

**The Town of Fairfield**  
**Sidewalk Scoping Study**  
STP EH10(8)

**Final Plan**



*Submitted by:*  
**Broadreach Planning & Design**

*In conjunction with*

**EIV Technical Services**  
**Heritage Landscapes LLC**  
**University of Vermont Consulting Archeology Program**

**April 26, 2012**

*Funded by the Town of Fairfield and the Federal Highway Administration (FHWA)  
in cooperation with the Vermont Agency of Transportation (VTrans)*



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**Tables** are in the text, with the exception of **Table 2**, which is located after page 28.

**Illustrations** are located after **Table 2**.

**Figures** are located after the **Illustrations**.

**Appendix A: Existing Conditions**

Attachment 1: Traffic Data

Attachment 2: Historic Review

Attachment 3: Archeological Resources Assessment

**Appendix B: Alternatives Analysis**

Attachment 1: Initial Alternatives

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## I. INTRODUCTION

### A. OVERVIEW

#### 1. STUDY AREA GRANT

The Town of Fairfield received a Transportation Enhancement Grant to examine the potential for adding sidewalks or other pedestrian and bicycle accommodations in Fairfield Center and East Fairfield. The project study areas cover the two village areas in Fairfield: the main intersection in Fairfield Center and the core of East Fairfield along Vermont State Route 36 (Route 36). **Figure 1** shows the location and approximate extent of the two study areas; **Figures 2a** and **2b** provide a more detailed look at each area. The Town contracted with a consultant team lead by Broadreach Planning & Design (BRPD Team) to assist with the study.

The project was developed through a collaborative effort between the Town of Fairfield Grants Committee, the BRPD Team and the public.

#### 1. REPORT ORGANIZATION

Following this introduction, the remainder of this report is divided into five sections as listed below. The first part of the report after this introduction presents the recommendations of the Study, the most important part of this report. Additional information on potential impacts, phasing, costs and implementation follows the recommendations, along with additional background information in the appendices. The remaining report consists of:

- II. Recommendations,
- III. Potential Impacts
- IV. Phasing,
- V. Initial Estimates of Probable Construction Costs,
- VI. Implementation and Appendices.

The BRPD Team formatted the report for double sided printing; blank pages are intentional.

#### 3. STUDY PROCESS

To begin work on the Town of Fairfield Sidewalk Scoping Study, Broadreach Planning & Design (BRPD), along with EIV Technical Services, Heritage Landscapes, LLC and the University of Vermont Consulting Archeology Program, met with the Town's Grant Committee, acting as a Project Steering Committee (PSC) to understand in more detail their concerns, questions and suggestions for the study. The BRPD Team then began Task B of their scope of work: the review and analysis of existing conditions in the Study Areas. The

initial work on understanding the existing conditions ended with a public work session used by the BRPD Team to verify its existing conditions data and to gather comments from the community on sidewalks in the village centers. At the end of the work on this Task, the BRPD Team produced a *Task B Summary* describing in detail the existing conditions in the study area. **Appendix A** is a copy of the final *Task B Summary*; the main body of this final report incorporates portions of the *Task B Summary*.

After the completion of the work on Task B, the BRPD Team, with assistance from the PSC, finalized a set of alternatives for improving walking and, as possible, bicycling conditions after generating and examining numerous different alternative ideas. As part of the alternative analysis work, the Team reviewed the potential impacts, benefits and probability of gaining necessary permits for the various alternatives. The BRPD Team summarized the numerous alternatives that they considered and analyzed in the *Task E Summary*. **Appendix B** is a copy of the final *Task E Summary*; the main body of this final report incorporates portions of the *Task E Summary*.

After further reviewing the alternatives with the PSC and refining them more, the BRPD Team assisted with two “Alternatives” public work sessions, one in each Village, to review the alternatives and select the preferred improvements. BRPD also met with several classes at Fairfield Center School to get student opinions and suggestions on the best ways to walk or bike to and from school in Fairfield Center.

After the PSC confirmed the recommendations, the BRPD Team completed work on a draft report describing the existing conditions, the alternatives, and the preferred alignment of the trail. The draft summary report included full copies of the *Task B* and *Task E Summaries* as part of the appendix. The BRPD also solicited review comments from VTrans and other relevant agencies but did not get comments from all of them. The BRPD Team presented the draft final report and recommendations at a third public work session to receive comments before finalizing the recommendations and report. After additional edits to the draft final report, the BRPD Team presented the draft final report to the Fairfield Selectboard for their review and acceptance.

## **B. PURPOSE AND NEED**

The purpose of the Fairfield Sidewalk Scoping Study project is to:

- Provide a secure, easily used means for pedestrians and bicyclists of variable ages and abilities to travel between the post office, senior housing, Fairfield Town Hall, the entrances to Fairfield Center School, the Bent Northrop Memorial Library and St. Patrick’s Church in Fairfield Center and along Route 36 in East Fairfield between New Street and the few houses to the west of Mill Street before the drop in the road;
- Increase the mobility of pedestrians and bicyclists in and around Fairfield Center and East Fairfield without significant increases in ongoing maintenance costs for the Town,

- Address the sight distance issues associated with pedestrians crossing at the intersection of Route 36, North Road, Minor Road and South Road, and
- Provide physical modifications to the roadway to create less threatening conditions for bicyclists and pedestrian by slowing vehicular traffic on Route 36.

The need for the path can be seen in:

- The number of existing pedestrians using the narrow area at the side of the existing roads in Fairfield Center or the parking areas along the road in East Fairfield;
- The reported speeds of vehicles on Route 36 significantly higher than the posted 35 miles per hour;
- The minimal distance between the travel lane and existing guard rails on South Road and Route 36;
- The presence of school children walking to and from the Fairfield Community School;
- The prohibition by numerous parents in the area of using the Route 36 South/North Road intersection by students going and coming from school;
- The difficulties experienced by day care operators on Route 36 in walking children to the nearby play ground;
- The difficulties experienced by seniors in the Chester Arthur Apartments to get to the nearby store or post office; and
- The minimal space for bicyclists outside of the travel lanes on existing roads.

## **C. PROJECTED USERS**

### **1. OVERVIEW**

The Town would like to improve walking and bicycling conditions for pedestrians and bicyclists of all ages and abilities. This means that as much as is feasible, the improvements should be usable by school children, elderly citizens, and those with disabilities. They should also enhance conditions for skilled bicyclists.

The following sections provide more information on the abilities and needs of the different types of pedestrians and bicyclists.

### **2. PEDESTRIANS**

Pedestrians vary significantly in their skills, experience, and willingness to walk different distances. Strong determining factors for pedestrians are the time and mobility required to reach their destinations. Time and mobility constraints also dictate the pedestrian's usable geographic space; few urban pedestrians will venture more than one mile from point to point; most actually will only undertake trips shorter than ½ mile, unless the trip is recreational.

There are three basic pedestrian user groups:

- Active pedestrians,
- Basic pedestrians, and
- Circumscribed pedestrians.

Active pedestrians use sidewalks and the road system regularly for transportation, as well as for fitness. They know and generally follow the rules of the road. Basic pedestrians include the majority of older children and healthy adult pedestrians. Circumscribed pedestrians are those whose speed and mobility are extremely limited. In all cases, when walking on roads, pedestrians should walk **FACING** traffic on the left side of the road in the direction of travel.

### 3. BICYCLISTS

Among bicyclists, there are three typical user groups that can be expected to use the multi use path:

- Advanced bicyclists,
- Basic bicyclists, and
- Beginner bicyclists or children.

Advanced bicyclists are highly experienced bicycle riders who feel comfortable riding their bikes in heavy traffic and typically prefer to ride on roadways.

Basic bicyclists comprise the largest category of bicycle riders, including older children, inexperienced adult riders, occasional bicycle commuters, recreational adult bicyclists, and experienced riders who still fear or dislike riding in urban traffic conditions. Basic bicyclists are reasonably competent in handling their bicycles and they generally understand the rules of the road, but they ride at more moderate speeds and are generally uncomfortable on busy streets unless a striped, obstacle-free shoulder is provided and traffic volumes are low.

Beginner bicyclists have the weakest bicycling skills. Beginner bicyclists ride more slowly, don't always understand the rules of the road, and are typically uncomfortable riding with motor vehicles. They are best accommodated on low-speed local roads and multi user paths or even sidewalks for the very young where there are few, if any driveway crossings.

When riding on roadways, bicyclist should always ride with traffic on the right side of the road in the direction of travel. Unless the road is clear, bicyclists should ride single file.

## D. EXISTING CONDITIONS

### 1. TRAVEL PATTERNS

**Figures 2a** and **2b** show the existing destinations for pedestrians and bicyclist within the Study Areas the BRPD Team noted during field work at the beginning of July 2011 or derived from existing land use information.

In Fairfield Center, the travel patterns appear to center on the school, library and play fields, with some pedestrians also headed to Menard's Market on the eastern end of the Fairfield Center Study Area, the Town Clerk's office, Chester's and St. Patrick's Church.

In East Fairfield, the travel patterns seem to center on both the post office and the Stone's Shell. There is also pedestrian traffic heading to and from the play fields by the Community Center.

The BPRD Team assumed that the residential uses are also origin and/or destination points for bicyclists and pedestrians within the Study Areas.

### 2. TRANSPORTATION FACILITIES

**Figures 2a** and **2b** show the location of the relevant transportation facilities in the Study Area. Within Fairfield Center, there are seven roads within the immediate Study Area – Route 36, North Road, South Road, Minor Road, Park Street, Soule Drive and Church Street. In East Fairfield, Route 36 is the primary road under consideration, but School Street, Mill Street, New Street and even Bridge Street may also be considered as a means of improving walking and bicycling conditions.

VTrans classifies Route 36, a State Highway, as a Major Collector Road. The posted speed limit for Route 36 in both Study Areas is 35 miles per hour (MPH). Roadway widths in the Study Area vary from 20 to 30 feet wide for Town Roads and from 24 to 30 feet wide for Route 36. **Table 1** provides an overview of the roadway widths. VTrans has estimated the average annual daily traffic (AADT) on Route 36 in East Fairfield east of the intersection with Mill Street in 2010 as 1,400 vehicles. They have estimated the AADT for Route 36 between Mill Street and North Street intersection in Fairfield Center as 1,900 vehicles. Based on a traffic count in 2010, VTrans has estimated the AADT on Route 36 west of the North Street intersection to the town line as 2,800 vehicles. More recent counts at the intersection of North and South Road with Route 36 show that the AADT for North Road is 1,600 vehicles and for South Road is 1,000 vehicles.

Field evidence and initial record research, along with VTrans Route Logs, indicate that the rights-of-way of Route 36 and town roads in the Study area are generally 3 rods, or approximately 49.75 feet, wide. Route 36 on either side of the intersection with North and South roads is considered high crash area in the most recent data from VTrans.

**Table 1: Pavement Width and Right of Way (ROW) in Feet**

|                 | Total    | shld* | - Lane | - Lane | - shld | ROW   |
|-----------------|----------|-------|--------|--------|--------|-------|
| Route 36 (FC):  | 26 ft    | 2     | - 11   | - 11   | - 2    | 49.75 |
| Route 36 (EF):  | 24-30 ft | 1-4   | - 11   | - 11   | - 1-4  | 49.75 |
| South Road:     | 22 ft    | 1     | 10     | 10     | 1      | 49.75 |
| North Road:     | 30 ft    | 1     | - 10   | - 10   | - 1    | 49.75 |
| Church Street : | 20 ft    | 0     | - 10   | - 10   | - 0    | 49.75 |

**Appendix A** provides more detailed information on existing transportation facilities.

### 3. CULTURAL RESOURCES

**Figures 2a** and **2b** show the location of relevant cultural resources in the Study Area mentioned below.

The Primary Study Areas include residential, retail and other commercial, public, agricultural and institutional land uses.

Both Study Areas are served by public water. They are also both served by overhead utility poles within the roadway rights-of-way.

Fairfield Center has a diversity of historic buildings, many with a high degree of integrity. The proximity of many historic dwellings to the road corridor complicates potential sidewalk placement if located other than in the location of previous sidewalks. There is an old stone bridge under and adjacent to the north side of Minor Road over the unnamed tributary to Fairfield Creek.

East Fairfield retains the character of a village center, organized around the central Town Green. Given the ample setbacks, particularly on the south side of the road, sidewalks will not likely result in negative effects to historic resources. Instead, the increased pedestrian character will likely strengthen the village-like character of this streetscape. The abundance of historic street trees in East Fairfield is an additional consideration when planning a system of walks in the village.

There are two locations within the Study Areas with the potential to have significant archeological resources, although both are outside of the area involved in the primary recommendations. **Appendix A** provides more detailed information on existing cultural facilities.

### 4. NATURAL RESOURCES

Within the Study Areas the street trees; the slight variation in topography in Fairfield Center; the un-named stream running southeast with small, adjacent, unmapped wetland areas and Fairfield Creek at the eastern end of the Study Area, into which the un-named stream drains, are the only significant natural resources that have an impact on the proposed

recommendations. State and local data sources show no critical habitats or rare, threatened or endangered species in the Study Areas. **Figures 2a** and **2b** show the location of the natural resources. **Appendix A** provides more detailed information on existing natural resources.

## II. RECOMMENDATIONS

### A. OVERVIEW

**Figures 3a** and **3b** show the location of the recommended actions for the Study Areas. **Table 2** presents the various aspects, impacts and other elements of the recommendations, as well as for the do nothing alternative. **Appendix B** includes a description of the various alternatives that were initially developed and analyzed prior to reaching the final recommendations.

Unless described otherwise, the sidewalks recommended in each of the alternatives would be five feet wide and constructed of concrete. New roadway curbs would be either concrete or granite.

### B. RECOMMENDED ACTIONS

#### 1. FAIRFIELD CENTER

##### RECOMMENDATION 1: ROUTE 36 SOUTH SIDE SIDEWALK



Add a sidewalk to the south side of Route 36 from close to the intersection with North and South Roads to the general vicinity of the Menard's Market just west of the bridge over Fairfield Creek. At the western end near South Road, the sidewalk should include the removal of at least the outer two feet of the cement porch in front of the florist/general store so that the sidewalk could run adjacent to and not remove the existing on-street parallel parking.

East of this property, the sidewalk should run over or as an extension of the existing old sidewalk in front of the second building east of the intersection. It would lie on the south side of the existing single row of parallel parking spaces directly adjacent to the road. There should be driveway access points across the sidewalk to allow entry to the garages and to additional existing parking spaces in front of the structures on the properties. It appears as if

up to two informal parking spaces could be lost in front of the third building east of the intersection to allow the sidewalk to remain open and free from parked vehicles. The specific layout of the sidewalk will need to incorporate the existing storm drain inlet in front of one of the garage buildings into the alignment; additional parking spaces might need to be eliminated in order to keep the drain from being in the middle of the sidewalk.

The grading of the sidewalk should also protect the adjacent properties, some of which are slightly downhill from the road, from increased storm water runoff.

In front of the fourth property east of South Road, the sidewalk would maintain a separation from the road by a small green space. In order to remain within the right-of-way (ROW) as currently understood, the sidewalk should stay close to the outside edge of the existing utility pole. This would necessitate the elevation of the sidewalk to be at approximately the same elevation as the roadway. A fill slope on the outside edge of the sidewalk would need to extend beyond the limits of the ROW onto the lawns of the adjacent properties. A small retaining wall could also be used on the outer edge of the sidewalk to keep the fill within the ROW. Alternately, a small retaining wall could be constructed on the roadway side to keep the sidewalk more at the lower elevation of the adjacent properties. It could also be possible to shift the sidewalk further from the edge of the pavement to allow the sidewalks to be closer to the lower elevation of the adjacent lawns without the need for a retaining wall. This would require an easement from the adjacent property owners to allow the sidewalk to be outside of the ROW.

The sidewalk would continue east along the side of the road, maintaining a relatively consistent separation from the edge of the pavement all the way to Menard's Market. At the western edge of the paved area around Menard's Market, the sidewalk should either continue across the existing pavement as a concrete sidewalk or should be incorporated as a sidewalk into a new curbed area that could provide better definition to the market's entry points. The new curbing would still allow parallel parking in front of the market along Route 36. Alternately, the walkway could be delineated with striping on the existing pavement, (although VTrans would most likely not fund this alternative).

To minimize visual impacts of a bright concrete sidewalk on the Village area, the Town could opt to have the concrete tinted a paler grey or tan color or to use some form of aggregate finish on the surface. The Town could also use a porous concrete to minimize increases in storm water runoff.

**Illustration 1** shows a photo simulation of what the proposed sidewalk might look like.

RECOMMENDATION 2 – NORTH ROAD EAST SIDE SIDEWALK

Install a sidewalk on the east side of North Road from Route 36 to the intersection with Church Road. Starting at Route 36, the sidewalk should replace the existing small asphalt walkway with a larger, ADA compliant sidewalk. (Recommendation 11 proposes a crosswalk on Route 36 to link this sidewalk with the sidewalk in Recommendation 1 on the south side of Route 36.)



The sidewalk would head north adjacent to the edge of the Town Office parking area, which would require a division of the existing garden area around the utility pole. Alternately, the sidewalk could also shift to the outside edge of the garden and lawn area, adjacent to the parallel parking spaces along the east side curb of North Road.

As the sidewalk enters the wide asphalt entry area of the Town Offices, it should replace the existing asphalt with concrete. As a less desirable alternative, the sidewalk could be delineated by striping on the existing pavement (but VTrans would most likely not fund this alternative). The configuration of the entire parking area should be reviewed in detail to see if it is possible to create a small curbed island at least five-foot square approximately 22 feet north of the existing south-side entrance curb for the Town Office parking area. The island would serve as a small divider between the Town Office and Chester's parking areas and provide a safe haven for pedestrians crossing this large, undefined vehicular access area. Additional signage should be added to these parking areas to make sure that motorists pull far enough into the property to leave the pedestrian sidewalk open and usable. Some additional redesign of the parking area would also make circulation of motor vehicles more predictable for both pedestrians and other motorists.

North of this parking area, the path would continue towards Church Road, separated from the roadway by at least a five-foot wide green strip. There would be a small amount of cut and fill as the ground rises towards the old Town Clerk's office so that the sidewalk meets ADA requirements. In front of the old Town Clerk's office, the parking should be redesigned as clearly defined parallel or head in parking with the sidewalk running between the parking and the front of the building. Parking bumpers could be used to keep vehicles from parking on the sidewalk area.

The sidewalk should end at the southern side of the Church Road intersection with a short segment that links the sidewalk to the edge of the North Road pavement.

This sidewalk would be entirely located on Town property or at the edge of the existing North Road ROW.

RECOMMENDATION 3 – ROUTE 36  
NORTH SIDE PARTIAL SIDEWALK

Add a short sidewalk on the west side of Route 36 from the small paved walkway linking the Town Offices to Route 36 to the vehicular entrance to the lower parking area on the east side of the building. Because of the slope, the sidewalk might need to cut back and forth across the rise, probably only once, so that it can meet ADA requirements for steepness. The sidewalk should also connect to the existing sidewalk that runs along the front of the Town office.



At the eastern end, adjacent to the lower parking area, the sidewalk might need to incorporate a small drainage culvert to maintain the drainage swale that runs along the western edge of the parking area. The sidewalk would also need to be located far enough from the road to avoid interfering with the drainage culvert under the parking access drive or the drainage channel along Route 36 that drains to the east towards it. Because this sidewalk would be located mostly on Town property with just a small portion, if any, located within the Route 36 ROW, it should not be a problem to avoid the culvert or drainage ditch.

RECOMMENDATION 4 – SOUTH ROAD PEDESTRIAN WAY



Recommendation 4 directs pedestrians to use Minor Road between Route 36 and South Road as a pedestrian path. New curbing would close the northern end of Minor Road at Route 36, making Minor Road a dead end roadway with entry and exit only from South Road. The asphalt pavement at the very northern end of the road should be renewed and extended south slightly where the gravel has been washed away to stabilize the surface and make it more receptive to circumscribed pedestrians. The grade would be lessened as possible given the existing grades on either side of the road, but for the most part would remain the same. Because the path is using the existing roadway surface as the pedestrian route, it would still meet ADA requirements. The Town may want to provide signage requesting bicyclists to dismount their bikes and walk down the slope, due to the grade and the gravel at the lower level.

Other than this paving, the rest of the roadway would not be further improved until the intersection with South Road. At the southern end, the turning radius on Minor Road

should be lengthened slightly to make sure that vehicles can make the turn from Minor Road to northbound South Road.



A crosswalk would carry pedestrians across South Road to the west side. On the west side, an ADA compliant path should extend west to the school buildings. A sidewalk or ADA compliant path should also continue south on the west side of South Road between Soule Drive and Park Street. The sidewalk or path should be separated from the roadway by at least eight feet of green space, to allow parallel parking along the side of the road when the sports fields are in use.

The sidewalk would continue along the south side of Park Street between South Road and the existing sidewalk around the new Bent Northrop Memorial Library.

This portion of the recommendation on Minor Road would be located within the ROW. The sidewalks on the west side of the road appear also to be located within the ROW.

#### RECOMMENDATION 5 – ROUTE 36 PAVED SHOULDERS

Provide paved shoulders at least three feet wide along the sides of Route 36 east of the North Road intersection, separated from an eleven-foot travel way by a white stripe, for improved bicyclist mobility. To accommodate this 28-foot wide cross section, Route 36 would need to be widened one foot on either side or two feet on the north side, where the residential buildings are generally further away from the edge of the road. To make sure that the fog lines are noticed, and to counteract the tendency of motorists to drive faster on wider roads, the fog lines could be made wider than usual in the village area. The Town and VTrans could also explore the use of angled stripes on the fog lines in the Village area to call attention to them.



The minimum shoulder widths for this recommendation and the other recommendations for wider shoulders are based on the Vermont State Standards and take into account the known or estimated Average Annual Daily Traffic (AADT), the speed limit and the width of the travel lane. **Table 3** provides a summary of the recommended paved shoulder and travel lane widths for Route 36 and the other roads in Fairfield Center for which widening is also recommended.

**Table 3: Recommended Paved Shoulder Widths**

| Road        | Recommended Travel Lane | Recommended Paved Shoulder | Existing Width | Required Widening Each Side |
|-------------|-------------------------|----------------------------|----------------|-----------------------------|
| Route 36    | 11 FT                   | 3 FT                       | 26 FT          | 1 FT                        |
| South Road  | 10 FT                   | 2 FT                       | 22 FT          | 1 FT                        |
| North Road  | 11 FT                   | 3 FT                       | 30 FT          | 0 FT                        |
| Church Road | 10 FT                   | 2 FT                       | 20 FT          | 2 FT                        |

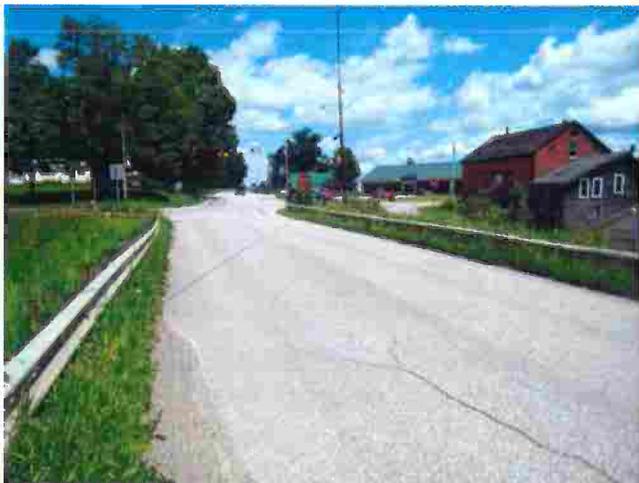
RECOMMENDATION 6 – NORTH ROAD PAVED SHOULDERS



Provide paved shoulders at least three feet wide along the sides of North Road, separated from two eleven-foot travel ways by white stripes, for improved pedestrian and/or bicyclist mobility. Because the current cross section of North Road is approximately 30 feet wide, no pavement widening would be needed to create these delineated paved shoulders. The wider shoulders could also be extended further north on North Road to Chester Arthur Road and then to the intersection with the future Lamoille Valley Rail Trail to facilitate bicycle

travel between Fairfield Center and the Rail Trail.

RECOMMENDATION 7 – SOUTH ROAD PAVED SHOULDERS



Provide paved shoulders at least two feet wide along the sides of South Road, separated from two ten-foot travel ways by white stripes, for improved bicyclist mobility. To accommodate this 26-foot wide cross section, South Road, which is now approximately 24 feet wide, would need to be widened at least one foot on either side or two feet on one side. Additionally, the delineated paved shoulders could also be extended south on South Road to provide easier bicycle and

pedestrian access to the library, school and village center for those living south of the library. The widening would not be possible close to the Route 36 intersection due to the existing guide rails. In this location, share the road signs and other warnings could be appropriate to notify motorists to the presence of bicyclists on the road.

RECOMMENDATION 8 – CHURCH ROAD PAVED SHOULDERS

Provide paved shoulders at least two feet wide along the sides of Church Road, separated from ten-foot travels way by white stripes, for improved pedestrian and/or bicyclist mobility. The widening should extend at least as far as St. Patrick’s Church. Because the current cross section of North Road is approximately 20 feet wide now, the road would need to be widened approximately two feet on either side or four feet on one side, most likely the south, to create the paved shoulders.



RECOMMENDATION 9 – PEDESTRIAN ZONE

Create a pedestrian zone along Route 36 from the intersection with North and South Roads east to the bridge over Fairfield Creek, along South Road from Park Street north to the intersection with Route 36, continuing north on North Road to the intersection with Church Road. A pedestrian zone is an area along a roadway where motorists should expect pedestrian to be present, including pedestrians that might be crossing the street. There are often no specific crosswalks designated within a pedestrian zone. Pedestrians do not have the right of way when crossing the street unless they are on a crosswalk but they are not restricted from crossing the street outside of a crosswalk area. This pedestrian zone should be designated at a minimum by warning signs prior to and at either end of the zone. There may also be intermediate signs along Route 36 due to the length of the pedestrian zone.

RECOMMENDATION 10 – CREEK TRAIL

Develop a narrow walking/mountain bike trail along the north side of the un-named tributary to Fairfield Creek as well as the west side of the Creek itself. It would link Minor Road with the Fairfield post office. The exact routing of the trail would need to be done in the field following current trail design guidelines for creating sustainable trails that would not create erosion problems. The trail would require the acquisition of easement from private property owners prior to construction.

RECOMMENDATION 11 – CROSSWALK & REGRADING

Add a crosswalk on Route 36 at the end of the existing asphalt path in front of the Town offices that links with Route 36. The installation of the crosswalk would need to be discussed with VTrans and the Town would need to complete a crosswalk warrant analysis which may show that the crosswalk is not warranted at this time.

Sight distances for a crosswalk at that location are minimally adequate at posted speed limits. To improve sight distance not only for the crosswalk but more importantly for the adjacent North Road/South Road intersection, lower the crest of the hill on Route 36 just to the east

of the proposed crosswalk. The reduction could potentially be as little as six inches to be effective. A core sample of the pavement on the crest could also provide more information on the subsurface materials, shed light on why the crest exists and help understand how extensive a project the shaving operation might be. The Town could opt to pursue the two aspects of this recommendation separately.

## 2. EAST FAIRFIELD

### RECOMMENDATION 12 – NORTH SIDE SIDEWALK EXTENSION

Extend the existing sidewalk in front of the Catholic Church west to the western end of Stone's Shell. The installation of the sidewalk should be accompanied by the addition of several small curb sections along Route 36 in front of the Shell station to better define where motor vehicles would enter and exit and to give pedestrians safe locations between these entry points. The sidewalk should ideally be constructed of concrete across the Stone's Shell entrances but they could also be included as striped crosswalks on the existing asphalt. VTrans is typically reluctant to fund such striping that is used instead of constructing real sidewalks because of their short life span.



The northern foot of the existing four-foot wide sidewalk appears to be located outside of the Route 36 ROW. The new sidewalk could maintain this same alignment but be widened to five feet. If the center line of the sidewalk is kept straight, the additional one-foot of width would be distributed to both sides of the sidewalk, making it extend one and one half feet outside of the right of way. An alternative arrangement would maintain the sidewalk at four feet wide and shift the northern outside edge of the

sidewalk at least one foot to the south closer to the road to maintain a green space between the sidewalk and the edge of the road but keep the sidewalk within the ROW. For this option, there should be at least one five-foot square level pad associated with the new sidewalk; it could be most conveniently located at the beginning of the extension at the western end of the existing sidewalk. Additionally, the utility pole at the end of the existing sidewalk would need to be relocated. The construction of a new four-foot wide sidewalk would require gaining an exception from VTrans. The addition of the sidewalk would still allow adjacent parking on the north side of Route 36 with the left side wheels on the paved shoulder so that they vehicles would not block the sidewalk.

RECOMMENDATION 13 –  
CONVERTED SOUTH SIDE  
SIDEWALK

Convert the outer four or five feet of the existing paved area along the south side of Route 36 to a pedestrian walkway. Bumpers, bollards or other easily installed barriers should be installed to keep cars from parking on this area of the existing pavement. These would be in the ROW but in line or on the back side of the existing utility poles so they would not be a hazard to snow plows. This portion of the roadway is lower than the rest of the roadway surface by at least six inches and in most places more than this. The VTrans Utilities and Permits section will need to approve the placement of the barriers in the State ROW.



The creation of a four-foot wide pedestrian walkway would also require an exemption from VTrans and would need to include five foot square level pads at least every 200 feet in the design to meet ADA requirements. Parking on the remaining pavement between the pedestrian area and the travel lane would be allowed east of School Street but it would be tight and the slope between the travel lanes and the outer edges of the paving could make it unsuitable for some smaller vehicles. There may need to be additional pavement width added for the section of sidewalk on the Village Green if parallel parking is to remain along the edge of the road in this location.

This sidewalk could initially be created with only the addition of the barriers and striping and converted to a concrete sidewalk in the future. The willingness of VTrans to fund this type of improvement would need to be verified. The BRPD Team recommends that when the sidewalk is converted to concrete pavement, the concrete be extended across the front of the post office and the adjacent building to the east, rather than creating the pedestrian area by striping.

**Illustration 2** presents a photo simulation of what this sidewalk might look like.



RECOMMENDATION 14 – NEW  
STREET RAIL TRAIL LINK

Install a short sidewalk along the west side of New Street from Route 36 to the Lamoille Valley Rail Trail. The sidewalk should be located directly adjacent to the building on the corner and then angle slightly towards New Street beyond the corner of the building. One or two of the informal parking in this area would need to be eliminated to add this sidewalk.

It appears as if the entire sidewalk would be within the New Street ROW.

RECOMMENDATION 15 – ROUTE 36 PAVED SHOULDERS & SHARROWS



Add wider paved shoulders at least three feet wide to both sides of Route 36 between the intersection with Bridge Street on the West and Mill Street on the east. For the section between Mill Street on the west and New Street on the east, add Shared Lane Markings to the road to warn motorists that they need to share the road with bicyclists in this section.

The current paved shoulder varies from approximately one to three feet wide. The addition of the three-foot wide shoulders west of Bridge Street would require the widening of the paved area from one to two feet on both sides of the road or up to four feet on one side of the road where the road width is not already 28 feet wide in order to establish this minimum road width consistently from Bridge Street to Mill Street.

Shared Lane Markings are symbols added to the roadway that notify motorists of the presence of bicyclists within the travel lane. They also notify the bicyclists as to where they should ride. The Shared Lane Markings should be added to Route 36 east of Mill Street to the Lamoille Valley Rail Trail crossing because the recommended sidewalks limits the addition wider paved shoulders for bicycling in this section.

RECOMMENDATION 16 – MILL STREET PAVED SHOULDERS



Delineate paved shoulders along Mill Street, from Route 36 to the intersection with Bridge Street. The paved shoulders should be at least two feet wide with ten-foot wide travel lanes. The travel lanes should be narrowed to nine feet on the Mill Street bridge over Black Creek to help slow traffic through this narrow point where the shoulders available for pedestrian and bicycle use would not be as wide as the rest of the road.

RECOMMENDATION 17 – NEW STREET PAVED SHOULDERS

Create a paved shoulder at least two feet wide on both sides of New Street from the Lamoille Valley Rail Trail to a point at least 50 feet west of the first tight turn in the road north of Route 36. The road should be striped to create two ten-foot wide travel lanes in addition to the paved shoulders, which would require a minimum roadway cross section of 24 feet. Because the road is approximately 20 feet wide now, the addition of shoulders will entail the widening of the paved surface by about two feet on either or some unbalanced widening, with more widening on those sides of the street with no or minimal existing development.

RECOMMENDATION 18 – PEDESTRIAN ZONE

Create a Pedestrian Zone along Route 36 from the eastern end of the crossing of the Lamoille Valley Rail Trail to the top of the rise on the west end of the Study Area approximately 150 feet west of Stone's Shell. A pedestrian zone is an area along a roadway where motorists should expect pedestrian to be present, including pedestrians crossing the street. There are often no specific crosswalks designated within a pedestrian zone. Pedestrians do not have the right-of-way when crossing the street outside of pedestrian zones. This pedestrian zone should be designated at a minimum by warning signs prior to and at either end of the zone.

3. AESTHETICS

RECOMMENDATION 19 – IMPROVED AESTHETICS

In both study areas, no matter which alternatives the Town pursues, there are certain features which should be added to the roadways, even before all of the recommendations may be completed to improve the aesthetics of the road, reinforce the village character and/or improve bicycling conditions on the roadways. They include:

- Additional street trees along the roads in the study areas (Trees should be located in general at the outer edge or outside of the Route 36 ROW),
- Narrower travel lanes,
- Share the road signs, and
- Gateway treatments at the entry to the Villages.

4. EDUCATION

RECOMMENDATION 20 – PEDESTRIAN & BICYCLE EDUCATION

The Town should work with the school and library to increase education of students, parents and other adults in safe and proper walking and bicycling techniques, including the appropriate side of the road on which to walk or ride, the need to use Minor Road as the access to the school and not Route 36 west of South Road and what a Pedestrian Zone means.

### **III. POTENTIAL IMPACTS & ISSUES**

#### **A. CROSSWALKS & PEDESTRIAN ZONE**

Crosswalks are specifically designated locations where pedestrians have the right-of-way to cross a roadway. Motorists are required by law to stop for pedestrians when they are crossing the street in a crosswalk. Bicyclists should dismount and walk with their bicycles when in a crosswalk. Crosswalks carry an implied level of safety for pedestrians which is, unfortunately, not always there. Motorists frequently do not stop for pedestrians in crosswalks in many locations around the country, although the level of compliance with the law is observed to be much higher in Vermont than the national average. The limiting factor for crosswalks is that they require pedestrians to cross the road only in the designated locations. This often requires pedestrians to walk well out of their way along the side of the road to reach a crosswalk, which often encourages pedestrians to cross the road in more opportune locations and abandon the use of crosswalks that are not conveniently located. This in turn increases the risks associated with crossing a road on foot.

A pedestrian zone attempts to address this issue by notifying motorists that they can expect pedestrian to be adjacent to and even crossing the street within the zone. Pedestrians are not expected to be limited to the use of crosswalks in specific locations and could be crossing the road anywhere within the pedestrian zone. Additionally, because pedestrians do not have the right-of-way when crossing the street outside of a crosswalk, the pedestrian zone places more responsibility on pedestrians to be aware of the presence of motorists on the road and to cross when conditions are conducive to safe crossings. While motorists are encouraged to stop for pedestrians in pedestrian zones, pedestrians should not assume that this will always be the case.

#### **B. TRAVEL LANE WIDTHS**

Eleven-foot travel lanes on some Vermont state roads have been part of the State Standards since 1997 but they are now actually being considered more frequently within the State. They provide an adequate area for large vehicles to travel, although sometimes at slower speeds than can be accommodated by wider travel lanes. The ability to encourage slower speeds in those areas where slower speed are desirable is seen as a significant advantage of eleven-foot travel lanes.

Ten-foot travel lanes have not yet gained similar acceptance at the State level. They are still considered by many transportation experts to be too narrow for many larger vehicles. They contend that ten-foot travel lanes on busier roadways could lead to more regular incursions over the fog line into the paved shoulders or bicycle lanes by larger vehicles, creating hazardous conditions for bicyclists or pedestrians that may be using the shoulders. The opposite viewpoint is that the ten-foot narrow lanes, when used in conjunction with other design measures to induce slower motor vehicle speeds, encourage even slower travel for motorists. Ten-foot travel lanes have been used or recommended successfully in rural and

neighborhood areas as a means of encouraging slower speeds that are safer for non-motorized travelers.

### **C. OFF ROAD PEDESTRIAN AND/OR BICYCLIST FACILITIES**

The BRPD Team considered several possible off road trails as alternatives for this project. These trails could provide additional means for pedestrians to safely navigate between points in the Study Areas but would offer a direct route for only a small number of pedestrians. During the review process, the BRPD and the Town concluded, based on experiences in other similar situations, that if installed, many pedestrians and bicyclists would continue to use the roadway for travel rather than walk or bike along the longer, and for most trips, less direct off road trails. The off road trails, however, would be a good addition to the Town's recreational trails, especially given the plans to reinstall a trail around the nearby school, even though they would not be a significant addition to the Town's non-motorized traveler's transportation system. For that reason, one of the off road trails has been included as a recommendation for this study so that the community can keep it under consideration as a minor addition to the transportation system and a significant addition to Town recreational facilities for pedestrians and possibly mountain bikers.

### **D. UTILITIES**

The recommendations, for the most part, should not require the relocation of the existing utility poles along the sides of the roads. There may need to be some modifications to the guy wires on the utility poles along South Road in Fairfield Center depending on the final location of the recommended sidewalk on the west side of the street south of the Minor Road intersection.

The recommended sidewalks on the south side of Route 36 and the east side of North Road in Fairfield Center may lie over or close to the existing water line. The exact relationship between the sidewalk and the water line will need to be determined. If the sidewalk would lie directly over the waterline and the base layers for the sidewalk would reduce the earth cover over the water lines to less than six feet, the project should include the installation of an insulating layer at the bottom of the base material. This will ensure that the winter frost line does not extend down further in the winter than it does now, potentially creating a threat of freezing the water line.

### **E. TREES**

The recommendations should not require the removal of trees close to the roadways. The development of the off road trail may necessitate minimal tree removal.

The types of street trees planted as part of implementing the recommendations should be appropriate to the areas in which they are installed. Trees species that mature at no more than 20 feet should be used under utility lines, such as:

- Ironwood,
- Shadbush or Service berry (*Amelanchier Canadensis* or *Amelanchier laevis*),
- Crabapple,
- Yellowwood, or
- Japanese tree lilac.

Where utility lines are not a consideration, trees that mature with a wide, high canopy and are resistant to damages from winter salt are most appropriate. Such trees include:

- Green ash,
- White ash,
- White oak
- Red oak,
- Burr oak,
- Honey locust, and
- Disease resistant American elm.

#### **F. STORM WATER RUNOFF**

The increase in impervious surfaces caused by the addition of the sidewalks should not require additional storm water runoff treatment. Depending on the length of the roadways that require widening to allow the addition of the recommended paved shoulders, it may be necessary to obtain storm water runoff permits and to provide treatment for the storm water prior to its discharge into a natural intermittent or perennial stream. This treatment could most likely be provided by existing or modified storm water ditches along the side of the road.

It appears as if it will be possible to do the widening with only minimal modification to existing ditches that line the sides of several of the roadway recommended for wider shoulders. If the ditches are not shifted away from the roadway, the wider paved shoulders would reduce the level grassed area that currently lies between the edge of the roadway and the top of the ditch itself. This would most likely be an issue on:

- Route 36 west of Mill Street (only for those portions of the road that are lined with ditches)
- Portions of the north side of Route 36 between North Road and the bridge over Fairfield Creek, and
- The north side of Route 36 west of North Road.

For these areas, the bottom of the ditch may need to be pushed further away from the edge of the pavement. This relocation could put the edge of the ditch or the ditch itself outside of the Route 36 right-of-way.

The Town could also consider the use of porous concrete for the sidewalks to minimize the increase in stormwater runoff.

## G. HISTORIC RESOURCES

The addition of the sidewalks, the addition of paved shoulders or the installation of the other lesser recommendations should not impact the historic resources within either Study Area with one potential exception. The existing concrete porch in front of the historic building on the southeast corner of Route 36 and South Road in Fairfield Center is most likely not an original feature of the structure but it may reproduce the location and shape of the original porch. Prior to removal of the concrete porch to allow the construction of the recommended sidewalk, the porch and structure should be researched further to determine how its removal may impact the historic integrity of the structure.

The historic bridge under Minor Road in Fairfield Center may also be exposed further and be a part of the community, accessible via the pedestrian route on Minor Road.

To minimize the visual impacts of the new sidewalks on the existing character of Fairfield Center, the Town could consider using concrete tinted a light grey or tan color or using an aggregate finish.

## H. GATEWAYS

Gateways are special treatments along the side of roads that help motorist recognize that they are entering a different type of land use or condition along a roadway. Gateways typically include some type of welcoming or notification sign that announces the change accompanied by some other elements, such as artwork, shrub plantings, street trees, lighting, or banners. When located along municipal roadways, the decision to allow gateways within the public right-of-way rests with the municipality. For gateways located along State roads, VTrans requires that the elements of the gateway be located outside of the right-of-way.

The Town of Fairfield may want to consider proceeding with gateways along North and South Road as indicated on **Figures 3a** and **3b** while coordinating with VTrans on the addition of gateways along Route 36 primarily outside of the right-of-way. They may be willing to consider locating lighting or street trees at the very outer edge of the right-of-way. **Figures 3a** and **3b** also show the suggested location of gateways along Route 36. The Town may also want to consider some sort of gateway treatment along the Lamoille Valley Rail Trail as it enters either the Town or the Village area.

## I. VTRANS REVIEW

The recommendations in this report were reviewed by the VTrans Enhancement Grant coordinator, who had numerous comments and suggestions to improve the report. He also requested reviews from other VTrans sections and the regional office but for a variety of reasons, they were not able to find the time to review the report and recommendations. Since the main recommendations involve modifications within the State ROW, VTrans should be consulted again prior to initiating additional work on these particular recommendations, including the sidewalks, the crosswalks, the regarding, the restriping and widening and any tree plantings that might be in the ROW

## VI. PHASING

It will be difficult to pursue all of the recommendations at once. Consequently, the BRPD Team and the Grant Committee, with input from the public, developed prioritization for their implementation. They have categorized the recommendations as either Short Term & On-Going, Near Term or Long Term recommendations, but include no specific priorities within each phase. This list is not an absolute. Changes in demand, new development, un-anticipated funding opportunities, or other changes to the current conditions may make revisions to these priorities advisable. These factors will also influence the order in which the Town pursues the recommendations within each priority level.

### SHORT TERM & ON GOING

- Recommendation 3 – Route 36 North Side Partial Sidewalk Fairfield Center
- Recommendation 9 – Pedestrian Zone Fairfield Center
- Recommendation 12 – North Side Sidewalk Extension East Fairfield
- Recommendation 18 – Pedestrian Zone East Fairfield
- Recommendation 19 – Street Trees, Narrow Travel Lanes and Share the Road Signs
- Recommendation 20 – Pedestrian & Bicycle Education

### NEAR TERM

- Recommendation 1 – Route 36 South Side Sidewalk Fairfield Center
- Recommendation 4 – South Road Pedestrian Way Fairfield Center
- Recommendation 11 – Crosswalk and Regrading on Route 36
- Recommendation 13 – Converted South Side Sidewalk East Fairfield
- Recommendation 19 – Gateway Treatments

### LONG TERM

- Recommendation 2 – North Road East Side Sidewalk Fairfield Center
- Recommendation 5 – Route 36 Paved Shoulders Fairfield Center
- Recommendation 6 – North Road Paved Shoulders Fairfield Center
- Recommendation 7 – South Road Paved Shoulders Fairfield Center
- Recommendation 8 – Church Road Paved Shoulders Fairfield Center
- Recommendation 10 – Creek Trail Fairfield Center
- Recommendation 14 – New Street Rail Trail Link East Fairfield
- Recommendation 15 – Route 36 Paved Shoulders & Sharrows East Fairfield
- Recommendation 16 – Mill Street Paved Shoulders East Fairfield
- Recommendation 17 – New Street Paved Shoulders East Fairfield

## VII. INITIAL ESTIMATES OF PROBABLY CONSTRUCTION COSTS

The 16 sections of **Table 4** provide an initial estimate of the probable design and construction funds that the Town might need to raise to undertake each of the recommendations as individual projects. These estimates are preliminary and are based solely on the information contained in **Figures 3a** and **3b**. For those recommendations that include the option of new sidewalk or striping across existing pavement, the estimate assumes that the sidewalk will be constructed. These estimates do not include funding for the acquisition of right-of-ways or easements.

The BRPD Team used unit costs provided in 2010 by the Bicycle and Pedestrian Program at VTrans or derived from our Team member's individual experience; they increased them slightly to reflect 2011 dollars. They all assume that the Town or the State will contract with a private contractor to do the work. The Town should assume some increase in costs due to inflation and other factors over the next few years. The BRPD Team reduced the design and management estimate for those projects that the Town might manage on their own.

**Table 4: Initial Estimate of Probable Construction Costs**

**Recommendation 1: Route 36 South Sidewalk**

| Item Description                      | Unit Cost | Unit | Quantity | Cost             |
|---------------------------------------|-----------|------|----------|------------------|
| 5' Concrete Sidewalk with Grass Strip | \$65      | LF   | 1175     | \$76,375         |
| Removal of Porch & Cleanup            | \$1,000   | LS   | 1        | \$1,000          |
| Regrade Edges                         | \$500     | LS   | 1        | \$500            |
| <b>Subtotal</b>                       |           |      |          | <b>\$77,875</b>  |
| Design & Management                   | 15%       |      |          | \$11,681         |
| Contingency                           | 15%       |      |          | \$11,681         |
| <b>Total</b>                          |           |      |          | <b>\$101,238</b> |

**Recommendation 2: North Road Sidewalk**

| Item Description                      | Unit Cost | Unit | Quantity | Cost            |
|---------------------------------------|-----------|------|----------|-----------------|
| 5' Concrete Sidewalk with Grass Strip | \$65      | LF   | 300      | \$19,500        |
| Pedestrian Island                     | \$2,000   | LS   | 1        | \$2,000         |
| <b>Subtotal</b>                       |           |      |          | <b>\$21,500</b> |
| Design & Management                   | 5%        |      |          | \$1,075         |
| Contingency                           | 15%       |      |          | \$3,225         |
| <b>Total</b>                          |           |      |          | <b>\$25,800</b> |

**Recommendation 3: Route 36 North Sidewalk**

| Item Description                      | Unit Cost | Unit | Quantity | Cost            |
|---------------------------------------|-----------|------|----------|-----------------|
| 5' Concrete Sidewalk with Grass Strip | \$65      | LF   | 150      | \$9,750         |
| Reset Curb for Parking                | \$20      | LF   | 100      | \$2,000         |
| Additional Paving for Parking         | \$50      | SY   | 33       | \$1,650         |
|                                       |           |      |          |                 |
| <b>Subtotal</b>                       |           |      |          | <b>\$13,400</b> |
| Design & Management                   | 5%        |      |          | \$670           |
| Contingency                           | 15%       |      |          | \$2,010         |
| <b>Total</b>                          |           |      |          | <b>\$16,080</b> |

**Recommendation 4: South Road Pedestrian Way**

| Item Description               | Unit Cost | Unit | Quantity | Cost            |
|--------------------------------|-----------|------|----------|-----------------|
| Pavement Removal & Replacement | \$35      | SY   | 115      | \$4,025         |
| New Crosswalk                  | \$400     | LS   | 1        | \$400           |
| New Sidewalk with Grass Strip  | \$65      | LF   | 500      | \$32,500        |
| New ADA Accessible Path        | \$35      | LF   | 500      | \$17,500        |
|                                |           |      |          |                 |
| <b>Subtotal</b>                |           |      |          | <b>\$54,425</b> |
| Design & Management            | 15%       |      |          | \$8,164         |
| Contingency                    | 15%       |      |          | \$8,164         |
| <b>Total</b>                   |           |      |          | <b>\$70,753</b> |

**Recommendation 5: Route 36 Paved Shoulders**

| Item Description    | Unit Cost | Unit | Quantity | Cost             |
|---------------------|-----------|------|----------|------------------|
| Widen Shoulders     | \$30      | LF   | 2750     | \$82,500         |
|                     |           |      |          |                  |
| <b>Subtotal</b>     |           |      |          | <b>\$82,500</b>  |
| Design & Management | 15%       |      |          | \$12,375         |
| Contingency         | 15%       |      |          | \$12,375         |
| <b>Total</b>        |           |      |          | <b>\$107,250</b> |

**Recommendation 6: North Road Paved Shoulders**

| Item Description    | Unit Cost | Unit | Quantity | Cost           |
|---------------------|-----------|------|----------|----------------|
| Restriping          | \$5       | LF   | 800      | \$4,000        |
|                     |           |      |          |                |
| <b>Subtotal</b>     |           |      |          | <b>\$4,000</b> |
| Design & Management | 5%        |      |          | \$200          |
| Contingency         | 15%       |      |          | \$600          |
| <b>Total</b>        |           |      |          | <b>\$4,800</b> |

**Recommendation 7: South Road Paved Shoulders**

| Item Description    | Unit Cost | Unit | Quantity | Cost            |
|---------------------|-----------|------|----------|-----------------|
| Widen Shoulders     | \$30      | LF   | 500      | \$15,000        |
|                     |           |      |          |                 |
| <b>Subtotal</b>     |           |      |          | <b>\$15,000</b> |
| Design & Management | 15%       |      |          | \$2,250         |
| Contingency         | 15%       |      |          | \$2,250         |
| <b>Total</b>        |           |      |          | <b>\$19,500</b> |

**Recommendation 8: Church Road Paved Shoulders**

| Item Description    | Unit Cost | Unit | Quantity | Cost            |
|---------------------|-----------|------|----------|-----------------|
| Widen Shoulders     | \$40      | LF   | 440      | \$17,600        |
| <b>Subtotal</b>     |           |      |          | <b>\$17,600</b> |
| Design & Management | 15%       |      |          | \$2,640         |
| Contingency         | 15%       |      |          | \$2,640         |
| <b>Total</b>        |           |      |          | <b>\$22,880</b> |

**Recommendation 9: Fairfield Center Pedestrian Zone**

| Item Description    | Unit Cost | Unit | Quantity | Cost           |
|---------------------|-----------|------|----------|----------------|
| Signage             | \$120     | LF   | 10       | \$1,200        |
| <b>Subtotal</b>     |           |      |          | <b>\$1,200</b> |
| Design & Management | 0%        |      |          | \$0            |
| Contingency         | 15%       |      |          | \$180          |
| <b>Total</b>        |           |      |          | <b>\$1,380</b> |

**Recommendation 11: Route 36 Crosswalk & Regrading**

| Item Description    | Unit Cost | Unit | Quantity | Cost            |
|---------------------|-----------|------|----------|-----------------|
| New Crosswalk       | \$400     | LS   | 1        | \$400           |
| Regrading Hill      | \$10,000  | LS   | 1        | \$10,000        |
| <b>Subtotal</b>     |           |      |          | <b>\$10,400</b> |
| Design & Management | 15%       |      |          | \$1,560         |
| Contingency         | 15%       |      |          | \$1,560         |
| <b>Total</b>        |           |      |          | <b>\$13,520</b> |

**Recommendation 12: Route 36 North Sidewalk Extension**

| Item Description                      | Unit Cost | Unit | Quantity | Cost            |
|---------------------------------------|-----------|------|----------|-----------------|
| 5' Concrete Sidewalk with Grass Strip | \$65      | LF   | 325      | \$21,125        |
| New Curbing                           | \$50      | LF   | 90       | \$4,500         |
| <b>Subtotal</b>                       |           |      |          | <b>\$25,625</b> |
| Design & Management                   | 5%        |      |          | \$1,281         |
| Contingency                           | 15%       |      |          | \$3,844         |
| <b>Total</b>                          |           |      |          | <b>\$30,750</b> |

**Recommendation 13: Route 36 Converted South Sidewalk\***

| Item Description              | Unit Cost | Unit | Quantity | Cost            |
|-------------------------------|-----------|------|----------|-----------------|
| Curb Barriers                 | \$100     | Each | 40       | \$4,000         |
| Additional Paving along Green | \$20      | LF   | 190      | \$3,800         |
| New Curbing                   | \$50      | LF   | 125      | \$6,250         |
| <b>Subtotal</b>               |           |      |          | <b>\$14,050</b> |
| Design & Management           | 5%        |      |          | \$703           |
| Contingency                   | 15%       |      |          | \$2,108         |
| <b>Total</b>                  |           |      |          | <b>\$16,860</b> |

\* Does not include new concrete sidewalk

**Recommendation 14: New Street Rail Trail Link**

| Item Description     | Unit Cost | Unit | Quantity | Cost           |
|----------------------|-----------|------|----------|----------------|
| 5' Concrete Sidewalk | \$65      | LF   | 60       | \$3,900        |
| <b>Subtotal</b>      |           |      |          | <b>\$3,900</b> |
| Design & Management  | 5%        |      |          | \$195          |
| Contingency          | 15%       |      |          | \$585          |
| <b>Total</b>         |           |      |          | <b>\$4,680</b> |

**Recommendation 15: Route 36 Paved Shoulders & Sharrows**

| Item Description    | Unit Cost | Unit | Quantity | Cost            |
|---------------------|-----------|------|----------|-----------------|
| Widened Shoulder    | \$35      | LF   | 825      | \$28,875        |
| Sharrow Road Sign   | \$100     | Each | 4        | \$400           |
| <b>Subtotal</b>     |           |      |          | <b>\$29,275</b> |
| Design & Management | 15%       |      |          | \$4,391         |
| Contingency         | 15%       |      |          | \$4,391         |
| <b>Total</b>        |           |      |          | <b>\$38,058</b> |

**Recommendation 16: Mill Street Paved Shoulders**

| Item Description    | Unit Cost | Unit | Quantity | Cost            |
|---------------------|-----------|------|----------|-----------------|
| Widen Shoulders     | \$30      | LF   | 1300     | \$39,000        |
| <b>Subtotal</b>     |           |      |          | <b>\$39,000</b> |
| Design & Management | 15%       |      |          | \$5,850         |
| Contingency         | 15%       |      |          | \$5,850         |
| <b>Total</b>        |           |      |          | <b>\$50,700</b> |

**Recommendation 17 New Street Paved Shoulders**

| Item Description    | Unit Cost | Unit | Quantity | Cost            |
|---------------------|-----------|------|----------|-----------------|
| Widen Shoulders     | \$30      | LF   | 525      | \$15,750        |
| <b>Subtotal</b>     |           |      |          | <b>\$15,750</b> |
| Design & Management | 15%       |      |          | \$2,363         |
| Contingency         | 15%       |      |          | \$2,363         |
| <b>Total</b>        |           |      |          | <b>\$20,475</b> |

**Recommendation 18 East Fairfield Pedestrian Zone**

| Item Description    | Unit Cost | Unit | Quantity | Cost         |
|---------------------|-----------|------|----------|--------------|
| Signage             | \$120     | Each | 6        | \$720        |
| <b>Subtotal</b>     |           |      |          | <b>\$720</b> |
| Design & Management | 0%        |      |          | \$0          |
| Contingency         | 15%       |      |          | \$108        |
| <b>Total</b>        |           |      |          | <b>\$828</b> |

In total, the initial estimate of probable construction costs comes to \$545,550 in 2011 dollars.

## **VIII. IMPLEMENTATION**

### **A. PROCEDURES**

As a first step towards implementing the recommendations of this study, the Town Selectboard should accept and endorse the report. It will be difficult to proceed with the recommendations for the Town without this endorsement. Once the report is endorsed by the Town, the following steps can be undertaken, but not necessarily in the order listed here.

- Begin looking and applying for funding opportunities through grants, bonding or other sources the Town considers appropriate.
- Factor road striping and signage on Town Roads into the yearly Town budget.
- Initiate additional VTrans reviews, with assistance from the Northwest Regional Planning Commission
- Keep the Town residents up to date on the process of implementing the recommendations.
- Work with the Town Highway Department about long-term maintenance of Town road striping.
- Begin a street tree planting program funded by grants, Town budget, private donations or other appropriate sources.
- Hire a consultant to assist with the design of the initial sidewalks, the widening of the roadway and the permitting processes, as funds are available.
- Work with the VTrans to institute the pedestrian zones on Route 36

### **B. PERMITTING**

The sidewalk and traffic calming recommendations should not trigger the need to acquire a storm water discharge permit; however, the road widening work might, depending on the amount of widening conducted. A stormwater permit will be needed if the amount of new impervious surface is more than an acre. Fairfield will need to coordinate with VTrans and obtain a permit to install the sidewalks or undertake the widening of Route 36 by one foot on either side.

It does not appear that the construction of the sidewalks will need either a new Act 250 Permit or updates to existing Act 250 permits. The project sponsors may also need to obtain a State Wetland Permit and Water Quality Certification if the trail crosses wetlands or wetland buffer areas. They should not require a storm water discharge permit unless the disturbed area exceeds one acre.

### **C. FUNDING**

The addition of the striping and signage in the short-term phase can potentially be funded directly by Fairfield through their regular roadway budget. The street tree planting program could be funded by individual community donations, grants from the Vermont Urban and Community Forestry Council or other environmental funding options.

Funding for the long-term sidewalk, roadway and trail recommendations may be able to be secured from a variety of sources. Below is a list of various funding sources that could be used to help with the implementation of the road-related recommendations, including:

- **Transportation Enhancement Program (TE Funds):** TE funds can be used to increase bicycle and pedestrian mobility, improve aesthetics along a roadway or implement other projects that enhance the overall transportation experience. These funds will cover a maximum of 80 percent of the project with the remaining portions most likely coming from the project sponsoring organization. TE funds are distributed in Vermont through a competitive grant program.
- **Bicycle and Pedestrian Program:** These funds cover specific bicycle and pedestrian improvement projects and are also provided via a competitive grant program.
- **Safe Routes to School (SRTS Funds):** The SRTS program provides funds to improve physical connections to elementary and middle schools that will increase the ability of students to walk or bicycle to school. These funds also cover training and encouragement programs meant to increase the incidence of school children walking and bicycling to school. These funds could be used to assist in the striping and road widening as well as the recommended education and training programs.
- **One Time Tax:** A one-year-only increase in the tax rate by one or two cents by the Town could raise funds to start at least some of the recommendations in Phase 1.
- **Private Fundraising:** The Town could work to raise private fundraising for the sidewalks, at least in part, possibly with some memorial that acknowledges the contributions.
- **Bonds:** The Town could opt to use bonds to generate funds to undertake a significant portion or all of the recommendations at once.
- **High Risk Rural Roads Program:** This program is meant to address specific safety issues on rural roads with low cost safety improvement projects to achieve significant reductions in traffic fatality and serious injury crashes. These locations for the use of these funds are recommended by the regional planning commissions. These funds may be appropriate for the initial restriping and extra signage work on both the roadway and the lowering of the hump in the road on Route 36 east of North Road. The Town should work with the Northwest Regional Planning Commission, and the TAC to access these funds since they are the group that recommends the projects to VTrans.
- **Bikes Belong Grants:** These grants are given by the Bikes Belong organization to improve bicycling conditions throughout the United States. The grants are for both facilities and advocacy. The grants for 2012 are by invitation only, but it may still be

possible to be invited to submit a grant. Additional information can be found at: <http://www.bikesbelong.org/grants/apply-for-a-grant/who-can-apply/>.

- Town Roadway Improvement Class 2 paving funds: These funds are available from VTrans and administered by the VTrans Districts. Fairfield is in District 8. Other forms of State aid to local communities may also be appropriate; additional information can be found in *The "Orange Book" a Handbook for Local Officials*.
- Vermont Urban and Community Forestry Grants: These grants are currently awarded yearly and can be used for tree inventory and tree planting programs. Typically, awards for actual tree planting are given only after an inventory has been completed, but the recommendations in this report may potentially be substituted for a street tree inventory in the village area.

Other funding sources may be available for the construction of the trails, including:

- The federal Land & Water Conservation Fund administered by the Vermont Department of Forests, Parks, and Recreation;
- The federal Recreational Trails Program, administered by the Vermont Department of Forests, Parks, and Recreation;
- The Vermont Youth Conservation Corps work grants;
- Potential health grants promoting healthy living;
- The Robert Wood Johnson Foundation;
- MCI/Worldcom Royalty Donation Program (For this and several subsequent ideas, see <http://www.americantrails.org/resources/funding/TipsFund.html>);
- Clif Bar Sponsorship;
- Trail sponsorships (and possibly naming rights); and
- RockShox's Grants.

Other potential sources exist. Some additional resources that may provide insight into additional funds include:

<http://www.americantrails.org/resources/funding/Funding.html>,  
<http://rlch.org/>, and  
<http://atfiles.org/files/pdf/bicentennialsourcebook.pdf>.





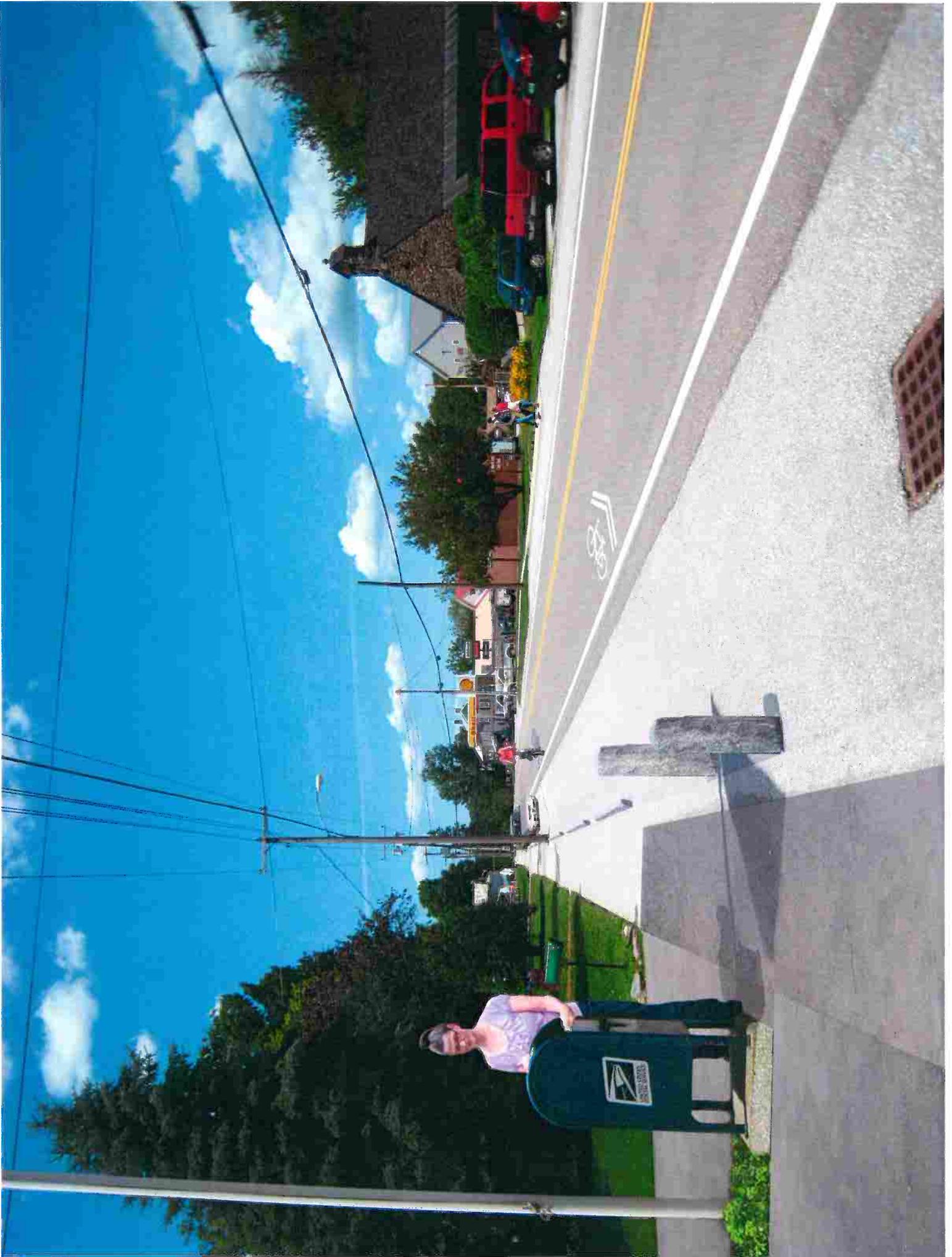
TABLE 2b: Recommendations for East Fairfield  
Town of Fairfield  
Sidewalk Scoping Study  
November 30, 2011

| Project Description                       | Recommendation 12<br>North Side Sidewalk<br>Extension  | Recommendation 13<br>South Side Sidewalk   | Recommendation 14<br>New Street Rail Trial Link  | Recommendation 15<br>East Side Paved Shoulders   | Recommendation 16<br>Mill Street Paved Shoulders  | Recommendation 17<br>New Street Paved Shoulder   | Recommendation 18<br>Pedestrian Zone   |
|---|--|--|--|--|---|--|--|
| Approximate Length in Feet                | 325  | 700  | 60   | 750 (each side)  | 1,115 (each side)   | 650 (each side)  | 975  |
| Permanent Private Property Easements      | 3(?)   | 6(?)   | 0  | 0  | 0   | 0  | 0  |
| Temporary Construction Easements          | 3  | 6  | 0  | 0  | 0   | 12(?)  | 0  |
| Significant Physical Constraints          | None   | Utility poles, mail boxes, and storm drain inlets will need to be moved or accommodated  | None   | None   | None  | Trees and tightness of houses to the road  | None   |
| <b>Environmental/Cultural Constraints</b> |  |  |  |  |   |  |  |
| Topography                                | No issues  | No issues  | No issues  | Side-slopes to drainage ditches  | No issues   | No issues  | No issues  |
| Tree Impact                               | None   | Could harm 2 trees   | None   | None   | None  | Could possible harm one or two trees   | None   |
| Utility Impacts                           | The location of the water line will need to be checked and it will need to be protected during construction; possible need to move utility poles | The location of the water line will need to be checked and it will need to be protected during construction; possible need to move utility poles | The location of the water line will need to be checked and it will need to be protected during construction; possible need to move utility poles | The location of the water line will need to be checked and it will need to be protected during construction; possible need to move utility poles | The location of the water line will need to be checked and it will need to be protected during construction; possible need to move utility poles                | The location of the water line will need to be checked and it will need to be protected during construction; possible need to move utility poles | None   |
| Archaeological Resources                  | No Impacts  | No impacts   | No impacts   |
| Historic Resources                        | No Impacts   | Potential impact   | No impacts   | No impacts   | No impacts  | Potential impact   | No impacts   |
| Hazardous Material                        | No   | No   | No   | No   | No  | No   | No   |
| <b>Project Attributes</b>                 |  |  |  |  |   |  |  |
| Meets Purpose and Need Statement          | Yes  | Yes  | Yes  | Yes  | Yes   | Yes  | Yes  |
| Readily Serves All Age Groups and Users   | Yes  | Yes  | Yes  | Yes  | Yes   | Yes  | Yes  |
| Interaction with Roadway                  | Low  | Low  | Pedestrians close to roadway   | Pedestrians close to roadway   | Pedestrians close to roadway  | Pedestrians close to roadway   | Low  |
| Motor Vehicle Traffic                     | No Impact   | No Impact  | Some slowing   |
| <b>Other Issues</b>                       |  |  |  |  |   |  |  |
| Other Issues                              | Relatively easy addition to the pedestrian circulation system; use crosswalk markings on Stone's Gas Station if needed                           | Most impacts are associated with the portion of the sidewalk east of School Street   | This link would encourage trail users to walk towards Route 36 and the village area  | The wider shoulders would allow easier bicycling & walking along the side of the road;   | The wider shoulders would allow easier bicycling and walking along the side of the road; the bridge would not be widened and would need "Share the Road" signs. | The wider shoulders would allow easier walking and bicycling along the side of the road  | The pedestrian zone would be created by signage before, at the start of, and in the middle of the pedestrian zone; the pedestrian zone does not create any changes to the roadway itself |

Positive Considerations  
Negative Considerations







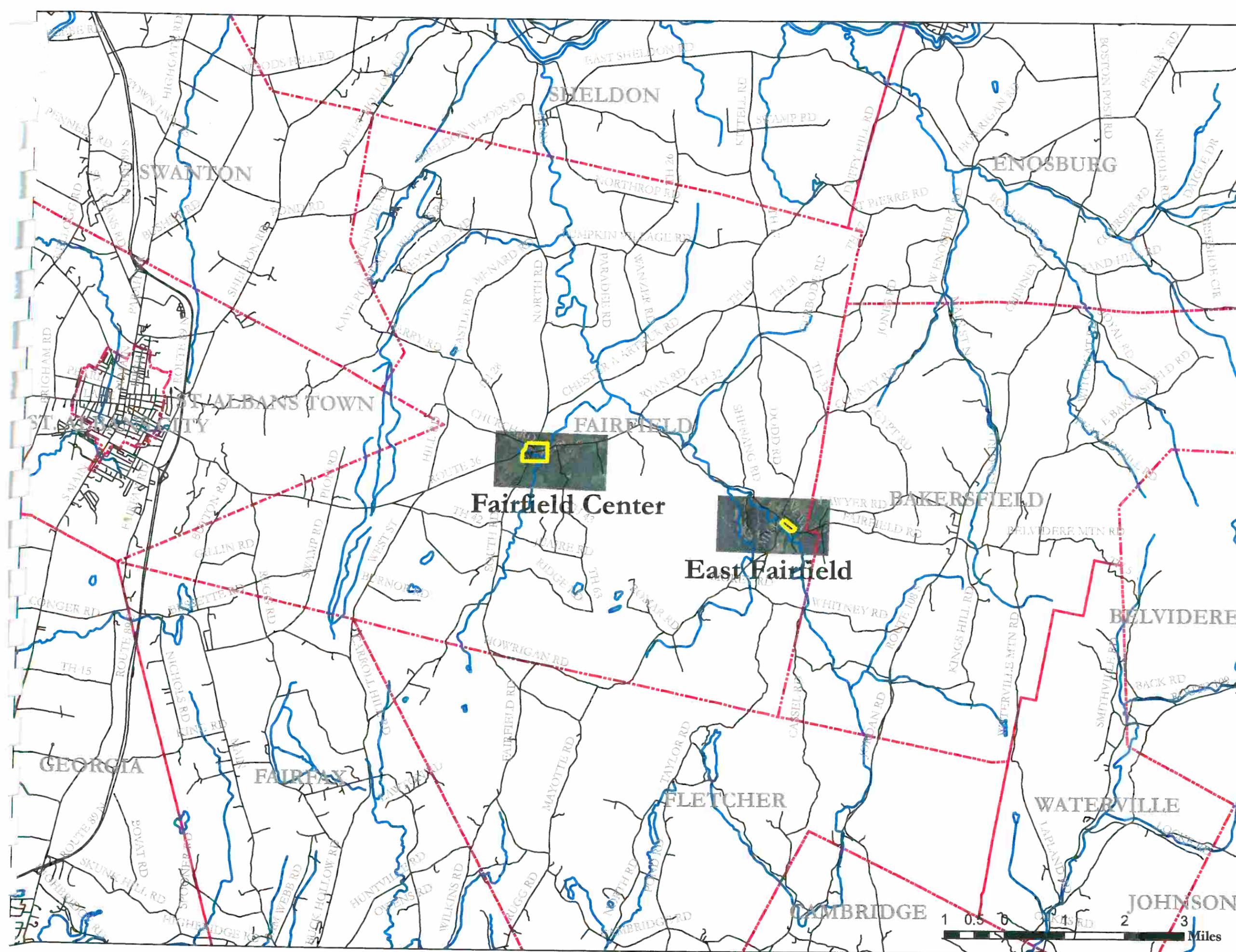


# Sidewalk Scoping Study

## Town of Fairfield

**Legend**

- Study Area
- Roads
- Watercourse
- Town Lines



**BROADREACH**  
 Planning & Design  
 PO Box 321  
 Chardotte, Vermont 05445  
 802-425-5061

**EIV Technical Services**

**Heritage Landscapes**  
 Preservation Landscape Architects & Planners

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### Study Areas

November 2011 Figure 1



# Sidewalk Scoping Study Town of Fairfield Fairfield Center

- Legend**
- Hill Crest
  - Water
  - Mail Boxes
  - Utility Poles
  - Historic Resource
  - Pedestrian Destination
  - Commercial Land Use
  - Public Cultural Land Uses
  - Residential Land Use
  - Important Trees
  - Drainage ditch
  - Culvert
  - Overhead Utility Lines
  - Catch Basin
  - Approximate Property Lines
  - Guard Rail
  - Fence
  - 20 Foot Contours
  - Watercourse
  - Archeologically Sensitive
  - Steep slopes
  - Agricultural Land
  - Public Land & Open Space

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## Existing Conditions

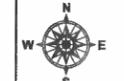
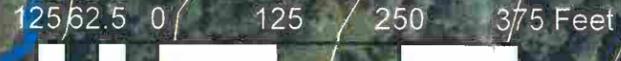
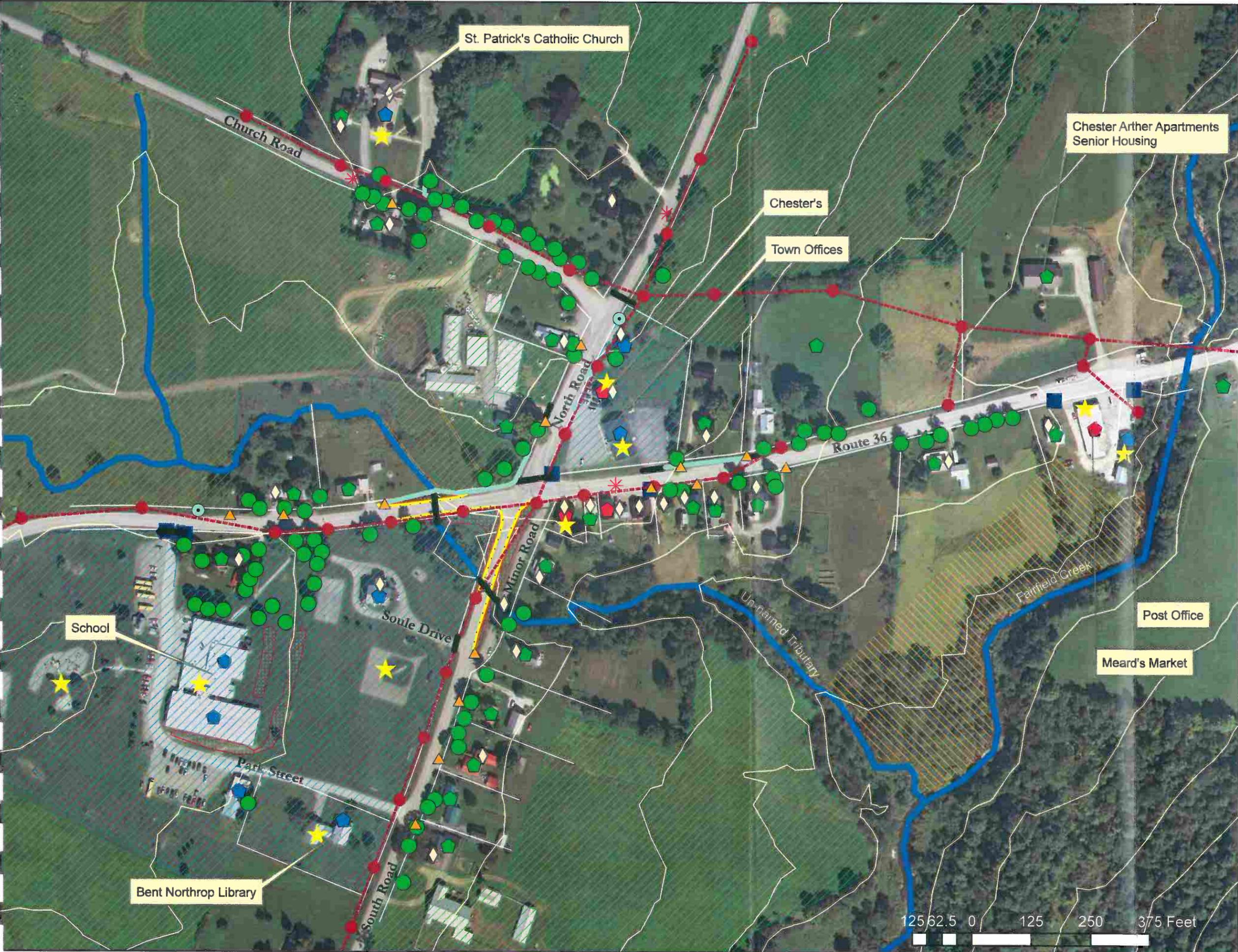


Figure 1



# Sidewalk Scoping Study Town of Fairfield East Fairfield



- Legend**
- Hill Crest \*
  - Fire Hydrants ●
  - Mail Boxes ▲
  - Stormwater Inlet ■
  - Utility Poles ●
  - Drainage ditch —
  - Historic Resource ◇
  - Pedestrian Destination ★
  - Public Cultural Land Uses ●
  - Commercial Land Use ●
  - Residential Land Use ●
  - Important Trees ●
  - Overhead Utility Lines - - -
  - Approximate Property lines —
  - Fence —
  - Existing Sidewalks —
  - Existing Trail - - -
  - Lamoille Valley Rail Trail —
  - 20 Foot Contours —
  - Archeologically Sensitive ▨
  - Steep slopes ▩
  - Open Space ▧

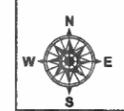
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**UVM CAP**

## Existing Conditions





# Sidewalk Scoping Study Town of Fairfield Fairfield Center



**Legend**

- Recommendation 1 —
- Recommendation 2 —
- Recommendation 3 —
- Recommendation 4 —
- Recommendation 5 - - -
- Recommendation 6 - - -
- Recommendation 7 - - -
- Recommendation 8 - - -
- Recommendation 9 - - -
- Recommendation 10 - - -
- Recommendation 11 ■
- Recommendation 19 Trees ●
- Important Trees ●
- Mail Boxes ▲
- Utility Poles ●
- Overhead Utility Lines - - -
- Catch Basin ■
- Approximate Property Lines - - -
- Primary Study Area - - -
- Watercourse —

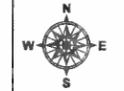
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Preserving Landscape Architecture & History

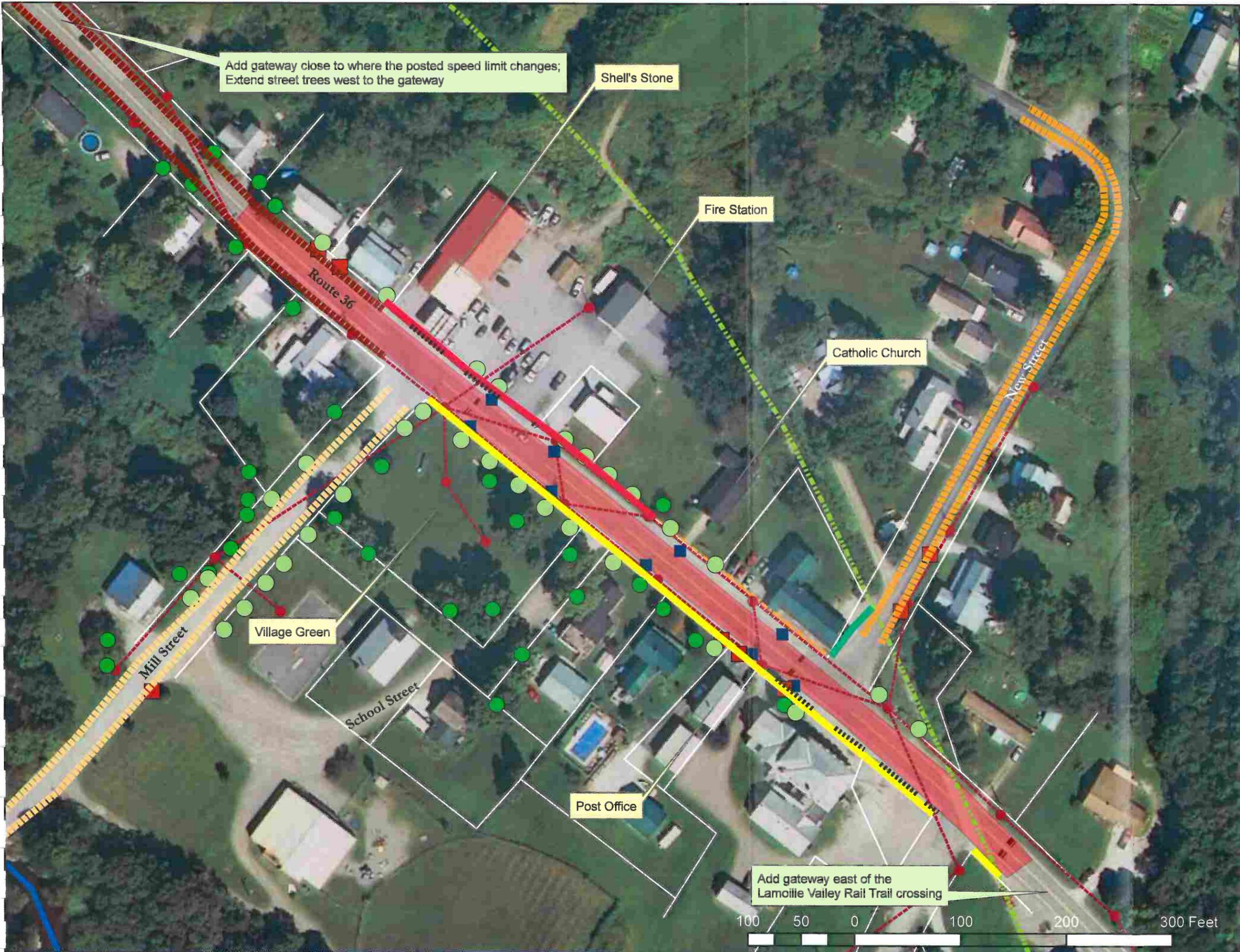
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## Recommendations





# Sidewalk Scoping Study Town of Fairfield East Fairfield



Add gateway close to where the posted speed limit changes;  
Extend street trees west to the gateway

Shell's Stone

Fire Station

Catholic Church

Village Green

Post Office

Add gateway east of the  
Lamoille Valley Rail Trail crossing

- Legend**
- Recommendation 12 █
  - Recommendation 13 █
  - Recommendation 14 █
  - Recommendation 15 ▬▬▬▬
  - Recommendation 16 ▬▬▬▬
  - Recommendation 17 ▬▬▬▬
  - Recommendation 18 █
  - Recommendation 19 Trees ●
  - New Curb ▬▬▬▬
  - Important Trees ●
  - Mail Boxes ■
  - Signs ▲
  - Stormwater Inlet ■
  - Utility Poles ●
  - Overhead Utility Lines - - - -
  - Approximate Property lines ▬▬▬▬
  - Existing Sidewalks ▬▬▬▬
  - Lamoille Valley Rail Trail ▬▬▬▬

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Heritage Landscapes  
Preserving Landscapes. Ambassadors of Place.

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## Recommendations

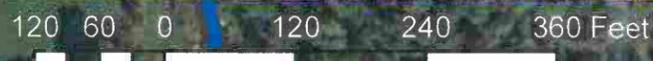




# Sidewalk Scoping Study Town of Fairfield Fairfield Center

**Legend**

- Recommendation 1 █
- Recommendation 2 █
- Recommendation 3 █
- Recommendation 4 █
- Recommendation 5 █
- Recommendation 6 █
- Recommendation 7 █
- Recommendation 8 █
- Recommendation 9 █
- Recommendation 10 █
- Recommendation 11 █
- Recommendation 18 Trees ●
- Important Trees ●
- Mail Boxes ▲
- Utility Poles ●
- Overhead Utility Lines ---
- Catch Basin ■
- Approximate Property Lines ---
- Watercourse —
- Primary Study Area ---



**BROADREACH**  
Planning & Design

**EIV Technical Services**

**Heritage Landscapes**  
Preserving Landscapes, Arcades & Places

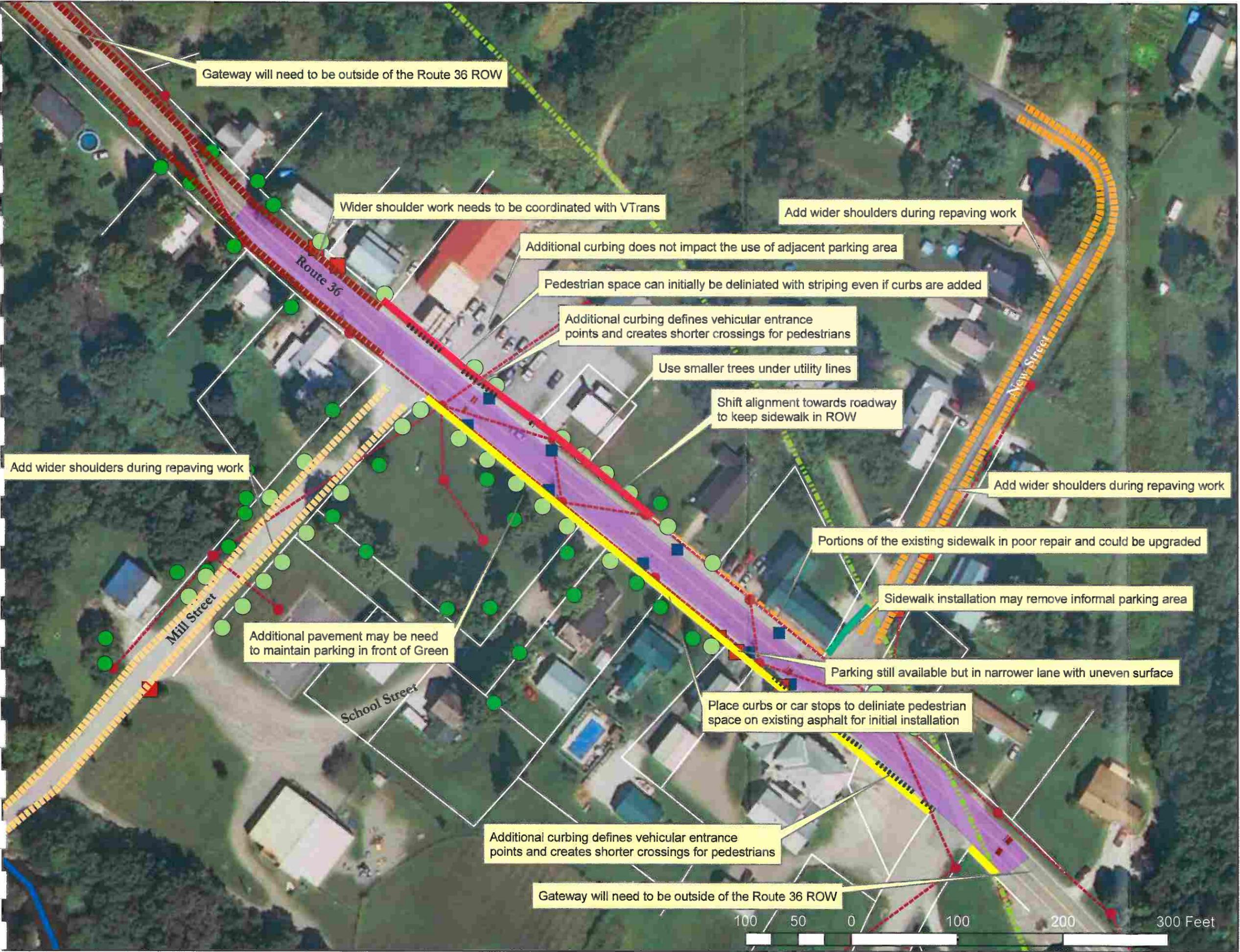
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## Features & Issues

November 2011 Figure 4a



# Sidewalk Scoping Study Town of Fairfield East Fairfield



**Legend**

- Recommendation 13 █
- Recommendation 14 █
- Recommendation 15 █
- Recommendation 16 ▬▬▬▬
- Recommendation 17 ▬▬▬▬
- Recommendation 18 ▬▬▬▬
- Recommendation 14 █
- Recommendation 19 Trees ●
- New Curb ▬▬▬▬
- Important Trees ●
- Mail Boxes ■
- Signs ▲
- Stormwater Inlet ■
- Utility Poles ●
- Overhead Utility Lines - - - - -
- Approximate Property lines ▬▬▬▬
- Existing Sidewalks ▬▬▬▬
- Lamoille Valley Rail Trail ▬▬▬▬

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**Features & Issues**

November 2011 Figure 4b





## Appendix A Existing Conditions



**The Town of Fairfield**  
**Sidewalk Scoping Study**

**Task B Summary - Existing Conditions**



*Submitted by:*  
**Broadreach Planning & Design**

*In conjunction with*

**EIV Technical Services**  
**Heritage Landscapes LLC**  
**University of Vermont Consulting Archeology Program**

**July 18, 2011**



## A. INTRODUCTION

### 1. OVERVIEW

The Town of Fairfield received an enhancement grant to examine the potential for adding sidewalks in Fairfield Center and East Fairfield. The project study areas cover the main intersection of Fairfield Center and the core of East Fairfield along Vermont Route 36 (Route 36). **Figure B-1** shows the location and approximate extent of the two study areas. The Town is assisted by a Project Team being led by Broadreach Planning & Design.

### 2. PURPOSE AND NEED

The purpose of the Fairfield Sidewalk Scoping Study project is to:

- Provide a secure, easily used means for pedestrians and bicyclists of variable ages and abilities to travel between the post office, senior housing, Fairfield Town Hall, the entrances to Fairfield Center School, the Bent Northrop Memorial Library and St. Patrick's Church in Fairfield Center and along Route 36 in East Fairfield between New Street and the few houses to the west of Mill Street before the drop in the road;
- Increase the mobility of pedestrians and bicyclists in and around Fairfield Center and East Fairfield without significant increases in ongoing maintenance costs for the Town,
- Address the sight distance issues associated with pedestrians crossing at the intersection of Route 36, North Road, Minor Road and South Road, and
- Provide physical change to the roadway to help slow vehicular traffic on Route 36.

The need for the path can be seen in:

- The number of existing pedestrians using the narrow area at the side of the existing roads in Fairfield Center or the parking areas along the road in East Fairfield;
- The reported speeds of vehicles on Route 36 significantly higher than the posted 35 miles per hour;
- The minimal distance between the travel lane and existing guard rails on South Road and Route 36;
- The presence of school children walking to and from the Fairfield **Community School**;
- The prohibition by numerous parents in the area of using the Route 36 South/North Road intersection by students going and coming from school;

- The difficulties experienced by day care operators on Route 36 in walking children to the nearby play ground;
- The difficulties experienced by seniors in the Chester Arthur Apartments to get to the nearby store or post office; and
- The minimal space for bicyclists outside of the travel lanes on existing roads.

### 3. PROJECTED USERS

The Town would like to improve walking and bicycling conditions for pedestrians and bicyclists of all ages and abilities. This means that as much as is feasible, the improvements should be usable by school children, elderly citizens, and those with disabilities. They should also enhance conditions for skilled bicyclists.

The following sections provide more information on the abilities and needs of the different types of pedestrians and bicyclists.

*Pedestrians:* Pedestrians vary significantly in their skills, experience, and willingness to walk different distances. Strong determining factors for pedestrians are the time and mobility required to reach their destinations. Time and mobility constraints also dictate the pedestrian's usable geographic space; few urban pedestrians will venture more than one mile from point to point; most actually will only undertake trips shorter than ½ mile, unless the trip is recreational.

There are three basic pedestrian user groups:

- Active pedestrians,
- Basic pedestrians, and
- Circumscribed pedestrians.

Active pedestrians use the road system regularly for transportation, as well as for fitness. They know and generally follow the rules of the road. Basic pedestrians include the majority of older children and healthy adult pedestrians. Circumscribed pedestrians are those whose speed and mobility are extremely limited. In all cases, when walking on roads, pedestrians should walk FACING traffic on the left side of the road in the direction of travel.

*Bicyclists:* Among bicyclists, there are three typical user groups that can be expected to use the multi use path:

- Advanced bicyclists,
- Basic bicyclists, and
- Beginner bicyclists or children.

Advanced bicyclists are highly experienced bicycle riders who feel comfortable riding their bikes in heavy traffic and typically prefer to ride on roadways.

Basic bicyclists comprise the largest category of bicycle riders, including older children, inexperienced adult riders, occasional bicycle commuters, recreational adult bicyclists, and experienced riders who still fear or dislike riding in urban traffic conditions. Basic bicyclists are reasonably competent in handling their bicycles and they generally understand the rules of the road, but they ride at more moderate speeds and are generally uncomfortable on busy streets unless a striped, obstacle-free shoulder is provided and traffic volumes are low.

Beginner bicyclists have the weakest bicycling skills. Beginner bicyclists ride more slowly, don't always understand the rules of the road, and are typically uncomfortable riding with motor vehicles. They are best accommodated on low-speed local roads and multi user paths or even sidewalks for the very young where there are few, if any driveway crossings.

When riding on roadways, bicyclist should always ride with traffic on the right side of the road in the direction of travel. Unless the road is clear, bicyclists should ride single file.

#### 4. TRAVEL PATTERNS

**Figures B-2a** and **B-2b** show the existing travel patterns within the Study Areas as noted during field work during the beginning of July and as derived from existing land use information.

In Fairfield Center, the travel patterns appear to center on the school, library and play fields, with some pedestrians also headed to Menards store on the eastern end of the Fairfield Center Study Area.

In East Fairfield, the travel patterns seem to center on both the post office and the Stone's Shell and, in the summer, the snack bar across the street on the Green. There is also pedestrian traffic heading to and from the play fields by the Community Center.

It is assumed that of the residential uses are each potential origin and/or destination points for bicyclists and pedestrians within the Study Areas.

#### B. LAND USE

The Primary Study Areas include residential, retail and other commercial, public, agricultural and institutional land uses. **Figures B-2a** and **B-2b** show the location of the various types of existing land uses. Both Study Areas have a mix of residential, small scale commercial and public/institutional uses.

## C. TRANSPORTATION FACILITIES

### 1. OVERVIEW

Figures B-2a and B-2b identify the roadways in the Study Areas. Within Fairfield Center, there are seven roads within the immediate Study Area – Route 36, North Road, South Road, Minor Road, Park Street, Soule Drive and Church Street. In East Fairfield, Route 36 is the primary road under consideration, but School Street, Mill Street, New Street and even Read's Drive may also be considered as a means of improving walking and bicycling conditions.

### 2. ROADWAY DATA

Route 36 is a State Highway and is classified by VTtrans as a Major Collector Road on a state highway.

The posted speed limit for Route 36 in the Study Areas is 35 miles per hour (MPH).

Table B-1 shows approximate width information for the major roadways in the Study Areas.

**Table B-1: Pavement Width in Feet**

|                 | Total    | ( | shld* | - | Lane | - | Lane | - | shld | ) |
|-----------------|----------|---|-------|---|------|---|------|---|------|---|
| Route 36 (FC):  | 26 ft    | ( | 2     | - | 11   | - | 11   | - | 2    | ) |
| Route 36 (EF):  | 24-30 ft | ( | 1-4   | - | 11   | - | 11   | - | 1-4  | ) |
| South Road:     | 22 ft    | ( | 1     | - | 10   | - | 10   | - | 1    | ) |
| North Road:     | 30 ft    | ( | 1     | - | 10   | - | 10   | - | 1    | ) |
| Church Street : | 20 ft    | ( | 0     | - | 10   | - | 10   | - | 0    | ) |

\* shoulder widths assumed, not striped where  
measurements taken

The *Vermont State Design Standards* indicates that the minimum width for travel lanes on Major Collector Roads on a state highway should be (9 to 11) feet and the minimum shoulders widths should be (2 to 3) feet on roads with a speed limit of 35 MPH. There are no definite State Standards for town roads such as North or South Roads.

VTtrans has estimated the average annual daily traffic (AADT) on Route 36 in East Fairfield east of the intersection with Mill Street in 2010 as 1,400 vehicles. They have estimated the AADT for Route 36 between Mill Street and North Street intersection in Fairfield Center as 1,900 vehicles. Based on a traffic count in 2010, VTtrans has estimated the AADT on Route 36 west of the North Street intersection to the town line as 2,800 vehicles. Based on a traffic count in 2010, VTtrans has estimated the AADT on Route 36 west of the North Street intersection to the town line as 2,800 vehicles. More recent counts at the intersection of

North and South Road with Route 36 show that the AADT for North Road is 1,600 vehicles and for South Road is 1,000 vehicles.

### 3. RIGHT-OF-WAY WIDTHS

Field evidence and initial record research, along with VTrans Route Logs indicate that the right-of-way of Route 36 is generally 3 rods, or approximately 49.75 feet, wide. There are a few locations, notably close to the Route 36 bridge over Fairfield Creek on the eastern edge of the Fairfield Center Study Area, where the right-of-way widens. Field evidence and initial record research shows that the rights-of-way for the Town roads in the Study Areas area also 3 rods wide.

### 4. CRASH HISTORY

Between 2004 and 2009, there have been 11 recorded crashes near the intersection of Route 36 with North and South Roads. Three of the crashes included injuries. During this same period, there have been three crashes on Route 36 in the center of East Fairfield; none with injuries.

## D. UTILITIES

There are several culverts under driveways and roadway in Fairfield Center, and one storm drain inlet with an unknown outfall on the northeast corner of the North Road/Route 36 intersection. There is a small storm drain system along Route 36 in East Fairfield, with several inlets on long each side of the road. The outfall for this system is unknown. **Figures B-3a** and **B-3b** show the location of the storm drain inlets and culverts.

There are numerous utility poles and overhead wires in both Study Areas. **Figures B-3a** and **B-3b** show the location of these poles. In Fairfield Center, the poles are typically several feet away from the roadway, in some cases up to 18 feet. The poles are much close to the road in East Fairfield.

Both East Fairfield and Fairfield Center are served by public water. There are currently no public sewers in either area. **Figures B-3a** and **B-3b** show the approximate location of the water lines.

## E. NATURAL RESOURCES

### 1. WATERCOURSES

Fairfield Creek flows north along the eastern edge of the Fairfield Center Study Area, with an unnamed tributary flowing southeast through this Study Area to join Fairfield Creek in the southeast corner of the Study Area. The Black River flows northwest to the south of the East Fairfield Study Area. These are the only significant surface water resources within the Study Areas. **Figures B-4a** and **2-4b** show the location of these watercourses.

## 2. TOPOGRAPHY

The Fairfield Center Study area has several variations in topography along the roadways, most notable on the drop on Route 36 just to the east of the intersection with North and South Roads as the land descends towards Fairfield Creek. There is also a significant drop to the unnamed stream that runs through the middle of the Study Area. This drop is reflected in the horizontal alignment of Minor Road, but Route 36 and South Road have been raised to be generally level as they cross this depression. North Road also rises slightly as it nears the intersection with Church Road. The Fairfield Center School sits on a small hill that is approximately 20 feet higher than the level playing fields to the north.

There are numerous locations where the side of the road drops rapidly away close to the edge of the pavement, creating difficult walking conditions. **Figures B-4a** and **B-4b** shows the general location of these areas.

The East Fairfield Study Area is generally flat. Route 36 drops just to the west of the Study Area.

## 3. WETLANDS

The State has no recorded occurrences of wetlands within either of the two study areas. The only apparent wetland in either study area lies in the southwest corner of the intersection of Route 36 and South Road. It is associated with the unnamed stream that runs through the Study Area. There are several other smaller wetlands along the edges of the stream on the north side of Route 36. **Figure B-4b** shows the location of these wetlands. There is a large wetland complex mapped within the impoundment of the Black river found west of the East Fairfield study area.

## 4. WATERBODIES

There are no water bodies within either Study Area. An impoundment in the Black river west of East Fairfield forms the only significant body of water in the vicinity of either study area.

## 5. FLOODPLAINS.

The Federal Emergency Management Agency (FEMA) has prepared initial maps of the 100 year flood plains for both Fairfield Creek and Black Creek. There are, however, no specific estimates of the width or elevation of the floodplain on the FEMA floodplain maps. Neither area appears to impact either Study Area. **Figures B-2a** and **B-2b** show the general area of the flood plains as marked on the FEMA maps.

## 6. FLORA

Both study areas primarily consist of perennial grasses and mature trees in a landscaped setting. Multiple agricultural fields exist within Fairfield Center which are used for forage production. There are no records of unique natural communities or rare habitat within or in the vicinity of either Study Area.

## 7. ENDANGERED SPECIES

The Nongame Natural Heritage Program of VT Department Fish and Wildlife has no record of any Rare, Threatened, or Endangered species occurring in or around either Study Area.

## F. CULTURAL RESOURCES

### 1. HISTORIC

Fairfield Center has a diversity of historic buildings, many with a high degree of integrity. The proximity of many historic dwellings to the road corridor complicates potential sidewalk placement. Also, the abundance of historic street trees is an additional consideration when planning a system of walks in the village. There is an old stone bridge on Minor Road over the unnamed tributary to Fairfield Creek.

East Fairfield retains the character of a village center, organized around the central Town Green. Given the ample setbacks, particularly on the south side of the road, sidewalks will not likely result in negative effects to historic resources. Instead, the increased pedestrian character will likely strengthen the village-like character of this streetscape.

**Attachment 1** contains the first draft of the historic assessments for Fairfield Center and East Fairfield.

### 2. ARCHEOLOGICAL

The archeological resources assessment will be finalized after initial alternatives have been developed. **Attachment 2** will contain the first draft of the archeological resources assessment.

### 3. PUBLIC LAND

There are public lands in Fairfield Center associated with the school as well as other smaller public parcels. The green in East Fairfield is the only significant public land in that study area. Section 6(f) properties are those purchased in whole or in part with federal Land and Water Conservation Act funding and designated as a park, wildlife refuge, or public recreation area. There are no known 6(f) properties in either study area. **Figures B-2a and B-2b** show the location of the open space and public lands.

#### 4. AGRICULTURAL LANDS

Most soils mapped by the USDA in either study area are of statewide significance and are considered Prime for Agricultural use. There are several remaining agricultural fields and farms in Fairfield Center but a majority of the agricultural acreage is found in the East Fairfield study area. **Figures 2-2a** and **2-2b** show the location of these agricultural lands.

#### 5. HAZARDOUS SITES

There are four recorded and 'low-priority' hazardous sites recorded by the VT ANR Sites Management Section within the Study Areas. Two are found in East Fairfield and two in Fairfield Center. All are associated with spills from underground storage tanks for gasoline or fuel oil. In the center there is the 'Old Hotel' site and 'Brown's ABC', in east Fairfield there is 'Lyn's Market' and 'Stone's Texaco'. At both the Old Hotel and Lyn's Market sites, required sub-surface investigation and remediation activities are complete.

### G. PLANNING DOCUMENTS

#### 1. TOWN PLANS

#### 2. TOWN ZONING

The Fairfield Subdivision and Zoning Bylaws do not appear to present significant impediments towards the development of better bicycling and walking and walking conditions. There appears to be no maximum lot coverage in the bylaws, so the granting or an easement or the construction of a pedestrian facility on private land would appear to create future regulatory limitations on the future development or improvement of the rest of the parcel.

#### 3. STATE PLANS

The 2008 VTrans Pedestrian and Bicycle Policy Plan includes goals and objectives that directly support the upgrading of bicycling and walking connections between the Village Center and the Community School, including:

##### Goals

- Cultural Environment. Enhance the human scale and livability of Vermont's communities by improving opportunities for pedestrian and bicycle mobility and access in and between towns, downtowns, villages and rural landscapes.
- Health. Improve the health of Vermonters and reduce health care costs by making it easier, safer and more convenient for citizens to be more physically active by walking and bicycling on a regular basis.

- **Transportation Choice.** Enhance pedestrian and bicycle transportation options in Vermont so that citizens, regardless of location socioeconomic status, or health can choose a seamless, convenient and comfortable mode that meets their needs. Promote a transportation network, including roadways, shared use paths, rail trails, rails with trails, and accessible pedestrian facilities, which allow pedestrians and bicyclists to reach their destinations throughout the State or to connect to other modes of travel.

#### Objectives

- **Objective 8.** Work with citizens, municipalities, regional planning organizations, and other State agencies to develop, plan, and implement pedestrian and bicycle plans, projects, and programs.
- **Objective 12.** Provide a seamless transportation network for pedestrians and bicyclists by improving linkages between walking, bicycling and other modes of transportation

#### 4. OTHER PLANS OR STUDIES

The Town is currently exploring the potential preservation of its Class 4 roads, several of which are in or near the Study Areas. The roads could serve as trail links to whatever system is developed in the Study Areas.

The Town is initiating a sewer study that covers portions of the Study Areas. It is also taking the first steps towards exploring the potential for creating a four way stop at the intersection of Route 36 with North and South Roads by working with the Northwest Regional Planning Commission to conduct traffic counts at and near the intersection.

The Town recently received funding to rebuild a trail around the school. The alignment of the trail could potentially also be used as part of the future pedestrian system in Fairfield Center. **Figure B-2b** shows the planned location of the trail.

#### H. ANALYSIS

The current conditions on Route 36 in the Fairfield Center meets minimum state standards for travel lane and shoulder widths; these standards took bicycling and walking potential into account when they were developed. Most of the other roads, with one foot or less of paved shoulder could be considered to be below state standards.

Within the Fairfield Center, the slopes adjacent to the sides of the road in several locations, combined with the existing guard rails, create a limitation on the addition of sidewalks along the side of the road. New sidewalks would need to be placed on leveled areas created with retaining walls, or placed lower than the roadway, cut partly into the slope outside of the guard rail. If sidewalks were added at the same grade as the roadway, it may be possible to remove the guard rails or relocate them to the outside edge of the sidewalk. With the lower

sidewalks, the guard rails would need to be opened at several locations to provide access to the sidewalks placed on their outer sides.

The intersection of Route 36 and North and South Roads has limited sight distances to the north and presents a barrier to north south circulation for pedestrians and bicyclists in Fairfield Center. It may be possible to use portions of the walking trail to be revitalized around the school in combination with off road trails or shared use paths to provide better walking and bicycling conditions that avoid the intersection of Route 36 and North and South Roads.

The distance between the North South Roads/Route 36 intersection and the Fairfield Center post office and Chester Arthur Apartments combined with the minimal development along the road may make it impractical to add sidewalks along this entire length. Some alternate method of providing better walking and bicycling conditions may be appropriate.

It appears as if sidewalks existed along at least the south side of Route 36 in East Fairfield in the past. The space where a sidewalk might have previously existed is now used for parking and drainage. The grade change between the edge of the south side of the road and the adjacent paved ditch/parking area could either be seen as a hindrance towards adding sidewalks or an opportunity to provide grade separation between sidewalks and roadway. The maintenance of parking spaces along the sides of the road must be addressed as part of improving walking and bicycling conditions.

Route 36 between Fairfield Center and East Fairfield has numerous vertical and horizontal curves. The travel lanes are approximately 11 feet wide; the paved shoulders vary from six inches to two feet wide. The road is acceptable for experienced bicyclists or walkers, but could present a challenge for less experienced bicyclists or pedestrians.

# Attachment 1 Traffic Data

Town of Fairfield

Attachments

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July 18, 2011

# Northwest Regional Planning Commission

155 Lake Street  
St. Albans, VT 05478  
802-524-5958

Site Code: 0831201104

Date Start: 31-Aug-11  
Date End: 06-Sep-11

| Start Time   | 29-Aug-11 |       | Tue       |       | Wed       |       | Thu       |       | Fri       |       | Sat       |       | Sun       |       | Week Average |       |
|--------------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|--------------|-------|
|              | Direction | 1     | Direction    | 1     |
| 12:00 AM     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 01:00        | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 02:00        | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 03:00        | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
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| 05:00        | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 06:00        | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 07:00        | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 08:00        | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
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| 12:00 PM     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 01:00        | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
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| Lane         | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0            | 0     |
| Day          | 0         |       | 1770      |       | 1030      |       | 885       |       | 1732      |       | 1396      |       | 1283      |       | 1545         |       |
| AM Peak Vol. | 11:00     | 11:00 | 11:00     | 07:00 | 08:00     | 07:00 | 11:00     | 11:00 | 11:00     | 07:00 | 10:00     | 11:00 | 09:00     | 11:00 | 11:00        | 07:00 |
| PM Peak Vol. | 15:00     | 16:00 | 15:00     | 14:00 | 15:00     | 14:00 | 15:00     | 14:00 | 15:00     | 14:00 | 13:00     | 15:00 | 12:00     | 14:00 | 15:00        | 14:00 |
|              | 87        | 60    | 91        | 54    | 64        | 86    | 68        | 53    | 77        | 69    | 46        | 77    | 69        | 46    | 55           | 77    |



# Northwest Regional Planning Commission

155 Lake Street  
St. Albans, VT 05478  
802-524-5958

Site Code: 0831201103

Date Start: 31-Aug-11  
Date End: 06-Sep-11

| Start Time | 29-Aug-11 |       | Tue       |       | Wed       |       | Thu       |       | Fri       |       | Sat       |       | Sun       |       | Week Average |       |
|------------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|--------------|-------|
|            | Direction | 1     | Direction | 2     | Direction | 3     | Direction | 4     | Direction | 5     | Direction | 6     | Direction | 7     | Direction    | 8     |
| 12:00 AM   | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 01:00      | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 02:00      | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
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| 12:00 PM   | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 01:00      | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 02:00      | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 03:00      | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
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| 05:00      | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 06:00      | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 07:00      | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
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| 10:00      | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| 11:00      | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *         | *     | *            | *     |
| Lane       | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0            | 0     |
| Day        | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0            | 0     |
| AM Peak    | 10:00     | 10:00 | 07:00     | 07:00 | 07:00     | 08:00 | 08:00     | 10:00 | 09:00     | 09:00 | 11:00     | 10:00 | 11:00     | 10:00 | 07:00        | 08:00 |
| Vol.       | 30        | 27    | 65        | 50    | 71        | 71    | 40        | 38    | 39        | 39    | 37        | 31    | 38        | 31    | 38           | 36    |
| PM Peak    | 14:00     | 14:00 | 14:00     | 16:00 | 14:00     | 14:00 | 14:00     | 15:00 | 15:00     | 15:00 | 12:00     | 14:00 | 14:00     | 14:00 | 14:00        | 14:00 |
| Vol.       | 43        | 49    | 63        | 71    | 53        | 63    | 63        | 32    | 40        | 40    | 40        | 39    | 45        | 39    | 45           | 47    |
| Lane       | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0            | 0     |
| Day        | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0         | 0     | 0            | 0     |
| AM Peak    | 10:00     | 10:00 | 07:00     | 07:00 | 07:00     | 08:00 | 08:00     | 10:00 | 09:00     | 09:00 | 11:00     | 10:00 | 11:00     | 10:00 | 07:00        | 08:00 |
| Vol.       | 30        | 27    | 65        | 50    | 71        | 71    | 40        | 38    | 39        | 39    | 37        | 31    | 38        | 31    | 38           | 36    |
| PM Peak    | 14:00     | 14:00 | 14:00     | 16:00 | 14:00     | 14:00 | 14:00     | 15:00 | 15:00     | 15:00 | 12:00     | 14:00 | 14:00     | 14:00 | 14:00        | 14:00 |
| Vol.       | 43        | 49    | 63        | 71    | 53        | 63    | 63        | 32    | 40        | 40    | 40        | 39    | 45        | 39    | 45           | 47    |



## Attachment 2 Historic Review





**Preliminary Historic Aboveground Resources Assessment  
Sidewalk Scoping Study, Fairfield, VT  
11 July 2011**

**Submitted to:**

Jim Donovan  
Broadreach Planning & Design  
Charlotte, VT 05445

**Prepared by:**

Sarah LeVaun Gaulty, MSHP, Project Manager  
Patricia M. O'Donnell, FASLA, AICP, Principal  
Heritage Landscapes, LLC

**INTRODUCTION**

The goal of this review is to identify existing historic resources in the project area that are listed or eligible for listing on the National Register of Historic Places and could potentially be affected by sidewalk improvements in Fairfield and East Fairfield. This effort assists with compliance under Section 106 of the National Historic Preservation Act and Section 4(f) of the U. S. Department of Transportation. This investigation is a reconnaissance-level survey of historic aboveground resources, not a detailed inventory of National Register eligible properties. A further study would be needed to determine National Register eligibility for these resources.

Heritage Landscapes conducted a detailed visual field inspection of the project area on July 11, 2011 to assess potential historic resources in the project area. Should the breadth of proposed improvements be broader than assumed for this review, the impacts to adjacent structures and other elements should be studied again. Areas of dense vegetation with limited access were not studied in the field.

In addition to field inspection, baseline research revealed some information about historic resources within the project area. At this time, none of the historic resources within the Fairfield and East Fairfield project areas are listed on the National Register of Historic Places. In order to gain an understanding of the historic resources along the project route, Heritage Landscapes studied historic maps, including:

## Fairfield Sidewalk Scoping Study Historic Aboveground Resources Assessment, Page 2

- *Map of Franklin and Grand Isle, Vermont, Vermont, From Actual Surveys: Fairfield Centre and East Fairfield* (H. F. Walling, 1857)
- *Atlas of Franklin and Grand Isle Counties: Fairfield and East Fairfield* (F. W. Beers, 1871)

These documentary resources provide a degree of background and context to inform this reconnaissance-level historic review.

A number of potentially historic resources have been identified within the study area in both Fairfield and East Fairfield. Specific historic resources identified during field review are addressed in the following paragraphs, grouped by location. Potential conflicts with historic resources are outlined. Typically, these conflicts stem from the proximity of National Register-eligible resources to possible mobility improvements in the existing roadway corridor. In addition, many roadside areas in Fairfield include historic trees, which should be considered and, ideally, retained in sidewalk planning.

### **FAIRFIELD CENTER FIELD REVIEW SUMMARY OF INITIAL IMPRESSIONS:**

#### **Route 36 East of N/S Roads**

- **Fairfield Post Office:** The origins and integrity of this building will require further study and potential conflicts will be better clarified in later drafts. Ample setback.
- **Menard's Market:** 20<sup>th</sup> century building with series of successive changes. Integrity limited. Narrow setback.
- **West of Market:** Integrity intact, ample setback.
- **Chester Arthur Apartments:** Ample setback. Modern garage.
- **#4620:** High integrity, wide setback, historic trees and shrubs. Carriage barn to rear also exhibits high degree of integrity to historic period.
- **White House, North Side of Rt. 36:** This new construction is not historic, but existing, potentially historic barn was retained despite removals made to clear area for the new dwelling. Ample setback.
- **#4552:** Very high degree of integrity in both house and barn. Includes a stone retaining wall and historic trees positioned near the roadway. Setback for house is adequate.
- **#4534:** This yellow Queen Anne includes a carriage barn and a moderate setback. Good historic integrity. Front walk ends at location of previous sidewalk, now removed.
- **Gray with Black Shutters:** High integrity, ample setback. Row of hydrangea positioned close to roadway. Wood retaining walls suggest historic location of garage or other structure. Historic tree at drive.
- **#4524:** Good integrity, drops below grade. Can detect alignment of former sidewalks at base of slope, behind daylilies. Includes barn/garage with no setback, only narrow driveway area parallel to road.

Fairfield Sidewalk Scoping Study  
Historic Aboveground Resources Assessment, Page 3

- **#4492:** Includes 2 red buildings, good integrity. Important to historic village core despite additions from different eras. No setback, only narrow driveway area parallel to road.
- **Green and White Building:** Great integrity, no setback. Includes historic hoist hardware on exterior of building.
- **Old Brick Store:** High integrity, limited setback. Commercial building very important to this historic character of the village.

North Road and Church Road

- **Town Offices:** Not a historic resource and thus not assessed.
- **Dwelling on NW Corner:** The origins and integrity of this building will require further study and potential conflicts will be better clarified in later drafts. Is positioned up steep slope from roadway.
- **Chester's Bakery:** Former Post Office (from 1977 book). History unclear. Limited to moderate setback.
- **Ohliger Dwelling:** Good integrity, moderate setback, very large historic tree.
- **Former Town Clerk Office:** Brick, built mid-20<sup>th</sup> century. Good integrity. Moderate setback.
- **Soule House:** Great integrity, many old trees, ample setback.
- **Catholic Church:** High integrity, wide setback. Concrete curbs along roadway.
- **Brick Parsonage (?):** Also high integrity and broad setback. No curbs visible.
- **101 Church Road:** High integrity, excellent row of historic street trees.

South Road and Minor Drive

- **#97:** Duplex retains good integrity, moderate setback. Carriage barn to the rear. Includes historic stone stream channel and modern concrete block culvert.
- **Former Episcopal Church:** High integrity, now residence, ample setback. Historic trees but loss of several trees. Cemetery positioned to the rear.
- **#85:** Retains original windows, though siding replaced. Moderate integrity. Very large historic tree. Ample setback.
- **#105:** Queen Anne, high integrity, modern garage to the rear.
- **#121:** Integrity of this building is unclear, but suspect it is an altered and augmented historical resource. Document review should clarify to a degree.
- **#143:** Retains good integrity.

Park Street and Schools

- **Library:** Not a historic resource and thus not assessed.
- **Volunteer Fire Dept:** Not a historic resource and thus not assessed.
- **School:** Date of the school unknown, 1960s suspected. Appears to retain high integrity to this period. Note historic trees throughout landscape.
- **Town House:** Very historic, high integrity, important early building.

Fairfield Sidewalk Scoping Study  
Historic Aboveground Resources Assessment, Page 4

**Route 36 West of N/S Roads**

- **Corner Route 36 & Park Street:** Retains degree of integrity. Non-historic retaining wall, adequate setback.
- **Red Barn:** Good integrity. Original window.
- **#4367:** High integrity, ample setback.
- **#4389:** Not a historic resource and thus not assessed.

**Overall Impression** – Fairfield Center has a diversity of historic buildings, many with a high degree of integrity. The proximity of many historic dwellings to the road corridor complicates potential sidewalk placement. Also, the abundance of historic street trees is an additional consideration when planning a system of walks in the village.

**EAST FAIRFIELD FIELD REVIEW SUMMARY OF INITIAL IMPRESSIONS**

- **9563 Main Street:** Not a historic resource and thus not assessed.
- **General Store:** This large structure topped by a mansard roof is a historic commercial building that retains historic integrity. The paved setback in ample. Question of historic gasoline pump structures.
- **Post Office:** Building likely dates to historic period, but integrity is compromised by modern changes. Ample setback. Potentially historic carriage barn behind the main building.
- **Large Red Building:** The origins and integrity of this building will require further study and potential conflicts will be better clarified in later drafts.
- **9502 Main Street:** If a historic structure, integrity is compromised by more recent changes, including window adjustments and addition of brick façade. Moderate setback.
- **Church:** 1940s church building retains integrity. Note war memorial close to roadway.
- **Beige House East of Town Green:** Compromised integrity, fenestration seems off.
- **Fair Point Building:** Not a historic resource and thus not assessed.
- **Fire Department Building:** Not a historic resource and thus not assessed.
- **Town Green:** This is a very important historic element within the East Fairfield landscape. Includes historic trees and historic open space. Grading and paving patterns suggest that the road shoulder has absorbed a former sidewalk. The character of this landscape should be protected during any and all interventions.
- **Congregational Church:** Also a very important historic resource within the village.
- **Shell Station:** The origins and integrity of this building will require further study and potential conflicts will be better clarified in later drafts.
- **Historic Duplex E of Shell Station:** Historic duplex, maybe former worker housing? Very limited setback. Good integrity.
- **Fairfield Trading Post:** Poor integrity. One section has nearly no setback.

Fairfield Sidewalk Scoping Study  
Historic Aboveground Resources Assessment, Page 5

- **9406 Main Street:** Retains a degree of integrity, including some historic sash. Moderate setback.
- **Tan House w/ Brown Trim:** Fenestration has been changed.
- **Green House North:** Retains a degree of historic integrity. Foundation fragment near roadway. On rise, limited setback.
- **Green House South:** Low integrity. Moderate setback.
- **9374 Main Street:** Not a historic resource and thus not assessed.

**Overall Impression** – East Fairfield retains the character of a village center, organized around the central Town Green. Given the ample setbacks, particularly on the south side of the road, sidewalks will not likely result in negative effects to historic resources. Instead, the increased pedestrian character will likely strengthen the village-like character of this streetscape.



## Attachment 3 Archeological Resources Assessment

Town of Fairfield

Attachments

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July 18, 2011

**Archaeological Resources Assessment for the proposed Town of Fairfield EH 10(8)  
Sidewalk Study, Fairfield, Franklin County, Vermont**

**Submitted to:**

**Jim Donovan, FASLA  
Broadreach Planning & Design  
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**Submitted by:  
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Consulting Archaeology Program  
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**Report No. 660**

**September 9, 2011**

**Archaeological Resources Assessment for the proposed Town of Fairfield EH 10(8)  
Sidewalk Study, Fairfield, Franklin County, Vermont**

**Project Description**

The Town of Fairfield proposes the Town of Fairfield EH 10(8) Sidewalk Study, Fairfield, Franklin County, Vermont (Figure 1). The Town of Fairfield has received funding through the VTrans Transportation Enhancement Grant Committee to plan for and identify issues with construction of a sidewalk/multi-use path within Fairfield. The purpose of the Fairfield Sidewalk Scoping Study project is to: 1) Provide a secure, easily used means for pedestrians and bicyclists of variable ages and abilities to travel between the post office, senior housing, Fairfield Town Hall, the entrances to Fairfield Center School, the Bent Northrop Memorial Library and St. Patrick's Church in Fairfield Center and along Route 36 in East Fairfield between New Street and the few houses to the west of Mill Street before the drop in the road; 2) Increase the mobility of pedestrians and bicyclists in and around Fairfield Center and East Fairfield without significant increases in ongoing maintenance costs for the Town, and address the sight distance issues associated with pedestrians crossing at the intersection of Route 36, North Road, Minor Road and South Road, and 3) Provide physical change to the roadway to help slow vehicular traffic on Route 36. Two sections of sidewalk are proposed:

1) In Fairfield Center the Feasibility study will focus on sidewalks extending approximately 0.25 miles on both sides of VT Rte 36 (east and west) and North Rd (TH 1) and South Rd (TH 1) from the intersection of these roads, in the center of town (Figure 1). Nine sidewalk alignment alternatives have been developed for the Fairfield section of the project (Figure 3). Fairfield is bisected by the Fairfield River.

2) In East Fairfield, the Scoping Study will focus on sidewalks along VT Rte 36 through the center of town and around the village green (Figure 2). 12 sidewalk alignment alternatives have been developed for the East Fairfield section of the project (Figure 4). East Fairfield borders the Black Creek to the southwest.

The University of Vermont Consulting Archaeology Program (UVM CAP) conducted an Archaeological Resources Assessment (ARA) of the Area of Potential Effects (APE) for the proposed Town of Fairfield Sidewalk Project as part of the Section 106 permit review and two areas were identified as sensitive for precontact Native American sites.

**Study Goal**

The goal of an ARA (or "review") is to identify portions of a specific project's Area of Potential Effects (APE) that have the potential for containing precontact and/or historic sites. An ARA is to be accomplished through a "background search" and a "field inspection" of the project area. For this study, reference materials were reviewed following established guidelines. Resources examined included the National Register of Historic Places (NRHP) files; the Historic

Sites and Structures Survey; and the USGS master archaeological maps that accompany the Vermont Archaeological Inventory (VAI). Relevant town histories and nineteenth-century maps also were consulted. Based on the background research, general contexts were derived for precontact and historic resources in the study area.

### **Archaeological Site Potential**

According to the state archaeological site inventory no archaeological sites are known from within 3 km of either Fairfield or East Fairfield, Vermont. The closest known precontact Native American site to Fairfield is site VT-FR-166, which is located 8 km to the northwest along the northern banks of Fairfield Pond. This site was identified from the recovery of lithic flakes on top of several knolls overlooking the pond. Site VT-FR-166 also appears to be the closest known Native American site to East Fairfield. Little is known archaeologically from this general area, since little development has occurred there, which would often initiate archaeological study.

There are several historic properties within East Fairfield along VT Route 36 that have been listed on the State Register of Historic Places. For instance, the Sloan House, located 0.1 mile east of the intersection of VT Route 36 and Town Road Route 34, the Garrett House, 0.2 miles east of the intersection of VT Route 36 and Town Road Route 34, and the St. Barnabas Mission church, which is 0.4 miles north of East Fairfield center. Several properties along New Street, along the proposed alignment of Alternative #20 also have been listed on the State Register. These include the East Fairfield Congregational Church located on the south side of East Fairfield Common and St Anthony's Rectory, which was originally the farmhouse for J. B. Warren in 1860, located near the northeast corner of the East Fairfield Common. None of these properties will be disturbed by the proposed projects, since they are all located well back from the edge of the road where the sidewalks are proposed to be constructed.

The East Fairfield covered bridge has been listed on the National Register of Historic Places, but it lies well outside of the proposed project alignment.

### **Desk Review**

As part of the desk review, the UVM CAP utilized the Vermont Division of Historic Preservation's (VDHP) predictive model for identifying precontact Native American archaeological sites. The Fairfield portion of the proposed project scores 32 on the Predictive Model, due to its location within 90 m of the Fairfield River (12), within 90 m of a confluence of the Fairfield River and a major, unnamed tributary (12), and within 90 m of a head-of-draw (8). The East Fairfield portion of the proposed project scores 26 on the Predictive Model due to its location within 90 m of Black Creek (12), within 90 m of an unnamed tributary of Black Creek (8), and within 180 m of the confluence of Black Creek and one of its tributaries (6). In addition to the paper-based predictive model, the desk review uses a Geographical Information System (GIS) developed jointly by the UVM CAP, and its consultant Earth Analytic, Inc., which operationalizes the paper-based model. It does this by applying the VDHP's sensitivity criteria to

all lands within the State of Vermont. In these maps, archaeological sensitivity is depicted by the presence of one or more overlapping factors, or types of archaeological sensitivity (i.e. proximity to water, etc.). The Fairfield portion of the project is located in an area that exhibits six overlapping sensitivity factors, which are Drainage, Waterbody, Stream-water confluence, Head-of-draw, Stream-confluence, and Level Terrain (see Figure 1). The East Fairfield project area is located in an area that exhibits seven overlapping sensitivity factors, which are Drainage, Waterbody, Wetland, Stream-Waterbody confluence, Head-of-draw, Kame Terrace and Level Terrain.

### **Field Inspection**

A field inspection of the project area was carried out on September 7, 2011 by Dr. Charles Knight, Assistant Director of the UVM CAP. Knight walked the entire length of the sidewalk alignments in both Fairfield and East Fairfield. In Fairfield the majority of the sidewalk alignments alternatives will be located on steep slope. This includes Alternative #1, #2, part of #6, #7, and part of #8. Alternative #3, #4, and #5 are all located along South and North Roads through town, which are level and are not located near any archaeologically sensitive areas (see Figure 3). Only one area was identified as archaeologically sensitive within the entire Fairfield portion of the project, and that was the eastern half of Alternative #6, which is a proposed Creek Trail that will parallel the north side of the un-named tributary to Fairfield Creek from Minor Road in the west to the Fairfield post office (Figure 5). At one point the Fairfield Creek merges with this tributary and the Creek Trail will border a portion of the Fairfield Creek. The eastern half of this proposed Creek Trail was identified as archaeologically sensitive due to the level terrain of the trail and its proximity to the Fairfield Creek and its confluence with a tributary.

In East Fairfield, the majority of the proposed sidewalk alternatives are located along VT Route 36, and while this stretch of the road is level it is not archaeologically sensitive. The Black Creek is approximately 65 -175 m southwest of VT Route 36 and to the northeast are several tributaries of the Black Creek. However, the alignment of the proposed sidewalk upgrades along VT Route 36 has been disturbed in the past, so it will not impact archaeologically sensitive areas. Alternative #20 would add a sidewalk to the western and southern side of New Street from the Lamoille Valley Rail Trail to approximately 350 feet west of the first turn in the road from Route 36 (see Figure 4). Much of Alternative #20 is either on slope or in areas that are not archaeologically sensitive. One archaeologically sensitive area was identified that will be impacted by Alternative #14, however (Figure 6). Alternative #14 would create a walking/mountain bike/ATV path from New Street to the rear of Stones Shell. The path would formalize an existing, informal path now used by pedestrian, bicyclist and ATVs. As it is, Alternative #14 will cut across an undeveloped lot that lies between two steeply incised tributaries of Black Creek. Soil cores were taken throughout this level terrace and in some of the soil probes gravels were encountered at approximately 6 inches below the surface, suggesting landform disturbance. In other probes, no gravels were encountered at all, but rather intact sandy soil stratigraphy. The historic 1857 Wallings map (Figure 7) and the 1871 Beers map (Figure 8) do not indicate any structures or industry in the vicinity of this archaeologically sensitive area.

Nonetheless, it is likely that some portions of this terrace have been disturbed, as it appears unnaturally level and evidence of asphalt and concrete waste dumping was seen along the terrace edge. The extent of any previous ground disturbance is not known. Intact, archaeologically sensitive, portions of this landform may still exist. Therefore, archaeological testing is recommended along the alignment of Alternative #14.

### **Conclusions**

The Town of Fairfield proposes the proposed Town of Fairfield EH 10(8) Sidewalk Study, Fairfield, Franklin County, Vermont. The UVMCAP conducted an Archaeological Resources Assessment as part of the Section 106 permit review and two areas of archaeological sensitivity were identified, one in Fairfield and one in east Fairfield. In Fairfield the archaeologically sensitive area corresponds to the eastern half of Alternative #6, the Creek Trail. This trail section is located on level ground that parallels the Fairfield Creek. If this section of the trail cannot be avoided, a Phase I site identification survey is recommended for it. Other than this one section of Alternative #6, no part of the Fairfield portion of the proposed project will disturb archaeological resources.

In East Fairfield the archaeologically sensitive area corresponds to Alternative #14, a multi-use path that extends from the backend of the Stone Shell lot, crossing the Lamoille Valley Rail Trail and terminating at New Street. Alternative #14 is located on a landform that may have been disturbed in the past, but the degree of this disturbance is not known. Intact soil profiles may exist within the landform and these intact soils may contain precontact Native American sites. As a result, if the alignment for Alternative #14 cannot be avoided, then a Phase I site identification survey is recommended for it. Beyond this one sensitive area, the East Fairfield portion of the proposed project will not disturb archaeologically sensitive areas.

Please let me know if you have any questions or comments.

Charles Knight, Ph.D.  
Assistant Director

cc. Scott Dillon - VDHP

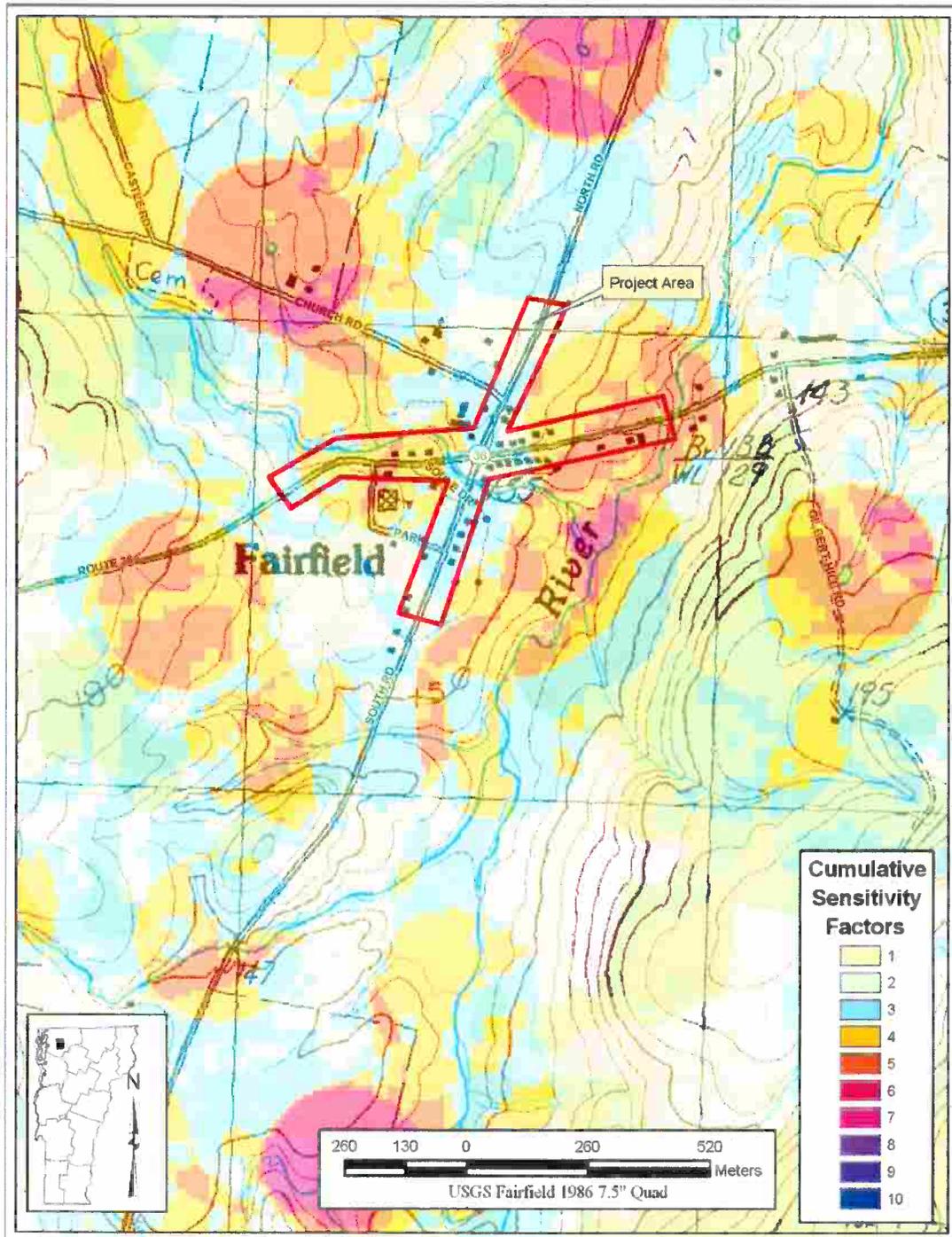


Figure 1. Map showing the location of the proposed Town of Fairfield EH 10(8) Sidewalk Study - Fairfield Section, Fairfield, Franklin County, Vermont.

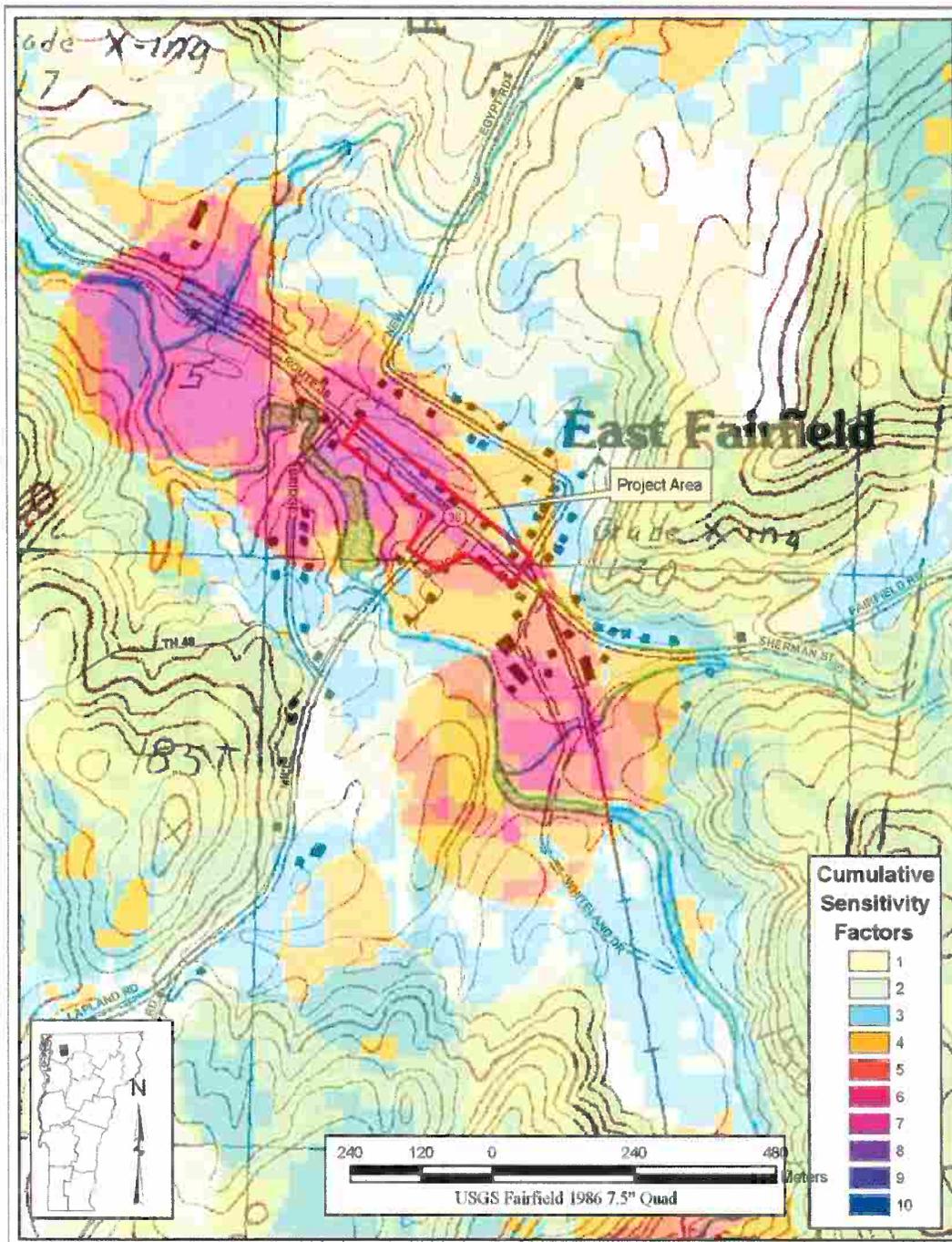


Figure 2. Map showing the location of the proposed Town of Fairfield EH 10(8) Sidewalk Study - East Fairfield Section, Fairfield, Franklin County, Vermont.

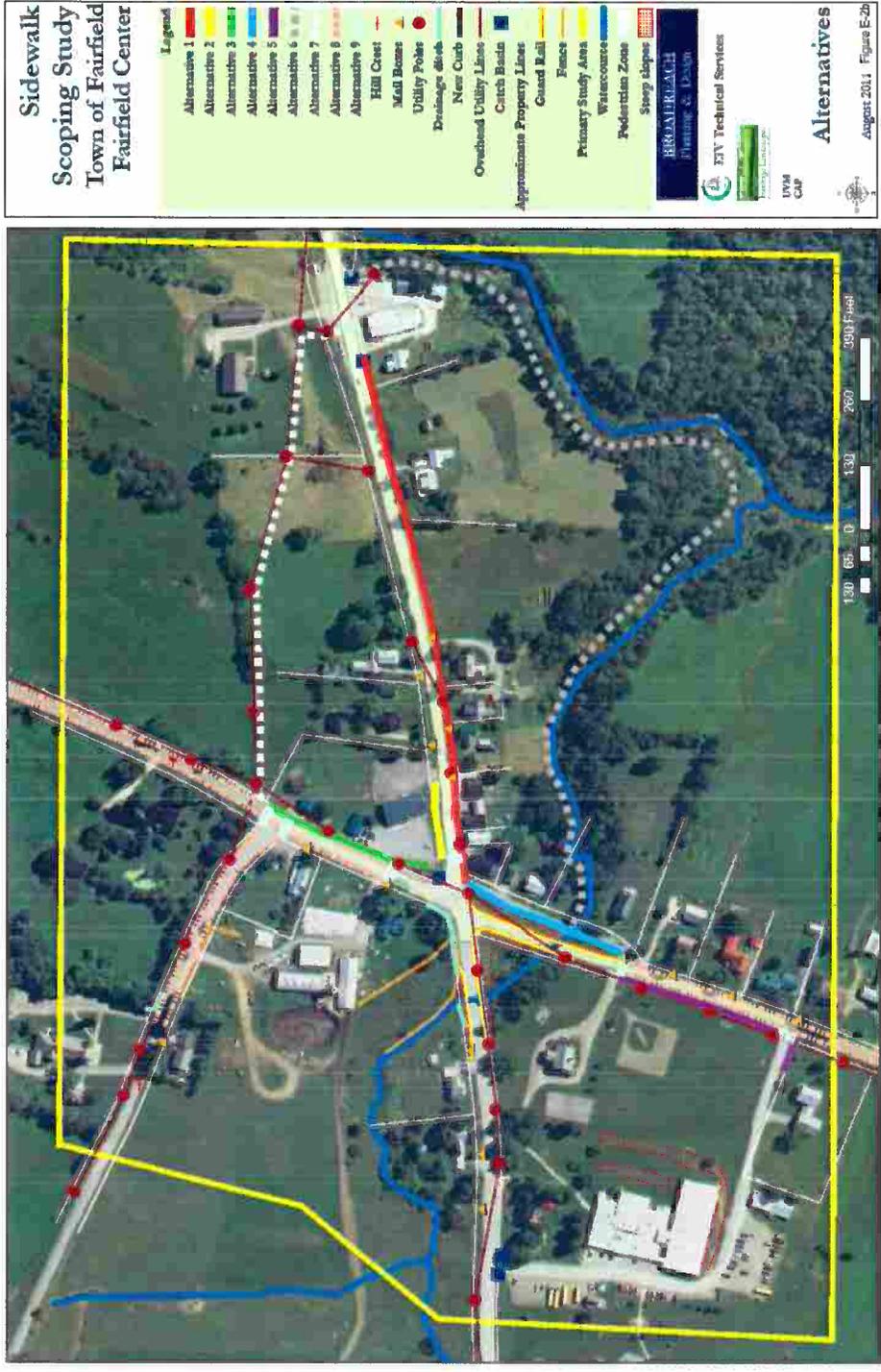


Figure 3. Map showing the proposed project alternatives for the Town of Fairfield EH 10(8) Sidewalk Study - Fairfield Section, Fairfield, Franklin County, Vermont.

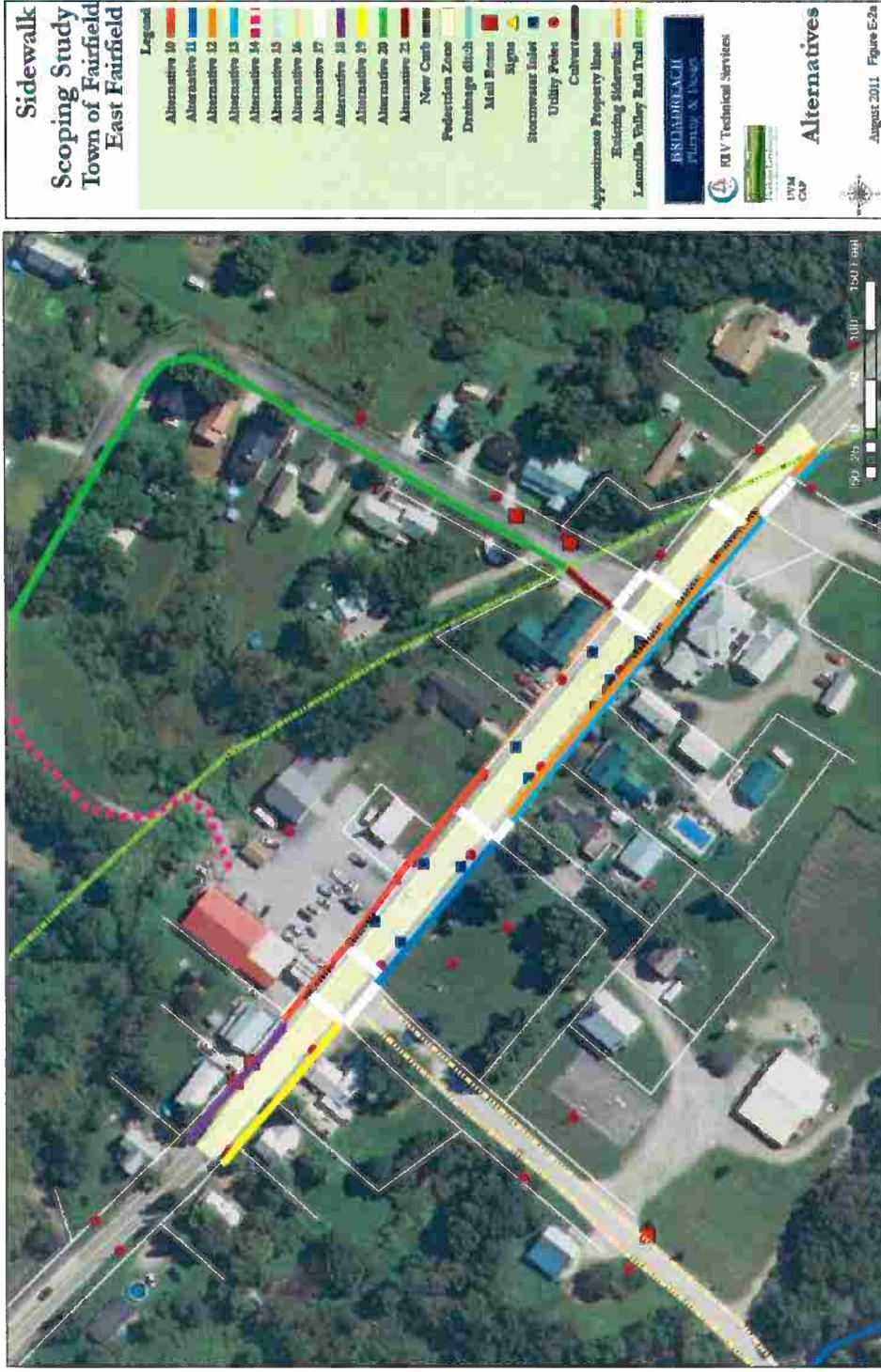


Figure 4. Map showing the proposed project alternatives for the Town of Fairfield EH 10(8) Sidewalk Study - East Fairfield Section, Fairfield, Franklin County, Vermont.

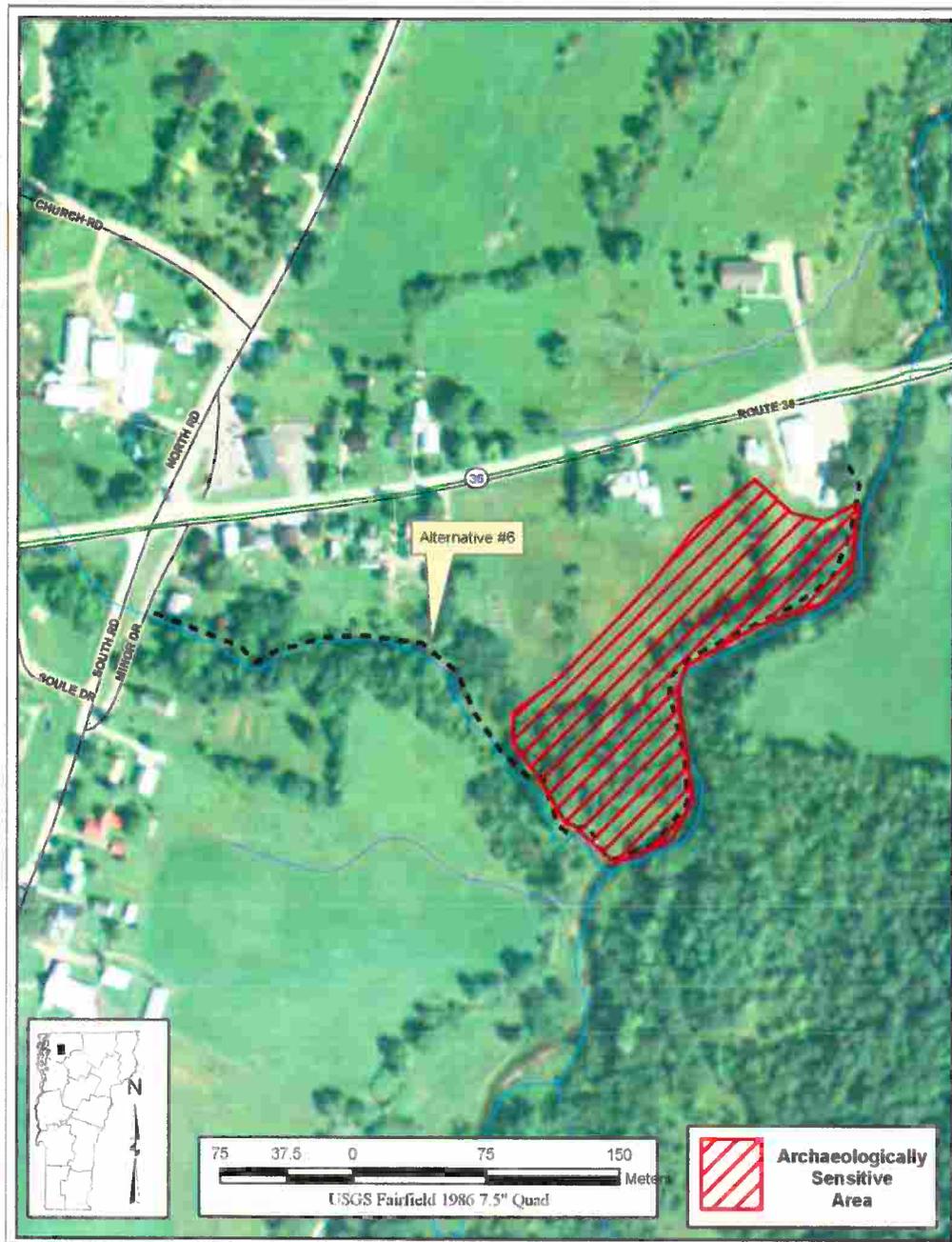


Figure 5. Map showing the location of the archaeologically sensitive area of the proposed Town of Fairfield EH 10(8) Sidewalk Study - Fairfield Section, Fairfield, Franklin County, Vermont.



Figure 6. Map showing the location of the archaeologically sensitive area of the proposed Town of Fairfield EH 10(8) Sidewalk Study - Fairfield Section, Fairfield, Franklin County, Vermont.

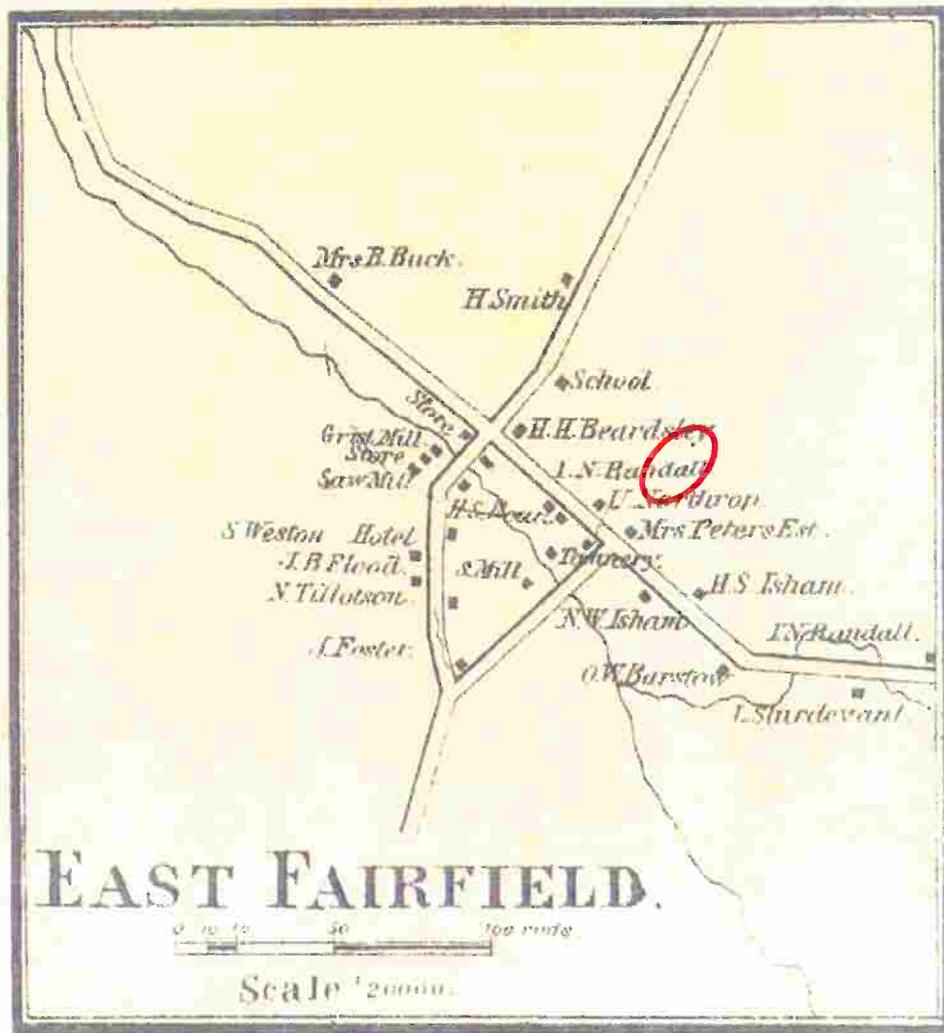


Figure 7. Historic 1857 Wallings map showing the location of the proposed Town of Fairfield EH 10(8) Sidewalk Study - East Fairfield Section in relation to the archaeologically sensitive area, Fairfield, Franklin County, Vermont.





## Appendix B Alternatives Analysis



**The Town of Fairfield**  
**Sidewalk Scoping Study**

**Task E Summary – Potential Alternatives**



*Submitted by:*  
**Broadreach Planning & Design**

*In conjunction with*

**EIV Technical Services**  
**Heritage Landscapes LLC**  
**University of Vermont Consulting Archeology Program**

**September 24, 2011**



## A. INTRODUCTION

### 1. OVERVIEW

The Town of Fairfield received an enhancement grant to examine the potential for adding sidewalks in Fairfield Center and East Fairfield. The project study areas cover the main intersection of Fairfield Center and the core of East Fairfield along Vermont Route 36 (Route 36). **Figure B-1** in the Task B Summary shows the location and approximate extent of the two study areas. The Town is assisted by a Project Team being led by Broadreach Planning & Design.

### 2. PURPOSE AND NEED

The purpose of the Fairfield Sidewalk Scoping Study project is to:

- Provide a secure, easily used means for pedestrians and bicyclists of variable ages and abilities to travel between the post office, senior housing, Fairfield Town Hall, the entrances to Fairfield Center School, the Bent Northrop Memorial Library and St. Patrick's Church in Fairfield Center and along Route 36 in East Fairfield between New Street and the few houses to the west of Mill Street before the drop in the road;
- Increase the mobility of pedestrians and bicyclists in and around Fairfield Center and East Fairfield without significant increases in ongoing maintenance costs for the Town,
- Address the sight distance issues associated with pedestrians crossing at the intersection of Route 36, North Road, Minor Road and South Road, and
- Provide physical change to the roadway to help slow vehicular traffic on Route 36.

The need for the path can be seen in:

- The number of existing pedestrians using the narrow area at the side of the existing roads in Fairfield Center or the parking areas along the road in East Fairfield;
- The reported speeds of vehicles on Route 36 significantly higher than the posted 35 miles per hour;
- The minimal distance between the travel lane and existing guard rails on South Road and Route 36;
- The presence of school children walking to and from the Fairfield Community School;
- The prohibition by numerous parents in the area of using the Route 36 South/North Road intersection by students going and coming from school;

- The difficulties experienced by day care operators on Route 36 in walking children to the nearby play ground;
- The difficulties experienced by seniors in the Chester Arthur Apartments to get to the nearby store or post office; and
- The minimal space for bicyclists outside of the travel lanes on existing roads.

## **B. INITIAL LIST OF POTENTIAL ALTERNATIVES**

After studying existing conditions in the field and reviewing local issues with residents, the BRPD Team in conjunction with the Town's Project Steering Committee, developed a list of possible pedestrian and/or bicycle improvements to enhance mobility in Fairfield Center and East Fairfield and address the issues raised during the initial study tasks. **Figure E-1** shows the location of the numerous different alternatives that were initially considered; **Attachment 1** includes a description of each alternatives. This list and accompanying figure served as the starting point for the development of a more refined list of viable alternative.

The first review of the complete list of possible alternatives revealed significant, potentially insurmountable problems or impracticalities with several of them. These alternatives were eliminated from further consideration in the first round of review. **Attachment 1** includes more information on the basis for these initial eliminations.

## **C. REFINED ALTERNATIVE REVIEW**

### **1. OVERVIEW**

The initial review resulted in several viable alternatives. During a second round of review the BRPD Team, in conjunction with the PSC, examined the remaining alternatives in more detail to refine them in preparation for public discussion. **Figures E-2a** and **E-2b** show the location of the viable alternatives that emerged from the initial review. **Tables E-1a** and **E-1b** present initial comparative reviews of the alternatives along with do nothing alternative.

### **2. FAIRFIELD CENTER**

#### **ALTERNATIVE 1 – ROUTE 36 SOUTH SIDE SIDEWALK**

Alternative 1 would add a sidewalk to the south side of Route 36 from close to the intersection with North and South Roads to the general vicinity of the post office. At the western end, the sidewalk would need to either run below the existing cement porch in front of the Florist/general store, removing the existing parking spaces, or the project would need to include the removal of the cement porch so that the sidewalk could run adjacent to the existing on-street parallel parking.

East of this property, the sidewalk would run over or as an extension of the existing sidewalk in front of the second building east of the intersection. It would lie on the south side of the existing single row of parallel parking spaces directly adjacent to the road. There would be

driveway access points across the sidewalk to allow access to the additional existing parking spaces in front of the structures on the properties. It appears as if no parking spaces would need to be lost with the addition of the sidewalk.

In front of the fourth property east of South Road, the sidewalk would maintain a separation from the road; it would be situated at the bottom of the small slope at the edge of the roadway. The sidewalk would continue east along the side of the road, maintaining at least a five foot separation from the edge of the pavement.

At the western edge of the paved area around Menard's Market, the sidewalk would either continue across the existing pavement as pavement markings or would be incorporated into a new curbed area that would begin to provide better definition to the market's entry points. The new curbing would still allow parallel parking in front of the market along Route 36.

#### ALTERNATIVE 2 – ROUTE 36 NORTH SIDE PARTIAL SIDEWALK

Alternative 2 creates a short sidewalk on the west side of Route 36 from the small paved walkway linking the Town Offices to Route 36 and the vehicular entrance to the lower parking area on the east side of the building. Because of the slope, the sidewalk will need to cut back and forth across the rise so that it can meet ADA requirements.

#### ALTERNATIVE 3 – NORTH ROAD EAST SIDE SIDEWALK

This alternative would create a sidewalk on the east side of North Road from Route 36 to the intersection with Church Road. Starting near Route 36, the sidewalk would link with either Route 36 or the end of the new sidewalk described in Alternative 2. It would head north adjacent to the edge of the Town Office parking area, which would include dividing the existing garden area at the existing utility pole.

The sidewalk would either replace the existing asphalt at the entrance to the Town Office parking area and Chester's Bakery with concrete or would be delineated by striping on the existing pavement. Additional signage would need to be added to these parking areas to make sure that motorists pulled far enough into the property to not cover the pedestrian sidewalk. Some redesign of the parking area may be needed to make circulation of motor vehicles more predictable for both pedestrians and other motorists.

North of this parking area, the path would continue north, separated from the roadway by at least a five-foot wide green strip. There may need to be a small amount of cut and fill as the ground rises towards the old Town Clerk's office so that the sidewalk meets ADA requirements. In front of the old Town Clerk's office, the parking would be redesigned as parallel parking adjacent to the road with the sidewalk running between the parking and the front of the building. Parking bumpers may be needed to keep vehicles from parking on the sidewalk area.

The sidewalk would either end at the southern side of the Church Road intersection or continue north to the other side of the intersection.

#### ALTERNATIVE 4 – SOUTH ROAD PEDESTRIAN WAY

This alternative would route pedestrians along Minor Road between Route 36 and South Road. The northern end of the Minor Road at Route 36 would be closed, making it a dead end roadway with an entry from the south. The pavement at the very northern end of the road would renew and extended south slightly where the gravel has been washed away to stabilize the surface and make it more receptive to challenged pedestrians. The grade could remain the same because the path would be using the existing roadway.

Other than this paving, the rest of the roadway would not be further improved. At the southern end, the road may be widened slightly to make sure that vehicles can make the U-turn from Minor Road to northbound South Road.

A crosswalk would carry pedestrians across South Road to the west side where the alternative would continue as a sidewalk on the west side of South Road between Soule Drive and Park Street. The sidewalk would be separated from the roadway by approximately 8 feet of green space, to allow parallel parking along the side of the road when the sports fields are in use.

The sidewalk would also run along the south side of Park Street between South Road and the existing sidewalk around the new Bent Northrop Memorial Library.

#### ALTERNATIVE 5 – CREEK TRAIL

This alternative would create a narrow walking/mountain bike trail along the north side of the un-named tributary to Fairfield Creek as well as the west side of the Creek itself. It would link Minor Road with the Fairfield post office. The exact routing of the trail would need to be done in the field following current trail design guidelines for creating sustainable trails that do not create erosion problems.

#### ALTERNATIVE 6 – UTILITY ROW TRAIL

Alternative 7 would create a five foot wide ADA accessible trail along the right-of-way of the over head utility lines that run between the Chester Arthur apartments and North Road. The path would most likely be constructed with a stone dust surface. The trail would require some cut and fill work along its alignment to meet ADA standards. The western end at North Road would either link to the edge of the North Road pavement or to the end of the possible North Road sidewalk described in Alternative 3.

#### ALTERNATIVE 7 – PAVED SHOULDERS

This alternative would use marked paved shoulders of various widths along the sides of existing roads for improved pedestrian and/or bicyclist mobility.

The specific recommended width of the paved shoulders varies by roadway. **Table E-2** provides a quick look at the minimum recommended width of paved shoulder and how much wider the existing roadways would need to be to provide the recommended widths.

**Table E-2: Recommended Paved Shoulder Widths**

| Road        | Recommended Travel Lane | Recommended Paved Shoulder | Existing Width | Required Widening Each Side |
|-------------|-------------------------|----------------------------|----------------|-----------------------------|
| Route 36    | 11 FT                   | 3 FT                       | 26 FT          | 1 FT                        |
| South Road  | 10 FT                   | 2 FT                       | 22 FT          | 1 FT                        |
| North Road  | 11 FT                   | 3 FT                       | 30 FT          | 0 FT                        |
| Church Road | 10 FT                   | 2 FT                       | 20 FT          | 2 FT                        |

The minimum shoulder widths are based on the Vermont State Standards and take into account the known or estimated Average Annual Daily Traffic (AADT), the speed limit and the width of the travel lane.

The wider shoulders could also be extended further north on North Street to Chester Arthur Road and then to the intersection with the future Lamoille Valley Rail Trail to facilitate bicycle travel between Fairfield Center and the Rail Trail.

#### ALTERNATIVE 8 – CROSSWALKS

This alternative includes several crosswalks at key locations within the study area. Not all of the crosswalks may be necessary or jointly possible. The suggested crosswalks, including the one mentioned as part of Alternative 4, are located on:

- Route 36 in line with the existing walkway from the Town Office parking lot to Route 36,
- The west side of the access drive to the Chester Arthur Apartments to a new curbed area in front of Menard’s Market,
- South Road on the south side of Soule Drive,
- Across Park Street near the intersection with South Road,
- Across North Road either on the north side or the south side of the intersection with Church Road, and
- Across North Road at the south side of the entrance to the Town Office.

#### ALTERNATIVE 9 – PEDESTRIAN ZONE

This option would create a pedestrian Zone along Route 36 from the intersection with North and South Roads east to the bridge over Fairfield Creek, along South Road from Park Street north to the intersection with Route 36, continuing north on North Road to the intersection with Church Road.

3. EAST FAIRFIELD

ALTERNATIVE 10 – NORTH SIDE SIDEWALK EXTENSION

Alternative 10 would extend the existing sidewalk in front of the Catholic Church west to the western end of Stone's Shell. The installation of the sidewalk would be accompanied by the addition of several small curb sections in front of the Shell station to better define where motor vehicles would enter and exit and to give pedestrians safe locations between these entry points.

ALTERNATIVE 11 – SOUTH SIDE SIDEWALK

Alternative 11 would create a five-foot wide sidewalk on the south side of Route 36 east to the rail trail. The sidewalk would start on the northern edge of the green along Route 36 and would be located at least five feet away from the edge of the pavement, separated by a green strip. East of School Street, the sidewalk would be added to the edge of the existing pavement on the south side of Route 36. The sidewalk would not be separated from the existing pavement by a green strip. The existing postbox and flagpole in front of the post office would need to be relocated.

ALTERNATIVE 12 – CONVERTED SOUTH SIDE SIDEWALK

This alternative would convert the lower, outside five feet of the existing paved area along the south side of Route 36 to a pedestrian area. Bumpers, bollards or other easily installed barriers would be installed to keep cars from parking on this area. Ideally, the utility poles would be relocated to allow a constant five-foot wide pavement area devoted to pedestrian mobility. Parking on the remaining pavement would be allowed but it would be very tight and potentially not suitable for anything but smaller cars.

ALTERNATIVE 13 – BRIDGE STREET EXTENSION PATH

Alternative 13 would create a pedestrian path along a former roadway alignment from the western bend in New Street to Route 36 close to the intersection with Bridge Street. The path would cross the Lamoille Valley Rail Trail at grade and provide a link from the rail trail to the surrounding neighborhood.

ALTERNATIVE 14 – MILL STREET PAVED SHOULDERS

Alternative 14 would create delineated paved shoulders along Mill Street, from Route 36 to the intersection with Bridge Street. The paved shoulders would be at least two feet wide with ten-foot wide travel lanes. The shoulders would be narrowed as needed to maintain the two ten-foot wide travel lanes on the Mill Street bridge over Black Creek.

#### ALTERNATIVE 15 - CROSSWALKS

Alternative 15 would add crosswalks at certain locations within the study area. Most likely, not all of the crosswalks on Route 36 included in this alternative would be possible. Crosswalks considered as part of this alternative are on:

- Route 36 on the east and west side of the intersection with Mill Street,
- Route 36 on the west side of the intersection with School Street,
- Route 36 on the east and west side of the intersection with New Street,
- Route 36 just to the west of the intersection with Bridge Street,
- Route 36 where it intersects with the Lamoille Valley Rail Trail on the north side,
- Mill Street at the intersection with Route 36,
- School Street at the intersection with Route 36, and
- New Street at the intersection with Route 36.

#### ALTERNATIVE 16 – ROUTE 36 PAVED SHOULDERS

Alternative 16 would add wider paved shoulders at least three feet wide to both sides of Route 36 between the intersection with Bridge Street on the West and New Street on the east. The current paved shoulder varies from 1 to 4 feet wide. The addition of the three-foot wide shoulders would require the widening of the paved area from one to two feet on both sides of the road where the road width is not already 28 feet wide in order to establish this minimum road width consistently from Bridge Street to New Street. Most of the widening would be needed west of Mill Street.

#### ALTERNATIVE 17 – NEW STREET SIDEWALK

Alternative 17 would add a sidewalk to the western and southern side of New Street from the Lamoille Valley Rail Trail to approximately 350 feet west of the first turn in the road from Route 36. The sidewalk would be located directly adjacent to the roadway.

#### ALTERNATIVE 18 – NEW STREET RAIL TRAIL LINK

This alternative creates a short sidewalk along the west side of New Street from Route 36 to the Lamoille Valley Rail Trail. The sidewalk would be located directly adjacent to the building on the corner and then angle slightly towards New Street beyond the corner of the building. One or two of the informal parking in this area may need to be eliminated to add this sidewalk.

#### ALTERNATIVE 19

This alternative would create a paved shoulder at least two feet on both sides of New Street from the Lamoille Valley Rail Trail to a point at least 50 feet west of the first tight turn in the road north of Route 36. The road could be striped to create two ten-foot wide travel lanes in addition to the paved shoulders, which would require a minimum roadway cross section of

24 feet. This would entail the widening of the paved surface by about two feet on either side because the road is approximately 20 feet wide now.

#### ALTERNATIVE 20 – PEDESTRIAN ZONE

This option would create a pedestrian Zone along Route 36 from the eastern end of the crossing of the Lamoille Valley Rail Trail to the top of the rise on the west end of the Study Area approximately 150 feet west of Stone's Shell.

#### 4. TRAFFIC CALMING

In both study areas, no matter which alternatives are selected, there are certain traffic calming features which would be appropriate for consideration. They include:

- Additional street trees along the roads in the study areas,
- Narrower travel lanes,
- Share the road signs,
- Curb extensions (bulb outs) in East Fairfield,
- Gateway treatments, and
- Angled striping along the fog line.

### D. DISCUSSION

#### 1. CROSSWALKS & PEDESTRIAN ZONE

Crosswalks are specifically designated locations where pedestrians have the right-of-way to cross a roadway. Motorists are required by law to stop for pedestrians when they are crossing the street in a crosswalk. Crosswalks carry an implied level of safety for pedestrians which is, unfortunately, not always there. Motorists frequently do not stop for pedestrians in crosswalks in many locations around the country, although the level of compliance with the law is observed to be much higher than average in Vermont. The limiting factor for crosswalks is that they require pedestrians to cross the road in just the designated places. This often requires pedestrians to walk well out of their way along the side of the road to reach a crosswalk, which often encourages pedestrians to abandon the use of crosswalks that are not conveniently located to crossing the road in more opportune locations. This in turn increases the risks associated with crossing a road on foot.

A pedestrian zone attempts to address this issue by eliminating the use of crosswalks in specific locations and instead by notifying motorists that they can expect pedestrian to be adjacent to and crossing the street anywhere within the pedestrian zone. Additionally, it places more responsibility on pedestrians to be aware of the presence of motorists on the road and to cross when conditions are conducive to safe crossings. While motorists are expected to stop for pedestrians in pedestrian zones, pedestrians should not assume that this will always be the case.

## 2. TRAVEL LANE WIDTHS

Eleven-foot travel lanes on Vermont State roads are now being considered acceptable more frequently within the State. They provide an adequate area for large vehicles to travel, although sometimes at slower speeds than can be accommodated by wider travel lanes. The ability to encourage slower speeds in those areas where slower speed are desirable is seen as a significant advantage of eleven-foot travel lanes.

Ten-foot travel lanes have not yet gained similar acceptance. They are still considered by many transportation experts to be too narrow for many larger vehicles. Ten-foot travel lanes on busier roadways can lead to more regular incursions over the fog line into the paved shoulders or bicycle lanes by larger vehicles, creating hazardous conditions for bicyclists or pedestrians that may be using the shoulders. The opposite viewpoint is that the ten-foot narrow lanes, when used in conjunction with other design measures to induce slower motor vehicle speeds, encourage even slower travel for motorists. Ten-foot travel lanes have been used or recommended in rural and neighborhood areas as a means of encouraging slower speeds that are safer for non-motorized travelers.

## 3. SIDEWALK SURFACE

Concrete sidewalks are more permanent than hard packed gravel paths and provide adequate surfaces for a wider array of users. Both hard packed gravel and concrete surfaces comply with the requirements of the Americans with Disabilities Act (ADA) when installed properly. Concrete typically has a higher installation cost and a lower maintenance cost, while the reverse is true with hard packed gravel. The variation in initial and ongoing costs, along with the larger number of safe users for concrete is the primary difference between the two surfaces.

## 4. OFF ROAD FACILITIES

The possible off road trails that may provide additional means for pedestrians to safely navigate between points in the Study Areas would offer a direct route for only a small number of pedestrians. Consequently, based on experiences in other similar situations, it is expected that if they are installed, many pedestrians and bicyclists would continue to use the roadway for travel rather than walk or bike along the longer, and for most trips, less direct off road trails. The off road trails would be a good addition to the Town's recreational trails, especially given the plans to reinstall a recreational trail around the nearby school. They would not be a significant addition to the Town's non-motorized traveler's transportation system. Even so, they have been included as a viable alternative for this study, so that the community can decide if they should be included as part of the final recommendations for future consideration as a minor addition to the transportation system and a significant addition to Town recreational facilities.





TABLE B-6: Alternative Comparison East Fairfield  
Town of Fairfield  
Sidewalk Stoping Study  
September 26, 2011

| Impact/Description                   | Alternative 13<br>South Side<br>325                     | Alternative 14<br>South Side<br>325  | Alternative 15<br>South Side<br>325  | Alternative 16<br>South Side<br>325  | Alternative 17<br>South Side<br>325   | Alternative 18<br>South Side<br>325  | Alternative 19<br>South Side<br>325  | Alternative 20<br>South Side<br>325  |   |   |  |
|--------------------------------------|---|--|--|--|---|--|--|--|---|---|--|
| Approximate Length in Feet           | 0   | 325  | 700  | 490  | 375   | 1,115 (each side)  | 1,325  | 1,325  |   |   |  |
| Permanent Private Property Easements | 0   | 3(7)   | 6(7)   | 0  | 3   | 0  | 0  | 0  |   |   |  |
| Temporary Construction Easements     | 0   | 3  | 6  | 0  | 3   | 0  | 0  | 0  |   |   |  |
| Significant Physical Constraints     | None  | Utility poles, mail boxes, and storm drain inlets will need to be moved or accommodated        | The slope down from the existing road and bermping                                 | The slope down from the existing road and bermping   | Significant grade changes and slopes adjacent to rail trail                               | None   | Trees and tightness of houses to the road  | Trees and tightness of houses to the road  |   |   |  |
| Environmental/Other Constraints      |   |  |  |  |   |  |  |  |   |   |  |
| Topography                           | N/A   | No issues  | No issues  | Subsidence   | Some topographic changes to address   | No issues  | No issues  | No issues  |   |   |  |
| Utility Impacts                      | None  | None   | Grade 1 lane 2 trees   | None   | None  | None   | Power 10 or more trees   | None   |   |   |  |
| Archaeological Resources             | No impacts  | No impacts   | No impacts   | No impacts   | No impacts  | No impacts   | No impacts   | No impacts   |   |   |  |
| Historic Resources                   | No impacts  | No impacts   | Partial impact   | No impacts   | No impacts  | No impacts   | No impacts   | No impacts   |   |   |  |
| Hazardous Material                   | N/A   | No   | No   | No   | No  | No   | No   | No   |   |   |  |
| Water Availability                   |   |  |  |  |   |  |  |  |   |   |  |
| Mean Exposure and Need               | No  | Yes  | Yes  | Yes  | Yes   | Yes  | Yes  | Yes  |   |   |  |
| People/Some All Age Groups and Users | High  | Yes  | Yes  | Yes  | Yes   | Yes  | Yes  | Yes  |   |   |  |
| Interaction with Roadway             | Low   | Low  | Low  | Low  | Low   | High   | High   | High   |   |   |  |
| Motor Vehicle Traffic                | No Impact   | No Impact  | No Impact  | No Impact  | No Impact   | Some slowing   | Some slowing   | Some slowing   |   |   |  |
| Other Issues                         | Does not address the purpose and need for this project. | Relatively easy addition to the pedestrian circulation system on Stone & Cox Station if needed | Most impacts are associated with the portion of the sidewalk east of School Street | This modification will still leave about 7 feet of paved area for parking but the space has a variable cross grade drop of top to approximately 10 inches. | This path would remain on the existing driveway provide a second link with the rail trail | The wider shoulders would allow easier bicycling and walking along the side of the road; the bridge would not be widened and would need "share the road" signs | The wider shoulders would allow easier bicycling & walking along the side of the road; | The sidewalk would need to be very close to the house next to the curve; it would also need to be adjacent to the road since there is not enough room for a green-pipe separating the sidewalk from the road | This link would encourage trail users to walk towards Route 36 and the village area | The wider shoulders would allow easier walking and bicycling along the side of the road | The pedestrian zone would be created by signage in the middle of the pedestrian zone; the create any changes to the roadway itself |

Positive: Green-pipe  
Negative: Grade/curves

# Sidewalk Scoping Study Town of Fairfield Fairfield Center

**Legend**

- Alternative 1
- Alternative 2
- Alternative 3
- Alternative 4
- Alternative 5
- Alternative 6
- Alternative 7
- Alternative 8
- Alternative 9
- New Curb
- New Trees
- Utility Poles
- Overhead Utility Lines
- Mail Boxes
- Important Trees
- Catch Basin
- Approximate Property Lines
- Watercourse
- Primary Study Area

**BROADBENT**  
Planning & Design

EIV Technical Services

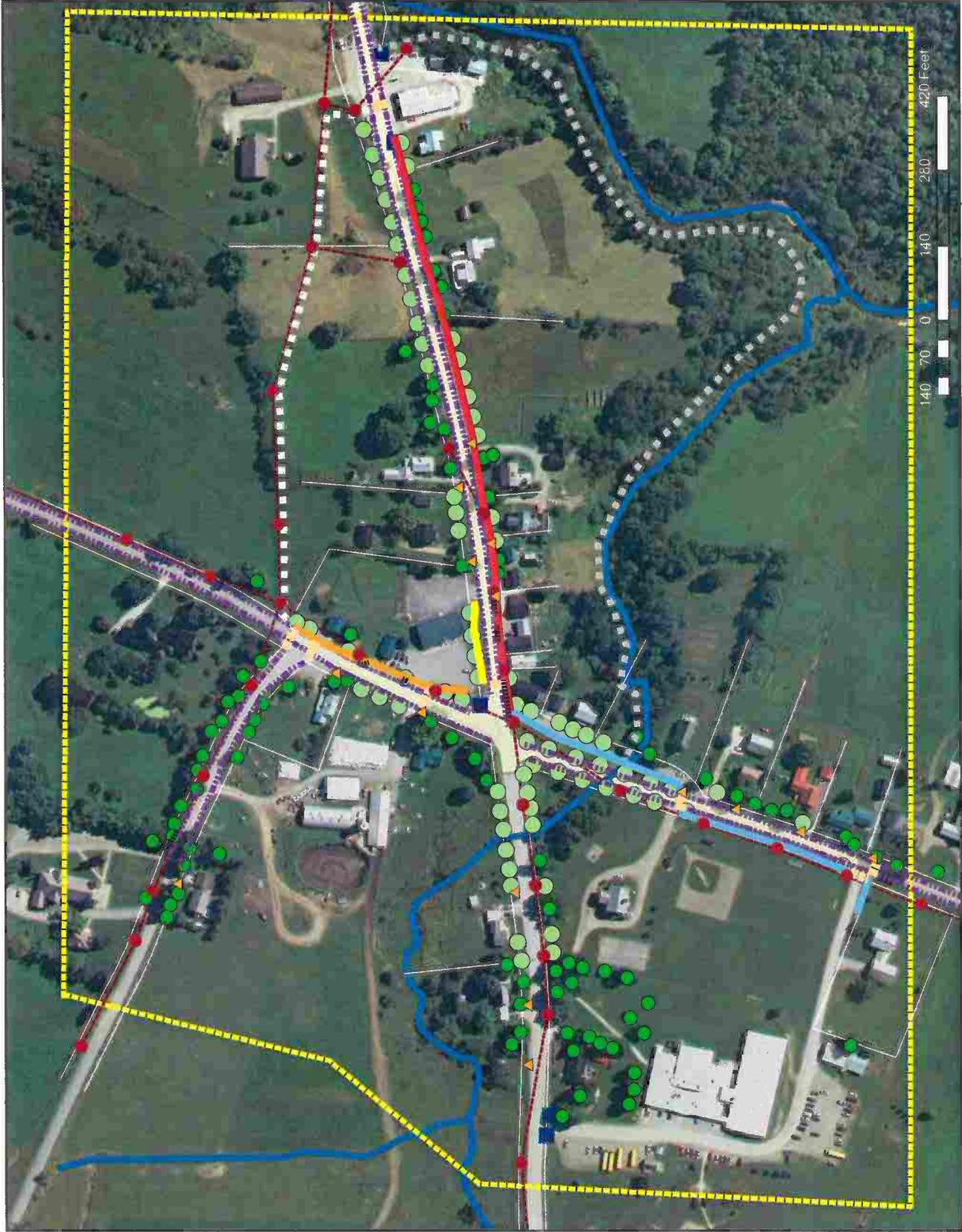


UVM  
CAP

## Alternatives



September 2011 Figure E-2a



# Sidewalk Scoping Study Town of Fairfield East Fairfield

- Legend**
- Alternative 10
  - Alternative 11
  - Alternative 12
  - Alternative 13
  - Alternative 14
  - Alternative 15
  - Alternative 16
  - Alternative 17
  - Alternative 18
  - Alternative 19
  - Alternative 20
  - New Trees
  - New Curb
  - Important Trees
  - Mail Boxes
  - Signs
  - Stormwater Inlet
  - Utility Poles
  - Overhead Utility Lines
  - Approximate Property lines
  - Existing Sidewalks
  - Lamoille Valley Rail Trail

**BROADBENT**  
Planning & Design

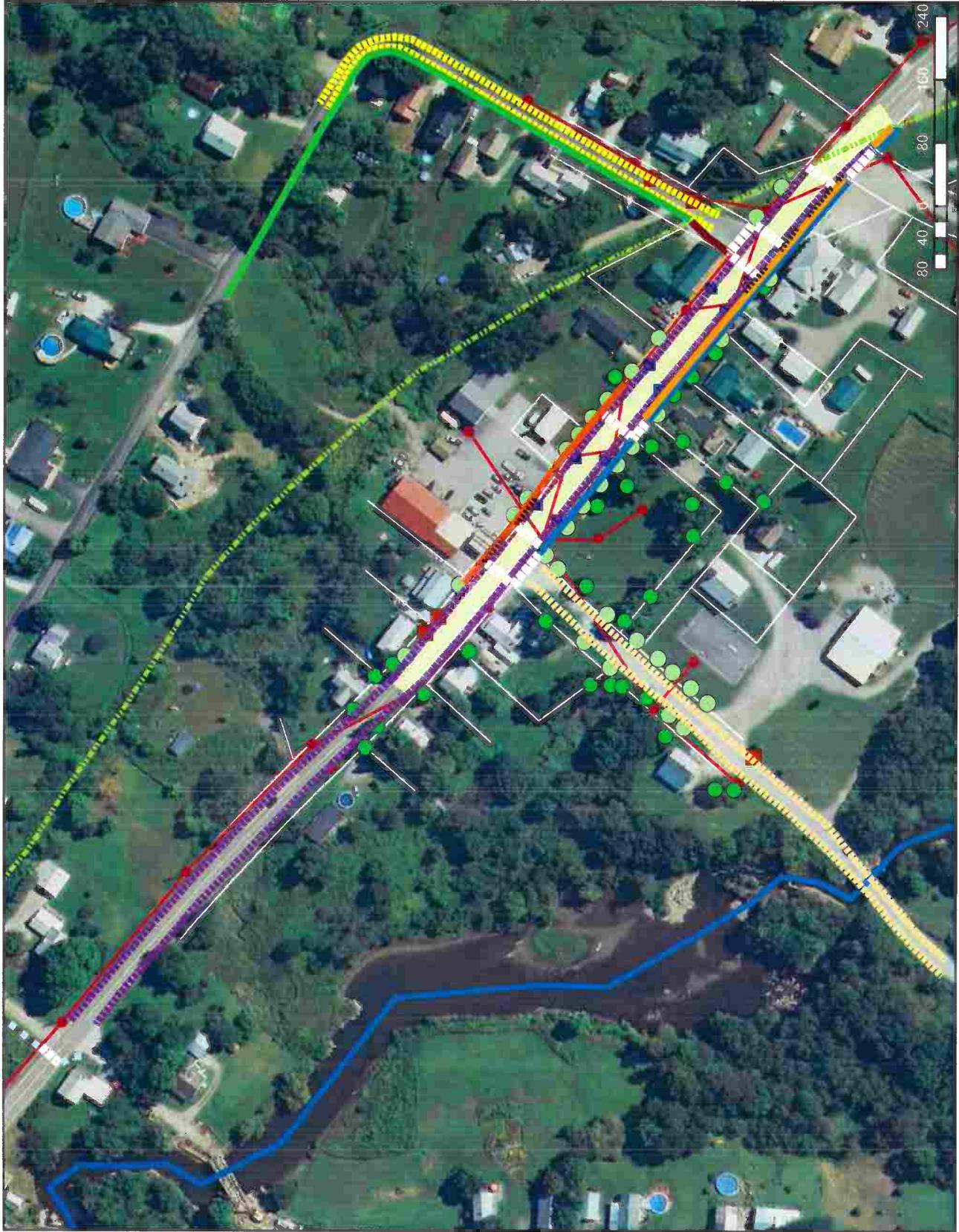
**ETV Technical Services**

**UVM CAP**  
Heritage Landscape  
Management Program

## Alternatives



September 2011 Figure E-2b



# Attachment 1 Initial Alternatives

Town of Fairfield

Attachments

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September 24, 2011

## INITIAL ALTERNATIVES

The following alternatives were initially developed and analyzed during the Team Work Session but were not considered further for the reasons described. (Those in attendance at the Team Work Session are collectively referenced in the text as the Team.)

### Fairfield Center

Route 36 North Side Sidewalk – This alternative would add a sidewalk on the north side of Route 36 east of the intersection with North and South Roads. The sidewalk would be either separated from the roadway by a green space of at least four feet or located adjacent to the edge of the roadway, separated by a six-inch curb. This alternative was not pursued because the Team thought that students and other pedestrians coming from the south would not cross Route 36 to reach the sidewalk, especially if they were headed for a destination east on Route 36 on the south side of the road.

Route 36 Wide Paved Shoulders for Pedestrians – This alternative would use wide paved shoulders on Route 36 east of the intersection with North and South roads for pedestrian travel. The Team did not pursue this alternative because they thought that it would encourage pedestrians to walk unsafely with traffic when headed east on Route 36 when headed towards destinations on the south side of the road such as Menard's or the post office.

Route 36 Sidewalks West of North or South Road – This alternative would add sidewalks on either the north or south side of Route 36 heading west from the intersection with North and South Roads. Neither of these alternatives were favored by the Team because of physical difficulties of adding sidewalk along the portion of the road with guard rails, the closeness of the existing houses to the roadway, the need to cross Route 36 if headed towards or from the school at a location with limited site distance, and the existence of a more viable alternative on Minor Road.

South Road Sidewalks from Route 36 – This alternative would add a sidewalk to either the east or west side of South Road south of the intersection with Route 36. The Team did not favor either alternative because of the difficulty of adding sidewalk along the portion of South Road with tight guard rails and the presence of Minor Road adjacent to the east.

North Road West Side Sidewalk – This alternative would add a sidewalk along the west side of North Road between Route 36 and Church Road. The Team did not pursue this alternative because of the need to relocate the existing drainage ditch along the side of the road, the potential impact to the existing large trees along the road and the lack of need for a second sidewalk if the much easier to construct sidewalk was recommended on the east side of the road.

Church Street Sidewalk – This alternative would add a sidewalk along one side of Church Road. The Team thought that the low number of current or future pedestrians along Church Road did warrant the addition and expense of a sidewalk.

Off Road Trail Between Church Road and Route 36 – This alternative would create a trail west of the houses and barns along North Road between Church Road and Route 36 to facilitate travel between the school and St. Patrick’s Church. The trail would intersect Church Road west of the residence across the street from the Church and intersect Route 36 east of the eastern most house on Route 36 west of North Road. The Team did not favor this trail because it either required a crossing of a stream that rises significantly during storms and the spring thaw or an intersection with Route 36 at a location where there is a steep bank heading down from the road surface; it required easements from private property owners; it crossed existing pasture land, requiring some form of separation between trail users and cows; to reach the school, it needed a crosswalk on Route 36 at a location with poor sight distances; and they projected that there would only be limited use of the trail.

### **East Fairfield**

New Street Connecting Trail – This alternative would create a walking/mountain bike/ATV path from New Street to the rear of Stones Shell. The path would formalize an existing, informal path now used by pedestrian, bicyclist and ATVs. There may need to be a more designed crossing of the close to the rear of Stones, depending on how much stormwater flow the ditch carries in the spring and fall. It was not pursued by the Team as an alternative for further consideration because of the need to obtain an easement across a private parcel on New Street and across Stone’s Shell.

Route 36 Sidewalks West of Mill Street – This alternative would add sidewalks on one or both sides of Route 36 west of the Mill Street intersection to at least the top of the hill and possible as far as the intersection with Bridge Street. The Team thought that the existing or future volume of pedestrians did not warrant the expense of adding a sidewalk.





**EIV Technical Services**



**Heritage Landscapes LLC**  
Preservation Landscape Architects & Planners

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