# **Richmond Street and Sidewalk Audit** Final Report April 18, 2023



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### **Executive Summary**

To help improve the safety of Richmond's roads and sidewalks for walkers, bicyclists and motorists, the Richmond Transportation Committee and community volunteers conducted a systematic evaluation of the walkability in three areas of Richmond during Spring 2022:

- The Bridge St-Main St. intersection in Richmond Village
- The Round Church
- The Jonesville Post Office

AARP's Walk Audit Toolkit was used to systematically assess the usage of roads and sidewalks, the condition of infrastructure, the behavior of drivers and pedestrians, and the locations of crosswalks and signals, among other factors. **The study revealed numerous deficiencies in Richmond's road network that challenge drivers and pose major safety risks to pedestrians and cyclists.** Overall findings can be summarized as follows:

- The studied areas are among the most densely populated in Richmond, yet there is generally insufficient infrastructure for pedestrians and cyclists to move safely.
- Where infrastructure exists, it may be deteriorating or lack connectivity.
- For 13 locations in the three larger areas, the committee considered four qualitative ratings: Great, Acceptable, Mixed, and Poor. Of these locations, only one was rated Great, two were rated Acceptable, four mixed, and six poor.

Common issues within the studied areas include:

- Sidewalks that are too narrow, steep, and/or deteriorating.
- Confusing intersections and non-intersection crossings.
- A lack of infrastructure (sidewalks, crosswalks, signage, roadway buffers, etc.) for pedestrians and cyclists.
- Insufficient network connectivity inhibits pedestrian and cyclist movements across town.
- Sidewalk gaps that put pedestrians into the traveled roadways.
- Drivers speeding and running stop signs.

This report provides a set of short- and long-term recommendations for each area. These include:

- Increase signage and striping to effectively delineate existing infrastructure and to notify drivers of speed limits as well as the presence of pedestrians and cyclists.
- Repair sidewalks to make them safer and more usable for all users.
- Install traffic calming measures.
- Move crossings to safer, more intuitive locations.
- Build connected infrastructure to facilitate the safe movement of pedestrians and cyclists.
- Improve intersections to reduce confusion and enhance safety for drivers, pedestrians, and cyclists.

Richmond offers a wonderful quality of life to its residents and visitors, with a thriving village business district, miles of trails, and the scenic Winooski River, among many other attractions. It is the committee's hope that improved walking, cycling, and driving infrastructure will help the town continue to thrive.

### Introduction

In 2019, the Richmond Transportation Committee was created and charged by the Selectboard with developing a town Transportation Implementation Plan and transportation projects that will make traveling in Richmond safer and easier for all users.

The 2018 Richmond Town Plan encourages the creation and adaptation of town roads into Complete Streets-streets designed and operated to enable safe use and support mobility for all users-and the cultivation of community partnerships to improve the safety and welfare of individuals using Town roads. Complete Streets also improve the resilience of town transportation systems and support local economic vitality.

To provide guidance on selecting priority projects for the town Transportation Implementation Plan, the Richmond Transportation Committee conducted a systematic evaluation of walkability of three areas of Richmond in Spring 2022:

- Richmond Village North
- Round Church Neighborhood
- Jonesville

The committee used the well-regarded <u>AARP Walk Audit Toolkit</u> to evaluate the walkability of the areas in town. With the help of volunteers Walk Audits were conducted in small teams throughout late May and early June.

The Walk Audits revealed numerous deficiencies in Richmond's road network. Transportation Committee members and volunteers devised numerous short-term and long-term recommendations to improve each focus area. This report reviews the Walk Audit observations, recommendations to issues with the Town-wide system of sidewalks and related safety features.

Using these recommendations, the Richmond Transportation Committee aims to inform the Richmond Selectboard and the public about safety and accessibility on Richmond's roads, and to garner support to make Richmond's roads and sidewalks safer for walkers, bicyclists and motorists.

#### Methods

Richmond Transportation Committee members and about 20 volunteers conducted Walk Audits late May and early June of 2022 following protocols detailed in the <u>AARP Walk Audit Toolkit</u>. The walk audits focused on three areas (with a one-half mile radius for each): (1) Richmond Village-North, (2) the Round Church Neighborhood, and (3) Jonesville.

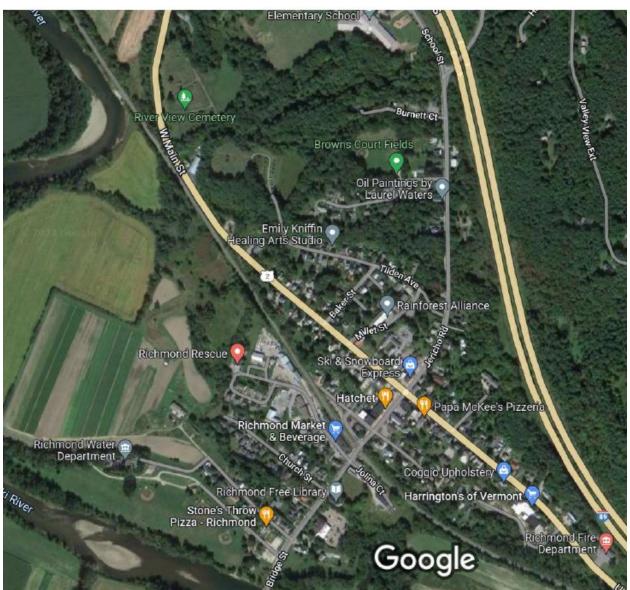
The Walk Audits were conducted on the following dates and times:

- Saturday, May 21, 2022 at 3 pm Walk audit of Richmond Village-North
- Sunday, May 22, 2022 at 8 am Walk audit of Round Church area
- Saturday, May 28, 2022 at 12 pm Walk audit of Richmond Village-North
- Saturday, May 28, 2022 at 1 pm Walk audit of Jonesville
- Sunday, May 29, 2022 at 3 pm Walk audit of Jonesville
- Saturday, June 4, 2022 at 12 pm Walk audit of Round Church Neighborhood

Standardized worksheets guided participants in assessing multiple factors that influence the usage of roads and associated sidewalks, including the road design, the infrastructure condition, the behavior of drivers and pedestrians, and the location of crosswalks and crossing signals.

Additional observations were also made of vehicular speeds and safety of roadways within the focus areas outside of the scheduled Walk Audits, as well as areas adjacent to the focus areas. These observations are also included in this report.

### **Richmond Village-North**



Map of Richmond Village-North Study Area

#### Background

The Richmond Village-North area centered on the intersection of Bridge and Main Streets. This is the primary commercial business area for the town and the most densely populated area in town. The Richmond Village study area encompassed the Bridge St.-Main St. intersection and a half-mile radius surrounding this intersection. The area included the Bridge Street corridor between Main Street and the Winooski River, Tilden/Baker/Millet neighborhood, Railroad Street, Depot Street, East Main Street from the Bridge St.-Main St. intersection to the Richmond Fire Station, West Main Street from the Bridge St.-Main St. intersection to the end of the sidewalk, and Jericho Road from the Bridge St.-Main St. intersection to School Street.

Richmond Street and Sidewalk Audit Final Report Richmond Transportation Committee 4/18/2023

#### **Findings**

#### Bridge Street Commercial Corridor

The Bridge Street Commercial Corridor is the commercial heart of the town. Major landmarks include Volunteers Green, the Richmond Town Offices, the Richmond Library, Richmond Market, the Creamery (a forthcoming medium-sized mixed-use development), and the Masonic Block. The speed limit on Bridge Street is 25 miles per hour.

Bridge Street Commercial Corridor has a sidewalk on the west side from the bridge north to the Richmond Market, and then from Depot Street Extension to the Cumberland Farms gas station. The sidewalk gap between Richmond Market and Depot Street Extension is covered by a crosswalk atgrade with the vehicle travel lanes. The east side of Bridge Street has a sidewalk from the mid-block crossing in front of the Big Spruce restaurant north to the Main Street intersection. Bridge Street has non-intersection crossings in front of the Richmond Town Offices, the Richmond Library, and in the middle of the Masonic Block.

In this section, volunteers observed a range of issues that inhibit pedestrian mobility. Sections of sidewalks along Bridge Street are either too steep or too narrow for wheelchairs and strollers. The curb cuts at the crosswalk on Bridge Street in front of the Town Library are not flush with the road. The sidewalk and roadway in front of the Masonic Block (as shown in right Figure) and between Railroad Street and Volunteers Green have many obstructions- including signage, planters, tables, chairs and bicycles in the sidewalks, and utility poles in the Bridge Street roadway and/or sidewalks. Sidewalk and curbing on Bridge Street are degraded. The



Bridge Street Commercial Corridor

midblock placement of the rectangular rapid flashing beacon (RRFB) at the Masonic Block is not adequately visible to drivers. Signage is inadequate on Bridge Street in front of the Town Center and at the Railroad Street intersection.



**Pedestrian Crossing** 

There is no sidewalk on the east side of Bridge Street south of the Big Spruce restaurant. The Town Offices, the police station, the post office, and the public library are all located on the east side of the street. People who live or work on the east side of Bridge Street have to cross the street twice to gain access to these public services. For children and residents who are mobility impaired, this presents a challenge.





Parked cars force pedestrians into street

**Missing Sidewalk next to Richmond Market** 

The gap in the sidewalk along Bridge Street in front of the Cumberland Farms gas station, as shown in the above figures creates a dangerous situation for pedestrians. This section is a large curb cut in which cars enter and exit the gas station, and park between the convenience store and Bridge Street. This segment has no pedestrian facilities and no clear guidance for pedestrians on how to cross the curb cut. Bollards and trash cans keep parked vehicles about two feet from the exterior building wall of the Cumberland Farms building, leaving a distance of about 20 feet to the edge of the roadway. Parked Vehicles force pedestrians out into the roadway.

In addition, no sidewalks or paths exist along Railroad Street between the Richmond Market and the residential area on Borden Street. The present condition is a crosswalk on the west side of the roadway, with portions demarcated with temporary bollards.

#### East Main St

The East Main Street section within the study area starts from the Main Street-Bridge Street intersection and ends at Harrington's, a food manufacturing and sales establishment approximately 0.2 miles to the east, and the Richmond Veterinary Hospital on the north side. This section is primarily residential with a range of dwelling types and has some small-scale businesses. The speed limit on East Main Street is 30 miles per hour.

This section has asphalt sidewalks on both sides of the street for the most part. The sidewalks on the south side of the roadway are level with the roadway. The sidewalks on the north side are level with

the roadway, and at some points are above the level of the roadway. The roadway does not have curbing at this time. The sidewalks on both sides of the roadway end at Harrington's; no non-intersection pedestrian crossings across the roadway exist currently.





Drainage Issues on East Main St. leads to puddling on sidewalks

The sidewalks are deteriorating (as shown in the above figure), thus rendering them inaccessible to some users. Speeding issues and drainage issues are also evident and there is a lack of demarcation between the roadway and the sidewalk. At certain points, the sidewalk looks like a shoulder and is used by cars to park (as shown in the below figure), thereby obstructing pedestrians.



Sidewalk shoulders used for car parking



Rough sidewalk and driveway surface





**Deteriorated sidewalk** 

Car park on the sidewalk

#### West Main Street

The West Main Street section within the study area starts from the Main Street-Bridge Street intersection and ends 0.2 miles to the west at the end of the sidewalk (approximately 212 West Main Street). The eastern end of the section has commercial businesses close to the Jericho Road intersection and the Our Lady of the Holy Rosary Church, but the majority of the section has residential, single-family dwellings. The speed limit on West Main Street is 30 miles per hour.



Richmond Street and Sidewalk Audit Final Report Richmond Transportation Committee 4/18/2023 This section has curbed concrete sidewalks on both the north and south sides of Main St. The north side of the street has concrete curbs, and the south side of the street has granite curbs. The south side of the street has a green buffer strip between the roadway and the sidewalk. The north side of the street lacks a buffer between the roadway and the sidewalk. Volunteers observed the degradation of the sidewalks, and the lack of tactile pads for certain wider curb cuts.

#### Bridge Street-Main Street Intersection

The Bridge Street-Main Street intersection is one of three signalized intersections in town and the only signalized intersection in the Village. Bridge Street (from the south), West Main Street/Route 2 (westbound), East Main Street/Route 2 eastbound), and Jericho Road (from the north) converge at this intersection. All vehicles turning left must yield to oncoming traffic. The signal does not control vehicular right turns.



Walk signal for pedestrians

Volunteers observed that the walk signal gives pedestrians a five-second advance before the green light signal for traffic going straight. However, the intersection lacks a "no right turn" signal for vehicles when the walk sign is activated. Volunteers also noted the lack of a clear sight line from Bridge Street northbound to East Main Street eastbound.



**Bridge Street northbound** 

#### Baker-Tilden-Millet Residential Neighborhood

The Baker-Tilden-Millet neighborhood primarily has single-family and two-family houses. However, the neighborhood has two outliers: (1) the Goodwin-Baker Building, a former underwear factory turned office building, and (2) a 6-unit apartment building near the west end of Tilden Avenue commonly referred to as "the Beehive," which was formerly worker housing for the underwear factory.

The roadways in the neighborhood are narrow. The speed limit is 25 miles per hour. Baker Street has a curbed sidewalk on one side; Tilden Avenue and Millet Street do not have sidewalks.

Volunteers observed the relative safety of the neighborhood for bicyclists and pedestrians because of the lack of traffic and low speeds. Volunteers also noted that because roads are narrow, the possibility of installing sidewalks is slim.

#### Jericho Road to the Schools

This Jericho Road segment begins at the Bridge Street-Main Street intersection and ends at School Street approximately 0.5 miles north. This entire segment is sloped. The speed limit is 25 miles per hour. This section has a curbed sidewalk on the west side of the street with a two-foot green buffer strip between the sidewalk and the roadway.

Volunteers highlighted the excellent quality of the sidewalk. They also recorded vehicle speeds using a radar gun. The observed average vehicle speed southbound was 29 miles per hour, with a peak of 31 miles per hour. The observed average vehicle speed northbound was 31 miles per hour, with a peak of 40 miles per hour.

Jericho Road North of School Street to Valley View Road

This Jericho Road segment begins at School Street and ends at Valley View Road approximately 0.4 miles north. This area is adjacent to and outside of the intended study area, and a couple volunteers studied this area. This entire segment is sloped. The speed limit is 25 miles per hour from School Street to Southview Drive, and 35 miles per hour from Southview Drive to Valley View Road. The vehicle travel lanes are 11-12 feet. This segment does not have a sidewalk or a paved shoulder. The shoulders in general in this location are narrow, as shown in Figure 6. The roadway has no fog lines, bike lanes or sharrows.

Measurements showed that most vehicles were traveling above the posted speed limit. The average speed of the observed traffic traveling northbound and southbound was 39 miles per hour. The maximum speed measured of the observed traffic traveling northbound was 54 miles per hour and the maximum speed measured of the observed traffic traveling southbound was 55 miles per hour.

#### **Issues in Richmond Village-North**

The following issues within the Richmond Village-North area were identified:

- Connectivity Gaps
- Obstructions
- Speed
- Deteriorated and/or inadequate facilities
- Obstructed sight lines
- Inadequate notification of pedestrian crossings to vehicles

#### Richmond Village – North Recommendations

Location	Short-Term Recommendations	Long-Term Recommendations
Bridge St Commercial Corridor	<ul> <li>Make clearer delineations between the vehicle travel portion and the sidewalks - Delineations are needed in areas where no sidewalk is visibly present, including along Bridge Street between the entrance of Volunteers Green and the bridge, and in front of the Cumberland Farms gas station. Delineations can be in the form of paint-for crosswalks, fog lines, or boxes-or something more substantially physical-like bollards or jersey barriers.</li> <li>Education - Business owners should be reminded to maintain a minimum five-foot path clear of obstructions on the sidewalk.</li> <li>Pop-up pilot projects - The Town could organize a pop-up project using paint to show how facility improvements could improve pedestrian, bicycle and vehicle safety if installed, similar to a project organized by the town and Local Motion in June 2017.</li> <li>Placemaking - Benches could be installed along Bridge Street corridor to improve walkability and placemaking.</li> </ul>	<ul> <li>Modify curb cuts - Level curb cuts flush with the surface of the vehicle travel portion of the roadway to improve the accessibility of crossings. Mountable curbs or curb extensions would shorten crossings, improve the visibility of pedestrians to drivers, and force drivers to drive slower under the illusion that the travel lane is narrower.</li> <li>Repair and maintenance of existing sidewalks</li> <li>Implement the recommendations of the Bridge Street Complete Streets Corridor Study and Richmond Sidewalk Scoping Study, including buildout of adequate bicycle and pedestrian facilities with signage and recommended crossings</li> <li>Plan and build of pedestrian sidewalks on Railroad Street - Adding adequate pedestrian facilities to connect Bridge Street to the future location of the Richmond Market at the western end of Railroad Street would improve the walkability of the area.</li> <li>Install traffic calming measures to slow vehicle speeds.</li> </ul>

Location	Short-Term	Long-Term
Bridge Street-Main Street Intersection	<ul> <li>Install or move signage reminding drivers of crossing pedestrians - This includes placing pedestrian crossing signs along Bridge Street that are within the line of sight of drivers, "Right turn yield to pedestrians" signs at the Bridge Street and Main Street intersection, and a "No Right Turn" signal when the walk sign is on to drivers going northbound on Bridge Street at the Bridge Street-Main Street intersection.</li> </ul>	<ul> <li>Modify curb cuts - Level curb cuts flush with the surface of the vehicle travel portion of the roadway to improve the accessibility of crossings. Mountable curbs or curb extensions would shorten crossings, improve the visibility of pedestrians to drivers, and force drivers to drive slower under the illusion that the travel lane is narrower.</li> <li>Shift the crossing signal at the Bridge Street and Main Street intersection to improve the sight lines of cars turning from Bridge Street.</li> </ul>
Baker-Tilden-Millet Residential Neighborhood	<ul> <li>Traffic Calming - Initiate the Traffic Calming Policy process for the Baker- Tilden-Millet Residential Neighborhood.</li> </ul>	<ul> <li>Install traffic calming measures to slow vehicle speeds.</li> </ul>
East Main Street		<ul> <li>Repair and maintain existing sidewalks, and add curbing to north and south sidewalks. Enforce no parking along roadway, during all times of year, not just winter.</li> </ul>
West Main Street		Repair and maintain     existing sidewalks.
Jericho Road from School Street to Valley View Road		<ul> <li>Install traffic calming measures to slow vehicle speeds</li> </ul>

### Conclusions

Walkability ratings for this section (e.g., "Great", "Acceptable", "Mixed", or "Poor"):

- Bridge Street Commercial Corridor Mixed
- East Main Street Mixed
- West Main Street Acceptable
- Bridge Street-Main Street Intersection Poor
- Baker-Tilden-Millet Residential Neighborhood Acceptable
- Jericho Road to the Schools **Great**
- Jericho Road from School Street to Valley View Road **Poor**

### **Round Church Neighborhood**



Map of Round Church Neighborhood study area

#### Background

The Round Church is situated southeast of the Bridge Street bridge, and northeast of the Bridge Street-Huntington Road-Thompson Road-Cochran Road intersection. The church was built in 1812-13. Originally intended to be a town meeting hall and place of worship, the Round Church is now a tourist attraction, and serves as a venue for weddings and community events.

The Round Church Neighborhood study area includes a half-mile radius of the Round Church. Notable landmarks are the Round Church Corners commercial area (Stone Corral Brewery, Mann & Machine, Long Trail Physical Therapy, among other businesses), Little Tots Academy–a day care center–Sterling House–an assisted living facility–and Richmond Terrace–an income-restricted senior housing development. Residential neighborhoods are also in the study area. Through much of the year, many bicyclists, and walkers park on Round Church Road, and on the green below the Round Church, as their starting point for recreation.

#### Findings - Round Church Neighborhood

Bridge Street from the bridge south to Huntington Road Intersection has relatively narrow travel lanes and a sidewalk along the west side of the roadway. The road has some streetlights but not enough to provide a continuously lighted sidewalk. The quality of the sidewalk is deteriorating in several locations. There is no buffer between the travel lane and the sidewalk.



Below-grade storm drain & poor road quality present challenging for bikes

A crosswalk across Bridge Street leads pedestrians to the Round Church. The west end of this crosswalk is located in the middle of a curb cut (i.e., a driveway); sediment washes off the road and into this curb cut. The east side of the crosswalk has no pedestrian landing and leads directly to a boulder. No speed limit signs are posted on this segment of Bridge Street.

#### Bridge Street-Huntington Road-Cochran Road-Thompson Road Intersection

The Bridge Street-Huntington Road intersection is a near-perpendicular intersection of four roads:(1) Bridge Street, (2) Huntington Road, (3) Thompson Road, and (4) Cochran Road. Currently, the intersection has stop signs on Thompson Road and Cochran Road, giving the impression that Bridge Street and Huntington Road are contiguous. The vast majority of motor vehicles moving through this intersection are connecting between Bridge St. and Huntington Road for a short section on the north

side. The intersection only has a single crosswalk across Huntington Road. The roadways at this intersection do not have bicycle lanes or any indication for bicycle users.





Drivers were observed using left-turn signals when driving straight from Bridge Street to Thompson Road, and some drivers get stalled at the stop signs at Thompson Road and Cochran Road unsure when they can drive. Some drivers appear to be confused about how to drive through the intersection. Drivers were observed not stopping for pedestrians at the crosswalk at this complicated intersection.

Vehicles move quickly through the intersection from Bridge Street to Huntington Road, and vice versa. In addition, drivers were observed driving through the stop sign from Cochran Road onto Bridge Street without stopping. Drivers were also observed not stopping for pedestrians at the crosswalk on Huntington Road.

#### Cochran Road

Cochran Road is a major east-west thoroughfare for the town, connecting the Round Church area to Jonesville. Along Cochran Road are numerous residences, the Greystone residential neighborhood, the Cochran Road Ski Area, and several areas to access the Winooski River. The road is actively used by drivers, bicyclists, and pedestrians. The roadway is a narrow two-lane road with little to no shoulders. A speed detection sign is within the study area, oriented towards drivers approaching the Huntington Road-Bridge Street-Thompson Road intersection.

#### Thompson Road

Thompson Road is primarily a residential side street but has the Little Tots Daycare (at the corner of Thompson Road and Farr Road), Richmond Terrace senior housing, and the town highway garage (at the end of the road). Thompson Road lacks sidewalks and there are no signs warning drivers of bicyclists and pedestrians using the vehicle travel portion of the road.

#### Huntington Road

Huntington Road is an arterial road, connecting the town to Huntington and to other arterials leading to Hinesburg and Williston. Within the study area, Huntington Road has a short sidewalk connecting the Huntington Road-Bridge Street intersection to the Round Church Corners commercial area.



The road has a crosswalk from the sidewalk on the north side of Huntington Road to the parking lot in front of the Round Church Corners commercial area. No pedestrian facility exists at the intersection of Huntington Road and Farr Road. There is a steep slope from the raised sidewalk to the street-level crossing. There are no streetlights.

#### **Issues in Round Church Neighborhood**

- Huntington Road/Bridge Street/Cochran Road/Thompson Road intersection: Non-local drivers are unable to understand how to navigate through the intersection. In addition there are speeding issues, a lack of crosswalks, crosswalk landings, and stop signs which makes the intersection dangerous for pedestrians, bicyclists, and drivers.
- Inadequate sidewalks and pedestrian facilities: Cochran Road, Thompson Road, and most of Huntington Road have no sidewalks. This inhibits pedestrians from safely walking on any of the roads and accessing trailheads along Cochran Road and Huntington Road. On Thompson Road, the lack of a sidewalk is detrimental to residents there and may be a barrier to access of the daycare and residents of Richmond Terrace. The existing pedestrian facilities are deteriorating and have accessibility gaps.
- Lack of bicycle facility markers: None of the roadways in the study area has paint or markings to inform drivers of bicyclists on the road.
- Poor placement and design of pedestrian crossings: The pedestrian crossings at non-intersection locations have accessibility issues for pedestrians, and visibility issues for drivers. The crosswalk across Huntington Road at the Huntington Road/Bridge Street/Thompson Road intersection is long, and motorists are not given sufficient warning of possible pedestrians in the roadway for drivers turning from Bridge Street to Huntington Road. Safety issues are common there.
- Lack of buffer strip between sidewalks and travel lanes: The lack of separation between the sidewalk and the travel lane makes pedestrians feel less safe on the sidewalk.
- High traffic volumes with a significant number of motor vehicles speeding.
- Inadequate and non-existent street lighting.

Location	Short-Term Recommendations	Long-Term Recommendations
Bridge St	<ul> <li>Install speed limit signs.</li> <li>Maintain and upgrade existing sidewalks and streetlights.</li> </ul>	• Create adequate buffers between the sidewalk and the roadway.
Bridge Street- Huntington Road Intersection	<ul> <li>Add additional crossings - Add crosswalks to the Bridge Street- Huntington Road intersection.</li> </ul>	Install controls to the Bridge Street- Huntington Road Intersection - This could involve implementing one of the recommendations in the Bridge Street Corridor Scoping Study (2021).
Cochran Road	<ul> <li>Add additional crossings - Add crosswalks to Cochran Road at the entrance to the River Trail/Preston Preserve.</li> <li>Install RRFB indicators at the non-intersection pedestrian crossings.</li> <li>Install speed limit signs.</li> <li>Implement recommendations from the 2022 Bike-Walk-Pedestrian Plan.</li> </ul>	<ul> <li>Install pedestrian facilities.</li> <li>Install streetlights.</li> <li>Implement recommendations from the 2022 Bike-Walk-Pedestrian Plan.</li> </ul>
Thompson Road	•	Install a sidewalk.
Huntington Road	•	<ul> <li>Create adequate buffers between the sidewalk and the roadway.</li> <li>Install pedestrian sidewalk on the south side and extend the sidewalk on the north side.</li> <li>Install streetlights.</li> </ul>

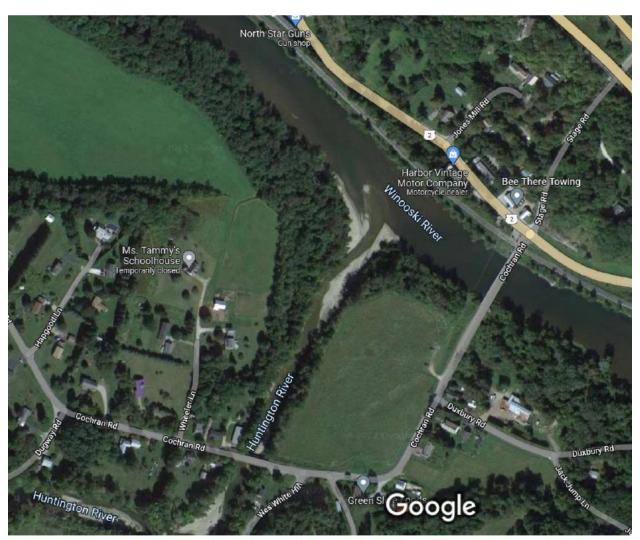
#### Round Church Neighborhood Recommendations

#### Conclusions

Walkability ratings for this section ("Great", "Acceptable", "Mixed", or "Poor"):

- Bridge Street Mixed
- Bridge Street-Huntington Road-Cochran Road-Thompson Road intersection Poor
- Cochran Road **Poor**
- Thompson Road **Poor**
- Huntington Road Mixed

### Jonesville



Map of Jonesville study area

#### Background

Jonesville is a part of Richmond located east of Richmond Village near the Bolton town line. Jonesville has a post office and a handful of shops and businesses, but the area is primarily residential.

The study area was a half-mile radius from the Jonesville Post Office. The area included US Route 2, the eastern end of Cochran Road, and lower parts of Wes White Hill Road.

#### **Findings**

#### US Route 2



US Route 2 within the study area is a two-lane state road with narrow shoulders. The speed limit is 40 miles per hour. The road has neither bicycle nor pedestrian facilities. The roadway lacks signage or markings indicating to drivers of bicycle and pedestrian users. US Route 2 has no pedestrian crossings.

#### Cochran Road

Cochran Road within this study area is a two-lane road with narrow to no shoulders and includes the bridges over the Winooski River and Huntington River. Only the centerlines are striped on this roadway. The roadway does not have bicycle or pedestrian facilities.

Cochran Road, and the roads stemming from it-Duxbury Road, Wes White Hill Road, and Dugway Road-are used by walkers, runners, bicyclists, and those looking to access the Huntington and Winooski Rivers.



#### Wes White Hill Road

The lower section of Wes White Hill Road is a two-lane road within the study area. The road has no striping, and no indication of a centerline or shoulders. The speed limit is 35 miles per hour.

With the slope and turns in the road, the segments of Wes White Hill Road in the study area have poor sight distances.

#### **Issues in Jonesville**

- No bicycle and pedestrian facilities: This includes no sidewalks, and also no striping or markings on the road indicating shared usage to drivers.
- Speeding
- Inadequate sight distances

#### Jonesville Recommendations

Location	Short-Term Recommendations	Long-Term Recommendations
US Route 2	<ul> <li>Install a crosswalk and warning signs on US Route 2 in front of the Jonesville Post Office and at the US Route 2 and Stage Road intersection.</li> </ul>	Reduce speed limits
Cochran Road	• Paint Cochran Road with fog lines, centerlines, and a bicycle and pedestrian lane on both sides of the road.	<ul> <li>Install traffic calming elements to Cochran Road, per the recommendations in the Walk, Bike, and Trails Plan (2022)</li> </ul>
Wes White Hill Rd		Reduce speed limits

#### Conclusions

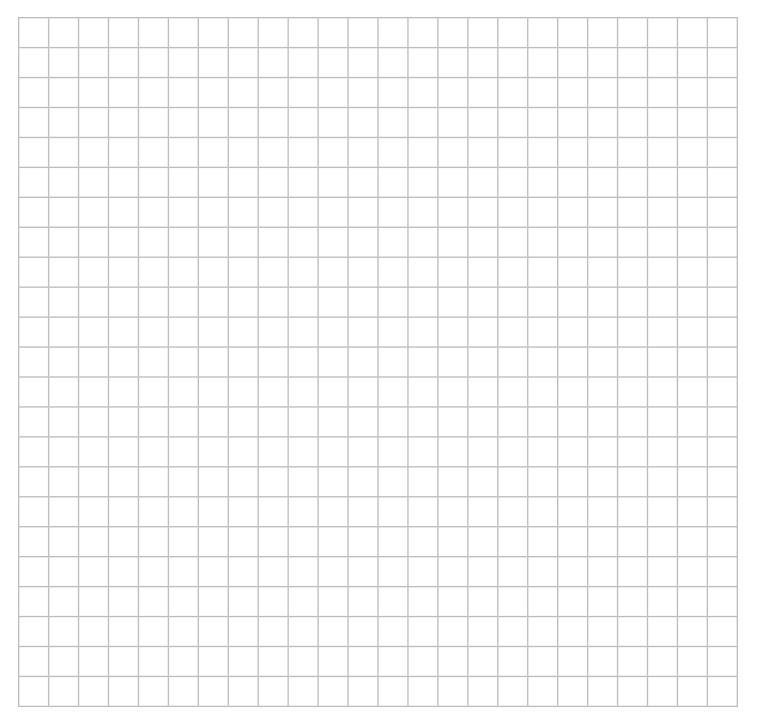
The Walkability rating for this area is **poor.** 

## Appendix A

AARP Bridge St Sidewalks, Streets, and Crossings Audit Worksheet

# **Make a Map**

- Use a mapping website to capture and print a bird's-eye-view image of the walk audit area or draw a simple map of the location in the space below.
- Label the streets and make note of any key features, such as stores, schools and (if they exist) sidewalks.
- Take photographs and/or video of the area so others can see the challenges and strengths of the audit location. Match and mark the images on the map.
- Indicate any other problem spots or areas of opportunity (e.g., a bus stop with no seating or shelter).





# Who's Using the Street — and Why?

Community Name:							
Location/Street Name(s):							
Audit date:	Start time:	AM   PM End time:	AM   PM				

Use hash marks (##!) for counting the number of people observed. (Yes, some will likely be counted more than once.) Use your best guess to determine each person's age range and reason for walking.

WHO'S WALKING?	NUMBER OF PEOPLE
Young children (e.g. elementary school students)	
Teens	
Adults	
Older Adults	
HOW:	
While pushing a baby stroller and/or walking with a child or children	
While using a mobility aid (i.e., a wheelchair, cane, walker)	
While riding a bicycle, scooter, skateboard or other mobility device	
POSSIBLE REASONS:	
Traveling to/from school	
Waiting for and/or heading to public transit	
Commuting to/from work	
Shopping and/or getting something to eat	
Walking/running for fitness	
Walking a dog	
Walking to a park or outdoor public space	
Just out for a walk	
Other/unknown	

**ALSO, WHO'S NOT WALKING?** Do the observed pedestrians represent the demographic composition of the neighborhood? If not, which segments of the population appear to be missing? Why might that be the case? (Use a notebook or the back of this worksheet to record these answers and observations.)



# Sidewalks, Streets and Crossings SINGLE-LOCATION AUDIT

Со	nmu	inity	Name:				
Loc	atio	n/Str	eet Name(s):				
Au	dit d	ate: _		Start time:	AM   PM	End time:	АМ   РМ
Pos	sted	spee	d limit(s):	Do the motorists ap	pear to be ob	eying the speed limit(s)?	
Tot	alnı	umbe	r of vehicle lanes:	The street is: 🗆 one	e-way∣□ two	way	
lfn	nore	than	one lane: Does the roadv	vay have □ a median and/or □	a pedestrian i	sland?	
The	e stro	eet ha	<b>as:</b> 🗆 no sidewalk	□ no sidewalk but needs	one	□ no sidewalk but needs two	0
			partial sidewalks	□ a sidewalk on one side	of the street	□ sidewalks on both sides o	f the street
YES	NO	OTHE	R Skip any statements that	don't apply			
			THE SIDEWALK:				
			1. Is separated from the	street by a barrier or buffer (a cu	rb, grass, land	lscaping)	
			2. Is surfaced with a mate	erial that is smooth and consiste	ent (e.g., or asj	ohalt rather than bricks)	
			3. Is in good condition, w	ithout cracks or raised sections			
			4. Is free of obstacles (hy	drants, utility poles, overgrown	landscaping,	trash receptacles)	
			5. Is free of interruptions	from driveways (such as to/from	n homes, park	ing lots, etc.)	
			6. Is continuous (no segn	nents are missing) and complete	e (it doesn't ra	ndomly end)	
			7. Is wide enough (at leas	t 5 feet) for two people to walk	side by side or	pass one another	
			8. Has tactile ground sur	face indicators so pedestrians w	vith vision imp	airment will know when the path	is ending
			9. Has a curb cut ramp (fe	or use by wheelchairs, baby stro	llers, etc.) wh	erever it is interrupted by a street	t
			THE STREET:				
			1. Has traffic lights and/o	r stop signs at intersections and	l crossings		
			2. The traffic lights and/o	or stop signs are clearly visible to	odrivers and p	edestrians	
			3. Has crosswalks				
			4. The crosswalks are we	ll marked and clearly visible to o	drivers and pe	destrians	
			5. Has signage alerting d	rivers to the presence of pedest	rians		
			6. Has a designated bicy	cle lane			
			7. Has a pedestrian cross	ing signal, also called a beacon	(if yes, comple	ete the next section)	
			THE PEDESTRIAN CR	DSSING SIGNALS:			
			1. Are working				
			2. Have a "push-to-walk'	mechanism, meaning pedestria	ans can stop v	ehicle traffic	
				for people with vision impairme			
				ate locations (if not, make note			
			5. Provide enough time t	o cross (indicate the amount of	time: r	minutes seconds)	
				•		pedestrians must wait for a traff	ic light
			change in order to cros	ss: minutes sec	onds)		

Consider using the "Build a Better Block" worksheet as well.

#### Walkability of the area, based on the findings above: 🗆 Great 🗆 Acceptable 🗆 Mixed 🗆 Poor



# Sidewalks, Streets and Crossings WALKING AUDIT

Co	mmu	inity	Name:				
Sta	rtin	g loca	ition:		nding location:		
Ro	ute:						
Au	dit d	ate: _		Start time:	AM   PM	End time:	AM   PM
Po	sted	spee	d limit(s):	Do the motorist	s appear to be ob	eying the speed limit(s)?	
Tot	alnı	umbe	r of vehicle lanes:	The street is: 🗆	] one-way   □ two-	way	
lfn	nore	than	one lane: Does the roadwa	y have □ a median and/c	or 🛛 a pedestrian is	sland?	
Th	e str	eet ha	as: □ no sidewalk □ partial sidewalks	□ no sidewalk but n □ a sidewalk on one		□ no sidewalk but needs two □ sidewalks on both sides of	
YES	NO	отне	R Skip any statements that do	on't apply			
			THE SIDEWALK:				
			<ol> <li>Is in good condition, wit</li> <li>Is free of obstacles (hydrights)</li> <li>Is free of interruptions frictions</li> <li>Is continuous (no segment</li> <li>Is wide enough (at least</li> <li>Has tactile ground surfations)</li> <li>Has a curb cut ramp (for THE STREET:</li> </ol>	ial that is smooth and cor hout cracks or raised sect rants, utility poles, overgr rom driveways (such as to ents are missing) and com 5 feet) for two people to v ice indicators so pedestria use by wheelchairs, baby	isistent (e.g., concre ions own landscaping, t /from homes, parki plete (it doesn't rar valk side by side or ins with vision impa strollers, etc.) whe	ete or asphalt rather than bricks) rash receptacles) ng lots, etc.) idomly end)	is ending
			<ol> <li>Has traffic lights and/or</li> <li>The traffic lights and/or</li> <li>Has crosswalks</li> <li>The crosswalks are well</li> <li>Has signage alerting driv</li> <li>Has a designated bicycle</li> <li>Has a pedestrian crossin</li> </ol>	stop signs are clearly visib marked and clearly visible vers to the presence of pe e lane	ble to drivers and po e to drivers and peo destrians	lestrians	
			6. Provide suitable opport	nechanism, meaning pede or people with vision impa te locations (if not, make r cross (indicate the amour	irment note of where more nt of time provided: he amount of time		

Consider using the "Build a Better Block" worksheet as well.

#### Walkability of the area, based on the findings above: 🗆 Great 🗆 Acceptable 🗆 Mixed 🗆 Poor

# ARP Sidewalks

Community Name:							
.ocation/Street Name(s):							
dit da	ate:_			Start time:	_AM   PM	End time:	_AM   PM
nore	than	on	<b>e lane:</b> Does the roadway	have □ a median and/or □ ped	estrian isl	and?	
e stre	eet h	as:	□ no sidewalk □ partial sidewalks			□ no sidewalk but needs two □ sidewalks on both sides of t	he street
YES   NO   OTHER Skip any statements that d			Skip any statements that dor	't apply			
			THE SIDEWALK:				
		1.	Is separated from the stre	eet by a barrier or buffer (a curb, §	grass, land	lscaping)	
		2.	Is surfaced with a materia	al that is smooth and consistent (	concrete c	or asphalt rather than bricks)	
		3.	Is in good condition, with	out cracks or raised blocks			
		4.	Is free of obstacles (hydra	ints, utility poles, overgrown land	dscaping, t	trash receptacles)	
		5.	Is free of interruptions fro	om driveways (such as to/from ho	mes, park	ing lots, etc.)	
		6.	Is continuous (no segmer	ts are missing) and complete (it o	doesn't rai	ndomly end)	
		7.	Is wide enough (at least 5	feet) for two people to walk side	by side or	pass one another	
		8.	Has tactile ground surfac	e indicators so pedestrians with	vision imp	airment will know when the path is	s ending
		9.	Has a curb cut ramp (for u	use by wheelchairs, baby strollers	s, etc.) whe	erever the sidewalk is interrupted b	oy a street
	atio dit da nore estro  NO	ation/Str dit date: nore than e street ha street ha no othe no no no no no no no no no no no no no	ation/Street         dit date:         nore than on         e street has:         NO   OTHER         I	cation/Street Name(s):         dit date:         more than one lane:         nore than one lane:         Does the roadway         e street has: <ul> <li>no sidewalk</li> <li>partial sidewalks</li> </ul> NO   OTHER       Skip any statements that dom         THE SIDEWALK:       Image: State of the state	Start time:   Start time: I a median and/or I ped Street has: I no sidewalk I no sidewalk I no sidewalk but needs one I a sidewalk on one side of the street has: I a sidewalk on one side of the street by a barrier or buffer (a curb, start time: I 1. Is separated from the street by a barrier or buffer (a curb, start time: I 2. Is surfaced with a material that is smooth and consistent (a in the street by a barrier or buffer (a curb, start time: I 3. Is in good condition, without cracks or raised blocks I 4. Is free of obstacles (hydrants, utility poles, overgrown land I 5. Is free of interruptions from driveways (such as to/from ho I 6. Is continuous (no segments are missing) and complete (it define) I 1. Is wide enough (at least 5 feet) for two people to walk side I 8. Has tactile ground surface indicators so pedestrians with the start time:	dit date:	dit date: Start time:   AM   PM End time:   once than one lane: Does the roadway have   a median and/or   pedestrian island? e street has:   no sidewalk   no sidewalk   no sidewalk but needs one   no sidewalk but needs two   partial sidewalks   a sidewalk on one side of the street   sidewalks on both sides of the street   sidewalks on both sides of the street   Start time:   no sidewalk but needs two   partial sidewalks   a sidewalk on one side of the street   sidewalks on both sides of the street   sidewalks   a sidewalk on one side of the street   sidewalks on both sides of the street   sidewalks on both sides of the street   sidewalks   a sidewalk   a sidewalk on one side of the street   sidewalks on both sides of the street   sidewalks   a sidewalk   a sidewalk on one side of the street   sidewalks   a sidewalk   a sidewalk on one side of the street   a sidewalk on one sidewalk   a sidewalk on one side of the street   a sidewalk on one sidewalk on one side of the st

#### NOTES OR OTHER OBSERVATIONS:

Walkability of the area, based on the findings above:  $\Box$  Great  $\Box$  Acceptable  $\Box$  Mixed  $\Box$  Poor

# ARP Streets and Crossings

Co	mmu	inity	Na	me:
Lo	catio	n/Stı	ree	t Name(s):
Au	dit d	ate: _		AM   PM End time: AM   PM
YES	NO	отне	R	Skip any statements that don't apply
				THE STREET:
			1.	Has traffic lights and/or stop signs at intersections and crossings
			2.	The traffic lights and/or stop signs are clearly visible to drivers and pedestrians
			3.	Has crosswalks
			4.	The crosswalks are well marked and clearly visible to drivers and pedestrians
			5.	Has signage alerting drivers to the presence of pedestrians
			6.	Has a designated bicycle lane
			7.	Has a pedestrian crossing signal, also called a beacon. (If yes, complete the next section.)
				THE PEDESTRIAN CROSSING SIGNALS:
			1.	Are working
			2.	Have a push-to-walk functionality, meaning pedestrians can stop vehicle traffic
			3.	Have audible prompts for people with vision impairment
				Are placed in appropriate locations (if not, make note of where more are needed)
			5.	Provide enough time to cross (indicate the amount of time provided: minutes seconds)
			6.	Provide suitable opportunities to cross (indicate the amount of time pedestrians must wait for a traffic light change in order to cross: minutes seconds)

#### NOTES OR OTHER OBSERVATIONS:

Walkability of the area, based on the findings above:  $\Box$  Great  $\Box$  Acceptable  $\Box$  Mixed  $\Box$  Poor

# ARP Street Safety and Appeal

Co	mmı	inity	/ Na	me:	
Lo	atio	n/St	ree	t Name(s):	
Au	Audit date:			AM   PM End time:	AM   PM
YES	NO	отн	ER	Skip any statements that don't apply	
				THE LOCATION HAS:	
			1.	Places to sit	
			2.	Shade trees	
			3.	Grass, flowers and landscaping (if yes, is the greenery well maintained?)	
			4.	Awnings, outdoor umbrellas or other shelter from rain and other weather conditions	
			5.	Drinking fountains (if yes, are they working and clean?)	
			6.	Public restrooms (if yes, are they clean and safe?)	
			7.	A transit or bus shelter (if yes, is there seating?)	
			8.	Trash receptacles (if yes, so they appear to be regularly emptied?)	
			9.	Buildings and/or homes that are well-maintained	
			10.	Informative signage	
			11.	Well-placed signage	
			12.	Streetscape features (art, signage, etc.) that are representative of/suitable for the community	
			13.	Pedestrian-scaled lighting	
			14.	A posted speed limit that seems suitable (if yes, does it appear that drivers are obeying the limit?	)
				IMPRESSIONS:	
			1.	The location/street is a safe and appealing destination	
			2.	The location/street is a safe and appealing travel route	
			3.	The location/street appears to be safe for users of all ages, abilities, races, income levels, etc.	
			4.	The location/street appears to be safe for pedestrians during both the day and night	
			5.	Pedestrians appear to be safe from moving vehicles	
			6.	Pedestrians appear to be safe from crime, harassment or similar threats	
For	"No"	or "C	) ther	answers, use the space below or on the back of this worksheet to briefly explain the response.	

#### NOTES OR OTHER OBSERVATIONS:

Walkability of the area, based on the findings above: 🗆 Great 🗆 Acceptable 🗆 Mixed 🗆 Poor

# ARP Public Transit Access

Community Name:								
Lo	catio	n/St	tree	(s):				
Audit date:				AM   PM End time: AM   PM				
YES   NO   OTHER			ER	Skip any statements that don't apply				
				IMPRESSIONS:				
			1.	Pedestrians can safely access and depart from the transit stop or station				
			2.	The transit stop or station is in a useful location				
			3.	The transit stop or station protects waiting passengers from moving vehicles				
			4.	The transit stop or station has suitable seating for waiting passengers				
			5.	The transit stop or station features shelter from (check all that apply) 🛛 rain 🗖 sun 🗖 heat 🗖 cold 🗖 wind				
			6.	The transit stop or station is clean and well-maintained				
			7.	The transit stop or station is well lighted				
			8.	The transit stop or station has useful amenities (if yes, describe what they are)				
			9.	The transit stop or station feels safe from crime				
			10.	I would feel safe and comfortable waiting in this location				
NO	TES	OR	отн	ER OBSERVATIONS:				

Walkability of the area, based on the findings above:

# ARP Build a Better Block

# Would the safe walkability and appeal of the walk audit location or route be improved by any of the following features? Select those you think could help:

- □ 1. Sidewalks (because there aren't any at all)
- □ 2. Sidewalk repairs
- □ 3. Wider sidewalks
- 4. Safety barriers between the sidewalk and street (landscaping, low walls, fencing, etc.)
- **5**. Decorative sidewalk features (hanging flower baskets, planters)
- □ 6. Crosswalks (because there aren't any at all)
- □ 7. Raised crosswalks
- □ 8. Artistic crosswalks
- 9. Pedestrian "bulb-outs" at intersections or crossings
- □ 10. Pedestrian island(s)
- □ 11. Pedestrian-friendly lighting
- □ 12. One-way rather than two-way traffic
- □ 13. Outdoor seating and furnishings for public use (benches, tables, parklets, etc.)
- □ 14. Decorative and/or directional (also called "wayfinding") signage
- □ 15. Public art (sculpture, wall murals, banners)
- □ 16. More street-level/street-facing shops and businesses
- □ 17. Shelter from the elements (awnings, outdoor umbrellas, etc.)
- □ 18. Green space (such as a small park or "pocket park")
- □ 19. Street trees and landscaping
- □ 20. Improved landscape maintenance
- □ 21. Drinking fountains
- □ 22. Public restrooms (or, if already present, better maintenance)
- □ 23. Litter removal
- □ 24. Graffiti removal
- □ 25. Trash receptacles
- □ 26. Security features (cameras, call-boxes, etc.)
- □ 27. Management of off-leash dogs
- □ 28. Repair or removal of vacant or rundown buildings
- □ 29. On-street parking
- □ 30. Parking garage or structure

#### **OTHER FEATURES:**

# **AARP** Summary

#### Record the score totals for each observation type

- Record the total number of yes responses for the category
- Record the total number of no responses for the category
- Record the one-word rating for the category

This information — as well as all notes, photographs, videos and observation discussions — will be helpful for writing a short report and/or preparing a PowerPoint presentation.

Community Name: \_\_\_\_\_

Street/Intersection Observed: \_\_\_\_\_\_ and \_\_\_\_\_

Audit Date: \_

WORKSHEET	YES RESPONSES	NO RESPONSES	<b>RATING</b> Great   Acceptable   Mixed   Poor
Sidewalks, Streets and Crossings (Single-Location Audit)			
Sidewalks, Streets and Crossings (Walking Audit)			
Sidewalks			
Streets and Crossings			
Street Safety and Appeal			
Public Transit Access			

#### NOTES OR OTHER OBSERVATIONS:

Visit AARP.org/WalkAudit to download, print, copy and/or share additional worksheets.