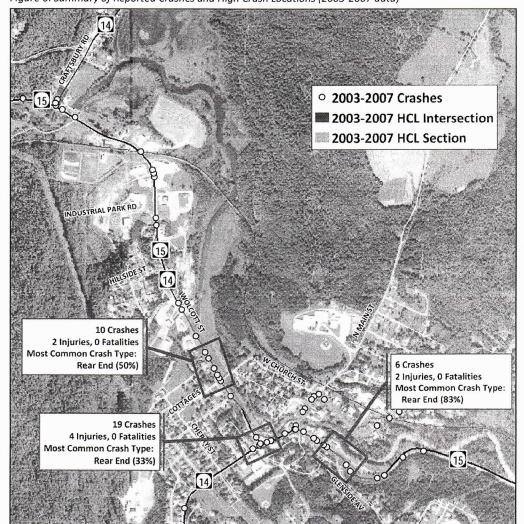


Figure 6: Summary of Reported Crashes and High Crash Locations (2003-2007 data)

¹ The 85th percentile speed represents the speed at which 85% of all vehicles are traveling at or below and is the speed typically used for establishing posted speed limits.



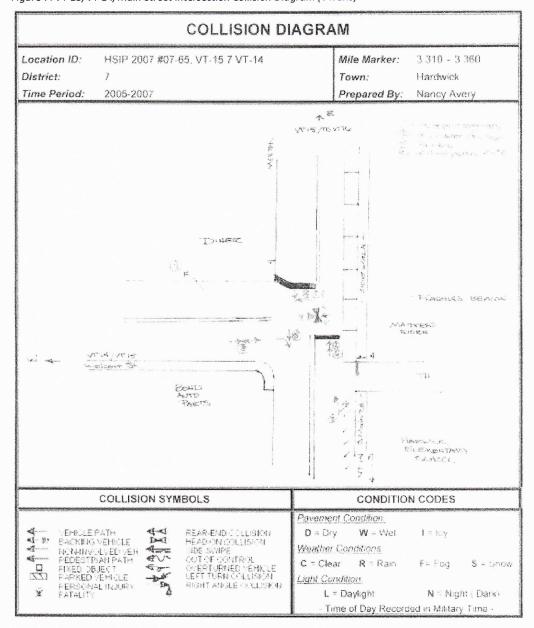
2.4.1 Highway Safety Improvement Program Assessments

VTrans officials have conducted several High Crash Location/Highway Safety Improvement Program site assessments in Hardwick Village over the past ten years to investigate problematic locations and identify recommendations for improvement. A summary of the site assessments is provided below:

- VT 15 from VT 14 to Glenside Avenue (1 December 1999 14 July 2000)
 - Accidents were found to cluster in front of the Post Office and at the VT 15/Glenside Avenue intersection.
 - Recommendations included:
 - a. Cut back the bank at the VT 15/Glenside Avenue intersection to improve sight distance; [not completed]
 - b. Remove the on-street parking on the right side of VT 15 at the Main Street intersection and replace with a bulb-out to improve sight visibility and pedestrian accessibility; [not completed]
 - c. Replace the speed limit and curve signs on VT 15 eastbound approaching Glenside Avenue; [completed]
 - d. Install new curve warning and advisory speed signs on VT 15 eastbound approaching Glenside Avenue; [not completed]
 - e. Cut back the brush on the right side of VT 15 eastbound approaching Glenside Avenue; [ongoing need]
 - f. Replace the overhead flashing beacon at the VT 15/Glenside Avenue intersection with a new 12" LED yellow ball and relocate six feet to the right to be more visible to westbound traffic. Depending on the structural stability of the poles, consider adding a second flashing beacon. [not completed]
- VT 14/VT 15/Main Street Intersection (6 November 2008)
 - A collision diagram for the crashes occurring in the period 2005-2007 is shown below in Figure 7.
 - Recommendations included:
 - a. Install LED lens to all beacon heads:
 - b. Eliminate 4 parking spaces within the intersection functional area;
 - c. Upsize "STOP" signs to 36" with a minimum of ASTM Type III sheeting material;
 - d. Refresh all pavement markings; and
 - e. Correct and reorganize route marker assemblies for all approaches.



Figure 7: VT 15/VT 14/Main Street Intersection Collision Diagram (VTrans)



Note: THIS DOCUMENT IS EXEMPT FROM DISCOVERY OR ADMISSION UNDER 23 U.S.C. 409



3.1 Stormwater System

The stormwater collection system along VT 15 in Hardwick Village is exhibiting signs of deterioration. At the surface, a number of catch basins were found to be clogged (Figure 8, left). Pavement and subbase material deterioration was found around certain catch basins (Figure 8, both). Additionally, stormwater flows are not currently reaching inlets in some locations due to inadequate road cross-slopes and/or inlets not located adjacent to a vertical curb (Figure 8, right), witnessed by "pools" of silt deposits.





3.2 Sidewalks

Figure 9 below shows the existing sidewalk infrastructure along VT 15 in the project area. The existing sidewalks vary widely in condition, width, and materials. Many sections of the existing sidewalks are in poor condition and do not have vertical curb separation from the roadway. Sections of the sidewalk network in the village center are in good condition with adequate width and vertical curb separation.



INDUSTRIAL PARK RD

Figure 9: Existing Sidewalks along VT 15 in the Project Area



4.1 Zoning

Zoning regulations in Hardwick guide land use development through the specification of allowable uses and dimensional standards including setbacks, frontage and minimum lot sizes. A relatively short list of permitted land uses is included in the Hardwick zoning districts along VT 15 in the study area, varying only slightly between zones. Additional uses are permitted as conditional uses, allowing individual developments to be considered on a case-by-case basis (e.g., the Industrial zone has only conditional uses). The inclusion or exclusion of conditional uses further distinguishes the nature of zones, identifying those intended for more commercially-oriented uses (Central Business and Highway Mixed Use districts) and those intended for residential uses (Village Neighborhood, Compact Residential, and Rural Residential).

As can be seen in the zoning map of the Hardwick Village (Figure 10), commercial uses are focused in the core downtown and along VT 15. All industrial uses are confined to single area west of VT 15.

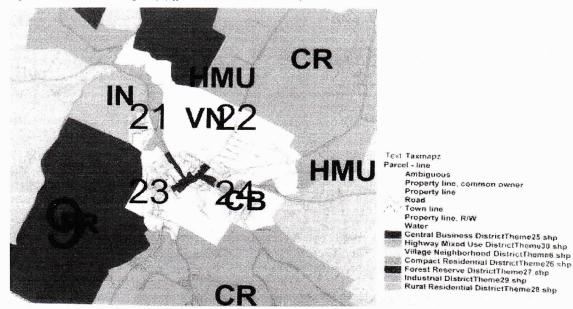


Figure 10: Hardwick Zoning Map (effective 24 November 2005)

4.2 Access and Frontage Requirements

Section 3.3 of the Hardwick Unified Development Bylaws includes several relevant requirements that are generally consistent with sound access management practices. These include:

- Limiting all parcels to a maximum of one driveway;
- Encouraging consolidation of existing driveways and/or providing shared access between adjoining lots;
- Restriction of maximum access widths (this particular wording could be expanded to cap maximum driveway widths to 40 feet, per VTrans access standards); and
- Restriction of new driveways within 75 feet of an adjacent intersection.



4.3 Parking Requirements

The Hardwick Unified Development Bylaws include several relevant requirements for on- and off-street parking. These include:

- Limiting the requirement to provide off-street parking in the Central Business District to one space per two employees per shift;
- Requiring on-site parking to be located to the side or rear of a building with appropriate screening from adjoining residential properties.

4.4 Developed Parcels

Figure 11 presents a parcel map of Hardwick with developed parcels shaded in blue and unimproved or agricultural parcels shaded in orange. The map shows that most of the parcels currently fronting on VT 15 in the study area have some level of development on them.

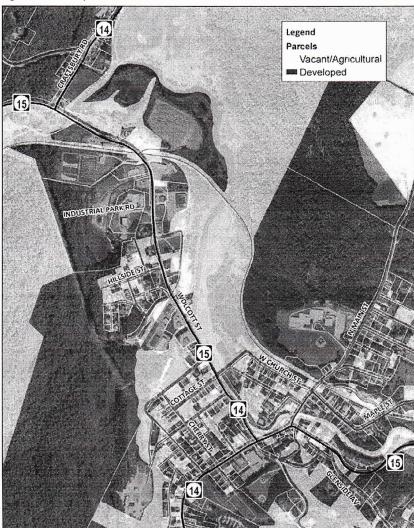


Figure 11: Developed Parcels in Hardwick



4.5 Environmental Conditions

Natural and topological features often direct or limit development to certain areas. Figure 12 presents a map of the project area noting areas of desirable agricultural soils along with areas where terrain may limit development. Slopes with grades above 25% are highlighted in tan. The map shows that only one parcel fronting on VT 15 in the study area has desirable agricultural soils and no parcels have slopes in excess of 25%.

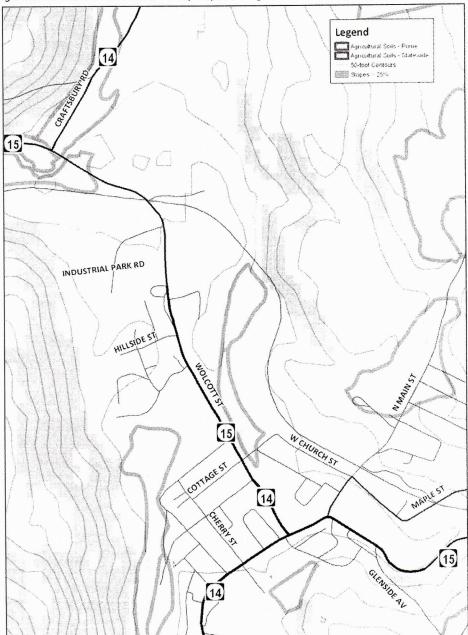


Figure 12: Environmental Features – Steep Slopes and Agricultural Soils



Environmental constraints including the presence of wetlands and endangered animal life also limit areas of development and direct areas of local growth. Figure 13 presents a map of environmental constraints in Hardwick. As the map shows, large deer wintering areas are present north of the village and east of VT 15. Several large wetlands are also present adjacent to the VT 15 corridor. No rare or endangered species have been identified in the area.

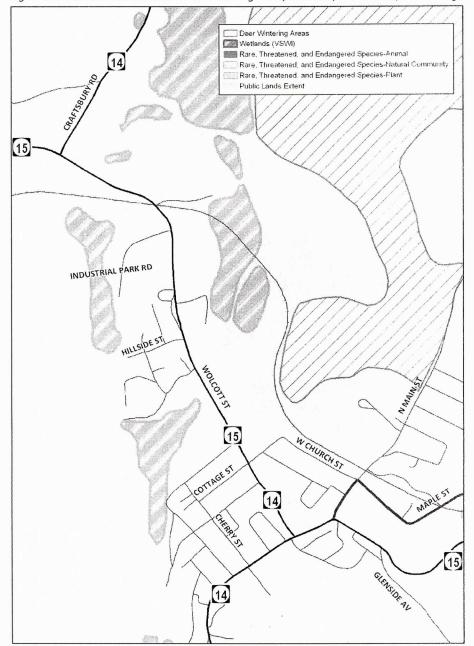


Figure 13: Environmental Features – Deer Wintering Areas, Wetlands, Public Lands, and Endangered Species



5.0 RECOMMENDATIONS

Based on our assessment of existing conditions, a review of previous studies, and input from the Town Manager, Selectboard, and members of the public, three focus areas were identified for more detailed investigation. These three focus areas include the following:

1. WOLCOTT STREET AREA:

This focus area runs along VT 15 from Elm Street north to the Greensboro Garage. The primary issue in this area is a concern over poor access management, as well as high speeds and gaps in the sidewalk network.

VILLAGE AREA:

This focus area runs along VT 15 from Elm Street to Sumner Street. The primary issues in this area include vehicle and pedestrian safety, pedestrian access, aesthetics, poor signage, and traffic congestion.

GLENSIDE AVENUE INTERSECTION:

Figure 14: Identified Issues in the Project Area

This focus area is centered on the VT 15/Glenside Avenue intersection. The main issue in this area is the concern over vehicular safety at this intersection.

A graphical summary of location-specific issues is illustrated in Figure 14 below.

for services road(s)





5.1 Wolcott Street Focus Area

This focus area follows VT 15 (Wolcott Street) from the Greensboro Garage south to Elm Street. This section of VT 15 is characterized by a mixture of commercial/retail and residential uses, with densities generally decreasing as one moves north. The primary concerns raised in this area include the numerous, and often excessively wide curb cuts, high crash rate, inadequately signed crosswalks, and disconnected sidewalk network.

Figure 15 below shows the recommended improvements in the northern section of this focus area in the vicinity of Junction Road. The recommendations identified for this area include the following:

- Narrow and consolidate access points to both Lamoille Ford and Greensboro Garage lots to
 provide a single access point for each parcel with a maximum access width of 40 feet at the edge
 of the right-of-way, per VTrans Access Management Standards. These reconfigurations should be
 considered during site plan review for any improvements to the existing sites.
- Provide better definition of Log Farm Road/VT 15 intersection and Log Farm Road with raised curbs and/or landscaped buffers.
- Close current Treatment Plant Road access onto VT 15 and provide connection via new roadway between Treatment Plant Road and Junction Road. This reconfiguration may be incorporated into the development plans for the proposed Food Ventures Centers.
- Provide gravel parking area along Treatment Plant Road for use during seasonal Farmer's Market.
- Narrow and consolidate access points across from Junction Road to provide a single access point
 with a maximum access width of 40 feet at the edge of the right-of-way, per VTrans Access
 Management Standards. This reconfiguration should be considered during site plan review for
 any improvements or reconfigurations to the site.

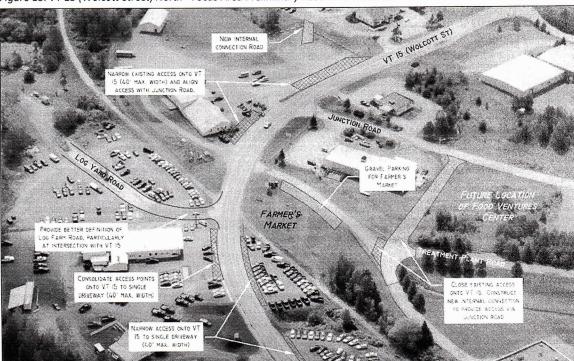


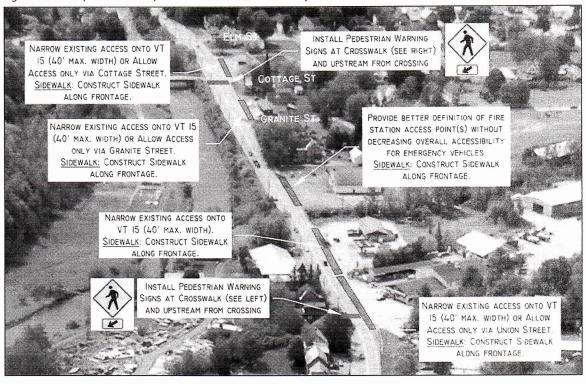
Figure 15: VT 15 (Wolcott Street) North - Focus Area Preliminary Recommendations



Figure 16 below shows the recommended improvements in the southern section of the Wolcott Street focus area. The recommendations identified for this area include the following:

- Narrow and consolidate multiple access points to provide a single access point for each parcel
 with a maximum access width of 40 feet at the edge of the right-of-way, per VTrans Access
 Management Standards. These reconfigurations should be considered during site plan review for
 any improvements to the existing sites.
- In association with identified driveway narrowing and consolidations, new five foot concrete sidewalks and curbs should be constructed along the west side of VT 15, with a five foot concrete sidewalk strip continuing across driveways, per VTrans standards.
- Install pedestrian warning signs at the mid-block crosswalks adjacent to Cottage Street and Union Street.

Figure 16: VT 15 (Wolcott Street) Central - Focus Area Preliminary Recommendations





5.2 Village Focus Area

This focus area includes the Village area of VT 15 from VT 14 to North Main Street. The primary concerns raised in this area include the high crash rate, traffic operational confusion, lack of public parking signage, and inadequately signed crosswalks.

Figure 17 below shows the recommended short-term improvements in the Village focus. This area has been identified by VTrans as a high crash area, and, as mentioned previously in this report, has been the subject of various site investigations. Given this designation, it is likely that VTrans would reimburse the Town for up to \$15,000 worth of safety-related improvements, including signing and striping upgrades. The specific recommendations identified for this area include the following:

- Re-stripe edge lines to define 11 foot travel lanes along VT 15 to calm speeds approaching and exiting the VT 15/VT 14 intersection.
- Provide Public Parking signage at the accesses to the municipal lot to clarify the intended use of the lot.
- To discourage cut-through traffic through the municipal parking lot, either construct a speed bump/table within the lot or close the access to the lot from South Main Street adjacent to the diner.
- Replace the existing STOP signs at both the South Main Street and VT 14 approaches to the VT 15/VT 14 intersection with a larger 36 inch sign with a minimum ASTM type III sheeting material for enhanced visibility and reflectivity. Supplement the STOP signs with "Traffic From Right/Left Does Not Stop" plaque, to clarify that the intersection is not all-way stop-controlled.
- Stripe a new crosswalk across the VT 14 approach and relocate the stop bar behind the crosswalk, per VTrans standards.
- Remove the four on-street parking spaces within the functional area of the VT 15/VT 14 intersection, to remove potential conflicting movements from the operational area of the intersection.
- Replace the existing flashing beacon at the VT 15/VT 14 intersection with LED lenses in all directions.
- Install new Curve with Advisory Speed sign for both VT 15 approaches to the VT 15/North Main Street intersection.
- Install new curbed bump-outs at the mid-block crosswalk adjacent to the VT 15/North Main Street intersection to calm traffic speeds and reduce the pedestrian crossing distance.
- Align stop bar and STOP sign at North Main Street approach to VT 15/North Main Street intersection.
- Install pedestrian warning signs at the mid-block crosswalks along South Main Street.



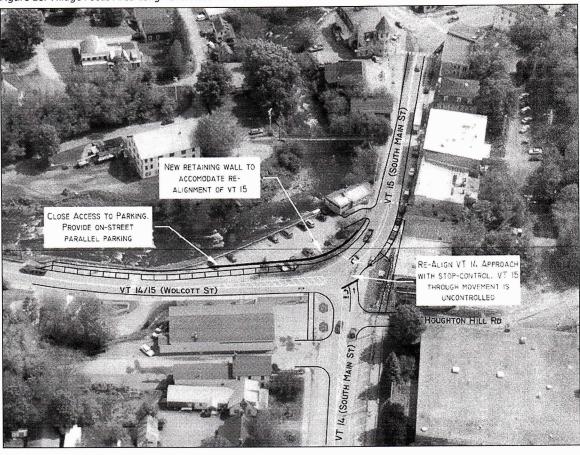
Figure 17: Village Focus Area Short-Term Recommendations ALIGN STOP BAR AND STOP SIGN. RESTRIPE STOP BAR, REPLACE EXISTING STOP SIGN WITH 36" SIGN WITH MIN. ASTM TYPE III SHEETING MATERIAL GENERAL: INSTALL PEDESTRIAN WARNING SIGNS AT CROSSWALKS ON MAIN STREET NEW CURBED BUMP OUTS TO CALM TRAFFIC AND IMPROVE NEW CURRED ISLAND TO IMPROVE DELINEATION OF PEDESTRIAN SAFETY DRIVEWAYS AND SIDEWALK AREAS NEW 'CURVE WITH ADVISORY SPEED' SIGN (SEE BELOW) SPEED BUMP/TABLE TO MINIMIZE CUT-THROUGHS, OR CLOSE S. MAIN DRIVEWAY ROVIDE ENHANCED PUBLIC PARKING SIGNAGE AT REPLACE FLASHER WITH "DINER LOT". LED LENSES ON ALL SIDES REMOVE 4 PARKING SPACES WITHIN INTERSECTION NEW CROSSWALK AND RELOCATED STOP BAR REPLACE EXISTING STOP SIGN WITH 36" SIGN (SEE STRIP EDGE LINES (II' LANES) TO CALM SPEEDS BELOW) WITH MIN. ASTM TYPE III SHEETING MATERIAL



Figure 18 below shows one long term option for the VT 15/VT 14 intersection to improve intersection operations and safety. The re-aligned intersection would allow through traffic on VT 15 to proceed uncontrolled, with the VT 14 approach remaining stop-controlled. This reconfiguration would result in a slight improvement to intersection operations, with all movements operating at a Level of Service of C or better during all peak hours.

Due to the grade difference between VT 15 and the municipal parking lot, a retaining wall would be needed to accommodate the re-alignment of VT 15. The parking spaces lost in the municipal parking lot from the re-alignment could be replaced with on-street parallel parking on VT 15 (Wolcott Street).

Figure 18: Village Focus Area Long-Term Recommendations





5.3 VT 15/Glenside Avenue Intersection Focus Area

This focus area includes the area in the vicinity of the VT 15/Glenside Avenue intersection. This section of VT 15 is characterized by a transition from a rural arterial into a village setting. The primary concerns raised in this area include the safety concerns related to the poor intersection sight distance (both for vehicles exiting Glenside Avenue and vehicles approach the intersection on VT 15 from the east), excessively wide curb cuts, and the lack of pedestrian facilities in the area.

Figure 19 below shows the recommended improvements proximate to the VT 15/Glenside Avenue intersection. The recommendations identified for this area include the following:

- Cut back and maintain the vegetation on the west side of VT 15 to improve sight distances for vehicles approaching on VT 15 from the east.
- Replace the existing flashing beacon with a 12 inch LED lens in all directions and install a second flasher eight feet to the right of the current beacon to increase visibility.
- Install an inductance loop vehicle detector at the Glenside Avenue approach to detect vehicles
 waiting to turn onto VT 15. Connect detector to new sign on VT 15 east of the intersection to
 warn approaching vehicles that traffic may be entering intersection when flashing.
- Extend sidewalk along north side of VT 15 from village to Halls Market and gas station.
- Narrow and consolidate multiple access points on north side of VT 15 with a maximum width of 40 feet at the edge of the right-of-way, per VTrans Access Management Standards. These reconfigurations should be considered during site plan review for any improvements to the sites.
- As a long term consideration, cut back bank on the southeast corner of the VT 15/Glenside Avenue intersection to improve intersection sight distance.

EXTEND 5' CONCRETE SIDEWALK WITH CURBING CONSOLIDATE AND NARROW EXISTING DRIVEWAYS ONTO VT 15 (40' MAX. WIDTH) REPLACE EXISTING FLASHING BEACON WITH A 12" LED BULB. INSTALL VEHICLE DETECTION AT STOP INSTALL A SECOND FLASHING BAR WITH CONNECTION TO NEW BEACON EIGHT FEET TO THE RIGHT FLASHER & WARNING SIGN (GRAPHIC OF THE EXISTING BEACON ABOVE) ON VT 15 EASTBOUND LONG TERM: CUT BACK BANK TO IMPROVE SIGHT CUT BACK VEGETATION DISTANCE TO IMPROVE SIGHT DISTANCES.

Figure 19: VT 15/Glenside Avenue Intersection - Focus Area Preliminary Recommendations

