

### **BERRY SURVEYING & ENGINEERING**

335 Second Crown Point Road Barrington, NH 03825 Phone: (603) 332-2863 Fax: (603) 335-4623 www.BerrySurveying.Com August 21, 2023

Town of Barrington Planning Office Attention: Vanessa Price, Town Planner 4 Signature Drive P.O. Box 660 Barrington, NH 03825

RE: Trip Generation & Distribution Paul Thibodeau Young Road Tax Map 240, Lot 8 Barrington, NH 03825

Ms. Price & Members of the Board,

Pursuant to the Town of Barrington Subdivision Regulations, Berry Surveying & Engineering (BS&E), on behalf of Paul Thibodeau and Young Road LLC, has prepared a Trip Generation and Distribution Analysis for the development of twenty-three single family residences on Tax Map 240, Lot 8. The three points of analysis are the vicinity of Young Road and the proposed driveways, the intersection of Young Road & NH Route 9, and the intersection of Young Road, Beauty Hill Road, and Union Lake Road. There are a total of thirteen driveway cuts proposed in a span of 2,300 linear feet along Young Road.

The following conclusions were reached as a result Trip Generation & Distribution:

- A total of 20 vehicle trips (5 enter/15 exit) are predicted to occur at the AM peak hour and 25 vehicle trips (16 enter/6 exit) at the PM peak hour for the subdivision.
- A total of 3 vehicle trips are predicted to occur at the AM peak hour and 8 vehicle trips at the PM peak hour for the intersection of NH Route 9/Young Road, for trips originating <u>from</u> NH Route 9.
- A total of 10 vehicle trips are predicted to occur at the AM peak hour and 5 vehicle trips at the PM peak hour for the intersection of NH Route 9/Young Road, for trips originating <u>from</u> the subdivision.
- A total of 7 vehicle trips are predicted to occur at the AM peak hour and 13 vehicle trips at the PM peak hour for the intersection of Young Road/Beauty Hill Road/Union Lake Road.
- In general, residential generation and distribution from this development represents a small fraction of the existing volumes found on Young Road and surrounding areas. In addition the small generation is metered throughout the day and peak times whereas abutting commercializing land uses generate volumes that are considerably higher during one period of time.

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23 Lot Subdivision Trip Generation & Distribution	August 21, 2023

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#### Proposed Development & Introduction

The proposal is to subdivide Tax Map 240, Lot 8 into twenty-three single family lots in a frontage subdivision format along Young Road. The following lots are grouped together by driveway access (thirteen driveways total): Lots 8-1 & 8-2 share driveway access, lots 8-3 - 8-5 share driveway access, lots 8-6 & 8-7 share driveway access, lot 8-8 utilizes its own driveway, lots 8-9 & 8-10 share driveway access, lot 8-11 utilizes its own driveway, lots 8-12 & 8-13 share driveway access, lots 8-14 & 8-15 share driveway access, lots 8-18 & 8-19 share driveway access, lots 8-20 & 8-21 share driveway access, lot 8-22 utilizes its own driveway, and lot 8-23 utilizes its own driveway. Driveways over 150 feet long are eighteen feet in width and driveways less than 150 feet are a minimum of fifteen feet wide. Off-street parking will consist of individual driveways, providing adequate parking for house lots. On street parking is not be permitted on Young Road. The three points of analysis are the vicinity of Young Road and the proposed driveways, the intersection of Young Road & NH Route 9, and the intersection of Young Road/Beauty Hill Road/Union Lake Road. The purpose of this analysis is to determine the maximum number of trips coming to and leaving Young Road generated by the proposed subdivision during certain peak periods of the day. This information is then used in determining the impact on safety as it relates to the existing roadway infrastructure. The following components of the analysis are typical for a project of this size pursuant to the Institute of Traffic Engineers (ITE) manual.

#### Existing Conditions

#### Existing Site Description

The existing site consists of Tax Map 240, Lot 8 containing 2,855,458 Sq. Ft. (65.55 Ac.) of land. Tax Map 240, Lot 8 is a vacant lot that is primarily wooded and slopes down to an open area of prime wetland. Tax Map 240, Lot 8 is located in the Neighborhood Residential Zone. The intersection of Young Road and NH Route 9 is located approximately 0.2 miles to the north of the northernmost parcel boundary. The intersection of Young Road/Beauty Hill Road/Union Lake Road is located approximately 0.6 miles to the south of the southernmost parcel boundary.

#### Young Road

Young Road is a two-lane paved local road. This road provides access to NH Route 9 to the north and Beauty Hill Road and Union Lake Road to the south. It has an Average Annual Daily Traffic (AADT) of approximately 1,460 (2023) divided between north and south, as shown in the traffic counts performed by Accurate Counts. (July 13<sup>th</sup> through July 15<sup>th</sup>, 2023)



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Young Road in the area of the project is composed of a paved variable width, twentyone- to twenty-four-foot-wide paved surface with the narrowest section being located closer towards the southern end of the subject parcel. There is centerline delineation and fog / edge lines provided. The posted speed limit of the roadway is 30 miles per hour (MPH). The geometry of Young Road in the area of subject parcel is a combination of curves and tangent lengths with varying crest and sag locations along the roadway. The grades experienced along Young Road range from relatively flat (1% or less) to nearly 9% in certain locations. There are no existing sidewalks, crosswalks, or other pedestrian amenities in the area of the project. There is no public transit available within the proximity to the project.

#### NH Route 9 / Franklin Pierce Highway

Approximately 0.2 miles to the north of the project site is the three-way, partial stopcontrolled intersection of NH Route 9 and Young Road. The Young Road leg is stop controlled (stop sign & stop bar) while NH Route 9 is un-interrupted flow. NH Route 9 is a two-lane major collector road, according to the NHDOT MS2 Transportation Management System (NHDOT) with a posted speed limit of 40 miles per hour (MPH). This road provides access to NH Route 125 and the Barrington town center to the east and more rural parts of Barrington and Nottingham/Northwood to the west. It has an Average Annual Daily Traffic (AADT) of approximately 7,175 (2022) divided between east and west, also as shown by the NHDOT. The NH Route 9 AADT provided is located at the intersection of NH Route 9 and NH Route 125, as there is no AADT provided by the NHDOT at location ID 82027015, the intersection of NH Route 9 and NH Route 126.

#### NH Route 126 / Church Street

Approximately 0.8 miles from the intersection of Young Route and NH Route 9 (1.0 miles from the northern edge of the subject parcel) is the three-way, partial stopcontrolled intersection of NH Route 9 and NH Route 126. The legs coming from NH 126 to NH Route 9 are stop controlled (stop sign & stop bar). NH Route 126 is a two-lane minor collector road according to the NHDOT with a posted speed limit of 40 MPH. This road provides access to US Route 202 and Strafford to the west and NH Route 9/Barrington to the east. It has an Average Annual Daily Traffic (AADT) of approximately 3,068 (2022) divided between east and west, also as shown by the NHDOT.



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#### NH Route 125 / Calef Highway

Approximately 2.0 miles from the intersection of Young Road and NH Route 9 (2.2 miles from the northern edge of the subject parcel) is the four way, signalized intersection of NH Route 9 and NH Route 125. NH Route 125 has a posted speed limit of 35 MPH in this area and is considered a principal arterial road according to the NHDOT, providing access to Rochester/NH Route 16 to the north and Lee/US Route 4 to the south. NH Route 125 contains of three north bound lanes (left, through, through + right) and three south bound lanes (left, through, through + right) in the area of the intersection of NH Route 9 and NH Route 125, with an Average Annual Daily Traffic (AADT) of 21,296 (2022) divided between north and south. NH Route 9 contains of three east bound lanes (left, through, right) and three west bound lanes (left, through, right) at this intersection.

#### Beauty Hill Road & Union Lake Road

Approximately 0.6 miles to the south of the project site is the four-way, partial stopcontrolled intersection of Young Road/Beauty Hill Road/Union Lake Road. Beauty Hill Road is stop controlled (stop sign and stop bar) and is a class V paved local roadway providing access to NH Route 125. Union Lake Road is stop controlled (no stop sign or stop bar) and is a class VI gravel local road. Beauty Hill Road and Union Lake Road run east-west and Young Road continues to the south of this intersection as un-interrupted flow. It is notable that Young Road provides access to Swains Lake. Young Road likely experiences seasonal peaks based upon recreational opportunities. This is accounted for by applying a seasonal adjustment factor to Young Road traffic volumes, which is discussed in detail later in the report. A seasonal peaking factor is provided on all traffic counts within this analysis to account for peak seasonal traffic volumes. The following figure shows Young Road in relation to the surrounding road network. The stars shown on the figure indicate the approximate location of the subject parcel along Young Road.



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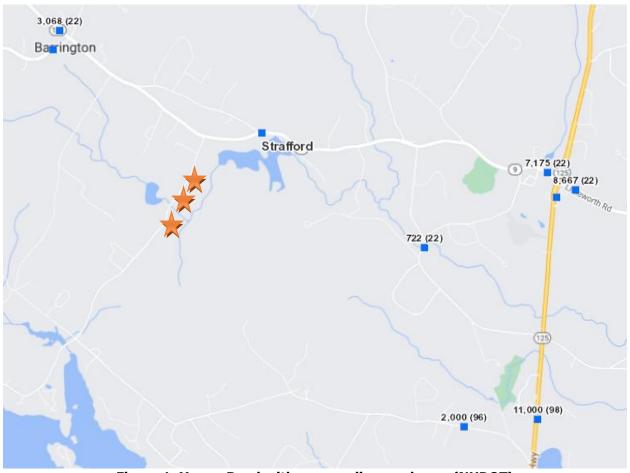


Figure 1: Young Road with surrounding roadways (NHDOT)

#### **Existing Traffic Volumes**

#### Young Road Traffic Volumes

According to traffic counts recorded by Accurate Counts for July 13-14, 2023, Young Road experienced weekday AM and PM, two-way peaks of 106 trips and 135 trips, respectively. It was found that Young Road has an AADT of 1,460 vehicles.

The highest weekday peak hour traffic volume on this section of Young Road northbound occurred from 7:15-8:15 AM with 79 vehicles and from 4:45-5:45 PM with 68 vehicles. Southbound highest weekday peak hour traffic volume occurred from 8-9 AM with 39 vehicles and from 4:45-5:45 PM with 71 vehicles. Table #1 shows the traffic direction breakdown of Young Road and Figures 2-4 are graphical representations of the traffic variations occurring throughout the day. It can be seen from the directional percent distribution that the primary direction of travel during the weekday AM peak



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hour is northbound towards the intersection of Young Road/NH Route 9 and PM peak hour split nearly 50/50 in the north and south directions. Traffic Counts of Young Road including 15-minute interval evaluations of the peak hours are provided in Appendix A.

Traffic Distribution Young Road July 2023 Traffic Count								
Date	Nor	thbound	Southbo	Two-Way				
Thursday 7/13/23	AM Peak	79	AM Peak	39	AM Peak	106		
1110150ay 7/15/25	PM Peak	64	PM Peak	71	PM Peak	135		
Friday 7/14/23	AM Peak	58	AM Peak	33	AM Peak	90		
Phuay 7/14/25	PM Peak	68	PM Peak	56	PM Peak	122		
Two Day Average	AM Peak	69	AM Peak	36	AM Peak	98		
Peak Hour Traffic	PM Peak 66		PM Peak	64	PM Peak	129		
% Distribution	AM Peak	65.6	AM Peak	34.4				
70 DISTRIBUTION	PM Peak	51.0	PM Peak	49.0				

Table 1: Directional breakdown of trips Young Road

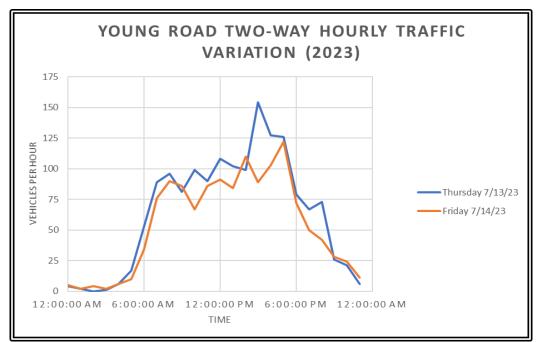


Figure 2: Graph of Young Road two-way hourly traffic variation

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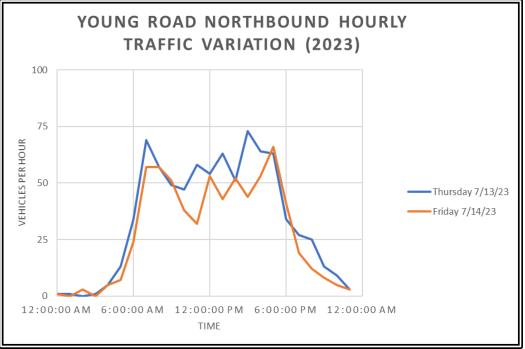


Figure 3: Graph of Young Road northbound hourly traffic variation

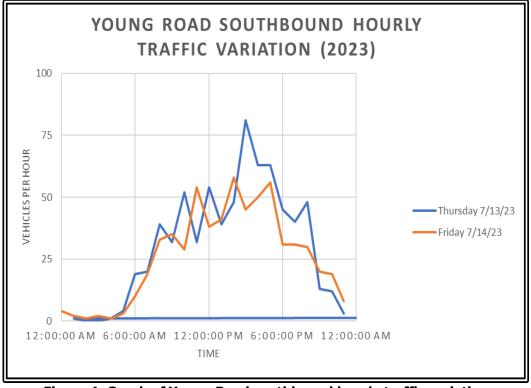


Figure 4: Graph of Young Road southbound hourly traffic variation BERRY SURVEYING & ENGINEERING



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#### NH Route 9 / Franklin Pierce Highway Traffic Volumes

According to traffic counts obtained from the Strafford Regional Planning Commission (SRPC) for June 7-9, 2022, NH Route 9 (west of NH Route 126) experienced weekday AM and PM, two-way peaks of 270 trips and 285 trips, respectively.

The highest weekday peak hour traffic volume on this section of NH Route 9 west of NH Route 126 eastbound occurred from 7-8 AM with 163 vehicles and from 4:45-5:45 PM with 128 vehicles. Westbound highest weekday peak hour traffic volume occurred from 7-8 AM with 112 vehicles and from 4-5 PM with 162 vehicles. Table 2 shows the traffic direction breakdown of NH Route 9 west of NH Route 126. Figures 5-7 are graphical representations of the traffic variations occurring throughout the day. It can be seen from the directional percent distribution that the primary direction of travel during the weekday AM peak hour is eastbound towards the intersection of NH Route 9/NH Route 125 intersection and PM peak hour is westbound towards Nottingham/Northwood. Traffic Counts of NH Route 9 west of NH Route 126 including 15-minute interval evaluations of the peak hours are provided in Appendix A.

Traffic Distribution NH Route 9 West of NH Route 126							
Date	Eas	stbound	Westbou	Two-Way			
Tuesday 6/7/22	AM Peak	163	AM Peak	100	AM Peak	257	
Tuesuay 0/7/22	PM Peak	126	PM Peak	157	PM Peak	266	
Wednesday 6/8/22	AM Peak	158	AM Peak	112	AM Peak	270	
weathesday 0/ 8/ 22	PM Peak	128	PM Peak	161	PM Peak	282	
Thursday 6/9/22	AM Peak	145	AM Peak	77	AM Peak	222	
mulsuay 0/5/22	PM Peak	123	PM Peak	162	PM Peak	285	
Three Day Average	AM Peak	155	AM Peak	96	AM Peak	250	
Peak Hour Traffic	PM Peak	126	PM Peak	160	PM Peak	278	
% Distribution	AM Peak	61.7	AM Peak	38.3			
70 DISTIDUTION	PM Peak	44.0	PM Peak	56.0			

Table 2: Directional breakdown of trips NH Route 9 west of NH Route 126



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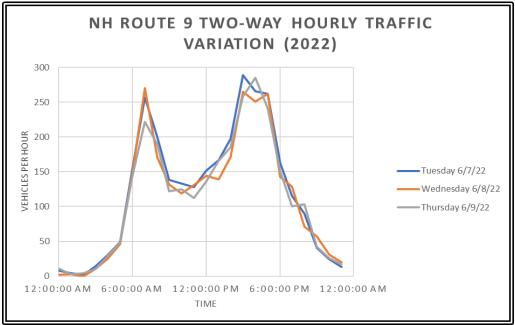


Figure 5: Graph of NH Route 9 west of NH Route 126 two-way hourly traffic variation

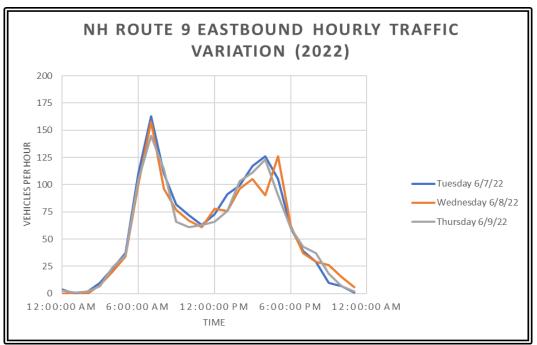


Figure 6: Graph of NH Route 9 west of NH Route 126 EB hourly traffic variation

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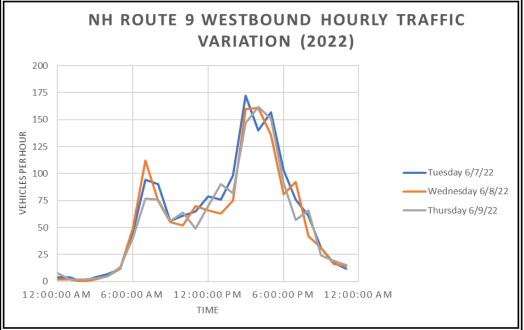


Figure 7: Graph of NH Route 9 west of NH Route 126 WB hourly traffic variation

#### NH Route 126 / Church Street Traffic Volumes

According to traffic counts recorded by the NHDOT for June 7-9, 2022, NH Route 126 experienced weekday AM and PM, two-way peaks of 321 trips and 355 trips, respectively. It was found that NH Route 126 has an AADT of 3,068 vehicles (2022).

The highest weekday peak hour traffic volume on this section of NH Route 126 eastbound occurred from 7-8 AM with 237 vehicles and from 5-6 PM with 125 vehicles. Westbound highest weekday peak hour traffic volume occurred from 7:45-8:45 AM with 90 vehicles and from 4:15-5:15 PM with 236 vehicles. Table 3 shows the traffic direction breakdown of NH Route 9 west of NH Route 126. Figures 8-10 are graphical representations of the traffic variations occurring throughout the day. It can be seen from the directional percent distribution that the primary direction of travel during the weekday AM peak hour is eastbound towards the intersection of NH Route 9/NH Route 125 intersection and PM peak hour is westbound towards US Route 202/Strafford. Traffic Counts of NH Route 126 including 15-minute interval evaluations of the peak hours provided in Appendix A.



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Traffic Distribution NH Route 126								
Date	Eas	stbound	Westbou	Two-Way				
Tuesday 6/7/22	AM Peak	237	AM Peak	90	AM Peak	321		
Tuesday 0/ 7/ 22	PM Peak	116	PM Peak	229	PM Peak	345		
Wednesday 6/8/22	AM Peak	224	AM Peak	79	AM Peak	293		
weutiesuay 0/0/22	PM Peak	125	PM Peak	236	PM Peak	355		
Thursday 6/9/22	AM Peak	213	AM Peak	71	AM Peak	284		
mursuay 0/ 5/ 22	PM Peak	119	PM Peak	210	PM Peak	324		
Three Day Average	AM Peak	225	AM Peak	80	AM Peak	299		
Peak Hour Traffic	PM Peak 120		PM Peak	225	PM Peak	341		
% Distribution	AM Peak	73.7	AM Peak	26.3				
70 Distribution	PM Peak	34.8	PM Peak	65.2				

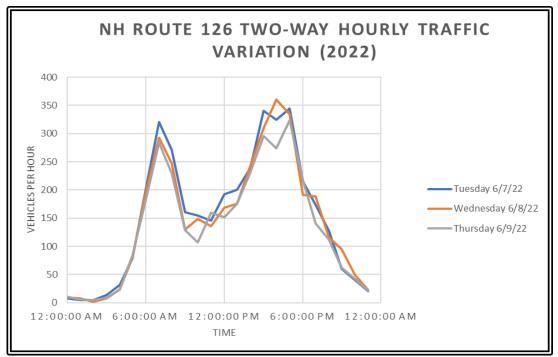


Figure 8: Graph of NH Route 126 two-way hourly traffic variation

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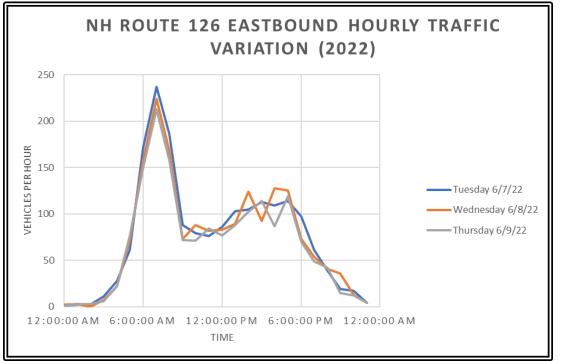


Figure 9: Graph of NH Route 126 eastbound hourly traffic variation

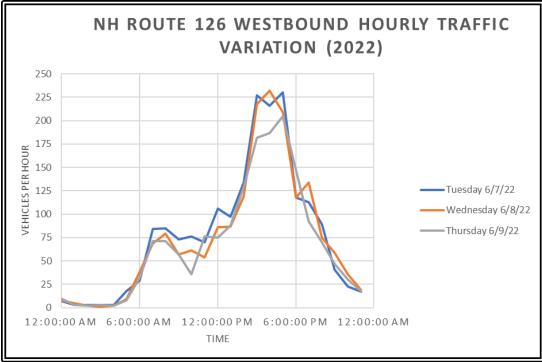


Figure 10: Graph of NH Route 126 westbound hourly traffic variation



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To obtain vehicle volumes traveling through the intersection of NH Route 9 and Young Road, the measured vehicle trips counted by the SRPC at NH Route 9 west of NH Route 126 and the NHDOT at NH Route 126 are combined. Due to the geometry of NH Route 126 between US Route 202 and NH Route 9, it is assumed that a vehicle traveling eastbound on NH Route 126 would continue eastbound on NH Route 9. While occasional turning movements may occur from NH Route 126 eastbound to NH Route 9 westbound, it makes for a more conservative estimate of traffic volume through the NH Route 9/Young Road intersection by making this assumption. It is also assumed that westbound traffic on NH Route 126 not counted at the NH Route 9 west of NH Route 126 location would have traveled through the intersection of NH Route 9/Young Road to reach this location.

#### NH Route 9 & NH Route 126 Combined Traffic Volumes

According to traffic counts recorded by the NHDOT and SRPC for June 7-9, 2022, NH Route 9 and NH Route 126 combined experienced weekday AM and PM, two-way peaks of 578 trips and 625 trips, respectively.

The highest combined weekday peak hour traffic volume eastbound occurred from 7-8 AM with 400 vehicles and from 4:45-5:45 PM with 235 vehicles. Westbound highest weekday peak hour traffic volume occurred from 7:45-8:45 AM with 190 vehicles and from 4-5 PM with 391 vehicles. Table 4 shows the traffic direction breakdown of NH Route 9 west of NH Route 126 combined with NH Route 126. Figures 11-13 are graphical representations of the traffic variations occurring throughout the day. It can be seen from the directional percent distribution that the primary direction of travel during the weekday AM peak hour is eastbound towards the intersection of NH Route 9/NH Route 125 intersection and PM peak hour is westbound towards US Route 202/Strafford. Traffic Counts of NH Route 9 and NH Route 126 combined including 15minute interval evaluations of the peak hours are provided in Appendix A.



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Traffic Distribution NH Route 9 & NH Route 126 Combined							
Date	Eas	stbound	Westbou	Two-Way			
Tuesday 6/7/22	AM Peak	400	AM Peak	190	AM Peak	578	
Tuesday 0/ 7/ 22	PM Peak	232	PM Peak	380	PM Peak	612	
Wednesday 6/8/22	AM Peak	382	AM Peak	181	AM Peak	563	
weunesuay 0/0/22	PM Peak	253	PM Peak	391	PM Peak	625	
Thursday 6/9/22	AM Peak	358	AM Peak	148	AM Peak	506	
	PM Peak	216	PM Peak	363	PM Peak	572	
Three Day Average	AM Peak	380	AM Peak	173	AM Peak	549	
Peak Hour Traffic	PM Peak	234	PM Peak	378	PM Peak	603	
0/ Distribution	AM Peak	68.7	AM Peak	31.3			
% Distribution	PM Peak	38.2	PM Peak	61.8			

Table 4: Directional breakdown of trips occurring on NH Route 126

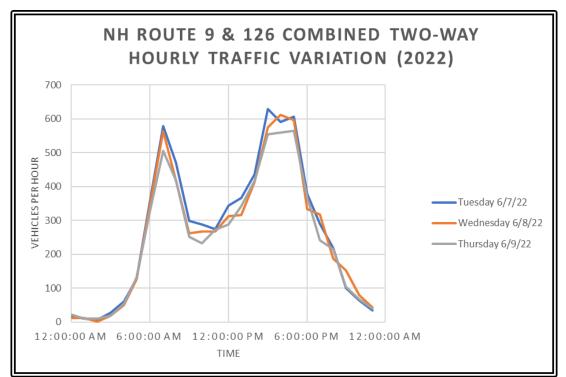


Figure 11: Graph of NH Route 9 & Route 126 two-way hourly traffic variation

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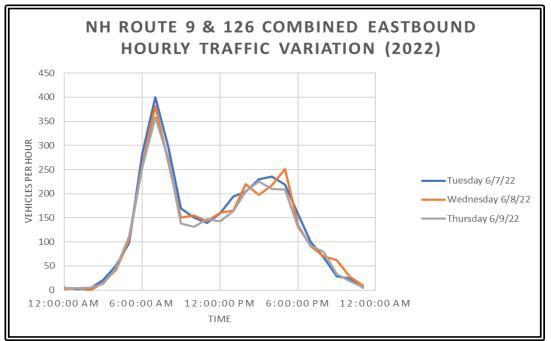


Figure 12: Graph of NH Route 9 & NH Route 126 eastbound hourly traffic variation

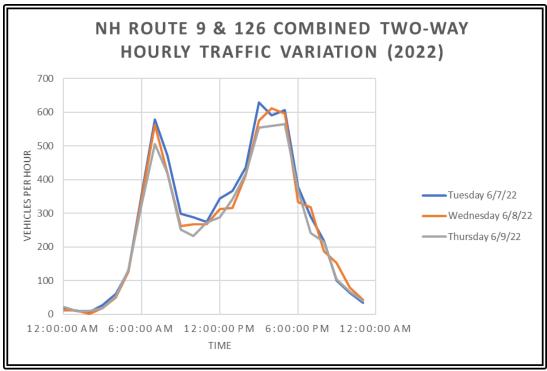


Figure 13: Graph of NH Route 9 & NH Route 126 westbound hourly traffic variation



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#### Existing Vehicle Speeds

As previously mentioned, the posted speed limit of Young Road is 30 MPH. For the purposes of the safety analysis, the 85<sup>th</sup> percentile of speed is required. This section of Young Road was measured by Accurate Counts to analyze the pass by traffic, reviewing speed. Excessive speeds occurred on occasion, and most operators obeyed the posted speed limits within a deviation of 8 MPH over a three-day span from Thursday July 13<sup>th</sup> to Saturday July 15<sup>th</sup>, 2023. The 85<sup>th</sup> percentile derived by measurement was found to be 38 MPH. Young Road experienced 50<sup>th</sup> percentile speeds of 34 MPH 95<sup>th</sup> percentile speed of 40 MPH. Collected Young Road vehicle speeds can be found in Appendix B. According to <u>timeanddate.com</u>, the weather on July 13<sup>th</sup> was sunny with a high of 86 degrees, July 14<sup>th</sup> was sunny with a high of 82 degrees, and July 15<sup>th</sup> was sunny with a high of 84 degrees. Based on weather conditions, it is felt by BS&E that the recorded vehicles speeds are representative of normal vehicle operating conditions found during the peak season. An onsite steady was also conducted by Accurate Counts in February of 2023 where speed was measured. The findings during off peak season are consistent with on peak season.

#### Proposed Trip Generation

The 11<sup>th</sup> Edition ITE Trip Generation Manual was used to determine the proposed volume of trips, as well as the percentage of entrance-to-exit traffic experienced at the AM & PM peak hours between 7 and 9 AM and 4 and 6 PM, and the weekday total volume. Single Family Detached Housing (210) was used in deriving the proposed trip generation for the subdivision. Table 5 provides the fitted curve equation, total trips generated, enter to exit ratio, and the enter to exit distribution for the subdivision. As the use of the site will be single family residences, the primary vehicle trips generated will be two axel cars and trucks. Trip derivation data can be found in Appendix C.

				Time Method	AM Peak Adj. Street Time Dwelling Units Method			Peak Adj. Str Dwelling Unit			
# Units		23		# Units	23		# Units		23		
Equation	Ln(1	Г)=0.92Ln(X)+	2.68	Equation	Ln(T)=0.91Ln(X)+0.12		Equation	Ln(T)=0.94Ln(X)+0.27		0.27	
Total Trips		261		Total Trips	20		Total Trips		25		
% Enter	50	Total Enter	131	% Enter	25	Total Enter	5	% Enter	63	Total Enter	16
% Exit	50	Total Exit	130	% Exit	75	Total Exit	15	% Exit	37	Total Exit	9

#### **Single Family Detached Housing Trip Generation Subdivision:**

 Table 5: (Single Family Detached) Peak hour of adjacent street traffic weekdays AM, PM, & weekday total

#### Build Traffic Projections and Turning Analysis

Traffic data obtained from Accurate Counts for Young Road in July 2023 has been projected to 2024 and ten years further to 2034. This has been done using a July peak



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seasonal adjustment factor of 1.00 (AM & PM, see following page) and using an annual growth rate of 1%, compounded annually. Additionally, traffic data obtained from the NHDOT and SRPC for NH Route 9 and NH Route 126 from June 2022 has been projected to 2024 and ten years further to 2034 using seasonal adjustment factor of 1.02 (AM & PM) and using an annual growth rate of 1%, compounded annually. The derivation of the peak seasonal adjustment factor comes from an average series of values from other roadways from across New Hampshire, which can be found in Appendix E.

Figures 14 and 15 show the build turning movements to and from the entire subdivision during the AM and PM peak hours. In this figure, all turning movements for the thirteen driveways are represented in a single figure for a visualization of the total trip generation. Traffic volumes of Young Road represent a seasonal adjustment factor of 1.00, as traffic counts were performed during the peak season (July) for recreational roadways. Young Road has been selected as a recreational roadway due to the proximity to Swains Lake and opportunity for recreational activities. Figures 16 and 17 show the build generated turning movements to and from the intersection of NH Route 9/Young Road. Traffic volumes for NH Route 9 represent a seasonal adjustment factor of 1.02. Full traffic volume projections can be found in Appendix D. It is assumed that the intersection of NH Route 9/Young Road/Beauty Hill Road/Union Lake Road. The observed directional distribution percentages for Young Road AM weekday peak hour have been applied to the proposed trip generation in this manner.

#### Young Road Projected Volumes & Build-Only Turning Movements



Figure 14: Weekday AM build-only projected turning movements along Young Road

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Figure 15: Weekday PM build-only projected turning movements along Young Road

#### NH Route 9 Projected Volumes & Build-Only Turning Movements

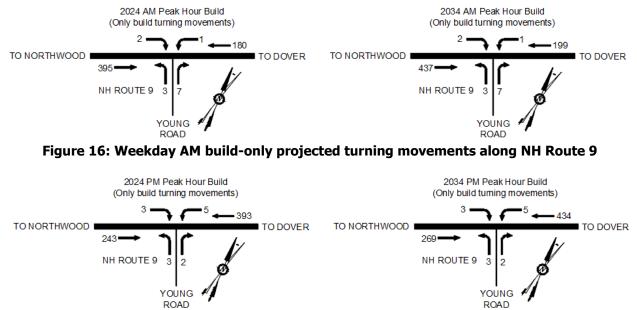


Figure 17: Weekday PM build-only projected turning movements along NH Route 9

Table 6 shows in a tabular format the total trips that are calculated to occur to and from the subdivision are shown at AM and PM weekday peak hours in a build situation. These trips are further broken down into enter and exit to and from the site as well as percentage of left and right turns. Tables 6-10 show the build turning movements to the surrounding intersections of NH Route 9/Young Road and Young Road/Beauty Hill Road/Union Lake Road.

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#### Turning Movements Tabular Format

				Turning Distribu	ition Young I	Road			
Time	AM Peak Hour	# Trips	Turn Type	% Distribution	Time	PM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	20				Total Trips	25			
Trips Enter f	rom Young Road Northbound	1.7	Right	8.6	Trips Er	nter from Young Road Northbound	8.2	Right	32.6
Trips Enter f	rom Young Road Southbound	3.3	Left	16.4	Trips Er	nter from Young Road Southbound	7.8	Left	31.4
Trips Exit	to Young Road Northbound	9.8	Right	49.2	Trips	Exit to Young Road Northbound	4.4	Right	17.7
Trips Exit	to Young Road Southbound	5.2	Left	25.8	Trips	Exit to Young Road Southbound	4.6	Left	18.3

Table 6: Summary of AM & PM build turning movements to and from the subdivision onYoung Road

Time     AM Peak Hour     # Trips     Turn Type     % Distribution     Time     PM Peak Hour     # Trips     Turn Type     % Distribution       Total Trips     3.3			Т	urning Distr	ibution Trips to	Subdivision	n from NH Route 9			
Trips Enter Young Rd from NH Route 9 Eastbound       2.3       Right       68.7       Trips Enter Young Rd from NH Route 9 Eastbound       3.0       Right       38.2	Time	AM Peak Hour	# Trips	Turn Type	% Distribution	Time	PM Peak Hour	# Trips	Turn Type	% Distribution
	Total Trips	3.3				Total Trips	7.8			
	Trips Enter \	oung Rd from NH Route 9 Eastbound	2.3	Right	68.7	Trips Ente	r Young Rd from NH Route 9 Eastbound	3.0	Right	38.2
Trips Enter Young Rd from NH Route 9 Westbound     1.0     Left     31.3     Trips Enter Young Rd from NH Route 9 Westbound     4.8     Left     61.8	Trips Enter Y	oung Rd from NH Route 9 Westbound	1.0	Left	31.3	Trips Enter	Young Rd from NH Route 9 Westbound	4.8	Left	61.8

Table 7: Summary of AM & PM turning movements to subdivision from NH Route 9

Time         AM Peak Hour         # Trips         Turn Type         % Distribution         Time         PM Peak Hour         # Trips         Turn Type         % Distribution           Total Trips         9.8         Total Trips         4.4         1000000000000000000000000000000000000	Turning Distribution Trips to NH Route 9 from Subdivision									
Trips to NH Route 9 Eastbound         6.8         Right         68.7         Trips to NH Route 9 Eastbound         1.7         Right         38.2	Time	AM Peak Hour	#Trips	Turn Type	% Distribution	Time	PM Peak Hour	# Trips	Turn Type	% Distribution
	Total Trips	9.8				Total Trips	4.4			
Trips to NH Route 9 Westbound 3.1 Left 31.3 Trips to NH Route 9 Westbound 2.7 Left 61.8	Trips t	o NH Route 9 Eastbound	6.8	Right	68.7	٦	Frips to NH Route 9 Eastbound	1.7	Right	38.2
	Trips to	NH Route 9 Westbound	3.1	Left	31.3	Т	rips to NH Route 9 Westbound	2.7	Left	61.8

Table 8: Summary of AM & PM turning movements to NH Route 9 from subdivision

Distrubution of	f Trips From Intersection of Yo	ung Rd/Beauty Hill R	d/Union Lake Road to Subdivision
Time	AM Peak Hour	Time	PM Peak Hour
Total Trips	1.7	Total Trips	8.2

Table 9: Summary of AM & PM turning movements from Beauty Hill Rd int to subdivision

Distrubutio	n of Trips to Intersection of Young Rd/E	Beauty Hill F	Rd/Union Lake Road From Subdivision
Time	AM Peak Hour	Time	PM Peak Hour
Total Trips	5.2	Total Trips	4.6

Table 10: Summary of AM build turning movements to Beauty Hill Rd int from subdivision

\*Note: A visualization has not been provided for trips to/from the intersection of Young Road/Beauty Hill Road/Union Lake Road due to lack of turning movement count at this intersection. It is assumed that the majority of vehicle trips would continue though Young Road or turn left onto Beauty Hill Road.

#### Sight Distance and Safety Analysis

Sight distance on all driveways to the north and south, as well as roadway alignment are the two determining factors of safety. For measurement of sight distance, the Barrington Subdivision Regulations requirement of 300' on collector roads has been

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used. BS&E has requested a waiver to the Town of Barrington's definition of sight distance to use the NHDOT standard measurements 14.5 feet off of the fog line for the sight distance origin, utilizing an elevation of 3.50 feet above the driveways and roadway. This request is consistent with the Barrington Site Review Regulations. All proposed driveways provide a minimum of 300 feet of sight distance, with a majority of the driveways providing 350 feet. Sight distance plans are provided for the thirteen driveways within the project plan set.





#### Conclusions

- 1.) A total of 20 vehicle trips (5 enter/15 exit) are predicted to occur at the AM peak hour and 25 vehicle trips (16 enter/6 exit) at the PM peak hour for the subdivision.
- 2.) A total of 3 vehicle trips are predicted to occur at the AM peak hour and 8 vehicle trips at the PM peak hour for the intersection of NH Route 9/Young Road, for trips originating <u>from</u> NH Route 9.
- 3.) A total of 10 vehicle trips are predicted to occur at the AM peak hour and 5 vehicle trips at the PM peak hour for the intersection of NH Route 9/Young Road, for trips originating <u>from</u> the subdivision.
- 4.) A total of 7 vehicle trips are predicted to occur at the AM peak hour and 13 vehicle trips at the PM peak hour for the intersection of Young Road/Beauty Hill Road/Union Lake Road.

Respectfully Submitted,

BERRY SURVEYING & ENGINEERING

Kevin R. Poulin, PE Project Engineer

Christopher R. Berry, SIT Principal, President

Kenneth A. Berry, PE, LLS, CPSWQ, CPESC, CESSWI Principal, VP-Technical Operations



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23 Lot Subdivision Trip Generation & Distribution	

#### Appendix A

#### Traffic Counts

#### Accurate Counts 978-664-2565

Location : Young Location : betwe City/State: Barrin	en #s120-1	30													1	9680001
7/10/2023	Mond	av	Tuesd	lav	Wednes	veb	Thurso	lav	Friday		Satur	dav	Sunda	/	Week Ave	rane
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	*	*	*	*	1	3	1	4	3	4	*	*	2	4
1:00	*	*		*		*	1	1	o	2	Ĭ	o i		*	1	1
2:00	*	*	*	*		*	o	o i	3	1	1	ŏ		*	1	0
3:00	*	*	*	*	*	*	1	ŏ	õ	2	, o	1	*	*	, o	1
4:00	*	*	*	*	*	*	5	1	5	1	0	0	*	*	3	1
5:00	*	*	*	*	*	*	13	4	7	3	6	5	*	*	9	4
6:00	*	*	*	*	*	*	34	19	24	10	12	7	*	*	23	12
7:00	*	*	*	*	*	*	69	20	57	19	22	9		*	49	16
8:00	*	*	*	*		*	57	39	57	33	56	36		*	57	36
9:00	*	*	*	*		*	49	32	51	35	79	36		*	60	34
10:00	*	*	*	*		*	47	52	38	29	71	67		*	52	49
11:00	*	*	*	*	*	*	58	32	32	54	97	76	*	*	62	54
12:00 PM	*	*	*	*	*	*	54	54	53	38	79	71	*	*	62	54
1:00	*	*	*	*	*	*	63	39	43	41	74	67	*	*	60	49
2:00	*	*	*	*	*	*	51	48	52	58	54	48	*	*	52	51
3:00	*	*	*	*	*	*	73	81	44	45	68	58	*	*	62	61
4:00	*	*	*	*	*	*	64	63	53	50	57	59	*	*	58	57
5:00	*	*	*	*	*	*	63	63	66	56	51	45	*	*	60	55
6:00	*	*	*	*	*	*	34	45	41	31	34	36		*	36	37
7:00	*	*	*	*		*	27	40	19	31	31	35		*	26	35
8:00	*	*	*	*	*	*	25	48	12	30	20	22	*	*	19	33
9:00	*	*	*	*	*	*	13	13	8	20	12	16	*	*	11	16
10:00	*	*	*	*	*	*	9	12	5	19	6	17	*	*	7	16
11:00	*	*	*	*	*	*	3	3	3	8	0	3	*	*	2	5
Total	0	0	0	0	0	0	814	712	674	620		718	0	0		681
Day	0		0		0		1526		1294		155		0		1455	
AM Peak							7:00	10:00	7:00	11:00	11:00	11:00			11:00	11:00
Volume							69	52	57	54	97	76			62	54
PM Peak							3:00	3:00	5:00	2:00		12:00 PM			12:00 PM	3:00
Volume							73	81	66	58	79	71			62	61
Comb Total	0		0		0		1526	)	1294		155	2	0		1455	
ADT	AL	DT: 1,460		DT: 1,460	o. Vari		and T	otal 7	Fraffic	C	nt C····					

Figure 18: Young Road Total Traffic Count Summary

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Accurate Counts 978-664-2565

	ngton, NH	)	Hour 7	otale	01	2	Hours?	Fotole	Combine	d Totala
7/13/2023 Time	NE Morning	Afternoon	Hour T Morning	Afternon	SE Morning	Afternoon	Hour T Morning	Afternoon	Combine Morning	Afternoon
12:00	0	Allemoon 8	worning	Alternon	3	12	wonning	Alternoon	Morning	Alternoon
12:15	1	14			Ő	16				
12:30	0	21			Ū.	16				
12:45	0	11	1	54	0	10	3	54	4	108
1:00	0	19			0	6				
1:15	1	20			1	14				
1:30	0	11			0	12				
1:45	0	13	1	63	0	7	1	39	2	102
2:00	0	13			0	8				
2:15	0	16			0	6				
2:30	0	13			0	18				
2:45	0	9	0	51	0	16	0	48	0	99
3:00	0	19			0	19				
3:15	1	10			0	18				
3:30	0	23		70	0	26				
3:45	0	21	1	73	0	18	0	81	1	154
4:00	0	16			0	16				
4:15	0	15			0	14				
4:30	1	17 16	5	64	0	12 21	4	63	c	127
4:45 5:00	4	10	5	64	1	21	1	03	6	12/
5:00	0	13			0	17				
5:30	7	20			0	13				
5:45	5	15	13	63	4	13	4	63	17	126
6:00	5	7	15	00	2	16	-	00		120
6:15	9	8			5	16				
6:30	5	14			5	6				
6:45	15	5	34	34	7	7	19	45	53	79
7:00	12	9			8	5				
7:15	19	10			4	13				
7:30	13	3			4	11				
7:45	25	5	69	27	4	11	20	40	89	67
8:00	22	11			11	14				
8:15	13	5			11	17				
8:30	12	4			8	10				
8:45	10	5	57	25	9	7	39	48	96	73
9:00	17	6			13	6				
9:15	8	2			8	4				
9:30	14	4			4	1				
9:45	10	1	49	13	7	2	32	13	81	26
10:00	5	3			9	4				
10:15	17	3			10	4				
10:30	11	2	47		13	1	50	40	00	24
10:45	14	1	47	9	20	3	52	12	99	21
11:00	17	1			9 5	1				
11:15	15 14	2			5	1				
11:30 11:45	14	0	58	3	10	1	32	3	90	6
Total	335	479	56	3	203	509	32	3	538	6 988

Figure 19: Young Road July 13, 2023 fifteen-minute interval counts

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#### Accurate Counts 978-664-2565

			1.1	adala.	~			Cadala.	O combit	d Tabal-
7/14/2023	Ne		Hour T Morning		S		Hour 1 Morning		Combine	
Time 12:00	Morning 0	Afternoon 8	Morning	Afternon	Morning 3	Afternoon 11	Morning	Afternoon	Morning	Afternoon
12:00	1	11			0	13				
12:15	0	22			1	13				
12:30	0	12	1	53	0	3	4	38	5	91
12.45	0	9			1	10	4		5	91
	0	15			1	10				
1:15 1:30	0	10			0	6				
1:45	0	9	0	43	0	15	2	41	2	84
2:00	0	12	U	43	0	15	2	41	2	84
	0	12			0	12				
2:15 2:30		12			0	15				
2:30	2	13	3	52	1	13	1	58	4	110
2.45		9	3	52	0	9	1	96	4	110
3:00	0	5			0	9				
3:30	0	14 16	0	44	1	7 14	2	45	2	89
3:45			U	44			2	45	2	89
4:00	1	8			1	21				
4:15	0	13			0	11				
4:30	2	17	-	50	0	9				100
4:45	2	15	5	53	0	9	1	50	6	103
5:00	1	14			0	13				
5:15	0	11			0	18				
5:30	3	28	-		2	14		50	10	100
5:45	3	13	7	66	1	11	3	56	10	122
6:00	8	8			4	7				
6:15	5	11			1	9				
6:30	2	12			0	8	10			70
6:45	9	10	24	41	5	7	10	31	34	72
7:00	11	8			4	7				
7:15	14	3			4	8				
7:30	16	5		10	5	10	10		70	50
7:45	16	3	57	19	6	6	19	31	76	50
8:00	12	2			5	7				
8:15	11	2			7	9				
8:30	17	6		10	14	8				10
8:45	17	2	57	12	7	6	33	30	90	42
9:00	15	3			12	4				
9:15	14	3			6	6				
9:30	11	1			11	5				
9:45	11	1	51	8	6	5	35	20	86	28
10:00	7	3			6	6				
10:15	9	0			11	5				
10:30	13	1		-	6	4				
10:45	9	1	38	5	6	4	29	19	67	24
11:00	7	0			15	2				
11:15	5	1			7	2				
11:30	10	1			17	3				
	10	1	32	3	15	1	54	8	86	11
11:45 Total	275	399	52	<u> </u>	193	427		0	468	826

Figure 20: Young Road July 14, 2023 fifteen-minute interval counts

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Northbound Ve	hicle Count	Southbound Vehi	cle Count	Two-Way Vehi	cle Count
Thursday 7	/13/23	Thursday 7/1	.3/23	Thursday 7	/13/23
7:00:00 AM	12	7:00:00 AM	8	7:00:00 AM	20
7:15:00 AM	19	7:15:00 AM	4	7:15:00 AM	23
7:30:00 AM	13	7:30:00 AM	4	7:30:00 AM	17
7:45:00 AM	25	7:45:00 AM	4	7:45:00 AM	29
8:00:00 AM	22	8:00:00 AM	11	8:00:00 AM	33
8:15:00 AM	13	8:15:00 AM	11	8:15:00 AM	24
8:30:00 AM	12	8:30:00 AM	8	8:30:00 AM	20
8:45:00 AM	10	8:45:00 AM	9	8:45:00 AM	19
4:00:00 PM	16	4:00:00 PM	16	4:00:00 PM	32
4:15:00 PM	15	4:15:00 PM	14	4:15:00 PM	29
4:30:00 PM	17	4:30:00 PM	12	4:30:00 PM	29
4:45:00 PM	16	4:45:00 PM	21	4:45:00 PM	37
5:00:00 PM	15	5:00:00 PM	20	5:00:00 PM	35
5:15:00 PM	13	5:15:00 PM	17	5:15:00 PM	30
5:30:00 PM	20	5:30:00 PM	13	5:30:00 PM	33
5:45:00 PM	15	5:45:00 PM	13	5:45:00 PM	28
AM Peak Veh	79	AM Peak Veh	39	AM Peak Veh	106
PM Peak Veh	64	PM Peak Veh	71	PM Peak Veh	135

Figure 21: Young Road Thursday July 13, 2023 peak hour volumes



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Northbound Vel	hicle Count	Southbound Veh	icle Count	Two-Way Vehi	cle Count
Friday 7/1	4/23	Friday 7/14	4/23	Friday 7/1	4/23
7:00:00 AM	11	7:00:00 AM	4	7:00:00 AM	15
7:15:00 AM	14	7:15:00 AM	4	7:15:00 AM	18
7:30:00 AM	16	7:30:00 AM	5	7:30:00 AM	21
7:45:00 AM	16	7:45:00 AM	6	7:45:00 AM	22
8:00:00 AM	12	8:00:00 AM	5	8:00:00 AM	17
8:15:00 AM	11	8:15:00 AM	7	8:15:00 AM	18
8:30:00 AM	17	8:30:00 AM	14	8:30:00 AM	31
8:45:00 AM	17	8:45:00 AM	7	8:45:00 AM	24
4:00:00 PM	8	4:00:00 PM	21	4:00:00 PM	29
4:15:00 PM	13	4:15:00 PM	11	4:15:00 PM	24
4:30:00 PM	17	4:30:00 PM	9	4:30:00 PM	26
4:45:00 PM	15	4:45:00 PM	9	4:45:00 PM	24
5:00:00 PM	14	5:00:00 PM	13	5:00:00 PM	27
5:15:00 PM	11	5:15:00 PM	18	5:15:00 PM	29
5:30:00 PM	28	5:30:00 PM	14	5:30:00 PM	42
5:45:00 PM	13	5:45:00 PM	11	5:45:00 PM	24
AM Peak Veh	58	AM Peak Veh	33	AM Peak Veh	90
PM Peak Veh	68	PM Peak Veh	56	PM Peak Veh	122

Figure 22: Young Road Friday July 14, 2023 peak hour volumes





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23 Lot Subdivision Trip Generation & Distribution

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Date/Time	Westbound	Eastbound	Total	WB Total Hour EE	EB Total Hour	Total Hour	Date/Time	Westbound	Eastbound	Total	WB Total Hour	EB Total Hour	Total Hour
06/07/2022 00:00 - 00:14	2	0	2				06/07/2022 12:00 - 12:14	20	24	44			
06/07/2022 00:15 - 00:29	1	1	2			×	06/07/2022 12:15 - 12:29	19	16	35	79	73	150
06/07/2022 00:30 - 00:44	1	1	2	t	t		06/07/2022 12:30 - 12:44	14	18	32		ç	701
06/07/2022 00:45 - 00:59	0	2	2				06/07/2022 12:45 - 12:59	26	15	41			
06/07/2022 01:00 - 01:14	2	0	2				06/07/2022 13:00 - 13:14	15	21	36			
06/07/2022 01:15 - 01:29	1	0	1	V	c	-	06/07/2022 13:15 - 13:29	22	17	39	76	91	167
06/07/2022 01:30 - 01:44	1	0	-1	•	0		06/07/2022 13:30 - 13:44	18	23	41	2	1	2
06/07/2022 01:45 - 01:59	0	0	0			-	06/07/2022 13:45 - 13:59	21	30	51			
06/07/2022 02:00 - 02:14	0	0	0			-	06/07/2022 14:00 - 14:14	21	22	43			
06/07/2022 02:15 - 02:29	0	2	2	c	ç	ç	06/07/2022 14:15 - 14:29	22	19	41	80	00	197
06/07/2022 02:30 - 02:44	0	0	0	D	7		06/07/2022 14:30 - 14:44	29	25	54	00		/CT
06/07/2022 02:45 - 02:59	0	0	0				06/07/2022 14:45 - 14:59	26	33	59			
06/07/2022 03:00 - 03:14	2	2	4				06/07/2022 15:00 - 15:14	48	31	79			
06/07/2022 03:15 - 03:29	0	1	1	•	10	1	06/07/2022 15:15 - 15:29	42	25	67	C71	117	789
06/07/2022 03:30 - 03:44	1	9	7	t	2		06/07/2022 15:30 - 15:44	36	29	65	7/7	111	107
06/07/2022 03:45 - 03:59	1	1	2				06/07/2022 15:45 - 15:59	46	32	78			
06/07/2022 04:00 - 04:14	1	3	4				06/07/2022 16:00 - 16:14	35	39	74			
06/07/2022 04:15 - 04:29	2	4	9	2	22	00	06/07/2022 16:15 - 16:29	34	27	61	140	176	366
06/07/2022 04:30 - 04:44	2	7	6		3		06/07/2022 16:30 - 16:44	40	31	71	140	071	007
06/07/2022 04:45 - 04:59	2	6	11				06/07/2022 16:45 - 16:59	31	29	60			
06/07/2022 05:00 - 05:14	0	9	9				06/07/2022 17:00 - 17:14	40	26	99			
06/07/2022 05:15 - 05:29	1	9	7	5	70	Q	06/07/2022 17:15 - 17:29	40	30	70	167	105	767
06/07/2022 05:30 - 05:44	2	14	16	7	10		06/07/2022 17:30 - 17:44	33	23	56	, T	COT	707
06/07/2022 05:45 - 05:59	6	11	20			-	06/07/2022 17:45 - 17:59	44	26	70			
06/07/2022 06:00 - 06:14	2	23	25				06/07/2022 18:00 - 18:14	27	19	46			
06/07/2022 06:15 - 06:29	11	15	26	45	110	155	06/07/2022 18:15 - 18:29	20	12	32	102	ę	162
06/07/2022 06:30 - 06:44	13	30	43	7	011		06/07/2022 18:30 - 18:44	34	16	50	COT	3	5
06/07/2022 06:45 - 06:59	19	42	61				06/07/2022 18:45 - 18:59	22	13	35			
06/07/2022 07:00 - 07:14	27	43	70				06/07/2022 19:00 - 19:14	19	11	30			
06/07/2022 07:15 - 07:29	23	38	61	No	162	757	06/07/2022 19:15 - 19:29	17	∞	25	76	50	115
06/07/2022 07:30 - 07:44	20	43	63	ţ	601		06/07/2022 19:30 - 19:44	23	6	32	2	6	1
06/07/2022 07:45 - 07:59	24	39	63				06/07/2022 19:45 - 19:59	17	11	28			
06/07/2022 08:00 - 08:14	26	33	59				06/07/2022 20:00 - 20:14	6	11	20			
06/07/2022 08:15 - 08:29	21	29	20	06	110	200	06/07/2022 20:15 - 20:29	21	6	30	61	29	06
06/07/2022 08:30 - 08:44	29	26	55	}			06/07/2022 20:30 - 20:44	20	9	26	;	)	}
06/07/2022 08:45 - 08:59	14	22	36			-	06/07/2022 20:45 - 20:59	11	e	14			
06/07/2022 09:00 - 09:14	22	15	37				06/07/2022 21:00 - 21:14	7	9	13			
06/07/2022 09:15 - 09:29	10	30	40	56	8	138	06/07/2022 21:15 - 21:29	15	1	16	31	10	41
06/07/2022 09:30 - 09:44	11	12	23	8	5		06/07/2022 21:30 - 21:44	4	0	4	5	2	ţ
06/07/2022 09:45 - 09:59	13	25	38				06/07/2022 21:45 - 21:59	5	e	∞			
06/07/2022 10:00 - 10:14	16	14	30				06/07/2022 22:00 - 22:14	2	4	6			
06/07/2022 10:15 - 10:29	12	20	32	61	4	133	06/07/2022 22:15 - 22:29	6	2	11	17	7	24
06/07/2022 10:30 - 10:44	14	21	35	5	į		06/07/2022 22:30 - 22:44	e	0	e	ì		5
06/07/2022 10:45 - 10:59	19	17	36				06/07/2022 22:45 - 22:59	3	1	4			
06/07/2022 11:00 - 11:14	14	13	27				06/07/2022 23:00 - 23:14	5	0	5			
06/07/2022 11:15 - 11:29	18	18	36	65	83	128	06/07/2022 23:15 - 23:29	4	0	4	12	-	13
06/07/2022 11:30 - 11:44	16	17	33	}	3		06/07/2022 23:30 - 23:44	2	1	3	1	1	1
06/07/2022 11:45 - 11:59	17	15	32	_			06/07/2022 23:45 - 23:59		•	-			

Figure 23: NH Route 9 June 7, 2022 fifteen-minute interval counts

**BERRY SURVEYING & ENGINEERING** 



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Total Hour			144			139			171			265			514	162			262			Ş	C+1			129			71			57				31				20	
EB Total Hour			78			76			96			105			ç	05			126			ŝ	70			37			29			26				15	1			9	
WB Total Hour   EB Total Hour   Total Hour			66			63			75			160			č	101			136			5	10			92			42			31				16				14	
Total	39	35	29	41	34	30	43	37	52	22	71	62	59	61	63	54	73	57	84	89 5	S 5	42	36	28	37	26	32	15	19	19	17	15	14	Ħ	2	12	10	4	10	5	1
Eastbound	22	19	16	21	21	13	28	25	24	ol oc	26	23	24	23	22	13	32	27	35	34	6 2	12	16	15	12	4	7	~	+ ∞	10	9	~	2	7	2	4	∞	1	8	1	0
Westbound Eastbound	17	16	13	20	13	17	15	12	28	21	45	39	35	88	41	41	41	30	49	34	18	30	20	13	23	22	25	80 F	4 11	6	11	7	6	4	3	~	2	m	7	4	1
Date/Time	06/08/2022 12:00 - 12:14	06/08/2022 12:15 - 12:29	06/08/2022 12:30 - 12:44	06/08/2022 12:45 - 12:59	06/08/2022 13:00 - 13:14	06/08/2022 13:15 - 13:29	06/08/2022 13:45 - 13:59	06/08/2022 14:00 - 14:14	06/08/2022 14:15 - 14:29	00/06/2022 14:30 - 14:44 06/08/2022 14:45 - 14:59	06/08/2022 15:00 - 15:14	06/08/2022 15:15 - 15:29	06/08/2022 15:30 - 15:44	06/08/2022 16:00 - 16:14	06/08/2022 16:15 - 16:29	06/08/2022 16:30 - 16:44	06/08/2022 16:45 - 16:59	06/08/2022 17:00 - 17:14	06/08/2022 17:15 - 17:29	06/08/2022 17:30 - 17:44	20/08/2022 18:00 - 18:14 19:00 - 18:00 - 18:14	06/08/2022 18:15 - 18:29	06/08/2022 18:30 - 18:44	06/08/2022 18:45 - 18:59	06/08/2022 19:00 - 19:14 06/08/2022 19:15 - 19:29	06/08/2022 19:30 - 19:44	06/08/2022 19:45 - 19:59	06/08/2022 20:00 - 20:14	06/08/2022 20:30 - 20:44	06/08/2022 20:45 - 20:59	06/08/2022 21:00 - 21:14	06/08/2022 21:15 - 21:29	06/08/2022 21:30 - 21:44	06/08/2022 21:45 - 21:59	06/08/2022 22:00 - 22:14	06/08/2022 22:15 - 22:29	06/08/2022 22:30 - 22:44	06/08/2022 22:45 - 22:59	06/08/2022 23:00 - 23:14	06/08/2022 23:15 - 23:29	06/08/2022 23:30 - 23:44 06/08/2022 23:45 - 23:59
Total Hour			2			ŝ			0			1			-	ß			46							270			171			132	_			119				131	
EB Total Hour			0			1			0			00			00	70			34			100	DOT			158			96			17				67	;			61	
WB Total Hour EB Total Hour Total Hour			2																																						
						2			0			6			L	n			12	l		ę	64			112			75			55				52	1			70	
Total	0	0	1	1	1	+	7 0	0			1		2	6	1	8	5	5		-	22			57	65 65		64	36	1	41	35		1	28	27			24	37		32 28
Eastbound Tota	0 0	0	, <del>, ,</del>	0 1		+			0		F	2	1		9			5 5	13	ې ∞	15 20 15 25	23			1	76		25 36 20 AE	48			38	31	+		37	31			34	
pun			0 1				1 0	0	0			2	2	4	5 6	∞		5	8 13	ې ∞	ct 5	13 23	32 44	40	65	48 76	38		24 48	18	19	23 38	23 31	12	16	20 37	18 31	13	16	11 34	32 28

Figure 24: NH Route 9 June 8, 2022 fifteen-minute interval counts

**BERRY SURVEYING & ENGINEERING** 



2022-109 Paul Thibodeau, Young Road, Barrington, NH	ł
23 Lot Subdivision Trip Generation & Distribution	

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Objection         Construction         Construction
21         15         36         70           14         23         37         9           15         14         23         37           17         21         39         90           25         18         43         9           17         24         41         82           25         31         56         9           20         31         56         9           21         26         57         147           28         25         63         90           28         25         63         90           38         25         63         90           38         20         65         147           43         28         76         147           35         23         56         157           43         23         56         151           35         24         67         167           41         12         36         151           25         23         56         57           141         12         26         57           151         30 <t< td=""></t<>
14         23         37         9           25         14         39         90           21         22         45         43           23         18         43         90           25         18         43         90           25         18         43         82           20         34         54         83           20         34         54         83           20         34         54         83           21         56         57         147           33         20         63         147           33         20         63         147           34         20         63         147           35         32         65         147           35         32         55         147           35         21         53         147           36         32         56         157           37         32         56         57           38         21         53         167           37         28         67         167           36         13
25         14         39         90           17         22         39         90           17         24         41         90           17         24         41         90           17         24         41         90           17         24         41         90           17         24         41         90           17         24         41         82           141         54         90           120         34         55           31         26         57           31         26         57           32         32         56           33         27         57           33         28         56           34         57         157           33         28         56           33         21         53           34         56         57           35         58         54           41         24         57           42         30         56           57         57         57           57         50      <
17         22         39         90           23         22         45         40           23         22         45         90           20         14         34         82           20         14         34         82           20         14         34         82           21         24         41         82           20         14         34         82           31         26         57         147           33         20         63         167           33         20         63         167           33         21         57         167           33         23         75         167           33         23         75         167           43         23         75         167           43         23         75         167           41         23         17         161           141         30         167         151           141         30         13         167           141         23         13         161           15         30
23         24         43           20         14         34           20         14         34           20         14         34           20         14         54           21         54         41           20         14         54           21         56         57           31         26         57           43         26         57           33         20         63           34         75         63           35         31         67           36         31         67           36         31         67           37         28         75           38         21         53           41         23         53           43         24         67           141         30         151           141         30         16           141         23         54           151         30         151           151         30         151           151         30         16           151         30
17         24         41         34         82           20         14         34         82           20         34         54         82           21         56         57         147           31         266         57         147           33         20         63         147           33         20         63         147           33         20         63         147           34         20         63         167           35         31         67         167           35         31         67         167           35         21         53         161           36         21         53         161           37         21         53         161           32         21         33         161           32         21         33         161           141         12         66         57           151         33         36         161           16         13         30         161           16         13         26         57           16
20         14         34         82           20         34         54         84           21         55         63         147           32         26         57         147           33         26         57         147           33         20         63         147           33         20         63         147           35         31         67         147           35         31         67         167           35         31         67         167           35         21         53         167           41         22         63         167           41         22         63         167           41         22         63         167           141         33         167         161           141         33         167         161           141         22         63         17           151         33         26         17           151         33         16         17           151         34         11         24           151
25         31         56           38         25         63           31         26         57           33         20         63           34         20         63           35         32         67           35         32         67           36         31         67           43         28         76           43         23         58           33         21         53           43         24         67           35         21         53           43         24         67           35         21         53           24         23         47           25         13         36           14         12         63           15         36         91           16         14         30           15         26         20           16         13         36           17         6         13           18         30         67           19         21         23           10         64
38         25         63         147           31         26         57         147           33         40         63         147           35         40         63         147           35         32         67         147           35         32         67         162           35         32         67         162           36         31         67         162           36         31         67         162           36         21         53         58           43         24         67         151           32         21         53         47           32         21         53         66           25         10         36         151           14         12         66         57           15         26         10         36           15         26         13         66           15         5         20         14           16         13         26         14           17         6         13         66           7         5
31         26         57         147           33         20         63         147           35         32         67         147           35         32         67         167           35         31         67         162           36         31         67         162           36         31         67         162           36         31         67         161           36         21         53         151           32         21         53         151           32         21         53         151           32         21         53         151           32         21         53         151           32         21         33         151           32         21         33         151           32         21         30         151           141         30         30         151           151         30         130         151           151         30         130         151           151         30         151         151           10
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
35         40         75           36         31         67           48         28         76           43         28         76           43         28         76           43         32         58           43         32         58           43         23         58           43         23         58           43         24         67           35         13         38           41         22         63           41         22         63           25         13         38           26         10         36           14         23         26           15         33         26           16         13         26           13         13         26           15         5         23           16         13         26           17         6         13           7         5         12           7         5         12           7         5         26           7         5         26
35         32         67           36         31         67           48         32         75           36         31         67           36         31         67           35         23         58           35         23         58           43         23         53           35         23         58           43         24         53           41         25         67           26         13         36           21         23         47           24         23         47           26         13         36           16         14         12         26           16         14         12         26           17         18         30         66           13         31         26           13         36         66           13         3         6           7         4         11           7         5         12           6         2         8           6         3         6
48         28         76         102           33         31         67         102           43         32         75         192           35         23         58         151           43         24         67         151           32         21         53         151           43         24         67         151           25         13         36         151           26         10         36         91           26         10         36         91           26         10         36         57           16         8         26         12           16         12         26         57           13         13         26         57           12         13         30         66           13         13         26         13           10         6         16         16           7         6         13         66           7         5         12         67           10         6         13         14           3         3         6
36         31         67         -14           33         23         58         53           43         24         67         151           33         21         53         58           41         23         53         63           41         22         63         47           25         10         36         91           16         14         30         91           16         14         30         36           16         14         30         36           16         14         30         14           16         14         30         56           13         13         26         57           15         5         20         13           13         13         26         13           13         13         26         13           10         6         13         66           7         5         12         8           7         5         13         4           6         2         8         14           7         5         14
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
35         23         58         151           43         24         67         151           43         22         63         151           41         22         63         151           41         22         63         151           25         13         38         151           25         13         38         36           26         10         36         16           16         8         24         91           16         8         24         91           16         8         24         91           16         8         24         91           17         18         30         66           13         33         66         16           14         12         33         66           13         33         66         16           14         12         33         66           10         13         54         54           10         13         54         54           10         13         54         54           1         5         56<
43         24         67         151           32         21         53         151           32         21         53         151           24         12         83         38           24         23         47         91           26         10         36         91           26         10         36         91           16         14         12         26           16         18         24         91           15         5         20         57           12         13         26         57           13         26         18         57           21         13         26         19           10         6         16         11           10         6         11         24           10         6         11         24           1         3         6         4           1         3         6         4           1         6         11         24           1         6         1         3           1         6         1         3
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
41         22         63         63           25         13         38         38           24         23         34         91           26         10         36         91           26         14         30         91           16         14         30         91           16         12         26         57           14         12         26         57           15         13         26         57           15         13         26         57           15         13         26         57           10         12         33         66           11         24         11         24           13         5         13         66           14         11         24         24           13         6         28         13           14         11         24         24           15         13         6         4           16         2         8         13           13         3         6         4           13         5         8
25         13         38         33           24         23         47         91           26         14         30         91           16         8         24         91           16         8         24         91           14         12         26         57           13         12         26         57           14         12         26         57           13         12         26         57           13         25         0         57           13         26         33         66           10         6         13         54           10         6         13         54           10         6         13         54           11         54         54         54           11         54         54         54           13         66         28         54           13         5         8         54           14         11         54         54           15         5         8         54           16         2         8
24         23         47         91           26         10         36         91           16         8         24         91           16         8         24         91           16         8         24         91           14         12         26         57           12         13         30         57           13         26         28           13         33         66           13         33         66           10         6         16           10         6         13           7         6         13           7         6         13           7         6         13           7         6         13           7         6         13           7         6         13           7         6         13           7         6         13           7         6         13           7         6         14           8         13         19           9         13         13           6
16         14         30         30           16         8         24         5           14         13         26         57           13         13         30         57           15         5         20         57           13         13         26         57           13         13         26         57           13         13         26         57           13         13         26         57           13         13         26         13           10         6         13         56           10         11         24         14           1         5         12         8           1         5         12         8           1         5         12         8           1         5         12         8           1         5         19         19           1         6         1         19           1         6         1         19           1         5         1         19           1         6         1         19     <
16         8         24           14         12         26           14         12         26           12         13         30           15         5         20           15         5         20           15         5         20           15         5         20           16         12         33           21         12         33           21         12         33           21         12         33           21         12         33           22         6         13           7         4         11           7         5         12           7         5         12           6         23         13           6         24           7         5         12           6         2         8           6         2         8           6         2         8           7         5         8           8         19         19           7         6         14           8         1
14         12         26         57           12         18         30         57           15         13         20         5           15         15         20         5           15         12         33         66           21         12         33         66           10         6         16         13           7         4         11         24           7         5         12         24           7         5         12         24           6         2         8         19           7         5         12         24           7         5         12         24           8         13         66         13           7         5         12         24           8         13         54         13           8         66         13         13           9         66         13         24           10         2         8         13           11         6         13         13           12         5         8         13
12         18         30         7           15         5         20         7           13         26         26           21         13         36           21         12         33           22         6         28           10         6         16           7         6         13           7         4         11           7         5         12           6         28           7         5         12           6         28           7         5         12           6         28         13           7         5         12           7         5         12           6         28         13           7         5         12           8         13         13           9         6         13           13         24         13           14         0         4           15         1         6
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
13         13         26           21         12         33           21         12         33           21         12         33           10         6         16           7         6         13           7         4         11           7         5         12           7         5         12           66         2         8           7         5         12           6         2         8           7         5         12           6         2         8           13         6           4         0         4           5         1         6
21         12         33         66           22         6         28         66           10         6         16         16           7         6         13         5           7         4         11         24           7         5         12         5           6         2         8         19           6         2         8         19           6         2         8         19           6         2         8         19           6         3         6         4           7         0         4         19
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
7         6         13         24           7         4         11         24           3         3         6         24           7         5         12         24           6         2         8         19           3         3         6         4           6         2         8         19           3         3         6         19           4         0         4         19           5         1         6         19
7         4         11         24           3         3         6         24           7         5         12         24           6         2         8         19           6         2         8         19           3         3         6         19           4         0         4         19           5         1         6         19
3         3         6         24           7         5         12         12           6         2         12         13           6         2         8         19           3         6         4         10           4         0         4         15           5         1         6         13
7         5         12           6         2         8         19           6         2         8         19           3         3         6         19           4         0         4         19           5         1         6         19
6 2 8 19 6 2 8 19 3 3 6 19 5 1 6
6 2 8 19 3 3 6 19 5 1 6
0         2         0           3         2         6           4         0         4           5         1         6
3 3 3 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
4 0 5 1
5 1
3
•

Figure 25: NH Route 9 June 9, 2022 fifteen-minute interval counts

#### **BERRY SURVEYING & ENGINEERING**



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the set of					
Eastbound Vehi		Westbound Vehi		Two-Way Vehi	
Tuesday 6/	7/22	Tuesday 6/7	7/22	Tuesday 6,	/7/22
7:00:00 AM	43	7:00:00 AM	27	7:00:00 AM	70
7:15:00 AM	38	7:15:00 AM	23	7:15:00 AM	61
7:30:00 AM	43	7:30:00 AM	20	7:30:00 AM	63
7:45:00 AM	39	7:45:00 AM	24	7:45:00 AM	63
8:00:00 AM	33	8:00:00 AM	26	8:00:00 AM	59
8:15:00 AM	29	8:15:00 AM	21	8:15:00 AM	50
8:30:00 AM	26	8:30:00 AM	29	8:30:00 AM	55
8:45:00 AM	22	8:45:00 AM	14	8:45:00 AM	36
4:00:00 PM	39	4:00:00 PM	35	4:00:00 PM	74
4:15:00 PM	27	4:15:00 PM	34	4:15:00 PM	61
4:30:00 PM	31	4:30:00 PM	40	4:30:00 PM	71
4:45:00 PM	29	4:45:00 PM	31	4:45:00 PM	60
5:00:00 PM	26	5:00:00 PM	40	5:00:00 PM	66
5:15:00 PM	30	5:15:00 PM	40	5:15:00 PM	70
5:30:00 PM	23	5:30:00 PM	33	5:30:00 PM	56
5:45:00 PM	26	5:45:00 PM	44	5:45:00 PM	70
AM Peak Veh	163	AM Peak Veh	100	AM Peak Veh	257
PM Peak Veh	126	PM Peak Veh	157	PM Peak Veh	266

Figure 26: NH Route 9 Tuesday June 7, 2022 peak hour volumes





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Eastbound Veh	icle Count	Westbound Veh	icle Count	Two-Way Vehi	cle Count
Wednesday	6/8/22	Wednesday	6/8/22	Wednesday	6/8/22
7:00:00 AM	37	7:00:00 AM	28	7:00:00 AM	65
7:15:00 AM	35	7:15:00 AM	30	7:15:00 AM	65
7:30:00 AM	48	7:30:00 AM	28	7:30:00 AM	76
7:45:00 AM	38	7:45:00 AM	26	7:45:00 AM	64
8:00:00 AM	25	8:00:00 AM	11	8:00:00 AM	36
8:15:00 AM	29	8:15:00 AM	17	8:15:00 AM	46
8:30:00 AM	24	8:30:00 AM	24	8:30:00 AM	48
8:45:00 AM	18	8:45:00 AM	23	8:45:00 AM	41
4:00:00 PM	23	4:00:00 PM	38	4:00:00 PM	61
4:15:00 PM	22	4:15:00 PM	41	4:15:00 PM	63
4:30:00 PM	13	4:30:00 PM	41	4:30:00 PM	54
4:45:00 PM	32	4:45:00 PM	41	4:45:00 PM	73
5:00:00 PM	27	5:00:00 PM	30	5:00:00 PM	57
5:15:00 PM	35	5:15:00 PM	49	5:15:00 PM	84
5:30:00 PM	34	5:30:00 PM	34	5:30:00 PM	68
5:45:00 PM	30	5:45:00 PM	23	5:45:00 PM	53
AM Peak Veh	158	AM Peak Veh	112	AM Peak Veh	270
PM Peak Veh	128	PM Peak Veh	161	PM Peak Veh	282

Figure 27: NH Route 9 Wednesday June 8, 2022 peak hour volumes



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Eastbound Ve	ehicle Count	Westbound V	ehicle Count	Two-Way Vehi	cle Count
Thursday	y 6/9/22	Thursday	6/9/22	Thursday 6	/9/22
7:00:00 AM	36	7:00:00 AM	12	7:00:00 AM	48
7:15:00 AM	30	7:15:00 AM	26	7:15:00 AM	56
7:30:00 AM	50	7:30:00 AM	23	7:30:00 AM	73
7:45:00 AM	29	7:45:00 AM	16	7:45:00 AM	45
8:00:00 AM	34	8:00:00 AM	9	8:00:00 AM	43
8:15:00 AM	31	8:15:00 AM	16	8:15:00 AM	47
8:30:00 AM	27	8:30:00 AM	29	8:30:00 AM	56
8:45:00 AM	22	8:45:00 AM	22	8:45:00 AM	44
4:00:00 PM	32	4:00:00 PM	35	4:00:00 PM	67
4:15:00 PM	28	4:15:00 PM	48	4:15:00 PM	76
4:30:00 PM	31	4:30:00 PM	36	4:30:00 PM	67
4:45:00 PM	32	4:45:00 PM	43	4:45:00 PM	75
5:00:00 PM	23	5:00:00 PM	35	5:00:00 PM	58
5:15:00 PM	24	5:15:00 PM	43	5:15:00 PM	67
5:30:00 PM	21	5:30:00 PM	32	5:30:00 PM	53
5:45:00 PM	22	5:45:00 PM	41	5:45:00 PM	63
AM Peak Veh	145	AM Peak Veh	77	AM Peak Veh	222
PM Peak Veh	123	PM Peak Veh	162	PM Peak Veh	285

Figure 28: NH Route 9 Thursday June 9, 2022 peak hour volumes





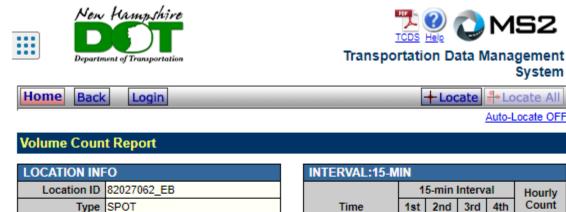
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45Z

Auto-Locate OFF

+Locate All

System



Location ID	02027002_ED
Туре	SPOT
Fnct'l Class	6
Located On	Church St
Loc On Alias	NH 126 (LOCKS HILL RD) WEST OF WATERHOUSE RD
Direction	EB
County	STRAFFORD
Community	BARRINGTON
MPO ID	
HPMS ID	
Agency	New Hampshire DOT

COUNT DATA INFO				
Count Status	Accepted			
Holiday	No			
Start Date	Tue 6/7/2022			
End Date	Wed 6/8/2022			
Start Time	12:00:00 AM			
End Time	12:00:00 AM			
Direction	0002			
Notes				
Station	820270627030			
Study				
Speed Limit				
Description				
Sensor Type	Tube Class			
Source	TcdsBinToVol			
Latitude,Longitude				

INTERVAL:15-MIN							
	15-min Interval Hourly						
Time	1st	1st 2nd 3rd 4th		Count			
(b) 0:00-1:00	0	0	1	0	1		
1:00-2:00	0	0	2	0	2		
2:00-3:00	1	1	0	0	2		
3:00-4:00	2	4	4	1	11		
4:00-5:00	3	4	12	9	28		
5:00-6:00	15	13	16	17	61		
6:00-7:00	30	35	58	49	172		
7:00-8:00	80	59	56	42	237		
8:00-9:00	65	46	47	28	186		
9:00-10:00	25	25	19	19	88		
10:00-11:00	20	14	22	23	79		
11:00-12:00	17	17	22	20	76		
12:00-13:00	25	16	23	22	86		
13:00-14:00	29	27	25	22	103		
14:00-15:00	26	32	22	25	105		
15:00-16:00	29	24	31	29	113		
16:00-17:00	27	26	30	26	109		
17:00-18:00	28	32	27	27	114		
18:00-19:00	21	33	32	11	97		
19:00-20:00	18	14	11	18	61		
20:00-21:00	15	8	14	2	39		
21:00-22:00	5	8	1	5	19		
22:00-23:00	2	8	5	2	17		
23:00-24:00 🔳	2	2	0	0	4		
Total	1,810						
AM Peak	06:30-07:30 246						
PM Peak	16:30-17:30 116						

Figure 29: NH Route 126 June 7, 2022 EB fifteen-minute interval counts

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Transportation Data Management System

+Locate 4I

Auto-Locate OFF

#### Volume Count Report

Home Back

LOCATION INF	-0
Location ID	82027062_WB
Туре	SPOT
Fnct'l Class	6
Located On	Church St
Loc On Alias	NH 126 (LOCKS HILL RD) WEST OF WATERHOUSE RD
Direction	WB
County	STRAFFORD
Community	BARRINGTON
MPO ID	
HPMS ID	
Agency	New Hampshire DOT

Login

COUNT DATA INFO				
Count Status	Accepted			
Holiday	No			
Start Date	Tue 6/7/2022			
End Date	Wed 6/8/2022			
Start Time	12:00:00 AM			
End Time	12:00:00 AM			
Direction	0001			
Notes				
Station	820270627030			
Study				
Speed Limit				
Description				
Sensor Type	Tube Class			
Source	TcdsBinToVol			
Latitude,Longitude				

INTERVAL:15-MIN							
	1	5-min	Hourly				
Time	1st 2nd 3rd 4th		Count				
• 0:00-1:00	2	4	0	1	7		
1:00-2:00	3	0	0	0	3		
2:00-3:00	1	0	0	2	3		
3:00-4:00	0	0	1	2	3		
4:00-5:00	1	0	2	0	3		
5:00-6:00	0	4	6	8	18		
6:00-7:00	10	3	9	7	29		
7:00-8:00	12	25	28	19	84		
8:00-9:00	18	20	33	14	85		
9:00-10:00	19	19	18	17	73		
10:00-11:00	15	24	16	21	76		
11:00-12:00	18	10	19	23	70		
12:00-13:00	37	24	17	28	106		
13:00-14:00	27	21	27	22	97		
14:00-15:00	23	45	32	34	134		
15:00-16:00	61	49	58	59	227		
16:00-17:00	47	65	54	50	216		
17:00-18:00	58	63	56	53	230		
18:00-19:00	38	25	35	20	118		
19:00-20:00	27	26	37	23	113		
20:00-21:00	20	30	26	13	89		
21:00-22:00	15	11	9	6	41		
22:00-23:00	3	10	6	4	23		
23:00-24:00 🔳	3	6	6	2	17		
Total	1,865						
AM Peak	11:30-12:30 103						
PM Peak	17:00-18:00 230						

Figure 30: NH Route 126 June 7, 2022 WB fifteen-minute interval counts

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Transportation Data Management System

+Locate All

Auto-Locate OFF

## Volume Count Report

Home Back

LOCATION INF	-0
Location ID	82027062_EB
Туре	SPOT
Fnct'l Class	6
Located On	Church St
Loc On Alias	NH 126 (LOCKS HILL RD) WEST OF WATERHOUSE RD
Direction	EB
County	STRAFFORD
Community	BARRINGTON
MPO ID	
HPMS ID	
Agency	New Hampshire DOT

Login

COUNT DATA INFO				
Count Status	Accepted			
Holiday	No			
Start Date	Wed 6/8/2022			
End Date	Thu 6/9/2022			
Start Time	12:00:00 AM			
End Time	12:00:00 AM			
Direction	0002			
Notes				
Station	820270627030			
Study				
Speed Limit				
Description				
Sensor Type	Tube Class			
Source	TcdsBinToVol			
Latitude,Longitude				

INTERVAL:15-MIN							
INTERVAL, IS-M		Hender					
Time	15-min Interval 1st 2nd 3rd 4th				Hourly Count		
(b) 0:00-1:00	131	1	0	0	2		
1:00-2:00	1	1	0	1			
2:00-3:00	0	0	0	0	0		
3:00-4:00	3	2	1	1	7		
4:00-5:00	4	4	7	7	. 22		
5:00-6:00	14	19	18	20	71		
6:00-7:00	28	40	50	40	158		
7:00-8:00	73	65	41	45	224		
8:00-9:00	55	52	33	28	168		
9:00-10:00	20	15	21	17	73		
10:00-11:00	21	23	20	24	88		
11:00-12:00	16	14	27	25	82		
12:00-13:00	19	19	22	23	83		
13:00-14:00	15	21	28	25	89		
14:00-15:00	35	35	28	26	124		
15:00-16:00	18	30	13	31	92		
16:00-17:00	29	28	36	35	128		
17:00-18:00	22	42	36	25	125		
18:00-19:00	24	16	16	17	73		
19:00-20:00	14	13	16	11	54		
20:00-21:00	5	12	11	13	41		
21:00-22:00	8	14	8	6	36		
22:00-23:00	2	4	3	4	13		
23:00-24:00 🔳	1	1	2	0	4		
Total	1,760						
AM Peak	06:30-07:30 228						
PM Peak	16:30-17:30 135						

Figure 31: NH Route 126 June 8, 2022 EB fifteen-minute interval counts

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8

5

2

1

2

9

38

69

79

57

61

54

86

87

119

218

232

209

118

134

75

59

36

19

85

236

1,777

08:15-09:15

16:15-17:15



Figure 32: NH Route 126 June 8, 2022 WB fifteen-minute interval counts

Tube Class

TcdsBinToVol

Sensor Type

Latitude,Longitude

Source

Total

AM Peak

PM Peak

**BERRY SURVEYING & ENGINEERING** 



820270627030

Tube Class

TcdsBinToVol

Station

Study

Speed Limit

Description

Sensor Type

Latitude,Longitude

Source

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> Hourly Count

> > 1

3

3

6

22

76

150

213

158

72

71

84

77

88

102

114

87

119

70

49

42

15

12

4

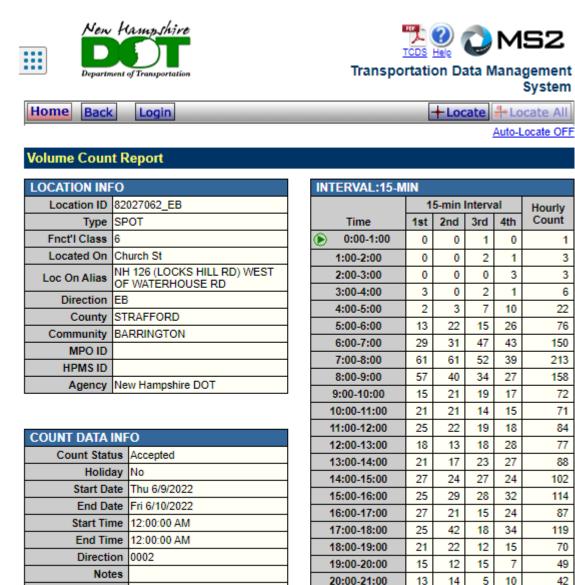
1,638

217

119

06:45-07:45

17:00-18:00



21:00-22:00

22:00-23:00

Total

AM Peak

PM Peak

23:00-24:00

4

3

3

3

4

0

6

1

1

2

4

0

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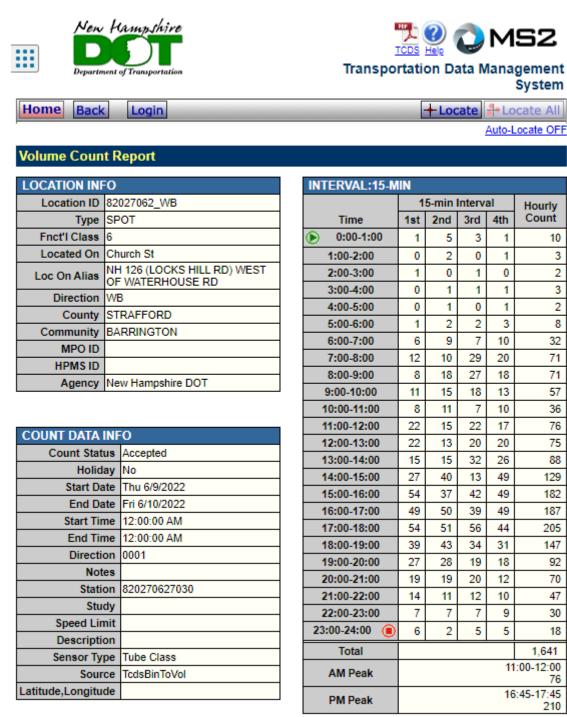


Figure 34: NH Route 126 June 9, 2022 WB fifteen-minute interval counts

**BERRY SURVEYING & ENGINEERING** 



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Eastbound Veh	icle Count	Westbound Vehi	cle Count	Two-Way Vehicle Count		
Tuesday 6	Tuesday 6/7/22 Tuesd		7/22	Tuesday 6/7/22		
7:00:00 AM	80	7:00:00 AM	12	7:00:00 AM	92	
7:15:00 AM	59	7:15:00 AM	25	7:15:00 AM	84	
7:30:00 AM	56	7:30:00 AM	28	7:30:00 AM	84	
7:45:00 AM	42	7:45:00 AM	19	7:45:00 AM	61	
8:00:00 AM	65	8:00:00 AM	18	8:00:00 AM	83	
8:15:00 AM	46	8:15:00 AM	20	8:15:00 AM	66	
8:30:00 AM	47	8:30:00 AM	33	8:30:00 AM	80	
8:45:00 AM	28	8:45:00 AM	14	8:45:00 AM	42	
4:00:00 PM	27	4:00:00 PM	47	4:00:00 PM	74	
4:15:00 PM	26	4:15:00 PM	49	4:15:00 PM	75	
4:30:00 PM	30	4:30:00 PM	58	4:30:00 PM	88	
4:45:00 PM	26	4:45:00 PM	59	4:45:00 PM	85	
5:00:00 PM	28	5:00:00 PM	47	5:00:00 PM	75	
5:15:00 PM	32	5:15:00 PM	65	5:15:00 PM	97	
5:30:00 PM	27	5:30:00 PM	54	5:30:00 PM	81	
5:45:00 PM	27	5:45:00 PM	50	5:45:00 PM	77	
AM Peak Veh	237	AM Peak Veh	90	AM Peak Veh	321	
PM Peak Veh	116	PM Peak Veh	229	PM Peak Veh	345	

Figure 35: NH Route 126 Tuesday June 7, 2022 peak hour volumes





Eastbound Veh	icle Count	Westbound Veh	icle Count	Two-Way Vehi	cle Count
Wednesday	6/8/22	Wednesday	6/8/22	Wednesday	6/8/22
7:00:00 AM	73	7:00:00 AM	11	7:00:00 AM	84
7:15:00 AM	65	7:15:00 AM	18	7:15:00 AM	83
7:30:00 AM	41	7:30:00 AM	26	7:30:00 AM	67
7:45:00 AM	45	7:45:00 AM	14	7:45:00 AM	59
8:00:00 AM	55	8:00:00 AM	10	8:00:00 AM	65
8:15:00 AM	52	8:15:00 AM	24	8:15:00 AM	76
8:30:00 AM	33	8:30:00 AM	27	8:30:00 AM	60
8:45:00 AM	28	8:45:00 AM	18	8:45:00 AM	46
4:00:00 PM	29	4:00:00 PM	50	4:00:00 PM	79
4:15:00 PM	28	4:15:00 PM	66	4:15:00 PM	94
4:30:00 PM	36	4:30:00 PM	61	4:30:00 PM	97
4:45:00 PM	25	4:45:00 PM	55	4:45:00 PM	80
5:00:00 PM	22	5:00:00 PM	54	5:00:00 PM	76
5:15:00 PM	42	5:15:00 PM	60	5:15:00 PM	102
5:30:00 PM	36	5:30:00 PM	49	5:30:00 PM	85
5:45:00 PM	25	5:45:00 PM	46	5:45:00 PM	71
AM Peak Veh	224	AM Peak Veh	79	AM Peak Veh	293
PM Peak Veh	125	PM Peak Veh	236	PM Peak Veh	355

Figure 36: NH Route 126 Wednesday June 8, 2022 peak hour volumes



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Eastbound Ve	ehicle Count	Westbound V	ehicle Count	Two-Way Vehi	cle Count
Thursday	/ 6/9/22	Thursday	6/9/22	Thursday 6	/9/22
7:00:00 AM	61	7:00:00 AM	12	7:00:00 AM	73
7:15:00 AM	61	7:15:00 AM	10	7:15:00 AM	71
7:30:00 AM	52	7:30:00 AM	29	7:30:00 AM	81
7:45:00 AM	39	7:45:00 AM	20	7:45:00 AM	59
8:00:00 AM	57	8:00:00 AM	8	8:00:00 AM	65
8:15:00 AM	40	8:15:00 AM	18	8:15:00 AM	58
8:30:00 AM	34	8:30:00 AM	27	8:30:00 AM	61
8:45:00 AM	27	8:45:00 AM	18	8:45:00 AM	45
4:00:00 PM	27	4:00:00 PM	49	4:00:00 PM	76
4:15:00 PM	21	4:15:00 PM	50	4:15:00 PM	71
4:30:00 PM	15	4:30:00 PM	39	4:30:00 PM	54
4:45:00 PM	24	4:45:00 PM	49	4:45:00 PM	73
5:00:00 PM	25	5:00:00 PM	54	5:00:00 PM	79
5:15:00 PM	42	5:15:00 PM	51	5:15:00 PM	93
5:30:00 PM	18	5:30:00 PM	56	5:30:00 PM	74
5:45:00 PM	34	5:45:00 PM	44	5:45:00 PM	78
AM Peak Veh	213	AM Peak Veh	71	AM Peak Veh	284
PM Peak Veh	119	PM Peak Veh	210	PM Peak Veh	324

Figure 37: NH Route 126 Thursday June 9, 2022 peak hour volumes





Eastbound Veh	icle Count	Westbound Vehi	cle Count	Two-Way Vehi	cle Count
Tuesday 6	/7/22	Tuesday 6/7	7/22	Tuesday 6,	/7/22
12:00:00 AM	5	12:00:00 AM	11	12:00:00 AM	16
1:00:00 AM	2	1:00:00 AM	7	1:00:00 AM	9
2:00:00 AM	4	2:00:00 AM	3	2:00:00 AM	7
3:00:00 AM	21	3:00:00 AM	7	3:00:00 AM	28
4:00:00 AM	51	4:00:00 AM	10	4:00:00 AM	61
5:00:00 AM	98	5:00:00 AM	30	5:00:00 AM	128
6:00:00 AM	282	6:00:00 AM	74	6:00:00 AM	356
7:00:00 AM	400	7:00:00 AM	178	7:00:00 AM	578
8:00:00 AM	296	8:00:00 AM	175	8:00:00 AM	471
9:00:00 AM	170	9:00:00 AM	129	9:00:00 AM	299
10:00:00 AM	151	10:00:00 AM	137	10:00:00 AM	288
11:00:00 AM	139	11:00:00 AM	135	11:00:00 AM	274
12:00:00 PM	159	12:00:00 PM	185	12:00:00 PM	344
1:00:00 PM	194	1:00:00 PM	173	1:00:00 PM	367
2:00:00 PM	204	2:00:00 PM	232	2:00:00 PM	436
3:00:00 PM	230	3:00:00 PM	399	3:00:00 PM	629
4:00:00 PM	235	4:00:00 PM	356	4:00:00 PM	591
5:00:00 PM	219	5:00:00 PM	387	5:00:00 PM	606
6:00:00 PM	157	6:00:00 PM	221	6:00:00 PM	378
7:00:00 PM	100	7:00:00 PM	189	7:00:00 PM	289
8:00:00 PM	68	8:00:00 PM	150	8:00:00 PM	218
9:00:00 PM	29	9:00:00 PM	72	9:00:00 PM	101
10:00:00 PM	24	10:00:00 PM	40	10:00:00 PM	64
11:00:00 PM	5	11:00:00 PM	29	11:00:00 PM	34
Total Vehicles	3243	Total Vehicles	3329	<b>Total Vehicles</b>	6572

Figure 38: NH Route 9 & 126 June 7, 2022 combined traffic volumes

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Eastbound Veh	icle Count	Westbound Veh	icle Count	Two-Way Vehi	cle Count
Wednesday	6/8/22	Wednesday	6/8/22	Wednesday	6/8/22
12:00:00 AM	2	12:00:00 AM	10	12:00:00 AM	12
1:00:00 AM	4	1:00:00 AM	7	1:00:00 AM	11
2:00:00 AM	0	2:00:00 AM	2	2:00:00 AM	2
3:00:00 AM	15	3:00:00 AM	3	3:00:00 AM	18
4:00:00 AM	42	4:00:00 AM	7	4:00:00 AM	49
5:00:00 AM	105	5:00:00 AM	21	5:00:00 AM	126
6:00:00 AM	258	6:00:00 AM	87	6:00:00 AM	345
7:00:00 AM	382	7:00:00 AM	181	7:00:00 AM	563
8:00:00 AM	264	8:00:00 AM	154	8:00:00 AM	418
9:00:00 AM	150	9:00:00 AM	112	9:00:00 AM	262
10:00:00 AM	155	10:00:00 AM	113	10:00:00 AM	268
11:00:00 AM	143	11:00:00 AM	124	11:00:00 AM	267
12:00:00 PM	161	12:00:00 PM	152	12:00:00 PM	313
1:00:00 PM	165	1:00:00 PM	150	1:00:00 PM	315
2:00:00 PM	220	2:00:00 PM	194	2:00:00 PM	414
3:00:00 PM	197	3:00:00 PM	378	3:00:00 PM	575
4:00:00 PM	218	4:00:00 PM	393	4:00:00 PM	611
5:00:00 PM	251	5:00:00 PM	345	5:00:00 PM	596
6:00:00 PM	135	6:00:00 PM	199	6:00:00 PM	334
7:00:00 PM	91	7:00:00 PM	226	7:00:00 PM	317
8:00:00 PM	70	8:00:00 PM	117	8:00:00 PM	187
9:00:00 PM	62	9:00:00 PM	90	9:00:00 PM	152
10:00:00 PM	28	10:00:00 PM	52	10:00:00 PM	80
11:00:00 PM	10	11:00:00 PM	33	11:00:00 PM	43
Total Vehicles	3128	Total Vehicles	3150	<b>Total Vehicles</b>	6278

Figure 39: NH Route 9 & 126 June 8, 2022 combined traffic volumes

BERRY SURVEYING & ENGINEERING



Eastbound Ve	ehicle Count	Westbound V	ehicle Count	Two-Way Vehi	cle Count
Thursday	y 6/9/22	Thursday	6/9/22	Thursday 6	/9/22
12:00:00 AM	4	12:00:00 AM	18	12:00:00 AM	22
1:00:00 AM	4	1:00:00 AM	5	1:00:00 AM	9
2:00:00 AM	5	2:00:00 AM	4	2:00:00 AM	9
3:00:00 AM	13	3:00:00 AM	6	3:00:00 AM	19
4:00:00 AM	46	4:00:00 AM	7	4:00:00 AM	53
5:00:00 AM	111	5:00:00 AM	21	5:00:00 AM	132
6:00:00 AM	254	6:00:00 AM	72	6:00:00 AM	326
7:00:00 AM	358	7:00:00 AM	148	7:00:00 AM	506
8:00:00 AM	272	8:00:00 AM	147	8:00:00 AM	419
9:00:00 AM	138	9:00:00 AM	113	9:00:00 AM	251
10:00:00 AM	132	10:00:00 AM	100	10:00:00 AM	232
11:00:00 AM	147	11:00:00 AM	125	11:00:00 AM	272
12:00:00 PM	143	12:00:00 PM	145	12:00:00 PM	288
1:00:00 PM	164	1:00:00 PM	178	1:00:00 PM	342
2:00:00 PM	205	2:00:00 PM	211	2:00:00 PM	416
3:00:00 PM	225	3:00:00 PM	329	3:00:00 PM	554
4:00:00 PM	210	4:00:00 PM	349	4:00:00 PM	559
5:00:00 PM	209	5:00:00 PM	356	5:00:00 PM	565
6:00:00 PM	130	6:00:00 PM	238	6:00:00 PM	368
7:00:00 PM	92	7:00:00 PM	149	7:00:00 PM	241
8:00:00 PM	79	8:00:00 PM	136	8:00:00 PM	215
9:00:00 PM	33	9:00:00 PM	71	9:00:00 PM	104
10:00:00 PM	19	10:00:00 PM	49	10:00:00 PM	68
11:00:00 PM	6	11:00:00 PM	33	11:00:00 PM	39
<b>Total Vehicles</b>	2999	Total Vehicles	3010	<b>Total Vehicles</b>	6009

Figure 40: NH Route 9 & 126 June 9, 2022 combined traffic volumes

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Eastbound Veh	icle Count	Westbound Vehi	cle Count	Two-Way Vehi	cle Count	
Tuesday 6	/7/22	Tuesday 6/7	7/22	Tuesday 6/7/22		
7:00:00 AM	123	7:00:00 AM	39	7:00:00 AM	162	
7:15:00 AM	97	7:15:00 AM	48	7:15:00 AM	145	
7:30:00 AM	99	7:30:00 AM	48	7:30:00 AM	147	
7:45:00 AM	81	7:45:00 AM	43	7:45:00 AM	124	
8:00:00 AM	98	8:00:00 AM	44	8:00:00 AM	142	
8:15:00 AM	75	8:15:00 AM	41	8:15:00 AM	116	
8:30:00 AM	73	8:30:00 AM	62	8:30:00 AM	135	
8:45:00 AM	50	8:45:00 AM	28	8:45:00 AM	78	
4:00:00 PM	66	4:00:00 PM	82	4:00:00 PM	148	
4:15:00 PM	53	4:15:00 PM	83	4:15:00 PM	136	
4:30:00 PM	61	4:30:00 PM	98	4:30:00 PM	159	
4:45:00 PM	55	4:45:00 PM	90	4:45:00 PM	145	
5:00:00 PM	54	5:00:00 PM	87	5:00:00 PM	141	
5:15:00 PM	62	5:15:00 PM	105	5:15:00 PM	167	
5:30:00 PM	50	5:30:00 PM	87	5:30:00 PM	137	
5:45:00 PM	53	5:45:00 PM	94	5:45:00 PM	147	
AM Peak Veh	400	AM Peak Veh	190	AM Peak Veh	578	
PM Peak Veh	232	PM Peak Veh	380	PM Peak Veh	612	

Figure 41: NH Route 9 & 126 Tuesday June 7, 2022 peak hour volumes





Eastbound Veh	icle Count	Westbound Veh	icle Count	Two-Way Vehi	cle Count
Wednesday	6/8/22	Wednesday	6/8/22	Wednesday	6/8/22
7:00:00 AM	110	7:00:00 AM	39	7:00:00 AM	149
7:15:00 AM	100	7:15:00 AM	48	7:15:00 AM	148
7:30:00 AM	89	7:30:00 AM	54	7:30:00 AM	143
7:45:00 AM	83	7:45:00 AM	40	7:45:00 AM	123
8:00:00 AM	80	8:00:00 AM	21	8:00:00 AM	101
8:15:00 AM	81	8:15:00 AM	41	8:15:00 AM	122
8:30:00 AM	57	8:30:00 AM	51	8:30:00 AM	108
8:45:00 AM	46	8:45:00 AM	41	8:45:00 AM	87
4:00:00 PM	52	4:00:00 PM	88	4:00:00 PM	140
4:15:00 PM	50	4:15:00 PM	107	4:15:00 PM	157
4:30:00 PM	49	4:30:00 PM	102	4:30:00 PM	151
4:45:00 PM	57	4:45:00 PM	96	4:45:00 PM	153
5:00:00 PM	49	5:00:00 PM	84	5:00:00 PM	133
5:15:00 PM	77	5:15:00 PM	109	5:15:00 PM	186
5:30:00 PM	70	5:30:00 PM	83	5:30:00 PM	153
5:45:00 PM	55	5:45:00 PM	69	5:45:00 PM	124
AM Peak Veh	382	AM Peak Veh	181	AM Peak Veh	563
PM Peak Veh	253	PM Peak Veh	391	PM Peak Veh	625

Figure 42: NH Route 9 & 126 Wednesday June 8, 2022 peak hour volumes

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Eastbound Ve	ehicle Count	Westbound V	ehicle Count	Two-Way Vehi	cle Count	
Thursday	y 6/9/22	Thursday	6/9/22	Thursday 6/9/22		
7:00:00 AM	97	7:00:00 AM	24	7:00:00 AM	121	
7:15:00 AM	91	7:15:00 AM	36	7:15:00 AM	127	
7:30:00 AM	102	7:30:00 AM	52	7:30:00 AM	154	
7:45:00 AM	68	7:45:00 AM	36	7:45:00 AM	104	
8:00:00 AM	91	8:00:00 AM	17	8:00:00 AM	108	
8:15:00 AM	71	8:15:00 AM	34	8:15:00 AM	105	
8:30:00 AM	61	8:30:00 AM	56	8:30:00 AM	117	
8:45:00 AM	49	8:45:00 AM	40	8:45:00 AM	89	
4:00:00 PM	59	4:00:00 PM	84	4:00:00 PM	143	
4:15:00 PM	49	4:15:00 PM	98	4:15:00 PM	147	
4:30:00 PM	46	4:30:00 PM	75	4:30:00 PM	121	
4:45:00 PM	56	4:45:00 PM	92	4:45:00 PM	148	
5:00:00 PM	48	5:00:00 PM	89	5:00:00 PM	137	
5:15:00 PM	66	5:15:00 PM	94	5:15:00 PM	160	
5:30:00 PM	39	5:30:00 PM	88	5:30:00 PM	127	
5:45:00 PM	56	5:45:00 PM	85	5:45:00 PM	141	
AM Peak Veh	358	AM Peak Veh	148	AM Peak Veh	506	
PM Peak Veh	216	PM Peak Veh	363	PM Peak Veh	572	

Figure 43: NH Route 9 & 126 Thursday June 9, 2022 peak hour volumes





#### Appendix B

#### Vehicle Speeds

#### Accurate Counts 978-664-2565

Location : You Location : betw City/State: Barr Direction: Com	een #s12 ington, N													19680001
7/13/2023	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	
Time	MPH	20 MPH	25 MPH		35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	Total
12:00 AM	0	1	0	0	2	1	0	0	0	0	0	0	0	4
1:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
4:00	0	0	1	0	3	2	0		0	0	0	0	0	6
5:00	0	0	1	2	5	7	2		0	0	0	0	0	17
6:00	0	0	2	8	18	21	2	1	0	0	0	1	0	53
7:00	0	0	0	10	42	27	9	0	0	0	0	1	0	89
8:00	0	0	-	20	52	19	3		0	0	0	0	0	96
9:00	0	2	-	15	37	24	1	2	0	0	0	0	0	81
10:00	1	2		24	45	18	1	0	0	0		0	0	99
11:00	0	2	4	22	37	22	3		0	0	-	0	0	90
12:00 PM	0	0	2	14	63	24	5	-	0	0	-	0	0	108
1:00	0	0	4	12	50	32	1	3	0	0		0	0	102
2:00	0	1	1	17	38	35	6	1	0	0	-	0	0	99
3:00	0	3		25	65	43	10		0	0	-	0	0	154
4:00	0	0	2	13	55	46	10		0	0		0	0	127
5:00	1	0	2	13	62	41	6	0	1	0	-	0	0	126
6:00	0	0	4	12	41	16	4	1	1	0	-	0	0	79
7:00	0	0	1	14	29	22	1	0	0	0	-	0	0	67
8:00	0	0	0	9	48	15	0		0	0		0	0	73
9:00	0	0	_	1	11	9	1		1	0		0	0	26
10:00	0	0	0	3	10	2	4	2	0	0		0	0	21
11:00	0	0	0	2	4	0	0	-	0	0	-	0	0	6
Total	2		43	237	717	426	69		3	0	0	2	0	1526
			Percentile	15th	50th	85th	95th							
			Speed	29	34	38	40							
		an Speed		33.4										
	10	) MPH Pa		30-39										
			er in Pace	1139 74.6%										
			nt in Pace											
		Number >		516										
		Percent >	- 35 MPH	33.8%										

#### Figure 44: Young Road Vehicle Speed Summary Thursday July 13, 2023

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#### Accurate Counts 978-664-2565

Location : Your Location : betw City/State: Barr	een #s12												1	19680001
Direction: Com														
7/14/2023	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH			55 MPH		65 MPH	70 MPH	MPH	Total
12:00 AM	0	0	0	3	1	1	0	0	0	0	0	0	0	5
1:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
2:00	0	1	0	0	1	0	1	1	0	0	0	0	0	4
3:00	0	0	0	0	1	0	1	0	0	0	0	0	0	2
4:00	0	0	0	1	2	3	0	0	0	0	0	0	0	6
5:00	0	0	1	2	4	2	1	0	0	0	0	0	0	10
6:00	1	1	0	4	14	12	2	0	0	0	0	0	0	34
7:00	0	0	2	16	39	15	4	0	0	0	0	0	0	76
8:00	2	0	2	13	48	23	2	0	0	0	0	0	0	90
9:00	0	0	3	12	45	19	7	0	0	0	0	0	0	86
10:00	0	0	3	13	27	22	2	0	0	0	0	0	0	67
11:00	0	0	0	16	34	32	3	0	0	0	0	0	1	86
12:00 PM	0	0	1	9	38	39	3	0	0	0	0	0	1	91
1:00	1	1	0	16	40	20	6	0	0	0	0	0	0	84
2:00	0	1	2	24	52	24	6	0	0	1	0	0	0	110
3:00	0	0	0	10	48	27	3	1	0	0	0	0	0	89
4:00	0	0	0	10	52	33	7	1	0	0	0	0	0	103
5:00	0	0	1	17	60	36	8	0	0	0	0	0	0	122
6:00	0	0	0	7	37	23	5	0	0	0	0	0	0	72
7:00	0	2	1	3	23	16	4	1	0	0	0	0	0	50
8:00	0	0	0	9	21	9	2	1	0	0	0	0	0	42
9:00	0	0	0	7	15	5	1	0	0	0	0	0	0	28
10:00	0	0	1	0	11	8	2	2	0	0	0	0	0	24
11:00	0	0	0	2	3	4	1	1	0	0	0	0	0	11
Total	4	6	17	195	617	373		8	0	1	0	0	2	1294
		F	Percentile	15th	50th	85th	95th							
			Speed	30	34	38	40							
	Mea	an Speed	(Average)	33.8										
	10	) MPH Pa	ce Speed	30-39										
		Numbe	er in Pace	986										
		Percer	nt in Pace	76.2%										
		Number >	35 MPH	455										
		Percent >	35 MPH	35.2%										

#### Figure 45: Young Road Vehicle Speed Summary Friday July 14, 2023

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Location : Young Road

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Accurate Counts 978-664-2565

rection: Coml 7/15/2023	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	
Time	MPH								55 MPH				MPH	Total
12:00 AM	0	0	0	2	3	2	0	0	0	0	0	0	0	
1:00	0	0	0	0	0	0	0	0	1	0	0	0	0	
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	
3:00	0	0	0	0	1	0	0	0	0	0	0	0	0	
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00	0	0	1	3	4	2	1	0	0	0	0	0	0	1
6:00	0	0	1	5	7	5	0	1	0	0	0	0	0	1
7:00	0	0	2	7	11	11	0	0	0	0	0	0	0	3
8:00	0	1	1	15	45	23	7	0	0	0	0	0	0	9
9:00	0	0	3	13	55	36	8	0	0	0	0	0	0	11
10:00	0	0	1	22	72	36	6	1	0	0	0	0	0	13
11:00	0	1	6	26	85	44	8	2	0	0	1	0	0	17
12:00 PM	0	1	2	26	57	53	8	3	0	0	0	0	0	15
1:00	0	2	2	25	61	39	9	2	1	0	0	0	0	14
2:00	0	0	3	19	51	22	7	0	0	0	0	0	0	10
3:00	0	2	3	27	55	33	6	0	0	0	0	0	0	12
4:00	0	0	2	13	54	39	7	1	0	0	0	0	0	11
5:00	1	0	0	12	34	39	8	2	0	0	0	0	0	9
6:00	1	0	1	8	36	16	8	0	0	0	0	0	0	7
7:00	0	0	0	7	25	24	9	1	0	0	0	0	0	6
8:00	0	0	0	11	20	9	1	1	0	0	0	0	0	4
9:00	0	0	1	6	15	5	1	0	0	0	0	0	0	2
10:00	0	0	0	2	10	7	3	1	0	0	0	0	0	2
11:00	0	0	0	0	1	1	1	0	0	0	0	0	0	
Total	2	7	29	249	703	446	98	15	2	0	1	0	0	155
			Percentile	15th	50th	85th								
		0	Speed	30	34	38	41							
		an Speed		33.7										
	10	) MPH Pa		30-39										
			er in Pace	1145										
			nt in Pace	73.8%										
		Number > Percent >		562 36.2%										
Grand Total	8	24	89	<u>- 30.2%</u> 681	2037	1245	238	39	5	1	1	2	2	437
Granu Totai	0		Percentile	15th	2037 50th	85th		29	5			2	2	43
			Speed	30	34	38								
	Mor	an Speed		33.7	- 34	30	40							
		MPH Pa		30-39										
			er in Pace	3271										
			nt in Pace	74.8%										
		Number >		1533										
		Percent >		35.1%										

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19680001

2022-109 Paul Thibodeau, Young Road, Barrington, NH
23 Lot Subdivision Trip Generation & Distribution

## Appendix C

#### Trip Generation Derivation

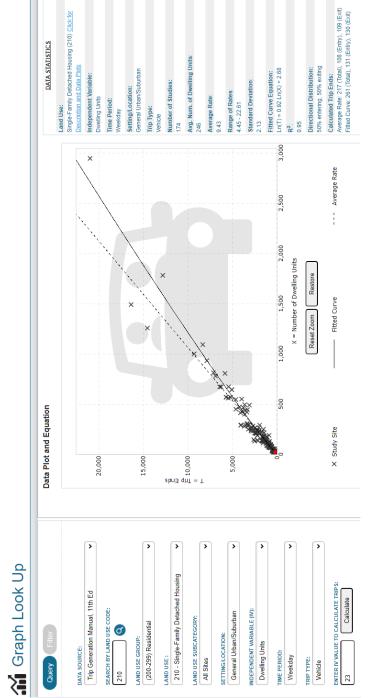


Figure 47: ITE Trip Generation, 11<sup>th</sup> Edition

### **BERRY SURVEYING & ENGINEERING**



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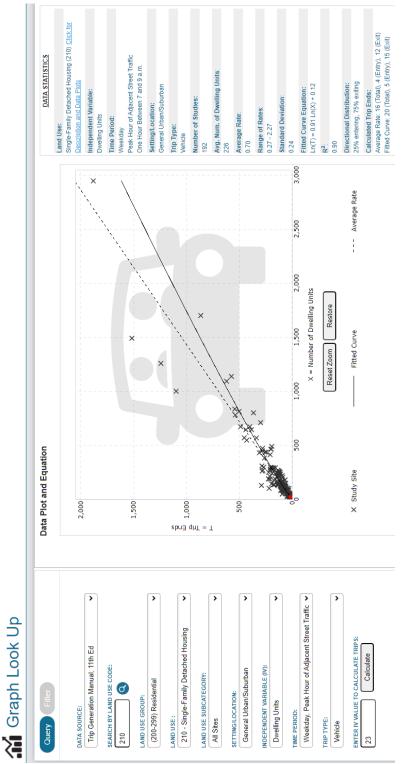


Figure 48: ITE Trip Generation, 11<sup>th</sup> Edition

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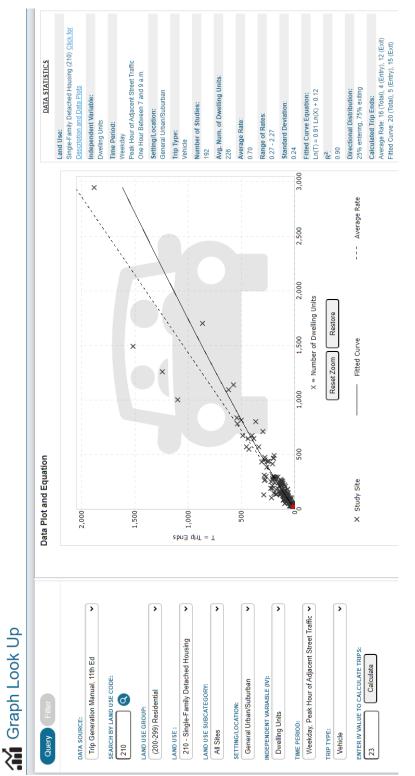


Figure 49: ITE Trip Generation, 11<sup>th</sup> Edition



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## Appendix D

Young Road Projected & Se	asonally Peaked Traffic Volur	nes AM Weekday Peak Hour
Year	Northbound Volume	Northbound Volume Peaked
2023	69	69
2024	69	69
2025	70	70
2026	71	71
2027	71	71
2028	72	72
2029	73	73
2030	73	73
2031	74	74
2032	75	75
2033	76	76
2034	76	76
Year	Southbound Volume	Southbound Volume Peaked
2023	36	36
2024	36	36
2025	37	37
2026	37	37
2027	37	37
2028	38	38
2029	38	38
2030	39	39
2031	39	39
2032	39	39
2033	40	40
2034	40	40

#### Projected Traffic Volumes Seasonally Peaked

Table 11: Young Road AM Peak Hour Volume Projected & Seasonally Peaked

**BERRY SURVEYING & ENGINEERING** 



Young Road Projected & Seasonally Peaked Traffic Volumes PM Weekday Peak Hour		
Year	Northbound Volume	Northbound Volume Peaked
2023	66	66
2024	67	67
2025	67	67
2026	68	68
2027	69	69
2028	69	69
2029	70	70
2030	71	71
2031	71	71
2032	72	72
2033	73	73
2034	74	74
Year	Southbound Volume	Southbound Volume Peaked
2023	64	64
2024	64	64
2025	65	65
2025 2026	65 65	65 65
2026	65	65
2026 2027	65 66	65 66
2026 2027 2028	65 66 67	65 66 67
2026 2027 2028 2029	65 66 67 67	65 66 67 67
2026 2027 2028 2029 2030	65 66 67 67 68	65 66 67 67 68
2026 2027 2028 2029 2030 2031	65 66 67 67 68 69	65 66 67 67 68 69
2026 2027 2028 2029 2030 2031 2032	65 66 67 67 68 69 69 69	65 66 67 67 68 69 69 69

Table 12: Young Road PM Peak Hour Volume Projected & Seasonally Peaked



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NH Route 9 Projected & Seasonally Peaked Traffic Volumes AM Weekday Peak Hour		
Year	Eastbound Volume	Eastbound Volume Peaked
2022	380	388
2023	384	391
2024	388	395
2025	392	399
2026	395	403
2027	399	407
2028	403	411
2029	407	416
2030	411	420
2031	416	424
2032	420	428
2033	424	432
2034	428	437
Year	Westbound Volume	Westbound Volume Peaked
Year 2022	Westbound Volume 173	Westbound Volume Peaked 176
2022	173	176
2022 2023	173 175	176 178
2022 2023 2024	173 175 176	176 178 180
2022 2023 2024 2025	173 175 176 178	176 178 180 182
2022 2023 2024 2025 2026	173 175 176 178 180	176 178 180 182 184
2022 2023 2024 2025 2026 2027	173 175 176 178 180 182	176 178 180 182 184 185
2022 2023 2024 2025 2025 2026 2027 2028	173 175 176 178 180 182 184	176 178 180 182 184 185 187
2022 2023 2024 2025 2026 2027 2028 2029	173 175 176 178 180 182 184 185	176 178 180 182 184 185 185 187 189
2022 2023 2024 2025 2026 2027 2028 2028 2029 2030	173 175 176 178 180 182 184 185 187	176 178 180 182 184 185 187 187 189 191
2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	173 175 176 178 180 182 184 185 185 187 189	176 178 180 182 184 185 185 187 189 191 193
2022 2023 2024 2025 2026 2027 2028 2029 2030 2030 2031 2032	173 175 176 178 180 182 184 185 185 187 189 191	176 178 180 182 184 185 185 187 189 191 191 193 195

Table 13: NH Route 9 AM Peak Hour Volume Projected & Seasonally Peaked

BERRY SURVEYING & ENGINEERING



NH Route 9 Projected & S	easonally Peaked Traffic Volu	mes PM Weekday Peak Hour
Year	Eastbound Volume	Eastbound Volume Peaked
2022	234	238
2023	236	241
2024	238	243
2025	241	246
2026	243	248
2027	246	250
2028	248	253
2029	251	256
2030	253	258
2031	256	261
2032	258	263
2033	261	266
2034	263	269
Year	Westbound Volume	Westbound Volume Peaked
Year 2022	Westbound Volume 378	Westbound Volume Peaked 386
2022	378	386
2022 2023	378 382	386 389
2022 2023 2024	378 382 386	386 389 393
2022 2023 2024 2025	378 382 386 389	386 389 393 397
2022 2023 2024 2025 2026	378 382 386 389 393	386 389 393 397 401
2022 2023 2024 2025 2026 2027	378 382 386 389 393 397	386 389 393 397 401 405
2022 2023 2024 2025 2026 2027 2028	378 382 386 389 393 397 401	386 389 393 397 401 405 409
2022 2023 2024 2025 2026 2027 2028 2029	378 382 386 389 393 397 401 405	386 389 393 397 401 405 405 409 413
2022 2023 2024 2025 2026 2027 2028 2028 2029 2030	378 382 386 389 393 397 401 405 409	386 389 393 397 401 405 409 413 418
2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	378 382 386 389 393 397 401 405 409 413	386 389 393 397 401 405 405 409 413 418 418 422
2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2031 2032	378 382 386 389 393 397 401 405 409 413 418	386 389 393 397 401 405 409 413 418 418 422 426

Table 14: NH Route 9 PM Peak Hour Volume Projected & Seasonally Peaked

**BERRY SURVEYING & ENGINEERING** 



## Appendix E

#### Miscellaneous

Group 5 Averages:		Year 2019 Monthly Data Recreational Highways	
		Adjustr	ment to
Month	<u>ADT</u>	Average	<u>Peak</u>
January	6,879	1.32	1.76
February	7,477	1.21	1.62
March	7,534	1.20	1.61
April	7,925	1.14	1.53
May	9,499	0.95	1.28
June	11,055	0.82	1.10
July	12,113	0.75	1.00
August	11,826	0.77	1.02
September	9,897	0.91	1.22
October	9,371	0.97	1.29
November	7,850	1.15	1.54
December	7,185	1.26	1.69
Average ADT:	9,051		
Peak ADT:	12,113		

#### Table 15: Derivation of the seasonal peaking factor

Group 4 Averages:		Year 2019 Monthly Data Urban Highways	
Group 4 Averages.		Adjustm	ant to
Month	ADT		Peak
		Average	
January	11,431	1.12	1.23
February	11,848	1.08	1.18
March	12,141	1.06	1.15
April	12,860	1.00	1.09
May	13,551	0.95	1.03
June	13,785	0.93	1.02
July	13,942	0.92	1.01
August	14,016	0.92	1.00
September	13,379	0.96	1.05
October	13,339	0.96	1.05
November	12,265	1.05	1.14
December	11,496	1.12	1.22
Average ADT:	12,838		
Peak ADT:	14,016		
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#### Table 16: Derivation of the seasonal peaking factor

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## Appendix F

#### Citations

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