

# Southern Windsor County 2012 Traffic Count Program Summary

April 2013



The Southern Windsor County Regional Planning Commission (the “RPC”) regularly monitors traffic at 19 locations throughout the southern Windsor County region (the “Region”). Traffic is monitored through the use of automatic traffic counters, which track three types of traffic related data:

- Traffic volume (number of vehicle trips at a specified location);
- Vehicle classification (passenger car, pick-up truck, tractor trailer, etc.); and
- Approximate speed of the vehicles.

The RPC collects and analyzes the traffic data as part of their annual transportation program. This information is valuable in understanding traffic flow trends over time and to support the decision-making process related to road maintenance and project development. The Vermont Agency of Transportation (VTrans) has a large, Statewide traffic count program. VTrans counters are typically placed out at each location once every three or four years. The RPC traffic count program is intended to supplement VTrans’ traffic data in this Region. The RPC also performs traffic counts at the request of towns on a limited first-come, first-served basis.

## 2012 Traffic Counts

Traffic counts have been regularly performed at 19 locations throughout the Region since 1999, although no regular counts were collected in 2012. Each location is typically surveyed for one to two weeks, avoiding periods of irregular traffic flows, such as July 4<sup>th</sup> or Labor Day weekend. These data are presented in terms of Average Daily Traffic, Average Weekday Traffic and Annual Average Daily Traffic. Data are also summarized in this report including vehicle classification as a percentage of the total traffic volume and vehicle speed.

The end of the report has detailed summaries of each 2012 count locations. Raw data is available by request. AADT calculations are based on the 2012 Continuous Traffic Counter Grouping Study and Regression Analysis (“Red Book”, VTrans, 2013). In 2012, the following counts were carried out in the region:

<i>Station</i>	<i>Town</i>	<i>Route/Road</i>	<i>Location</i>
<b>2012_21</b>	Ludlow	High Street	250ft east of North Depot Street
<b>2012_22</b>	Ludlow	Route 100	0.4 miles south of Site 1 Road
<b>2012_23</b>	Baltimore	Harris Road (Chester townline)	200 feet north of 1138 Harris Road (stone house)
<b>2012_24</b>	Baltimore	Baltimore Road (Weathersfield T/L)	100 feet north of 4235 Baltimore Road
<b>2012_25</b>	Baltimore	Baltimore Road (Springfield T/L)	150 feet east of 399 Baltimore Road
<b>2012_26</b>	Ludlow	High Street	300ft west of Smith Street

Traffic count data is also collated and sometimes collected by the Vermont Agency of Transportation (VTrans). Traffic Count reports are published online at <http://vtransplanning.vermont.gov/research/traffic/publications>. Counts from most locations are available in the “Automatic Traffic Recorder Station History” reports and include interstates and state highways as well as some local roads. Some of the counts also have information about what type of vehicles (cars, motorcycles, buses and trucks) used the roads (“Automatic Vehicle Classification Reports”). One of the counters in Ludlow is permanently collecting data (P6Y209 – on Okemo Mountain Road 300ft from VT103). Data for this site is available in the “Red Book” ([2012 Continuous Traffic Counter Grouping Study and Regression Analysis Report](#)).

**Southern Windsor County Regional Planning Commission  
2012 Traffic Count Summary**

**Station # 21**

Time Period: 04/18/12 through 05/02/12  
 Count ID: LUD021SPD/CLS  
 Town: Ludlow, VT  
 Road: High Street (TH 4)  
 Location: 250ft east of North Depot Street

<b>Average Daily Traffic Summary</b>	
Average Weekday Traffic	621
Average Weekend Traffic	553
Average Daily Traffic	603
Annual Average Daily Traffic	624

Day	Date	Vehicle Volumes			Vehicle Class			Total
		WB	EB	Total	Passenger Vehicles	Single-Unit Trucks	Tractor-Trailer Trucks	
W	4/18/2012	486	196	682				
T	4/19/2012	509	198	707				
F	4/20/2012	503	193	696				
S	4/21/2012	434	163	597				
S	4/22/2012	278	140	418				
M	4/23/2012	330	146	476				
T	4/24/2012	369	150	519				
W	4/25/2012	410	169	579				
T	4/26/2012	471	183	654				
F	4/27/2012	454	155	609				
S	4/28/2012	463	174	637				
S	4/29/2012	395	164	559				
M	4/30/2012	461	177	638				
T	5/1/2012	403	154	557				
W	5/2/2012	507	205	712				
<b>TOTAL</b>		<b>6,473</b>	<b>2,567</b>	<b>9,040</b>	<b>8,571</b>	<b>449</b>	<b>20</b>	<b>9,040</b>
<b>AVERAGE DAILY</b>		<b>432</b>	<b>171</b>	<b>603</b>	<b>94.8%</b>	<b>5.0%</b>	<b>0.2%</b>	<b>100.0%</b>

**Posted Speed Limit: 25 mph**

Vehicle Speeds (mph) Westbound		
Median	Average	85th Percentile
27	28	32

Vehicle Speeds (mph) Eastbound		
Median	Average	85th Percentile
25	25	31

**NOTES:**

- Passenger vehicle class includes motorcycles, passenger cars, pickup trucks and SUVs (FHWA Veh. Classes 1-3)
- Single-unit truck class includes school buses, 2-axle, 3-axle and 4-axle trucks (FHWA 4-7)
- Tractor-trailer truck class includes heavy-duty vehicles with more than four axles (FHWA 8-13)

One way road heading westbound just west of road section - hence lower volumes travelling eastbound

**Southern Windsor County Regional Planning Commission  
2012 Traffic Count Summary**

**Station # 22**

Time Period: 04/18/12 through 05/02/12  
 Count ID: LUD022SPD/CLS  
 Town: Ludlow, VT  
 Road: VT-100 (South of Ludlow Village)  
 Location: 0.4 miles south of Site 1 Road (TH64)

<b>Average Daily Traffic Summary</b>	
Average Weekday Traffic	951
Average Weekend Traffic	887
Average Daily Traffic	934
Annual Average Daily Traffic	1,000

Day	Date	Vehicle Volumes			Vehicle Class			Total
		NB	SB	Total	Passenger Vehicles	Single-Unit Trucks	Tractor-Trailer Trucks	
W	4/18/2012	459	467	926				
T	4/19/2012	500	480	980				
F	4/20/2012	575	591	1,166				
S	4/21/2012	493	499	992				
S	4/22/2012	353	348	701				
M	4/23/2012	441	445	886				
T	4/24/2012	446	458	904				
W	4/25/2012	405	445	850				
T	4/26/2012	464	456	920				
F	4/27/2012	524	492	1,016				
S	4/28/2012	509	470	979				
S	4/29/2012	433	442	875				
M	4/30/2012	472	477	949				
T	5/1/2012	419	456	875				
W	5/2/2012	510	476	986				
<b>TOTAL</b>		<b>7,003</b>	<b>7,002</b>	<b>14,005</b>	<b>12,083</b>	<b>1,760</b>	<b>162</b>	<b>14,005</b>
<b>AVERAGE DAILY</b>		<b>467</b>	<b>467</b>	<b>934</b>	<b>86.3%</b>	<b>12.6%</b>	<b>1.2%</b>	<b>100.0%</b>

**Posted Speed Limit: 50 mph**

<b>Vehicle Speeds (mph) Northbound</b>		
Median	Average	85th Percentile
<b>54</b>	<b>53</b>	<b>61</b>

<b>Vehicle Speeds (mph) Southbound</b>		
Median	Average	85th Percentile
<b>54</b>	<b>53</b>	<b>61</b>

**NOTES:**

- Passenger vehicle class includes motorcycles, passenger cars, pickup trucks and SUVs (FHWA Veh. Classes 1-3)
- Single-unit truck class includes school buses, 2-axle, 3-axle and 4-axle trucks (FHWA 4-7)
- Tractor-trailer truck class includes heavy-duty vehicles with more than four axles (FHWA 8-13)

**Southern Windsor County Regional Planning Commission  
2012 Traffic Count Summary**

**Station # 23**

Time Period: 07/19/2012 thru 07/31/2012  
 Count ID: BAL023SPD/CLS  
 Town: Baltimore, VT  
 Road: Harris Road  
 Location: 200 feet north of stone house (1138 Harris Road)

<b>Average Daily Traffic Summary</b>	
Average Weekday Traffic	53
Average Weekend Traffic	44
Average Daily Traffic	50
Annual Average Daily Traffic	45

Day	Date	Vehicle Volumes			Vehicle Class			Total
		NB	SB	Total	Passenger Vehicles	Single-Unit Trucks	Tractor-Trailer Trucks	
T	7/19/2012	30	25	55				
F	7/20/2012	24	29	53				
S	7/21/2012	26	21	47				
S	7/22/2012	21	23	44				
M	7/23/2012	23	22	45				
T	7/24/2012	18	21	39				
W	7/25/2012	26	23	49				
T	7/26/2012	30	32	62				
F	7/27/2012	38	40	78				
S	7/28/2012	25	21	46				
S	7/29/2012	23	16	39				
M	7/30/2012	26	21	47				
T	7/31/2012	27	21	48				
<b>TOTAL</b>		337	315	652	601	49	2	652
<b>AVERAGE DAILY</b>		<b>26</b>	<b>24</b>	<b>50</b>	<b>92.2%</b>	<b>7.5%</b>	<b>0.3%</b>	<b>100.0%</b>

**Posted Speed Limit: 35 mph**

Vehicle Speeds (mph) Northbound		
Median	Average	85th Percentile
26	26	34

Vehicle Speeds (mph) Southbound		
Median	Average	85th Percentile
21	21	31

**NOTES:**

- Passenger vehicle class includes motorcycles, passenger cars, pickup trucks and SUVs (FHWA Veh. Classes 1-3)
- Single-unit truck class includes school buses, 2-axle, 3-axle and 4-axle trucks (FHWA 4-7)
- Tractor-trailer truck class includes heavy-duty vehicles with more than four axles (FHWA 8-13)

**Southern Windsor County Regional Planning Commission  
2012 Traffic Count Summary**

**Station # 24**

Time Period: 07/19/2012 thru 07/31/2012  
 Count ID: BAL024SPD/CLS  
 Town: Baltimore, VT  
 Road: Baltimore Road (Weathersfield end)  
 Location: 100 feet north of Townline Sugary (4235 Baltimore Road)

<b>Average Daily Traffic Summary</b>	
Average Weekday Traffic	204
Average Weekend Traffic	185
Average Daily Traffic	198
Annual Average Daily Traffic	164

Day	Date	Vehicle Volumes			Vehicle Class			
		NB	SB	Total	Passenger Vehicles	Single-Unit Trucks	Tractor-Trailer Trucks	Total
T	7/19/2012	112	107	219				
F	7/20/2012	90	97	187				
S	7/21/2012	96	91	187				
S	7/22/2012	87	90	177				
M	7/23/2012	93	96	189				
T	7/24/2012	95	90	185				
W	7/25/2012	104	103	207				
T	7/26/2012	96	94	190				
F	7/27/2012	123	118	241				
S	7/28/2012	94	99	193				
S	7/29/2012	93	88	181				
M	7/30/2012	96	97	193				
T	7/31/2012	115	107	222				
<b>TOTAL</b>		<b>1,294</b>	<b>1,277</b>	<b>2,571</b>	<b>2,459</b>	<b>106</b>	<b>6</b>	<b>2,571</b>
<b>AVERAGE DAILY</b>		<b>100</b>	<b>98</b>	<b>198</b>	<b>95.6%</b>	<b>4.1%</b>	<b>0.2%</b>	<b>100.0%</b>

**Posted Speed Limit: 35 mph**

Vehicle Speeds (mph) Northbound		
Median	Average	85th Percentile
<b>28</b>	<b>28</b>	<b>35</b>

Vehicle Speeds (mph) Southbound		
Median	Average	85th Percentile
<b>31</b>	<b>31</b>	<b>37</b>

**NOTES:**

- Passenger vehicle class includes motorcycles, passenger cars, pickup trucks and SUVs (FHWA Veh. Classes 1-3)
- Single-unit truck class includes school buses, 2-axle, 3-axle and 4-axle trucks (FHWA 4-7)
- Tractor-trailer truck class includes heavy-duty vehicles with more than four axles (FHWA 8-13)

**Southern Windsor County Regional Planning Commission  
2012 Traffic Count Summary**

**Station # 25**

Time Period: 07/19/2012 thru 07/30/2012  
 Count ID: BAL025SPD/CLS  
 Town: Baltimore, VT  
 Road: Baltimore Road (Springfield end)  
 Location: 150 east of driveway of 399 Baltimore Road (about 750 feet east of Gould Road)

<b>Average Daily Traffic Summary</b>	
Average Weekday Traffic	334
Average Weekend Traffic	319
Average Daily Traffic	329
Annual Average Daily Traffic	295

Day	Date	Vehicle Volumes			Vehicle Class			
		NB	SB	Total	Passenger Vehicles	Single-Unit Trucks	Tractor-Trailer Trucks	Total
T	7/19/2012	169	181	350				
F	7/20/2012	206	197	403				
S	7/21/2012	180	179	359				
S	7/22/2012	163	175	338				
M	7/23/2012	157	155	312				
T	7/24/2012	160	170	330				
W	7/25/2012	163	162	325				
T	7/26/2012	159	164	323				
F	7/27/2012	158	161	319				
S	7/28/2012	152	146	298				
S	7/29/2012	137	143	280				
M	7/30/2012	162	150	312				
<b>TOTAL</b>		<b>1,966</b>	<b>1,983</b>	<b>3,949</b>	<b>3,608</b>	<b>310</b>	<b>31</b>	<b>3,949</b>
<b>AVERAGE DAILY</b>		<b>164</b>	<b>165</b>	<b>329</b>	<b>91.4%</b>	<b>7.9%</b>	<b>0.8%</b>	<b>100.0%</b>

**Posted Speed Limit: 35 mph**

Vehicle Speeds (mph) Northbound		
Median	Average	85th Percentile
<b>31</b>	<b>32</b>	<b>37</b>

Vehicle Speeds (mph) Southbound		
Median	Average	85th Percentile
<b>29</b>	<b>30</b>	<b>35</b>

**NOTES:**

Passenger vehicle class includes motorcycles, passenger cars, pickup trucks and SUVs (FHWA Veh. Classes 1-3)  
 Single-unit truck class includes school buses, 2-axle, 3-axle and 4-axle trucks (FHWA 4-7)  
 Tractor-trailer truck class includes heavy-duty vehicles with more than four axles (FHWA 8-13)

**Southern Windsor County Regional Planning Commission  
2012 Traffic Count Summary**

**Station # 26**

Time Period: 06/28/12 through 07/09/12  
 Count ID: LUD026SPD/CLS  
 Town: Ludlow, VT  
 Road: High Street (TH 4)  
 Location: 300ft west of Smith Street (opposite 27 High St)

<b>Average Daily Traffic Summary</b>	
Average Weekday Traffic	792
Average Weekend Traffic	733
Average Daily Traffic	773
Annual Average Daily Traffic	787

Day	Date	Vehicle Volumes			Vehicle Class			
		WB	EB	Total	Passenger Vehicles	Single-Unit Trucks	Tractor-Trailer Trucks	Total
T	6/28/2012	550	221	771				
F	6/29/2012	739	192	931				
S	6/30/2012	577	193	770				
S	7/1/2012	566	207	773				
M	7/2/2012	531	208	739				
T	7/3/2012	635	208	843				
W	7/4/2012	506	186	692				
T	7/5/2012	565	206	771				
F	7/6/2012	661	235	896				
S	7/7/2012	562	172	734				
S	7/8/2012	465	190	655				
M	7/9/2012	491	204	695				
<b>TOTAL</b>		<b>6,848</b>	<b>2,422</b>	<b>9,270</b>	<b>9,090</b>	<b>167</b>	<b>13</b>	<b>9,270</b>
<b>AVERAGE DAILY</b>		<b>571</b>	<b>202</b>	<b>773</b>	<b>98.1%</b>	<b>1.8%</b>	<b>0.1%</b>	<b>100.0%</b>

**Posted Speed Limit: 25 mph**

Vehicle Speeds (mph) Westbound		
Median	Average	85th Percentile
<b>28</b>	<b>29</b>	<b>34</b>

Vehicle Speeds (mph) Eastbound		
Median	Average	85th Percentile
<b>25</b>	<b>25</b>	<b>31</b>

**NOTES:**

- Passenger vehicle class includes motorcycles, passenger cars, pickup trucks and SUVs (FHWA Veh. Classes 1-3)
- Single-unit truck class includes school buses, 2-axle, 3-axle and 4-axle trucks (FHWA 4-7)
- Tractor-trailer truck class includes heavy-duty vehicles with more than four axles (FHWA 8-13)

One way road heading westbound just west of road section - hence lower volumes travelling eastbound

## Traffic Terms and Abbreviations

**AADT** - Annual Average Daily Traffic is the term used to show the average traffic volume in both directions on a section of road, adjusted for seasonal variation. VTrans recommended methodology and adjustment factors have been used to determine the AADT at each location.

**ADT** – Average Daily Traffic is the unadjusted, average number of vehicles passing in both directions at a specified location of a roadway.

**Average Weekday Traffic** – Average Weekday Traffic is similar to ADT, however, excludes weekend traffic volumes.

**Average Weekend Traffic** – Average Weekend Traffic is the unadjusted, average number of vehicles on weekend days only.

**Direction of Travel** – Some data are summarized based on the generalized direction of travel on a roadway: northbound (NB), southbound (SB), eastbound (EB) or westbound (WB).

**Vehicle Classification** – The type of vehicle is based on the Federal Highway Administration's (FHWA) 13 separate classes of vehicles. For the purposes of this report, vehicle class is summarized into three groups:

- **Passenger Vehicles** - Passenger vehicle class includes motorcycles, passenger cars, pickup trucks and SUVs (FHWA Classes 1-3)
- **Single-Unit Trucks** - Single-unit truck class includes school buses, 2-axle, 3-axle and 4-axle single-unit trucks (FHWA Classes 4-7; also called medium-duty trucks or "mediums")
- **Tractor Trailer Trucks** - Tractor-trailer truck class includes heavy-duty vehicles with four or more axles; a semi-tractor pulling a trailer(s), i.e. a "semi" or "18-wheeler" (FHWA Classes 8-13 or "heavies")

**Vehicle Speed** – Vehicular speed of travel is measured in miles per hour (mph), and for the purpose of this report is described in three ways:

- **Median Speed** – Statistical measurement based on the 50<sup>th</sup> percentile vehicle speed at the specified location. One-half of the vehicles in the sample travel faster, and one-half travel slower than the median speed.
- **Average Speed** – Average or mean travel speed of all vehicles at a specified location.
- **85<sup>th</sup> Percentile Speed** – The speed below which 85 percent of motorists travel at a specified location. The 85<sup>th</sup> percentile speed is typically used by transportation engineers as the basis for setting the posted speed limit, although other factors should also be considered.