

**Chittenden County Regional Planning Commission**  
*With the*  
**Lamoille County Planning Commission**  
**The Chittenden County Transportation Authority**  
*and the*  
**Towns of Essex, Jericho, & Underhill;**  
**Cambridge Village & Jeffersonville Village**  
**Vermont Route 15 Park & Ride/Bus Stop Study**  
**Existing Conditions & Potential Sites**



*Submitted by:*  
**Lamoureux & Dickinson Consulting Engineers, Inc.**

*In conjunction with*  
**Broadreach Planning & Design**  
**Heritage Landscapes, LLC**

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## I. INTRODUCTION

### A. OVERVIEW

As part of the development of alternate transportation improvements to the Circumferential Highway, the Chittenden County Regional Planning Commission (CCRPC) and the Chittenden County Transportation Authority are planning for the addition of a commuter bus line between Jeffersonville and Burlington along Vermont Route 15 (Route 15). This study focuses on locating viable locations for park and ride/bus stop sites along the corridor. **Figure EC-1** shows the approximate extent of the Study Area. The CCRPC organized a study Advisory Committee (AC) with representatives of each of the towns and the two regional planning commissions involved with the project as well as a representative from the the Chittenden County Transportation Authority (CCTA). The CCRPC requested that a Consulting Team lead by Lamoureux & Dickinson with support from Broadreach Planning & Design to assist the AC in the completion of the project.

The CCTA is hoping to start the Route 15 commuter bus service in October 2013. They are currently planning the timing and logistics of the route.

The Study Area for this project extends along Route 15 in the west from the Essex Town Center to Jeffersonville in the east. **Figure A** shows the general extent of the Study Area.

This summary report is the first product of the work of the AC and the CT. The summary describes the existing conditions in the Study Area. The report is formatted for double-sided printing; blank pages are intentional.

### B. PURPOSE AND NEED

The purpose of the Route 15 Park & Ride project is provide locations for commuters to park their vehicles and board an express commuter bus heading to the Burlington Metropolitan Area.

Needs for the improvements include:

- The lack of defined park & ride locations along Route 15 in the Study Area that can accommodate both parked vehicles and a bus loading and unloading space.

### C. PROJECTED USERS

Commuters that live within five miles of Route 15 are the projected users of the proposed park & ride sites. They are typically capable of walking a short distance from the parking area to the bus loading area, but the further apart they are, the less likely the project users will use the parking site. It is also anticipated that potential users will travel from more

distant locations in Lamoille County to use available park & ride sites in Jeffersonville and Cambridge.

## **D. ORIGINS, DESTINATIONS & TRAVEL PATTERNS**

The residential areas along and close to Route 15 from Essex to Jeffersonville are the most likely locations for walkers and bicyclists using the bus stop lots to originate. In general, those areas within a quarter mile of the potential sites could be considered the areas where it is highly likely that users would walk to the site. Estimating a radius around each with within which bicycle users might come to the bus stop is a bit less accurate, due to the variable abilities of potential bicycle riders. The consultant has used a radius of four miles as an estimate. **Figures B, C, D, E, F, and G** show the various walking and bicycling areas for each potential site.

## **II. POTENTIAL SITES**

### **A. SITES**

#### **1. OVERVIEW**

As the project began, the AC suggested potential sites for park & ride/bus stop in their communities. Their suggestions were based on recent studies for park & ride sites, such as in Jericho, as well as on personal knowledge of various possibly appropriate sites along Route 15. The consultants expanded the list of potential sites suggested by the AC by a review of the aerial photos and existing conditions within the study area. They looked for either existing parking areas that might be underused or available during the week, as well as larger, flat parcels that were located close to the town or village centers.

During field visits to each of the potential sites, the consultants estimated how many empty parking spaces might be available on those sites that are currently underused or how many total parking spaces might be available for those sites that were seldom used during weekday hours, such as church parking areas. They also estimated if the site could accommodate a bus stop immediately with minimal work, even if not in a preferred configuration, so that it could be one of the sites used as the bus service begins in October 2013. They also noted what work they thought would be needed to make the site a more permanent park & ride/bus stop site with better conditions for both the users and the bus drivers.

The following sections describe the various potential site locations in each municipality. **Table A** describes each of the sites and provides some basic comparison information for each site. The descriptions of the site are organized by municipality heading west to east along Route 15.

## 2. TOWN OF ESSEX

The AC and consultant identified five potential sites for a park & ride/bus stop site in Essex:

- Essex Outlet Fair Parking Lot,
- Price Chopper Parking Lot,
- Existing Park & Ride,
- Vacant Parcel South of Lamell Lumber, and
- Simons Convenience Store and Adjacent Parcel.

**Figures B** and **C** show the location of these potential sites. Since the exploration of these initial sites, the Town and the CCTA have determined that the Essex Outlet Fair Parking Lot is the most appropriate site for both long and short term use as a park & ride and bus stop. The other sites are listed below for information to document which sites were considered as part of the study.

*Essex Outlet Fair Parking Lot* – The Essex Outlet Fair is located at the intersection of Route 15 with VT Route 289. The eastern end of the Essex Outlet Fair parking lot near the movie theater has a significant number of unused parking spaces that could be available during the day for commuters. There are already bus stops with a shelter on one side of the Essex Outlet Fair interior drive that CCTA uses now as stop on their Essex Center #4 Bus Route. The access from Essex Way on the east would be unsignalized, but the access from Route 15 on the west would be signalized.

*Price Chopper Parking Lot* – The Price Chopper Shopping Center is on the north side of Route 15 about ½ mile west of the Route 15/Route 128 intersection. The eastern end of the Price Chopper Shopping Center parking area typically has open parking spaces during the day. The parking lot also has a looped internal drive and a signalized entrance on Route 15 and there is an existing eastbound bus stop at the intersection.

*Existing Park & Ride* – The existing park & ride lot in Essex Center is located on the west side of Route 15 just south of the Route 15/Route 128 intersection. It has a total of 11 parking spaces. The park & ride is situated on a one-way loop road. There is an existing eastbound bus stop just east of the park & ride exit. Users would need to cross Route 15 wne entering or exiting westbound buses.

*Vacant Parcel South of Lamell Lumber* – The open field on the south side of Route 15, several parcels west of the intersection with Allen Martin Drive, could be developed into a new park & ride facility and bus stop. There is the potential for an on-road bus stop, but a pedestrian crossing would have to be considered given the speed of the road. The entrance to the site would be unsignalized.

*Simon's Convenience Store and Adjacent Parcel* – the Simon's gas station and convenience store is located on the north side of Route 15 West of the intersection with Allen Martin Drive. The gas station site itself has several parking spaces that are typically filled at least during the

noon hour. There is an open site adjacent to the north that could be used to expand the parking area or create a new parking area accessed directly from Route 15. The entrance to the site would be unsignalized.

### 3. TOWN OF JERICHO

The AC and the consultant identified eight potential sites in Jericho:

- Jericho Town Office and Methodist Church Parking,
- United Pentecostal Church Parking,
- Jericho Post Office Site,
- Jericho Elementary School Site,
- Packard Road Town-Owned Parcel,
- Mt. Mansfield Unitarian Universalist Fellowship,
- Good Shepherd Lutheran Church, and
- Jeri-Hill Storage Parking Lot.

**Figure D** shows the location of these potential sites.

*Jericho Town Office and Methodist Church Parking* – The Town Office is located on the north side of route 15 at the western end of the upper village area. The existing parking lot is very small and typically has four to five parking spaces available at any one time during the day. The entrance to the parking lot does not have a traffic signal. The bus stop would need to be located on Route 15; there is an existing crosswalk on Route 15 adjacent to the parking lot access drive.

*The United Pentecostal Church Parking* – The United Pentecostal Church parking lot is located on the south side of Route 15 at the western end of the upper village. The existing parking lot has room for approximately 25 cars but no room for a bus turnaround. The bus stop would need to be located on Route 15; there is an existing crosswalk on Route 15 adjacent to the parking lot access drive.

*Jericho Post Office Site* – The Jericho Post Office occupies a small portion of the parcel located on the northeast corner of Route 15 and Old Pump Road. The existing parking area is small but there is room on the rest of the parcel to construct a new park & ride lot and bus stop. Bus stops could be accommodated on Route 15 due to the low speed and nearby crosswalk. There would be no traffic signals at either the entrance to the Post Office or at the intersection of Old Pump Road.

*Jericho Elementary School Site* – The Jericho Elementary School is located on the south side of Route 15 just east of the intersection with Old Pump Road. Bus stops could be accommodated on Route 15 due to the low speed and nearby crosswalk. This site is still being evaluated.

*Packard Road Town-Owned Parcel* – The Packard Road site is located on the southeast corner of the intersection of Packard Road and Route 15. This site is currently open and undeveloped.

The field is level and could accommodate a new good size park & ride lot with room for an on-site bus stop. The *Jericho Park-and-Ride Feasibility Study and Alternatives Evaluation* analyzed this site and the evaluation gave it a high rating. **Attachment 1** includes a copy of this report. Users would need to access this site from Packard Road; its intersection with Route 15 would not be signalized.

*Mt. Mansfield Unitarian Universalist Fellowship* – The Unitarian site is located just to the east of the intersection of Route 15 and Packard Road on the north side of Route 15. The existing gravel parking area could accommodate more than 25 cars during weekdays. Whether a bus could pull in and safely loop around the site has not been evaluated. The site could be used immediately, but some improvements would be needed to have the site serve as a long-term park & ride site. The site shares a driveway with a residential property, which could be challenging in terms of gaining public support for the site. The *Jericho Park-and-Ride Feasibility Study and Alternatives Evaluation* analyzed this site and the evaluation gave it a high rating. **Attachment 1** includes a copy of this report. The existing access drive would not be signalized.

*Jeri-Hill Storage Parking Lot* – The Jeri-Hill paved parking lot is in front of the building and is often empty during weekdays. The parking area could not accommodate a bus stop. Given the speed of the road, CCTA would not consider an on-road bus stop. Additionally, the absence of a crosswalk would make passenger access from a bus stop to the site difficult when heading east. The access to the Jeri-Hill parking lot does not have a traffic signal and is shared with the access to the adjacent hardware store.

*Good Shepherd Lutheran Church* – The Lutheran Church is located on the north side of Route 15 to the west of the Route 15 intersection with Orr Road. The existing gravel parking area could accommodate more than 25 cars during weekdays and it does not appear as though a full size transit vehicle could turn around in the lot if cars were present. The site could be used immediately, but some improvements would be needed to have the site serve as a long-term park & ride site. The access drive would be unsignalized.

#### 5. Underhill Flats (Towns of Jericho & Underhill)

The AC and the consultant identified five potential sites in Underhill Flats, three in Jericho and two in Underhill:

- The Mills Riverside Park,
- Jolly's Convenience Store Parking Lots,
- Former Saw Mill property,
- The Town Green, and
- The Underhill-Jericho Fire Department Station.

**Figure E** shows the location of these potential sites.

*Mills Riverside Park* – The Mills Riverside Park fronts on the south side of Route 15 just west of the Route 15 intersection with River Road. It has more than 25 existing spaces on either

side of the gravel loop one-way drive with separate entrance and exit. Neither access point is signalized. The site could be use immediately for a park & ride and bus stop. The bus could either pull off Route 15 and onto the gravel drive for boarding or disembarking passengers or stop on Route 15, but in that case passengers would need to cross Route 15 in the morning to get the bus heading west towards Burlington. Improvements to the site would be needed for it to serve as a park & ride site long term.

*Jolly's Convenience Store Parking Lots* – These parking lots are located on the north side of Route 15 across from the intersection of Route 15 with River Road. Neither the main site or the adjacent parking lot to the north would have more than one or two parking spaces available for the park & ride now and there is no room for expansion of the parking areas. The bus would need to stop on Route 15 near the intersection; there is a crosswalk on route 15 on the west side of the intersection. Neither access point to the parking lots would be signalized.

*Former Saw Mill Property* – The former saw mill site is located in the southeast corner of the intersection of Route 15 and Dickinson Road. It has a level gravel parking are that could accommodate at least 25 cars immediately. The bus would be able to pull into the site either directly from Route 15 or from Dickinson Road. Improvements would be needed to the site for it to serve as a long-term park & ride site. There would be no traffic signal at the intersection with Dickinson Road or any entrance to the site directly from Route 15.

*Underhill Green* – The triangular Underhill Green lies on the south side of Route 15 straddling the boundary between Jericho and Underhill. The west side of the green borders on Route 15, the northeast side lies along Park Street and the southeast side lies along a linking street between Route 15 and Park Street. The two side streets have the potential to have more efficient parallel or perpendicular parking along them on the Town Green side of the streets. The bus could either pull into the side streets or stop on Route 15. This site could be used relatively quickly if using parallel parking but would need additional work if using perpendicular parking. Neither Park Street nor the linking street are signalized at the intersections with Route 15. The Jericho Park-and-Ride Feasibility Study and Alternatives Evaluation analyzed this site and the evaluation gave it a moderate rating. **Attachment 1** includes a copy of this report.

*Underhill Jericho Fire Department Station* – The Fire Station is located on the east side of Route 15 approximately \_\_\_ feet north of the Park Street intersection with Route 15. The site is mostly developed and there are no existing available parking spaces on the site due to the need to have them available during emergencies. There is room on the north side of the lot to create a few new parking spaces in an existing lawn area. The bus would need to stop on Route 15; users would need to cross Route 15 in the morning to board the bus heading to Burlington.



## 6. CAMBRIDGE VILLAGE

The AC and the consultant identified five potential sites in Cambridge Village:

- Existing Park & Ride,
- St. Mary's Catholic Church Parking Lot,
- Medical Center Parking Lot,
- Cambridge 360,
- Former General Store Parcel,
- North Main Street, and
- South Main Street.

**Figure F** shows the location of these potential sites.

*Existing Park & Ride* – The existing park & ride is located on the south side of Route 15 west of the village and east of the intersection with Route 104. There are approximately 25 spaces in the lot, which is rarely full. The parking spaces are arranged perpendicular to Route 15 and are far enough from the roadway that users can back out of the parking spaces and turnaround without entering the Route 15 travel lanes. Buses could pull into this extra space for passengers to board or disembark the bus. The bus would need to cross Route 15 traffic to access the parking area in the morning on its way towards Burlington. There is no room on the north side of Route 15 for the bus to pull even part of the way out of the travel way on Route 15 to stop. CCTA has indicated they have serious concerns about their ability to stop at this location traveling in both directions. This site could serve as a short term bus stop immediately but would need considerable work to serve as an acceptable long term park & ride/bus stop primarily due to the poor bus access.

*St. Mary's Catholic Church Parking Lot* – St. Mary's is located on the north side of Route 15 at the western end of the village. The existing gravel parking area on the west side of the church could accommodate approximately 25 cars during weekdays when it is mostly empty. The bus could either pull into the parking lot and exit via the Medical Center driveway or stop for passengers on North Main Street. This site is usable now but could use some improvements to serve as a long-term park & ride/bus stop site.

*Medical Center Parking Lot* – The Medical Center is on the north side of Route 15 fronting on North Main Street at the western end of the village. The parking lot is located behind and to the northwest of the Medical Center building. The Medical Center is well used and there are often only a few parking spaces available in the parking lot at any one time. The bus could either enter the site via the St. Mary's parking lot and exit on the Medical Center driveway, stop on North Main Street or stop on Route 15.

*Cambridge 360* – Cambridge 360 is a store that sells used goods, is run by volunteers and is open intermittently. The parking lot is usually open and can accommodate at least 25 automobiles if the site were striped to provide efficient parking. The site is located on the southwest corner of South Main Street and Railroad Street. The bus would be able to stop in front of the site on South Main Street, requiring users to cross the street when boarding

the westbound bus. The site is usable now but could be improved to serve as a long-term park & ride/bus stop.

*Former General Store Parcel* – The site of the former Cambridge general store is on North Main Street north of the intersection of Railroad Street and South Main Street. The foundation of the former building is still on the site. The existing parking area for the former store can accommodate approximately 20 automobiles now. The bus could stop in front of the site on South Main Street; users would need to cross South Main Street when boarding or disembarking from east bound busses. The site is usable now but could be improvements to serve as a long-term park & ride/bus stop.

*North Main Street* – North Street parallels Route 15 on its north side in the middle of Village; a green space approximately 20 feet wide separates North Main Street from Route 15. North Main Street is lined with residential properties with the exception of a bed and breakfast, the Medical Center and St. Mary’s Church. Parallel parking is allowed along North Main Street except in the vicinity of the Medical Center. The bus could enter and exit North Main Street to accept or discharge passengers. The site is usable now but could use improvements if it were to serve as a long-term park & ride/bus stop site. Neither end of North Main Street, nor the interior roadway connections would be signalized as they intersect Route 15.

*South Main Street* – South Main Street parallels Route 15 on its south side in the middle of Village; a green space approximately 20 feet wide separates south Main Street from Route 15. Parallel parking is allowed along South Main Street. South Main Street is lined with both commercial and residential structures. The bus could enter and exit South Main Street to accept or discharge passengers. The site is usable now but could use improvements if it were to serve as a long-term park & ride site. Neither end of South Main Street or the three intermediate access points would be signalized as they intersect Route 15.

## 7. JEFFERSONVILLE VILLAGE

The AC and the consultant identified eight potential sites in Jeffersonville:

- Family Table Parking Lot,
- Cambridge Fire Dept. Fire Station,
- Second Congregational United Church of Christ Parking Lot,
- Church Street,
- Main Street,
- Former Windridge Tennis Parking Lot,
- Former Bell-Gates Parking Lot and Site, and
- Former Grain Elevator Parking Lot and Site.

**Figure G** shows the location of these potential sites.

*Family Table Parking Lot* – The Family Table Restaurant is located on the west side of Route 15 just to the north of the Church Street (Vermont Route 108) intersection. The gravel parking lot is situated in the front and on both sides of the restaurant and could accommodate at least 15 cars during weekdays. The bus could pull into the site to pick-up or let off passengers but depending on the bus routing, it might need to cross the opposite lane of traffic on Route 15 in the evening heading away from Burlington. It could also stop on Route 15 but passengers would need to cross Route 15 in the evening to reach the parking lot. The site is usable now but would need improvements if it were to serve as a long-term park & ride/bus stop site. There are currently no signals at the wide, undefined entrances to the parking lot.

*Cambridge Fire Dept. Fire Station* – The Fire Station is located on the south side of Church Street a few parcels west of Route 15. The site has existing parking on the side which is often empty but is needed during emergencies. Few parking spaces would be available for park & ride use. The bus would need to stop on Church Street to accept and discharge passengers.

*Second Congregational United Church of Christ Parking Lot* – This church lot is located on Maple Street on the northeast corner with Church Street. The parking is on the west side of the church adjacent to and accessed from Maple Street. Approximately 25 gravel parking spaces would be available during weekdays for park & ride use. The bus would need to stop on Church Street. Passengers would need to cross Park Street during one of the trips to get to the bus. The site is usable now but would need additional work to serve as a long-term park & ride site. The intersection of Church and Maple Streets would not be signalized.

*Church Street* – The existing parking on Church Street is seldom used and would be available for use as park & ride spaces during the week. The bus would stop on Church Street.

*Main Street* – The existing parking on Main Street, with just a few exceptions, is undefined resulting in haphazard parking arrangements that are often different from day to day. Most of the parking is parallel parking but there are a few locations with perpendicular parking. Sidewalks line both side of Main Street; in some locations the sidewalk is directly adjacent to the parking and in other locations is approximately ten feet away. There are typically a number of parking spaces available every day on the two blocks of Main Street between Church Street and the northern turn in Main Street towards Route 15. The number could be increased by defining the parking spaces. It could be increased further by converting some of the parallel parking spaces to perpendicular spaces. The bus would need to stop on Main Street for passengers. There are several crosswalks on Main Street for the passengers to use to cross the street as needed.

*Former Windridge Tennis Parking Lot* – The former Windridge Tennis site is located on the east side of Main Street just north of School Street, behind the properties that front on Main Street. The current access to the parking area is obscure and not easy to find. The gravel parking lot, which has been partially overgrown with grass and weeds, could accommodate approximately 25 spaces. The bus would need to stop on Main Street to let passengers board or disembark. This site would need some initial work to be used now for a park & ride site

and would need additional work to serve as a long-term park & ride site, which would use all of the parking currently available for the abandoned building on the site. There is no signal at the existing driveway that eventually leads to the Windridge site's parking area.

*Former Bell-Gates Parking Lot* – The Bell-Gates property is located on the north side of Depot Street running all the way to the south side of Main Street and the west side of Route 15. It has a gravel area accessed from Depot Street that could serve as a parking lot for short-term use. The site is large enough that it could be developed into a long-term park & ride/bus stop site through the construction of a new parking area that could accommodate the bus stop directly on the site. A new roundabout is under construction at the intersection of Route 15 and Route 108 adjacent to the northern corner of the site.

*Former Grain Elevator Site* – The former grain elevator site is located on the south side of Route 15 just north of the Mobil gas station at the Church Street intersection. It has an existing gravel parking area that could be used immediately and a large level open area that could be converted into a larger, long-term park & ride and bus stop. The bus could enter and exit the site now and in the future via a looped, unsignalized access drive.

## **B. EVALUATION**

### **1. INITIAL EVALUATION**

The initial evaluation of the potential sites focused on:

- The number of spaces available in the short term and long term,
- The ease of bus access to the site,
- The ability of users to access the bus without having to cross Route 15,
- Proximity to potential village centers and/or potential users,
- And the amount of development needed to become a viable park & ride site either short-term, long-term or both.

**Table A** shows the results of the initial analysis.

From this analysis, several of the potential sites have been eliminated. The remaining sites include:

Essex Potential Short Term Sites:

- Essex Outlet Fair Parking Lot,
- Price Chopper Parking Lot,

Essex Potential Long-Term Sites:

- Essex Outlet Fair Parking Lot,
- Price Chopper Parking Lot,
- Vacant Parcel South of Lamell Lumber.

Jericho Potential Short Term Sites:

- United Pentecostal Church Parking,
- Mt. Mansfield Unitarian Universalist Fellowship, and

Jericho Potential Long Term Sites:

- United Pentecostal Church Parking,
- Post Office Site,
- Packard Road Town-Owned Parcel,
- Mt. Mansfield Unitarian Universalist Fellowship

Underhill Flats Potential Short-Term Sites:

- Mills Riverside Park,
- Former Saw Mill,
- Town Green

Underhill Flats Potential Long-Term Sites:

- Mills Riverside Park,
- Former Saw Mill,

Cambridge Village Potential Short-Term Sites:

- St. Mary's Catholic Church Parking Lot,
- Cambridge 360,
- Former General Store,
- North Main Street, and
- South Main Street.

Cambridge Village Potential Long-Term Sites:

- St. Mary's Catholic Church Parking Lot,
- Cambridge 360,
- North Main Street, and
- South Main Street.

Jeffersonville Potential Short-Term Sites:

- Family Table Parking Lot,
- Second Congregational United Church of Christ Parking Lot,
- Main Street,
- Church Street,
- Former Windridge Tennis Parking Lot, and

- Former Bellgates Parking Lot.

Jeffersonville Potential Long-Term Sites:

- Family Table Parking Lot,
- Second Congregational United Church of Christ Parking Lot,
- Main Street,
- Church Street,
- Former Bell-Gates Parking Lot.

## 2. SECONDARY EVALUATION

The secondary evaluation of the remaining sites will involve public and community official inputs, review by the AC and the use of several of the evaluation criteria outlined below.

The *Jericho Park-and-Ride Feasibility Study and Alternatives Evaluation* evaluation criteria which are applicable to this analysis.

- Ease of Acquisition / Easement Agreement,
- Development Cost,
- Visibility / Security,
- Pedestrian Access,
- Compatibility with Adjacent or Planned Land Use,
- Number of Spaces,
- Expansion Potential,
- Timeframe for Design & Construction,
- High Levels of Congestion at Site Access,
- High Crash Location at Site,
- Obstacles to Obtaining State and Local Permits,
- Impacts to Natural & Cultural Resources, and
- Non-Commuter Use of Parking Spaces.

**Attachment 1**, *Jericho Park-and-Ride Feasibility Study and Alternatives Evaluation*, describes the specifics of these features in detail in starting on page 15.

## III. EXISTING CONDITIONS

### A. LAND USE

The Study Area includes a wide range of village, rural, residential, institutional, commercial and recreational land uses. **Figures B, C, D, E, F, and G** show the land uses around the potential park & ride/bus stop sites.

## **B. TRANSPORTATION FACILITIES**

The Study Area focuses on Vermont Route 15 between the Essex Town Center and Jeffersonville, ending approximately at the intersection with Route 108.

Route 15 is functionally classified by the Vermont Agency of Transportation (VTrans) as a Minor Arterial Highway. The posted speed varies from 40 miles per hour (mph) to 50 mph along the rural portion of the corridor, and drops to 30 mph or less through the villages.

Traffic volumes vary along Route 15; **Figures B, C, D, E, F, and G** show the various Average Annual Daily Traffic (AADT) traffic volumes along Route 15 in the Study Area.

Throughout the corridor, Route 2 generally consists of two 12-foot travel lanes with varying paved shoulder widths from one to six feet.

The roadway surface is in fair condition throughout the project area.

The Study Area includes one intersection and three roadway segments that are High Crash Locations (HCL), all in the Town of Cambridge, as reported in the most recent VTrans HCL report from 2006-2010.

VTrans considers these locations to be HCLs because they have had at least five crashes over a five-year period and the actual crash rate, the number of crashes per million vehicles, exceeds the critical crash rate. The critical crash rate is based on the average crash rates of similar roadways in Vermont and is related to the functional class of a highway and whether it is located in an urban or rural area.

## **C. NATURAL RESOURCES**

### **1. TOPOGRAPHY**

The topography in the Study Area is characterized by generally level ground broken by two river valleys, the Winooski and Lamoille Rivers. The descents and ascents in and out of these valleys is pronounced and can be seen on the grade changes at the western end of the Study Area to the west of upper Jericho Village and in Westford south of the intersection with Route 104. The plateau in between these two slopes includes smaller grade changes, especially in the northern Underhill and Westford portions of the road. **Figure H** shows the general topography in the Study Area with 20-foot contours.

### **2. WATERCOURSES, WATERBODIES & WETLANDS**

There are numerous smaller watercourses in the Study Area as well as the larger Lamoille River. Numerous small names and unnamed streams and drainage ways flow under Route 15. There are also numerous mapped wetlands and smaller waterbodies in the Study Area. **Figures B, C, D, E, F, and G** show the general location of the watercourses, wetlands and waterbodies in the Study Area and their positions relative to the potential sites.

5. FLOODPLAINS.

The Lamoille River and other smaller river floodplains covers a portions of the Study Area, especially in Jeffersonville. **Figures B, C, D, E, F, and G** show the extent of the floodplains (*Note: GIS floodplain information is still being gathered.*)

6. FLORA & FAUNA

The State of Vermont has identified natural areas of special importance; deer wintering areas; rare, threatened or endangered species habitats; and core habitat areas within the Study Area. There are several locations with high occurrences of wildlife road kills on Route 15 and portions of the roadway rate high for wildlife crossing value. **Figures B, C, D, E, F, and G** show the general location of these environmental areas and resources. None of these resources appear to be close to potential park & ride site.

**D. CULTURAL RESOURCES**

1. HISTORIC/ARCHEOLOGICAL
2. OPEN SPACE AND PUBLIC LANDS

There are numerous public parcels within the Study Area. Several are in close proximity to or are actively being considered as potential park & ride/bus stop sites. **Figures B, C, D, E, F, and G** show the location of these parcels.

**E. PLANNING DOCUMENTS**

1. MUNICIPAL PLANS

*Essex Town Plan* – The Essex Town plan does not directly discuss the creation of a new transit service along Route 15. It does have general text as well as goals, objectives and strategies in the Transportation section that support the creation of the bus service and the development of park & ride/bus stops in the town.

Adequate pedestrian and bicycle access to existing business districts enhances marketability, encourages use of public transit, reduces vehicular traffic and ensures greater safety.

...

Sidewalks, multi-use paths, and trails that connect neighborhoods to shopping, schools, and recreation areas encourage usage because they are safe and convenient.

...

Goal 8.1: Provide multiple modes of transportation that are safe, economical, convenient and sustainable.



Objective 8.1.1: Conduct studies that view all modes in a consistent, cost-appropriate manner.

...

Strategy 8.1.1.1: Promote energy-saving, emission-reducing modes of transport.

...

Objective 8.2.5: Maintain a minimum acceptable level of service across the spectrum of transportation modes – vehicular, public transit, bicycle and pedestrian.

...

Objective 8.3.3: Encourage a variety of public transportation alternatives.

...

Strategy 8.4.3.4: Provide appropriately located pickup and drop-off facilities for buses and pedestrians.

*Jericho Town Plan* - Numerous sections of the Jericho Town Plan transportation section support the creation of a commuter bus along Route 15, as well as the creation of park & ride/bus stops in the Town with good bicycling and walking facilities linking them to other parts of the Town. In particular, the Town plan includes the following:

Given the high percentage of Jericho residents traveling in this direction, this may suggest opportunities to facilitate carpooling/ridesharing, van pooling, or possibly transit.

...

It is especially important on Route 15 that any future improvements consider the needs, safety, and wellbeing of pedestrians, residents and business owners as well as commuters.

...

Another intersection which is projected to have poor LOS in 2015 is the Route 15/River Road intersection. Based on a series of design Charrettes focused on development in the Riverside/Underhill Flats Village Center, the Town is considering rerouting through traffic from River Road to Dickinson Street. In 2006, the Town and CCMPO conducted a study to investigate alternative alignments to accomplish this goal.

...

More Vermonters are considering alternatives to the single occupancy automobile as gasoline prices increase and awareness of the environmental and social costs of automobile dependence is growing. While public transportation is currently unavailable in Jericho, the Chittenden County Transit Authority is considering a commuter link between Essex Junction and Jeffersonville as part of its long range plans. Such a link would likely travel on Route 15 and contain at least one stop in Jericho. By identifying sites and planning for future transit stops now, the Town can increase the likelihood that CCTA will provide service to Jericho in the future. Since extension of public transit service can require significant local investment, the

Town should consider the costs and benefits of extending service to Jericho.

...

Goal 9.2: Facilities for alternative modes of transportation such as bicycling, walking, and car-pooling are provided.

Strategy 9.2.1: Develop a system of pedestrian and bike paths connecting key points throughout Jericho, such as the Village Centers and Schools.

...

Implementation 9.2.1.2: Work with VTtrans to ensure that upgrades to Route 15 and Route 117 include creation of shoulder widths sufficient to accommodate a paved shoulder bicycle facility meeting the requirements of the Vermont Pedestrian and Bicycle Facility Planning and Design Manual

...

Strategy 9.2.3: Support alternatives to the single occupancy vehicle.

Implementation 9.2.3.1: Identify locations that could be utilized as a local park-and-ride, including existing establishments with excess overflow parking during weekdays that may serve as a leased local park-and-ride. Work with the CCMPO to identify funding sources and mechanisms to support a local park-and-ride.

Implementation 9.2.3.2: Identify and work to eliminate barriers to the formation of informal park-and-ride arrangements between private parties, including but not limited to liability and maintenance/safety concerns.

Implementation 9.2.3.3: Work with the CCTA to identify stop locations along the proposed Essex/Jeffersonville Link. Coordinate these locations with the development of local park-and-rides.

*Underhill Town Plan* – The Underhill Town Plan includes active support for the development of new transit services to the Town.

At present, there is no public transportation with local stops that is available to residents of Underhill. Given the anticipated growth in the Town with more affordable housing, it is expected that there will be an increasing need for residents to have reliable and reasonably convenient transportation between Underhill and Burlington. In addition, increased availability of public transportation may reduce residents reliance on personal transportation, thus reducing greenhouse gas emissions. The development of village centers with higher density residential units should make it profitable for transportation companies to locate pick-ups near to where potential commuters live.

Policy: The Town shall explore available public transportation options to serve Underhill.

Goal: To provide cost-effective, convenient, and accessible public transportation services.

Strategies:

1. Explore the requirements, costs, and benefits of joining the Chittenden County Transit Authority.
2. Conduct public forums to determine the needs of the Town's residents.

...

Policy: To provide facilities for alternative modes of transportation such as bicycling, walking, and carpooling.

...

Strategy: Investigate the possibility of a Park and Ride lot on Route 15 in Underhill.

*Town & Village of Cambridge Plan* – Portions of the Cambridge Plan support the implementation of the Route 15 Transit service with park & ride/bus stops in the village areas.

Bicycle and non-vehicular transportation networks should be safe and conveniently located to encourage their use.

Cambridge supports efforts to provide regional public transportation services for the general public and special transportation services for those who require assistance.

*Jeffersonville Village Plan* -

## 2. REGIONAL PLAN

*ECOS* - The CCRPC Regional Plan, *ECOS* references the 2010 CCTA Transit Development Plan (TDP) for short term public transportation recommendations. The TDP includes recommendations for the Route 15 service an interregional commuter route.

The Lamoille County Planning Commission *Lamoille County Regional Transportation Plan* has at least two policies that support the Route 15 commuter bus line.

Policy: Focus on the maintenance of funding for and operation of existing transit services. Expand existing services when they are solidly established and reliable funding is available.

...

Policy: Investigate the feasibility of new services and actively seek sources of funding for them, including year round service on the Mountain Shuttle, seven days per week service on the Route 100 Commuter, and a Route 15 Commuter Service.

### 3. STATE PLANS

The 2012 *Vermont Public Transit Policy Plan* is supportive of the creation of new transit services in appropriate locations. In particular, the plan indicates:

The State is committed to meeting its vision and goals for public transit as expressed above and the Public Transit Policy Plan recognizes that there are opportunities to expand public transit services in the State to meet the needs of all Vermonters. To this end, the State will continue to expand and enhance public transit services in the State. The current framework for Vermont public transit policy includes strategies aimed at Preserving and enhancing existing public transit services that are well used by the traveling public, ...

One policy in particular is also worth highlighting, “When appropriate, build park and ride lots as intermodal facilities and ensure that they are served by transit.”