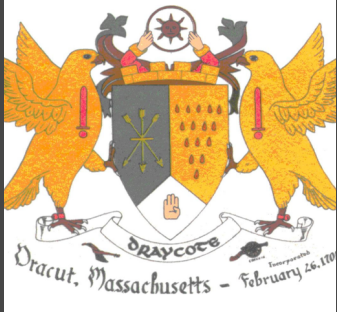




Lakeview Avenue approaching Primrose Hill Road in Dracut

Primrose Hill Road at Lakeview Avenue Intersection Study

June 2021



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INTRODUCTION

As part of the its Unified Planning Work Program (UPWP), the Northern Middlesex Council of Governments (NMCOG) has performed an intersection analysis at Lakeview Avenue and Primrose Hill Road. This intersection, while not currently listed as a high crash intersection, has been identified as an area of concern for the Town, particularly with regard to pedestrian safety and vehicular controls. Following the Town’s work on its Master Plan and subsequent Complete Streets Prioritization Plan, the Town identified a Complete Streets project need on Lakeview Avenue between Primrose Hill Road and Mammoth Road, with an initial estimated cost of \$2 million. A traffic operations and safety assessment for the intersection has been undertaken by NMCOG. This assessment focuses on identifying probable causes for crashes that have historically occurred at the location and on outlining mitigation strategies to improve overall conditions at the intersection. Map 1 shows the location of the intersection within Dracut.

METHODOLOGY

Information and analysis provided for the study area includes the following:

- An assessment of Existing Conditions (geometry, land use, functional classification, pedestrian amenities, etc.);
- Turning Movement Counts and Data Collection;
- Intersection Capacity Analysis and Level of Service;
- Crash Data Analysis;
- Traffic Signal Warrant Analysis; and
- Improvement Recommendations.

The evaluation process involved inventorying the physical characteristics of the intersection to obtain data on operational aspects such as roadway widths, lane widths, parking, and lane configurations. Manual turning movement counts were collected during peak travel periods. Capacity analysis calculations, based on the turning movement count data, were performed to determine existing operational levels of service (LOS) during each of the peak travel periods. Crash data was analyzed to identify the types of crashes most prevalent and to evaluate factors, which may have contributed to such crashes. Mitigating strategies were then assessed, in order to formulate the recommendations for consideration by the Town.

Map 1: Location of Study Intersection within Town of Dracut



ASSESSMENT OF EXISTING CONDITIONS

The intersection of Lakeview Avenue and Primrose Hill Road forms a 3-way, stop-controlled T intersection at the terminus of Primrose Hill Road, as shown in Map 2. A stop sign and a yellow “Caution Trucks Exiting Building” sign are located on a signpost on the western side (right side) of the Primrose Hill Road terminus. Lakeview Avenue has no sign control or turning lanes at the intersection and is free flow.

Map 2: Lakeview Avenue and Primrose Hill Road Intersection Study Area

The intersection is in a mixed-use section of Lakeview Avenue to the east of the Beaver Brook and the commercial center of Dracut’s Collinsville neighborhood. A commercial use (Mercier Electric & Communications) is adjacent to the intersection on the northwest corner. A single-family residential use is adjacent to the northeast, and another commercial property, a florist and garden center (Seasons Florist & Garden), to the south. A crosswalk intersects Lakeview Avenue immediately to the west of Primrose Hill Road and connects to the garden center’s front parking lot on the southern side of Lakeview Avenue.



The garden center’s front parking area has no curb at the crosswalk or at any other point. Instead, the front parking area has approximately 115 feet of open pavement, all directly accessing Lakeview Avenue with no traffic control, in addition to a separate driveway accessing the rear of the lot. A utility pole is located at the edge of the parking lot, adjacent to Lakeview



Photo 1: Lakeview Avenue WB looking at Primrose Hill Road

Avenue and directly opposite the terminus of Primrose Hill Road. Despite the lack of curbing for

the garden center's parking lot, the utility pole located opposite Primrose Hill Road impedes eastbound vehicles from right-hand passing of vehicles turning left onto Primrose Hill Road.

Lakeview Avenue, an urban minor arterial, runs in a general northwest/southeast direction between Lowell and Nashua Road in northwest Dracut, and passes Dracut School Complex approximately .8 miles east of the study area. The Dracut School Complex includes Dracut High School, Dracut Middle School, and two elementary schools. The roadway is predominately two-lane, including at the study area. Approximately .4 miles east of the study area the roadway expands to include a two-way center turn lane between Goodhue Avenue and Tennis Plaza Road that encompasses the entire length of the School Complex.

Lakeview Avenue is a mix of commercial and residential uses to the east, with most lot sizes ranging from one-tenth of an acre to over an acre within a quarter mile east of the intersection. Light industrial and commercial uses take place in former mill buildings along the Beaver Brook west of the intersection, with Collinsville's mixed-use commercial further to the west.

Primrose Hill Road, a two-lane collector road with no sidewalk or shoulder, runs north/south from the intersection of Lakeview Avenue and then east/west, and connects Lakeview Avenue to New Boston Road. Primrose Hill Road is almost entirely residential its full length from the intersection with Lakeview Avenue to its intersection with New Boston Road, one mile away.



Photo 2: Lakeview Avenue EB looking at the Crosswalk at Primrose Hill Road

Lakeview Avenue is 45 feet wide and has a speed limit of 30 mph at the study area intersection. Traffic volumes in 2019 show an ADT of around 14,500 vehicles per day on Lakeview Avenue. Primrose Hill Road, generally 22 feet in width near the intersection, has an average daily traffic volume of approximately 4,300 vehicles per day just north of the intersection.

A sidewalk is located on the entire southern side of Lakeview Avenue from the study area to the

School Complex, and continues west from the study area into the commercial center of the Collinsville neighborhood. The northern side of Lakeview Avenue has no sidewalk immediately to the east of Primrose Hill Road. Instead, there is a painted shoulder in front of the adjacent parcel that connects to the incomplete sidewalk system on the northern side of Lakeview Avenue between the study area and the School Complex. A sidewalk is present on the northern side of Lakeview Avenue immediately to the west of Primrose Hill Road and continues to the commercial center of the Collinsville neighborhood. Primrose Hill Road has no sidewalk or

painted shoulder on either side for its entire length, and bicyclists and pedestrians must share the roadway with vehicles. A sidewalk funded by a MassDOT Safe Routes to School (SRTS) grant is proposed for Lakeview Avenue addressing sidewalk gaps from Primrose Hill Road to beyond the School Complex, with construction anticipated to begin in 2023. The project’s construction advertisement date is November 22, 2022 and is currently programmed in FFY 2023 of the Northern Middlesex Transportation Improvement Program (TIP). The proposed project also includes a new striped crosswalk across Primrose Hill Road connecting the proposed sidewalk along the northern side of Lakeview Avenue.



Photo 3: Primrose Hill Road Southbound Approach to Lakeview Avenue

The Lowell Regional Transit Authority (LRTA) provides public transportation services to the area. On weekdays and Saturdays, the #10 Dracut / Tyngsborough bus route runs between Lowell’s Gallagher Station along Lakeview Avenue to and from the New Hampshire State Line via Frost Road in Tyngsborough. A sign for a designated bus stop is located on the eastbound side of Lakeview Avenue approximately 100 feet west of the intersection crosswalk.

TURNING MOVEMENT COUNTS AND DATA COLLECTION

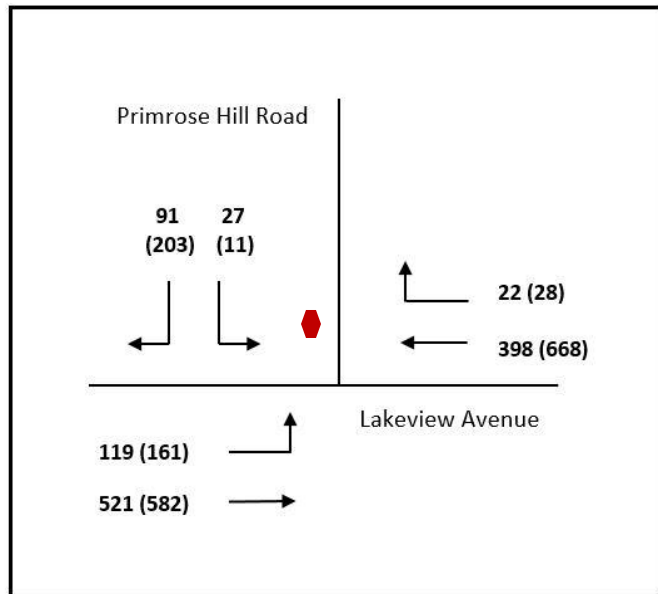
Manual turning movement counts (TMC) were collected during peak periods of the day on Tuesday, November 17, 2020 (6:45-9:00 AM) and on Wednesday, November 18, 2020 (4:00-6:00 PM). In the AM peak hour (7:45-8:45), 1,178 vehicles entered the intersection. A total of 1,653 vehicles entered the intersection during the evening peak hour (4:30-5:30 PM). Figure 1 summarizes all turning movement counts associated with the intersection during the AM peak hour and PM peak hour.

Pedestrians and bicycles were counted as well. It was noted that 1 bicycle and 16 pedestrians travelled through this intersection during the AM peak period and one bicycle and 13 pedestrians crossed the intersection during the PM peak period.

TRAFFIC OPERATIONS AND LEVEL OF SERVICE

Traffic operations at the intersection were conducted using accepted traffic analysis techniques using Synchro 11. The level of service (LOS) was calculated for the morning and evening peak travel periods.

Figure 1: Manual Turning Movement Counts for Lakeview Avenue at Primrose Hill Road in Dracut, AM Peak Hour (PM Peak Hour)



Level of Service (LOS), as defined within in the Institute of Traffic Engineer’s *Highway Capacity Manual*, is used to qualitatively describe general operating conditions based on performance measures such as control delay, speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. While LOS does not tell the full picture of roadway performance, it is often the standard measure for which operational conditions are reported. There are six levels of service ranging from A (free flow conditions) to F (highly delayed conditions). LOS takes into account factors such as traffic volume, roadway capacity, speed, roadway grade, traffic control devices, geometry, and delay. LOS A through D is considered acceptable in an urbanized area such as Dracut, while LOS E and F indicate delay and congestion warranting mitigation.

Level of Service (LOS) for a stop-controlled intersection such as Lakeview Avenue and Primrose Hill road is determined by the computed or measured control delay. Control delay is a measure of driver discomfort, frustration, fuel consumption and increased travel time. As control delay increases, LOS worsens. Control delay at an unsignalized intersection is the result of vehicle delay associated with a traffic control device. Control delay includes initial deceleration delay, stopped delay, queue move up time, and final acceleration delay.

LOS is determined for each minor street movement, as well as for major street left turns, using criteria described in Table 1. LOS is not defined for the major street approaches or for the overall intersection for three primary reasons: (1) major street through vehicles are assumed to experience zero delay; (2) the disproportionate number of major street through vehicles at a typical two-way stop-controlled intersection skews the weighted average of all movements, resulting in a very low overall average delay for all vehicles; and (3) the resulting low delay can mask important LOS deficiencies for minor movements.

Table 1: Level of Service Criteria for Unsignalized Intersections

LOS	Control Delay per Vehicle (s/veh)
A	≤ 10
B	> 10-15
C	>15-25
D	> 25-35
E	> 35-50
F	> 50

**Highway capacity Manual; Transportation Research Board; Washington DC; 2010; Chapter 19.*

The results of the traffic operations analysis for Lakeview Avenue and Primrose Hill Road are provided in Table 2 below. The average control delay for each vehicle, as well as the critical movement level of service for each intersection, is shown for the peak travel period during a typical weekday.

Table 2: Existing Peak Hour Level of Service

Intersection	Minor Street Movement ¹	Type of Control	AM Control Delay (sec/veh)	AM Peak LOS	PM Control Delay (sec/veh)	PM Peak LOS
Lakeview Avenue at Primrose Hill Road	Primrose Hill Road Southbound All Turns	Stop	26.5	D	72.4	F
	Lakeview Avenue Eastbound Left Turns	Yield	8.8	A	10.5	B

The analysis shows that the minor street movement controlled by the stop sign experiences long delays, leading to poor levels of service during the PM peak hour. This is likely due to lack of gaps in the flow of traffic along Lakeview Avenue in the evening.

CRASH DATA ANALYSIS

This intersection, while not currently listed as a regional high crash intersection, has been identified as an area of concern for the Town, particularly with regard to pedestrian safety and vehicular controls. Crash data was compiled from the MassDOT traffic safety database. The data included vehicular crashes that occurred at or near the intersection, based on the most recent five years of data available, from 2014 to 2018. A crash summary is provided in Table 3, detailing the type of crash, severity, time of day, and surface conditions.

Table 3: Crash Summary for Lakeview Avenue at Primrose Hill Road

Location	Year						Crash Rate		
	2014	2015	2016	2017	2018	Total	MassDOT Average	Calculated	Significant?
Lakeview Avenue at Primrose Hill Road	5	4	1	0	3	13	0.57	0.43	No
	Type						Time of Day		
	Angle	Rear End	Head On	Single Vehicle Crash	SS, Same Direction		AM Peak	PM Peak	Off Peak
	3	6	1	2	1		1	4	8
	Pavement Conditions						Severity		
	Dry	Wet	Snow/Ice	Other			PDO	Injury	Fatal
	12	0	1	0			8	5	0

There were thirteen (13) reported crashes at the intersection during the five-year study period. The majority of these crashes (46%) were rear end type incidents. Thirty-eight percent (5 crashes) involved injuries, while none were reported fatal. Most crashes occurred during daylight hours (62%) under clear or cloudy conditions with surface conditions mainly dry (92%). All crashes at this intersection involved one or more passenger cars, with one incident involving a bicycle but no pedestrian crashes reported.

Crash rates were determined using MassDOT standard procedures. A copy of the crash rate analysis and a description of the calculation procedure is provided in Appendix D of this report. The MassDOT District 4 average crash rate for an unsignalized intersection is 0.57 crashes per million entering vehicles. The crash rate determined for the intersection of Lakeview Avenue and Primrose Hill Road was 0.43 crashes per million entering vehicles, below the MassDOT District 4 average for this type of intersection.

SIGHT DISTANCE

Sight distance is determined as the length of roadway ahead that is visible to the driver. Sufficient sight distances at intersections greatly reduce the potential for vehicular conflicts on the roadway. With adequate sight distance, a driver has the ability to judge a conflict and react to the situation. Stopping sight distance, measured on the major street is the measurement of the amount of visible roadway needed for a driver to react to a conflict and come to a stop. Intersection sight distance is the amount of roadway that a stopped vehicle at an intersection

can view in either direction. Adequate sight distance allows a motorist to make a decision as when to enter the intersection roadway or cross it. Both stopping sight distance and Intersection sight distance were measured for the Primrose Hill Road approach (Table 4).



Photo 4: Primrose Hill Road intersection looking West on Lakeview Avenue

Sight distance on Lakeview Avenue was not measured as it is free flow through the intersection.

As Primrose Hill Road approaches the intersection, a building on the northwest corner clearly hinders sight distance for travelers looking right or to the west. At the stop line, which is set back from the intersection, sight distance was measured to be 153 feet. This is under the required minimums of 290-335 feet. Most drivers will move forward past the stop sign to the edge of Lakeview Avenue to be able to see to the right. This was measured to be 469 feet, above the minimum standard. However this can be detrimental to overall safety in the intersection as cars will be inching out into the intersection before making a decision to maneuver on to Lakeview Avenue.

Table 4: Sight Distance Results for Primrose Hill Road Approach to Lakeview Avenue

Intersection/Sight Distance Type	Required Minimum Standard (ft)*	Measured Distance (ft)
Stopping Sight Distance		
Primrose Hill Southbound	250	>1000
Intersection Sight Distance		
Primrose Hill Rd SB looking east	335 if turning left	>500
	290 if turning right or going straight into Garden Center	
Primrose Hill Rd SB looking west from stop line	335 if turning left	153
	290 if turning right or going straight into Garden Center	
Primrose Hill Rd SB looking west from edge of Lakeview Ave	335 if turning left	469
	290 if turning right or going straight into Garden Center	

*Minimum standards provided by A Policy on Geometric Design of Highways and Streets by American Association of State Highway and Transportation Officials (AASHTO) for a 30 mph design speed.

CONGESTION MITIGATION OPTIONS AND TRAFFIC SIGNAL WARRANT ANALYSIS

Existing conditions analysis show that the intersection experiences unacceptable delays during the PM peak period of the day. In order to mitigate this congestion, two possible improvement scenarios were analyzed: (1) the installation of an all-way stop control, and (2) the installation of a fully actuated traffic signal.

All Way Stop Control Guidelines

While there are no standards that must be met to consider an all way stop control intersection, the Manual of Uniform Traffic Control Devices (MUTCD) does have guidance pertaining to the installation decision.

“Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.

Guidance:

The decision to install multi-way stop control should be based on an engineering study.

The following criteria should be considered in the engineering study for a multi-way STOP sign installation:

A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.

C. Minimum volumes:

1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and

2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but

3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.

D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

Option:

Other criteria that may be considered in an engineering study include:

- A. The need to control left-turn conflicts;
- B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
- C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and
- D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.”

RESULTS OF ALL WAY STOP WARRANT ANALYSIS

Because these guidelines are not standards that must be met, the all-way stop control scenario can be considered as part of an engineering study.

Guidelines for Installation of a Traffic Control Signal

To consider a traffic control signal installation, traffic signal warrants are required. Outlined in the MUTCD, these warrants justify the need for a traffic control signal at a particular location. Traffic volumes and safety information were used to analyze whether the intersection of Main Street and Boston Road could consider a traffic signal. This section outlines guidelines and presents a summary of results for each applicable warrant analysis.

The 2009 edition of the Manual of Uniform Traffic Control Devices (MUTCD) states,

“The investigation of the need for a traffic control signal shall include an analysis of factors related to existing operation and safety at the study location and the potential to improve these conditions, and the applicable factors contained in the following traffic signal warrants:

- Warrant 1: Eight-Hour Vehicular Volume
- Warrant 2: Four-Hour Vehicular Volume
- Warrant 3: Peak Hour
- Warrant 4: Pedestrian Volume
- Warrant 5: School Crossing
- Warrant 6: Coordinated Signal System
- Warrant 7: Crash Experience
- Warrant 8: Roadway Network
- Warrant 9: Intersection near a Railroad Grade Crossing

In this study, Warrants 1, 2, 3 and 7 were analyzed in the justification for installation of a traffic signal at the intersection of Lakeview Avenue and Primrose Hill Road.

Warrant 1: Eight-Hour Vehicular Volume

The eight-hour vehicular volume warrant considers the traffic volumes throughout the day. Table 5 provides the minimum standards for an intersection in justifying the need for a traffic signal. Condition A satisfies the minimum volume condition, while Condition A is intended for an interrupted flow condition.

The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

It is intended that Warrant 1 be treated as a single warrant. If Condition A is satisfied, then Warrant 1 is satisfied and analyses of Condition B and the combination of Conditions A and B are not needed. Similarly, if Condition B is satisfied, then Warrant 1 is satisfied and an analysis of the combination of Conditions A and B is not needed.

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:

- A. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 5 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or
- B. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 5 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

Table 5: Warrant 1 Conditions and Analysis Results

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?
Time	E-W	SB						
00:01 - 01:00	105	14	500	150	NO	750	75	NO
01:00 - 02:00	64	5	500	150	NO	750	75	NO
02:00 - 03:00	33	3	500	150	NO	750	75	NO
03:00 - 04:00	18	3	500	150	NO	750	75	NO
04:00 - 05:00	35	1	500	150	NO	750	75	NO
05:00 - 06:00	108	15	500	150	NO	750	75	NO
06:00 - 07:00	266	43	500	150	NO	750	75	NO
07:00 - 08:00	462	104	500	150	NO	750	75	NO
08:00 - 09:00	684	135	500	150	NO	750	75	NO
09:00 - 10:00	847	127	500	150	NO	750	75	YES
10:00 - 11:00	898	98	500	150	NO	750	75	YES
11:00 - 12:00	1008	118	500	150	NO	750	75	YES
12:00 - 13:00	1114	122	500	150	NO	750	75	YES
13:00 - 14:00	1141	131	500	150	NO	750	75	YES
14:00 - 15:00	1089	145	500	150	NO	750	75	YES
15:00 - 16:00	1222	136	500	150	NO	750	75	YES
16:00 - 17:00	1248	194	500	150	YES	750	75	YES
17:00 - 18:00	1274	207	500	150	YES	750	75	YES
18:00 - 19:00	1224	169	500	150	YES	750	75	YES
19:00 - 20:00	906	114	500	150	NO	750	75	YES
20:00 - 21:00	669	90	500	150	NO	750	75	NO
21:00 - 22:00	460	78	500	150	NO	750	75	NO
22:00 - 23:00	331	41	500	150	NO	750	75	NO
23:00 - 00:00	200	37	500	150	NO	750	75	NO

Results: Warrant 1, Condition B is satisfied in that for eleven hours of a typical weekday, major street approaches are greater than 750 vehicles per day and the minor street approach totals over 75 vehicles per day.

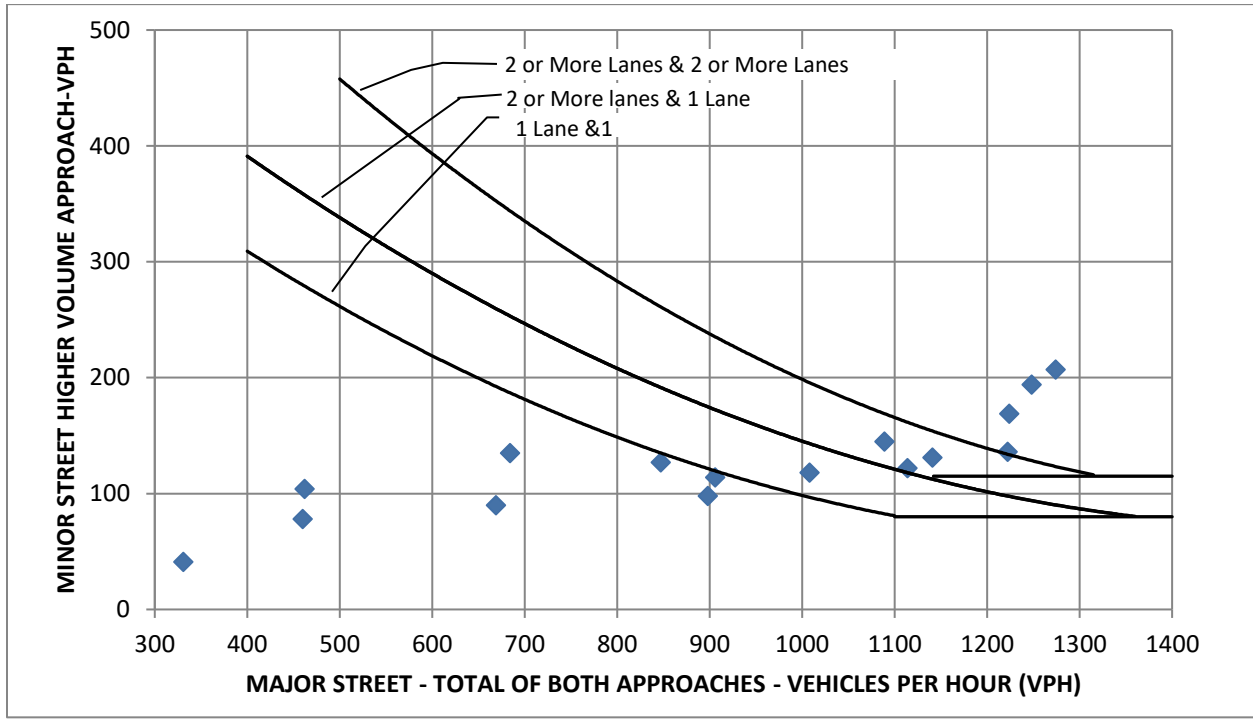
Warrant 2: Four-Hour Vehicular Volume

The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the minor street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in

Figure 2 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.”

Figure 2: 4-Hour Traffic Signal Warrant Analysis



Results: Warrant 2 is satisfied with eight hours of a typical weekday experiencing volumes above the warrant thresholds outlined in Figure 2.

Warrant 3: Peak Hour

The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

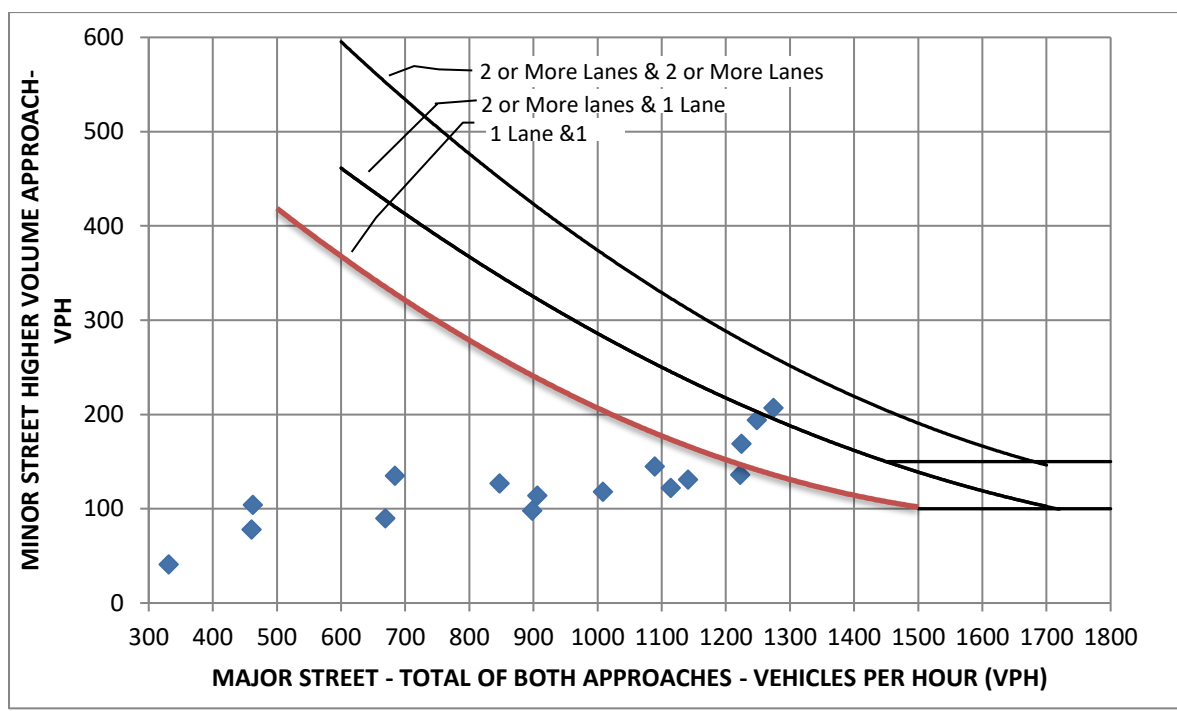
- A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
 - a. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4

vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

- b. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and
 - c. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.
- B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 3 for the existing combination of approach lanes.

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

Figure 3: Traffic Signal Warrant 3B Peak Hour Volume Analysis



Results: Warrant 3B is met because for 3 hours, volumes at the intersection of Lakeview Avenue and Primrose Hill Road are higher than minimum thresholds stated in the warrant. However, this should not justify a signal due to the standard stating that this warrant is reserved for unusual cases where large numbers of vehicles are discharged over a short time.

Warrant 7: Crash Experience

The crash experience signal warrant is used where frequency and severity of crashes are the principal reasons for installing a traffic signal. An excerpt from the MUTCD explaining the crash experience standard is listed below:

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

- A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and
- B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12 month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and
- C. For each on any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Condition A in Table 5 exists on the major street and the higher-volume minor-street approach, respectively, to the intersection. These major-street and minor-street volumes shall be for the same eight hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.”

Results: Warrant 7 is not met because the number of reported crashes at the intersection of Lakeview Avenue and Primrose Hill Road is lower than the five crash minimum standard stated in the warrant.

TRAFFIC OPERATIONS RESULTS AT LAKEVIEW AVENUE AND PRIMROSE HILL ROAD WITH MITIGATING SCENARIOS

Table 6 provides the results of the Traffic Operations analysis based on the two traffic control scenarios explored in this section. The All-Way Stop option would benefit those drivers approaching the intersection on Primrose Hill Road during both peak periods. However, it adversely affects the eastbound and westbound approaches on Lakeview Avenue to the point where there are noted unacceptable delays. This option would not involve taking of right of way in that pavement markings and signage would be the only additions to the intersection. The traffic signal scenario mitigates the congested conditions currently seen at the intersection with overall operations at LOS A in the AM and LOS B during the PM peak. Due to the high volumes on Lakeview Avenue, the traffic signal option includes the addition of a left turn lane for eastbound traffic.

Table 6: Traffic Operations with Traffic Control Options

Traffic Control Option	Minor Street Movement ¹	Type of Control	AM Control Delay (sec/veh)	AM LOS	PM Control Delay (sec/veh)	PM Peak
All Way Stop Control	EB Approach	Stop	64.7	F	12.1	B
	WB Approach	Stop	21.1	C	18.6	C
	SB Approach	Stop	12.0	B	23.2	C
Fully Actuated Traffic Signal	EB Approach (with added left turn lane and protected phase)	Traffic Signal	5.2	A	8.9	A
	WB Approach	Traffic Signal	11.9	B	25.2	C
	SB Approach	Traffic Signal	16.5	B	36.7	D
	Complete Intersection	Traffic Signal	8.9	A	19.9	B

IMPROVEMENT RECOMMENDATIONS

As mentioned, the Dracut Master Plan identifies Lakeview Avenue between Primrose Hill Road and Mammoth Road as a future Complete Streets project, with an estimated cost of \$2 million. In addition, a sidewalk funded by a Safe Routes to School grant is proposed for Lakeview Avenue addressing sidewalk gaps from Primrose Hill to beyond the School Complex, and construction is anticipated to begin in 2023. As noted above, the construction advertisement date is November 22, 2022 and is programmed in FFY 2023 of the Northern Middlesex Transportation Improvement Program (TIP). The project includes adding a striped crosswalk across Primrose Hill Road at the intersection with Lakeview Avenue. In addition to the projects already underway, the following recommendations should be considered.

1. Consider Installation of a fully actuated traffic signal at the intersection. With this, add an exclusive left turn lane for eastbound Lakeview Avenue vehicles accessing Primrose Hill Road. Lakeview Avenue is 45 feet wide at the intersection and can accommodate three 11-foot wide lanes with six feet on either side for shoulders and/or bike lanes.
2. With addition of a traffic signal, crosswalks and pedestrian facilities should be installed throughout the intersection, including sidewalks connecting to the SRTS and Complete Streets projects. Potential increases in pedestrian activity following sidewalk improvements to the School Complex are likely to result in increased usage at the intersection.

3. Work with the garden center to manage access to parking at their business. The uncontrolled entrance way leads to additional conflict points around the intersection. Consider adding a controlled entrance across from Primrose Hill Road to tie in with a potential traffic signal.

4. There is significant solar glare for eastbound Lakeview Avenue traffic in the morning, which creates a substantial danger for pedestrians using the crosswalk. Install a sign west of the intersection warning drivers to expect morning solar glare. If a signal is not installed, consider installing rapid flashing beacons at the crosswalk.

5. Consider working with MassDOT and NMCOG to initiate a Transportation Improvement Program (TIP) project at this location. This project would be eligible for federal construction funding, with the Town responsible for design of the project. This project could be developed in coordination with the Lakeview Avenue Complete Streets project listed in the Town’s Complete Streets Prioritization Plan.



Photo 5: Example of a Rectangular Rapid Reflecting Beacon at a Crosswalk

***Appendix A: Automatic Traffic Recorder Counts and
Manual Turning Movement Counts***

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave East of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 34575

Start Date: 11/9/2020
 End Date: 11/12/2020

34575

Direction: East, Lane 1

11/9/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	4	278	103	4	29	1	0	0	2	0	0	0	0	9	430	36
12:00 PM	8	311	93	4	30	2	0	0	0	0	0	0	0	9	457	36
1:00	5	350	83	3	37	0	0	2	1	0	0	0	0	9	490	43
2:00	4	346	82	4	42	1	0	5	1	0	0	0	0	8	493	53
3:00	7	363	109	16	31	0	0	3	0	0	0	0	0	15	544	50
4:00	14	371	93	15	46	2	0	6	0	0	0	0	0	25	572	69
5:00	12	416	89	5	49	1	0	5	0	1	0	0	0	14	592	61
6:00	4	410	99	3	32	0	0	1	0	0	0	0	0	9	558	36
7:00	1	299	70	0	32	2	0	0	0	0	0	0	0	7	411	34
8:00	1	250	53	0	17	1	0	1	0	0	0	0	0	4	327	19
9:00	4	180	26	0	14	0	0	0	0	0	0	0	0	0	224	14
10:00	1	111	24	0	6	0	0	0	0	0	0	0	0	0	142	6
11:00	1	63	10	0	2	0	0	0	0	0	0	0	0	0	76	2
Total	66	3748	934	54	367	10	0	23	4	1	0	0	0	109	5316	459
Percent	1.2%	70.5%	17.6%	1.0%	6.9%	0.2%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	2.1%		8.6%
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	*	*	11:00	*	*	*	*	11:00	11:00	11:00
	4	278	103	4	29	1			2					9	430	36
PM Peak	4:00	5:00	3:00	3:00	5:00	12:00 PM		4:00	1:00	5:00				4:00	5:00	4:00
	14	416	109	16	49	2	*	6	1	1	*	*	*	25	592	69

Northern Middlesex Council of Governments

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Lowell, Ma 01852

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Start Date: 11/9/2020
 End Date: 11/12/2020

34575

Direction: East, Lane 1

11/10/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	40	6	0	2	0	0	0	0	0	0	0	0	0	48	2
1:00	0	17	2	0	0	0	0	0	0	0	0	0	0	0	19	0
2:00	0	15	3	0	0	0	0	0	0	0	0	0	0	0	18	0
3:00	0	8	5	1	0	0	0	0	0	0	0	0	0	0	14	1
4:00	0	17	3	0	2	0	0	0	0	0	0	0	0	0	22	2
5:00	0	54	14	0	6	0	0	0	1	0	0	0	0	0	75	7
6:00	2	117	51	1	10	1	0	1	1	0	0	0	0	0	184	14
7:00	5	246	87	4	42	1	0	3	0	0	0	0	0	2	390	50
8:00	2	371	93	3	49	2	0	2	0	0	0	0	0	8	530	56
9:00	4	292	118	6	50	1	1	3	0	0	0	0	0	9	484	61
10:00	5	267	88	1	24	2	0	3	0	0	0	0	0	7	397	30
11:00	3	290	82	1	37	1	0	3	0	0	0	0	0	4	421	42
12:00 PM	7	300	92	6	27	1	1	2	1	0	0	0	0	15	452	38
1:00	3	302	93	8	49	5	1	2	0	0	0	0	0	6	469	65
2:00	4	341	96	3	34	1	0	1	0	0	0	0	0	9	489	39
3:00	5	360	117	7	33	1	0	3	0	0	0	0	0	16	542	44
4:00	11	395	87	9	48	1	0	7	0	0	0	0	0	19	577	65
5:00	11	410	95	6	29	2	0	5	0	0	1	0	0	26	585	43
6:00	5	428	88	6	40	0	0	1	0	0	0	0	0	12	580	47
7:00	7	335	79	1	31	0	0	0	0	0	0	0	0	9	462	32
8:00	4	259	56	0	26	0	0	0	0	0	0	0	0	2	347	26
9:00	2	168	25	1	12	0	0	0	0	0	0	0	0	3	211	13
10:00	1	134	23	0	6	0	0	0	0	0	0	0	0	2	166	6
11:00	0	92	10	0	1	0	0	0	0	0	0	0	0	0	103	1
Total	81	5258	1413	64	558	19	3	36	3	0	1	0	0	149	7585	684
Percent	1.1%	69.3%	18.6%	0.8%	7.4%	0.3%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%		9.0%
AM Peak	7:00	8:00	9:00	9:00	9:00	8:00	9:00	7:00	5:00					9:00	8:00	9:00
	5	371	118	6	50	2	1	3	1	*	*	*	*	9	530	61
PM Peak	4:00	6:00	3:00	4:00	1:00	1:00	12:00 PM	4:00	12:00 PM			5:00		5:00	5:00	1:00
	11	428	117	9	49	5	1	7	1	*	1	*	*	26	585	65

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 End Date: 11/12/2020

34575

Direction: East, Lane 1

11/11/2020	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	47	5	0	0	0	0	0	0	0	0	0	0	0	52	0
1:00	0	21	3	0	0	0	0	0	0	0	0	0	0	0	24	0
2:00	0	10	3	0	0	0	0	0	0	0	0	0	0	0	13	0
3:00	0	10	1	0	0	0	0	0	0	0	0	0	0	0	11	0
4:00	0	14	3	1	2	0	0	0	0	0	0	0	0	0	20	3
5:00	0	37	12	0	3	0	0	0	1	0	0	0	0	0	53	4
6:00	0	95	43	0	14	0	0	0	1	0	0	0	0	0	153	15
7:00	2	158	62	0	26	2	0	3	1	0	0	0	0	2	256	32
8:00	4	237	74	5	39	2	0	4	0	0	0	0	0	8	373	50
9:00	3	297	109	5	41	4	0	4	1	0	0	0	0	7	471	55
10:00	9	309	102	6	47	1	0	0	0	0	0	0	0	15	489	54
11:00	3	332	89	2	48	1	0	2	0	0	0	0	0	5	482	53
12:00 PM	3	372	88	8	48	2	0	5	1	0	0	0	0	12	539	64
1:00	2	413	84	3	39	1	0	7	0	0	0	0	0	17	566	50
2:00	3	387	88	4	32	1	0	1	0	0	0	0	0	4	520	38
3:00	5	400	101	5	44	0	0	3	0	0	0	0	0	12	570	52
4:00	8	399	103	6	38	3	0	3	0	0	0	0	0	9	569	50
5:00	8	419	101	8	45	0	0	2	0	0	0	0	0	14	597	55
6:00	0	423	103	7	31	0	0	2	1	0	0	0	0	13	580	41
7:00	0	304	61	0	27	0	0	0	0	0	0	0	0	7	399	27
8:00	1	238	40	0	15	0	0	0	0	0	0	0	0	5	299	15
9:00	0	175	47	0	20	0	0	0	0	0	0	0	0	0	242	20
10:00	0	121	17	1	11	0	0	0	0	0	0	0	0	1	151	12
11:00	0	84	4	0	1	0	0	0	0	0	0	0	0	1	90	1
Total	51	5302	1343	61	571	17	0	36	6	0	0	0	0	132	7519	691
Percent	0.7%	70.5%	17.9%	0.8%	7.6%	0.2%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	1.8%		9.2%
AM Peak	10:00	11:00	9:00	10:00	11:00	9:00		8:00	5:00					10:00	10:00	9:00
	9	332	109	6	48	4	*	4	1	*	*	*	*	15	489	55
PM Peak	4:00	6:00	4:00	12:00 PM	12:00 PM	4:00		1:00	12:00 PM					1:00	5:00	12:00 PM
	8	423	103	8	48	3	*	7	1	*	*	*	*	17	597	64

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12:00 AM	0	50	6	0	1	0	0	0	0	0	0	0	0	0	57	1
1:00	0	24	5	0	1	0	0	0	0	0	0	0	0	0	30	1
2:00	0	10	4	0	0	0	0	0	0	0	0	0	0	0	14	0
3:00	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14	0
4:00	0	14	7	0	2	0	0	0	1	0	0	0	0	0	24	3
5:00	0	39	23	0	11	0	0	0	0	0	0	0	0	1	74	11
6:00	1	119	54	0	20	1	0	0	0	0	0	0	0	4	199	21
7:00	0	270	101	3	46	5	1	6	1	0	0	0	0	6	439	62
8:00	1	321	104	9	46	5	0	4	0	0	0	0	0	8	498	64
9:00	2	82	17	3	12	1	0	0	0	0	0	0	0	2	119	16
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
Total	4	943	321	15	139	12	1	10	2	0	0	0	0	21	1468	179
Percent	0.3%	64.2%	21.9%	1.0%	9.5%	0.8%	0.1%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	1.4%		12.2%
AM Peak	9:00	8:00	8:00	8:00	7:00	7:00	7:00	7:00	4:00					8:00	8:00	8:00
	2	321	104	9	46	5	1	6	1	*	*	*	*	8	498	64
PM Peak	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Grand Total	202	15251	4011	194	1635	58	4	105	15	1	1	0	0	411	21888	2013
Percent	0.9%	69.7%	18.3%	0.9%	7.5%	0.3%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	1.9%		9.2%

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34575

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12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	3	311	66	5	10	3	0	0	0	0	0	0	0	5	403	18
12:00 PM	5	359	61	1	12	11	1	3	3	0	0	0	0	4	460	31
1:00	3	354	67	1	9	6	0	2	0	0	0	0	0	14	456	18
2:00	2	387	73	6	17	6	0	1	2	0	0	0	0	10	504	32
3:00	6	462	83	5	14	3	0	0	0	0	0	0	0	13	586	22
4:00	4	487	82	6	15	7	0	3	0	0	0	0	0	26	630	31
5:00	7	499	74	4	13	5	0	2	0	0	0	0	0	14	618	24
6:00	4	481	88	6	12	2	0	0	0	0	1	0	0	8	602	21
7:00	1	331	58	2	8	2	0	0	0	0	0	0	0	7	409	12
8:00	1	294	48	2	6	1	0	0	0	0	0	0	0	2	354	9
9:00	0	187	35	0	1	0	0	0	0	0	0	0	0	0	223	1
10:00	1	140	18	0	2	0	0	0	0	0	0	0	0	0	161	2
11:00	0	89	14	0	2	0	0	0	0	0	0	0	0	0	105	2
Total	37	4381	767	38	121	46	1	11	5	0	1	0	0	103	5511	223
Percent	0.7%	79.5%	13.9%	0.7%	2.2%	0.8%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	1.9%		4.0%
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	*	*	*	*	*	*	*	11:00	11:00	11:00
	3	311	66	5	10	3								5	403	18
PM Peak	5:00	5:00	6:00	2:00	2:00	12:00 PM	12:00 PM	12:00 PM	12:00 PM		6:00			4:00	4:00	2:00
	7	499	88	6	17	11	1	3	3	*	1	*	*	26	630	32

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12:00 AM	0	50	7	0	0	0	0	0	0	0	0	0	0	0	57	0
1:00	0	22	2	0	0	0	0	0	0	0	0	0	0	0	24	0
2:00	0	16	5	0	0	1	0	0	0	0	0	0	0	0	22	1
3:00	0	5	3	0	0	0	0	0	0	0	0	0	0	0	8	0
4:00	0	7	1	0	0	0	0	0	0	0	0	0	0	0	8	0
5:00	1	29	6	0	0	0	0	0	0	0	0	0	0	0	36	0
6:00	3	69	24	0	1	0	0	0	0	0	0	0	0	0	97	1
7:00	1	134	40	2	6	2	0	0	0	0	0	0	0	2	187	10
8:00	0	243	59	3	13	2	0	1	0	0	0	0	0	2	323	19
9:00	4	240	52	5	8	6	0	2	0	0	0	0	0	12	329	21
10:00	2	294	52	1	6	4	0	1	0	0	0	0	0	4	364	12
11:00	4	296	60	1	2	4	1	2	0	0	0	1	0	6	377	11
12:00 PM	7	324	70	3	13	7	0	4	1	0	0	0	0	7	436	28
1:00	6	362	50	4	16	4	0	3	0	0	0	0	0	11	456	27
2:00	4	347	61	2	19	3	0	2	0	0	0	0	0	9	447	26
3:00	6	440	79	4	16	5	0	1	0	1	0	0	0	16	568	27
4:00	15	552	88	6	16	5	0	1	1	0	0	0	1	21	706	30
5:00	9	515	88	3	5	2	0	2	1	0	1	0	0	18	644	14
6:00	5	480	65	11	11	1	0	1	0	0	0	0	0	19	593	24
7:00	4	347	42	2	8	2	0	0	0	0	0	0	0	8	413	12
8:00	3	260	38	2	3	1	0	0	0	0	0	0	0	3	310	6
9:00	2	205	21	0	4	0	0	0	0	0	0	0	0	1	233	4
10:00	0	161	20	0	2	0	0	0	0	0	0	0	0	1	184	2
11:00	1	88	9	0	1	1	0	0	0	0	0	0	0	0	100	2
Total	77	5486	942	49	150	50	1	20	3	1	1	1	1	140	6922	277
Percent	1.1%	79.3%	13.6%	0.7%	2.2%	0.7%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%		4.0%
AM Peak	9:00	11:00	11:00	9:00	8:00	9:00	11:00	9:00				11:00		9:00	11:00	9:00
	4	296	60	5	13	6	1	2	*	*	*	1	*	12	377	21
PM Peak	4:00	4:00	4:00	6:00	2:00	12:00 PM		12:00 PM	12:00 PM	3:00	5:00		4:00	4:00	4:00	4:00
	15	552	88	11	19	7	*	4	1	1	1	*	1	21	706	30

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave East of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 34575

Start Date: 11/9/2020
 End Date: 11/12/2020

34575

Direction: West, Lane 2

11/11/2020	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	47	4	0	0	0	0	0	0	0	0	0	0	0	51	0
1:00	0	29	5	0	0	0	0	0	0	0	0	0	0	0	34	0
2:00	0	16	2	0	1	0	0	0	0	0	0	0	0	0	19	1
3:00	0	5	0	0	0	1	0	0	0	0	0	0	0	0	6	1
4:00	0	7	3	0	0	0	0	0	0	0	0	0	0	0	10	0
5:00	0	30	7	0	0	0	0	0	0	0	0	0	0	0	37	0
6:00	2	74	13	0	1	0	1	1	0	0	0	0	0	0	92	3
7:00	1	101	36	3	2	6	2	0	0	0	0	0	0	1	152	13
8:00	0	179	52	1	5	2	1	1	0	0	0	0	0	0	241	10
9:00	3	247	58	2	9	4	1	0	0	0	0	0	0	3	327	16
10:00	2	298	56	10	10	2	0	2	0	0	0	0	0	7	387	24
11:00	2	393	72	2	10	5	1	3	0	0	0	0	0	10	498	21
12:00 PM	5	405	59	4	11	3	0	0	0	0	0	0	0	7	494	18
1:00	8	414	72	5	5	4	1	1	0	0	0	0	0	6	516	16
2:00	3	403	54	9	4	2	1	0	0	0	0	0	0	11	487	16
3:00	5	450	69	8	10	6	0	1	0	0	2	0	0	14	565	27
4:00	2	454	85	6	9	2	1	2	1	0	0	0	0	15	577	21
5:00	6	458	79	5	10	4	1	2	0	0	0	0	0	16	581	22
6:00	1	462	72	6	13	1	0	0	0	0	0	0	0	8	563	20
7:00	1	363	65	0	6	0	0	0	0	0	0	0	0	2	437	6
8:00	0	272	43	1	6	2	0	1	0	0	0	0	0	2	327	10
9:00	0	153	23	0	2	0	0	0	0	0	0	0	0	0	178	2
10:00	1	145	15	0	0	0	0	0	0	0	0	0	0	0	161	0
11:00	0	80	7	0	0	0	0	0	0	0	0	0	0	1	88	0
Total	42	5485	951	62	114	44	10	14	1	0	2	0	0	103	6828	247
Percent	0.6%	80.3%	13.9%	0.9%	1.7%	0.6%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%		3.6%
AM Peak	9:00	11:00	11:00	10:00	10:00	7:00	7:00	11:00		*	*	*	*	*	11:00	10:00
	3	393	72	10	10	6	2	3						10	498	24
PM Peak	1:00	6:00	4:00	2:00	6:00	3:00	1:00	4:00	4:00		3:00			5:00	5:00	3:00
	8	462	85	9	13	6	1	2	1	*	2	*	*	16	581	27

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave East of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 34575

Start Date: 11/9/2020
 End Date: 11/12/2020

34575

Direction: West, Lane 2

11/12/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	45	8	0	1	0	0	0	0	0	0	0	0	0	54	1
1:00	0	23	3	0	0	0	0	0	0	0	0	0	0	0	26	0
2:00	0	10	1	0	2	0	0	0	0	0	0	0	0	0	13	2
3:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5	0
4:00	0	8	1	0	1	0	0	0	0	0	0	0	0	0	10	1
5:00	0	22	7	0	1	1	1	0	0	0	0	0	0	0	32	3
6:00	1	81	20	0	0	0	0	0	0	0	0	0	0	1	103	0
7:00	0	116	42	0	4	1	0	0	1	0	0	0	0	1	165	6
8:00	0	263	63	3	16	7	0	2	0	1	1	0	0	7	363	30
9:00	0	53	9	1	2	2	0	1	0	0	0	0	0	0	68	6
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
Total	1	626	154	4	27	11	1	3	1	1	1	0	0	9	839	49
Percent	0.1%	74.6%	18.4%	0.5%	3.2%	1.3%	0.1%	0.4%	0.1%	0.1%	0.1%	0.0%	0.0%	1.1%		5.8%
AM Peak	6:00	8:00	8:00	8:00	8:00	8:00	5:00	8:00	7:00	8:00	8:00			8:00	8:00	8:00
	1	263	63	3	16	7	1	2	1	1	1	*	*	7	363	30
PM Peak	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Grand Total	157	15978	2814	153	412	151	13	48	10	2	5	1	1	355	20100	796
Percent	0.8%	79.5%	14.0%	0.8%	2.0%	0.8%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%		4.0%

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave East of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 34575

Start Date: 11/9/2020
 End Date: 11/12/2020

34575

Direction: Combined

11/9/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	7	589	169	9	39	4	0	0	2	0	0	0	0	14	833	54
12:00 PM	13	670	154	5	42	13	1	3	3	0	0	0	0	13	917	67
1:00	8	704	150	4	46	6	0	4	1	0	0	0	0	23	946	61
2:00	6	733	155	10	59	7	0	6	3	0	0	0	0	18	997	85
3:00	13	825	192	21	45	3	0	3	0	0	0	0	0	28	1130	72
4:00	18	858	175	21	61	9	0	9	0	0	0	0	0	51	1202	100
5:00	19	915	163	9	62	6	0	7	0	1	0	0	0	28	1210	85
6:00	8	891	187	9	44	2	0	1	0	0	1	0	0	17	1160	57
7:00	2	630	128	2	40	4	0	0	0	0	0	0	0	14	820	46
8:00	2	544	101	2	23	2	0	1	0	0	0	0	0	6	681	28
9:00	4	367	61	0	15	0	0	0	0	0	0	0	0	0	447	15
10:00	2	251	42	0	8	0	0	0	0	0	0	0	0	0	303	8
11:00	1	152	24	0	4	0	0	0	0	0	0	0	0	0	181	4
Total	103	8129	1701	92	488	56	1	34	9	1	1	0	0	212	10827	682
Percent	1.0%	75.1%	15.7%	0.8%	4.5%	0.5%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	2.0%		6.3%
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	*	*	11:00	*	*	*	*	11:00	11:00	11:00
	7	589	169	9	39	4			2					14	833	54
PM Peak	5:00	5:00	3:00	3:00	5:00	12:00 PM	12:00 PM	4:00	12:00 PM	5:00	6:00			4:00	5:00	4:00
	19	915	192	21	62	13	1	9	3	1	1	*	*	51	1210	100

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave East of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 34575

Start Date: 11/9/2020
 End Date: 11/12/2020

34575

Direction: Combined

11/10/2020	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	90	13	0	2	0	0	0	0	0	0	0	0	0	105	2
1:00	0	39	4	0	0	0	0	0	0	0	0	0	0	0	43	0
2:00	0	31	8	0	0	1	0	0	0	0	0	0	0	0	40	1
3:00	0	13	8	1	0	0	0	0	0	0	0	0	0	0	22	1
4:00	0	24	4	0	2	0	0	0	0	0	0	0	0	0	30	2
5:00	1	83	20	0	6	0	0	0	1	0	0	0	0	0	111	7
6:00	5	186	75	1	11	1	0	1	1	0	0	0	0	0	281	15
7:00	6	380	127	6	48	3	0	3	0	0	0	0	0	4	577	60
8:00	2	614	152	6	62	4	0	3	0	0	0	0	0	10	853	75
9:00	8	532	170	11	58	7	1	5	0	0	0	0	0	21	813	82
10:00	7	561	140	2	30	6	0	4	0	0	0	0	0	11	761	42
11:00	7	586	142	2	39	5	1	5	0	0	0	1	0	10	798	53
12:00 PM	14	624	162	9	40	8	1	6	2	0	0	0	0	22	888	66
1:00	9	664	143	12	65	9	1	5	0	0	0	0	0	17	925	92
2:00	8	688	157	5	53	4	0	3	0	0	0	0	0	18	936	65
3:00	11	800	196	11	49	6	0	4	0	1	0	0	0	32	1110	71
4:00	26	947	175	15	64	6	0	8	1	0	0	0	1	40	1283	95
5:00	20	925	183	9	34	4	0	7	1	0	2	0	0	44	1229	57
6:00	10	908	153	17	51	1	0	2	0	0	0	0	0	31	1173	71
7:00	11	682	121	3	39	2	0	0	0	0	0	0	0	17	875	44
8:00	7	519	94	2	29	1	0	0	0	0	0	0	0	5	657	32
9:00	4	373	46	1	16	0	0	0	0	0	0	0	0	4	444	17
10:00	1	295	43	0	8	0	0	0	0	0	0	0	0	3	350	8
11:00	1	180	19	0	2	1	0	0	0	0	0	0	0	0	203	3
Total	158	10744	2355	113	708	69	4	56	6	1	2	1	1	289	14507	961
Percent	1.1%	74.1%	16.2%	0.8%	4.9%	0.5%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%		6.6%
AM Peak	9:00	8:00	9:00	9:00	8:00	9:00	9:00	9:00	5:00			11:00		9:00	8:00	9:00
	8	614	170	11	62	7	1	5	1	*	*	1	*	21	853	82
PM Peak	4:00	4:00	3:00	6:00	1:00	1:00	12:00 PM	4:00	12:00 PM	3:00	5:00		4:00	5:00	4:00	4:00
	26	947	196	17	65	9	1	8	2	1	2	*	1	44	1283	95

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave East of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 34575

Start Date: 11/9/2020
 End Date: 11/12/2020

34575

Direction: Combined

11/11/2020	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	94	9	0	0	0	0	0	0	0	0	0	0	0	103	0
1:00	0	50	8	0	0	0	0	0	0	0	0	0	0	0	58	0
2:00	0	26	5	0	1	0	0	0	0	0	0	0	0	0	32	1
3:00	0	15	1	0	0	1	0	0	0	0	0	0	0	0	17	1
4:00	0	21	6	1	2	0	0	0	0	0	0	0	0	0	30	3
5:00	0	67	19	0	3	0	0	0	1	0	0	0	0	0	90	4
6:00	2	169	56	0	15	0	1	1	1	0	0	0	0	0	245	18
7:00	3	259	98	3	28	8	2	3	1	0	0	0	0	3	408	45
8:00	4	416	126	6	44	4	1	5	0	0	0	0	0	8	614	60
9:00	6	544	167	7	50	8	1	4	1	0	0	0	0	10	798	71
10:00	11	607	158	16	57	3	0	2	0	0	0	0	0	22	876	78
11:00	5	725	161	4	58	6	1	5	0	0	0	0	0	15	980	74
12:00 PM	8	777	147	12	59	5	0	5	1	0	0	0	0	19	1033	82
1:00	10	827	156	8	44	5	1	8	0	0	0	0	0	23	1082	66
2:00	6	790	142	13	36	3	1	1	0	0	0	0	0	15	1007	54
3:00	10	850	170	13	54	6	0	4	0	0	2	0	0	26	1135	79
4:00	10	853	188	12	47	5	1	5	1	0	0	0	0	24	1146	71
5:00	14	877	180	13	55	4	1	4	0	0	0	0	0	30	1178	77
6:00	1	885	175	13	44	1	0	2	1	0	0	0	0	21	1143	61
7:00	1	667	126	0	33	0	0	0	0	0	0	0	0	9	836	33
8:00	1	510	83	1	21	2	0	1	0	0	0	0	0	7	626	25
9:00	0	328	70	0	22	0	0	0	0	0	0	0	0	0	420	22
10:00	1	266	32	1	11	0	0	0	0	0	0	0	0	1	312	12
11:00	0	164	11	0	1	0	0	0	0	0	0	0	0	2	178	1
Total	93	10787	2294	123	685	61	10	50	7	0	2	0	0	235	14347	938
Percent	0.6%	75.2%	16.0%	0.9%	4.8%	0.4%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%		6.5%
AM Peak	10:00	11:00	9:00	10:00	11:00	7:00	7:00	8:00	5:00					10:00	11:00	10:00
	11	725	167	16	58	8	2	5	1	*	*	*	*	22	980	78
PM Peak	5:00	6:00	4:00	2:00	12:00 PM	3:00	1:00	1:00	12:00 PM			3:00		5:00	5:00	12:00 PM
	14	885	188	13	59	6	1	8	1	*	2	*	*	30	1178	82

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave East of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 34575

Start Date: 11/9/2020
 End Date: 11/12/2020

34575

Direction: Combined

11/12/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	95	14	0	2	0	0	0	0	0	0	0	0	0	111	2
1:00	0	47	8	0	1	0	0	0	0	0	0	0	0	0	56	1
2:00	0	20	5	0	2	0	0	0	0	0	0	0	0	0	27	2
3:00	0	19	0	0	0	0	0	0	0	0	0	0	0	0	19	0
4:00	0	22	8	0	3	0	0	0	1	0	0	0	0	0	34	4
5:00	0	61	30	0	12	1	1	0	0	0	0	0	0	1	106	14
6:00	2	200	74	0	20	1	0	0	0	0	0	0	0	5	302	21
7:00	0	386	143	3	50	6	1	6	2	0	0	0	0	7	604	68
8:00	1	584	167	12	62	12	0	6	0	1	1	0	0	15	861	94
9:00	2	135	26	4	14	3	0	1	0	0	0	0	0	2	187	22
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
Total	5	1569	475	19	166	23	2	13	3	1	1	0	0	30	2307	228
Percent	0.2%	68.0%	20.6%	0.8%	7.2%	1.0%	0.1%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	1.3%		9.9%
AM Peak	6:00	8:00	8:00	8:00	8:00	8:00	5:00	7:00	7:00	8:00	8:00			8:00	8:00	8:00
	2	584	167	12	62	12	1	6	2	1	1			15	861	94
PM Peak	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Grand Total	359	31229	6825	347	2047	209	17	153	25	3	6	1	1	766	41988	2809
Percent	0.9%	74.4%	16.3%	0.8%	4.9%	0.5%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	1.8%		6.7%

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: East, Lane 1

11/9/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	2	228	59	1	7	1	0	0	3	0	0	0	0	6	307	12
12:00 PM	6	400	93	6	21	2	0	0	1	0	0	0	0	13	542	30
1:00	9	416	99	4	15	1	0	1	1	0	0	0	0	10	556	22
2:00	7	445	103	9	22	0	0	2	0	0	0	0	0	6	594	33
3:00	5	438	107	8	35	3	1	8	0	0	0	0	0	19	624	55
4:00	9	436	122	11	38	4	0	7	0	0	0	0	0	28	655	60
5:00	12	502	113	8	27	0	0	3	0	1	0	0	0	28	694	39
6:00	7	476	93	4	21	0	0	5	0	0	0	0	0	20	626	30
7:00	2	382	75	4	13	1	0	0	0	0	1	0	0	8	486	19
8:00	2	303	60	1	11	1	0	1	0	0	0	0	0	3	382	14
9:00	2	217	31	0	8	0	0	0	0	0	0	0	0	0	258	8
10:00	1	144	22	0	5	0	0	0	0	0	0	0	0	0	172	5
11:00	0	78	11	0	3	0	0	0	0	0	0	0	0	0	92	3
Total	64	4465	988	56	226	13	1	27	5	1	1	0	0	141	5988	330
Percent	1.1%	74.6%	16.5%	0.9%	3.8%	0.2%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	2.4%		5.5%
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	*	*	11:00	*	*	*	*	11:00	11:00	11:00
	2	228	59	1	7	1			3					6	307	12
PM Peak	5:00	5:00	4:00	4:00	4:00	4:00	3:00	3:00	12:00 PM	5:00	7:00			4:00	5:00	4:00
	12	502	122	11	38	4	1	8	1	1	1	*	*	28	694	60

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: East, Lane 1

11/10/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	45	6	0	1	0	0	0	0	0	0	0	0	0	52	1
1:00	0	21	2	0	0	0	0	0	0	0	0	0	0	0	23	0
2:00	0	15	2	0	1	0	0	0	0	0	0	0	0	0	18	1
3:00	0	11	5	1	0	0	0	0	0	0	0	0	0	0	17	1
4:00	0	19	4	0	3	0	0	0	0	0	0	0	0	0	26	3
5:00	0	64	20	0	3	0	0	0	1	0	0	0	0	0	88	4
6:00	2	138	58	2	3	0	0	0	1	0	0	0	0	2	206	6
7:00	0	310	106	4	30	1	0	1	0	0	0	0	0	12	464	36
8:00	0	432	97	4	30	2	0	2	0	0	0	0	0	8	575	38
9:00	4	358	123	4	32	1	0	4	0	0	0	0	0	12	538	41
10:00	5	324	102	2	25	2	0	0	0	0	0	0	0	7	467	29
11:00	3	340	92	5	27	2	1	5	0	0	0	0	0	2	477	40
12:00 PM	5	373	92	3	22	2	0	4	1	0	0	1	0	14	517	33
1:00	2	388	112	4	34	3	1	3	0	0	0	0	0	10	557	45
2:00	3	412	88	5	30	1	0	0	0	0	0	0	0	17	556	36
3:00	7	465	120	10	27	4	0	5	0	0	1	0	0	26	665	47
4:00	11	497	102	11	28	2	0	7	0	0	0	0	1	54	713	49
5:00	15	497	98	12	25	3	0	6	0	0	0	0	0	33	689	46
6:00	8	513	105	3	30	0	0	2	0	0	0	0	0	15	676	35
7:00	6	419	88	1	15	0	0	1	0	0	0	0	0	13	543	17
8:00	5	303	66	1	19	0	0	0	0	0	0	0	0	1	395	20
9:00	2	209	40	0	4	0	0	0	0	0	0	0	0	1	256	4
10:00	1	172	22	0	2	0	0	0	0	0	0	0	0	1	198	2
11:00	0	110	15	0	0	0	0	0	0	0	0	0	0	0	125	0
Total	79	6435	1565	72	391	23	2	40	3	0	1	1	1	228	8841	534
Percent	0.9%	72.8%	17.7%	0.8%	4.4%	0.3%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%		6.0%
AM Peak	10:00	8:00	9:00	11:00	9:00	8:00	11:00	11:00	5:00					7:00	8:00	9:00
	5	432	123	5	32	2	1	5	1	*	*	*	*	12	575	41
PM Peak	5:00	6:00	3:00	5:00	1:00	3:00	1:00	4:00	12:00 PM			3:00	12:00 PM	4:00	4:00	4:00
	15	513	120	12	34	4	1	7	1	*	1	1	1	54	713	49

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: East, Lane 1

11/11/2020	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	51	3	0	0	0	0	0	0	0	0	0	0	0	54	0
1:00	0	27	3	0	0	0	0	0	0	0	0	0	0	0	30	0
2:00	0	12	2	0	0	0	0	0	0	0	0	0	0	0	14	0
3:00	0	12	0	0	0	0	0	0	0	0	0	0	0	0	12	0
4:00	0	16	7	1	1	0	0	0	0	0	0	0	0	0	25	2
5:00	0	50	17	0	3	0	0	0	1	0	0	0	0	0	71	4
6:00	1	113	56	0	3	0	0	0	1	0	0	0	0	0	174	4
7:00	0	204	83	1	13	1	0	3	1	0	0	0	0	4	310	19
8:00	2	297	100	3	29	2	0	2	0	0	0	0	0	8	443	36
9:00	4	313	125	3	54	2	0	7	1	0	0	0	0	11	520	67
10:00	4	337	103	5	42	3	0	4	0	0	0	0	0	13	511	54
11:00	6	328	104	5	48	1	0	2	0	0	0	0	0	16	510	56
12:00 PM	6	408	107	8	58	5	2	4	1	0	0	0	0	21	620	78
1:00	3	457	93	7	33	2	0	6	0	0	0	0	0	24	625	48
2:00	7	431	103	9	26	3	0	3	0	0	1	0	0	19	602	42
3:00	6	449	119	7	46	2	0	4	0	0	0	0	0	24	657	59
4:00	9	481	113	6	29	2	0	6	0	0	0	0	0	25	671	43
5:00	7	475	104	16	48	1	0	7	0	1	0	0	0	34	693	73
6:00	1	488	110	6	34	0	0	4	0	1	0	0	0	17	661	45
7:00	0	367	74	0	23	0	0	2	0	0	0	0	0	3	469	25
8:00	2	274	46	2	14	0	0	0	0	1	0	0	0	3	342	17
9:00	0	219	49	0	13	0	0	0	0	0	0	0	0	1	282	13
10:00	0	144	20	0	6	0	0	0	0	0	0	0	0	0	170	6
11:00	0	104	6	0	2	0	0	0	0	0	0	0	0	0	112	2
Total	58	6057	1547	79	525	24	2	54	5	3	1	0	0	223	8578	693
Percent	0.7%	70.6%	18.0%	0.9%	6.1%	0.3%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	2.6%		8.1%
AM Peak	11:00	10:00	9:00	10:00	9:00	10:00		9:00	5:00					11:00	9:00	9:00
	6	337	125	5	54	3	*	7	1	*	*	*	*	16	520	67
PM Peak	4:00	6:00	3:00	5:00	12:00 PM	12:00 PM	12:00 PM	5:00	12:00 PM	5:00	2:00			5:00	5:00	12:00 PM
	9	488	119	16	58	5	2	7	1	1	1	*	*	34	693	78

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: East, Lane 1

11/12/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	56	6	0	0	0	0	0	0	0	0	0	0	0	62	0
1:00	0	25	3	0	1	0	0	0	0	0	0	0	0	0	29	1
2:00	0	10	4	0	0	0	0	0	0	0	0	0	0	0	14	0
3:00	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17	0
4:00	0	17	10	0	1	0	0	0	1	0	0	0	0	0	29	2
5:00	0	53	29	0	5	1	0	0	0	0	0	0	0	1	89	6
6:00	0	140	69	0	13	1	0	0	0	0	0	0	0	1	224	14
7:00	0	317	119	7	40	5	1	6	1	0	0	0	0	3	499	60
8:00	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
Total	0	638	242	7	60	7	1	6	2	0	0	0	0	5	968	83
Percent	0.0%	65.9%	25.0%	0.7%	6.2%	0.7%	0.1%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.5%		8.6%
AM Peak		7:00	7:00	7:00	7:00	7:00	7:00	7:00	4:00					7:00	7:00	7:00
	*	317	119	7	40	5	1	6	1	*	*	*	*	3	499	60
PM Peak	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Grand Total	201	17595	4342	214	1202	67	6	127	15	4	3	1	1	597	24375	1640
Percent	0.8%	72.2%	17.8%	0.9%	4.9%	0.3%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	2.4%		6.7%

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: West, Lane 2

11/9/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	2	178	100	3	38	0	0	5	1	0	0	0	0	4	331	47
12:00 PM	3	323	132	4	63	2	0	7	2	0	0	0	0	14	550	78
1:00	2	309	143	5	71	2	0	5	0	0	0	0	0	11	548	83
2:00	2	309	168	12	68	0	0	9	0	0	0	0	0	23	591	89
3:00	12	349	190	12	87	2	0	8	0	0	1	0	0	31	692	110
4:00	7	416	155	21	97	1	0	9	2	0	0	0	0	61	769	130
5:00	5	423	206	10	99	1	0	3	0	0	0	0	0	41	788	113
6:00	5	409	141	11	99	1	1	3	0	0	0	0	0	35	705	115
7:00	1	280	131	2	57	0	0	1	0	1	0	0	0	14	487	61
8:00	1	211	122	2	56	0	0	0	1	0	0	0	0	3	396	59
9:00	1	157	62	0	38	1	0	0	0	0	0	0	0	2	261	39
10:00	1	107	49	0	20	0	0	0	0	0	0	0	0	0	177	20
11:00	0	62	38	0	12	0	0	1	0	0	0	0	0	0	113	13
Total	42	3533	1637	82	805	10	1	51	6	1	1	0	0	239	6408	957
Percent	0.7%	55.1%	25.5%	1.3%	12.6%	0.2%	0.0%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	3.7%		14.9%
AM Peak	11:00	11:00	11:00	11:00	11:00	*	*	11:00	11:00	*	*	*	*	11:00	11:00	11:00
	2	178	100	3	38			5	1					4	331	47
PM Peak	3:00	5:00	5:00	4:00	5:00	12:00 PM	6:00	2:00	12:00 PM	7:00	3:00			4:00	5:00	4:00
	12	423	206	21	99	2	1	9	2	1	1	*	*	61	788	130

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: West, Lane 2

11/10/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	38	27	0	7	0	0	0	0	0	0	0	0	0	72	7
1:00	0	17	11	0	5	0	0	0	0	0	0	0	0	0	33	5
2:00	0	9	7	0	5	1	0	0	0	0	0	0	0	0	22	6
3:00	0	5	1	0	3	0	0	0	0	0	0	0	0	0	9	3
4:00	0	6	3	0	1	0	0	0	0	0	0	0	0	0	10	1
5:00	1	23	17	0	7	0	0	0	0	0	0	0	0	0	48	7
6:00	2	78	28	0	24	1	0	0	0	0	0	0	0	0	133	25
7:00	1	116	69	12	55	5	0	2	0	0	0	0	0	5	265	74
8:00	0	227	131	9	72	2	0	5	0	0	0	0	0	6	452	88
9:00	5	259	110	10	65	0	1	2	1	0	0	0	0	18	471	79
10:00	0	283	135	5	57	0	0	4	0	0	0	0	0	5	489	66
11:00	2	284	120	4	65	0	1	5	0	0	0	0	0	9	490	75
12:00 PM	5	285	137	10	79	1	0	7	1	0	0	0	0	13	538	98
1:00	4	295	144	7	66	2	0	5	0	0	0	0	0	15	538	80
2:00	7	280	147	11	86	1	0	4	0	0	0	0	0	11	547	102
3:00	5	346	178	16	89	2	0	6	0	0	0	0	0	34	676	113
4:00	13	434	162	7	108	1	0	12	0	0	0	0	0	56	793	128
5:00	5	446	185	6	107	2	0	10	0	0	0	0	0	40	801	125
6:00	4	414	193	13	85	1	0	7	0	0	0	0	0	27	744	106
7:00	2	309	111	1	59	0	0	1	0	0	0	0	0	9	492	61
8:00	3	219	95	2	42	0	0	1	0	0	0	0	0	3	365	45
9:00	0	185	63	1	24	0	0	0	0	0	0	0	0	3	276	25
10:00	0	116	62	0	24	0	0	1	0	0	0	0	0	1	204	25
11:00	0	76	42	0	10	0	0	0	0	0	0	0	0	0	128	10
Total	59	4750	2178	114	1145	19	2	72	2	0	0	0	0	255	8596	1354
Percent	0.7%	55.3%	25.3%	1.3%	13.3%	0.2%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%		15.8%
AM Peak	9:00	11:00	10:00	7:00	8:00	7:00	9:00	8:00	9:00					9:00	11:00	8:00
	5	284	135	12	72	5	1	5	1	*	*	*	*	18	490	88
PM Peak	4:00	5:00	6:00	3:00	4:00	1:00		4:00	12:00 PM					4:00	5:00	4:00
	13	446	193	16	108	2	*	12	1	*	*	*	*	56	801	128

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: West, Lane 2

11/11/2020	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	40	25	0	4	0	0	0	0	0	0	0	0	0	69	4
1:00	0	25	14	0	4	0	0	1	0	0	0	0	0	0	44	5
2:00	0	15	4	0	3	0	0	0	0	0	0	0	0	0	22	3
3:00	0	2	4	0	0	0	0	0	0	0	0	0	0	0	6	0
4:00	0	6	6	0	2	0	0	0	0	0	0	0	0	0	14	2
5:00	0	26	14	0	11	0	0	0	0	0	0	0	0	1	52	11
6:00	1	72	33	1	16	0	0	1	0	0	0	0	0	0	124	18
7:00	0	126	53	5	41	0	1	1	0	0	0	0	0	4	231	48
8:00	0	196	89	2	58	0	0	5	1	0	0	0	0	3	354	66
9:00	1	263	103	8	79	1	1	5	0	0	0	0	0	4	465	94
10:00	2	291	121	12	55	0	0	7	0	0	0	0	0	16	504	74
11:00	4	358	142	11	74	5	0	5	0	0	0	0	0	17	616	95
12:00 PM	2	359	137	5	81	2	0	4	0	0	0	0	0	19	609	92
1:00	11	378	152	10	67	3	0	2	0	0	0	0	0	18	641	82
2:00	3	322	161	9	53	1	1	1	0	0	0	1	0	16	568	66
3:00	5	384	174	10	76	1	0	5	0	0	0	0	0	33	688	92
4:00	7	354	171	6	88	2	0	9	0	0	0	0	0	54	691	105
5:00	7	370	172	13	70	1	0	3	0	0	0	0	0	42	678	87
6:00	1	380	176	6	84	0	0	2	0	0	0	0	0	27	676	92
7:00	0	293	136	4	68	1	0	3	0	0	0	0	0	9	514	76
8:00	0	222	96	2	52	0	0	3	0	0	0	0	0	4	379	57
9:00	0	132	70	0	24	0	0	0	0	0	0	0	0	2	228	24
10:00	0	93	71	0	18	1	0	0	0	0	0	0	0	1	184	19
11:00	0	71	19	0	7	0	0	0	0	0	0	0	0	0	97	7
Total	44	4778	2143	104	1035	18	3	57	1	0	0	1	0	270	8454	1219
Percent	0.5%	56.5%	25.3%	1.2%	12.2%	0.2%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%		14.4%
AM Peak	11:00	11:00	11:00	10:00	9:00	11:00	7:00	10:00	8:00					11:00	11:00	11:00
	4	358	142	12	79	5	1	7	1	*	*	*	*	17	616	95
PM Peak	1:00	3:00	6:00	5:00	4:00	1:00	2:00	4:00				2:00		4:00	4:00	4:00
	11	384	176	13	88	3	1	9	*	*	*	1	*	54	691	105

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: West, Lane 2

11/12/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	37	20	0	8	0	0	0	0	0	0	0	0	0	65	8
1:00	0	22	9	0	4	0	0	1	0	0	0	0	0	0	36	5
2:00	0	9	3	0	4	0	0	0	0	0	0	0	0	0	16	4
3:00	0	3	3	0	0	0	0	0	0	0	0	0	0	0	6	0
4:00	0	7	4	0	2	0	0	0	0	0	0	0	0	0	13	2
5:00	0	24	9	0	9	1	0	0	0	0	0	0	0	1	44	10
6:00	0	87	31	0	25	0	0	0	0	0	0	0	0	2	145	25
7:00	0	109	71	8	45	0	0	0	1	0	0	0	0	3	237	54
8:00	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
Total	0	299	152	8	97	1	0	1	1	0	0	0	0	6	565	108
Percent	0.0%	52.9%	26.9%	1.4%	17.2%	0.2%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	1.1%		19.1%
AM Peak		7:00	7:00	7:00	7:00	5:00		1:00	7:00					7:00	7:00	7:00
	*	109	71	8	45	1	*	1	1	*	*	*	*	3	237	54
PM Peak	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Grand Total	145	13360	6110	308	3082	48	6	181	10	1	1	1	0	770	24023	3638
Percent	0.6%	55.6%	25.4%	1.3%	12.8%	0.2%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%		15.1%

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: Combined

11/9/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	4	406	159	4	45	1	0	5	4	0	0	0	0	10	638	59
12:00 PM	9	723	225	10	84	4	0	7	3	0	0	0	0	27	1092	108
1:00	11	725	242	9	86	3	0	6	1	0	0	0	0	21	1104	105
2:00	9	754	271	21	90	0	0	11	0	0	0	0	0	29	1185	122
3:00	17	787	297	20	122	5	1	16	0	0	1	0	0	50	1316	165
4:00	16	852	277	32	135	5	0	16	2	0	0	0	0	89	1424	190
5:00	17	925	319	18	126	1	0	6	0	1	0	0	0	69	1482	152
6:00	12	885	234	15	120	1	1	8	0	0	0	0	0	55	1331	145
7:00	3	662	206	6	70	1	0	1	0	1	1	0	0	22	973	80
8:00	3	514	182	3	67	1	0	1	1	0	0	0	0	6	778	73
9:00	3	374	93	0	46	1	0	0	0	0	0	0	0	2	519	47
10:00	2	251	71	0	25	0	0	0	0	0	0	0	0	0	349	25
11:00	0	140	49	0	15	0	0	1	0	0	0	0	0	0	205	16
Total	106	7998	2625	138	1031	23	2	78	11	2	2	0	0	380	12396	1287
Percent	0.9%	64.5%	21.2%	1.1%	8.3%	0.2%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	3.1%		10.4%
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	*	11:00	11:00	*	*	*	*	11:00	11:00	11:00
	4	406	159	4	45	1		5	4					10	638	59
PM Peak	3:00	5:00	5:00	4:00	4:00	3:00	3:00	3:00	12:00 PM	5:00	3:00			4:00	5:00	4:00
	17	925	319	32	135	5	1	16	3	1	1	*	*	89	1482	190

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: Combined

11/10/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	83	33	0	8	0	0	0	0	0	0	0	0	0	124	8
1:00	0	38	13	0	5	0	0	0	0	0	0	0	0	0	56	5
2:00	0	24	9	0	6	1	0	0	0	0	0	0	0	0	40	7
3:00	0	16	6	1	3	0	0	0	0	0	0	0	0	0	26	4
4:00	0	25	7	0	4	0	0	0	0	0	0	0	0	0	36	4
5:00	1	87	37	0	10	0	0	0	1	0	0	0	0	0	136	11
6:00	4	216	86	2	27	1	0	0	1	0	0	0	0	2	339	31
7:00	1	426	175	16	85	6	0	3	0	0	0	0	0	17	729	110
8:00	0	659	228	13	102	4	0	7	0	0	0	0	0	14	1027	126
9:00	9	617	233	14	97	1	1	6	1	0	0	0	0	30	1009	120
10:00	5	607	237	7	82	2	0	4	0	0	0	0	0	12	956	95
11:00	5	624	212	9	92	2	2	10	0	0	0	0	0	11	967	115
12:00 PM	10	658	229	13	101	3	0	11	2	0	0	1	0	27	1055	131
1:00	6	683	256	11	100	5	1	8	0	0	0	0	0	25	1095	125
2:00	10	692	235	16	116	2	0	4	0	0	0	0	0	28	1103	138
3:00	12	811	298	26	116	6	0	11	0	0	1	0	0	60	1341	160
4:00	24	931	264	18	136	3	0	19	0	0	0	0	1	110	1506	177
5:00	20	943	283	18	132	5	0	16	0	0	0	0	0	73	1490	171
6:00	12	927	298	16	115	1	0	9	0	0	0	0	0	42	1420	141
7:00	8	728	199	2	74	0	0	2	0	0	0	0	0	22	1035	78
8:00	8	522	161	3	61	0	0	1	0	0	0	0	0	4	760	65
9:00	2	394	103	1	28	0	0	0	0	0	0	0	0	4	532	29
10:00	1	288	84	0	26	0	0	1	0	0	0	0	0	2	402	27
11:00	0	186	57	0	10	0	0	0	0	0	0	0	0	0	253	10
Total	138	11185	3743	186	1536	42	4	112	5	0	1	1	1	483	17437	1888
Percent	0.8%	64.1%	21.5%	1.1%	8.8%	0.2%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%		10.8%
AM Peak	9:00	8:00	10:00	7:00	8:00	7:00	11:00	11:00	5:00					9:00	8:00	8:00
	9	659	237	16	102	6	2	10	1	*	*	*	*	30	1027	126
PM Peak	4:00	5:00	3:00	3:00	4:00	3:00	1:00	4:00	12:00 PM			3:00	12:00 PM	4:00	4:00	4:00
	24	943	298	26	136	6	1	19	2	*	1	1	1	110	1506	177

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: Combined

11/11/2020	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	91	28	0	4	0	0	0	0	0	0	0	0	0	123	4
1:00	0	52	17	0	4	0	0	1	0	0	0	0	0	0	74	5
2:00	0	27	6	0	3	0	0	0	0	0	0	0	0	0	36	3
3:00	0	14	4	0	0	0	0	0	0	0	0	0	0	0	18	0
4:00	0	22	13	1	3	0	0	0	0	0	0	0	0	0	39	4
5:00	0	76	31	0	14	0	0	0	1	0	0	0	0	1	123	15
6:00	2	185	89	1	19	0	0	1	1	0	0	0	0	0	298	22
7:00	0	330	136	6	54	1	1	4	1	0	0	0	0	8	541	67
8:00	2	493	189	5	87	2	0	7	1	0	0	0	0	11	797	102
9:00	5	576	228	11	133	3	1	12	1	0	0	0	0	15	985	161
10:00	6	628	224	17	97	3	0	11	0	0	0	0	0	29	1015	128
11:00	10	686	246	16	122	6	0	7	0	0	0	0	0	33	1126	151
12:00 PM	8	767	244	13	139	7	2	8	1	0	0	0	0	40	1229	170
1:00	14	835	245	17	100	5	0	8	0	0	0	0	0	42	1266	130
2:00	10	753	264	18	79	4	1	4	0	0	1	1	0	35	1170	108
3:00	11	833	293	17	122	3	0	9	0	0	0	0	0	57	1345	151
4:00	16	835	284	12	117	4	0	15	0	0	0	0	0	79	1362	148
5:00	14	845	276	29	118	2	0	10	0	1	0	0	0	76	1371	160
6:00	2	868	286	12	118	0	0	6	0	1	0	0	0	44	1337	137
7:00	0	660	210	4	91	1	0	5	0	0	0	0	0	12	983	101
8:00	2	496	142	4	66	0	0	3	0	1	0	0	0	7	721	74
9:00	0	351	119	0	37	0	0	0	0	0	0	0	0	3	510	37
10:00	0	237	91	0	24	1	0	0	0	0	0	0	0	1	354	25
11:00	0	175	25	0	9	0	0	0	0	0	0	0	0	0	209	9
Total	102	10835	3690	183	1560	42	5	111	6	3	1	1	0	493	17032	1912
Percent	0.6%	63.6%	21.7%	1.1%	9.2%	0.2%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%		11.2%
AM Peak	11:00	11:00	11:00	10:00	9:00	11:00	7:00	9:00	5:00					11:00	11:00	9:00
	10	686	246	17	133	6	1	12	1	*	*	*	*	33	1126	161
PM Peak	4:00	6:00	3:00	5:00	12:00 PM	12:00 PM	12:00 PM	4:00	12:00 PM	5:00	2:00	2:00		4:00	5:00	12:00 PM
	16	868	293	29	139	7	2	15	1	1	1	1	*	79	1371	170

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Lakeview Ave West of Primrose Hill Rd
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/9/2020
 End Date: 11/12/2020

36965

Direction: Combined

11/12/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	93	26	0	8	0	0	0	0	0	0	0	0	0	127	8
1:00	0	47	12	0	5	0	0	1	0	0	0	0	0	0	65	6
2:00	0	19	7	0	4	0	0	0	0	0	0	0	0	0	30	4
3:00	0	20	3	0	0	0	0	0	0	0	0	0	0	0	23	0
4:00	0	24	14	0	3	0	0	0	1	0	0	0	0	0	42	4
5:00	0	77	38	0	14	2	0	0	0	0	0	0	0	2	133	16
6:00	0	227	100	0	38	1	0	0	0	0	0	0	0	3	369	39
7:00	0	426	190	15	85	5	1	6	2	0	0	0	0	6	736	114
8:00	0	4	4	0	0	0	0	0	0	0	0	0	0	0	8	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
Total	0	937	394	15	157	8	1	7	3	0	0	0	0	11	1533	191
Percent	0.0%	61.1%	25.7%	1.0%	10.2%	0.5%	0.1%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.7%		12.5%
AM Peak		7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00					7:00	7:00	7:00
		426	190	15	85	5	1	6	2	*	*	*	*	6	736	114
PM Peak																
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Grand Total	346	30955	10452	522	4284	115	12	308	25	5	4	2	1	1367	48398	5278
Percent	0.7%	64.0%	21.6%	1.1%	8.9%	0.2%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	2.8%		10.9%

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: North, Lane 1

11/3/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	9	52	17	1	7	4	0	1	0	0	0	0	0	8	99	13
12:00 PM	3	86	14	2	6	7	0	2	0	1	0	0	0	9	130	18
1:00	3	80	21	3	3	3	0	1	1	1	0	0	0	14	130	12
2:00	4	84	25	1	8	7	0	1	0	1	0	0	0	10	141	18
3:00	6	98	21	3	9	4	0	2	1	1	0	0	0	11	156	20
4:00	13	102	31	4	7	13	1	0	0	0	0	0	0	30	201	25
5:00	18	105	25	3	21	11	0	0	0	0	0	0	0	24	207	35
6:00	20	100	17	3	9	6	0	2	0	0	0	0	0	31	188	20
7:00	14	69	24	4	9	5	0	1	0	0	0	0	0	8	134	19
8:00	2	53	5	1	3	2	0	0	0	0	0	0	0	8	74	6
9:00	0	30	5	0	4	1	0	0	0	0	0	0	0	1	41	5
10:00	0	21	3	0	2	3	0	0	0	0	0	0	0	1	30	5
11:00	0	15	3	0	1	0	0	0	0	0	0	0	0	1	20	1
Total	92	895	211	25	89	66	1	10	2	4	0	0	0	156	1551	197
Percent	5.9%	57.7%	13.6%	1.6%	5.7%	4.3%	0.1%	0.6%	0.1%	0.3%	0.0%	0.0%	0.0%	10.1%		12.7%
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00		11:00						11:00	11:00	11:00
	9	52	17	1	7	4	*	1	*	*	*	*	*	8	99	13
PM Peak	6:00	5:00	4:00	4:00	5:00	4:00	4:00	12:00 PM	1:00	12:00 PM				6:00	5:00	5:00
	20	105	31	4	21	13	1	2	1	1	*	*	*	31	207	35

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: North, Lane 1

11/4/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	1	12	2	0	2	0	0	0	0	0	0	0	0	0	17	2
1:00	0	12	3	0	0	1	0	0	0	0	0	0	0	0	16	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	2	0	0	1	1	0	0	0	0	0	0	0	0	4	2
4:00	0	2	2	0	0	0	0	0	0	0	0	0	0	1	5	0
5:00	0	10	1	0	0	1	0	0	0	0	0	0	0	1	13	1
6:00	0	24	5	0	0	3	0	0	0	0	0	0	0	4	36	3
7:00	0	32	11	4	6	14	0	0	1	0	0	0	0	7	75	25
8:00	3	71	18	1	7	7	0	1	0	0	0	0	0	12	120	16
9:00	8	70	15	1	9	9	0	1	0	1	0	0	0	17	131	21
10:00	3	74	14	1	10	9	0	0	1	0	0	0	0	4	116	21
11:00	2	64	13	2	4	2	0	3	0	0	0	0	0	9	99	11
12:00 PM	1	82	20	2	12	9	1	0	0	1	0	0	0	14	142	25
1:00	4	79	21	0	5	9	1	1	0	2	0	0	0	13	135	18
2:00	4	77	28	1	7	2	1	2	2	0	0	0	0	5	129	15
3:00	13	80	29	3	12	5	2	1	1	0	0	0	0	17	163	24
4:00	7	103	30	3	14	6	0	1	0	0	0	0	0	21	185	24
5:00	12	117	28	7	13	8	0	2	0	0	0	0	0	31	218	30
6:00	13	107	34	3	16	4	0	2	0	0	0	0	0	24	203	25
7:00	8	71	24	1	6	4	0	1	0	0	0	0	0	11	126	12
8:00	2	62	12	0	7	2	0	1	0	0	0	0	0	8	94	10
9:00	1	32	7	0	7	0	0	0	0	0	0	0	0	1	48	7
10:00	2	24	3	0	5	0	0	0	0	0	0	0	0	2	36	5
11:00	1	15	3	0	2	0	0	0	0	0	0	0	0	1	22	2
Total	85	1222	323	29	145	96	5	16	5	4	0	0	0	203	2133	300
Percent	4.0%	57.3%	15.1%	1.4%	6.8%	4.5%	0.2%	0.8%	0.2%	0.2%	0.0%	0.0%	0.0%	9.5%		14.1%
AM Peak	9:00	10:00	8:00	7:00	10:00	7:00		11:00	7:00	9:00				9:00	9:00	7:00
	8	74	18	4	10	14	*	3	1	1	*	*	*	17	131	25
PM Peak	3:00	5:00	6:00	5:00	6:00	12:00 PM	3:00	2:00	2:00	1:00				5:00	5:00	5:00
	13	117	34	7	16	9	2	2	2	2	*	*	*	31	218	30

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: North, Lane 1

11/5/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	2	11	4	0	0	2	0	0	0	0	0	0	0	0	20	2
1:00	3	5	1	0	3	0	0	0	0	0	0	0	0	0	12	3
2:00	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3	1
3:00	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3	1
4:00	0	4	2	0	0	0	0	0	0	0	0	0	0	1	7	0
5:00	0	8	1	0	2	0	0	0	0	0	0	0	0	0	11	2
6:00	1	18	8	0	8	1	0	0	0	0	0	0	0	0	36	9
7:00	2	36	15	6	9	7	0	0	2	0	0	0	0	5	82	24
8:00	5	76	20	2	9	3	0	1	0	1	0	0	0	15	132	16
9:00	5	70	11	1	8	7	0	0	2	0	0	0	0	10	114	18
10:00	5	70	23	1	3	9	0	0	0	0	0	0	0	12	123	13
11:00	3	74	19	0	10	6	0	0	1	1	0	0	0	7	121	18
12:00 PM	4	67	16	2	12	5	1	0	0	0	0	0	0	9	116	20
1:00	5	83	21	0	6	5	0	0	0	0	0	0	0	4	124	11
2:00	7	78	31	1	10	5	2	1	0	0	0	0	0	12	147	19
3:00	3	95	28	1	14	5	1	1	0	0	0	0	0	6	154	22
4:00	15	117	41	5	23	6	1	1	1	1	0	0	0	31	242	38
5:00	12	114	26	3	15	10	0	1	0	0	0	0	0	38	219	29
6:00	15	94	41	6	11	5	0	4	1	0	0	0	0	28	205	27
7:00	5	89	22	0	6	4	0	0	0	0	0	0	0	11	137	10
8:00	4	57	13	0	5	1	0	1	0	0	0	0	0	4	85	7
9:00	2	39	6	0	4	2	0	0	0	0	0	0	0	2	55	6
10:00	0	30	5	0	5	1	0	0	0	0	0	0	0	1	42	6
11:00	1	24	4	0	1	0	0	0	0	0	0	0	0	0	30	1
Total	99	1262	359	28	166	84	5	10	7	3	0	0	0	197	2220	303
Percent	4.5%	56.8%	16.2%	1.3%	7.5%	3.8%	0.2%	0.5%	0.3%	0.1%	0.0%	0.0%	0.0%	8.9%		13.6%
AM Peak	8:00	8:00	10:00	7:00	11:00	10:00	*	8:00	7:00	8:00	*	*	*	8:00	8:00	7:00
	5	76	23	6	10	9		1	2	1				15	132	24
PM Peak	4:00	4:00	4:00	6:00	4:00	5:00	2:00	6:00	4:00	4:00				5:00	4:00	4:00
	15	117	41	6	23	10	2	4	1	1	*	*	*	38	242	38

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: North, Lane 1

11/6/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	19	1	0	0	0	0	0	0	0	0	0	0	1	21	0
1:00	0	9	0	0	2	1	0	0	0	0	0	0	0	0	12	3
2:00	0	3	0	0	1	0	0	0	0	0	0	0	0	1	5	1
3:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:00	0	2	1	0	0	0	0	0	0	0	0	0	0	1	4	0
5:00	0	4	1	0	1	0	0	0	0	0	0	0	0	0	6	1
6:00	1	20	4	0	4	4	0	0	0	0	0	0	0	1	34	8
7:00	4	37	16	4	11	7	0	0	0	0	0	0	0	7	86	22
8:00	5	66	15	2	5	6	0	2	0	0	0	0	0	6	107	15
9:00	10	73	17	2	13	10	0	1	1	1	0	0	0	14	142	28
10:00	1	11	0	0	2	0	0	0	0	0	0	0	0	2	16	2
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
Total	21	245	55	8	39	28	0	3	1	1	0	0	0	33	434	80
Percent	4.8%	56.5%	12.7%	1.8%	9.0%	6.5%	0.0%	0.7%	0.2%	0.2%	0.0%	0.0%	0.0%	7.6%		18.4%
AM Peak	9:00	9:00	9:00	7:00	9:00	9:00	*	8:00	9:00	9:00	*	*	*	9:00	9:00	9:00
	10	73	17	4	13	10		2	1	1				14	142	28
PM Peak	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Grand Total	297	3624	948	90	439	274	11	39	15	12	0	0	0	589	6338	880
Percent	4.7%	57.2%	15.0%	1.4%	6.9%	4.3%	0.2%	0.6%	0.2%	0.2%	0.0%	0.0%	0.0%	9.3%		13.9%

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: South, Lane 2

11/3/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	1	62	12	0	3	1	0	0	0	0	0	0	0	4	83	4
12:00 PM	0	91	18	1	5	2	0	0	0	0	0	0	0	0	117	8
1:00	0	81	21	0	9	2	0	0	0	0	0	0	0	2	115	11
2:00	0	98	14	0	2	0	0	1	0	0	0	0	0	4	119	3
3:00	1	123	31	2	1	0	0	2	0	0	0	0	0	4	164	5
4:00	0	140	30	0	5	0	0	1	0	0	0	0	0	13	189	6
5:00	0	135	32	3	3	0	0	0	0	0	0	0	0	5	178	6
6:00	1	133	32	1	4	0	0	1	0	0	1	0	0	12	185	7
7:00	0	98	21	1	3	0	0	0	0	0	0	0	0	3	126	4
8:00	0	70	7	0	1	0	0	0	0	0	0	0	0	1	79	1
9:00	0	33	6	0	1	0	0	0	0	0	0	0	0	0	40	1
10:00	0	36	8	0	0	0	0	0	0	0	0	0	0	0	44	0
11:00	0	30	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Total	3	1130	232	8	37	5	0	5	0	0	1	0	0	48	1469	56
Percent	0.2%	76.9%	15.8%	0.5%	2.5%	0.3%	0.0%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	3.3%		3.8%
AM Peak	11:00	11:00	11:00		11:00	11:00								11:00	11:00	11:00
	1	62	12	*	3	1	*	*	*	*	*	*	*	4	83	4
PM Peak	3:00	4:00	5:00	5:00	1:00	12:00 PM		3:00			6:00			4:00	4:00	1:00
	1	140	32	3	9	2	*	2	*	*	1	*	*	13	189	11

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: South, Lane 2

11/4/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	9	1	0	1	0	0	0	0	0	0	0	0	0	11	1
1:00	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7	0
2:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:00	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3	0
4:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0
5:00	0	16	4	0	1	0	0	0	0	0	0	0	0	0	21	1
6:00	0	28	15	0	0	0	0	0	0	0	0	0	0	0	43	0
7:00	0	53	24	0	6	0	0	0	0	0	0	0	0	0	83	6
8:00	0	106	42	1	2	1	0	0	0	0	0	0	0	3	155	4
9:00	0	85	31	1	7	1	0	1	0	0	0	0	0	5	131	10
10:00	1	74	22	0	5	0	0	1	0	0	0	0	0	3	106	6
11:00	0	51	20	0	5	1	0	0	0	0	0	0	0	1	78	6
12:00 PM	0	72	17	1	3	1	0	0	0	0	0	0	0	1	95	5
1:00	1	93	21	0	8	1	0	0	0	0	0	0	0	1	125	9
2:00	0	89	17	0	5	2	0	1	0	0	0	0	0	2	116	8
3:00	1	98	19	0	7	3	0	1	0	0	0	0	0	11	140	11
4:00	2	144	32	0	7	0	0	0	0	0	0	0	0	11	196	7
5:00	1	125	34	1	3	1	0	0	0	0	0	0	0	15	180	5
6:00	0	111	23	1	3	0	0	0	1	0	0	0	0	9	148	5
7:00	2	78	15	0	2	0	0	0	0	0	0	0	0	1	98	2
8:00	0	58	8	0	1	0	0	1	0	0	0	0	0	1	69	2
9:00	0	58	10	0	2	0	0	0	0	0	0	0	0	0	70	2
10:00	0	33	4	0	0	0	0	0	0	0	0	0	0	0	37	0
11:00	0	30	3	0	1	0	0	0	0	0	0	0	0	0	34	1
Total	8	1420	366	5	69	11	0	5	1	0	0	0	0	64	1949	91
Percent	0.4%	72.9%	18.8%	0.3%	3.5%	0.6%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	3.3%		4.7%
AM Peak	10:00	8:00	8:00	8:00	9:00	8:00		9:00		*	*	*	*	9:00	8:00	9:00
	1	106	42	1	7	1		1		*	*	*	*	5	155	10
PM Peak	4:00	4:00	5:00	12:00 PM	1:00	3:00		2:00	6:00					5:00	4:00	3:00
	2	144	34	1	8	3		1	1	*	*	*	*	15	196	11

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: South, Lane 2

11/5/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	12	1	0	1	0	0	0	0	0	0	0	0	0	14	1
1:00	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5	0
2:00	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3	1
3:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3	0
4:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
5:00	0	14	0	0	1	0	0	0	0	0	0	0	0	0	15	1
6:00	0	27	15	0	1	0	0	0	0	0	0	0	0	0	43	1
7:00	0	68	28	0	5	2	0	0	0	0	0	0	0	1	104	7
8:00	1	108	21	0	2	1	0	0	0	0	0	0	0	2	135	3
9:00	1	81	33	0	3	2	0	0	0	0	0	0	0	7	127	5
10:00	0	67	26	0	2	2	0	0	0	0	0	0	0	1	98	4
11:00	0	79	34	0	2	2	0	0	0	0	0	0	0	1	118	4
12:00 PM	0	88	25	0	2	3	0	0	0	0	0	0	0	4	122	5
1:00	0	101	23	0	2	0	0	0	0	0	0	0	0	5	131	2
2:00	1	106	32	1	1	1	0	1	0	0	0	0	0	2	145	4
3:00	2	95	30	1	1	0	0	1	0	0	0	0	0	6	136	3
4:00	3	139	30	0	9	0	0	1	0	0	0	0	0	12	194	10
5:00	5	138	42	0	4	0	0	2	0	0	0	0	0	16	207	6
6:00	4	124	25	3	2	0	0	1	0	0	0	0	0	10	169	6
7:00	1	99	11	0	2	0	0	0	0	0	0	0	0	1	114	2
8:00	1	73	10	0	3	0	0	1	0	0	0	0	0	2	90	4
9:00	0	68	10	0	0	0	0	0	0	0	0	0	0	0	78	0
10:00	0	33	8	0	0	0	0	0	0	0	0	0	0	0	41	0
11:00	0	32	5	0	0	0	0	0	0	0	0	0	0	0	37	0
Total	19	1559	413	5	44	13	0	7	0	0	0	0	0	70	2130	69
Percent	0.9%	73.2%	19.4%	0.2%	2.1%	0.6%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%		3.2%
AM Peak	8:00	8:00	11:00		7:00	7:00		*	*	*	*	*	*	9:00	8:00	7:00
	1	108	34	*	5	2		*	*	*	*	*	*	7	135	7
PM Peak	5:00	4:00	5:00	6:00	4:00	12:00 PM		5:00						5:00	5:00	4:00
	5	139	42	3	9	3		2	*	*	*	*	*	16	207	10

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: South, Lane 2

11/6/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	13	2	0	0	0	0	0	0	0	0	0	0	0	16	0
1:00	0	5	2	0	0	0	0	0	0	0	0	0	0	0	7	0
2:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0
5:00	0	13	2	0	1	0	0	0	0	0	0	0	0	0	16	1
6:00	0	22	14	0	2	0	0	0	0	0	0	0	0	0	38	2
7:00	0	72	24	0	9	0	0	0	0	0	0	0	0	0	105	9
8:00	0	97	28	0	3	0	0	0	0	0	0	0	0	0	128	3
9:00	1	92	30	1	4	0	0	2	0	0	0	0	0	4	134	7
10:00	0	12	5	0	1	0	0	0	0	0	0	0	0	1	19	1
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
Total	1	330	108	1	20	0	0	2	0	0	0	0	0	6	468	23
Percent	0.2%	70.5%	23.1%	0.2%	4.3%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%		4.9%
AM Peak	9:00	8:00	9:00	9:00	7:00			9:00						9:00	9:00	7:00
	1	97	30	1	9			2						4	134	9
PM Peak	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Grand Total	31	4439	1119	19	170	29	0	19	1	0	1	0	0	188	6016	239
Percent	0.5%	73.8%	18.6%	0.3%	2.8%	0.5%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%		4.0%

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: Combined

11/3/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	10	114	29	1	10	5	0	1	0	0	0	0	0	12	182	17
12:00 PM	3	177	32	3	11	9	0	2	0	1	0	0	0	9	247	26
1:00	3	161	42	3	12	5	0	1	1	1	0	0	0	16	245	23
2:00	4	182	39	1	10	7	0	2	0	1	0	0	0	14	260	21
3:00	7	221	52	5	10	4	0	4	1	1	0	0	0	15	320	25
4:00	13	242	61	4	12	13	1	1	0	0	0	0	0	43	390	31
5:00	18	240	57	6	24	11	0	0	0	0	0	0	0	29	385	41
6:00	21	233	49	4	13	6	0	3	0	0	1	0	0	43	373	27
7:00	14	167	45	5	12	5	0	1	0	0	0	0	0	11	260	23
8:00	2	123	12	1	4	2	0	0	0	0	0	0	0	9	153	7
9:00	0	63	11	0	5	1	0	0	0	0	0	0	0	1	81	6
10:00	0	57	11	0	2	3	0	0	0	0	0	0	0	1	74	5
11:00	0	45	3	0	1	0	0	0	0	0	0	0	0	1	50	1
Total	95	2025	443	33	126	71	1	15	2	4	1	0	0	204	3020	253
Percent	3.1%	67.1%	14.7%	1.1%	4.2%	2.4%	0.0%	0.5%	0.1%	0.1%	0.0%	0.0%	0.0%	6.8%		8.4%
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	*	11:00	*	*	*	*	*	11:00	11:00	11:00
	10	114	29	1	10	5	*	1	*	*	*	*	*	12	182	17
PM Peak	6:00	4:00	4:00	5:00	5:00	4:00	4:00	3:00	1:00	12:00 PM	6:00			4:00	4:00	5:00
	21	242	61	6	24	13	1	4	1	1	1	*	*	43	390	41

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: Combined

11/4/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	1	21	3	0	3	0	0	0	0	0	0	0	0	0	28	3
1:00	0	18	4	0	0	1	0	0	0	0	0	0	0	0	23	1
2:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:00	0	3	2	0	1	1	0	0	0	0	0	0	0	0	7	2
4:00	0	3	3	0	0	0	0	0	0	0	0	0	0	1	7	0
5:00	0	26	5	0	1	1	0	0	0	0	0	0	0	1	34	2
6:00	0	52	20	0	0	3	0	0	0	0	0	0	0	4	79	3
7:00	0	85	35	4	12	14	0	0	1	0	0	0	0	7	158	31
8:00	3	177	60	2	9	8	0	1	0	0	0	0	0	15	275	20
9:00	8	155	46	2	16	10	0	2	0	1	0	0	0	22	262	31
10:00	4	148	36	1	15	9	0	1	1	0	0	0	0	7	222	27
11:00	2	115	33	2	9	3	0	3	0	0	0	0	0	10	177	17
12:00 PM	1	154	37	3	15	10	1	0	0	1	0	0	0	15	237	30
1:00	5	172	42	0	13	10	1	1	0	2	0	0	0	14	260	27
2:00	4	166	45	1	12	4	1	3	2	0	0	0	0	7	245	23
3:00	14	178	48	3	19	8	2	2	1	0	0	0	0	28	303	35
4:00	9	247	62	3	21	6	0	1	0	0	0	0	0	32	381	31
5:00	13	242	62	8	16	9	0	2	0	0	0	0	0	46	398	35
6:00	13	218	57	4	19	4	0	2	1	0	0	0	0	33	351	30
7:00	10	149	39	1	8	4	0	1	0	0	0	0	0	12	224	14
8:00	2	120	20	0	8	2	0	2	0	0	0	0	0	9	163	12
9:00	1	90	17	0	9	0	0	0	0	0	0	0	0	1	118	9
10:00	2	57	7	0	5	0	0	0	0	0	0	0	0	2	73	5
11:00	1	45	6	0	3	0	0	0	0	0	0	0	0	1	56	3
Total	93	2642	689	34	214	107	5	21	6	4	0	0	0	267	4082	391
Percent	2.3%	64.7%	16.9%	0.8%	5.2%	2.6%	0.1%	0.5%	0.1%	0.1%	0.0%	0.0%	0.0%	6.5%		9.6%
AM Peak	9:00	8:00	8:00	7:00	9:00	7:00		11:00	7:00	9:00				9:00	8:00	7:00
	8	177	60	4	16	14	*	3	1	1	*	*	*	22	275	31
PM Peak	3:00	4:00	4:00	5:00	4:00	12:00 PM	3:00	2:00	2:00	1:00				5:00	5:00	3:00
	14	247	62	8	21	10	2	3	2	2	*	*	*	46	398	35

Northern Middlesex Council of Governments

40 Church St, Suite 200

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Location 1: Primrose Hill Rd north Lakeview Ave
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 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: Combined

11/5/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	2	23	5	0	1	2	0	0	0	0	0	0	0	0	34	3
1:00	3	9	2	0	3	0	0	0	0	0	0	0	0	0	17	3
2:00	0	3	1	0	2	0	0	0	0	0	0	0	0	0	6	2
3:00	0	3	2	0	1	0	0	0	0	0	0	0	0	0	6	1
4:00	0	4	3	0	0	0	0	0	0	0	0	0	0	1	8	0
5:00	0	22	1	0	3	0	0	0	0	0	0	0	0	0	26	3
6:00	1	45	23	0	9	1	0	0	0	0	0	0	0	0	79	10
7:00	2	104	43	6	14	9	0	0	2	0	0	0	0	6	186	31
8:00	6	184	41	2	11	4	0	1	0	1	0	0	0	17	267	19
9:00	6	151	44	1	11	9	0	0	2	0	0	0	0	17	241	23
10:00	5	137	49	1	5	11	0	0	0	0	0	0	0	13	221	17
11:00	3	153	53	0	12	8	0	0	1	1	0	0	0	8	239	22
12:00 PM	4	155	41	2	14	8	1	0	0	0	0	0	0	13	238	25
1:00	5	184	44	0	8	5	0	0	0	0	0	0	0	9	255	13
2:00	8	184	63	2	11	6	2	2	0	0	0	0	0	14	292	23
3:00	5	190	58	2	15	5	1	2	0	0	0	0	0	12	290	25
4:00	18	256	71	5	32	6	1	2	1	1	0	0	0	43	436	48
5:00	17	252	68	3	19	10	0	3	0	0	0	0	0	54	426	35
6:00	19	218	66	9	13	5	0	5	1	0	0	0	0	38	374	33
7:00	6	188	33	0	8	4	0	0	0	0	0	0	0	12	251	12
8:00	5	130	23	0	8	1	0	2	0	0	0	0	0	6	175	11
9:00	2	107	16	0	4	2	0	0	0	0	0	0	0	2	133	6
10:00	0	63	13	0	5	1	0	0	0	0	0	0	0	1	83	6
11:00	1	56	9	0	1	0	0	0	0	0	0	0	0	0	67	1
Total	118	2821	772	33	210	97	5	17	7	3	0	0	0	267	4350	372
Percent	2.7%	64.9%	17.7%	0.8%	4.8%	2.2%	0.1%	0.4%	0.2%	0.1%	0.0%	0.0%	0.0%	6.1%		8.6%
AM Peak	8:00	8:00	11:00	7:00	7:00	10:00	*	8:00	7:00	8:00	*	*	*	8:00	8:00	7:00
	6	184	53	6	14	11		1	2	1				17	267	31
PM Peak	6:00	4:00	4:00	6:00	4:00	5:00	2:00	6:00	4:00	4:00				5:00	4:00	4:00
	19	256	71	9	32	10	2	5	1	1	*	*	*	54	436	48

Northern Middlesex Council of Governments

40 Church St, Suite 200

Lowell, Ma 01852

Location 1: Primrose Hill Rd north Lakeview Ave
 Location 2: Dracut, Ma
 Serial Number: 36965

Start Date: 11/3/2020
 End Date: 11/6/2020

36965

Direction: Combined

11/6/2020 Time	Motor Cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total	Truck Total
12:00 AM	0	32	3	0	0	0	0	0	0	0	0	0	0	2	37	0
1:00	0	14	2	0	2	1	0	0	0	0	0	0	0	0	19	3
2:00	0	4	0	0	1	0	0	0	0	0	0	0	0	1	6	1
3:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0
4:00	0	3	2	0	0	0	0	0	0	0	0	0	0	1	6	0
5:00	0	17	3	0	2	0	0	0	0	0	0	0	0	0	22	2
6:00	1	42	18	0	6	4	0	0	0	0	0	0	0	1	72	10
7:00	4	109	40	4	20	7	0	0	0	0	0	0	0	7	191	31
8:00	5	163	43	2	8	6	0	2	0	0	0	0	0	6	235	18
9:00	11	165	47	3	17	10	0	3	1	1	0	0	0	18	276	35
10:00	1	23	5	0	3	0	0	0	0	0	0	0	0	3	35	3
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0
Total	22	575	163	9	59	28	0	5	1	1	0	0	0	39	902	103
Percent	2.4%	63.7%	18.1%	1.0%	6.5%	3.1%	0.0%	0.6%	0.1%	0.1%	0.0%	0.0%	0.0%	4.3%		11.4%
AM Peak	9:00	9:00	9:00	7:00	7:00	9:00	*	9:00	9:00	9:00	*	*	*	9:00	9:00	9:00
PM Peak	11	165	47	4	20	10	*	3	1	1	*	*	*	18	276	35
Grand Total	328	8063	2067	109	609	303	11	58	16	12	1	0	0	777	12354	1119
Percent	2.7%	65.3%	16.7%	0.9%	4.9%	2.5%	0.1%	0.5%	0.1%	0.1%	0.0%	0.0%	0.0%	6.3%		9.1%

Turn Count Summary

Location: Primrose Hill Rd at Lakeview Ave, Dracut, MA

Date: 2020-11-17

Day of week: Tuesday

Weather: Sunny

Peak hour: 07:45 - 08:45 AM

Analyst: JO

Total vehicle traffic

Interval starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6:45	7	0	15	0	58	3	0	0	0	27	149	0	259
7:00	11	0	31	0	95	6	0	0	0	14	108	0	265
7:15	2	0	21	0	102	7	0	0	0	20	120	0	272
7:30	7	0	34	0	91	4	0	0	0	24	120	0	280
7:45	4	0	25	0	102	7	0	0	0	35	145	0	318
8:00	10	0	30	0	87	7	0	0	0	29	111	0	274
8:15	9	0	19	0	90	6	0	0	0	29	141	0	294
8:30	4	0	17	0	119	2	0	0	0	26	124	0	292
8:45	5	0	19	0	105	3	0	0	0	25	95	0	252

Car traffic

Interval starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6:45	7	0	14	0	55	3	0	0	0	27	144	0	250
7:00	11	0	29	0	93	6	0	0	0	14	105	0	258
7:15	2	0	20	0	99	6	0	0	0	20	119	0	266
7:30	7	0	33	0	83	4	0	0	0	24	117	0	268
7:45	4	0	24	0	94	7	0	0	0	35	140	0	304
8:00	9	0	29	0	82	6	0	0	0	25	107	0	258
8:15	8	0	19	0	87	6	0	0	0	28	130	0	278
8:30	4	0	16	0	113	2	0	0	0	26	119	0	280
8:45	5	0	19	0	103	3	0	0	0	24	94	0	248

Truck traffic

Interval starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6:45	0	0	1	0	3	0	0	0	0	0	5	0	9
7:00	0	0	2	0	2	0	0	0	0	0	3	0	7
7:15	0	0	1	0	3	1	0	0	0	0	1	0	6
7:30	0	0	1	0	8	0	0	0	0	0	3	0	12
7:45	0	0	1	0	8	0	0	0	0	0	5	0	14
8:00	1	0	1	0	5	1	0	0	0	4	3	0	15
8:15	1	0	0	0	3	0	0	0	0	1	11	0	16
8:30	0	0	1	0	6	0	0	0	0	0	5	0	12
8:45	0	0	0	0	2	0	0	0	0	1	1	0	4

Bicycle traffic

Interval starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6:45	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian volumes

Interval starts	NE			NW			SW			SE			Total
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
6:45	0	0	0	0	1	1	0	1	1	3	0	3	5
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	1	0	1	0	1	1	0	0	0	2
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	1	0	1	1
8:00	0	0	0	0	0	0	0	2	2	0	0	0	2
8:15	0	0	0	0	1	1	0	0	0	0	0	0	1
8:30	0	0	0	1	0	1	0	0	0	0	0	0	1
8:45	0	2	2	0	0	0	0	1	1	1	0	1	4

Intersection Peak Hour

	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	27	0	91	0	398	22	0	0	0	119	521	0	1178
Factor	0.68	0	0.76	0	0.84	0.79	0	0	0	0.85	0.9	0	0.93
Approach Factor	0.74			0.87			0			0.89			

Peak Hour Vehicle Summary

Vehicle	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Car	25	0	88	0	376	21	0	0	0	114	496	0	1120
Truck	2	0	3	0	22	1	0	0	0	5	24	0	57
Bicycle	0	0	0	0	0	0	0	0	0	0	1	0	1

Peak Hour Pedestrians

	NE			NW			SW			SE			Total
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
Pedestrians	0	0	0	1	1	2	0	2	2	1	0	1	5

Turn Count Summary

Location: Primrose Hill Rd at Lakeview Ave, Dracut, MA

Date: 2020-11-18

Day of week: Wednesday

Weather: Sunny

Peak hour: 16:30 - 17:30

Analyst: JO

Total vehicle traffic

Interval starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	5	0	53	0	171	7	0	0	0	40	137	0	413
16:15	7	0	53	0	151	8	0	0	0	34	171	0	424
16:30	5	0	49	0	156	8	0	0	0	52	137	0	407
16:45	2	0	45	0	165	9	0	0	0	31	149	0	401
17:00	3	0	45	0	172	3	0	0	0	51	147	0	421
17:15	1	0	64	0	175	8	0	0	0	27	149	0	424
17:30	7	0	46	0	142	4	0	0	0	37	126	0	362
17:45	4	0	41	0	138	7	0	0	0	26	145	0	361

Car traffic

Interval starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	5	0	52	0	169	7	0	0	0	38	132	0	403
16:15	7	0	53	0	150	8	0	0	0	34	167	0	419
16:30	5	0	49	0	155	8	0	0	0	50	135	0	402
16:45	2	0	45	0	161	9	0	0	0	31	147	0	395
17:00	3	0	45	0	168	3	0	0	0	51	146	0	416
17:15	1	0	62	0	175	8	0	0	0	27	149	0	422
17:30	7	0	45	0	141	4	0	0	0	36	124	0	357
17:45	4	0	40	0	137	7	0	0	0	26	145	0	359

Truck traffic

Interval starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	0	1	0	2	0	0	0	0	2	4	0	9
16:15	0	0	0	0	1	0	0	0	0	0	4	0	5
16:30	0	0	0	0	1	0	0	0	0	2	2	0	5
16:45	0	0	0	0	4	0	0	0	0	0	2	0	6
17:00	0	0	0	0	4	0	0	0	0	0	1	0	5
17:15	0	0	2	0	0	0	0	0	0	0	0	0	2
17:30	0	0	1	0	1	0	0	0	0	1	2	0	5
17:45	0	0	1	0	1	0	0	0	0	0	0	0	2

Bicycle traffic

Interval starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	0	0	0	0	0	0	0	0	0	1	0	1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian volumes

Interval starts	NE			NW			SW			SE			Total
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
16:00	0	0	0	0	0	0	0	1	1	1	0	1	2
16:15	0	0	0	0	0	0	0	0	0	1	0	1	1
16:30	0	0	0	0	0	0	0	0	0	3	0	3	3
16:45	0	0	0	0	0	0	0	3	3	0	0	0	3
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	1	1	1	0	1	2
17:30	0	0	0	0	0	0	0	1	1	1	0	0	1
17:45	0	0	0	0	1	1	0	0	0	0	0	0	1

Intersection Peak Hour

	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	11	0	203	0	668	28	0	0	0	161	582	0	1653
Factor	0.55	0	0.79	0	0.95	0.78	0	0	0	0.77	0.98	0	0.97
Approach Factor	0.82			0.95			0			0.94			

Peak Hour Vehicle Summary

Vehicle	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Car	11	0	201	0	659	28	0	0	0	159	577	0	1635
Truck	0	0	2	0	9	0	0	0	0	2	5	0	18
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Pedestrians

	NE			NW			SW			SE			Total
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
Pedestrians	0	0	0	0	0	0	0	4	4	4	0	4	8

Appendix B: Level of Service Analysis

PM

Intersection

Int Delay, s/veh 12.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	161	582	668	28	11	203
Future Vol, veh/h	161	582	668	28	11	203
Conflicting Peds, #/hr	1	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	98	95	78	55	79
Heavy Vehicles, %	1	1	1	0	0	1
Mvmt Flow	209	594	703	36	20	257

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	741	0	0
Stage 1	-	-	723
Stage 2	-	-	1012
Critical Hdwy	4.11	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.209	-	3.5
Pot Cap-1 Maneuver	870	-	97
Stage 1	-	-	484
Stage 2	-	-	354
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	868	-	62
Mov Cap-2 Maneuver	-	-	62
Stage 1	-	-	310
Stage 2	-	-	353

Approach

	EB	WB	SB
HCM Control Delay, s	2.7	0	72.4
HCM LOS			F

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	868	-	-	-	300
HCM Lane V/C Ratio	0.241	-	-	-	0.923
HCM Control Delay (s)	10.5	0	-	-	72.4
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.9	-	-	-	8.9

AM

Intersection

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	119	521	376	22	27	91
Future Vol, veh/h	119	521	376	22	27	91
Conflicting Peds, #/hr	1	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	90	84	79	68	76
Heavy Vehicles, %	1	4	6	4	7	3
Mvmt Flow	140	579	448	28	40	120

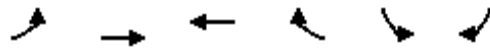
Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	478	0	0
Stage 1	-	-	464
Stage 2	-	-	859
Critical Hdwy	4.11	-	6.47
Critical Hdwy Stg 1	-	-	5.47
Critical Hdwy Stg 2	-	-	5.47
Follow-up Hdwy	2.209	-	3.563
Pot Cap-1 Maneuver	1090	-	168
Stage 1	-	-	623
Stage 2	-	-	407
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1088	-	136
Mov Cap-2 Maneuver	-	-	136
Stage 1	-	-	503
Stage 2	-	-	406

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	26.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1088	-	-	-	323
HCM Lane V/C Ratio	0.129	-	-	-	0.494
HCM Control Delay (s)	8.8	0	-	-	26.5
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.4	-	-	-	2.6

HCM 2010 Signalized Intersection Summary
 2: Lakeview Ave/Lakeview Avenue & Primrose Hill Road

Lakeview and Primrose AM Signal.syn

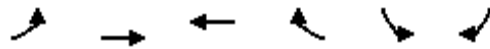


Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	119	521	376	22	27	91		
Future Volume (veh/h)	119	521	376	22	27	91		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1881	1827	1794	1900	1827	1900		
Adj Flow Rate, veh/h	140	579	448	28	40	120		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.85	0.90	0.84	0.79	0.68	0.76		
Percent Heavy Veh, %	1	4	6	4	7	3		
Cap, veh/h	502	1074	598	37	64	191		
Arrive On Green	0.10	0.59	0.36	0.36	0.16	0.16		
Sat Flow, veh/h	1792	1827	1671	104	397	1190		
Grp Volume(v), veh/h	140	579	0	476	161	0		
Grp Sat Flow(s),veh/h/ln	1792	1827	0	1776	1597	0		
Q Serve(g_s), s	1.5	6.8	0.0	8.4	3.4	0.0		
Cycle Q Clear(g_c), s	1.5	6.8	0.0	8.4	3.4	0.0		
Prop In Lane	1.00			0.06	0.25	0.75		
Lane Grp Cap(c), veh/h	502	1074	0	635	257	0		
V/C Ratio(X)	0.28	0.54	0.00	0.75	0.63	0.00		
Avail Cap(c_a), veh/h	589	1607	0	1066	869	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	6.3	4.4	0.0	10.1	14.0	0.0		
Incr Delay (d2), s/veh	0.3	0.4	0.0	1.8	2.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.7	3.5	0.0	4.4	1.7	0.0		
LnGrp Delay(d),s/veh	6.6	4.9	0.0	11.9	16.5	0.0		
LnGrp LOS	A	A		B	B			
Approach Vol, veh/h		719	476		161			
Approach Delay, s/veh		5.2	11.9		16.5			
Approach LOS		A	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				25.6		10.3	8.3	17.3
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				31.5		19.5	5.5	21.5
Max Q Clear Time (g_c+I1), s				8.8		5.4	3.5	10.4
Green Ext Time (p_c), s				4.0		0.4	0.1	2.3
Intersection Summary								
HCM 2010 Ctrl Delay			8.9					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

2: Lakeview Ave & Primrose Hill Road

Lakeview and Primrose PM Signal.syn



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	161	582	668	28	11	203		
Future Volume (veh/h)	161	582	668	28	11	203		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1881	1827	1794	1900	1841	1900		
Adj Flow Rate, veh/h	189	647	795	35	16	267		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.85	0.90	0.84	0.79	0.68	0.76		
Percent Heavy Veh, %	1	4	6	4	7	3		
Cap, veh/h	300	1197	877	39	19	312		
Arrive On Green	0.07	0.66	0.51	0.51	0.21	0.21		
Sat Flow, veh/h	1792	1827	1705	75	89	1481		
Grp Volume(v), veh/h	189	647	0	830	284	0		
Grp Sat Flow(s),veh/h/ln	1792	1827	0	1780	1575	0		
Q Serve(g_s), s	3.0	12.7	0.0	28.5	11.7	0.0		
Cycle Q Clear(g_c), s	3.0	12.7	0.0	28.5	11.7	0.0		
Prop In Lane	1.00			0.04	0.06	0.94		
Lane Grp Cap(c), veh/h	300	1197	0	915	332	0		
V/C Ratio(X)	0.63	0.54	0.00	0.91	0.86	0.00		
Avail Cap(c_a), veh/h	367	1401	0	1047	457	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	14.5	6.2	0.0	14.9	25.5	0.0		
Incr Delay (d2), s/veh	2.4	0.4	0.0	10.4	11.2	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.1	6.4	0.0	16.5	6.1	0.0		
LnGrp Delay(d),s/veh	16.9	6.6	0.0	25.2	36.7	0.0		
LnGrp LOS	B	A		C	D			
Approach Vol, veh/h		836	830		284			
Approach Delay, s/veh		8.9	25.2		36.7			
Approach LOS		A	C		D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				48.5		18.7	9.5	39.0
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				51.5		19.5	7.5	39.5
Max Q Clear Time (g_c+I1), s				14.7		13.7	5.0	30.5
Green Ext Time (p_c), s				5.2		0.5	0.1	4.0
Intersection Summary								
HCM 2010 Ctrl Delay			19.9					
HCM 2010 LOS			B					

Appendix A: Crash Rate Analysis

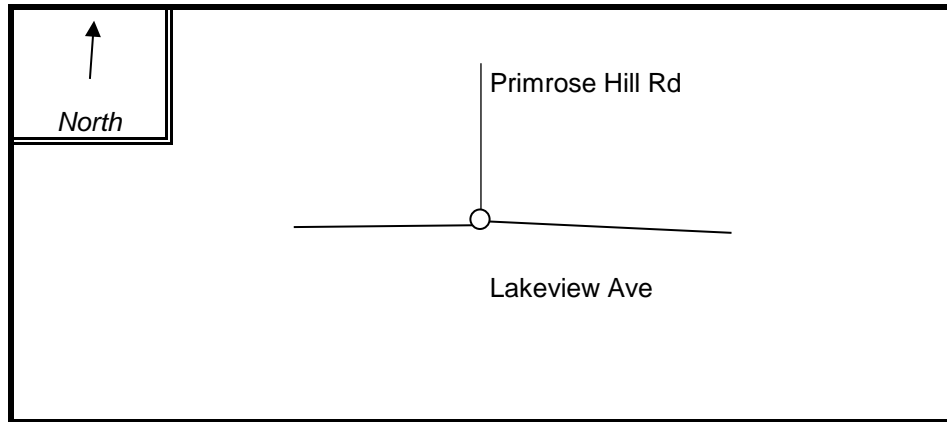
INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Dracut COUNTY DATE : Nov-20
 DISTRICT : 4 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Lakeview Avenue
 MINOR STREET(S) : Primrose Hill Road

**INTERSECTION
 DIAGRAM
 (Label Approaches)**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	S	E	W			
PEAK HOURLY VOLUMES (AM/PM) :	214	743	696			1,653

" K " FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION : RATE =
$$\frac{(A * 1,000,000)}{(V * 365)}$$

Comments : Crash rate is lower than the MassDOT District 4 average of 0.57 for unsignalized int
 Project Title & [Lakeview and Primrose Hill Intersection Study June 2021]