

Mountain View Road Crosswalk Location Analysis

Introduction

The Town of Williston requested the Chittenden County Regional Planning Commission (CCRPC) staff to investigate and evaluate the feasibility of installing a crosswalk across Mountain View Road at the Old Stage Road intersection to address residents' need. This document provides a summary of field observations, crosswalk installation guidelines analysis, and recommendations to the Town staff and elected officials to assist them in making an informed decision on the installation of a potential crosswalk on Mountain View Road.

Existing Conditions

Mountain View Road is classified by the state as a Class II Town Highway and functionally classified as a Major Collector, whereas Old Stage Road is classified by the state as a Class III Town Highway and functionally classified as a Local Road. The CCRPC staff conducted a field survey on October 14, 2020 between 4:00 pm and 5:30 pm to observe existing travel conditions, pedestrian activities and roadway characteristics at the study area shown in Figure 1.



Figure 1: Study Area

Field Observations

A field reconnaissance survey was conducted at the study area to evaluate existing conditions, roadway characteristics, pedestrian activities and roadside safety hazards. The following is a list of findings from the survey:

1. The Mountain View Road and Old Stage Road intersection is a two-way stop controlled intersection with STOP signs on the north and south approaches.
2. The Mountain View Road section at the study area is a two-lane paved road of 24 ft wide and very narrow gravel shoulders on both sides of the road. No pavement edge lines are marked in this area. Posted speed limit on this road section is 40 mph.
3. North of Mountain View Road, Old Stage Road is a two-lane 22 ft wide paved road and exhibits narrow gravel shoulders on both sides of the road. No pavement markings are installed on this road and the posted speed limit is 25 mph.
4. South of Mountain View Road, Old Stage Road is a two-lane 22 ft wide paved road and exhibits very narrow gravel shoulders on both sides of the road. Road centerline markings are installed on this road and the posted speed limit on this road section is 35 mph.
5. No pedestrians were observed crossing Mountain View Road during the PM peak period site visit.
6. A 5 ft wide sidewalk is located along the south side of Mountain View Road and east of Old Stage Road on the south side of the intersection.

Crosswalk Installation Guidance and Analysis

The National Association of City Transportation Officials (NACTO) is an association of 87 major North American cities and transit agencies formed to exchange transportation ideas, insights, and practices and cooperatively approach national transportation issues¹. NACTO developed guidelines for the installation of marked crosswalks at controlled and uncontrolled intersections, and mid-block locations². The Vermont Agency of Transportation (VTrans) also developed guidelines for pedestrian crossing treatments³ based on the Manual on Uniform Traffic Control Devices (MUTCD) crosswalk guidelines. The following are some of the basic rules or principles considered by NACTO in developing a reasonable and succinct set of guidelines for installation of crosswalks at controlled and uncontrolled intersections.

1. Locations with high traffic speeds, poor sight distances, and/or poor illuminations where it is dangerous to cross the street should be avoided.
2. Crosswalks should be installed at locations that receive sufficient benefit, which suggests that locations with low pedestrian volume or vehicular volume, or both, should not be marked for pedestrian crossing.
3. Type of pedestrians expected to be crossing the street should be considered. The research showed that lower pedestrian threshold volume should be considered for areas where less experienced and less agile pedestrians are expected such as near schools, senior housing centers, hospitals.
4. Advanced warning signs should be considered, while supplementing the pavement markings, for crosswalks in areas of higher-risk such as higher traffic volume and higher speeds.

Based on these rules and guidelines published by VTrans, a crosswalk installation guidance template was developed to summarize information, which is shown in Attachment A.

Crash History

¹ <https://nacto.org/>

² [https://nacto.org/docs/usdg/guidelines for installation marked crosswalks dougald.pdf](https://nacto.org/docs/usdg/guidelines%20for%20installation%20marked%20crosswalks%20dougald.pdf)

³

<https://vtrans.vermont.gov/sites/aot/files/highway/documents/ltf/VTrans%20Ped%20Crossing%20Guide%20August%202019%20Update.pdf>

There was one injury crash reported at the Mountain View Road and Old Stage Road intersection in the past five years. The type of collision was reported as a left turn and through broadside crash which can be attributed to failed to yield at the intersection. No pedestrian or bicyclist crashes were reported at this intersection in the last five years.

Findings and Recommendations

The field observation shows no significant pedestrian crossing activity across Mountain View Road in the PM peak period, and anecdotal information indicate absence of less experience and less agile pedestrians in the study area. In addition, there is no evidence of significant pedestrian activities along Old Stage Road north of Mountain View Road. **Based on field observations and a review of the available data, the guidelines for the installation of a crosswalk across Mountain View Road at the Old Stage Road intersection are not met.** It is recommended to monitor pedestrian activities and infrastructure upgrades at the study location and revisit in the future to evaluate conditions if there is an increase in pedestrian activities in the study area.

References:

1. https://nacto.org/docs/usdg/guidelines_for_installation_marked_crosswalks_dougald.pdf
2. <http://onlinepubs.trb.org/Onlinepubs/trr/1987/1141/1141-003.pdf>
3. <https://mutcd.fhwa.dot.gov/>
4. <https://vtrans.vermont.gov/sites/aot/files/highway/documents/ltf/VTrans%20Ped%20Crossing%20Guide%20August%202019%20Update.pdf>

CROSSWALK INSTALLATION GUIDELINES AND ANALYSIS

Town / City: Williston, VT

Route / Road Name: Mountain View Road

Description: Two-Way stop control with STOP signs on Old Stage Rd

Photo:

Analysis By: Sai Sarepalli Date: 10/14/2020

Looking west along Mountain View Road



Looking east along Mountain View Road

Type:

- X Controlled Approach Intersection
 Uncontrolled Approach intersection
 Mid Block Crossing

Characteristics:

Speed Limit: 40 mph
 Sight Distance: _____
 Required 305 ft
 Actual (east look south) > 500 ft
 Actual (east look north) >500 ft

Vehicle AADT 5,300 vpd Source: VTrans

Pedestrian Volume No count data – infrequent usage

Nearest X-Walk (ft): more than 2 mi

Pedestrian Characteristics:

Young None observed in the field
 Elderly None observed in the field
 Disabled _____
 Other _____

Adequate sight distance from both sides

Pedestrian Facilities:

Side 1 (N/S/E/W): North
 Type: Narrow grass Shoulder
 Acceptable for Peds? No

Side 2 (N/S/E/W): South
 Type: Sidewalk away from edge of pavement
 Acceptable for Peds? Needs a Ped ramp connecting existing sidewalk

Condition

Met (Y/N)	Guidance	Notes
Y	1. The speed limit is 40 mph or less;	85 th percentile speed tentative to be more than 40 mph.
N	2. There are 20 or more pedestrians using the crossing per hour, 15 elderly and/or children per hour during the vehicular A.M. and P.M. peak periods;	No pedestrians were observed in the field crossing Mountain View Rd. in PM peak period.
Y	3. The AADT for the roadway exceeds 3000 vehicles per day;	Estimated 2019 volume is approximately 5300 veh per day
N	4. A sidewalk or adequate shoulder for use by pedestrians exists on both sides of the roadway approach;	No sidewalk on north side along Old Stage Road.
Y	5. There is not another crosswalk across the same roadway within 200 ft of the intersection;	Nearest crosswalk is at Mountain View Rd and VT 2A
N	6. The crossing is on a direct route to or from a pedestrian generator, such as a school, library, hospital, senior center, park, employment center, and transit center or service;	
Y	7. Adequate sight distance (SSD) is available in both directions	

Crosswalk Guidance **NOT MET**

Notes

Vehicle speeds appear to be more than 40 mph on Mountain View Road. Very narrow gravel/grass shoulders, less than 1 ft, available for pedestrians along Old Stage Road. No pedestrian were observed crossing Mountain View Road from Old Stage Road, but some pedestrians were walking on sidewalk on the south side of Mountain View Road near the Adams Orchard store.