RUTLAND REGIONAL PLANNING COMIMISSION

## Memorandum

## TO: Town of Mt. Holly Selectboard

FROM: Devon Neary, Transportation Planner, Rutland Regional Planning Commission

DATE: December 13, 2021

## RE: Town-wide Traffic Study Report

The Rutland Regional Planning Commission (RRPC) is pleased to offer the results of a recent traffic study conducted on twelve (12) Class II \& III Town Highways in the Town of Mount Holly. The RRPC conducted the traffic counts at the request of the Town to evaluate the traffic speed, class, and volume. Eight traffic counts were collected in the Town of Mount Holly on Belmont Rd, Gates Rd, Healdville Rd, Hortonville Rd, Maple Hill Rd, Old Turnpike Rd, Shunpike Rd, and Tarbellville Rd. Four traffic counts were also collected within the Village of Belmont on Belmont Rd, Church St, Lake Rd, and Tarbellville Rd. The RRPC conducted the traffic counts using JAMAR Apollyon tube counters. The results of the study are summarized in the attached pages. Complete data on volume, speed and vehicle class by direction and time of day are available upon request from the RRPC.

If there are follow-up questions regarding the traffic counts, please do not hesitate the RRPC.

Thank you,


Devon Neary
Transportation Planner
Rutland Regional Planning Commission
cc: Jeff Chase, Mount Holly Selectboard


## SPEED DATA ANALYSIS MATRIX

| Road Name | Road <br> Class | Volume <br> (AADT) | Land- <br> Use <br> Type | Crash <br> History | Current <br> Speed <br> Limit | Requested <br> Speed <br> Limit | 85th <br> Percentile <br> Speed | 10 MPH <br> Pace <br> Speed |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gates Rd | III | 159 | Rural | LOW | 50 | 35 | 33 | $24-33$ |
| Belmont Rd | II | 332 | Rural | MED | 50 | 35 | 53 | $42-51$ |
| Old Turnpike Rd | III | 122 | Rural | LOW | 50 | 35 | 38 | $27-36$ |
| Hortonville Rd | II | 228 | Rural | MED | 50 | 35 | 47 | $36-45$ |
| Maple Hill Rd | III | 172 | Village | LOW | 50 | 35 | 38 | $29-38$ |
| Healdville Rd | II | 275 | Rural | HIGH | 50 | 35 | 48 | $37-46$ |
| Tarbellville Rd | II | 232 | Rural | LOW | 50 | 35 | 47 | $35-44$ |
| Shunpike Rd | III | 195 | Rural | LOW | 50 | 35 | 45 | $33-42$ |
| Belmont Rd | II | 310 | Village | LOW | 35 | 25 | 36 | $26-35$ |
| Lake St | III | 87 | Village | LOW | 35 | 25 | 30 | $19-28$ |
| Church St | II | 222 | Village | LOW | 35 | 25 | 21 | $13-22$ |
| Tarbellville Rd | II | 233 | Village | LOW | 35 | 25 | 36 | $27-36$ |


| Under/Within | Near Speed | Over Speed Limit |
| :---: | :---: | :---: |
| Speed Limit | Limit Change | Change |
| Change | $(<10 \mathrm{MPH})$ | $(>10 \mathrm{MPH})$ |

## CRASH HISTORY REPORT



Mount Holly, Crash History Report, 6/1/2011-6/1/2021

| Crash Date | Address | Crash Type | Weather | Time of Day | Condition |
| :---: | :---: | :---: | :---: | :---: | :---: |
| June 4, 2012, 1:47 PM | Healdville Rd. | Property Damage Only | Cloudy | Day | Wet |
| June 21, 2012, 3:42 PM | Healdville Rd. | Injury | Clear | Day | Dry |
| March 16, 2013, 1:30 AM | Healdville Rd. | Property Damage Only | Freezing Precipitation | Night | Snow |
| August 14, 2014, 4:44 PM | Healdville Rd. | Property Damage Only | Clear | Day | Dry |
| November 26, 2014, 2:54 PM | Old Turnpike Rd. | Injury | Freezing Precipitation | Day | Ice |
| July 13, 2015, 11:19 AM | Healdville Rd. | Injury | Clear | Day | Dry |
| October 5, 2015, 11:40 AM | Healdville Rd. | Injury | Cloudy | Day | Dry |
| October 10, 2015, 11:19 PM | Hortonville Rd. | Property Damage Only | Clear | Night | Dry |
| October 17, 2015, 2:01 PM | Belmont Rd. | Property Damage Only | Rain | Day | Wet |
| November 10, 2015, 7:30 PM | Healdville Rd. | Property Damage Only | Cloudy | Night | Wet |
| January 7, 2016, 5:19 PM | Tarbellville Rd. | Property Damage Only | Clear | Night | Dry |
| February 11, 2016, 12:47 PM | Healdville Rd. | Property Damage Only | Cloudy | Day | Snow |
| February 15, 2016, 8:30 PM | Hortonville Rd | Property Damage Only | Freezing Precipitation | Night | Snow |
| August 12, 2016, 11:27 PM | Hortonville Rd. | Injury | Clear | Night | Dry |
| November 7, 2016, 6:02 AM | Belmont Rd. | Injury | Clear | Day | Dry |
| December 30, 2016, 2:11 PM | Healdville Rd. | Property Damage Only | Cloudy | Day | Snow |
| February 15, 2017, 11:25 AM | Belmont Rd. |  |  | Day |  |
| March 11, 2017, 7:13 AM | Healdville Rd. | Property Damage Only | Clear | Day | Snow |
| March 11, 2017, 11:23 AM | Healdville Rd. | Property Damage Only | Freezing Precipitation | Day | Snow |
| March 25, 2017, 1:00 PM | Shunpike Rd. | Injury | Freezing Precipitation | Day | Snow |
| February 5, 2018, 7:30 AM | Healdville Rd. | Property Damage Only | Freezing Precipitation | Day | Wet |
| April 21, 2018, 2:07 PM | Belmont Rd. | Property Damage Only | Clear | Day | Dry |
| October 12, 2019, 4:35 PM | Healdville Rd. |  |  | Day |  |
| November 7, 2019, 5:50 PM | Healdville Rd. |  |  | Night |  |
| March 8, 2020, 4:22 AM | Belmont Rd. | Property Damage Only | Cloudy | Night | Dry |
| July 22, 2020, 4:59 AM | Belmont Rd. |  |  | Night |  |
| April 19, 2021, 5:45 AM | Belmont Rd. | Property Damage Only | Clear | Night | Dry |

## SPEED DATA ANALYSIS

## SPEED DATA ANALYSIS

## Location

Latitude: 43.432883
Longitude: -72.826473

Vehicles Analyzed


33

Peak Time of Violations


## 10/23/2021 1:56 PM

## Analysis Time Period



54

## 10 MPH Pace Speed

## (1) 24-33

## Total Enforceable Violations



## BELMONT ROAD

## SPEED DATA ANALYSIS

## Location

Latitude: 43.432011

Longitude: -72.824692

## Analysis Time Period



Vehicles Analyzed
Average Speed

$$
2,652
$$


Google
Speed Limit
Keyboard shortouts Map data ©2021 Terms of Use Report a map error
SPEED
LIMIT
35
35

(1) 42-51

Peak Time of Violations


## 10/21/2021 3:02 PM



2,062

## OLD TURNPIKE ROAD

## SPEED DATA ANALYSIS

## Location

Latitude: 43.453884


Longitude: -72.815765

Analysis Time Period


Vehicles Analyzed


Average Speed

## 072



Peak Time of Violations

## 10/20/2021

6:24 PM


38

# 9minaly school <br> Google <br> Keyboard shortouts Map data ©2021 Terms of Use Report a map error <br> Speed Limit <br> SPEED LIMIT 35 

(1) 27-36

Total Enforceable Violations


294

## SPEED DATA ANALYSIS

Latitude: 43.460403

Longitude: -72.816012

## Analysis Time Period



Vehicles Analyzed




10 MPH Pace Speed

## (1) $36-45$

Total Enforceable Violations


1,464

## SPEED DATA ANALYSIS

## Location

Latitude: 43.411407
Longitude: -72.821151



Vehicles Analyzed
Average Speed

$$
1,552
$$




85th Percentile Speed


Peak Time of Violations

## 10/28/2021 12:44 PM

Tobias Gabranski $\begin{aligned} & \text { Architecture }\end{aligned}$
(1) Village Baptist Church Healdville Rd
$\uparrow$ )

38


Total Enforceable Violations


66

## 10 MPH Pace Speed



## SPEED DATA ANALYSIS

Latitude: 43.416551
Longitude: -72.803234

## Analysis Time Period

|  | $\begin{gathered} \text { Start } \\ \text { 10/26/2021 } \end{gathered}$ | $\begin{aligned} & \text { End } \\ & 11 / 3 / 2021 \end{aligned}$ |
| :---: | :---: | :---: |
|  | 10:04 AM | 9:25 AM |
| $\square$ |  |  |

Vehicles Analyzed


$$
42
$$

85th Percentile Speed


48

Peak Time of Violations


## 11/1/2021 4:04 PM



Google
Speed Limit

| $\substack{\text { SPEED } \\ \text { LIMIT } \\ 35}$ |
| :---: |

## Fastest Speed



79

## 10 MPH Pace Speed

# (1) 37-46 

Total Enforceable Violations


2,121

## SPEED DATA ANALYSIS

## Location

Latitude: 43.413480
Longitude: -72.828726

Analysis Time Period


Start
End
10/26/2021 11/3/2021 10:10 AM 9:54 AM

Vehicles Analyzed


Average Speed


Google
Speed Limit



10 MPH Pace Speed
(1) 35-44

Total Enforceable Violations


1,622

## Location

Latitude: 43.451081
Longitude: -72.776862


Vehicles Analyzed


45
Peak Time of Violations


## 10/29/2021 3:30 PM



67

## 10 MPH Pace Speed

## (1) 33-42

Total Enforceable Violations


1,246

## SPEED DATA ANALYSIS

## Location

Latitude: 43.416115
Longitude: -72.821038

## Analysis Time Period <br>  <br> Start <br> 11/3/2021 11/9/2021 <br> 10:02 AM 9:26 AM



Vehicles Analyzed


Average Speed

Speed Limit


25


Total Enforceable Violations


1,703

## SPEED DATA ANALYSIS

## Location

Latitude: 43.415405
Longitude: -72.818952

## Analysis Time Period



Vehicles Analyzed


## 609

Average Speed

85th Percentile Speed


Peak Time of Violations
11/6/2021 1:06 PM
30


Google
Speed Limit
Keyboard shortouts Map data © 2021 Google Terms of Use Report a map error
25

(1) 19-28


240

## SPEED DATA ANALYSIS

## Location

Latitude: 43.414914
Longitude: -72.820754

## Analysis Time Period <br>  <br> Start End <br> 11/3/2021 11/9/2021 <br> 10:14 AM 9:37 AM

Vehicles Analyzed


## 1,553

Average Speed
$\int_{0}$

85th Percentile Speed


Speed Limit
Keyboard shortouts Map data ©2021 Google Terms of Use Report a map error
25

\section*{| SPEED |
| :---: |
| LIMIT |
| 25 | <br> $\underbrace{\text { SPEED }}_{\text {Fastest Speed }}$}


30
I) 13-22


10 MPH Pace Speed

Total Enforceable Violations


23

## SPEED DATA ANALYSIS

## Location

Latitude: 43.414521
Longitude: -72.821924

## Analysis Time Period


Start End

11/3/2021 11/9/2021
10:20 AM 9:38 AM

Vehicles Analyzed


Average Speed

1,628


85th Percentile Speed

$$
30
$$



Peak Time of Violations
11/4/2021 3:20 PM

36
(1) 27-36

Total Enforceable Violations


1,364

## TRAFFIC FORMS

## (COMPLETED BY TOWN STAFF)








| State of Vermont |  |  |  |  |  |  | New |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agency of Transportation |  |  |  |  |  |  | Repeal |  |
| Traffic Engineering Report for a SPEED LIMIT |  |  |  |  |  | Revise Existing |  |  |
| By: |  |  | Date: | 10/1/21 |  |  |  | Page 1 of 2 |
| Study Location |  |  |  |  |  | Shunpike Rd |  |  |
|  | Town | Mount Holly |  |  | Route | Shunpik | ke Rd |  |
|  | Village |  |  |  | From MP |  |  |  |
|  | County | Rutland |  |  | To MP |  |  |  |
|  |  |  |  |  | Length | 3.72 miles |  |  |
| Recommendation |  |  |  |  |  |  |  |  |
|  | Recommending entire length set to 35mph.mmended by: Jchasede |  |  |  |  |  |  |  |
| Recommended by: Jchase |  |  |  |  |  | Date: | 10/1/21 |  |
| Speed Studies |  |  | Posted | 85th \%ile |  |  |  |  |
|  | Setup \# | Milepoint | Speed | Speed | Comments |  |  |  |
|  | 1 |  |  |  |  |  |  |  |
|  | 2 |  |  |  |  |  |  |  |
|  | 3 |  |  |  |  |  |  |  |
|  | 4 |  |  |  |  |  |  |  |
| Crash Data |  |  |  |  |  |  |  |  |
| From Year |  |  | 2000 |  | Total Number |  | 3 |  |
|  |  | To Year | 2021 |  | Injury Number |  | 1 |  |
| Crash Rate/Critical Rate |  |  |  |  | Fatality Number |  | 0 |  |
| Types of crashes (number) |  |  | 1 ea single vehicle crashes |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Roadside Characteristics |  |  |  |  |  |  |  |  |
| State/Town Highway Junctions |  |  | 5 |  |  |  |  |  |
| Number of Drives |  |  | 1 |  |  |  |  |  |
| Number of Houses |  |  | 58 |  |  |  |  |  |
| Number of Small Businesses |  |  | 0 |  |  |  |  |  |
| List Major Businesses |  |  | 0 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Paved | Gravel |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Pedestrian Crossings |  |  |  |  |  |  |  |  |
|  | Milepoint | Marked | Unmarked | School | Midblock | Intersection |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |





## SETTING LOCAL SPEED LIMITS

## VERMONT GUIDE TO SETTING SPEED LIMITS

Principles for setting speed limits:

1. Protect the public and curb unreasonable behavior.
2. Public must believe that the law is reasonable.

Practices for setting speed limits:

1. Consider the road characteristics: surface type and condition; presence and size of shoulders; presence of passing zones; slope and curves; and other elements.
2. Monitor traffic volume and speed: emphasis on the $85^{\text {th }}$ percentile speed and 10 MPH pace speeds.
3. Consider the land-use type: rural vs village; school zones; residential areas.
4. Determine the safe speed for critical curves.
5. Monitor parking practices and bicycle/pedestrian activity.
6. Record the crash history on the road.

Resources:

1. Setting Speed Limits: A Guide for Vermont Towns (Vermont Local Roads, 2016) http://localroads.vermont.gov/sites/localroads/files/files/resources/materials/Setting\ Speed\ Li mits\%20Guide\%20Update\%20August\%202016.pdf
2. Local Speed Limit Statute (23 VSA 1007)
https://legislature.vermont.gov/statutes/section/23/013/01007
3. Vermont Public Crash Data Query Tool
http://apps.vtrans.vermont.gov/CrashPublicQueryTool/
4. VTrans Town Highway Maps
http://vtransmaps.vermont.gov/mapsftp/current.asp
5. VTrans Transportation Data Management System
http://vtrans.ms2soft.com/tcds/tsearch.asp?loc=Vtrans\&mod=

## 23 VSA 1007 - LOCAL SPEED LIMITS

(a)(1) The legislative body of a municipality may establish, on the basis of an engineering and traffic investigation, a speed limit on all or a part of any city, town, or village highway within its jurisdiction, which:
(A) is not more than 50 miles per hour; however, after considering neighborhood character, abutting land use, bicycle and pedestrian use, and physical characteristics of the highways, the legislative body of a municipality may vote to set the maximum speed limit, without an engineering and traffic investigation, at not more than 50 miles per hour nor less than 35 miles per hour, on all or a portion of unpaved town highways within its boundaries, unless otherwise posted in accordance with the provisions of this section; or
(B) is not less than 25 miles per hour.
(2) If the legislative body of a municipality votes to set the speed limit on all unpaved town highways in its boundaries at no more than 50 miles per hour nor less than 35 miles per hour as provided for in subdivision (a)(1) of this section, signs shall be located at points of change from one speed limit to another.
(b) The legislative body of a city may establish, on the basis of an engineering and traffic investigation, a speed limit on all or a part of any State highway, other than a limited access highway, within its jurisdiction, which:
(1) is not more than 50 miles per hour; or
(2) is not less than 25 miles per hour.
(c) Any altered limit is effective at all times or during hours of darkness or at other times as may be determined when appropriate signs giving notice are erected upon the street or highway.
(d) The special regulations have the full force and effect of law and are in the case of regulations adopted under subsections (a) and (b) of this section subject to review by the Traffic Committee, whose decision is final.
(e) Lack of evidence of a traffic and engineering study will not invalidate a local speed limit ordinance as adopted or amended under this section after five years following the day on which the speed limit ordinance took effect.
(f) Notwithstanding the procedure outlined in this section for enacting a local speed limit, a town or village may adopt a local speed ordinance on a State highway, other than on limited access highways, provided the ordinance duplicates the speed limit established under section 1003 of this title.
(g) Notwithstanding any requirements of section 1025 of this title, downtown development districts designated under 24
V.S.A. chapter 76A may have posted speed limits of less than 25 miles per hour. (Added 1971, No. 258 (Adj.

Sess.), § 3, eff. March 1, 1973; amended 1973, No. 239 (Adj. Sess.), § 2; 1975, No. 232 (Adj. Sess.), § 9, eff. April 7, 1976; 1989, No. 261 (Adj. Sess.), § 1, eff. June 16, 1990; 1995, No. 133 (Adj. Sess.), § 2; 1997, No. 120 (Adj. Sess.), § 7; 1999, No. 32, § 1.)

