

**76-82 Central Street**  
**Somerville, Massachusetts**

Traffic Impact and Access Study

**Prepared For:**  
East Coast Remedies, Corp.



**Prepared by:**  
Design Consultants, Inc.

January 2020  
Revised February 2020

## TABLE OF CONTENTS

<b>A. EXECUTIVE SUMMARY</b> .....	<b>5</b>
A1. Introduction.....	5
A2. Study Area.....	5
A3. Safety Analysis.....	5
A4. Trip Generation.....	5
A5. Intersection Capacity Analysis.....	6
A6. Parking Utilization.....	7
A7. Conclusion.....	7
<b>B. EXISTING CONDITIONS</b> .....	<b>10</b>
B1. Study Area.....	10
B1.1 Study Intersections.....	10
B2. Accessibility and Multi-Modal Transportation.....	12
B3. Traffic Volumes.....	13
B3.1 Existing Traffic Counts.....	13
B3.2 Seasonal Adjustment.....	13
B4. Safety Analysis.....	17
B4.1 Existing Crash Data and Analysis.....	17
B5. Existing Capacity Analysis.....	20
B5.1 Traffic Analysis Criteria.....	20
B5.2 Capacity Analysis.....	21
<b>C. FUTURE NO-BUILD CONDITIONS</b> .....	<b>22</b>
C1. 2026 No-Build Traffic Volumes.....	22
C2. 2026 No-Build Capacity Analysis.....	24
<b>D. FUTURE BUILD CONDITIONS</b> .....	<b>25</b>
D1. Preliminary Trip Generation.....	25
D1.1 Census Tract Data.....	28
D1.2 Existing Trip Generation.....	29
D2. Trip Distribution.....	29
D4. Intersection Capacity Analysis.....	33
<b>E. PARKING ANALYSIS</b> .....	<b>34</b>
E1. Existing Parking Utilization.....	34
E2. Proposed Parking Utilization.....	34
<b>F. CONCLUSION</b> .....	<b>35</b>

## LIST OF FIGURES

<i>Figure A2.1: Study Intersections</i> .....	8
<i>Figure A2.2: Locus Map</i> .....	9
<i>Figure B3.1: 2019 Existing Pedestrian Volumes</i> .....	14
<i>Figure B3.2: 2019 Existing Bicycle Volumes</i> .....	15
<i>Figure B3.3: 2019 Existing Traffic Volumes</i> .....	16
<i>Figure C1.1: 2026 Future No-Build Traffic Volumes</i> .....	23
<i>Figure D2.1: Trip Distribution</i> .....	30
<i>Figure D2.2: Site-Generated Vehicle-Trips</i> .....	31

<i>Figure D2.3: 2026 Future Build Traffic Volumes</i> .....	32
---	----

## LIST OF TABLES

<i>Table A5-1: Level-of-Service Summary</i> .....	6
<i>Table B3-1: ATR Volume Summary</i> .....	13
<i>Table B4-1: MassDOT Intersection Crash Summary</i> .....	18
<i>Table B5-1: Intersection LOS Thresholds</i> .....	20
<i>Table B5-2: 2019 Existing Conditions LOS</i> .....	21
<i>Table C2-1: 2026 No-Build Conditions LOS</i> .....	24
<i>Table D1-1: Adjusted Vehicle-Trip Generation Calculations per Employee, Customer, and Delivery/Service Travel Patterns</i> .....	27
<i>Table D1-2: Vehicle-Trip Generation Calculations per ITE Trip Generation Manual, 10<sup>th</sup> Edition</i> .....	28
<i>Table D1-3: Mode Share Data</i> .....	28
<i>Table D1-4: Existing Trip Generation</i> .....	29
<i>Table D4-1: 2026 Build Conditions LOS</i> .....	33

## APPENDICES

APPENDIX A – MULTI-MODAL TRANSPORTATION
APPENDIX B – TRAFFIC COUNTS
APPENDIX C – SAFETY ANALYSIS
APPENDIX D – TRIP GENERATION
APPENDIX E – INTERSECTION CAPACITY ANALYSES

[This Page Left Blank Intentionally]

## A. EXECUTIVE SUMMARY

### A1. Introduction

Design Consultants, Inc. (DCI) has prepared this Traffic Impact and Access Study (TIAS) to analyze the potential impact that the proposed Marijuana Retailer at 76-82 Central Street (“Project”) will have on surrounding traffic operations in Somerville. This is a revision to a previous TIAS that was submitted in January 2020. This revision includes an update to the trip generation and parking analysis which will be described later in this report. The site is currently occupied by four (4) retail spaces that are operating and generating trips both to and from the site. The four (4) retail spaces will be either closed or relocated and the empty spaces will be combined and site will be redeveloped to be a Marijuana Retailer, which will contain approximately 1,900 square feet of retail space. There will be parking available in a parking lot at 155 Highland Avenue (across the street from the proposed site). There will be five (5) dedicated parking spaces for customers and extra parking spaces to account for any customer overlap. A parking attendant will be on-site to monitor parking all operating hours.

### A2. Study Area

The following intersections, determined by DCI in conjunction with the City of Somerville, were examined in this traffic study. Figure A2.1 shows the study intersections and Figure A2.2 shows the study intersections relative to the larger transportation network:

- Central Street at Highland Avenue
- Central Street at Gibbens Street and Oxford Street
- Central Street at Summer Street

### A3. Safety Analysis

A safety analysis was carried out at each of the study intersections based on crash data from the Massachusetts Department of Transportation (MassDOT) from 2016 to 2018, the most recent three (3) full years of data available.

The data was analyzed to point out high crash locations and analyze possible contributing factors. Of the three (3) intersections analyzed as part of this study, all study intersections have crash rates that are below both the District 4 and Statewide averages. Additionally, there were no reported fatal crashes. All of the reported crashes occurred outside of the peak periods (7am to 9am and 4pm to 6pm), and there were no crashes involving pedestrians. As such, there are no safety issues that require mitigation as part of this traffic study. The detailed safety analysis and crash data is contained in Section B4 of this report.

### A4. Trip Generation

Trip generation was calculated in two ways. The first way takes into account estimated customer, employee, and service/delivery trips. Using this method, it is expected that the site will generate zero (0) vehicle-trips during the Weekday AM peak hour, 20 vehicle-trips during the Weekday PM peak hour, and 202 vehicle-trips during a typical weekday. For comparison, rates from the ITE *Trip*

Generation Manual, 10<sup>th</sup> Edition, were used. According to ITE, the site is expected to generate zero (0) vehicle-trips during the Weekday AM peak hour, 22 vehicle-trips during the Weekday PM peak hour, and 240 vehicle-trips during a typical Weekday. Both methods account for a 50% reduction for non-vehicular trips to the site. This is a revision to the January 2020 TIAS, which accounted for a 75% reduction for non-vehicular trips. As such, the lower reduction for non-vehicular trips provides a more conservative analysis. Further discussion and calculations are provided in Section D1.

**A5. Intersection Capacity Analysis**

Capacity analyses were performed at each of the study intersections to assess traffic operations under three scenarios: 2019 Existing, 2026 No-Build, and 2026 Build. The 2019 Existing Conditions analysis is based on current traffic counts carried out in the study area along with existing traffic control. The 2026 No-Build scenario reflects traffic adjustments due to a compounded annual growth rate to a seven year horizon to the year 2026. The 2026 Build scenario uses projected traffic volumes after the redevelopment, taking into account the additional traffic as a result of the Project. To be conservative, no credit was taken for the vehicle-trips that are currently being made to the existing land uses.

A summary table showing the results of the capacity analyses is shown in Table A5-1. As shown, the proposed Marijuana Retailer is not expected to have a significant impact on the surrounding traffic network. There are zero (0) movements that decline in level of service going from the No-Build to Build scenarios. Detailed analyses of each scenario are included later in this report.

**Table A5-1: Level-of-Service Summary**

ID	Roadway	Movement	2019 Existing Conditions		2026 No-Build Conditions		2026 Build Conditions	
			Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday AM Peak Hour	Weekday PM Peak Hour
1	Highland Avenue at	EB LTR	C	C	C	C	C	C
		WB LTR	B	C	B	C	B	C
	Central Street	NB LTR	B	C	B	C	B	C
		SB LTR	C	B	C	B	C	B
	<b>Overall</b>		B	C	B	C	B	C
2*	Central Street at	NB T	A	A	A	A	A	A
		SB T	A	A	A	A	A	A
	Gibbens Street and Oxford Street	EB LR	B	B	B	B	B	B
		WB LR	B	B	B	B	B	B
	<b>Overall</b>		A	A	A	A	A	A
3	Summer Street at	EB LT	B	B	B	B	B	B
		WB TR	B	B	B	B	B	B
	Central Street	NB LTR	B	B	B	B	B	B
		SB LR	B	B	C	B	C	B
	<b>Overall</b>		B	B	B	B	B	B

LEGEND

	Declined from Existing to No-Build
	Declined from No-Build to Build

\*Unsignalized Intersection

**A6. Parking Utilization**

The proposed redevelopment of 76-82 Central Street will have access to a parking lot located across Highland Avenue at the corner of Highland Avenue and Central Street (155 Highland Avenue). There will be five (5) dedicated parking spaces in this lot for the dispensary. Additionally, a parking attendant will be on-site during all operating hours to monitor the lot and will facilitate any overflow parking in the available parking spaces. DCI collected parking utilization data at the parking lot that will be used by the proposed Project. The detailed parking utilization is contained in Section E of this report.

**A7. Conclusion**

This Traffic Impact and Access Study was created to assess and analyze any potential impact the proposed Marijuana Retailer at 76-82 Central Street will have on surrounding traffic operations in Somerville.

From a safety perspective, recent data shows that all three (3) of the study intersections have crash rates that are below both the District 4 and Statewide averages. Additionally, there were zero (0) reported fatal injuries, all of the reported crashes occurred outside of the peak hours, and there were zero (0) crashes involving pedestrians. Capacity analyses were performed for each of the three (3) study intersections for the Weekday AM and Weekday PM peak hours. In order to determine the specific impact that the proposed Project may have on traffic operations, analyses were carried out for 2019 Existing, 2026 No-Build, and 2026 Build conditions. Zero (0) movements, and zero (0) overall intersections, decline in Level of Service going from the No-Build to Build scenarios. As such, the Project is not expected to have a significant impact on the surrounding traffic network.



**LEGEND**

-  Automatic Traffic Recorder (ATR)
- 1. Highland Avenue at Central Street
- 2. Central Street at Gibbens Street and Oxford Street
- 3. Central Street at Summer Street

C:\2019 PROJECTS\2019-130 76-82 CENTRAL ST SOMERVILLE\TRAFFIC TIAS\CAD\19-130 TRAFFIC FIGURES.DWG



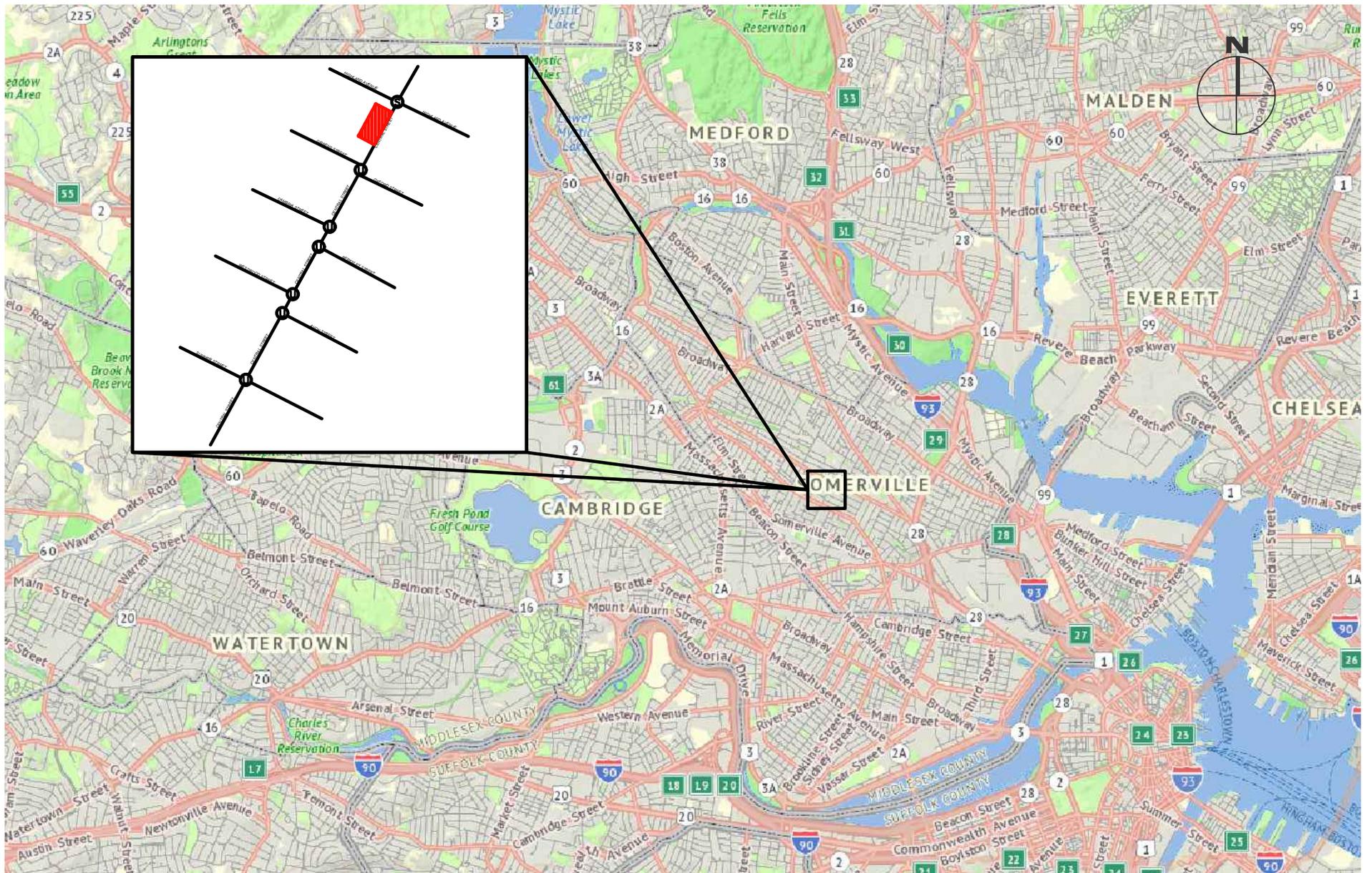
76-82 CENTRAL STREET  
SOMERVILLE, MA

STUDY  
INTERSECTIONS

PROJECT NO.: 2019-130

DATE: JANUARY 2020

SCALE: N.T.S. | FIGURE A2.1



P:\2019 PROJECTS\2019-130 76-82 CENTRAL ST SOMERVILLE\TRAFFIC\TAS\CAD\19-130 TRAFFIC FIGURES.DWG



76-82 CENTRAL STREET  
SOMERVILLE, MA

LOCUS MAP

PROJECT NO.: 2019-130

DATE: JANUARY 2020

SCALE: N.T.S. FIGURE A2.2

## B. EXISTING CONDITIONS

### B1. Study Area

The following intersections, all located in Somerville, were examined in this traffic study:

- Central Street at Highland Avenue
- Central Street at Gibbens Street/Oxford Street
- Central Street at Summer Street

This section describes the geometric elements of the intersections, including intersection alignments, lane widths, channelization islands and medians, sidewalk widths, pedestrian curb cut ramps and crosswalks, bicycle lane treatments, and locations of bus stops.

#### B1.1 Study Intersections

##### *Central Street at Highland Avenue*

Central Street at Highland Avenue is a four-legged, signalized intersection. Central Street is a two-lane, two-way roadway approaching from both the north and the south. Highland Avenue is a two-lane, two-way roadway approaching from both the east and west. There is one approach lane and one departure lane along both roadways. Central Street is functionally classified as an Urban Collector and Highland Avenue is functionally classified as an Urban Minor Arterial. Both roadways are under City of Somerville jurisdiction.



Source: ©2019 Google Earth

Highland Avenue has an approximate curb-to-curb width of 40 feet across each approach, as measured across the crosswalk. Parking is permitted on both sides of the roadway in both directions.

Central Street has an approximate curb-to-curb width of 25 feet across each approach, as measured across the crosswalk. Parking is prohibited along Central Street within 50 feet of the intersection in both directions on both sides of the intersection. Sidewalks are provided on both sides of each of the roadways at the intersection. There are marked crosswalks with ADA ramps across all four approaches and of the intersection.

***Central Street at Gibbens Street and Oxford Street***

Central Street at Gibbens Street and Oxford Street is a four-legged, unsignalized intersection. Gibbens Street and Oxford Street are offset approximately 30-feet measured from the center of the roadway. Central Street is a two-lane, two-way roadway approaching from both the north and the south. Gibbens Street is a one-lane, one-way roadway approaching from the west. Oxford Street is a one-lane, one-way roadway approaching from the east. Central Street is functionally classified as an Urban Collector and both Gibbens Street and Oxford Street are functionally classified as Local Roads. All three roadways are under City of Somerville jurisdiction.

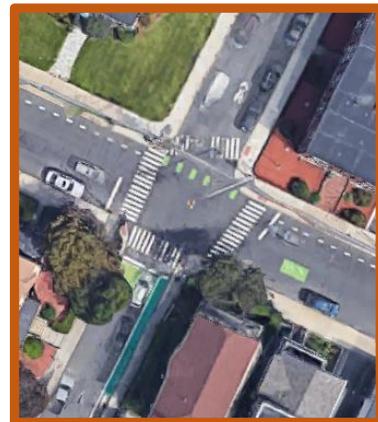


*Source: ©2019 Google Earth*

Central Street has an approximate curb-to-curb width of 28 feet across each approach. Parking is permitted along the northbound side of the roadway at the intersection. Gibbens Street has an approximate curb-to-curb width of 26 feet and Oxford Street has an approximate curb-to-curb width of 22 feet, both measured across the crosswalks. Parking is permitted on both sides of Gibbens Street and along the north side of Oxford Street. Sidewalks are provided on both sides of each of the roadways at the intersection. There are marked crosswalks with ADA ramps for across the Gibbens Street and Oxford Street approaches.

***Central Street at Summer Street***

Central Street at Summer Street is a four-legged, signalized intersection. Central Street is a two-lane, two-way roadway north of the intersection and a one-lane, one-way roadway south of the intersection. Summer Street is a two-lane, two-way roadway approaching from both the east and the west. Central Street is functionally classified as an Urban Collector and Summer Street is functionally classified as an Urban Minor Arterial. Both roadways are under City of Somerville jurisdiction.



*Source: ©2019 Google Earth*

Central Street has an approximate curb-to-curb width of 26 feet on both sides of the intersection, measured across the crosswalk. Parking is permitted along the west side of the roadway south of the intersection and the east side of the roadway north of the intersection. There is a 4-foot painted designated bicycle lane in the northbound direction along Central Street south of the intersection. Summer Street has an approximate curb-to-curb width of 30 feet on both sides of the intersection. Parking is permitted on the south side of the roadway on both sides of the intersection. There is a 3-foot advisory bicycle lane on the north side of the roadway on both sides of the intersection. Sidewalks are provided on both sides of each of the roadways at the intersection. There are marked crosswalks with ADA ramps for each approach at the intersection.

## **B2. Accessibility and Multi-Modal Transportation**

This section describes the existing facilities at the study area intersections and within the entire study area.

### Pedestrian Facilities

Pedestrian connectivity in the area is facilitated by existing sidewalks, crosswalks, and ADA ramps. Sidewalks are provided at all study intersections and crosswalks are provided across each approach except for the Central Street approaches at its intersection with Gibbens Street/Oxford Street. At the signalized intersections of Highland Avenue at Central Street and Central Street at Summer Street, pedestrian signals with exclusive pedestrian phases are provided.

### Bicycle Facilities

Within the study area, there is a dedicated bicycle lane along the east side of Central Street south of its intersection with Summer Street. There is an advisory bicycle lane along the north side of Summer Street in the westbound direction on both sides of its intersection with Central Street. Bicycle sharrows are painted along Highland Avenue in both directions, Central Street north of Summer Street, and Summer Street in the eastbound direction. A BlueBikes Station is located at City Hall/Somerville High School, approximately 0.25 miles east of the Project. BlueBikes is a public bike share with station facilities in Boston, Brookline, Cambridge and Somerville.

### Massachusetts Bay Transportation Authority (MBTA)

#### Bus Routes within Study Area:

Bus Route 88 serves the MBTA Highland Avenue at Central Street stop directly adjacent to the project site and runs between Clarendon Hill and Lechmere Station. Approximately 17 (nine inbound and eight outbound) buses travel through the study area during the Weekday AM peak period and approximately 14 (seven inbound and seven outbound) buses stop in the study area during the Weekday PM Peak period.

Bus Route 90 serves the MBTA Highland Avenue at Central Street stop directly adjacent to the project site and runs between Davis Station and Wellington Station. Approximately 6 (three inbound and three outbound) buses travel through the study area during the Weekday AM peak period and approximately 6 (three inbound and three outbound) buses travel through the study area during the Weekday PM Peak period.

#### Subway (T) Stops

Davis Square Station, a stop on the MBTA Red Line, is located approximately 1.0 miles from the Project site. Davis Square Station allows passengers to access the MBTA Red Line or any one of eight bus routes that serve Somerville, Malden, Medford, Cambridge, and downtown Boston. The Red Line runs between the Alewife Station in Cambridge and Braintree station or Ashmont station in Boston. The Red Line provides service through Cambridge at Porter Square, Harvard Square, Central Square, Kendall Square, and into Downtown Boston. There will also be a Green Line station at Gilman Square, which is approximately 0.4 miles from the Project site. This Green Line will provide access to downtown Boston, as well as through Somerville and Medford.

### B3. Traffic Volumes

#### B3.1 Existing Traffic Counts

DCI contracted with Precision Data Industries, LLC (PDI) to collect turning movement counts in December 2019. In order to provide analysis for separate peak hours during the day, PDI collected data during the Weekday AM (7am to 9am) and Weekday PM (4pm to 6pm) peak periods for all study intersections on a typical Tuesday. The counts were taken during a week not containing a holiday and when all area schools were in session. The traffic counts included cars, heavy vehicles, pedestrians, and bicycles. Existing pedestrian volumes can be found in Figure B3.1 and existing bicycle volumes can be found in Figure B3.2.

In order to collect directional distribution data in the area, PDI collected Automatic Traffic Recorder (ATR) data through two consecutive days during a Tuesday to Wednesday period in December 2019. The counts, summarized in 15-minute, hourly, and daily intervals, were collected at the following locations:

- Highland Avenue between Central Street and Sycamore Street
- Central Street between Oxford Street and Cambria Street

The collected ATR data is summarized in Table B3-1. As shown, the average weekday daily traffic along Highland Avenue adjacent to the Project site is approximately 11,030 vehicles and the average weekday traffic along Central Street adjacent to the Project site is 8,182 vehicles. Complete traffic count data is provided in Appendix B.

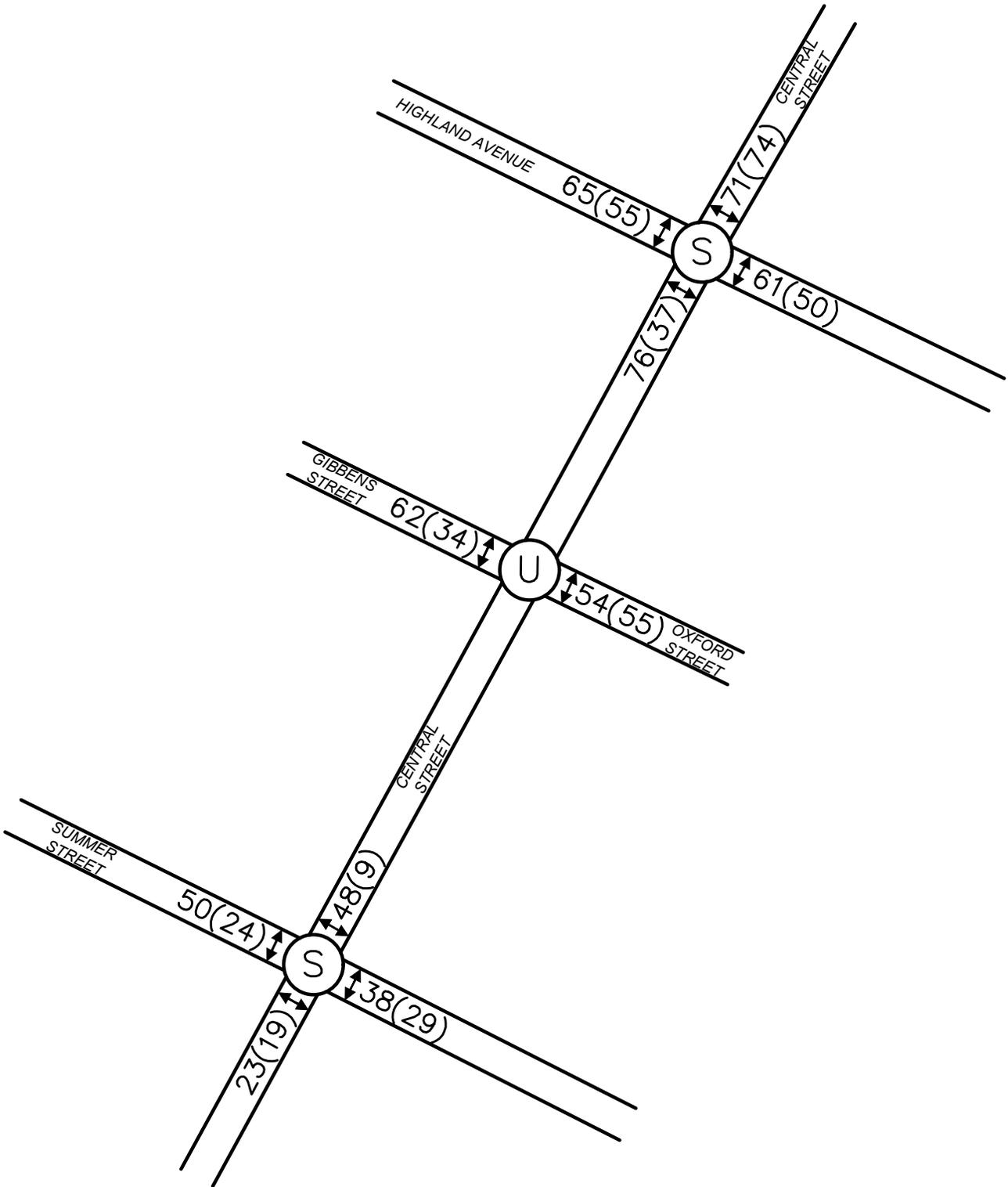
**Table B3-1: ATR Volume Summary**

Location	ADT <sup>1</sup>	Weekday AM Peak Hour			Weekday PM Peak Hour		
		Volume <sup>2</sup>	K <sup>3</sup>	Peak Direction	Volume <sup>2</sup>	K <sup>3</sup>	Peak Direction
Highland Avenue between Central Street and Sycamore Street	11,030	705	6%	63.7% EB	811	7%	50.8% EB
Central Street between Oxford Street and Cambria Street	8,182	591	7%	61.6% SB	602	7%	69.1% NB

ADT<sup>1</sup>: Average Daily Traffic (in vehicles); Volume<sup>2</sup>: Traffic during the peak hour (in vehicles); K<sup>3</sup>: The percent of Average Daily Traffic occurring during the peak hour

#### B3.2 Seasonal Adjustment

The 2017 Weekday Seasonal Axle Correction Factors from MassDOT were obtained to determine if the existing traffic counts should be adjusted. The seasonal correction factor for the roadway classifications of the roadways within the study area in December is 1.03. In order to provide a more conservative analysis, the existing traffic volumes were adjusted by a factor of 1.03. The adjusted existing peak hour traffic volumes are shown in Figure B3.3. The 2017 Weekday Seasonal Axle Correction Factors worksheet has been attached in Appendix B.



## Legend

XX(YY) → Weekday AM(PM) 2019 Existing Peak Hour Pedestrian Volumes

Note: Imbalances due to numerous side streets not shown  
 S = Signalized Intersection; U = Unsignalized Intersection



76-82 CENTRAL STREET  
 SOMERVILLE, MA

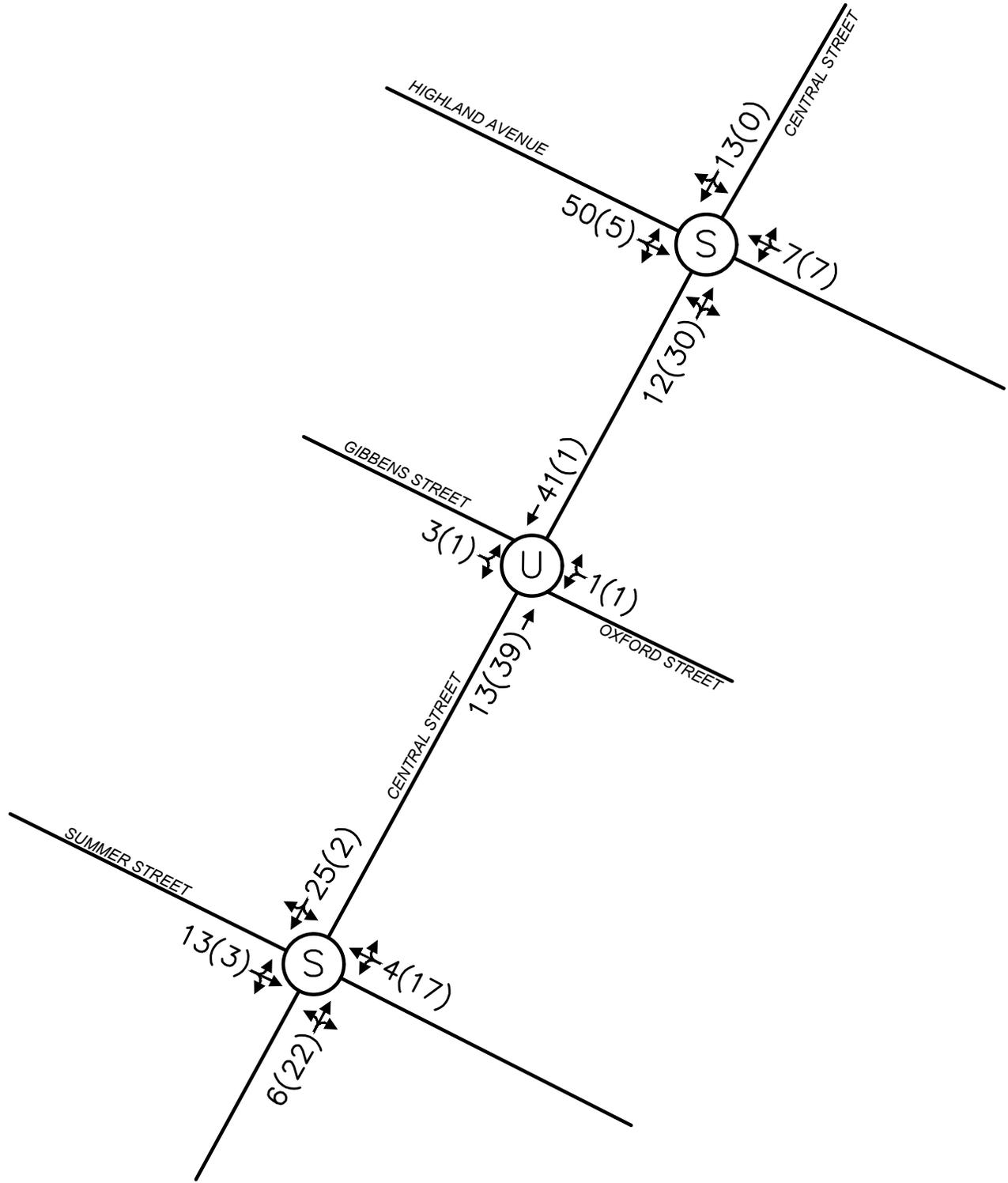
2019 Weekday Peak Hour Existing  
 Pedestrian Volumes

PROJECT NO.: 2019-130

DATE: JANUARY 2020

SCALE: N.T.S.

Figure B3.1



## Legend

XX(YZ) → Weekday AM(PM) 2019 Existing Peak Hour Bicycle Volumes

Note: Imbalances due to numerous curb cuts and side streets not shown  
 S = Signalized Intersection; U = Unsignalized Intersection



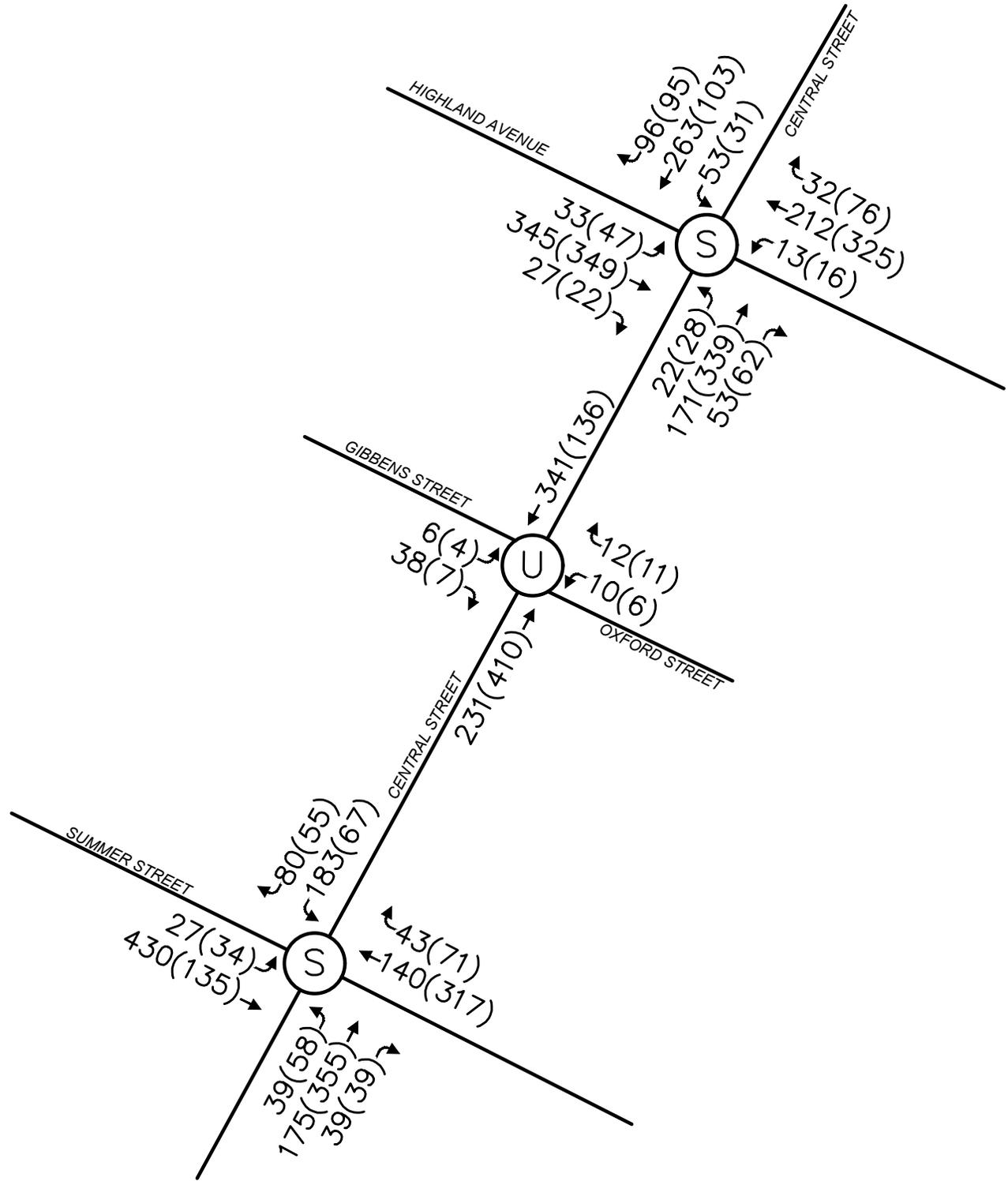
76-82 CENTRAL STREET  
SOMERVILLE, MA

2019 Weekday Peak Hour Existing  
Bicycle Volumes

PROJECT NO.: 2019-130

DATE: JANUARY 2020

SCALE: N.T.S. Figure B3.2



## Legend

XX(YY) → Weekday AM(PM) 2019 Existing Peak Hour Traffic Volumes

Note: Imbalances due to numerous curb cuts and side streets not shown  
 S = Signalized Intersection; U = Unsignalized Intersection



76-82 CENTRAL STREET  
 SOMERVILLE, MA

2019 Weekday Peak Hour Existing  
 Traffic Volumes

PROJECT NO.: 2019-130

DATE: JANUARY 2020

SCALE: N.T.S.

Figure B3.3

## B4. Safety Analysis

Intersection safety is one measure of assessing the performance of an intersection and can also have an impact on overall intersection operations. This section reviews historical crash data to identify any potential safety concerns.

### B4.1 Existing Crash Data and Analysis

Crash data from MassDOT for years 2016 through 2018 was reviewed for each study intersection. This data represents the most recent three (3) full years of data available through the MassDOT crash database. The MassDOT crash records offered the following information:

- Crash Location (General or Specific) / Direction of vehicle(s) involved
- Date / Time
- Roadway surface conditions / Light conditions / Weather conditions
- Crash Severity / Manner of Collision
- Type of non-motorist involved (if applicable)

The compiled data, in conjunction with engineering judgement, yielded a summary of crashes that may be used to identify general crash patterns and potential factors contributing to the predominant type of incidents at each location.

Crash rates can be a useful tool in measuring the safety for an intersection relative to Statewide and District averages for comparable intersection types. Crash rates for intersections are calculated based upon the number of crashes at an intersection and the volume of traffic traveling through an intersection on a daily basis, expressed as crashes per million entering vehicles (c/mev). MassDOT average intersection crash rates are published on a statewide basis and by district for both signalized and unsignalized intersections.

Intersection crash rates were calculated for each of the study area intersections using available crash data for the 3-year period and the traffic volumes for the December 2019 traffic counts. The average crash rates for MassDOT District 4 are 0.73 c/mev for signalized intersections and 0.57 c/mev for unsignalized intersections. The average Statewide crash rates are 0.78 c/mev for signalized intersections and 0.57 c/mev for unsignalized intersections. The summary results of the crash analysis are shown in Table B4-1. Detailed crash analysis worksheets for each intersection for years 2016 through 2018 are contained in Appendix C.

Table B4-1: MassDOT Intersection Crash Summary

	<i>Central Street at Highland Avenue</i>	<i>Central Street at Gibbens St/Oxford St</i>	<i>Central Street at Summer Street</i>
<b>Year</b>			
2016	1	0	1
2017	5	0	1
2018	2	1	3
<i>Total</i>	<i>8</i>	<i>1</i>	<i>5</i>
<b>Crash Severity</b>			
Property Damage Only	2	1	1
Non-fatal Injury	3	0	2
Fatal Injury	0	0	0
Not Reported, Unknown	3	0	2
<i>Total</i>	<i>8</i>	<i>1</i>	<i>5</i>
<b>Manner of Collision</b>			
Sideswipe, Same Direction	1	0	1
Sideswipe, Opposite Direction	0	0	0
Angle	1	1	2
Rear-end	3	0	0
Head-on	1	0	0
Single Vehicle	1	0	1
Other, not reported	1	0	1
<i>Total</i>	<i>8</i>	<i>1</i>	<i>5</i>
<b>Time of Day</b>			
7:00am to 9:00am (AM Peak)	0	0	0
4:00pm to 6:00pm (PM Peak)	0	0	0
All Other Times	8	1	5
<i>Total</i>	<i>8</i>	<i>1</i>	<i>5</i>
<b>Crash Averages</b>			
Avg. Crashes per Year	2.67	0.33	1.67
<b>Avg. Crash Rate (c/mev)</b>	<b>0.45</b>	<b>0.13</b>	<b>0.37</b>
District 4 Avg. Crash Rate (c/mev)	0.73	0.57	0.73
Statewide Avg. Crash Rate (c/mev)	0.78	0.57	0.78

The intersection of **Highland Avenue at Central Street** had eight (8) reported crashes according to the MassDOT crash database during the three year period from 2016 to 2018. Two (2) of the crashes resulted in property damage only, three (3) resulted in non-fatal injuries, and three (3) had unreported severities. Of the eight (8) crashes, one (1) was a sideswipe in the same direction, one (1) was an angled collision, three (3) were rear-end collisions, one (1) was a head-on collision, one (1) was a single-vehicle collision, and one (1) had an unreported manner of collision. The intersection averaged 2.67 crashes per year and has a crash rate of 0.45 crashes per million entering vehicles (c/mev), which is below both the District 4 and Statewide averages for signalized intersections.

The intersection of **Central Street at Gibbens Street and Oxford Street** had one (1) reported crashes according to the MassDOT crash database during the three year period from 2016 to 2018. The one (1) crash resulted in property damage only and was an angled collision. The intersection averaged 0.33 crashes per year and has a crash rate of 0.13 c/mev, which is below both the District 4 and Statewide averages for unsignalized intersections.

The intersection of **Central Street at Summer Street** had five (5) reported crashes according to the MassDOT crash database during the three year period from 2016 to 2018. One (1) of the crashes resulted in property damage only, two (2) resulted in non-fatal injuries, and two (2) had an unknown/unreported crash severity. Of the five (5) crashes, one (1) was a sideswipe in the same direction, two (2) were angled collisions, one (1) was a single-vehicle collision, and one (1) had an unreported manner of collision. The intersection averaged 1.67 crashes per year and has a crash rate of 0.37 c/mev, which is below both the District 4 and Statewide averages for signalized intersections.

Of the three (3) intersections analyzed as part of this study, all of the intersections have crash rates that are below both the District 4 and Statewide averages. Additionally, there were zero (0) reported fatal crashes and all reported crashes occurred outside of the peak periods. As such, there are no safety issues that require mitigation as part of this Project.

## B5. Existing Capacity Analysis

### B5.1 Traffic Analysis Criteria

The Highway Capacity Manual (HCM), published by the Transportation Research Board, provides methodologies on how to calculate motor vehicle Level of Service (LOS), average delay, and volume-to-capacity (v/c) ratios. Those terms are commonly used to measure performance levels for freeway sections, ramp junctions, weave sections, and intersections, both signalized and unsignalized.

Level of Service (LOS) is a term used to denote different operating conditions that occur under various traffic volume loads. It is a qualitative measure of the effect of a number of factors including geometrics, speed, travel delay, freedom to maneuver, and safety. The LOS is divided into a range of six letter grades, ranging from A to F, with A being the best and F the worst. A LOS of F is generally considered to be inadequate traffic operation in suburban and urban areas. The delay ranges differ slightly between unsignalized and signalized intersections due to driver expectations and behavior for each LOS. Table B5-1 summarizes the LOS criteria.

**Table B5-1: Intersection LOS Thresholds**

LOS	Signalized	Unsignalized
	Control Delay (sec/veh)	Control Delay (sec/veh)
A	0-10	0-10
B	>10-20	>10-15
C	>20-35	>15-25
D	>35-55	>25-35
E	>55-80	>35-50
F	>80	>50

Source: 2010 Highway Capacity Manual

In this study, intersection performance measures were calculated in the form of average intersection delay, 50<sup>th</sup> and 95<sup>th</sup> percentile queue lengths, level-of-service (LOS) for each approach/movement, and the LOS of the overall intersection operations. *Synchro 9.0* was the software used to execute the intersection analysis. *Synchro 9.0*, a software program from Trafficware, uses the methodologies and thresholds outlined within the HCM. This is the preferred/recommended software of MassDOT. Traffic volume represents the travel demand observed and capacity represents the amount of traffic the intersection can accommodate under prevailing conditions. Volume to capacity ratios that approach or exceed 1.0 indicate traffic congestion or poor operating conditions.

Three types of Synchro reports were created to analyze and compare intersection performance:

- Main report – “Int: Lanes, Volumes, Timings”,
- Queuing Analysis Report
- HCM Signalized/Unsignalized Report.

For signalized intersections, LOS is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. The 50<sup>th</sup> and 95<sup>th</sup> percentile queue lengths are estimated.

## B5.2 Capacity Analysis

The study intersections were analyzed using existing traffic conditions during the Weekday AM and Weekday PM peak hours. Existing intersection lane configurations, signal timing, and traffic control were modelled the same as the current traffic operations. The results of the 2019 Existing conditions analysis are shown in Table B5-2. Detailed capacity analysis worksheets are included in Appendix E.

As shown in Table B5-2, most movements operate at acceptable levels of service throughout the study area. This analysis serves as a basis for comparison for the No-Build scenario, detailed in the subsequent section.

Table B5-2: 2019 Existing Conditions LOS

ID	Roadway	Movement	2019 Existing Conditions							
			Weekday AM Peak Hour				Weekday PM Peak Hour			
			v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Queue <sup>4</sup>	v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Queue <sup>4</sup>
1	Highland Avenue at Central Street	EB LTR	0.61	20.6	C	146 / 237	0.65	22.0	C	154 / 252
		WB LTR	0.38	16.0	B	80 / 137	0.62	20.6	C	148 / 243
		NB LTR	0.39	16.7	B	80 / 137	0.64	21.8	C	159 / 256
		SB LTR	0.66	21.8	C	148 / 247	0.38	14.0	B	60 / 115
	<b>Overall</b>			<b>19.4</b>	<b>B</b>			<b>20.3</b>	<b>C</b>	
2*	Central Street at Gibbens Street and Oxford Street	NB T	0.15	0.0	A	N/A	0.26	0.0	A	N/A
		SB T	0.22	0.0	A	N/A	0.09	0.0	A	N/A
		EB LR	0.07	10.9	B	0 / 6	0.02	10.7	B	0 / 1
		WB LR	0.05	12.2	B	0 / 4	0.04	12.0	B	0 / 3
	<b>Overall</b>			<b>1.2</b>	<b>A</b>			<b>0.6</b>	<b>A</b>	
3	Summer Street at Central Street	EB LT	0.65	16.5	B	109 / 193	0.27	10.8	B	33 / 68
		WB TR	0.27	10.7	B	36 / 71	0.56	14.5	B	88 / 158
		NB LTR	0.39	12.2	B	52 / 100	0.68	17.6	B	110 / 197
		SB LR	0.63	19.3	B	62 / #140	0.26	11.3	B	24 / 54
	<b>Overall</b>			<b>15.3</b>	<b>B</b>			<b>14.8</b>	<b>B</b>	

1 v/c = volume to capacity ratio; 2 Delay = average delay in seconds per vehicle; 3 LOS = Level of Service; 4 Queue = 50<sup>th</sup>/95<sup>th</sup> percentile queue length (if only one queue length is shown, it is the 95<sup>th</sup> percentile queue length), # = volume for 95<sup>th</sup> percentile cycle exceeds capacity. Queue shown is maximum after two cycles; R = right-turn movement, L = left-turn movement, T = through movement; WB = westbound, EB = eastbound, NB = northbound; \* = Unsignalized Intersection

## C. FUTURE NO-BUILD CONDITIONS

### C1. 2026 No-Build Traffic Volumes

Traffic volumes in the study area were projected to the year 2026, which reflects a seven-year planning horizon from the existing year 2019, consistent with *MassDOT Guidelines*. The traffic conditions for the year 2026 were examined under No-Build conditions independent of the proposed Project, including all existing traffic and new traffic.

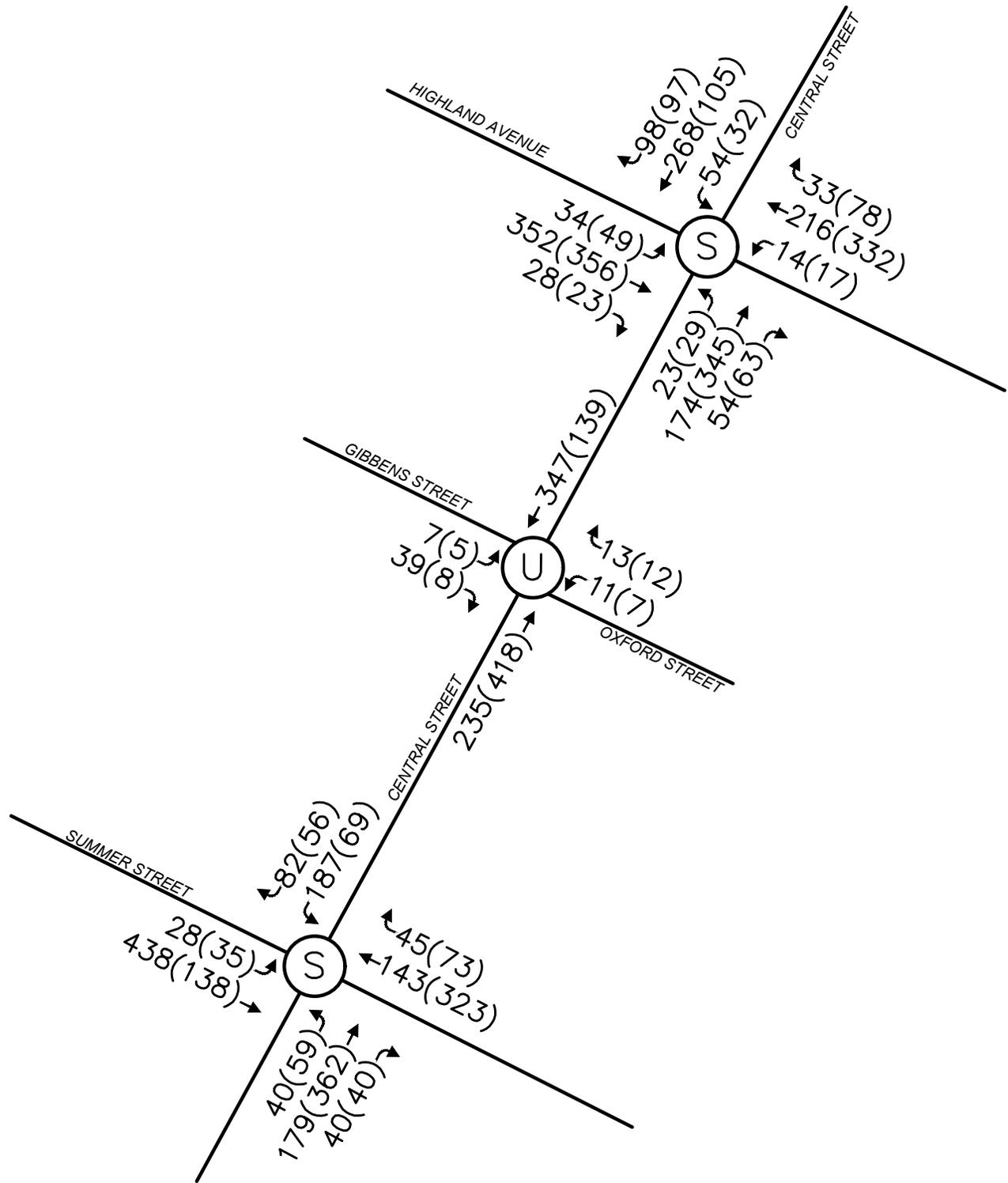
Traffic growth on the local roadway network results from multiple factors, most notably land development in the immediate area and growth in the surrounding region. Two techniques are typically used in combination to estimate this growth. The first technique identifies planned and permitted developments in the vicinity of the study area and assigns estimated traffic generated by the proposed developments to the study area network. The second technique applies an annual percentage increase in traffic growth to all traffic volumes under study. This practice accounts for traffic growth due to regional developments beyond the study area or developments that may be proposed but are not yet permitted. As there are no background developments in the area, only a growth rate was combined with the existing traffic count data to define the “No-Build” traffic volumes for this study. The “No-Build” traffic volumes for this study are shown in Figure C1.1.

#### Background Developments

DCI contacted the City of Somerville Planning Department to determine if there are any upcoming projects in the area will have an impact on the traffic network. It was determined that currently there are no known projects in the immediate area of the study area that will bring a significant amount of traffic to the study intersections.

#### Background Growth Rate

Based on discussions with the City of Somerville, an annual traffic growth rate for the area of Somerville that the Project site is located was provided. The City of Somerville proposed a use of a 0.00 percent compounded annual growth rate for vehicles. The City of Somerville additionally said that a 0.25 percent compounded annual growth rate could be used as a maximum. In order to provide a conservative projection, given that no background developments have been identified, a 0.25 percent annual growth rate was applied to project all existing traffic volumes to a seven year design horizon to the year 2026.



## Legend

XX(YY) → Weekday AM(PM) 2026 No-Build Peak Hour Traffic Volumes

Note: Imbalances due to numerous curb cuts and side streets not shown  
 S = Signalized Intersection; U = Unsignalized Intersection



76-82 CENTRAL STREET  
SOMERVILLE, MA

2026 Weekday Peak Hour No-Build  
Traffic Volumes

PROJECT NO.: 2019-130

DATE: JANUARY 2020

SCALE: N.T.S.

Figure C1.1

## C2. 2026 No-Build Capacity Analysis

The study intersections were analyzed for 2026 No-Build peak hour traffic conditions during the Weekday AM and Weekday PM Peak hours. For this scenario, the existing lane configurations and existing traffic controls were maintained. The goal of this scenario is to provide a basis for comparison to analyze the potential effects of the proposed Project, as there are no site-specific vehicle-trips considered. As expected, given the increase in trips due to the background growth rate, most of the movements experience an increase in delay going from the Existing scenario to No-Build scenario. The results of this analysis are shown in Table C2-1. Detailed capacity analysis worksheets are included in Appendix E.

Table C2-1: 2026 No-Build Conditions LOS

ID	Roadway	Movement	2026 No-Build Conditions							
			Weekday AM Peak Hour				Weekday PM Peak Hour			
			v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Queue <sup>4</sup>	v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Queue <sup>4</sup>
1	Highland Avenue at Central Street	EB LTR	0.62	21.0	C	150 / 244	0.67	22.6	C	160 / 261
		WB LTR	0.39	16.1	B	83 / 141	0.64	21.1	C	153 / 251
		NB LTR	0.40	16.9	B	82 / 140	0.66	22.2	C	164 / 264
		SB LTR	0.67	22.4	C	152 / 254	0.39	14.2	B	62 / 117
	<b>Overall</b>			<b>19.7</b>	<b>B</b>			<b>20.8</b>	<b>C</b>	
2*	Central Street at Gibbens Street and Oxford Street	NB T	0.15	0.0	A	N/A	0.27	0.0	A	N/A
		SB T	0.22	0.0	A	N/A	0.09	0.0	A	N/A
		EB LR	0.08	11.0	B	0 / 6	0.02	10.9	B	0 / 2
		WB LR	0.05	12.3	B	0 / 4	0.04	12.2	B	0 / 3
	<b>Overall</b>			<b>1.2</b>	<b>A</b>			<b>0.6</b>	<b>A</b>	
3	Summer Street at Central Street	EB LT	0.66	16.9	B	112 / 199	0.27	10.9	B	34 / 69
		WB TR	0.28	10.8	B	37 / 73	0.57	14.7	B	90 / 162
		NB LTR	0.40	12.4	B	54 / 103	0.69	18.2	B	113 / #205
		SB LR	0.65	20.5	C	64 / #162	0.27	11.4	B	25 / 56
	<b>Overall</b>			<b>15.8</b>	<b>B</b>			<b>15.1</b>	<b>B</b>	

1 v/c = volume to capacity ratio; 2 Delay = average delay in seconds per vehicle; 3 LOS = Level of Service; 4 Queue = 50<sup>th</sup>/95<sup>th</sup> percentile queue length (if only one queue length is shown, it is the 95<sup>th</sup> percentile queue length), # = volume for 95<sup>th</sup> percentile cycle exceeds capacity. Queue shown is maximum after two cycles; R = right-turn movement, L = left-turn movement, T = through movement; WB = westbound, EB = eastbound, NB = northbound; \* = Unsignalized Intersection

## D. FUTURE BUILD CONDITIONS

### D1. Preliminary Trip Generation

#### Estimated Facility Operations

It is anticipated that the proposed East Coast Remedies will operate every day during the following hours:

- 10:00am to 8:00pm (Monday to Saturday)
- 12:00pm to 5:00pm (Sunday)

Given the likelihood of other marijuana retailer facilities opening in the surrounding cities, towns, and neighborhoods, the focus is on meeting the needs of customers mostly within Somerville and a few surrounding neighborhoods. The service area will be largely dependent on the evolving competition in the area as other marijuana retailer facilities are established.

#### *Customers*

Customer visits are expected to occur throughout the day with peak hours typically in the afternoon and on the weekends. Given that the facility will not be open until after the Weekday AM peak hour (7am to 9am), it is assumed that there will be zero (0) trips to the facility made by customers.

During the start-up period, the facility will be set up as appointment only for customers. Based on discussions with the client, these appointments will be spaced 15 minutes apart. With a total of five (5) point of sale stations available, the facility will be able to accommodate a maximum of 20 customers per hour. If the facility operates on a walk-in basis after the initial start-up period, it is expected that there will be other facilities open both in Somerville and the surrounding communities. As such, it can be expected the facility will not generate a significant amount more traffic during each hour as it does when operating as appointment-only.

It is assumed that the Weekday PM peak hour trips will be made mostly by individuals who are on their way home from work. Many of these individuals will be from the surrounding communities. The anticipated client base is expected to become smaller with the opening of more facilities throughout Somerville. DCI reviewed the Census Data for multiple cities and towns surrounding the site and determined that approximately 50% of trips will be made via a non-vehicular mode to commute. It is expected that the customers of the dispensary will commute in a similar way. Local residents will be able to make trips by walking or biking. However, in order to maintain a conservative analysis, it was assumed that 50% of trips will be made via non-vehicular modes. This would result in an estimate of approximately 10 customers making trips via motor vehicle and 10 customers making trips via non-vehicular modes each hour. With each customer making an entering and exiting trip, this would result in 20 vehicle-trips during the Weekday PM peak hour. The census data is included and described further in Section D1.1.

***Employees***

Home locations for employees will depend on a variety of different factors. The Proponent will be providing 100% public transportation subsidies to employees and will highly encourage the use of non-vehicular modes of transportation to work. The Proponent has committed to put an emphasis on hiring local residents from the surrounding community. With a majority of the employees living within Somerville or within walking/biking distance, it is expected that many of them will use non-vehicular modes of transportation to commute to work. Additionally, all employee trips will occur outside of the peak hours of traffic.

***Service/Delivery Patterns***

The proposed Marijuana Retailer facility will generate a variety of delivery trips, as described below:

**Product** – All product will be grown at an off-site facility and delivered to the Marijuana Retailer. Deliveries will occur in the parking lot loading area to the south of the Project site during off-peak hours when there is less street activity.

**Trash** – The Marijuana Retailer will have private trash pick-up and is expected to be serviced once per week. Trash will be stored inside the building and wheeled in bins to the curb on collection days.

**Cash** – Cash will be picked up two to three times per week. The timing of both the product deliveries and the cash pick-ups will vary each day to reduce predictability for security reasons. Cash pick-up will occur in the parking lot loading zone in the same location as the product delivery.

In total, the number of service/delivery trips are expected to be minimal and will be scheduled to occur during off-peak periods. It is estimated that there will be one (1) total daily service/delivery trips, zero total Weekday AM peak hour trips, and zero total Weekday PM peak hour trips.

Based on the customer, employee, and service/delivery trips, the Marijuana Retailer facility is expected to generate zero (0) vehicle-trips during the Weekday AM peak hour, 10 vehicle-trips during the Weekday PM peak hour, and approximately 102 vehicle-trips on an average weekday. Table D1-1 shows the calculations based on these expected travel patterns.

Table D1-1: Adjusted Vehicle-Trip Generation Calculations per Employee, Customer, and Delivery/Service Travel Patterns

Time Period/ Direction		Project Vehicle-Trips - Marijuana Retailer <sup>1</sup>			
		Customers	Employees	Service/ Delivery	Total
<b>Weekday AM Peak Hour</b>	In	0	0	0	0
	<u>Out</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Weekday PM Peak Hour</b>	In	10	0	0	10
	<u>Out</u>	<u>10</u>	<u>0</u>	<u>0</u>	<u>10</u>
	<b>Total</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>20</b>
<b>Weekday Daily</b>	In	100	0	1	101
	<u>Out</u>	<u>100</u>	<u>0</u>	<u>1</u>	<u>101</u>
	<b>Total</b>	<b>200</b>	<b>0</b>	<b>2</b>	<b>202</b>

<sup>1</sup>Based on customer, employee, and service/delivery information along with census data

#### Institute of Transportation Engineers (ITE) Estimates

For comparison, trip estimates were calculated using the *Trip Generation Manual (10<sup>th</sup> Edition)*, published by the Institute of Transportation Engineers (ITE) in 2017. The *Trip Generation Manual* includes a land use for a marijuana dispensary (Land Use Code 882). The proposed facility will occupy approximately 1,900 square feet of space. Given that the proposed facility will not be open until after the Weekday AM peak hour, it is assumed that all trips during that time will be made by employees.

Based on the ITE trip generation rates, it is expected that the Marijuana Retailer facility will generate 22 vehicle-trips during the Weekday PM peak hour and 240 vehicle-trips during a typical weekday. These trip estimates take into account a reduction for non-vehicular trips. The trip estimates using the appointment schedule specified in the previous section will be used for the analysis. These estimates should accurately represent the maximum number of customers in the peak hour and is more representative of the fact that this facility will serve a mainly local customer base. Table D1-2 shows the calculations based on the ITE *Trip Generation Manual*.

Table D1-2: Vehicle-Trip Generation Calculations per ITE *Trip Generation Manual, 10<sup>th</sup> Edition*

Land Use Code: 882	Marijuana Dispensary		
	Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday Daily
Size (per 1,000 Square Feet)	1.900	1.900	1.900
Average Trip Rate	10.44	21.83	252.70
Total Vehicle-Trips (per ITE)	N/A	42	480
Adjusted Vehicle-Trips (No Employee Vehicle-Trips)	N/A	42	480
<b>Adjusted Vehicle-Trips (50% Non-Vehicular Trips)</b>	<b>N/A</b>	<b>22</b>	<b>240</b>
Entering %	N/A	50%	50%
Exiting %	N/A	50%	50%
Entering Vehicle-Trips	N/A	11	120
Exiting Vehicle-Trips	N/A	11	120

### D1.1 Census Tract Data

As previously mentioned, the site is located in an area that has a high rate of pedestrian and bicycle traffic given the access to pedestrian, bicycle, and public transportation facilities. As such, it is expected that many of the trips will be made via non-vehicular modes of transportation. DCI looked at the census data for Somerville and four surrounding communities, as it can be expected that until other facilities open up, some of the trips will be made to the site from these cities. Journey-to-Work data from the 2013 to 2017 Census shows that approximately 49.5 percent of residents in these census tracts get to work by way of car, truck, or van. The other 50.5 percent use public transportation, bicycles, walk to work, or work from home. A detailed breakdown of Means of Transportation to Work Mode Share is shown in Table D1-3. As previously mentioned, it is expected that the number of non-vehicular trips will be greater in the future, as many of the trips will be made by residents of the immediate area. The US Census Journey to Work data that was used is attached in Appendix D.

Table D1-3: Mode Share Data

MEANS OF TRANSPORTATION TO WORK	Arlington	Cambridge	Everett	Medford	Somerville	Total
Car, truck, or van	66.5%	31.0%	69.4%	68.3%	43.8%	<b>49.5%</b>
Drove alone	60.5%	27.8%	56.2%	60.0%	3.8%	<b>34.1%</b>
Carpooled:	6.0%	3.2%	13.2%	8.3%	5.8%	<b>6.2%</b>
In 2-person carpool	4.7%	2.6%	9.6%	6.8%	4.4%	<b>4.8%</b>
In 3-person carpool	0.8%	0.3%	2.5%	1.1%	0.9%	<b>0.9%</b>
In 4 person carpool	0.5%	0.2%	1.1%	0.3%	0.6%	<b>0.5%</b>
Public transportation (excluding taxicab)	20.4%	29.8%	22.9%	20.1%	32.6%	<b>27.0%</b>
Bicycle	3.3%	7.0%	0.6%	1.3%	6.9%	<b>4.8%</b>
Walked	2.7%	24.1%	3.2%	5.2%	11.4%	<b>12.5%</b>
Other means (including taxicab)	0.6%	1.0%	1.2%	0.8%	0.9%	<b>0.9%</b>
Worked at home	6.6%	7.1%	2.8%	4.2%	4.4%	<b>5.3%</b>

### D1.2 Existing Trip Generation

As previously mentioned, there are four (4) retail spaces that are currently generating trips both to and from the site. DCI collected empirical data on Thursday, November 21, 2019 to determine the number of trips that each of the sites generated during the Weekday PM peak hour. Table D1-4 shows the trip generation numbers for each of the four (4) retail sites and the total for the peak hour.

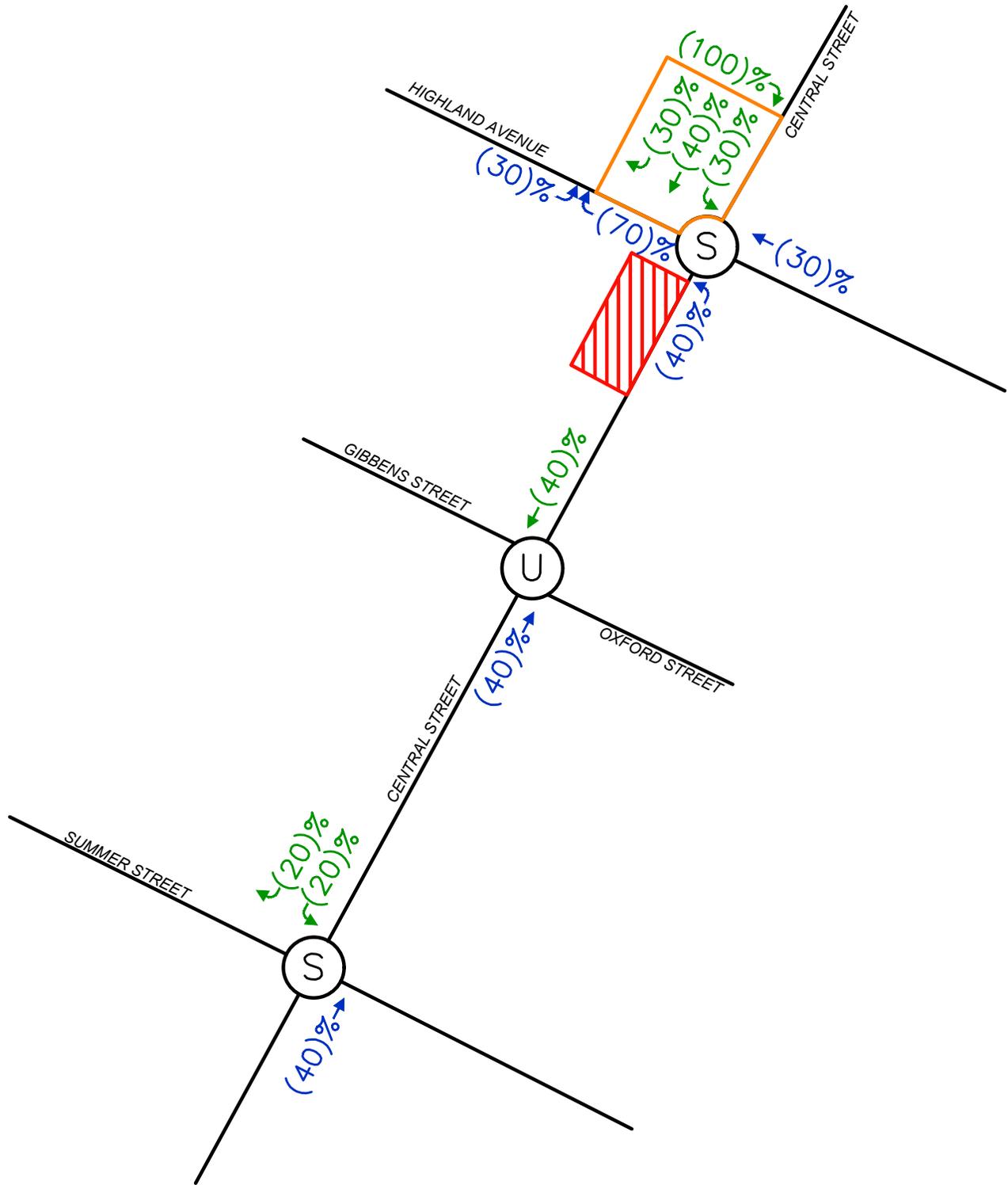
**Table D1-4: Existing Trip Generation**

	Entering Trips	Exiting Trips	Total Trips
4:15pm	1	4	5
4:30pm	1	2	3
4:45pm	1	1	2
5:00pm	2	2	4
<b>Total</b>	<b>5</b>	<b>9</b>	<b>14</b>

As shown in Table D1-4, the four (4) existing retail spaces generate a total of 14 trips during the Weekday PM peak hour. As such, the proposed Marijuana Retailer will be generating a net of six (6) new trips to the site during the Weekday PM peak hour. This equates to one new trip every 10 minutes. However, in order to provide a conservative analysis, there was no credit taken for the existing trips for the Build capacity analysis.

### D2. Trip Distribution

Trip distribution patterns were estimated for site-generated vehicle-trips both to and from the Project site. The estimations are based mainly on the existing traffic volumes gathered along Highland Avenue, Central Street, and at the study intersections. Both ATR and turning movement count (TMC) data were considered to determine trip distribution. TMC data best captured vehicles accessing the site from the south, west and east. No trips were assumed to be accessing the site from the north based on the existing street network. The trip distribution percentages were also based on the fact that all vehicle-trips by customers will be accessing the lot at the intersection of Highland Avenue and Central Street, which will be monitored by a parking attendant during all operating hours. Based on the existing TMC data, it is expected that approximately 40 percent of Weekday PM peak hour vehicle-trips will be accessing the site via Central Street south of Highland Avenue and approximately 60 percent of Weekday PM peak hour vehicle-trips will be accessing the site via Highland Avenue. The parking lot entrance will be located at the southwest corner of the lot and the exit will be located at the northeast corner of the lot. Trip distribution for the Weekday AM peak hour was not calculated due to the fact that the facility will not be opening until after the Weekday AM peak hour. The trip distribution is shown in Figure D2.1 and the site-generated trips are shown in Figure D2.2. The site-generated trips were combined with the No-Build volumes in Figure C1.1 to calculate the Build traffic volumes used for future analysis and are shown in Figure D2.3.



## Legend

XX(YY) → Weekday AM(PM) Trip Distribution - Entering

XX(YY) → Weekday AM(PM) Trip Distribution - Exiting

Project Site Parking Lot for Customers

S = Signalized Intersection; U = Unsignalized Intersection



76-82 CENTRAL STREET  
SOMERVILLE, MA

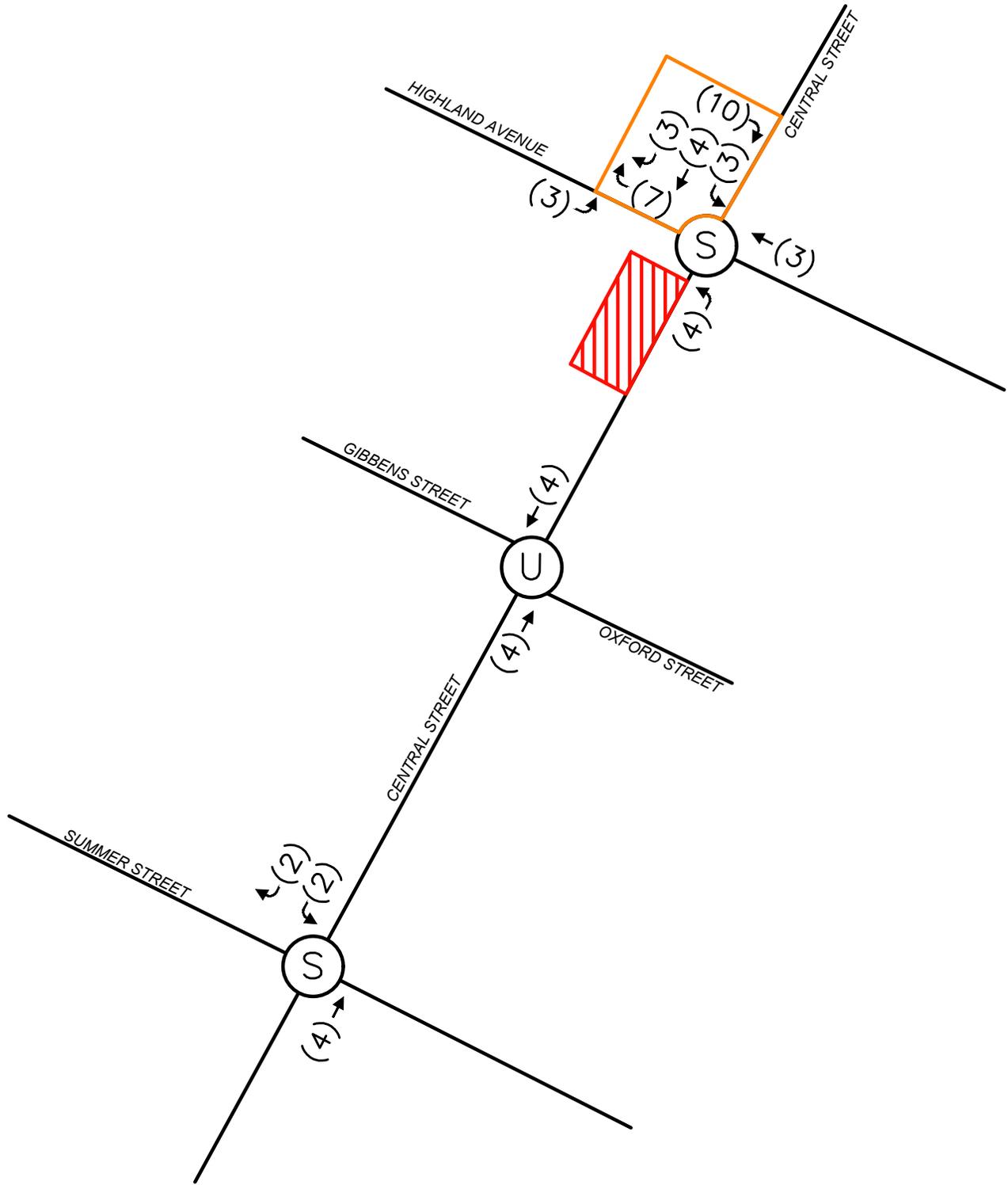
Trip Distribution

PROJECT NO.: 2019-130

DATE: JANUARY 2020

SCALE: N.T.S.

Figure D2.1



## Legend

XX(YY) → Weekday AM(PM) Site-Generated Vehicle-Trips\*

S = Signalized Intersection; U = Unsignalized Intersection

 Project Site  Parking Lot for Customers

\* The facility will not open until after the Weekday AM peak hour. There will be zero (0) site-generated vehicle-trips during that time period.



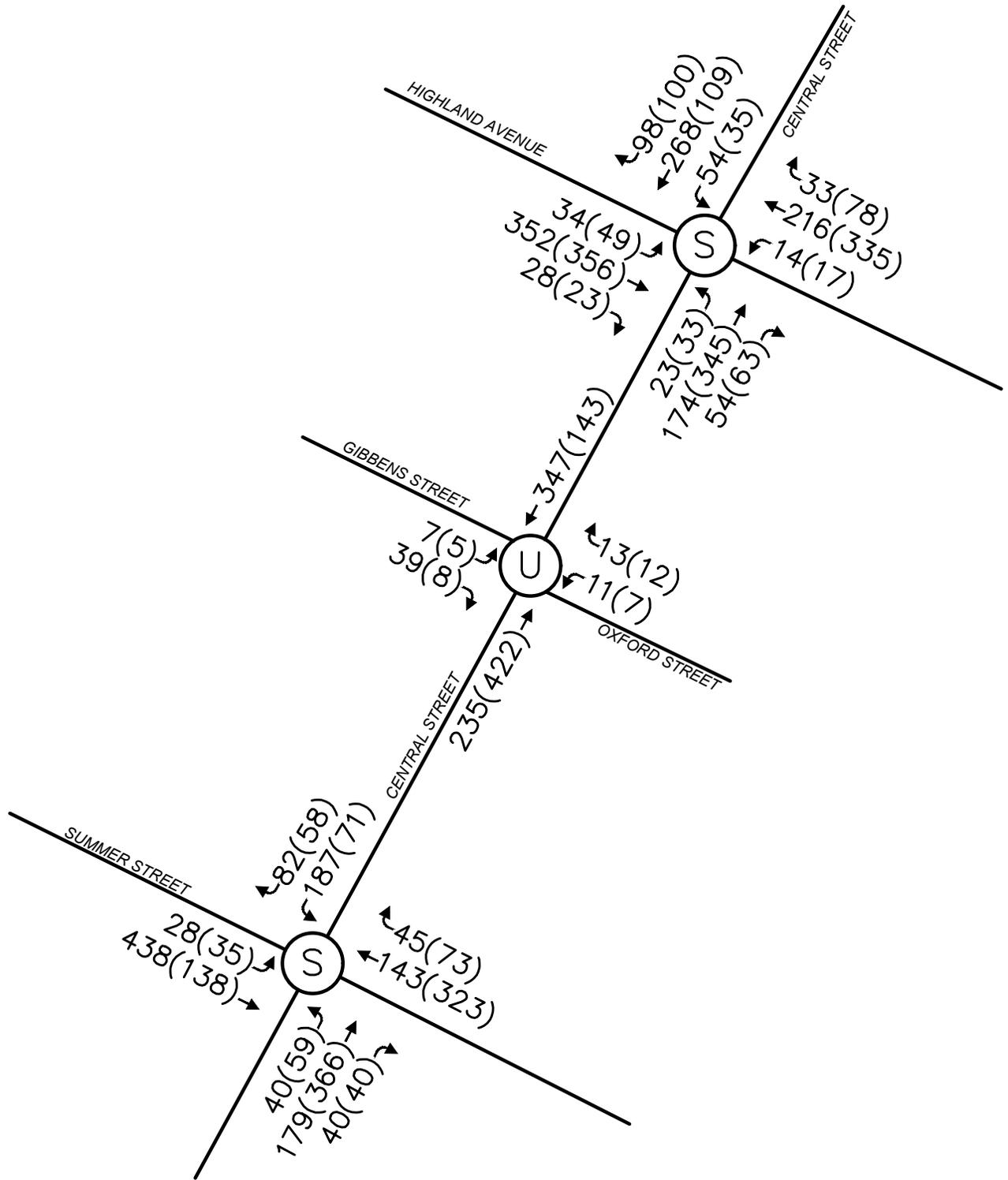
76-82 CENTRAL STREET  
SOMERVILLE, MA

Site-Generated Vehicle-Trips

PROJECT NO.: 2019-130

DATE: JANUARY 2020

SCALE: N.T.S. Figure D2.2



## Legend

XX(YY) → Weekday AM(PM) 2026 Build Peak Hour Traffic Volumes

Note: Imbalances due to numerous curb cuts and side streets not shown  
 S = Signalized Intersection; U = Unsignalized Intersection



76-82 CENTRAL STREET  
 SOMERVILLE, MA

2026 Weekday Peak Hour Build  
 Traffic Volumes

PROJECT NO.: 2019-130	
DATE: JANUARY 2020	
SCALE: N.T.S.	Figure D2.3

#### D4. Intersection Capacity Analysis

The study intersections were analyzed for 2026 Build peak hour traffic conditions during the Weekday AM and Weekday PM peak hours. For each of the study intersections, existing traffic control and lane configuration was maintained during the 2026 Build analysis. The results of this analysis are shown in Table D4-1. Compared with Table C2-1 in Section C2, Table D4-1 illustrates minimal changes in delay from the No-Build to Build condition. There are zero (0) movements that decline in level of service and zero (0) overall intersections that decline in LOS.

The incremental increases of traffic at the study intersections due to the proposed development will result in minimal impact to traffic operations. As such, no additional mitigation is warranted to accommodate the proposed vehicle-trips. Detailed capacity analysis worksheets are included in Appendix E.

Table D4-1: 2026 Build Conditions LOS

ID	Roadway	Movement	2026 No-Build Conditions							
			Weekday AM Peak Hour				Weekday PM Peak Hour			
			v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Queue <sup>4</sup>	v/c <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Queue <sup>4</sup>
1	Highland Avenue at	EB LTR	0.62	21.0	C	150 / 244	0.67	22.6	C	160 / 261
		WB LTR	0.39	16.1	B	83 / 141	0.64	21.2	C	155 / 252
	Central Street	NB LTR	0.40	16.9	B	82 / 140	0.67	22.6	C	166 / 268
		SB LTR	0.67	22.4	C	152 / 254	0.41	14.6	B	66 / 124
	<b>Overall</b>				<b>19.7</b>	<b>B</b>			<b>20.9</b>	<b>C</b>
2*	Central Street at	NB T	0.15	0.0	A	N/A	0.27	0.0	A	N/A
		SB T	0.22	0.0	A	N/A	0.09	0.0	A	N/A
	Gibbens Street and Oxford Street	EB LR	0.08	11.0	B	0 / 6	0.02	10.9	B	N/A / 2
		WB LR	0.05	12.3	B	0 / 4	0.04	12.2	B	N/A / 3
	<b>Overall</b>				<b>1.2</b>	<b>A</b>			<b>0.6</b>	<b>A</b>
3	Summer Street at	EB LT	0.66	16.9	B	112 / 199	0.27	10.9	B	34 / 69
		WB TR	0.28	10.8	B	37 / 73	0.57	14.7	B	90 / 162
	Central Street	NB LTR	0.40	12.4	B	54 / 103	0.70	18.4	B	114 / #211
		SB LR	0.65	20.5	C	64 / #162	0.28	11.6	B	25 / 57
	<b>Overall</b>				<b>15.8</b>	<b>B</b>			<b>15.3</b>	<b>B</b>

1 v/c = volume to capacity ratio; 2 Delay = average delay in seconds per vehicle; 3 LOS = Level of Service; 4 Queue = 50<sup>th</sup>/95<sup>th</sup> percentile queue length (if only one queue length is shown, it is the 95<sup>th</sup> percentile queue length), # = volume for 95<sup>th</sup> percentile cycle exceeds capacity. Queue shown is maximum after two cycles; R = right-turn movement, L = left-turn movement, T = through movement; WB = westbound, EB = eastbound, NB = northbound; \* = Unsignalized Intersection

## E. PARKING ANALYSIS

The proposed redevelopment of 76-82 Central Street is set to provide five (5) dedicated parking spaces in a parking lot located across Highland Avenue at the corner of Highland Avenue and Central Street (155 Highland Avenue). These parking spaces will be used for customers only and the entire lot will be monitored by a parking attendant during all business operating hours. As part of this TIAS, DCI collected parking utilization data at the parking lot that will be used by the proposed Project. DCI collected parking data on a typical Thursday night from 6:00pm to 8:00pm.

### E1. Existing Parking Utilization

As shown in Table E1-1, a high percentage of the parking spaces in the 155 Highland Avenue parking lot are utilized between 6:00pm and 8:00pm. However, this lot, minus the reserved parking spaces for ZipCar and Dunkin Donuts, is unregulated, allowing both residents of the surrounding neighborhood and employees of the surrounding businesses to park there.

**Table E1-1: Off-Street Parking Summary**

		155 Highland	
		# of Vehicles Parked	% Utilized
6:00pm	# of Vehicles Parked	11	65%
6:30pm	# of Vehicles Parked	17	100%
7:00pm	# of Vehicles Parked	17	100%
7:30pm	# of Vehicles Parked	15	88%
8:00pm	# of Vehicles Parked	16	94%
Max	# of Vehicles Parked	17	100%
Average	# of Vehicles Parked	15	89%

### E2. Proposed Parking Utilization

After the redevelopment of the site, five (5) parking spaces will be dedicated for the Facility in the parking lot at 155 Highland Avenue. Additionally, a parking attendant will be monitoring the parking lot during all hours of operation. As previously mentioned, many of the vehicles parked in this lot are from the surrounding neighborhood. With the presence of a parking attendant, this will control the parking and insure that there will be available parking both for employees and for any customer that chooses to drive to the site. As previously discussed, employees will be

incentivized to not drive to the site, which will in turn allow more parking spaces to be available for customers.

To incentivize customers to use non-vehicular modes to get to the site, a 5% discount will be offered to the customer when making the appointment if they chose any mode of transportation other than a vehicle. If a customer does decide to drive to the site when making the appointment, they will receive a parking pass to allow them to park in the parking lot at the corner of Highland Avenue and Central Street (155 Highland Avenue) rather than on the surrounding streets.

Currently, parking is highly utilized in the 155 Highland Avenue parking lot. However, after redevelopment, with the dedication of five (5) parking spaces and an on-site parking attendant, there will be ample parking available in this lot to accommodate any customer or employee that uses a motor vehicle to get to the site. Additionally, metered on-street parking is available along Highland Avenue.

## F. CONCLUSION

This Traffic Impact and Access Study was prepared to analyze the potential impact of the development Project at 76-82 Central Street in Somerville on vehicle and pedestrian operations in the area.

From a safety perspective, the intersections have been found to be relatively safe. All three (3) study intersections have crash rates that are below both the District 4 and Statewide averages. Additionally, there were zero (0) reported fatal crashes and all of the reported crashes occurred outside of the peak periods. There were also no crashes involving pedestrians at the study intersections.

Trip generation was calculated in using two methods. Utilizing the first method, taking into account estimated customer, employee, and service/delivery trips, it is expected that the site will generate zero (0) vehicle-trips during the Weekday AM peak hour, 20 vehicle-trips during the Weekday PM peak hour, and 202 vehicle-trips during a typical weekday. This calculation accounts for the Retailer operating as appointment-only. For comparison, rates from the ITE *Trip Generation Manual, 10<sup>th</sup> Edition*, were used. According to ITE, the site is expected to generate zero (0) vehicle-trips during the Weekday AM peak hour, 22 vehicle-trips during the Weekday PM peak hour, and 240 vehicle-trips during a typical Weekday. Both calculations account for a 50% reduction for non-vehicular trips to the site, calculated using census data of Somerville and four (4) other surrounding communities.

Capacity analyses were carried out for the three (3) study intersections for the Weekday AM and Weekday PM peak hours. Analyses were carried out for 2019 Existing, 2026 No-Build, and 2026 Build conditions. Based on these analyses, there are zero (0) movements that decline in level of service and zero (0) overall intersections that decline in LOS.

Parking data was collected at a parking lot during a typical Thursday night from 6:00pm to 8:00pm located at 155 Highland Avenue. The parking lot at 155 Highland Avenue had, on average, 89% of

parking spaces occupied. However, after redevelopment, there will be parking spaces dedicated solely for the use by the Facility in the parking lot at 155 Highland Avenue, with an on-site parking attendant monitoring the parking lot. This, along with the incentives for both employees and customers to use non-vehicular modes of transportation to get to the site, results in there being ample availability for employees and customers to park in the lot.

Based on the results of these analyses, DCI believes that the proposed Marijuana Retailer at 76-82 Central Street will not have significant impact on traffic operations or parking availability in Somerville, Massachusetts.

# APPENDICES

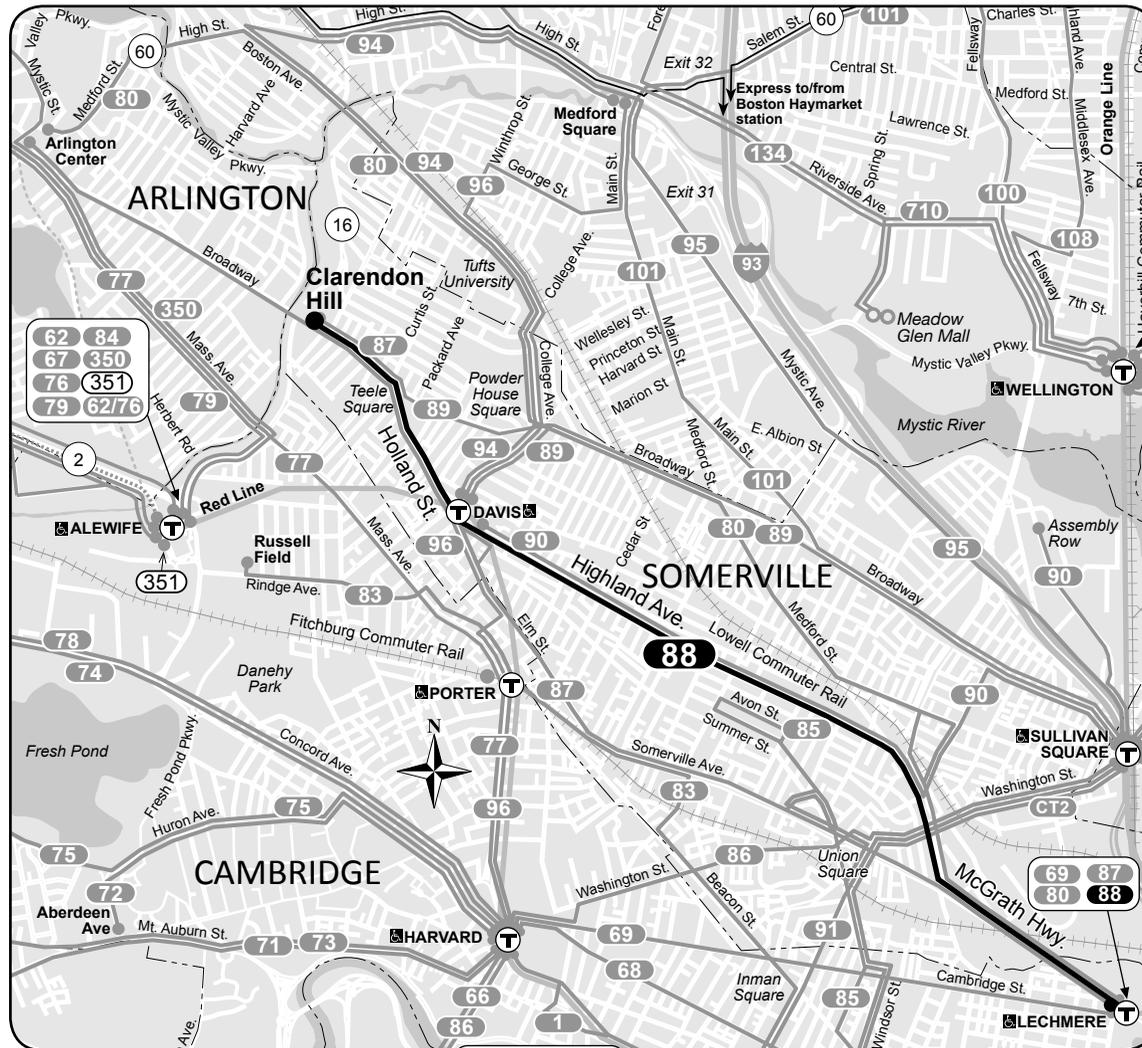
---

**MULTIMODAL TRANSPORTATION**  
**TRAFFIC COUNTS**  
**SAFETY ANALYSIS**  
**TRIP GENERATION**  
**CAPACITY ANALYSES**

# APPENDIX A – MULTI-MODAL TRANSPORTATION

---

## Route 88 Clarendon Hill - Lechmere Station



schedule change

# 88

Effective December 22, 2019

## Clarendon Hill- Lechmere Station

Serving

- Teele Square
- Davis Station
- Somerville City Hospital
- Somerville High School
- Somerville City Hall
- Green Line
- Red Line



 Massachusetts Bay Transportation Authority *massDOT*  
Massachusetts Department of Transportation

Information 617-222-3200 • 1-800-392-6100  
(TTY) 617-222-5146 • [www.mbta.com](http://www.mbta.com)

**88**

**Weekday**

Inbound				Outbound			
Leave Clarendon Hill	Arrive Davis Square	Arrive Somerville High School	Arrive Lechmere Station	Leave Lechmere Station	Arrive Somerville High School	Arrive Davis Square	Arrive Clarendon Hill
5:13A	5:16A	5:22A	5:32A	5:37A	5:44A	5:52A	5:57A
5:41	5:44	5:50	6:00	6:05	6:12	6:20	6:25
5:59	6:02	6:08	6:18	6:21	6:28	6:37	6:44
6:16	6:19	6:25	6:36	6:47	6:54	7:03	7:10
6:31	6:36	6:47	7:01	7:07	7:14	7:23	7:30
6:49	6:54	7:06	7:26	7:24	7:31	7:40	7:49
7:04	7:11	7:24	7:44	7:43	7:50	7:59	8:08
7:20	7:27	7:40	8:00	8:01	8:08	8:17	8:26
7:34	7:41	7:54	8:14	8:18	8:25	8:34	8:43
7:44	7:51	8:04	8:24	8:38	8:45	8:54	9:02
7:56	8:03	8:16	8:36	8:59	9:05	9:12	9:20
8:13	8:20	8:33	8:53	9:23	9:29	9:36	9:44
8:31	8:38	8:51	9:08	9:37	9:43	9:50	9:58
8:49	8:56	9:08	9:25	10:00	10:06	10:13	10:21
9:09	9:15	9:27	9:44	10:26	10:32	10:39	10:47
9:25	9:31	9:43	10:00	10:57	11:03	11:10	11:18
9:49	9:55	10:05	10:17	11:20	11:26	11:33	11:41
10:11	10:16	10:25	10:37	11:35	11:41	11:48	11:56
10:35	10:40	10:49	11:01				
11:05	11:10	11:19	11:31	12:00N	12:06P	12:13P	12:21P
11:35	11:40	11:49	12:01P	12:25P	12:31	12:38	12:46
11:55	12:00N	12:09P	12:21	12:50	12:56	1:03	1:11
				1:15	1:21	1:28	1:37
12:15P	12:20P	12:29P	12:41P	1:31	1:42	1:53	2:02
12:35	12:40	12:49	1:01	1:53	2:04	2:15	2:24
12:55	1:00	1:09	1:21	2:14	2:25	2:36	2:45
1:15	1:20	1:29	1:41	.....	s 2:35	2:48	2:54
1:35	1:40	1:49	2:01	2:29	2:40	2:51	3:00
1:55	2:00	2:09	2:21	.....	s 2:40	2:53	2:59
2:15	2:20	2:29	2:42	.....	s 2:50	3:03	3:09
2:35	2:40	2:50	3:03	2:49	3:00	3:11	3:20
2:55	3:00	3:10	3:23	3:10	3:21	3:32	3:41
3:15	3:20	3:30	3:43	3:29	3:40	3:51	4:00
3:35	3:40	3:50	4:03	3:49	4:00	4:11	4:20
3:55	4:00	4:10	4:23	4:10	4:21	4:33	4:45
4:15	4:20	4:30	4:43	4:31	4:42	4:54	5:06
4:35	4:41	4:54	5:07	4:53	5:04	5:16	5:28
4:55	5:01	5:14	5:27	5:14	5:25	5:37	5:49
5:15	5:21	5:34	5:47	5:35	5:46	5:58	6:07
5:37	5:43	5:56	6:09	5:56	6:06	6:18	6:27
5:58	6:04	6:17	6:30	6:16	6:25	6:37	6:46
6:15	6:21	6:34	6:46	6:36	6:45	6:57	7:04
6:35	6:39	6:51	7:03	6:53	7:02	7:11	7:18
6:53	6:57	7:09	7:21	7:13	7:21	7:30	7:37
7:12	7:16	7:28	7:38	7:40	7:48	7:57	8:04
7:43	7:46	7:54	8:04	Every	30 Minutes	Until	
8:11	8:14	8:22	8:32	10:10	10:15	10:21	10:28
8:40	8:43	8:51	9:01	10:40	10:45	10:51	10:58
Every	30 Minutes	Until		11:10	11:15	11:21	11:28
11:10	11:13	11:21	11:31	11:40	11:45	11:50	11:55
11:45	11:48	11:53	12:02A	12:10A	12:15A	12:20A	12:25A
12:15A	12:18A	12:23A	12:32	12:40	12:45	12:50	12:55
12:50	12:53	12:58	1:07	w 1:22	1:27	1:32	1:37

**88**

**Saturday**

Inbound				Outbound			
Leave Clarendon Hill	Arrive Davis Square	Arrive Somerville High School	Arrive Lechmere Station	Leave Lechmere Station	Arrive Somerville High School	Arrive Davis Square	Arrive Clarendon Hill
5:30A	5:33A	5:37A	5:47A	5:55A	6:01A	6:06A	6:10A
6:00	6:03	6:07	6:17	6:25	6:31	6:37	6:41
6:30	6:33	6:37	6:47	6:55	7:01	7:07	7:11
7:00	7:03	7:07	7:17	7:25	7:31	7:37	7:41
7:30	7:33	7:37	7:47	7:55	8:01	8:07	8:11
8:00	8:03	8:09	8:19	8:25	8:31	8:40	8:45
8:30	8:33	8:39	8:49	8:55	9:01	9:10	9:15
9:00	9:04	9:11	9:23	9:25	9:32	9:41	9:47
9:30	9:34	9:42	9:54	9:50	9:57	10:06	10:12
10:00	10:04	10:12	10:24	10:30	10:38	10:47	10:53
10:30	10:34	10:42	10:54	11:03	11:11	11:20	11:26
11:00	11:04	11:12	11:24	11:30	11:38	11:47	11:53
11:31	11:35	11:45	11:58	11:55	12:03P	12:12P	12:18P
11:58	12:02P	12:12P	12:25P				
				12:20P	12:28P	12:37P	12:43P
12:23P	12:27P	12:37P	12:50P	12:45	12:53	1:02	1:08
12:48	12:52	1:02	1:14	1:10	1:18	1:27	1:33
1:13	1:16	1:26	1:38	1:35	1:43	1:52	1:58
1:38	1:41	1:51	2:03	2:00	2:08	2:17	2:23
2:03	2:06	2:16	2:28	2:25	2:33	2:42	2:48
2:28	2:31	2:41	2:53	2:50	2:58	3:07	3:13
2:53	2:56	3:06	3:18	3:15	3:23	3:32	3:38
3:18	3:21	3:31	3:43	3:40	3:48	3:57	4:03
3:43	3:46	3:56	4:08	4:05	4:13	4:22	4:28
4:08	4:11	4:21	4:33	4:30	4:38	4:47	4:53
4:33	4:36	4:46	4:58	4:55	5:03	5:12	5:18
4:58	5:01	5:10	5:22	5:21	5:29	5:37	5:43
5:23	5:26	5:35	5:47	5:45	5:53	6:01	6:07
5:48	5:51	6:00	6:12	6:08	6:16	6:24	6:30
6:13	6:16	6:25	6:37	6:35	6:43	6:51	6:57
6:36	6:39	6:48	7:00	7:07	7:15	7:23	7:29
7:05	7:08	7:16	7:28	7:45	7:53	8:01	8:07
7:40	7:43	7:51	8:03	8:30	8:36	8:44	8:50
8:20	8:23	8:31	8:42	9:10	9:16	9:24	9:30
9:00	9:03	9:09	9:20	9:50	9:56	10:04	10:10
9:40	9:43	9:49	10:00	10:25	10:31	10:38	10:44
10:15	10:18	10:24	10:35	11:00	11:06	11:13	11:19
10:50	10:53	10:59	11:10	11:35	11:41	11:48	11:54
11:23	11:26	11:32	11:43	12:10A	12:16A	12:20A	12:25A
12:00M	12:03A	12:09A	12:20A	12:45	12:51	12:55	1:00
12:40A	12:43	12:49	1:00	w 1:20	1:26	1:30	1:35

s - Does NOT run during school vacation  
w- Waits for last trolley to arrive at Lechmere Station.

All buses are accessible to persons with disabilities

**88**

**Sunday**

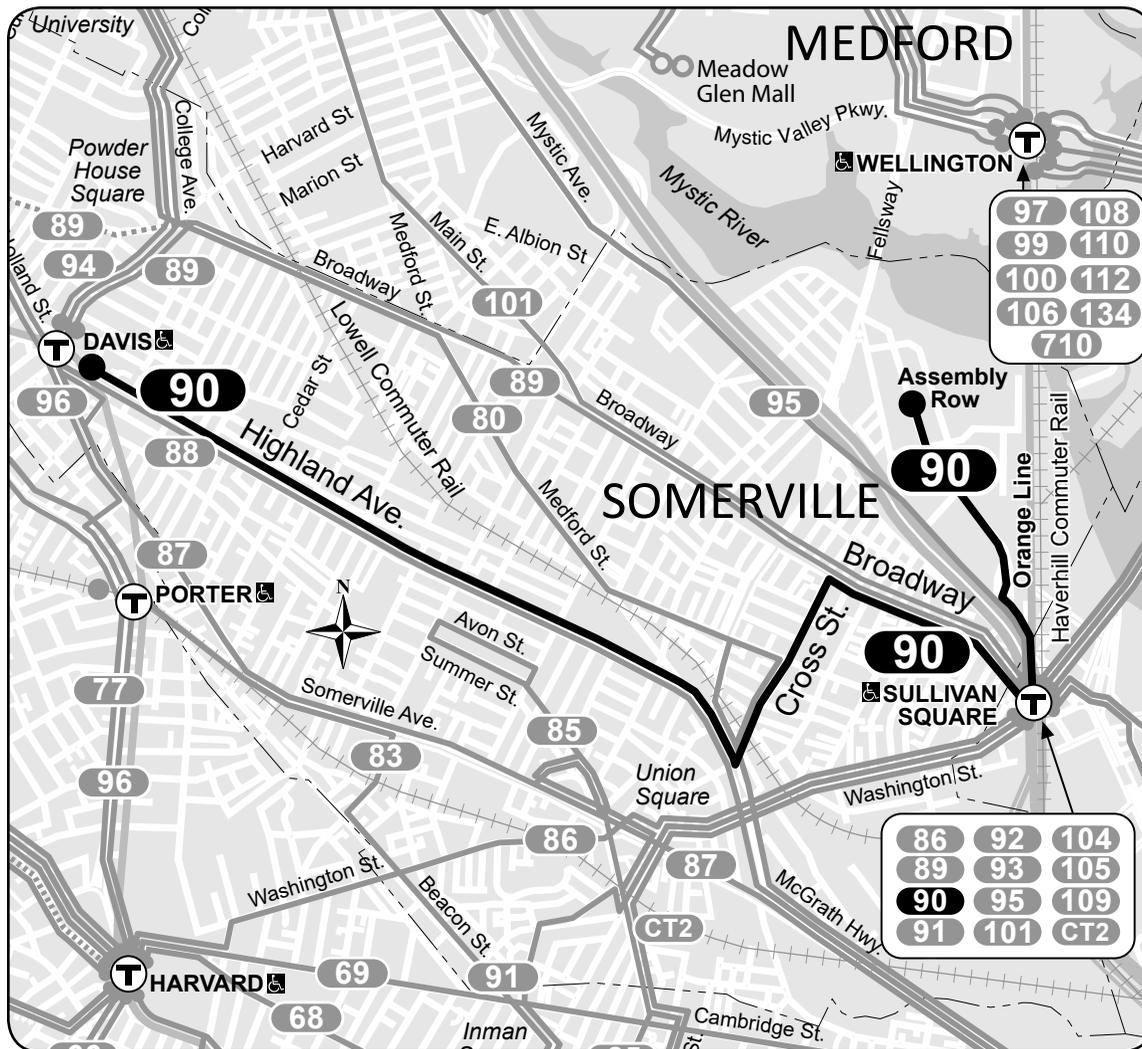
Inbound				Outbound			
Leave Clarendon Hill	Arrive Davis Square	Arrive Somerville High School	Arrive Lechmere Station	Leave Lechmere Station	Arrive Somerville High School	Arrive Davis Square	Arrive Clarendon Hill
6:40A	6:43A	6:49A	6:59A	6:19A	6:24A	6:31A	6:37A
7:40	7:43	7:49	7:59	7:19	7:24	7:31	7:37
8:40	8:43	8:49	8:59	8:19	8:24	8:31	8:37
9:10	9:13	9:19	9:29	9:15	9:20	9:27	9:33
9:45	9:49	9:58	10:09	9:58	10:03	10:10	10:17
10:25	10:29	10:38	10:49	10:38	10:44	10:51	10:58
11:05	11:09	11:18	11:30	11:18	11:24	11:33	11:40
11:45	11:49	11:58	12:10P	11:58	12:04P	12:13P	12:20P
				12:25P	12:29P	12:38P	12:50P
1:05	1:09	1:18	1:30	1:18	1:24	1:33	1:40
1:45	1:49	1:58	2:10	1:58	2:04	2:13	2:20
2:25	2:28	2:37	2:49	2:38	2:44	2:53	3:00
3:05	3:08	3:17	3:29	3:18	3:24	3:33	3:40
3:45	3:48	3:57	4:09	3:58	4:04	4:13	4:20
4:25	4:28	4:37	4:49	4:38	4:44	4:53	5:00
5:05	5:08	5:17	5:29	5:18	5:24	5:33	5:40
5:45	5:48	5:57	6:09	5:58	6:04	6:10	6:17
6:25	6:28	6:37	6:49	6:38	6:44	6:50	6:57
7:05	7:08	7:17	7:29	7:18	7:24	7:30	7:37
7:45	7:48	7:55	8:04	7:58	8:04	8:10	8:17
8:25	8:28	8:35	8:44	8:36	8:42	8:48	8:55
9:05	9:08	9:15	9:24	9:15	9:21	9:27	9:34
9:45	9:48	9:55	10:04	9:55	10:01	10:08	10:12
10:25	10:28	10:35	10:44	10:35	10:41	10:48	10:52
11:00	11:03	11:08	11:17	11:10	11:16	11:23	11:27
11:35	11:38	11:43	11:52	11:45	11:51	11:58	12:02A
12:10A	12:13A	12:18A	12:27A	12:20A	12:24A	12:29A	12:33
12:45	12:48	12:53	1:02	12:50	12:54	12:59	1:03
				w 1:18	1:22	1:27	1:31

Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	\$1.70	\$1.70	\$2.40	\$2.40
CharlieTicket	\$2.00	\$2.00	\$2.90	\$4.90
Cash-on-Board	\$2.00	\$4.00	\$2.90	\$4.90
Student/Youth*	\$0.85	\$0.85	\$1.10	\$1.10
Senior/TAP**	\$0.85	\$0.85	\$1.10	\$1.10

VALID PASSES: LinkPass (\$90.00/mo.); Local Bus (\$55/mo.); \*Student/Youth LinkPass (\$30.00/mo.); \*\*Senior/TAP LinkPass (\$30/mo.); and express bus, commuter rail, and boat passes.  
FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.  
\* Requires Student CharlieCard or Youth CharlieCard. Student CharlieCards are available to students through participating middle schools and high schools. Youth CharlieCards are available through community partners in the Boston metro area. Visit [www.mba.com/youthpass](http://www.mba.com/youthpass) for details.  
\*\* Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

**Winter 2020 Holidays**  
12/25/19 & 1/1/20: see Sunday  
1/20/20 & 2/17/20: see Saturday

## Route 90 Davis Station - Assembly Row



# 90

Effective December 22, 2019

## Davis Station- Assembly Row

### Serving

- Sullivan Square Station
- Somerville City Hospital
- Somerville High School
- Somerville City Hall
- Orange Line
- Red Line



**T** Massachusetts Bay Transportation Authority **massDOT**  
Massachusetts Department of Transportation

Information 617-222-3200 • 1-800-392-6100  
(TTY) 617-222-5146 • [www.mbtta.com](http://www.mbtta.com)

90 Weekday					
Inbound			Outbound		
Leave Davis Square	Arrive Sullivan Station	Arrive Assembly Row	Leave Assembly Row	Arrive Sullivan Station	Arrive Davis Square
6:30A	7:01A	7:02A	6:30A	6:36A	7:00A
7:10	7:41	7:42	7:10	7:16	7:40
7:50	8:22	8:25	7:50	7:56	8:18
8:25	8:59	9:00	8:30	8:36	8:57
9:05	9:32	9:33	9:05	9:11	9:32
9:40	10:06	10:07	9:40	9:46	10:05
10:15	10:40	10:41	10:15	10:21	10:39
10:45	11:08	11:10	10:45	10:51	11:09
11:15	11:37	11:39	11:15	11:20	11:37
11:45	12:08P	12:10P	11:45	11:50	12:07P
12:15P	12:38P	12:40P	12:15P	12:20P	12:37P
12:45	1:08	1:10	12:45	12:50	1:07
1:15	1:38	1:40	1:15	1:20	1:37
1:45	2:08	2:10	1:45	1:50	2:08
2:16	2:39	2:41	2:15	2:21	2:41
2:48	3:15	3:18	2:52	2:58	3:18
3:24	3:53	3:56	3:32	3:39	4:01
4:06	4:36	4:38	4:06	4:13	4:35
4:45	5:15	5:17	4:48	4:55	5:18
5:26	5:56	5:58	5:27	5:35	5:59
6:07	6:37	6:39	6:08	6:14	6:34
6:47	7:10	7:12	6:46	6:52	7:11
7:17	7:38	7:40	7:17	7:22	7:40
8:09	8:30	8:32	7:45	7:50	8:06
8:40	9:01	9:03	8:17	8:22	8:36
9:31	9:52	9:54	9:08	9:13	9:27
			10:00	10:05	10:19

90 Saturday					
Inbound			Outbound		
Leave Davis Square	Arrive Sullivan Station	Arrive Assembly Row	Leave Assembly Row	Arrive Sullivan Station	Arrive Davis Square
7:55A	8:13A	8:15A	7:30A	7:35A	7:49A
8:45	9:04	9:06	8:20	8:25	8:39
9:40	10:02	10:05	9:15	9:20	9:36
10:35	10:57	11:00	10:10	10:15	10:31
11:35	11:57	12:00N	11:05	11:10	11:26
12:35P	12:59P	1:01P	12:05P	12:10P	12:24P
1:35	1:59	2:01	1:05	1:11	1:29
2:40	3:03	3:05	2:05	2:12	2:29
3:40	4:03	4:05	3:10	3:16	3:31
4:40	5:03	5:05	4:10	4:16	4:31
5:40	6:03	6:05	5:10	5:16	5:31
6:40	7:02	7:04	6:10	6:16	6:31
7:40	8:00	8:02	7:10	7:15	7:31
8:40	8:59	9:01	8:10	8:15	8:31
9:35	9:54	9:56	9:10	9:15	9:30
			10:00	10:05	10:20

90 Sunday					
Inbound			Outbound		
Leave Davis Square	Arrive Sullivan Station	Arrive Assembly Row	Leave Assembly Row	Arrive Sullivan Station	Arrive Davis Square
10:30A	10:48A	10:51A	10:55A	11:01A	11:15A
11:20	11:38	11:43	11:50	11:56	12:12P
12:20P	12:41P	12:44P	12:50P	12:57P	1:14P
1:20	1:41	1:44	1:50	1:56	2:14
2:20	2:41	2:45	2:50	2:57	3:14
3:20	3:41	3:45	3:50	3:57	4:12
4:20	4:41	4:45	4:50	4:56	5:11
5:20	5:38	5:42	5:50	5:56	6:11
6:20	6:38	6:42			

 All buses are accessible to persons with disabilities

				
Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	\$1.70	\$1.70	\$2.40	\$2.40
CharlieTicket	\$2.00	\$2.00	\$2.90	\$4.90
Cash-on-Board	\$2.00	\$4.00	\$2.90	\$4.90
Student/Youth*	\$0.85	\$0.85	\$1.10	\$1.10
Senior/TAP**	\$0.85	\$0.85	\$1.10	\$1.10

**VALID PASSES:** LinkPass (\$90.00/mo.); Local Bus (\$55/mo.); \*Student/Youth LinkPass (\$30.00/mo.); \*\*Senior/TAP LinkPass (\$30/mo.); and express bus, commuter rail, and boat passes.  
**FREE FARES:** Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.  
 \* Requires Student CharlieCard or Youth CharlieCard. Student CharlieCards are available to students through participating middle schools and high schools. Youth CharlieCards are available through community partners in the Boston metro area. Visit [www.mbta.com/youthpass](http://www.mbta.com/youthpass) for details.  
 \*\* Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

**Route 90**  
**Davis Station-Assembly Row**

**Winter 2020 Holidays**  
**12/25/19 & 1/1/20: see Sunday**  
**1/20/20 & 2/17/20: see Saturday**

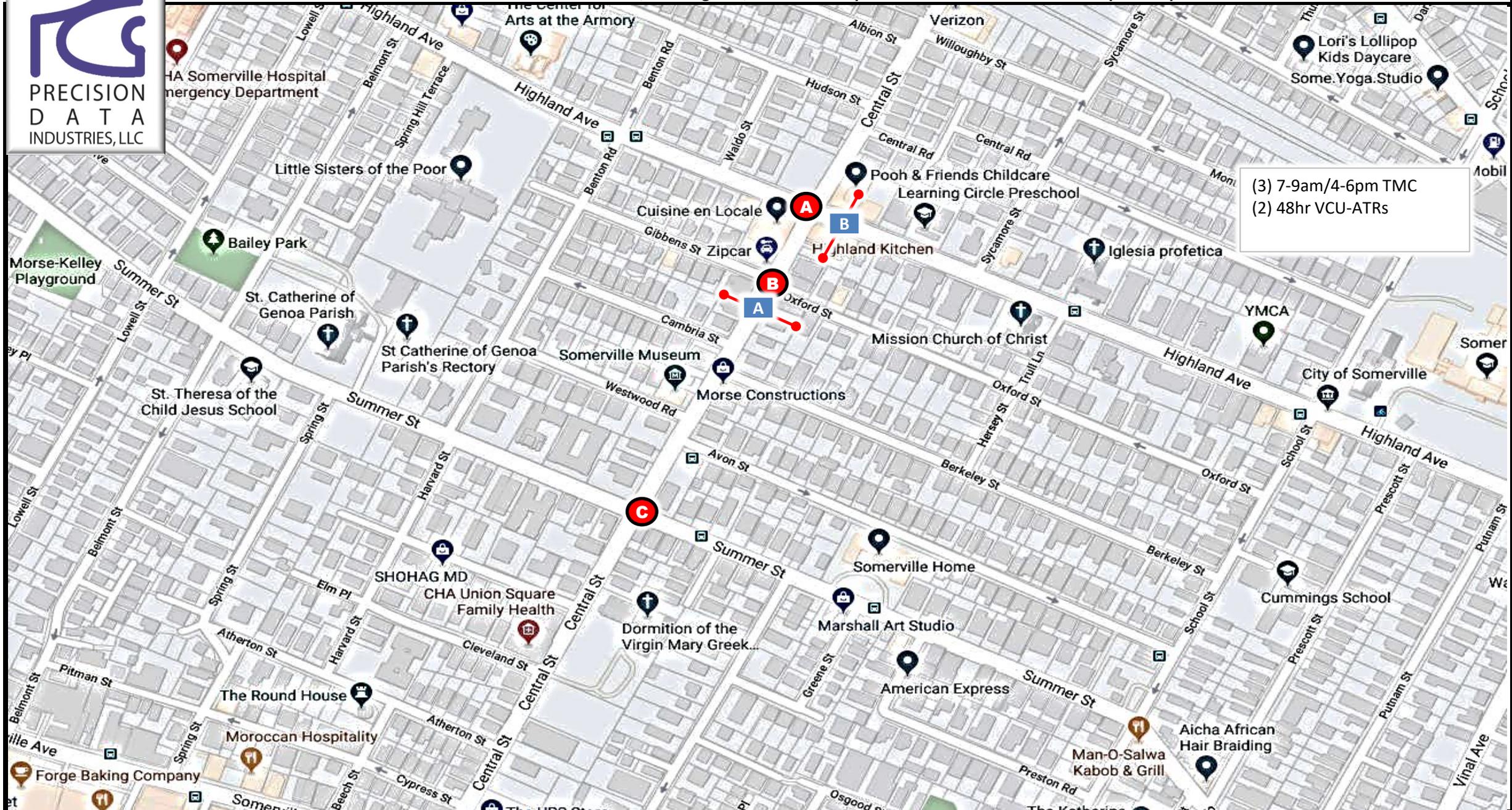
# APPENDIX B – TRAFFIC COUNTS

---



# Location Map: 197355 Somerville, MA

Precision Data Industries, LLC 46 Morton Street, Framingham, MA 01702 ph: 508-875-0100 email: datarequests@pdillc.com



<b>Client:</b> Design Consultants	<b>Engineer:</b> S.Siragusa	<b>Site Code:</b> TBD	<b>Date:</b> Tues 12/10-Wed 12/11/19	<b>PDI Job #</b> 197355	<b>City, State:</b> Somerville, MA
--------------------------------------	--------------------------------	--------------------------	---	----------------------------	---------------------------------------

Central Street between  
 Oford Street and Cambria Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA



PDI File # 197355 ATR-A

Count Date: Tuesday, December 10, 2019  
 Direction: NB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	19	0	0	19
12:15 AM	16	0	0	16
12:30 AM	16	0	0	16
12:45 AM	5	0	0	5
1:00 AM	12	0	0	12
1:15 AM	7	0	0	7
1:30 AM	4	0	0	4
1:45 AM	5	0	0	5
2:00 AM	3	0	0	3
2:15 AM	7	0	0	7
2:30 AM	6	0	0	6
2:45 AM	2	0	0	2
3:00 AM	1	0	0	1
3:15 AM	2	0	0	2
3:30 AM	3	0	0	3
3:45 AM	6	0	0	6
4:00 AM	3	2	0	5
4:15 AM	3	0	0	3
4:30 AM	2	0	0	2
4:45 AM	7	0	0	7
5:00 AM	4	0	0	4
5:15 AM	7	0	0	7
5:30 AM	10	1	0	11
5:45 AM	5	0	0	5
6:00 AM	16	0	0	16
6:15 AM	27	0	0	27
6:30 AM	27	0	1	28
6:45 AM	32	0	0	32
7:00 AM	49	2	0	51
7:15 AM	47	3	0	50
7:30 AM	52	0	0	52
7:45 AM	47	2	0	49
8:00 AM	70	2	0	72
8:15 AM	62	1	0	63
8:30 AM	41	2	0	43
8:45 AM	44	1	0	45
9:00 AM	55	3	0	58
9:15 AM	59	1	0	60
9:30 AM	44	1	0	45
9:45 AM	66	2	0	68
10:00 AM	64	1	0	65
10:15 AM	63	4	0	67
10:30 AM	57	4	0	61
10:45 AM	64	0	0	64
11:00 AM	55	2	1	58
11:15 AM	72	2	0	74
11:30 AM	65	1	0	66
11:45 AM	69	0	2	71

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	75	4	0	79
12:15 PM	70	4	0	74
12:30 PM	69	2	0	71
12:45 PM	67	3	0	70
1:00 PM	68	2	0	70
1:15 PM	81	1	0	82
1:30 PM	92	3	0	95
1:45 PM	81	2	0	83
2:00 PM	80	0	0	80
2:15 PM	95	3	0	98
2:30 PM	103	6	1	110
2:45 PM	98	3	1	102
3:00 PM	97	1	0	98
3:15 PM	107	4	0	111
3:30 PM	111	2	0	113
3:45 PM	92	2	0	94
4:00 PM	105	0	0	105
4:15 PM	90	3	0	93
4:30 PM	94	0	0	94
4:45 PM	108	0	0	108
5:00 PM	112	0	0	112
5:15 PM	107	1	0	108
5:30 PM	83	1	0	84
5:45 PM	109	0	0	109
6:00 PM	107	0	1	108
6:15 PM	100	1	0	101
6:30 PM	89	0	0	89
6:45 PM	78	1	0	79
7:00 PM	80	0	0	80
7:15 PM	83	0	0	83
7:30 PM	82	1	0	83
7:45 PM	84	0	0	84
8:00 PM	63	0	0	63
8:15 PM	70	0	0	70
8:30 PM	67	0	0	67
8:45 PM	46	0	0	46
9:00 PM	69	0	0	69
9:15 PM	57	0	0	57
9:30 PM	64	0	0	64
9:45 PM	62	0	0	62
10:00 PM	42	0	0	42
10:15 PM	48	0	0	48
10:30 PM	34	0	0	34
10:45 PM	35	0	0	35
11:00 PM	34	0	0	34
11:15 PM	30	0	0	30
11:30 PM	26	0	0	26
11:45 PM	19	0	0	19

AM Total 1402 37 4 1443  
 Percentage 97.16% 2.56% 0.28%  
 AM Peak 11:00 AM 9:45 AM 11:00 AM 11:00 AM  
 Volume 261 11 3 269

PM Total 3663 50 3 3716  
 Percentage 98.57% 1.35% 0.08%  
 PM Peak 4:30 PM 2:30 PM 2:00 PM 2:45 PM  
 Volume 421 14 2 424

Day Total 5065 87 7 5159  
 Percentage 98.18% 1.69% 0.14%

Central Street between  
 Oford Street and Cambria Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA



PDI File # 197355 ATR-A

Count Date: Wednesday, December 11, 2019  
 Direction: NB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	24	0	0	24
12:15 AM	15	0	0	15
12:30 AM	11	0	0	11
12:45 AM	7	0	0	7
1:00 AM	5	0	0	5
1:15 AM	10	0	0	10
1:30 AM	5	0	0	5
1:45 AM	5	0	0	5
2:00 AM	4	0	0	4
2:15 AM	3	0	0	3
2:30 AM	1	0	0	1
2:45 AM	4	0	0	4
3:00 AM	0	0	0	0
3:15 AM	4	0	0	4
3:30 AM	3	0	0	3
3:45 AM	6	0	0	6
4:00 AM	3	0	0	3
4:15 AM	1	1	0	2
4:30 AM	3	1	0	4
4:45 AM	4	1	0	5
5:00 AM	6	1	0	7
5:15 AM	6	0	0	6
5:30 AM	6	2	0	8
5:45 AM	7	0	0	7
6:00 AM	17	1	0	18
6:15 AM	25	1	0	26
6:30 AM	16	0	0	16
6:45 AM	46	0	0	46
7:00 AM	32	2	0	34
7:15 AM	45	2	1	48
7:30 AM	46	2	0	48
7:45 AM	55	2	0	57
8:00 AM	64	0	0	64
8:15 AM	47	2	0	49
8:30 AM	54	2	1	57
8:45 AM	59	4	0	63
9:00 AM	59	3	0	62
9:15 AM	45	1	0	46
9:30 AM	41	3	0	44
9:45 AM	51	0	0	51
10:00 AM	59	1	0	60
10:15 AM	56	2	0	58
10:30 AM	64	4	0	68
10:45 AM	53	3	0	56
11:00 AM	66	3	0	69
11:15 AM	42	0	0	42
11:30 AM	61	4	0	65
11:45 AM	74	5	0	79

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	87	3	0	90
12:15 PM	68	3	1	72
12:30 PM	46	0	0	46
12:45 PM	69	1	0	70
1:00 PM	62	2	0	64
1:15 PM	74	4	0	78
1:30 PM	86	2	0	88
1:45 PM	78	4	0	82
2:00 PM	87	1	0	88
2:15 PM	89	6	0	95
2:30 PM	74	4	0	78
2:45 PM	84	3	0	87
3:00 PM	100	2	1	103
3:15 PM	93	2	0	95
3:30 PM	75	3	0	78
3:45 PM	108	2	0	110
4:00 PM	102	2	0	104
4:15 PM	118	1	0	119
4:30 PM	91	4	0	95
4:45 PM	105	2	0	107
5:00 PM	98	1	0	99
5:15 PM	104	1	0	105
5:30 PM	100	0	0	100
5:45 PM	103	0	0	103
6:00 PM	113	0	1	114
6:15 PM	95	2	0	97
6:30 PM	94	0	0	94
6:45 PM	72	0	0	72
7:00 PM	78	1	0	79
7:15 PM	82	1	0	83
7:30 PM	69	0	0	69
7:45 PM	67	1	0	68
8:00 PM	74	2	0	76
8:15 PM	58	0	0	58
8:30 PM	63	1	0	64
8:45 PM	57	1	0	58
9:00 PM	54	0	0	54
9:15 PM	52	0	0	52
9:30 PM	52	0	0	52
9:45 PM	52	0	0	52
10:00 PM	55	0	0	55
10:15 PM	47	0	0	47
10:30 PM	38	0	0	38
10:45 PM	45	0	0	45
11:00 PM	37	0	0	37
11:15 PM	36	0	0	36
11:30 PM	35	0	0	35
11:45 PM	18	0	0	18

AM Total 1320 53 2 1375  
 Percentage 96.00% 3.85% 0.15%  
 AM Peak 11:00 AM 10:15 AM 6:30 AM 11:00 AM  
 Volume 243 12 1 255

PM Total 3544 62 3 3609  
 Percentage 98.20% 1.72% 0.08%  
 PM Peak 5:15 PM 1:45 PM 12:00 PM 3:45 PM  
 Volume 420 15 1 428

Day Total 4864 115 5 4984  
 Percentage 97.59% 2.31% 0.10%

Central Street between  
Oford Street and Cambria Street  
City, State: Somerville, MA  
Client: DCI/ S. Siragusa  
Site Code: TBA



PDI File # 197355 ATR-A

Count Date: Tuesday, December 10, 2019  
Direction: SB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	11	0	0	11
12:15 AM	5	0	0	5
12:30 AM	2	0	0	2
12:45 AM	6	0	0	6
1:00 AM	2	1	0	3
1:15 AM	2	1	0	3
1:30 AM	4	0	0	4
1:45 AM	4	0	0	4
2:00 AM	2	0	0	2
2:15 AM	1	0	0	1
2:30 AM	1	0	0	1
2:45 AM	2	0	0	2
3:00 AM	0	0	0	0
3:15 AM	2	0	0	2
3:30 AM	1	0	0	1
3:45 AM	1	0	0	1
4:00 AM	5	1	0	6
4:15 AM	2	0	0	2
4:30 AM	3	0	0	3
4:45 AM	9	0	0	9
5:00 AM	12	1	0	13
5:15 AM	8	0	0	8
5:30 AM	11	0	0	11
5:45 AM	15	0	0	15
6:00 AM	28	0	0	28
6:15 AM	30	1	0	31
6:30 AM	40	3	0	43
6:45 AM	69	1	0	70
7:00 AM	66	1	0	67
7:15 AM	84	0	0	84
7:30 AM	75	1	0	76
7:45 AM	93	1	0	94
8:00 AM	87	1	0	88
8:15 AM	84	2	0	86
8:30 AM	100	3	0	103
8:45 AM	95	4	0	99
9:00 AM	79	5	1	85
9:15 AM	56	0	0	56
9:30 AM	49	1	0	50
9:45 AM	65	4	0	69
10:00 AM	60	3	0	63
10:15 AM	53	1	0	54
10:30 AM	44	0	0	44
10:45 AM	42	1	0	43
11:00 AM	43	0	0	43
11:15 AM	36	1	0	37
11:30 AM	28	0	0	28
11:45 AM	30	0	0	30

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	26	4	0	30
12:15 PM	35	2	0	37
12:30 PM	35	1	0	36
12:45 PM	35	1	0	36
1:00 PM	35	0	0	35
1:15 PM	40	0	1	41
1:30 PM	40	0	0	40
1:45 PM	39	2	0	41
2:00 PM	42	4	0	46
2:15 PM	41	2	0	43
2:30 PM	43	2	0	45
2:45 PM	54	0	0	54
3:00 PM	44	3	0	47
3:15 PM	53	3	0	56
3:30 PM	35	0	0	35
3:45 PM	34	1	0	35
4:00 PM	38	0	0	38
4:15 PM	32	0	0	32
4:30 PM	35	1	0	36
4:45 PM	39	0	0	39
5:00 PM	44	0	0	44
5:15 PM	53	0	0	53
5:30 PM	44	1	0	45
5:45 PM	48	0	0	48
6:00 PM	50	0	0	50
6:15 PM	53	0	0	53
6:30 PM	42	0	0	42
6:45 PM	39	1	0	40
7:00 PM	37	0	0	37
7:15 PM	34	0	0	34
7:30 PM	32	1	0	33
7:45 PM	28	0	0	28
8:00 PM	29	1	0	30
8:15 PM	23	0	0	23
8:30 PM	24	0	0	24
8:45 PM	21	0	0	21
9:00 PM	26	0	0	26
9:15 PM	20	0	0	20
9:30 PM	27	0	0	27
9:45 PM	10	0	0	10
10:00 PM	17	0	0	17
10:15 PM	3	0	0	3
10:30 PM	9	0	0	9
10:45 PM	10	0	0	10
11:00 PM	3	0	0	3
11:15 PM	14	0	0	14
11:30 PM	7	0	0	7
11:45 PM	5	0	0	5

AM Total 1547 38 1 1586  
 Percentage 97.54% 2.40% 0.06%  
 AM Peak 8:00 AM 8:15 AM 8:15 AM 8:00 AM  
 Volume 366 14 1 376

PM Total 1527 30 1 1558  
 Percentage 98.01% 1.93% 0.06%  
 PM Peak 5:15 PM 1:45 PM 12:30 PM 2:30 PM  
 Volume 195 10 1 202

Day Total 3074 68 2 3144  
 Percentage 97.77% 2.16% 0.06%

Central Street between  
 Oford Street and Cambria Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA



PDI File # 197355 ATR-A

Count Date: Wednesday, December 11, 2019  
 Direction: SB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	9	0	0	9
12:15 AM	6	0	0	6
12:30 AM	5	1	0	6
12:45 AM	5	0	0	5
1:00 AM	6	0	0	6
1:15 AM	4	0	0	4
1:30 AM	0	0	0	0
1:45 AM	3	0	0	3
2:00 AM	1	0	0	1
2:15 AM	1	0	0	1
2:30 AM	1	0	0	1
2:45 AM	1	0	0	1
3:00 AM	1	0	0	1
3:15 AM	1	1	0	2
3:30 AM	4	0	0	4
3:45 AM	1	0	0	1
4:00 AM	3	0	0	3
4:15 AM	3	1	0	4
4:30 AM	5	0	0	5
4:45 AM	5	0	0	5
5:00 AM	7	1	0	8
5:15 AM	9	1	0	10
5:30 AM	15	0	0	15
5:45 AM	10	2	0	12
6:00 AM	21	1	0	22
6:15 AM	26	2	0	28
6:30 AM	42	1	0	43
6:45 AM	49	2	0	51
7:00 AM	50	1	0	51
7:15 AM	67	2	0	69
7:30 AM	78	4	0	82
7:45 AM	89	1	0	90
8:00 AM	91	0	0	91
8:15 AM	77	3	0	80
8:30 AM	94	2	0	96
8:45 AM	79	1	0	80
9:00 AM	81	3	0	84
9:15 AM	55	1	0	56
9:30 AM	57	2	0	59
9:45 AM	80	5	0	85
10:00 AM	52	1	0	53
10:15 AM	60	2	0	62
10:30 AM	33	3	0	36
10:45 AM	29	2	0	31
11:00 AM	40	3	0	43
11:15 AM	38	0	0	38
11:30 AM	34	1	0	35
11:45 AM	47	2	0	49

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	43	0	0	43
12:15 PM	43	3	1	47
12:30 PM	39	1	0	40
12:45 PM	44	3	0	47
1:00 PM	40	1	0	41
1:15 PM	32	1	0	33
1:30 PM	30	3	1	34
1:45 PM	38	0	1	39
2:00 PM	33	3	0	36
2:15 PM	38	4	0	42
2:30 PM	52	2	0	54
2:45 PM	29	0	0	29
3:00 PM	47	2	0	49
3:15 PM	34	2	0	36
3:30 PM	42	1	0	43
3:45 PM	40	1	0	41
4:00 PM	50	0	0	50
4:15 PM	42	0	0	42
4:30 PM	39	0	0	39
4:45 PM	41	0	0	41
5:00 PM	49	0	0	49
5:15 PM	46	0	0	46
5:30 PM	47	1	0	48
5:45 PM	44	0	0	44
6:00 PM	38	0	0	38
6:15 PM	36	0	0	36
6:30 PM	40	0	0	40
6:45 PM	32	0	0	32
7:00 PM	37	0	0	37
7:15 PM	34	1	0	35
7:30 PM	28	1	0	29
7:45 PM	28	0	0	28
8:00 PM	20	0	0	20
8:15 PM	21	0	0	21
8:30 PM	18	1	0	19
8:45 PM	28	0	0	28
9:00 PM	18	0	0	18
9:15 PM	15	0	0	15
9:30 PM	17	0	0	17
9:45 PM	19	0	0	19
10:00 PM	14	0	0	14
10:15 PM	20	0	0	20
10:30 PM	12	0	0	12
10:45 PM	16	0	0	16
11:00 PM	9	0	0	9
11:15 PM	17	0	0	17
11:30 PM	12	0	0	12
11:45 PM	5	0	0	5

AM Total 1475 52 0 1527  
 Percentage 96.59% 3.41% 0.00%  
 AM Peak 7:45 AM 9:00 AM 12:00 AM 7:45 AM  
 Volume 351 11 0 357

PM Total 1516 31 3 1550  
 Percentage 97.81% 2.00% 0.19%  
 PM Peak 5:00 PM 1:30 PM 1:00 PM 5:00 PM  
 Volume 186 10 2 187

Day Total 2991 83 3 3077  
 Percentage 97.21% 2.70% 0.10%

Central Street between  
 Oford Street and Cambria Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA



46 Morton Street, Framingham, MA 01702  
 Office: 508-875-0100 Fax: 508-875-0118  
 Email: datarequests@pdilic.com

PDI File # 197355 ATR-A

Direction: NB

Weekly Report

Day Date	Tuesday 12/10/19		Wednesday 12/11/19												Week Ave	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	19	79	24	90	0	0	0	0	0	0	0	0	0	0	22	85
12:15	16	74	15	72	0	0	0	0	0	0	0	0	0	0	16	73
12:30	16	71	11	46	0	0	0	0	0	0	0	0	0	0	14	59
12:45	5	70	7	70	0	0	0	0	0	0	0	0	0	0	6	70
1:00	12	70	5	64	0	0	0	0	0	0	0	0	0	0	9	67
1:15	7	82	10	78	0	0	0	0	0	0	0	0	0	0	9	80
1:30	4	95	5	88	0	0	0	0	0	0	0	0	0	0	5	92
1:45	5	83	5	82	0	0	0	0	0	0	0	0	0	0	5	83
2:00	3	80	4	88	0	0	0	0	0	0	0	0	0	0	4	84
2:15	7	98	3	95	0	0	0	0	0	0	0	0	0	0	5	97
2:30	6	110	1	78	0	0	0	0	0	0	0	0	0	0	4	94
2:45	2	102	4	87	0	0	0	0	0	0	0	0	0	0	3	95
3:00	1	98	0	103	0	0	0	0	0	0	0	0	0	0	1	101
3:15	2	111	4	95	0	0	0	0	0	0	0	0	0	0	3	103
3:30	3	113	3	78	0	0	0	0	0	0	0	0	0	0	3	96
3:45	6	94	6	110	0	0	0	0	0	0	0	0	0	0	6	102
4:00	5	105	3	104	0	0	0	0	0	0	0	0	0	0	4	105
4:15	3	93	2	119	0	0	0	0	0	0	0	0	0	0	3	106
4:30	2	94	4	95	0	0	0	0	0	0	0	0	0	0	3	95
4:45	7	108	5	107	0	0	0	0	0	0	0	0	0	0	6	108
5:00	4	112	7	99	0	0	0	0	0	0	0	0	0	0	6	106
5:15	7	108	6	105	0	0	0	0	0	0	0	0	0	0	7	107
5:30	11	84	8	100	0	0	0	0	0	0	0	0	0	0	10	92
5:45	5	109	7	103	0	0	0	0	0	0	0	0	0	0	6	106
6:00	16	108	18	114	0	0	0	0	0	0	0	0	0	0	17	111
6:15	27	101	26	97	0	0	0	0	0	0	0	0	0	0	27	99
6:30	28	89	16	94	0	0	0	0	0	0	0	0	0	0	22	92
6:45	32	79	46	72	0	0	0	0	0	0	0	0	0	0	39	76
7:00	51	80	34	79	0	0	0	0	0	0	0	0	0	0	43	80
7:15	50	83	48	83	0	0	0	0	0	0	0	0	0	0	49	83
7:30	52	83	48	69	0	0	0	0	0	0	0	0	0	0	50	76
7:45	49	84	57	68	0	0	0	0	0	0	0	0	0	0	53	76
8:00	72	63	64	76	0	0	0	0	0	0	0	0	0	0	68	70
8:15	63	70	49	58	0	0	0	0	0	0	0	0	0	0	56	64
8:30	43	67	57	64	0	0	0	0	0	0	0	0	0	0	50	66
8:45	45	46	63	58	0	0	0	0	0	0	0	0	0	0	54	52
9:00	58	69	62	54	0	0	0	0	0	0	0	0	0	0	60	62
9:15	60	57	46	52	0	0	0	0	0	0	0	0	0	0	53	55
9:30	45	64	44	52	0	0	0	0	0	0	0	0	0	0	45	58
9:45	68	62	51	52	0	0	0	0	0	0	0	0	0	0	60	57
10:00	65	42	60	55	0	0	0	0	0	0	0	0	0	0	63	49
10:15	67	48	58	47	0	0	0	0	0	0	0	0	0	0	63	48
10:30	61	34	68	38	0	0	0	0	0	0	0	0	0	0	65	36
10:45	64	35	56	45	0	0	0	0	0	0	0	0	0	0	60	40
11:00	58	34	69	37	0	0	0	0	0	0	0	0	0	0	64	36
11:15	74	30	42	36	0	0	0	0	0	0	0	0	0	0	58	33
11:30	66	26	65	35	0	0	0	0	0	0	0	0	0	0	66	31
11:45	71	19	79	18	0	0	0	0	0	0	0	0	0	0	75	19
<b>Total</b>	<b>1443</b>	<b>3716</b>	<b>1375</b>	<b>3609</b>	<b>0</b>	0	0	0	0	0	0	0	0	0	<b>1409</b>	<b>3663</b>
<b>Day Total</b>	<b>5159</b>		<b>4984</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>5072</b>	
<b>Peak HR</b>	<b>11:00 AM</b>	<b>2:45 PM</b>	<b>11:00 AM</b>	<b>3:45 PM</b>												
<b>Volume</b>	<b>269</b>	<b>424</b>	<b>255</b>	<b>428</b>												
															<b>11:00 AM</b>	<b>5:15 PM</b>
															<b>262</b>	<b>416</b>

Central Street between  
 Oford Street and Cambria Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA



46 Morton Street, Framingham, MA 01702  
 Office: 508-875-0100 Fax: 508-875-0118  
 Email: datarequests@pdilic.com

PDI File # 197355 ATR-A

Direction: SB

Weekly Report

Day Date	Tuesday 12/10/19		Wednesday 12/11/19												Week Ave	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	11	30	9	43	0	0	0	0	0	0	0	0	0	0	10	37
12:15	5	37	6	47	0	0	0	0	0	0	0	0	0	0	6	42
12:30	2	36	6	40	0	0	0	0	0	0	0	0	0	0	4	38
12:45	6	36	5	47	0	0	0	0	0	0	0	0	0	0	6	42
1:00	3	35	6	41	0	0	0	0	0	0	0	0	0	0	5	38
1:15	3	41	4	33	0	0	0	0	0	0	0	0	0	0	4	37
1:30	4	40	0	34	0	0	0	0	0	0	0	0	0	0	2	37
1:45	4	41	3	39	0	0	0	0	0	0	0	0	0	0	4	40
2:00	2	46	1	36	0	0	0	0	0	0	0	0	0	0	2	41
2:15	1	43	1	42	0	0	0	0	0	0	0	0	0	0	1	43
2:30	1	45	1	54	0	0	0	0	0	0	0	0	0	0	1	50
2:45	2	54	1	29	0	0	0	0	0	0	0	0	0	0	2	42
3:00	0	47	1	49	0	0	0	0	0	0	0	0	0	0	1	48
3:15	2	56	2	36	0	0	0	0	0	0	0	0	0	0	2	46
3:30	1	35	4	43	0	0	0	0	0	0	0	0	0	0	3	39
3:45	1	35	1	41	0	0	0	0	0	0	0	0	0	0	1	38
4:00	6	38	3	50	0	0	0	0	0	0	0	0	0	0	5	44
4:15	2	32	4	42	0	0	0	0	0	0	0	0	0	0	3	37
4:30	3	36	5	39	0	0	0	0	0	0	0	0	0	0	4	38
4:45	9	39	5	41	0	0	0	0	0	0	0	0	0	0	7	40
5:00	13	44	8	49	0	0	0	0	0	0	0	0	0	0	11	47
5:15	8	53	10	46	0	0	0	0	0	0	0	0	0	0	9	50
5:30	11	45	15	48	0	0	0	0	0	0	0	0	0	0	13	47
5:45	15	48	12	44	0	0	0	0	0	0	0	0	0	0	14	46
6:00	28	50	22	38	0	0	0	0	0	0	0	0	0	0	25	44
6:15	31	53	28	36	0	0	0	0	0	0	0	0	0	0	30	45
6:30	43	42	43	40	0	0	0	0	0	0	0	0	0	0	43	41
6:45	70	40	51	32	0	0	0	0	0	0	0	0	0	0	61	36
7:00	67	37	51	37	0	0	0	0	0	0	0	0	0	0	59	37
7:15	84	34	69	35	0	0	0	0	0	0	0	0	0	0	77	35
7:30	76	33	82	29	0	0	0	0	0	0	0	0	0	0	79	31
7:45	94	28	90	28	0	0	0	0	0	0	0	0	0	0	92	28
8:00	88	30	91	20	0	0	0	0	0	0	0	0	0	0	90	25
8:15	86	23	80	21	0	0	0	0	0	0	0	0	0	0	83	22
8:30	103	24	96	19	0	0	0	0	0	0	0	0	0	0	100	22
8:45	99	21	80	28	0	0	0	0	0	0	0	0	0	0	90	25
9:00	85	26	84	18	0	0	0	0	0	0	0	0	0	0	85	22
9:15	56	20	56	15	0	0	0	0	0	0	0	0	0	0	56	18
9:30	50	27	59	17	0	0	0	0	0	0	0	0	0	0	55	22
9:45	69	10	85	19	0	0	0	0	0	0	0	0	0	0	77	15
10:00	63	17	53	14	0	0	0	0	0	0	0	0	0	0	58	16
10:15	54	3	62	20	0	0	0	0	0	0	0	0	0	0	58	12
10:30	44	9	36	12	0	0	0	0	0	0	0	0	0	0	40	11
10:45	43	10	31	16	0	0	0	0	0	0	0	0	0	0	37	13
11:00	43	3	43	9	0	0	0	0	0	0	0	0	0	0	43	6
11:15	37	14	38	17	0	0	0	0	0	0	0	0	0	0	38	16
11:30	28	7	35	12	0	0	0	0	0	0	0	0	0	0	32	10
11:45	30	5	49	5	0	0	0	0	0	0	0	0	0	0	40	5
<b>Total</b>	<b>1586</b>	<b>1558</b>	<b>1527</b>	<b>1550</b>	<b>0</b>	0	0	0	0	0	0	0	0	0	<b>1557</b>	<b>1554</b>
<b>Day Total</b>	<b>3144</b>		<b>3077</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>3111</b>	
<b>Peak HR</b>	<b>8:00 AM</b>	<b>2:30 PM</b>	<b>7:45 AM</b>	<b>5:00 PM</b>												
<b>Volume</b>	<b>376</b>	<b>202</b>	<b>357</b>	<b>187</b>												
															<b>7:45 AM</b>	<b>5:00 PM</b>
															<b>364</b>	<b>189</b>

Highland Avenue between  
 Central Street and Sycamore Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA



PDI File # 197355 ATR-B

Count Date: Tuesday, December 10, 2019  
 Direction: EB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	14	0	0	14
12:15 AM	14	0	0	14
12:30 AM	11	0	0	11
12:45 AM	15	1	0	16
1:00 AM	4	1	0	5
1:15 AM	8	0	0	8
1:30 AM	5	0	0	5
1:45 AM	4	0	0	4
2:00 AM	8	0	0	8
2:15 AM	5	1	0	6
2:30 AM	5	1	0	6
2:45 AM	1	0	0	1
3:00 AM	4	1	0	5
3:15 AM	1	0	0	1
3:30 AM	5	2	0	7
3:45 AM	3	0	0	3
4:00 AM	5	1	0	6
4:15 AM	6	0	0	6
4:30 AM	3	1	0	4
4:45 AM	11	1	0	12
5:00 AM	14	1	1	16
5:15 AM	31	1	0	32
5:30 AM	37	5	0	42
5:45 AM	31	3	0	34
6:00 AM	44	2	0	46
6:15 AM	77	2	0	79
6:30 AM	103	1	0	104
6:45 AM	98	4	0	102
7:00 AM	107	4	0	111
7:15 AM	103	4	1	108
7:30 AM	108	2	0	110
7:45 AM	93	8	0	101
8:00 AM	101	9	0	110
8:15 AM	90	2	0	92
8:30 AM	91	6	0	97
8:45 AM	68	4	0	72
9:00 AM	99	5	0	104
9:15 AM	97	4	0	101
9:30 AM	75	6	0	81
9:45 AM	118	1	0	119
10:00 AM	85	6	0	91
10:15 AM	99	4	0	103
10:30 AM	75	4	2	81
10:45 AM	103	5	1	109
11:00 AM	78	5	2	85
11:15 AM	77	7	0	84
11:30 AM	83	5	0	88
11:45 AM	83	7	2	92

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	91	5	0	96
12:15 PM	76	5	1	82
12:30 PM	89	5	0	94
12:45 PM	68	9	0	77
1:00 PM	78	6	1	85
1:15 PM	90	7	0	97
1:30 PM	74	2	1	77
1:45 PM	76	4	0	80
2:00 PM	78	5	2	85
2:15 PM	84	7	0	91
2:30 PM	85	4	0	89
2:45 PM	88	8	0	96
3:00 PM	93	5	0	98
3:15 PM	85	1	0	86
3:30 PM	90	3	0	93
3:45 PM	68	5	1	74
4:00 PM	96	2	0	98
4:15 PM	102	4	0	106
4:30 PM	110	1	0	111
4:45 PM	112	3	0	115
5:00 PM	106	2	0	108
5:15 PM	95	0	0	95
5:30 PM	93	1	0	94
5:45 PM	87	1	0	88
6:00 PM	97	1	0	98
6:15 PM	93	1	0	94
6:30 PM	74	2	0	76
6:45 PM	89	3	0	92
7:00 PM	76	2	0	78
7:15 PM	96	0	0	96
7:30 PM	76	1	0	77
7:45 PM	60	1	0	61
8:00 PM	56	1	0	57
8:15 PM	50	6	0	56
8:30 PM	50	0	0	50
8:45 PM	63	0	0	63
9:00 PM	42	1	0	43
9:15 PM	68	1	0	69
9:30 PM	57	1	0	58
9:45 PM	55	3	0	58
10:00 PM	47	1	0	48
10:15 PM	39	1	0	40
10:30 PM	41	1	0	42
10:45 PM	37	2	0	39
11:00 PM	34	0	0	34
11:15 PM	33	0	0	33
11:30 PM	18	1	0	19
11:45 PM	18	1	0	19

AM Total 2400 127 9 2536  
 Percentage 94.64% 5.01% 0.35%  
 AM Peak 6:45 AM 7:45 AM 10:15 AM 6:45 AM  
 Volume 416 25 5 431

PM Total 3483 126 6 3615  
 Percentage 96.35% 3.49% 0.17%  
 PM Peak 4:15 PM 12:30 PM 1:15 PM 4:15 PM  
 Volume 430 27 3 440

Day Total 5883 253 15 6151  
 Percentage 95.64% 4.11% 0.24%

Highland Avenue between  
Central Street and Sycamore Street  
City, State: Somerville, MA  
Client: DCI/ S. Siragusa  
Site Code: TBA



PDI File # 197355 ATR-B

Count Date: Wednesday, December 11, 2019  
Direction: EB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	13	0	0	13
12:15 AM	13	1	0	14
12:30 AM	12	2	0	14
12:45 AM	13	1	0	14
1:00 AM	9	1	0	10
1:15 AM	13	0	0	13
1:30 AM	12	0	0	12
1:45 AM	2	0	0	2
2:00 AM	2	1	0	3
2:15 AM	9	0	0	9
2:30 AM	4	0	0	4
2:45 AM	3	0	0	3
3:00 AM	5	0	0	5
3:15 AM	0	1	0	1
3:30 AM	1	1	0	2
3:45 AM	6	0	0	6
4:00 AM	2	1	0	3
4:15 AM	4	1	0	5
4:30 AM	6	3	0	9
4:45 AM	10	0	0	10
5:00 AM	9	2	0	11
5:15 AM	16	1	0	17
5:30 AM	17	3	0	20
5:45 AM	40	1	0	41
6:00 AM	48	2	0	50
6:15 AM	75	1	0	76
6:30 AM	91	3	0	94
6:45 AM	107	0	1	108
7:00 AM	107	2	0	109
7:15 AM	123	4	0	127
7:30 AM	114	7	0	121
7:45 AM	101	4	0	105
8:00 AM	111	4	0	115
8:15 AM	104	4	0	108
8:30 AM	101	4	1	106
8:45 AM	101	6	1	108
9:00 AM	83	6	0	89
9:15 AM	77	7	0	84
9:30 AM	111	7	0	118
9:45 AM	101	2	0	103
10:00 AM	73	4	0	77
10:15 AM	85	3	0	88
10:30 AM	92	7	1	100
10:45 AM	64	8	0	72
11:00 AM	73	5	0	78
11:15 AM	86	7	0	93
11:30 AM	73	6	0	79
11:45 AM	101	7	0	108

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	92	2	1	95
12:15 PM	64	8	0	72
12:30 PM	66	6	0	72
12:45 PM	68	3	1	72
1:00 PM	72	4	0	76
1:15 PM	80	7	1	88
1:30 PM	74	2	0	76
1:45 PM	73	11	0	84
2:00 PM	62	5	0	67
2:15 PM	88	5	0	93
2:30 PM	68	4	0	72
2:45 PM	88	6	0	94
3:00 PM	107	5	0	112
3:15 PM	72	2	0	74
3:30 PM	86	9	1	96
3:45 PM	90	6	0	96
4:00 PM	95	1	0	96
4:15 PM	101	4	0	105
4:30 PM	84	0	0	84
4:45 PM	86	6	0	92
5:00 PM	101	2	0	103
5:15 PM	96	2	0	98
5:30 PM	89	3	0	92
5:45 PM	94	2	0	96
6:00 PM	108	5	0	113
6:15 PM	93	2	0	95
6:30 PM	106	3	0	109
6:45 PM	93	3	0	96
7:00 PM	76	2	0	78
7:15 PM	82	1	0	83
7:30 PM	78	3	0	81
7:45 PM	76	2	0	78
8:00 PM	79	4	0	83
8:15 PM	65	3	0	68
8:30 PM	54	1	0	55
8:45 PM	63	2	0	65
9:00 PM	59	0	0	59
9:15 PM	53	2	0	55
9:30 PM	49	1	0	50
9:45 PM	61	3	0	64
10:00 PM	38	0	0	38
10:15 PM	52	2	0	54
10:30 PM	34	0	0	34
10:45 PM	40	1	0	41
11:00 PM	42	1	0	43
11:15 PM	24	1	0	25
11:30 PM	24	1	0	25
11:45 PM	27	1	0	28

AM Total 2423 130 4 2557  
 Percentage 94.76% 5.08% 0.16%  
 AM Peak 6:45 AM 10:30 AM 8:00 AM 7:15 AM  
 Volume 451 27 2 468

PM Total 3472 149 4 3625  
 Percentage 95.78% 4.11% 0.11%  
 PM Peak 5:45 PM 1:15 PM 12:00 PM 5:45 PM  
 Volume 401 25 2 413

Day Total 5895 279 8 6182  
 Percentage 95.36% 4.51% 0.13%

Highland Avenue between  
 Central Street and Sycamore Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA



PDI File # 197355 ATR-B

Count Date: Tuesday, December 10, 2019  
 Direction: WB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	6	0	0	6
12:15 AM	10	1	0	11
12:30 AM	6	0	0	6
12:45 AM	10	1	0	11
1:00 AM	8	0	0	8
1:15 AM	8	1	0	9
1:30 AM	6	1	0	7
1:45 AM	3	0	0	3
2:00 AM	3	2	0	5
2:15 AM	5	0	0	5
2:30 AM	4	0	0	4
2:45 AM	2	0	0	2
3:00 AM	5	0	0	5
3:15 AM	3	3	0	6
3:30 AM	2	0	0	2
3:45 AM	4	0	0	4
4:00 AM	2	0	0	2
4:15 AM	2	1	0	3
4:30 AM	11	0	0	11
4:45 AM	5	0	0	5
5:00 AM	8	5	0	13
5:15 AM	12	2	0	14
5:30 AM	18	3	0	21
5:45 AM	14	3	0	17
6:00 AM	26	1	0	27
6:15 AM	31	3	0	34
6:30 AM	35	6	0	41
6:45 AM	30	7	0	37
7:00 AM	50	11	0	61
7:15 AM	53	2	0	55
7:30 AM	55	4	0	59
7:45 AM	77	1	0	78
8:00 AM	52	4	0	56
8:15 AM	38	3	0	41
8:30 AM	55	2	0	57
8:45 AM	60	4	0	64
9:00 AM	48	4	0	52
9:15 AM	45	1	0	46
9:30 AM	60	3	0	63
9:45 AM	64	2	0	66
10:00 AM	48	7	0	55
10:15 AM	61	3	0	64
10:30 AM	72	2	0	74
10:45 AM	60	5	1	66
11:00 AM	56	6	0	62
11:15 AM	43	3	1	47
11:30 AM	65	7	1	73
11:45 AM	53	5	0	58

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	60	5	0	65
12:15 PM	65	4	0	69
12:30 PM	57	5	0	62
12:45 PM	65	6	0	71
1:00 PM	48	3	0	51
1:15 PM	69	2	0	71
1:30 PM	61	4	0	65
1:45 PM	71	3	0	74
2:00 PM	69	7	0	76
2:15 PM	87	1	0	88
2:30 PM	70	7	0	77
2:45 PM	72	3	0	75
3:00 PM	92	3	0	95
3:15 PM	89	5	0	94
3:30 PM	85	2	0	87
3:45 PM	92	2	0	94
4:00 PM	100	3	0	103
4:15 PM	89	2	0	91
4:30 PM	103	3	0	106
4:45 PM	99	2	0	101
5:00 PM	90	2	0	92
5:15 PM	87	2	0	89
5:30 PM	95	1	0	96
5:45 PM	90	3	0	93
6:00 PM	92	2	0	94
6:15 PM	113	1	0	114
6:30 PM	86	0	0	86
6:45 PM	84	3	0	87
7:00 PM	79	1	0	80
7:15 PM	82	2	0	84
7:30 PM	73	0	0	73
7:45 PM	68	4	0	72
8:00 PM	78	0	0	78
8:15 PM	60	0	0	60
8:30 PM	58	2	0	60
8:45 PM	69	1	0	70
9:00 PM	58	0	0	58
9:15 PM	59	2	0	61
9:30 PM	47	0	0	47
9:45 PM	48	1	0	49
10:00 PM	45	0	0	45
10:15 PM	31	2	1	34
10:30 PM	39	0	0	39
10:45 PM	39	1	0	40
11:00 PM	30	1	0	31
11:15 PM	19	1	0	20
11:30 PM	26	0	0	26
11:45 PM	22	1	0	23

AM Total 1394 119 3 1516  
 Percentage 91.95% 7.85% 0.20%  
 AM Peak 10:15 AM 6:15 AM 10:45 AM 10:15 AM  
 Volume 249 27 3 266

PM Total 3310 105 1 3416  
 Percentage 96.90% 3.07% 0.03%  
 PM Peak 4:00 PM 12:00 PM 9:30 PM 4:00 PM  
 Volume 391 20 1 401

Day Total 4704 224 4 4932  
 Percentage 95.38% 4.54% 0.08%

Highland Avenue between  
 Central Street and Sycamore Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA



PDI File # 197355 ATR-B

Count Date: Wednesday, December 11, 2019  
 Direction: WB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	14	0	0	14
12:15 AM	9	1	0	10
12:30 AM	11	1	0	12
12:45 AM	9	2	0	11
1:00 AM	9	1	0	10
1:15 AM	7	1	0	8
1:30 AM	4	0	0	4
1:45 AM	2	2	0	4
2:00 AM	8	0	0	8
2:15 AM	1	0	0	1
2:30 AM	4	0	0	4
2:45 AM	1	0	0	1
3:00 AM	1	0	0	1
3:15 AM	1	0	0	1
3:30 AM	5	1	0	6
3:45 AM	6	0	0	6
4:00 AM	4	2	0	6
4:15 AM	5	3	0	8
4:30 AM	4	2	0	6
4:45 AM	6	2	0	8
5:00 AM	6	5	0	11
5:15 AM	8	3	0	11
5:30 AM	15	2	0	17
5:45 AM	14	5	0	19
6:00 AM	19	0	0	19
6:15 AM	21	3	0	24
6:30 AM	28	3	0	31
6:45 AM	40	8	0	48
7:00 AM	38	4	0	42
7:15 AM	47	4	0	51
7:30 AM	64	2	1	67
7:45 AM	79	2	0	81
8:00 AM	61	4	0	65
8:15 AM	47	5	0	52
8:30 AM	59	3	0	62
8:45 AM	41	6	0	47
9:00 AM	59	4	1	64
9:15 AM	41	4	0	45
9:30 AM	64	6	0	70
9:45 AM	35	2	1	38
10:00 AM	52	5	0	57
10:15 AM	53	6	0	59
10:30 AM	40	5	1	46
10:45 AM	68	6	0	74
11:00 AM	36	3	0	39
11:15 AM	54	3	0	57
11:30 AM	61	5	0	66
11:45 AM	63	3	0	66

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	45	4	0	49
12:15 PM	47	2	1	50
12:30 PM	53	5	0	58
12:45 PM	62	3	0	65
1:00 PM	82	2	2	86
1:15 PM	65	2	0	67
1:30 PM	69	4	0	73
1:45 PM	54	2	1	57
2:00 PM	61	4	0	65
2:15 PM	71	1	0	72
2:30 PM	77	5	0	82
2:45 PM	91	5	0	96
3:00 PM	90	4	1	95
3:15 PM	89	3	1	93
3:30 PM	79	4	0	83
3:45 PM	102	3	0	105
4:00 PM	95	3	0	98
4:15 PM	94	4	0	98
4:30 PM	101	3	0	104
4:45 PM	94	1	0	95
5:00 PM	107	3	0	110
5:15 PM	108	2	0	110
5:30 PM	112	4	0	116
5:45 PM	77	2	0	79
6:00 PM	85	1	0	86
6:15 PM	74	1	1	76
6:30 PM	68	1	0	69
6:45 PM	82	2	0	84
7:00 PM	73	2	0	75
7:15 PM	69	2	0	71
7:30 PM	54	2	0	56
7:45 PM	79	1	0	80
8:00 PM	63	2	0	65
8:15 PM	57	1	0	58
8:30 PM	66	2	0	68
8:45 PM	50	1	0	51
9:00 PM	44	1	0	45
9:15 PM	48	2	0	50
9:30 PM	49	1	0	50
9:45 PM	57	1	0	58
10:00 PM	57	0	0	57
10:15 PM	45	3	0	48
10:30 PM	37	0	0	37
10:45 PM	34	1	0	35
11:00 PM	37	0	0	37
11:15 PM	36	1	0	37
11:30 PM	18	0	0	18
11:45 PM	20	1	0	21

AM Total 1324 129 4 1457  
 Percentage 90.87% 8.85% 0.27%  
 AM Peak 7:15 AM 10:00 AM 9:00 AM 7:30 AM  
 Volume 251 22 2 265

PM Total 3227 104 7 3338  
 Percentage 96.67% 3.12% 0.21%  
 PM Peak 4:45 PM 2:30 PM 12:15 PM 4:45 PM  
 Volume 421 17 3 431

Day Total 4551 233 11 4795  
 Percentage 94.91% 4.86% 0.23%

Highland Avenue between  
 Central Street and Sycamore Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA



46 Morton Street, Framingham, MA 01702  
 Office: 508-875-0100 Fax: 508-875-0118  
 Email: datarequests@pdilic.com

PDI File # 197355 ATR-B

Direction: EB

Weekly Report

Day Date	Tuesday 12/10/19		Wednesday 12/11/19												Week Ave	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	14	96	13	95	0	0	0	0	0	0	0	0	0	0	14	96
12:15	14	82	14	72	0	0	0	0	0	0	0	0	0	0	14	77
12:30	11	94	14	72	0	0	0	0	0	0	0	0	0	0	13	83
12:45	16	77	14	72	0	0	0	0	0	0	0	0	0	0	15	75
1:00	5	85	10	76	0	0	0	0	0	0	0	0	0	0	8	81
1:15	8	97	13	88	0	0	0	0	0	0	0	0	0	0	11	93
1:30	5	77	12	76	0	0	0	0	0	0	0	0	0	0	9	77
1:45	4	80	2	84	0	0	0	0	0	0	0	0	0	0	3	82
2:00	8	85	3	67	0	0	0	0	0	0	0	0	0	0	6	76
2:15	6	91	9	93	0	0	0	0	0	0	0	0	0	0	8	92
2:30	6	89	4	72	0	0	0	0	0	0	0	0	0	0	5	81
2:45	1	96	3	94	0	0	0	0	0	0	0	0	0	0	2	95
3:00	5	98	5	112	0	0	0	0	0	0	0	0	0	0	5	105
3:15	1	86	1	74	0	0	0	0	0	0	0	0	0	0	1	80
3:30	7	93	2	96	0	0	0	0	0	0	0	0	0	0	5	95
3:45	3	74	6	96	0	0	0	0	0	0	0	0	0	0	5	85
4:00	6	98	3	96	0	0	0	0	0	0	0	0	0	0	5	97
4:15	6	106	5	105	0	0	0	0	0	0	0	0	0	0	6	106
4:30	4	111	9	84	0	0	0	0	0	0	0	0	0	0	7	98
4:45	12	115	10	92	0	0	0	0	0	0	0	0	0	0	11	104
5:00	16	108	11	103	0	0	0	0	0	0	0	0	0	0	14	106
5:15	32	95	17	98	0	0	0	0	0	0	0	0	0	0	25	97
5:30	42	94	20	92	0	0	0	0	0	0	0	0	0	0	31	93
5:45	34	88	41	96	0	0	0	0	0	0	0	0	0	0	38	92
6:00	46	98	50	113	0	0	0	0	0	0	0	0	0	0	48	106
6:15	79	94	76	95	0	0	0	0	0	0	0	0	0	0	78	95
6:30	104	76	94	109	0	0	0	0	0	0	0	0	0	0	99	93
6:45	102	92	108	96	0	0	0	0	0	0	0	0	0	0	105	94
7:00	111	78	109	78	0	0	0	0	0	0	0	0	0	0	110	78
7:15	108	96	127	83	0	0	0	0	0	0	0	0	0	0	118	90
7:30	110	77	121	81	0	0	0	0	0	0	0	0	0	0	116	79
7:45	101	61	105	78	0	0	0	0	0	0	0	0	0	0	103	70
8:00	110	57	115	83	0	0	0	0	0	0	0	0	0	0	113	70
8:15	92	56	108	68	0	0	0	0	0	0	0	0	0	0	100	62
8:30	97	50	106	55	0	0	0	0	0	0	0	0	0	0	102	53
8:45	72	63	108	65	0	0	0	0	0	0	0	0	0	0	90	64
9:00	104	43	89	59	0	0	0	0	0	0	0	0	0	0	97	51
9:15	101	69	84	55	0	0	0	0	0	0	0	0	0	0	93	62
9:30	81	58	118	50	0	0	0	0	0	0	0	0	0	0	100	54
9:45	119	58	103	64	0	0	0	0	0	0	0	0	0	0	111	61
10:00	91	48	77	38	0	0	0	0	0	0	0	0	0	0	84	43
10:15	103	40	88	54	0	0	0	0	0	0	0	0	0	0	96	47
10:30	81	42	100	34	0	0	0	0	0	0	0	0	0	0	91	38
10:45	109	39	72	41	0	0	0	0	0	0	0	0	0	0	91	40
11:00	85	34	78	43	0	0	0	0	0	0	0	0	0	0	82	39
11:15	84	33	93	25	0	0	0	0	0	0	0	0	0	0	89	29
11:30	88	19	79	25	0	0	0	0	0	0	0	0	0	0	84	22
11:45	92	19	108	28	0	0	0	0	0	0	0	0	0	0	100	24
<b>Total</b>	<b>2536</b>	<b>3615</b>	<b>2557</b>	<b>3625</b>	<b>0</b>	0	0	0	0	0	0	0	0	0	<b>2547</b>	<b>3620</b>
<b>Day Total</b>	<b>6151</b>		<b>6182</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>6167</b>	
<b>Peak HR</b>	<b>6:45 AM</b>	<b>4:15 PM</b>	<b>7:15 AM</b>	<b>5:45 PM</b>												
<b>Volume</b>	<b>431</b>	<b>440</b>	<b>468</b>	<b>413</b>												
															<b>7:15 AM</b>	<b>4:15 PM</b>
															<b>449</b>	<b>412</b>

Highland Avenue between  
 Central Street and Sycamore Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA



46 Morton Street, Framingham, MA 01702  
 Office: 508-875-0100 Fax: 508-875-0118  
 Email: datarequests@pdilic.com

PDI File # 197355 ATR-B

Direction: WB

Weekly Report

Day Date	Tuesday 12/10/19		Wednesday 12/11/19												Week Ave	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	6	65	14	49	0	0	0	0	0	0	0	0	0	0	10	57
12:15	11	69	10	50	0	0	0	0	0	0	0	0	0	0	11	60
12:30	6	62	12	58	0	0	0	0	0	0	0	0	0	0	9	60
12:45	11	71	11	65	0	0	0	0	0	0	0	0	0	0	11	68
1:00	8	51	10	86	0	0	0	0	0	0	0	0	0	0	9	69
1:15	9	71	8	67	0	0	0	0	0	0	0	0	0	0	9	69
1:30	7	65	4	73	0	0	0	0	0	0	0	0	0	0	6	69
1:45	3	74	4	57	0	0	0	0	0	0	0	0	0	0	4	66
2:00	5	76	8	65	0	0	0	0	0	0	0	0	0	0	7	71
2:15	5	88	1	72	0	0	0	0	0	0	0	0	0	0	3	80
2:30	4	77	4	82	0	0	0	0	0	0	0	0	0	0	4	80
2:45	2	75	1	96	0	0	0	0	0	0	0	0	0	0	2	86
3:00	5	95	1	95	0	0	0	0	0	0	0	0	0	0	3	95
3:15	6	94	1	93	0	0	0	0	0	0	0	0	0	0	4	94
3:30	2	87	6	83	0	0	0	0	0	0	0	0	0	0	4	85
3:45	4	94	6	105	0	0	0	0	0	0	0	0	0	0	5	100
4:00	2	103	6	98	0	0	0	0	0	0	0	0	0	0	4	101
4:15	3	91	8	98	0	0	0	0	0	0	0	0	0	0	6	95
4:30	11	106	6	104	0	0	0	0	0	0	0	0	0	0	9	105
4:45	5	101	8	95	0	0	0	0	0	0	0	0	0	0	7	98
5:00	13	92	11	110	0	0	0	0	0	0	0	0	0	0	12	101
5:15	14	89	11	110	0	0	0	0	0	0	0	0	0	0	13	100
5:30	21	96	17	116	0	0	0	0	0	0	0	0	0	0	19	106
5:45	17	93	19	79	0	0	0	0	0	0	0	0	0	0	18	86
6:00	27	94	19	86	0	0	0	0	0	0	0	0	0	0	23	90
6:15	34	114	24	76	0	0	0	0	0	0	0	0	0	0	29	95
6:30	41	86	31	69	0	0	0	0	0	0	0	0	0	0	36	78
6:45	37	87	48	84	0	0	0	0	0	0	0	0	0	0	43	86
7:00	61	80	42	75	0	0	0	0	0	0	0	0	0	0	52	78
7:15	55	84	51	71	0	0	0	0	0	0	0	0	0	0	53	78
7:30	59	73	67	56	0	0	0	0	0	0	0	0	0	0	63	65
7:45	78	72	81	80	0	0	0	0	0	0	0	0	0	0	80	76
8:00	56	78	65	65	0	0	0	0	0	0	0	0	0	0	61	72
8:15	41	60	52	58	0	0	0	0	0	0	0	0	0	0	47	59
8:30	57	60	62	68	0	0	0	0	0	0	0	0	0	0	60	64
8:45	64	70	47	51	0	0	0	0	0	0	0	0	0	0	56	61
9:00	52	58	64	45	0	0	0	0	0	0	0	0	0	0	58	52
9:15	46	61	45	50	0	0	0	0	0	0	0	0	0	0	46	56
9:30	63	47	70	50	0	0	0	0	0	0	0	0	0	0	67	49
9:45	66	49	38	58	0	0	0	0	0	0	0	0	0	0	52	54
10:00	55	45	57	57	0	0	0	0	0	0	0	0	0	0	56	51
10:15	64	34	59	48	0	0	0	0	0	0	0	0	0	0	62	41
10:30	74	39	46	37	0	0	0	0	0	0	0	0	0	0	60	38
10:45	66	40	74	35	0	0	0	0	0	0	0	0	0	0	70	38
11:00	62	31	39	37	0	0	0	0	0	0	0	0	0	0	51	34
11:15	47	20	57	37	0	0	0	0	0	0	0	0	0	0	52	29
11:30	73	26	66	18	0	0	0	0	0	0	0	0	0	0	70	22
11:45	58	23	66	21	0	0	0	0	0	0	0	0	0	0	62	22
<b>Total</b>	<b>1516</b>	<b>3416</b>	<b>1457</b>	<b>3338</b>	<b>0</b>	0	0	0	0	0	0	0	0	0	<b>1487</b>	<b>3377</b>
<b>Day Total</b>	<b>4932</b>		<b>4795</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>4864</b>	
<b>Peak HR</b>	<b>10:15 AM</b>	<b>4:00 PM</b>	<b>7:30 AM</b>	<b>4:45 PM</b>												
<b>Volume</b>	<b>266</b>	<b>401</b>	<b>265</b>	<b>431</b>												
															<b>7:15 AM</b>	<b>4:45 PM</b>
															<b>256</b>	<b>405</b>

PDI File #: **197355 A**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	22	58	13	0	93	2	55	5	0	62	15	36	5	0	56	5	85	10	0	100	311
7:15 AM	22	63	12	0	97	7	48	0	0	55	10	35	2	0	47	6	86	1	0	93	292
7:30 AM	17	48	15	0	80	7	50	2	0	59	13	41	6	0	60	8	81	10	0	99	298
7:45 AM	33	76	13	0	122	9	62	6	0	77	15	32	5	0	52	5	74	7	0	86	337
<b>Total</b>	94	245	53	0	392	25	215	13	0	253	53	144	18	0	215	24	326	28	0	378	1238
8:00 AM	21	68	11	0	100	8	46	5	0	59	13	58	8	0	79	7	94	14	0	115	353
8:15 AM	18	63	11	0	92	3	37	1	0	41	8	54	5	0	67	9	75	6	0	90	290
8:30 AM	23	66	16	0	105	5	45	7	0	57	6	31	5	0	42	15	77	4	0	96	300
8:45 AM	16	71	12	0	99	5	55	4	0	64	6	36	9	0	51	15	56	4	0	75	289
<b>Total</b>	78	268	50	0	396	21	183	17	0	221	33	179	27	0	239	46	302	28	0	376	1232
Grand Total	172	513	103	0	788	46	398	30	0	474	86	323	45	0	454	70	628	56	0	754	2470
Approach %	21.8	65.1	13.1	0.0		9.7	84.0	6.3	0.0		18.9	71.1	9.9	0.0		9.3	83.3	7.4	0.0		
Total %	7.0	20.8	4.2	0.0	31.9	1.9	16.1	1.2	0.0	19.2	3.5	13.1	1.8	0.0	18.4	2.8	25.4	2.3	0.0	30.5	
Exiting Leg Total					425					817					613					615	2470
Cars	161	500	99	0	760	46	367	30	0	443	80	318	44	0	442	70	596	54	0	720	2365
% Cars	93.6	97.5	96.1	0.0	96.4	100.0	92.2	100.0	0.0	93.5	93.0	98.5	97.8	0.0	97.4	100.0	94.9	96.4	0.0	95.5	95.7
Exiting Leg Total					418					775					600					572	2365
Heavy Vehicles	11	13	4	0	28	0	31	0	0	31	6	5	1	0	12	0	32	2	0	34	105
% Heavy Vehicles	6.4	2.5	3.9	0.0	3.6	0.0	7.8	0.0	0.0	6.5	7.0	1.5	2.2	0.0	2.6	0.0	5.1	3.6	0.0	4.5	4.3
Exiting Leg Total					7					42					13					43	105

**Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:**

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:15 AM	22	63	12	0	97	7	48	0	0	55	10	35	2	0	47	6	86	1	0	93	292
7:30 AM	17	48	15	0	80	7	50	2	0	59	13	41	6	0	60	8	81	10	0	99	298
7:45 AM	33	76	13	0	122	9	62	6	0	77	15	32	5	0	52	5	74	7	0	86	337
8:00 AM	21	68	11	0	100	8	46	5	0	59	13	58	8	0	79	7	94	14	0	115	353
Total Volume	93	255	51	0	399	31	206	13	0	250	51	166	21	0	238	26	335	32	0	393	1280
% Approach Total	23.3	63.9	12.8	0.0		12.4	82.4	5.2	0.0		21.4	69.7	8.8	0.0		6.6	85.2	8.1	0.0		
PHF	0.705	0.839	0.850	0.000	0.818	0.861	0.831	0.542	0.000	0.812	0.850	0.716	0.656	0.000	0.753	0.813	0.891	0.571	0.000	0.854	0.907
Cars	89	251	49	0	389	31	194	13	0	238	46	164	20	0	230	26	317	30	0	373	1230
Cars %	95.7	98.4	96.1	0.0	97.5	100.0	94.2	100.0	0.0	95.2	90.2	98.8	95.2	0.0	96.6	100.0	94.6	93.8	0.0	94.9	96.1
Heavy Vehicles	4	4	2	0	10	0	12	0	0	12	5	2	1	0	8	0	18	2	0	20	50
Heavy Vehicles %	4.3	1.6	3.9	0.0	2.5	0.0	5.8	0.0	0.0	4.8	9.8	1.2	4.8	0.0	3.4	0.0	5.4	6.3	0.0	5.1	3.9
Cars Enter Leg	89	251	49	0	389	31	194	13	0	238	46	164	20	0	230	26	317	30	0	373	1230
Heavy Enter Leg	4	4	2	0	10	0	12	0	0	12	5	2	1	0	8	0	18	2	0	20	50
Total Entering Leg	93	255	51	0	399	31	206	13	0	250	51	166	21	0	238	26	335	32	0	393	1280
Cars Exiting Leg					225					412					290					303	1230
Heavy Exiting Leg					4					25					4					17	50
Total Exiting Leg					229					437					294					320	1280

PDI File #: **197355 A**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class: **Cars**



	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	21	57	12	0	90	2	44	5	0	51	15	35	5	0	55	5	82	10	0	97	293
7:15 AM	21	63	12	0	96	7	45	0	0	52	8	33	2	0	43	6	83	1	0	90	281
7:30 AM	16	47	14	0	77	7	46	2	0	55	13	41	6	0	60	8	79	9	0	96	288
7:45 AM	31	74	13	0	118	9	61	6	0	76	13	32	5	0	50	5	68	7	0	80	324
<b>Total</b>	<b>89</b>	<b>241</b>	<b>51</b>	<b>0</b>	<b>381</b>	<b>25</b>	<b>196</b>	<b>13</b>	<b>0</b>	<b>234</b>	<b>49</b>	<b>141</b>	<b>18</b>	<b>0</b>	<b>208</b>	<b>24</b>	<b>312</b>	<b>27</b>	<b>0</b>	<b>363</b>	<b>1186</b>
8:00 AM	21	67	10	0	98	8	42	5	0	55	12	58	7	0	77	7	87	13	0	107	337
8:15 AM	15	59	11	0	85	3	35	1	0	39	8	53	5	0	66	9	73	6	0	88	278
8:30 AM	20	64	16	0	100	5	43	7	0	55	5	30	5	0	40	15	72	4	0	91	286
8:45 AM	16	69	11	0	96	5	51	4	0	60	6	36	9	0	51	15	52	4	0	71	278
<b>Total</b>	<b>72</b>	<b>259</b>	<b>48</b>	<b>0</b>	<b>379</b>	<b>21</b>	<b>171</b>	<b>17</b>	<b>0</b>	<b>209</b>	<b>31</b>	<b>177</b>	<b>26</b>	<b>0</b>	<b>234</b>	<b>46</b>	<b>284</b>	<b>27</b>	<b>0</b>	<b>357</b>	<b>1179</b>
Grand Total	161	500	99	0	760	46	367	30	0	443	80	318	44	0	442	70	596	54	0	720	2365
Approach %	21.2	65.8	13.0	0.0		10.4	82.8	6.8	0.0		18.1	71.9	10.0	0.0		9.7	82.8	7.5	0.0		
Total %	6.8	21.1	4.2	0.0	32.1	1.9	15.5	1.3	0.0	18.7	3.4	13.4	1.9	0.0	18.7	3.0	25.2	2.3	0.0	30.4	
Exiting Leg Total	418					775					600					572					2365

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:15 AM	21	63	12	0	96	7	45	0	0	52	8	33	2	0	43	6	83	1	0	90	281
7:30 AM	16	47	14	0	77	7	46	2	0	55	13	41	6	0	60	8	79	9	0	96	288
7:45 AM	31	74	13	0	118	9	61	6	0	76	13	32	5	0	50	5	68	7	0	80	324
8:00 AM	21	67	10	0	98	8	42	5	0	55	12	58	7	0	77	7	87	13	0	107	337
Total Volume	89	251	49	0	389	31	194	13	0	238	46	164	20	0	230	26	317	30	0	373	1230
% Approach Total	22.9	64.5	12.6	0.0		13.0	81.5	5.5	0.0		20.0	71.3	8.7	0.0		7.0	85.0	8.0	0.0		
PHF	0.718	0.848	0.875	0.000	0.824	0.861	0.795	0.542	0.000	0.783	0.885	0.707	0.714	0.000	0.747	0.813	0.911	0.577	0.000	0.871	0.912
Entering Leg	89	251	49	0	389	31	194	13	0	238	46	164	20	0	230	26	317	30	0	373	1230
Exiting Leg	225					412					290					303					1230
Total	614					650					520					676					2460

PDI File #: **197355 A**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	1	1	0	3	0	11	0	0	11	0	1	0	0	1	0	3	0	0	3	18
7:15 AM	1	0	0	0	1	0	3	0	0	3	2	2	0	0	4	0	3	0	0	3	11
7:30 AM	1	1	1	0	3	0	4	0	0	4	0	0	0	0	0	0	2	1	0	3	10
7:45 AM	2	2	0	0	4	0	1	0	0	1	2	0	0	0	2	0	6	0	0	6	13
<b>Total</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>14</b>	<b>1</b>	<b>0</b>	<b>15</b>	<b>52</b>
8:00 AM	0	1	1	0	2	0	4	0	0	4	1	0	1	0	2	0	7	1	0	8	16
8:15 AM	3	4	0	0	7	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	12
8:30 AM	3	2	0	0	5	0	2	0	0	2	1	1	0	0	2	0	5	0	0	5	14
8:45 AM	0	2	1	0	3	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	11
<b>Total</b>	<b>6</b>	<b>9</b>	<b>2</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>18</b>	<b>1</b>	<b>0</b>	<b>19</b>	<b>53</b>
Grand Total	11	13	4	0	28	0	31	0	0	31	6	5	1	0	12	0	32	2	0	34	105
Approach %	39.3	46.4	14.3	0.0		0.0	100.0	0.0	0.0		50.0	41.7	8.3	0.0		0.0	94.1	5.9	0.0		
Total %	10.5	12.4	3.8	0.0	26.7	0.0	29.5	0.0	0.0	29.5	5.7	4.8	1.0	0.0	11.4	0.0	30.5	1.9	0.0	32.4	
Exiting Leg Total	7					42					13					43					105
Buses	7	6	2	0	15	0	14	0	0	14	3	1	0	0	4	0	17	0	0	17	50
% Buses	63.6	46.2	50.0	0.0	53.6	0.0	45.2	0.0	0.0	45.2	50.0	20.0	0.0	0.0	33.3	0.0	53.1	0.0	0.0	50.0	47.6
Exiting Leg Total	1					22					6					21					50
Single-Unit Trucks	4	7	2	0	13	0	17	0	0	17	3	4	1	0	8	0	15	2	0	17	55
% Single-Unit	36.4	53.8	50.0	0.0	46.4	0.0	54.8	0.0	0.0	54.8	50.0	80.0	100.0	0.0	66.7	0.0	46.9	100.0	0.0	50.0	52.4
Exiting Leg Total	6					20					7					22					55
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	2	2	0	0	4	0	1	0	0	1	2	0	0	0	2	0	6	0	0	6	13
7:45 AM	0	1	1	0	2	0	4	0	0	4	1	0	1	0	2	0	7	1	0	8	16
8:00 AM	3	4	0	0	7	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	12
8:30 AM	3	2	0	0	5	0	2	0	0	2	1	1	0	0	2	0	5	0	0	5	14
<b>Total Volume</b>	<b>8</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>20</b>	<b>1</b>	<b>0</b>	<b>21</b>	<b>55</b>
% Approach Total	44.4	50.0	5.6	0.0		0.0	100.0	0.0	0.0		57.1	28.6	14.3	0.0		0.0	95.2	4.8	0.0		
PHF	0.667	0.563	0.250	0.000	0.643	0.000	0.563	0.000	0.000	0.563	0.500	0.500	0.250	0.000	0.875	0.000	0.714	0.250	0.000	0.656	0.859
Buses	4	3	1	0	8	0	5	0	0	5	2	0	0	0	2	0	9	0	0	9	24
Buses %	50.0	33.3	100.0	0.0	44.4	0.0	55.6	0.0	0.0	55.6	50.0	0.0	0.0	0.0	28.6	0.0	45.0	0.0	0.0	42.9	43.6
Single-Unit Trucks	4	6	0	0	10	0	4	0	0	4	2	2	1	0	5	0	11	1	0	12	31
Single-Unit %	50.0	66.7	0.0	0.0	55.6	0.0	44.4	0.0	0.0	44.4	50.0	100.0	100.0	0.0	71.4	0.0	55.0	100.0	0.0	57.1	56.4
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	4	3	1	0	8	0	5	0	0	5	2	0	0	0	2	0	9	0	0	9	24
Single-Unit Trucks	4	6	0	0	10	0	4	0	0	4	2	2	1	0	5	0	11	1	0	12	31
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Entering Leg</b>	<b>8</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>20</b>	<b>1</b>	<b>0</b>	<b>21</b>	<b>55</b>
Buses	0					12					3					9					24
Single-Unit Trucks	3					13					6					9					31
Articulated Trucks	0					0					0					0					0
<b>Total Exiting Leg</b>	<b>3</b>					<b>25</b>					<b>9</b>					<b>18</b>					<b>55</b>

PDI File #: **197355 A**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Buses**

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	5
7:15 AM	1	0	0	0	1	0	2	0	0	2	1	1	0	0	2	0	2	0	0	2	7
7:30 AM	1	1	0	0	2	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	6
7:45 AM	2	0	0	0	2	0	1	0	0	1	2	0	0	0	2	0	3	0	0	3	8
<b>Total</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>26</b>
8:00 AM	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	5
8:15 AM	1	2	0	0	3	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	5
8:30 AM	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	6
8:45 AM	0	2	1	0	3	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	8
<b>Total</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>24</b>
<b>Grand Total</b>	<b>7</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>50</b>
Approach %	46.7	40.0	13.3	0.0		0.0	100.0	0.0	0.0		75.0	25.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	14.0	12.0	4.0	0.0	30.0	0.0	28.0	0.0	0.0	28.0	6.0	2.0	0.0	0.0	8.0	0.0	34.0	0.0	0.0	34.0	
Exiting Leg Total	1					22					6					21					50

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	5
7:15 AM	1	0	0	0	1	0	2	0	0	2	1	1	0	0	2	0	2	0	0	2	7
7:30 AM	1	1	0	0	2	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	6
7:45 AM	2	0	0	0	2	0	1	0	0	1	2	0	0	0	2	0	3	0	0	3	8
<b>Total Volume</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>26</b>
% Approach Total	83.3	16.7	0.0	0.0		0.0	100.0	0.0	0.0		75.0	25.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.625	0.250	0.000	0.000	0.750	0.000	0.667	0.000	0.000	0.667	0.375	0.250	0.000	0.000	0.500	0.000	0.667	0.000	0.000	0.667	0.813
Entering Leg	5	1	0	0	6	0	8	0	0	8	3	1	0	0	4	0	8	0	0	8	26
Exiting Leg	1					11					1					13					26
<b>Total</b>	<b>7</b>					<b>19</b>					<b>5</b>					<b>21</b>					<b>52</b>

PDI File #: **197355 A**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Single-Unit Trucks**

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:00 AM	0	1	1	0	2	0	9	0	0	9	0	1	0	0	1	0	1	0	0	1	13	
7:15 AM	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	0	1	0	0	1	4	
7:30 AM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	4	
7:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	5	
<b>Total</b>	0	3	2	0	5	0	11	0	0	11	1	2	0	0	3	0	6	1	0	7	26	
8:00 AM	0	1	0	0	1	0	2	0	0	2	1	0	1	0	2	0	5	1	0	6	11	
8:15 AM	2	2	0	0	4	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	7	
8:30 AM	2	1	0	0	3	0	1	0	0	1	1	1	0	0	2	0	2	0	0	2	8	
8:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3	
<b>Total</b>	4	4	0	0	8	0	6	0	0	6	2	2	1	0	5	0	9	1	0	10	29	
Grand Total	4	7	2	0	13	0	17	0	0	17	3	4	1	0	8	0	15	2	0	17	55	
Approach %	30.8	53.8	15.4	0.0		0.0	100.0	0.0	0.0		37.5	50.0	12.5	0.0		0.0	88.2	11.8	0.0			
Total %	7.3	12.7	3.6	0.0	23.6	0.0	30.9	0.0	0.0	30.9	5.5	7.3	1.8	0.0	14.5	0.0	27.3	3.6	0.0	30.9		
Exiting Leg Total						6					20					7					22	55

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	5	
8:00 AM	0	1	0	0	1	0	2	0	0	2	1	0	1	0	2	0	5	1	0	6	11	
8:15 AM	2	2	0	0	4	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	7	
8:30 AM	2	1	0	0	3	0	1	0	0	1	1	1	0	0	2	0	2	0	0	2	8	
Total Volume	4	6	0	0	10	0	4	0	0	4	2	2	1	0	5	0	11	1	0	12	31	
% Approach Total	40.0	60.0	0.0	0.0		0.0	100.0	0.0	0.0		40.0	40.0	20.0	0.0		0.0	91.7	8.3	0.0			
PHF	0.500	0.750	0.000	0.000	0.625	0.000	0.500	0.000	0.000	0.500	0.500	0.500	0.250	0.000	0.625	0.000	0.550	0.250	0.000	0.500	0.705	
Entering Leg	4	6	0	0	10	0	4	0	0	4	2	2	1	0	5	0	11	1	0	12	31	
Exiting Leg						3					13					6					9	31
Total						13					17					11					21	62

PDI File #: **197355 A**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Articulated Trucks**

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: **197355 A**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Bicycles (on Roadway and Crosswalks)**

	Central Street							Highland Avenue							Central Street							Highland Avenue							Total									
	from North							from East							from South							from West																
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total										
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	2
7:15 AM	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	2	5	7
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	2	6	7
7:45 AM	0	0	1	0	0	1	2	0	0	0	0	0	1	1	2	0	0	0	0	1	3	7	2	0	0	0	1	6	16	22								
Total	0	1	1	0	0	1	3	0	2	0	0	0	1	3	2	0	0	0	0	1	3	14	3	0	0	0	1	11	29	38								
8:00 AM	0	3	0	0	0	0	3	0	2	0	0	0	0	2	2	0	0	0	0	0	2	1	0	0	0	0	0	2	3	10								
8:15 AM	0	5	0	0	0	0	5	0	2	0	0	0	1	3	1	4	0	0	0	0	5	10	2	0	0	0	0	11	23	36								
8:30 AM	0	2	1	0	0	0	3	0	0	1	0	0	0	1	1	1	0	0	0	0	2	3	2	0	0	0	0	3	8	14								
8:45 AM	0	1	0	0	0	0	1	0	1	0	0	1	1	3	1	2	0	0	0	0	3	6	0	0	0	0	0	8	14	21								
Total	0	11	1	0	0	0	12	0	5	1	0	1	2	9	5	7	0	0	0	0	12	20	4	0	0	0	0	24	48	81								
Grand Total	0	12	2	0	0	1	15	0	7	1	0	1	3	12	7	7	0	0	0	1	15	34	7	0	0	0	1	35	77	119								
Approach %	0.0	80.0	13.3	0.0	0.0	6.7	0.0	58.3	8.3	0.0	8.3	25.0	46.7	46.7	0.0	0.0	0.0	6.7	44.2	9.1	0.0	0.0	1.3	45.5														
Total %	0.0	10.1	1.7	0.0	0.0	0.8	12.6	0.0	5.9	0.8	0.0	0.8	2.5	10.1	5.9	5.9	0.0	0.0	0.0	0.8	12.6	28.6	5.9	0.0	0.0	0.8	29.4	64.7										
Exiting Leg Total	8							20							48							43	119															

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Central Street							Highland Avenue							Central Street							Highland Avenue							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:45 AM	0	0	1	0	0	1	2	0	0	0	0	0	1	1	2	0	0	0	0	1	3	7	2	0	0	0	1	6	16	22
8:00 AM	0	3	0	0	0	0	3	0	2	0	0	0	0	2	2	0	0	0	0	0	2	1	0	0	0	0	0	2	3	10
8:15 AM	0	5	0	0	0	0	5	0	2	0	0	0	1	3	1	4	0	0	0	0	5	10	2	0	0	0	0	11	23	36
8:30 AM	0	2	1	0	0	0	3	0	0	1	0	0	0	1	1	1	0	0	0	0	2	3	2	0	0	0	0	3	8	14
Total Volume	0	10	2	0	0	1	13	0	4	1	0	0	2	7	6	5	0	0	0	1	12	21	6	0	0	0	1	22	50	82
% Approach Total	0.0	76.9	15.4	0.0	0.0	7.7	0.0	57.1	14.3	0.0	0.0	28.6	50.0	41.7	0.0	0.0	0.0	8.3	42.0	12.0	0.0	0.0	2.0	44.0						
PHF	0.000	0.500	0.500	0.000	0.000	0.250	0.650	0.000	0.500	0.250	0.000	0.000	0.500	0.583	0.750	0.313	0.000	0.000	0.000	0.250	0.600	0.525	0.750	0.000	0.000	0.250	0.500	0.543	0.569	
Entering Leg	0	10	2	0	0	1	13	0	4	1	0	0	2	7	6	5	0	0	0	1	12	21	6	0	0	0	1	22	50	82
Exiting Leg	6							16							33							27	82							
Total	19							23							45							77	164							

PDI File #: 197355 A  
 Location: N: Central Street S: Central Street  
 Location: E: Highland Avenue W: Highland Avenue  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Pedestrians**

	Central Street							Highland Avenue							Central Street							Highland Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	7	3	10	0	0	0	0	3	2	5	0	0	0	0	4	4	8	0	0	0	0	2	4	6	29
7:15 AM	0	0	0	0	5	6	11	0	0	0	0	7	4	11	0	0	0	0	7	5	12	0	0	0	0	4	8	12	46
7:30 AM	0	0	0	0	11	8	19	0	0	0	0	8	11	19	0	0	0	0	2	16	18	0	0	0	0	2	11	13	69
7:45 AM	0	0	0	0	5	6	11	0	0	0	0	4	5	9	0	0	0	0	6	15	21	0	0	0	0	6	23	29	70
Total	0	0	0	0	28	23	51	0	0	0	0	22	22	44	0	0	0	0	19	40	59	0	0	0	0	14	46	60	214
8:00 AM	0	0	0	0	15	8	23	0	0	0	0	6	8	14	0	0	0	0	8	7	15	0	0	0	0	2	9	11	63
8:15 AM	0	0	0	0	9	9	18	0	0	0	0	13	6	19	0	0	0	0	12	10	22	0	0	0	0	4	8	12	71
8:30 AM	0	0	0	0	8	4	12	0	0	0	0	10	6	16	0	0	0	0	6	4	10	0	0	0	0	3	10	13	51
8:45 AM	0	0	0	0	5	7	12	0	0	0	0	5	6	11	0	0	0	0	8	11	19	0	0	0	0	4	7	11	53
Total	0	0	0	0	37	28	65	0	0	0	0	34	26	60	0	0	0	0	34	32	66	0	0	0	0	13	34	47	238
Grand Total	0	0	0	0	65	51	116	0	0	0	0	56	48	104	0	0	0	0	53	72	125	0	0	0	0	27	80	107	452
Approach %	0.0	0.0	0.0	0.0	56.0	44.0		0.0	0.0	0.0	0.0	53.8	46.2		0.0	0.0	0.0	0.0	42.4	57.6		0.0	0.0	0.0	0.0	25.2	74.8		
Total %	0.0	0.0	0.0	0.0	14.4	11.3	25.7	0.0	0.0	0.0	0.0	12.4	10.6	23.0	0.0	0.0	0.0	0.0	11.7	15.9	27.7	0.0	0.0	0.0	0.0	6.0	17.7	23.7	
Exiting Leg Total	116							104							125							107							452

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street							Highland Avenue							Central Street							Highland Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:30 AM	0	0	0	0	11	8	19	0	0	0	0	8	11	19	0	0	0	0	2	16	18	0	0	0	0	2	11	13	69
7:45 AM	0	0	0	0	5	6	11	0	0	0	0	4	5	9	0	0	0	0	6	15	21	0	0	0	0	6	23	29	70
8:00 AM	0	0	0	0	15	8	23	0	0	0	0	6	8	14	0	0	0	0	8	7	15	0	0	0	0	2	9	11	63
8:15 AM	0	0	0	0	9	9	18	0	0	0	0	13	6	19	0	0	0	0	12	10	22	0	0	0	0	4	8	12	71
Total Volume	0	0	0	0	40	31	71	0	0	0	0	31	30	61	0	0	0	0	28	48	76	0	0	0	0	14	51	65	273
% Approach Total	0.0	0.0	0.0	0.0	56.3	43.7		0.0	0.0	0.0	0.0	50.8	49.2		0.0	0.0	0.0	0.0	36.8	63.2		0.0	0.0	0.0	0.0	21.5	78.5		
PHF	0.000	0.000	0.000	0.000	0.667	0.861	0.772	0.000	0.000	0.000	0.000	0.596	0.682	0.803	0.000	0.000	0.000	0.000	0.583	0.750	0.864	0.000	0.000	0.000	0.000	0.583	0.554	0.560	0.961
Entering Leg	0	0	0	0	40	31	71	0	0	0	0	31	30	61	0	0	0	0	28	48	76	0	0	0	0	14	51	65	273
Exiting Leg	71							61							76							65							273
Total	142							122							152							130							546

PDI File #: **197355 AA**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	22	23	6	0	51	19	78	6	0	103	12	90	8	0	110	5	80	6	0	91	355
4:15 PM	21	20	6	0	47	18	71	3	0	92	16	69	6	0	91	5	83	11	0	99	329
4:30 PM	27	29	6	0	62	19	89	2	0	110	14	81	10	0	105	6	91	14	0	111	388
4:45 PM	22	28	12	0	62	18	78	5	0	101	18	89	3	0	110	5	85	15	0	105	378
<b>Total</b>	<b>92</b>	<b>100</b>	<b>30</b>	<b>0</b>	<b>222</b>	<b>74</b>	<b>316</b>	<b>16</b>	<b>0</b>	<b>406</b>	<b>60</b>	<b>329</b>	<b>27</b>	<b>0</b>	<b>416</b>	<b>21</b>	<b>339</b>	<b>46</b>	<b>0</b>	<b>406</b>	<b>1450</b>
5:00 PM	15	34	12	0	61	21	70	5	0	96	21	79	10	0	110	5	78	9	0	92	359
5:15 PM	20	42	8	0	70	16	70	4	0	90	25	82	7	0	114	5	61	12	0	78	352
5:30 PM	24	35	4	0	63	13	82	6	0	101	19	58	6	0	83	3	70	9	0	82	329
5:45 PM	22	37	6	0	65	14	77	5	0	96	17	90	7	0	114	4	65	10	0	79	354
<b>Total</b>	<b>81</b>	<b>148</b>	<b>30</b>	<b>0</b>	<b>259</b>	<b>64</b>	<b>299</b>	<b>20</b>	<b>0</b>	<b>383</b>	<b>82</b>	<b>309</b>	<b>30</b>	<b>0</b>	<b>421</b>	<b>17</b>	<b>274</b>	<b>40</b>	<b>0</b>	<b>331</b>	<b>1394</b>
Grand Total	173	248	60	0	481	138	615	36	0	789	142	638	57	0	837	38	613	86	0	737	2844
Approach %	36.0	51.6	12.5	0.0		17.5	77.9	4.6	0.0		17.0	76.2	6.8	0.0		5.2	83.2	11.7	0.0		
Total %	6.1	8.7	2.1	0.0	16.9	4.9	21.6	1.3	0.0	27.7	5.0	22.4	2.0	0.0	29.4	1.3	21.6	3.0	0.0	25.9	
Exiting Leg Total	862					815					322					845					2844
Cars	163	245	59	0	467	136	598	36	0	770	142	633	57	0	832	38	593	82	0	713	2782
% Cars	94.2	98.8	98.3	0.0	97.1	98.6	97.2	100.0	0.0	97.6	100.0	99.2	100.0	0.0	99.4	100.0	96.7	95.3	0.0	96.7	97.8
Exiting Leg Total	851					794					319					818					2782
Heavy Vehicles	10	3	1	0	14	2	17	0	0	19	0	5	0	0	5	0	20	4	0	24	62
% Heavy Vehicles	5.8	1.2	1.7	0.0	2.9	1.4	2.8	0.0	0.0	2.4	0.0	0.8	0.0	0.0	0.6	0.0	3.3	4.7	0.0	3.3	2.2
Exiting Leg Total	11					21					3					27					62

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	22	23	6	0	51	19	78	6	0	103	12	90	8	0	110	5	80	6	0	91	355
4:15 PM	21	20	6	0	47	18	71	3	0	92	16	69	6	0	91	5	83	11	0	99	329
4:30 PM	27	29	6	0	62	19	89	2	0	110	14	81	10	0	105	6	91	14	0	111	388
4:45 PM	22	28	12	0	62	18	78	5	0	101	18	89	3	0	110	5	85	15	0	105	378
<b>Total Volume</b>	<b>92</b>	<b>100</b>	<b>30</b>	<b>0</b>	<b>222</b>	<b>74</b>	<b>316</b>	<b>16</b>	<b>0</b>	<b>406</b>	<b>60</b>	<b>329</b>	<b>27</b>	<b>0</b>	<b>416</b>	<b>21</b>	<b>339</b>	<b>46</b>	<b>0</b>	<b>406</b>	<b>1450</b>
% Approach Total	41.4	45.0	13.5	0.0		18.2	77.8	3.9	0.0		14.4	79.1	6.5	0.0		5.2	83.5	11.3	0.0		
PHF	0.852	0.862	0.625	0.000	0.895	0.974	0.888	0.667	0.000	0.923	0.833	0.914	0.675	0.000	0.945	0.875	0.931	0.767	0.000	0.914	0.934
Cars	89	98	29	0	216	73	307	16	0	396	60	326	27	0	413	21	329	46	0	396	1421
Cars %	96.7	98.0	96.7	0.0	97.3	98.6	97.2	100.0	0.0	97.5	100.0	99.1	100.0	0.0	99.3	100.0	97.1	100.0	0.0	97.5	98.0
Heavy Vehicles	3	2	1	0	6	1	9	0	0	10	0	3	0	0	3	0	10	0	0	10	29
Heavy Vehicles %	3.3	2.0	3.3	0.0	2.7	1.4	2.8	0.0	0.0	2.5	0.0	0.9	0.0	0.0	0.7	0.0	2.9	0.0	0.0	2.5	2.0
Cars Enter Leg	89	98	29	0	216	73	307	16	0	396	60	326	27	0	413	21	329	46	0	396	1421
Heavy Enter Leg	3	2	1	0	6	1	9	0	0	10	0	3	0	0	3	0	10	0	0	10	29
<b>Total Entering Leg</b>	<b>92</b>	<b>100</b>	<b>30</b>	<b>0</b>	<b>222</b>	<b>74</b>	<b>316</b>	<b>16</b>	<b>0</b>	<b>406</b>	<b>60</b>	<b>329</b>	<b>27</b>	<b>0</b>	<b>416</b>	<b>21</b>	<b>339</b>	<b>46</b>	<b>0</b>	<b>406</b>	<b>1450</b>
Cars Exiting Leg	445					418					135					423					1421
Heavy Exiting Leg	4					11					2					12					29
<b>Total Exiting Leg</b>	<b>449</b>					<b>429</b>					<b>137</b>					<b>435</b>					<b>1450</b>

PDI File #: **197355 AA**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class: **Cars**



	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	21	23	5	0	49	18	76	6	0	100	12	90	8	0	110	5	78	6	0	89	348
4:15 PM	21	19	6	0	46	18	69	3	0	90	16	67	6	0	89	5	79	11	0	95	320
4:30 PM	25	28	6	0	59	19	86	2	0	107	14	81	10	0	105	6	90	14	0	110	381
4:45 PM	22	28	12	0	62	18	76	5	0	99	18	88	3	0	109	5	82	15	0	102	372
Total	89	98	29	0	216	73	307	16	0	396	60	326	27	0	413	21	329	46	0	396	1421
5:00 PM	13	34	12	0	59	21	68	5	0	94	21	79	10	0	110	5	76	9	0	90	353
5:15 PM	18	42	8	0	68	16	68	4	0	88	25	81	7	0	113	5	58	11	0	74	343
5:30 PM	22	34	4	0	60	13	80	6	0	99	19	57	6	0	82	3	68	7	0	78	319
5:45 PM	21	37	6	0	64	13	75	5	0	93	17	90	7	0	114	4	62	9	0	75	346
Total	74	147	30	0	251	63	291	20	0	374	82	307	30	0	419	17	264	36	0	317	1361
Grand Total	163	245	59	0	467	136	598	36	0	770	142	633	57	0	832	38	593	82	0	713	2782
Approach %	34.9	52.5	12.6	0.0		17.7	77.7	4.7	0.0		17.1	76.1	6.9	0.0		5.3	83.2	11.5	0.0		
Total %	5.9	8.8	2.1	0.0	16.8	4.9	21.5	1.3	0.0	27.7	5.1	22.8	2.0	0.0	29.9	1.4	21.3	2.9	0.0	25.6	
Exiting Leg Total	851					794					319					818					2782

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	21	23	5	0	49	18	76	6	0	100	12	90	8	0	110	5	78	6	0	89	348
4:15 PM	21	19	6	0	46	18	69	3	0	90	16	67	6	0	89	5	79	11	0	95	320
4:30 PM	25	28	6	0	59	19	86	2	0	107	14	81	10	0	105	6	90	14	0	110	381
4:45 PM	22	28	12	0	62	18	76	5	0	99	18	88	3	0	109	5	82	15	0	102	372
Total Volume	89	98	29	0	216	73	307	16	0	396	60	326	27	0	413	21	329	46	0	396	1421
% Approach Total	41.2	45.4	13.4	0.0		18.4	77.5	4.0	0.0		14.5	78.9	6.5	0.0		5.3	83.1	11.6	0.0		
PHF	0.890	0.875	0.604	0.000	0.871	0.961	0.892	0.667	0.000	0.925	0.833	0.906	0.675	0.000	0.939	0.875	0.914	0.767	0.000	0.900	0.932
Entering Leg	89	98	29	0	216	73	307	16	0	396	60	326	27	0	413	21	329	46	0	396	1421
Exiting Leg	445					418					135					423					1421
Total	661					814					548					819					2842

PDI File #: **197355 AA**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	0	1	0	2	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	7
4:15 PM	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2	0	4	0	0	4	9
4:30 PM	2	1	0	0	3	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	7
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	3	0	0	3	6
<b>Total</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>29</b>
5:00 PM	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	6
5:15 PM	2	0	0	0	2	0	2	0	0	2	0	1	0	0	1	0	3	1	0	4	9
5:30 PM	2	1	0	0	3	0	2	0	0	2	0	1	0	0	1	0	2	2	0	4	10
5:45 PM	1	0	0	0	1	1	2	0	0	3	0	0	0	0	0	0	3	1	0	4	8
<b>Total</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>10</b>	<b>4</b>	<b>0</b>	<b>14</b>	<b>33</b>
Grand Total	10	3	1	0	14	2	17	0	0	19	0	5	0	0	5	0	20	4	0	24	62
Approach %	71.4	21.4	7.1	0.0		10.5	89.5	0.0	0.0		0.0	100.0	0.0	0.0		0.0	83.3	16.7	0.0		
Total %	16.1	4.8	1.6	0.0	22.6	3.2	27.4	0.0	0.0	30.6	0.0	8.1	0.0	0.0	8.1	0.0	32.3	6.5	0.0	38.7	
Exiting Leg Total	11					21					3					27					62
Buses	6	1	0	0	7	1	12	0	0	13	0	0	0	0	0	0	13	0	0	13	33
% Buses	60.0	33.3	0.0	0.0	50.0	50.0	70.6	0.0	0.0	68.4	0.0	0.0	0.0	0.0	0.0	0.0	65.0	0.0	0.0	54.2	53.2
Exiting Leg Total	1					13					1					18					33
Single-Unit Trucks	4	2	1	0	7	1	5	0	0	6	0	5	0	0	5	0	7	4	0	11	29
% Single-Unit	40.0	66.7	100.0	0.0	50.0	50.0	29.4	0.0	0.0	31.6	0.0	100.0	0.0	0.0	100.0	0.0	35.0	100.0	0.0	45.8	46.8
Exiting Leg Total	10					8					2					9					29
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	0	1	0	2	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	7
4:15 PM	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2	0	4	0	0	4	9
4:30 PM	2	1	0	0	3	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	7
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	3	0	0	3	6
<b>Total Volume</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>29</b>
% Approach Total	50.0	33.3	16.7	0.0		10.0	90.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.375	0.500	0.250	0.000	0.500	0.250	0.750	0.000	0.000	0.833	0.000	0.375	0.000	0.000	0.375	0.000	0.625	0.000	0.000	0.625	0.806
Buses	1	1	0	0	2	1	7	0	0	8	0	0	0	0	0	0	6	0	0	6	16
Buses %	33.3	50.0	0.0	0.0	33.3	100.0	77.8	0.0	0.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	55.2
Single-Unit Trucks	2	1	1	0	4	0	2	0	0	2	0	3	0	0	3	0	4	0	0	4	13
Single-Unit %	66.7	50.0	100.0	0.0	66.7	0.0	22.2	0.0	0.0	20.0	0.0	100.0	0.0	0.0	100.0	0.0	40.0	0.0	0.0	40.0	44.8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	1	1	0	0	2	1	7	0	0	8	0	0	0	0	0	0	6	0	0	6	16
Single-Unit Trucks	2	1	1	0	4	0	2	0	0	2	0	3	0	0	3	0	4	0	0	4	13
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Entering Leg</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>29</b>
Buses	1					6					1					8					16
Single-Unit Trucks	3					5					1					4					13
Articulated Trucks	0					0					0					0					0
<b>Total Exiting Leg</b>	<b>4</b>					<b>11</b>					<b>2</b>					<b>12</b>					<b>29</b>

PDI File #: **197355 AA**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Buses**

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	3
4:15 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	4
4:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	4
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
<b>Total</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>16</b>
5:00 PM	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	5
5:15 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	4
5:30 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	4
5:45 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	4
<b>Total</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>17</b>
Grand Total	6	1	0	0	7	1	12	0	0	13	0	0	0	0	0	0	13	0	0	13	33
Approach %	85.7	14.3	0.0	0.0		7.7	92.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	18.2	3.0	0.0	0.0	21.2	3.0	36.4	0.0	0.0	39.4	0.0	0.0	0.0	0.0	0.0	0.0	39.4	0.0	0.0	39.4	
Exiting Leg Total	1					13					1					18					33

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	3
4:15 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	4
4:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	4
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
Total Volume	1	1	0	0	2	1	7	0	0	8	0	0	0	0	0	0	6	0	0	6	16
% Approach Total	50.0	50.0	0.0	0.0		12.5	87.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.250	0.000	0.000	0.500	0.250	0.875	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.800
Entering Leg	1	1	0	0	2	1	7	0	0	8	0	0	0	0	0	0	6	0	0	6	16
Exiting Leg	1					6					1					8					16
Total	3					14					1					14					32

PDI File #: **197355 AA**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Single-Unit Trucks**

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5
4:30 PM	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
<b>Total</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>13</b>
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	1	0	2	5
5:30 PM	1	1	0	0	2	0	1	0	0	1	0	1	0	0	1	0	0	2	0	2	6
5:45 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	1	1	0	2	4
<b>Total</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>16</b>
Grand Total	4	2	1	0	7	1	5	0	0	6	0	5	0	0	5	0	7	4	0	11	29
Approach %	57.1	28.6	14.3	0.0		16.7	83.3	0.0	0.0		0.0	100.0	0.0	0.0		0.0	63.6	36.4	0.0		
Total %	13.8	6.9	3.4	0.0	24.1	3.4	17.2	0.0	0.0	20.7	0.0	17.2	0.0	0.0	17.2	0.0	24.1	13.8	0.0	37.9	
Exiting Leg Total	10					8					2					9					29

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Central Street					Highland Avenue					Central Street					Highland Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5
4:30 PM	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	2	1	1	0	4	0	2	0	0	2	0	3	0	0	3	0	4	0	0	4	13
% Approach Total	50.0	25.0	25.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.500	0.250	0.250	0.000	0.500	0.000	0.500	0.000	0.000	0.500	0.000	0.375	0.000	0.000	0.375	0.000	0.333	0.000	0.000	0.333	0.650
Entering Leg	2	1	1	0	4	0	2	0	0	2	0	3	0	0	3	0	4	0	0	4	13
Exiting Leg	3					5					1					4					13
Total	7					7					4					8					26

PDI File #: **197355 AA**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Highland Avenue W: Highland Avenue**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Articulated Trucks**

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total				
	from North					from East					from South					from West									
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0				

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Highland Avenue					Central Street					Highland Avenue					Total				
	from North					from East					from South					from West									
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0				
Total	0					0					0					0					0				

PDI File #: 197355 AA  
 Location: N: Central Street S: Central Street  
 Location: E: Highland Avenue W: Highland Avenue  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

	Central Street								Highland Avenue								Central Street								Highland Avenue								Total				
	from North								from East								from South								from West												
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total						
4:00 PM	0	1	0	0	0	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	4
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	5	0	0	0	0	0	5	1	1	0	0	0	0	2	1	1	0	0	0	0	2	8
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1	3
<b>Total</b>	0	1	0	0	0	1	2	0	2	0	0	0	2	4	0	6	0	0	0	0	0	6	1	1	0	0	1	1	4	1	1	0	0	1	1	4	16
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	8	1	0	0	0	0	10	0	2	0	0	0	0	2	0	2	0	0	0	0	2	13
5:30 PM	0	0	0	0	0	0	0	0	2	0	0	0	1	3	1	9	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
5:45 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	3	1	0	0	0	0	4	0	3	0	0	0	0	3	0	3	0	0	0	0	3	10
<b>Total</b>	0	0	0	0	0	0	0	0	5	0	0	0	2	7	2	26	2	0	0	0	0	30	0	5	0	0	0	0	5	0	5	0	0	0	0	5	42
Grand Total	0	1	0	0	0	1	2	0	7	0	0	0	4	11	2	32	2	0	0	0	0	36	1	6	0	0	1	1	9	1	6	0	0	1	1	9	58
Approach %	0.0	50.0	0.0	0.0	0.0	50.0		0.0	63.6	0.0	0.0	0.0	36.4		5.6	88.9	5.6	0.0	0.0	0.0		11.1	66.7	0.0	0.0	11.1	11.1										
Total %	0.0	1.7	0.0	0.0	0.0	1.7	3.4	0.0	12.1	0.0	0.0	0.0	6.9	19.0	3.4	55.2	3.4	0.0	0.0	0.0	62.1	1.7	10.3	0.0	0.0	1.7	1.7	15.5									
Exiting Leg Total	33							12							2							11							58								

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street								Highland Avenue								Central Street								Highland Avenue								Total				
	from North								from East								from South								from West												
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total						
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	8	1	0	0	0	0	10	0	2	0	0	0	0	2	0	2	0	0	0	0	2	13
5:30 PM	0	0	0	0	0	0	0	0	2	0	0	0	1	3	1	9	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
5:45 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	3	1	0	0	0	0	4	0	3	0	0	0	0	3	0	3	0	0	0	0	3	10
<b>Total Volume</b>	0	0	0	0	0	0	0	0	5	0	0	0	2	7	2	26	2	0	0	0	0	30	0	5	0	0	0	0	5	0	5	0	0	0	0	5	42
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	71.4	0.0	0.0	0.0	28.6		6.7	86.7	6.7	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0										
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.583	0.500	0.500	0.722	0.500	0.000	0.000	0.000	0.750	0.000	0.417	0.000	0.000	0.000	0.000	0.417	0.808								
Entering Leg	0	0	0	0	0	0	0	0	5	0	0	0	2	7	2	26	2	0	0	0	0	30	0	5	0	0	0	0	5	0	5	0	0	0	0	5	42
Exiting Leg	26							9							0							7							42								
<b>Total</b>	26							16							30							12							84								

PDI File #: 197355 AA  
 Location: N: Central Street S: Central Street  
 Location: E: Highland Avenue W: Highland Avenue  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class: Pedestrians



**Pedestrians**

	Central Street							Highland Avenue							Central Street							Highland Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	5	4	9	0	0	0	0	1	3	4	0	0	0	0	5	9	14	0	0	0	0	1	2	3	30
4:15 PM	0	0	0	0	11	8	19	0	0	0	0	2	2	4	0	0	0	0	9	7	16	0	0	0	0	3	7	10	49
4:30 PM	0	0	0	0	6	7	13	0	0	0	0	4	8	12	0	0	0	0	6	6	12	0	0	0	0	4	0	4	41
4:45 PM	0	0	0	0	3	4	7	0	0	0	0	2	2	4	0	0	0	0	5	6	11	0	0	0	0	6	6	12	34
Total	0	0	0	0	25	23	48	0	0	0	0	9	15	24	0	0	0	0	25	28	53	0	0	0	0	14	15	29	154
5:00 PM	0	0	0	0	4	9	13	0	0	0	0	10	6	16	0	0	0	0	4	12	16	0	0	0	0	4	8	12	57
5:15 PM	0	0	0	0	9	8	17	0	0	0	0	7	6	13	0	0	0	0	4	5	9	0	0	0	0	1	4	5	44
5:30 PM	0	0	0	0	8	16	24	0	0	0	0	4	11	15	0	0	0	0	3	3	6	0	0	0	0	11	9	20	65
5:45 PM	0	0	0	0	9	11	20	0	0	0	0	1	5	6	0	0	0	0	2	4	6	0	0	0	0	8	10	18	50
Total	0	0	0	0	30	44	74	0	0	0	0	22	28	50	0	0	0	0	13	24	37	0	0	0	0	24	31	55	216
Grand Total	0	0	0	0	55	67	122	0	0	0	0	31	43	74	0	0	0	0	38	52	90	0	0	0	0	38	46	84	370
Approach %	0.0	0.0	0.0	0.0	45.1	54.9		0.0	0.0	0.0	0.0	41.9	58.1		0.0	0.0	0.0	0.0	42.2	57.8		0.0	0.0	0.0	0.0	45.2	54.8		
Total %	0.0	0.0	0.0	0.0	14.9	18.1	33.0	0.0	0.0	0.0	0.0	8.4	11.6	20.0	0.0	0.0	0.0	0.0	10.3	14.1	24.3	0.0	0.0	0.0	0.0	10.3	12.4	22.7	
Exiting Leg Total	122							74							90							84							370

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street							Highland Avenue							Central Street							Highland Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	4	9	13	0	0	0	0	10	6	16	0	0	0	0	4	12	16	0	0	0	0	4	8	12	57
5:15 PM	0	0	0	0	9	8	17	0	0	0	0	7	6	13	0	0	0	0	4	5	9	0	0	0	0	1	4	5	44
5:30 PM	0	0	0	0	8	16	24	0	0	0	0	4	11	15	0	0	0	0	3	3	6	0	0	0	0	11	9	20	65
5:45 PM	0	0	0	0	9	11	20	0	0	0	0	1	5	6	0	0	0	0	2	4	6	0	0	0	0	8	10	18	50
Total Volume	0	0	0	0	30	44	74	0	0	0	0	22	28	50	0	0	0	0	13	24	37	0	0	0	0	24	31	55	216
% Approach Total	0.0	0.0	0.0	0.0	40.5	59.5		0.0	0.0	0.0	0.0	44.0	56.0		0.0	0.0	0.0	0.0	35.1	64.9		0.0	0.0	0.0	0.0	43.6	56.4		
PHF	0.000	0.000	0.000	0.000	0.833	0.688	0.771	0.000	0.000	0.000	0.000	0.550	0.636	0.781	0.000	0.000	0.000	0.000	0.813	0.500	0.578	0.000	0.000	0.000	0.000	0.545	0.775	0.688	0.831
Entering Leg	0	0	0	0	30	44	74	0	0	0	0	22	28	50	0	0	0	0	13	24	37	0	0	0	0	24	31	55	216
Exiting Leg	74							50							37							55							216
Total	148							100							74							110							432

PDI File #: **197355 B**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	65	0	0	65	3	0	0	0	3	0	51	0	0	51	3	0	1	0	4	123
7:15 AM	0	82	0	0	82	3	0	0	0	3	0	49	0	0	49	3	0	1	0	4	138
7:30 AM	0	70	0	0	70	4	0	3	0	7	0	52	0	0	52	3	0	2	0	5	134
7:45 AM	0	86	0	0	86	1	0	2	0	3	0	48	0	0	48	6	0	2	0	8	145
<b>Total</b>	0	303	0	0	303	11	0	5	0	16	0	200	0	0	200	15	0	6	0	21	540
8:00 AM	0	80	0	0	80	3	0	3	0	6	0	72	0	0	72	7	0	3	0	10	168
8:15 AM	0	71	0	0	71	1	0	2	0	3	0	63	1	1	65	12	0	1	0	13	152
8:30 AM	0	90	0	0	90	4	0	4	0	8	0	43	0	0	43	9	0	2	0	11	152
8:45 AM	0	90	0	0	90	4	0	1	0	5	0	46	0	0	46	9	0	0	0	9	150
<b>Total</b>	0	331	0	0	331	12	0	10	0	22	0	224	1	1	226	37	0	6	0	43	622
Grand Total	0	634	0	0	634	23	0	15	0	38	0	424	1	1	426	52	0	12	0	64	1162
Approach %	0.0	100.0	0.0	0.0		60.5	0.0	39.5	0.0		0.0	99.5	0.2	0.2		81.3	0.0	18.8	0.0		
Total %	0.0	54.6	0.0	0.0	54.6	2.0	0.0	1.3	0.0	3.3	0.0	36.5	0.1	0.1	36.7	4.5	0.0	1.0	0.0	5.5	
Exiting Leg Total	459					0					702					1					1162
Cars	0	619	0	0	619	22	0	15	0	37	0	413	1	1	415	52	0	12	0	64	1135
% Cars	0.0	97.6	0.0	0.0	97.6	95.7	0.0	100.0	0.0	97.4	0.0	97.4	100.0	100.0	97.4	100.0	0.0	100.0	0.0	100.0	97.7
Exiting Leg Total	447					0					687					1					1135
Heavy Vehicles	0	15	0	0	15	1	0	0	0	1	0	11	0	0	11	0	0	0	0	0	27
% Heavy Vehicles	0.0	2.4	0.0	0.0	2.4	4.3	0.0	0.0	0.0	2.6	0.0	2.6	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	2.3
Exiting Leg Total	12					0					15					0					27

**Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:**

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	80	0	0	80	3	0	3	0	6	0	72	0	0	72	7	0	3	0	10	168
8:15 AM	0	71	0	0	71	1	0	2	0	3	0	63	1	1	65	12	0	1	0	13	152
8:30 AM	0	90	0	0	90	4	0	4	0	8	0	43	0	0	43	9	0	2	0	11	152
8:45 AM	0	90	0	0	90	4	0	1	0	5	0	46	0	0	46	9	0	0	0	9	150
<b>Total Volume</b>	0	331	0	0	331	12	0	10	0	22	0	224	1	1	226	37	0	6	0	43	622
% Approach Total	0.0	100.0	0.0	0.0		54.5	0.0	45.5	0.0		0.0	99.1	0.4	0.4		86.0	0.0	14.0	0.0		
PHF	0.000	0.919	0.000	0.000	0.919	0.750	0.000	0.625	0.000	0.688	0.000	0.778	0.250	0.250	0.785	0.771	0.000	0.500	0.000	0.827	0.926
Cars	0	319	0	0	319	12	0	10	0	22	0	218	1	1	220	37	0	6	0	43	604
Cars %	0.0	96.4	0.0	0.0	96.4	100.0	0.0	100.0	0.0	100.0	0.0	97.3	100.0	100.0	97.3	100.0	0.0	100.0	0.0	100.0	97.1
Heavy Vehicles	0	12	0	0	12	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	18
Heavy Vehicles %	0.0	3.6	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	2.9
Cars Enter Leg	0	319	0	0	319	12	0	10	0	22	0	218	1	1	220	37	0	6	0	43	604
Heavy Enter Leg	0	12	0	0	12	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	18
<b>Total Entering Leg</b>	0	331	0	0	331	12	0	10	0	22	0	224	1	1	226	37	0	6	0	43	622
Cars Exiting Leg	236					0					367					1					604
Heavy Exiting Leg	6					0					12					0					18
<b>Total Exiting Leg</b>	242					0					379					1					622

PDI File #: **197355 B**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars**

	Central Street					Oxford Street					Central Street					Gibbens Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:00 AM	0	64	0	0	64	3	0	0	0	3	0	50	0	0	50	3	0	1	0	4	121	
7:15 AM	0	82	0	0	82	2	0	0	0	2	0	46	0	0	46	3	0	1	0	4	134	
7:30 AM	0	69	0	0	69	4	0	3	0	7	0	52	0	0	52	3	0	2	0	5	133	
7:45 AM	0	85	0	0	85	1	0	2	0	3	0	47	0	0	47	6	0	2	0	8	143	
<b>Total</b>	0	300	0	0	300	10	0	5	0	15	0	195	0	0	195	15	0	6	0	21	531	
8:00 AM	0	79	0	0	79	3	0	3	0	6	0	70	0	0	70	7	0	3	0	10	165	
8:15 AM	0	68	0	0	68	1	0	2	0	3	0	62	1	1	64	12	0	1	0	13	148	
8:30 AM	0	87	0	0	87	4	0	4	0	8	0	41	0	0	41	9	0	2	0	11	147	
8:45 AM	0	85	0	0	85	4	0	1	0	5	0	45	0	0	45	9	0	0	0	9	144	
<b>Total</b>	0	319	0	0	319	12	0	10	0	22	0	218	1	1	220	37	0	6	0	43	604	
Grand Total	0	619	0	0	619	22	0	15	0	37	0	413	1	1	415	52	0	12	0	64	1135	
Approach %	0.0	100.0	0.0	0.0		59.5	0.0	40.5	0.0		0.0	99.5	0.2	0.2		81.3	0.0	18.8	0.0			
Total %	0.0	54.5	0.0	0.0	54.5	1.9	0.0	1.3	0.0	3.3	0.0	36.4	0.1	0.1	36.6	4.6	0.0	1.1	0.0	5.6		
Exiting Leg Total						447					0					687					1	1135

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
8:00 AM	0	79	0	0	79	3	0	3	0	6	0	70	0	0	70	7	0	3	0	10	165	
8:15 AM	0	68	0	0	68	1	0	2	0	3	0	62	1	1	64	12	0	1	0	13	148	
8:30 AM	0	87	0	0	87	4	0	4	0	8	0	41	0	0	41	9	0	2	0	11	147	
8:45 AM	0	85	0	0	85	4	0	1	0	5	0	45	0	0	45	9	0	0	0	9	144	
<b>Total Volume</b>	0	319	0	0	319	12	0	10	0	22	0	218	1	1	220	37	0	6	0	43	604	
% Approach Total	0.0	100.0	0.0	0.0		54.5	0.0	45.5	0.0		0.0	99.1	0.5	0.5		86.0	0.0	14.0	0.0			
PHF	0.000	0.917	0.000	0.000	0.917	0.750	0.000	0.625	0.000	0.688	0.000	0.779	0.250	0.250	0.786	0.771	0.000	0.500	0.000	0.827	0.915	
Entering Leg	0	319	0	0	319	12	0	10	0	22	0	218	1	1	220	37	0	6	0	43	604	
Exiting Leg						236					0					367					1	604
<b>Total</b>						555					22					587					44	1208

PDI File #: **197355 B**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



	Central Street					Oxford Street					Central Street					Gibbens Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	3	0	0	3	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	9
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
8:30 AM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
8:45 AM	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	6
Total	0	12	0	0	12	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	18
Grand Total	0	15	0	0	15	1	0	0	0	1	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	27
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	55.6	0.0	0.0	55.6	3.7	0.0	0.0	0.0	3.7	0.0	40.7	0.0	0.0	40.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	12					0					15					0					27					
Buses	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	10
% Buses	0.0	46.7	0.0	0.0	46.7	0.0	0.0	0.0	0.0	0.0	0.0	27.3	0.0	0.0	27.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0
Exiting Leg Total	3					0					7					0					10					
Single-Unit Trucks	0	8	0	0	8	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	17
% Single-Unit	0.0	53.3	0.0	0.0	53.3	100.0	0.0	0.0	0.0	100.0	0.0	72.7	0.0	0.0	72.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.0
Exiting Leg Total	9					0					8					0					17					
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0					

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
8:30 AM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
8:45 AM	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	6
Total Volume	0	12	0	0	12	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	18
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.600	0.000	0.000	0.600	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	
Buses	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Buses %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3
Single-Unit Trucks	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	12
Single-Unit %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Single-Unit Trucks	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	12
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	12	0	0	12	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	18
Buses	0					0					6					0					6					
Single-Unit Trucks	6					0					6					0					12					
Articulated Trucks	0					0					0					0					0					
Total Exiting Leg	6					0					12					0					18					

PDI File #: **197355 B**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Buses**

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
<b>Total</b>	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
<b>Total</b>	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Grand Total	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	70.0	0.0	0.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	3					0					7					0					10

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Exiting Leg	0					0					6					0					6
Total	6					0					6					0					12

PDI File #: **197355 B**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Single-Unit Trucks**

	Central Street					Oxford Street					Central Street					Gibbens Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	2	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
8:45 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Total	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	12
Grand Total	0	8	0	0	8	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	17
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	47.1	0.0	0.0	47.1	5.9	0.0	0.0	0.0	5.9	0.0	47.1	0.0	0.0	47.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						9					0					8					0	17				

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
8:45 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	12
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	
Entering Leg	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	12
Exiting Leg						6					0					6					0	12				
Total						12					0					12					0	24				

PDI File #: **197355 B**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Articulated Trucks**

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: 197355 B  
 Location: N: Central Street S: Central Street  
 Location: E: Oxford Street W: Gibbens Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

	Central Street							Oxford Street							Central Street							Gibbens Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
7:15 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
7:30 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
7:45 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8		
Total	0	14	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15		
8:00 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10		
8:15 AM	0	18	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23		
8:30 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9		
8:45 AM	1	10	0	0	0	0	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16		
Total	1	40	0	0	0	0	41	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58		
Grand Total	1	54	0	0	0	0	55	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73		
Approach %	1.8	98.2	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total %	1.4	74.0	0.0	0.0	0.0	0.0	75.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1			
Exiting Leg Total	15							1							56							1							73

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street							Oxford Street							Central Street							Gibbens Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10		
8:15 AM	0	18	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23		
8:30 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9		
8:45 AM	1	10	0	0	0	0	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16		
Total Volume	1	40	0	0	0	0	41	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58		
% Approach Total	2.4	97.6	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
PHF	0.250	0.556	0.000	0.000	0.000	0.000	0.569	0.250	0.000	0.000	0.000	0.000	0.250	0.250	0.600	0.000	0.000	0.000	0.000	0.000	0.650	0.250	0.000	0.250	0.000	0.000	0.250	0.630	
Entering Leg	1	40	0	0	0	0	41	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58		
Exiting Leg	14							1							42							1							58
Total	55							2							55							4							116

PDI File #: 197355 B  
 Location: N: Central Street S: Central Street  
 Location: E: Oxford Street W: Gibbens Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Pedestrians**

	Central Street							Oxford Street							Central Street							Gibbens Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	3	1	4	9		
7:15 AM	0	0	0	0	0	2	2	0	0	0	0	6	1	7	0	0	0	0	3	0	3	0	0	0	3	3	6	18	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	8	2	10	0	0	0	0	0	0	0	0	0	0	3	6	9	19	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	5	11	0	0	0	0	0	0	0	0	0	6	11	17	28		
Total	0	0	0	0	0	2	2	0	0	0	0	25	8	33	0	0	0	0	3	0	3	0	0	0	15	21	36	74	
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	7	4	11	0	0	0	0	2	2	4	0	0	0	0	3	11	14	30
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	14	4	18	0	0	0	0	4	1	5	0	0	0	0	5	9	14	37
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	7	5	12	0	0	0	0	1	1	2	0	0	0	0	4	13	17	31
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	7	13	0	0	0	0	0	1	1	0	0	0	0	8	9	17	31
Total	0	0	0	0	1	0	1	0	0	0	0	34	20	54	0	0	0	0	7	5	12	0	0	0	0	20	42	62	129
Grand Total	0	0	0	0	1	2	3	0	0	0	0	59	28	87	0	0	0	0	10	5	15	0	0	0	0	35	63	98	203
Approach %	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	67.8	32.2		0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	35.7	64.3		
Total %	0.0	0.0	0.0	0.0	0.5	1.0	1.5	0.0	0.0	0.0	0.0	29.1	13.8	42.9	0.0	0.0	0.0	0.0	4.9	2.5	7.4	0.0	0.0	0.0	0.0	17.2	31.0	48.3	
Exiting Leg Total	3							87							15							98							203

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street							Oxford Street							Central Street							Gibbens Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	7	4	11	0	0	0	0	2	2	4	0	0	0	0	3	11	14	30
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	14	4	18	0	0	0	0	4	1	5	0	0	0	0	5	9	14	37
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	7	5	12	0	0	0	0	1	1	2	0	0	0	0	4	13	17	31
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	7	13	0	0	0	0	0	1	1	0	0	0	0	8	9	17	31
Total Volume	0	0	0	0	1	0	1	0	0	0	0	34	20	54	0	0	0	0	7	5	12	0	0	0	0	20	42	62	129
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	63.0	37.0		0.0	0.0	0.0	0.0	58.3	41.7		0.0	0.0	0.0	0.0	32.3	67.7		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.607	0.714	0.750	0.000	0.000	0.000	0.000	0.438	0.625	0.600	0.000	0.000	0.000	0.000	0.625	0.808	0.912	0.872
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	34	20	54	0	0	0	0	7	5	12	0	0	0	0	20	42	62	129
Exiting Leg	1							54							12							62							129
Total	2							108							24							124							258

PDI File #: **197355 BB**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	33	0	0	33	2	0	2	0	4	0	106	0	0	106	1	0	0	0	1	144
4:15 PM	0	29	0	0	29	4	0	1	0	5	0	90	0	0	90	3	0	2	0	5	129
4:30 PM	0	36	0	0	36	3	0	0	0	3	0	95	0	0	95	1	0	1	0	2	136
4:45 PM	0	34	0	0	34	2	0	3	0	5	0	107	0	0	107	2	0	1	0	3	149
<b>Total</b>	0	132	0	0	132	11	0	6	0	17	0	398	0	0	398	7	0	4	0	11	558
5:00 PM	0	43	0	0	43	3	0	0	0	3	0	111	0	0	111	1	0	0	0	1	158
5:15 PM	0	52	0	0	52	2	0	1	0	3	0	107	0	0	107	1	0	0	0	1	163
5:30 PM	0	44	0	0	44	3	0	0	0	3	0	82	0	0	82	1	0	4	0	5	134
5:45 PM	0	44	0	0	44	1	0	1	0	2	0	107	0	0	107	2	0	1	0	3	156
<b>Total</b>	0	183	0	0	183	9	0	2	0	11	0	407	0	0	407	5	0	5	0	10	611
Grand Total	0	315	0	0	315	20	0	8	0	28	0	805	0	0	805	12	0	9	0	21	1169
Approach %	0.0	100.0	0.0	0.0		71.4	0.0	28.6	0.0		0.0	100.0	0.0	0.0		57.1	0.0	42.9	0.0		
Total %	0.0	26.9	0.0	0.0	26.9	1.7	0.0	0.7	0.0	2.4	0.0	68.9	0.0	0.0	68.9	1.0	0.0	0.8	0.0	1.8	
Exiting Leg Total	834					0					335					0					1169
Cars	0	312	0	0	312	20	0	8	0	28	0	800	0	0	800	12	0	9	0	21	1161
% Cars	0.0	99.0	0.0	0.0	99.0	100.0	0.0	100.0	0.0	100.0	0.0	99.4	0.0	0.0	99.4	100.0	0.0	100.0	0.0	100.0	99.3
Exiting Leg Total	829					0					332					0					1161
Heavy Vehicles	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	8
% Heavy Vehicles	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.7
Exiting Leg Total	5					0					3					0					8

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	33	0	0	33	2	0	2	0	4	0	106	0	0	106	1	0	0	0	1	144
4:15 PM	0	29	0	0	29	4	0	1	0	5	0	90	0	0	90	3	0	2	0	5	129
4:30 PM	0	36	0	0	36	3	0	0	0	3	0	95	0	0	95	1	0	1	0	2	136
4:45 PM	0	34	0	0	34	2	0	3	0	5	0	107	0	0	107	2	0	1	0	3	149
Total Volume	0	132	0	0	132	11	0	6	0	17	0	398	0	0	398	7	0	4	0	11	558
% Approach Total	0.0	100.0	0.0	0.0		64.7	0.0	35.3	0.0		0.0	100.0	0.0	0.0		63.6	0.0	36.4	0.0		
PHF	0.000	0.917	0.000	0.000	0.917	0.688	0.000	0.500	0.000	0.850	0.000	0.930	0.000	0.000	0.930	0.583	0.000	0.500	0.000	0.550	0.936
Cars	0	130	0	0	130	11	0	6	0	17	0	395	0	0	395	7	0	4	0	11	553
Cars %	0.0	98.5	0.0	0.0	98.5	100.0	0.0	100.0	0.0	100.0	0.0	99.2	0.0	0.0	99.2	100.0	0.0	100.0	0.0	100.0	99.1
Heavy Vehicles	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
Heavy Vehicles %	0.0	1.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.9
Cars Enter Leg	0	130	0	0	130	11	0	6	0	17	0	395	0	0	395	7	0	4	0	11	553
Heavy Enter Leg	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
Total Entering Leg	0	132	0	0	132	11	0	6	0	17	0	398	0	0	398	7	0	4	0	11	558
Cars Exiting Leg	410					0					143					0					553
Heavy Exiting Leg	3					0					2					0					5
Total Exiting Leg	413					0					145					0					558

PDI File #: **197355 BB**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class: **Cars**



	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	33	0	0	33	2	0	2	0	4	0	106	0	0	106	1	0	0	0	1	144
4:15 PM	0	28	0	0	28	4	0	1	0	5	0	87	0	0	87	3	0	2	0	5	125
4:30 PM	0	35	0	0	35	3	0	0	0	3	0	95	0	0	95	1	0	1	0	2	135
4:45 PM	0	34	0	0	34	2	0	3	0	5	0	107	0	0	107	2	0	1	0	3	149
<b>Total</b>	0	130	0	0	130	11	0	6	0	17	0	395	0	0	395	7	0	4	0	11	553
5:00 PM	0	43	0	0	43	3	0	0	0	3	0	111	0	0	111	1	0	0	0	1	158
5:15 PM	0	52	0	0	52	2	0	1	0	3	0	106	0	0	106	1	0	0	0	1	162
5:30 PM	0	43	0	0	43	3	0	0	0	3	0	81	0	0	81	1	0	4	0	5	132
5:45 PM	0	44	0	0	44	1	0	1	0	2	0	107	0	0	107	2	0	1	0	3	156
<b>Total</b>	0	182	0	0	182	9	0	2	0	11	0	405	0	0	405	5	0	5	0	10	608
<b>Grand Total</b>	0	312	0	0	312	20	0	8	0	28	0	800	0	0	800	12	0	9	0	21	1161
Approach %	0.0	100.0	0.0	0.0		71.4	0.0	28.6	0.0		0.0	100.0	0.0	0.0		57.1	0.0	42.9	0.0		
Total %	0.0	26.9	0.0	0.0	26.9	1.7	0.0	0.7	0.0	2.4	0.0	68.9	0.0	0.0	68.9	1.0	0.0	0.8	0.0	1.8	
Exiting Leg Total	829					0					332					0					1161

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	33	0	0	33	2	0	2	0	4	0	106	0	0	106	1	0	0	0	1	144
4:15 PM	0	28	0	0	28	4	0	1	0	5	0	87	0	0	87	3	0	2	0	5	125
4:30 PM	0	35	0	0	35	3	0	0	0	3	0	95	0	0	95	1	0	1	0	2	135
4:45 PM	0	34	0	0	34	2	0	3	0	5	0	107	0	0	107	2	0	1	0	3	149
<b>Total Volume</b>	0	130	0	0	130	11	0	6	0	17	0	395	0	0	395	7	0	4	0	11	553
% Approach Total	0.0	100.0	0.0	0.0		64.7	0.0	35.3	0.0		0.0	100.0	0.0	0.0		63.6	0.0	36.4	0.0		
PHF	0.000	0.929	0.000	0.000	0.929	0.688	0.000	0.500	0.000	0.850	0.000	0.923	0.000	0.000	0.923	0.583	0.000	0.500	0.000	0.550	0.928
Entering Leg	0	130	0	0	130	11	0	6	0	17	0	395	0	0	395	7	0	4	0	11	553
Exiting Leg	410					0					143					0					553
<b>Total</b>	540					17					538					11					1106

PDI File #: **197355 BB**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
<b>Grand Total</b>	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	8
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	37.5	0.0	0.0	37.5	0.0	0.0	0.0	0.0	0.0	0.0	62.5	0.0	0.0	62.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	5					0					3					0					8
Buses	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Buses	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5
Exiting Leg Total	0					0					1					0					1
Single-Unit Trucks	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	7
% Single-Unit	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	87.5
Exiting Leg Total	5					0					2					0					7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Volume</b>	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.313
Buses	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Buses %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
Single-Unit Trucks	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
Single-Unit %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	80.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Single-Unit Trucks	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Entering Leg</b>	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
Buses	0					0					1					0					1
Single-Unit Trucks	3					0					1					0					4
Articulated Trucks	0					0					0					0					0
<b>Total Exiting Leg</b>	3					0					2					0					5

PDI File #: **197355 BB**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Buses**

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Grand Total</b>	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					0					1					0					1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Volume</b>	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>% Approach Total</b>	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg	0					0					1					0					1
<b>Total</b>	1					0					1					0					2

PDI File #: **197355 BB**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Single-Unit Trucks**

	Central Street					Oxford Street					Central Street					Gibbens Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</b>	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</b>	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3	
Grand Total	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	7	
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0			
Total %	0.0	28.6	0.0	0.0	28.6	0.0	0.0	0.0	0.0	0.0	0.0	71.4	0.0	0.0	71.4	0.0	0.0	0.0	0.0	0.0		
Exiting Leg Total						5					0					2					0	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3	
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4	
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0			
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.333	
Entering Leg	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4	
Exiting Leg						3					0					1					0	4
Total						4					0					4					0	8

PDI File #: **197355 BB**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Oxford Street W: Gibbens Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Articulated Trucks**

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Oxford Street					Central Street					Gibbens Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: 197355 BB  
 Location: N: Central Street S: Central Street  
 Location: E: Oxford Street W: Gibbens Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

	Central Street							Oxford Street							Central Street							Gibbens Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	3			
4:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	2	2	0	3	0	0	0	0	0	3	0	0	0	6			
4:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	3			
4:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	3			
Total	0	4	0	0	0	0	4	0	0	0	0	0	4	4	0	7	0	0	0	0	0	7	0	0	0	15			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	8			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	10	1	0	0	0	0	12	0	0	0	13				
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	13	0	0	0	0	0	13	0	0	0	14				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	1	0	0	7				
Total	0	1	0	0	0	0	1	0	0	0	0	1	1	1	37	1	0	0	0	0	39	1	0	0	42				
Grand Total	0	5	0	0	0	0	5	0	0	0	0	5	5	1	44	1	0	0	0	0	46	1	0	0	57				
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0		2.2	95.7	2.2	0.0	0.0	0.0		100.0	0.0	0.0	0.0					
Total %	0.0	8.8	0.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0	8.8	8.8	1.8	77.2	1.8	0.0	0.0	0.0	80.7	1.8	0.0	0.0	0.0	1.8				
Exiting Leg Total	44							6							6							1							57

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street							Oxford Street							Central Street							Gibbens Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	8			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	10	1	0	0	0	12	0	0	0	0	0	13			
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	13	0	0	0	0	13	0	0	0	0	0	14			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	1	0	0	0	1	7			
Total Volume	0	1	0	0	0	0	1	0	0	0	0	1	1	1	37	1	0	0	0	39	1	0	0	0	1	42			
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0		2.6	94.9	2.6	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0				
PHF	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.712	0.250	0.000	0.000	0.000	0.750	0.250	0.000	0.000	0.000	0.250	0.750			
Entering Leg	0	1	0	0	0	0	1	0	0	0	0	1	1	1	37	1	0	0	0	39	1	0	0	0	1	42			
Exiting Leg	37							2							2							1							42
Total	38							3							41							2							84

PDI File #: 197355 BB  
 Location: N: Central Street S: Central Street  
 Location: E: Oxford Street W: Gibbens Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Pedestrians**

	Central Street							Oxford Street							Central Street							Gibbens Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	3	4	7	12		
4:15 PM	0	0	0	0	2	0	2	0	0	0	0	4	1	5	0	0	0	0	1	0	1	0	0	0	1	4	5	13	
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	6	8	0	0	0	0	0	0	0	0	0	0	1	7	8	16		
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	3	1	4	9		
Total	0	0	0	0	3	0	3	0	0	0	0	8	14	22	0	0	0	0	1	0	1	0	0	0	8	16	24	50	
5:00 PM	0	0	0	0	0	0	0	0	0	0	4	13	17	0	0	0	0	0	0	0	0	0	0	6	5	11	28		
5:15 PM	0	0	0	0	1	1	2	0	0	0	0	8	6	14	0	0	0	0	1	1	2	0	0	0	0	2	3	5	23
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	6	10	0	0	0	0	0	0	1	1	0	0	0	0	6	1	7	18
5:45 PM	0	0	0	0	0	1	1	0	0	0	4	10	14	0	0	0	0	0	0	0	0	0	0	7	4	11	26		
Total	0	0	0	0	1	2	3	0	0	0	0	20	35	55	0	0	0	0	1	2	3	0	0	0	0	21	13	34	95
Grand Total	0	0	0	0	4	2	6	0	0	0	0	28	49	77	0	0	0	0	2	2	4	0	0	0	0	29	29	58	145
Approach %	0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	36.4	63.6		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	50.0	50.0		
Total %	0.0	0.0	0.0	0.0	2.8	1.4	4.1	0.0	0.0	0.0	0.0	19.3	33.8	53.1	0.0	0.0	0.0	0.0	1.4	1.4	2.8	0.0	0.0	0.0	0.0	20.0	20.0	40.0	
Exiting Leg Total	6							77							4							58							145

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street							Oxford Street							Central Street							Gibbens Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	4	13	17	0	0	0	0	0	0	0	0	0	6	5	11	28		
5:15 PM	0	0	0	0	1	1	2	0	0	0	0	8	6	14	0	0	0	0	1	1	2	0	0	0	0	2	3	5	23
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	6	10	0	0	0	0	0	0	1	1	0	0	0	0	6	1	7	18
5:45 PM	0	0	0	0	0	1	1	0	0	0	4	10	14	0	0	0	0	0	0	0	0	0	0	7	4	11	26		
Total Volume	0	0	0	0	1	2	3	0	0	0	0	20	35	55	0	0	0	0	1	2	3	0	0	0	0	21	13	34	95
% Approach Total	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	36.4	63.6		0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	61.8	38.2		
PHF	0.000	0.000	0.000	0.000	0.250	0.500	0.375	0.000	0.000	0.000	0.000	0.625	0.673	0.809	0.000	0.000	0.000	0.000	0.250	0.500	0.375	0.000	0.000	0.000	0.000	0.750	0.650	0.773	0.848
Entering Leg	0	0	0	0	1	2	3	0	0	0	0	20	35	55	0	0	0	0	1	2	3	0	0	0	0	21	13	34	95
Exiting Leg	3							55							3							34							95
Total	6							110							6							68							190

PDI File #: **197355 C**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	22	0	36	0	58	9	31	0	0	40	6	36	5	0	47	0	67	9	0	76	221
7:15 AM	14	0	55	0	69	8	26	0	0	34	11	38	2	0	51	0	86	3	0	89	243
7:30 AM	19	0	40	0	59	9	25	0	0	34	7	41	11	0	59	0	86	7	0	93	245
7:45 AM	23	0	46	0	69	5	36	0	0	41	10	37	11	0	58	0	96	6	0	102	270
<b>Total</b>	<b>78</b>	<b>0</b>	<b>177</b>	<b>0</b>	<b>255</b>	<b>31</b>	<b>118</b>	<b>0</b>	<b>0</b>	<b>149</b>	<b>34</b>	<b>152</b>	<b>29</b>	<b>0</b>	<b>215</b>	<b>0</b>	<b>335</b>	<b>25</b>	<b>0</b>	<b>360</b>	<b>979</b>
8:00 AM	17	0	37	0	54	18	44	0	0	62	10	51	14	0	75	0	101	9	0	110	301
8:15 AM	17	0	49	0	66	10	31	0	0	41	10	49	7	0	66	0	113	5	0	118	291
8:30 AM	21	0	46	0	67	9	25	0	0	34	8	33	6	0	47	0	107	6	0	113	261
8:45 AM	16	0	56	0	72	6	30	0	0	36	12	44	5	0	61	0	96	2	0	98	267
<b>Total</b>	<b>71</b>	<b>0</b>	<b>188</b>	<b>0</b>	<b>259</b>	<b>43</b>	<b>130</b>	<b>0</b>	<b>0</b>	<b>173</b>	<b>40</b>	<b>177</b>	<b>32</b>	<b>0</b>	<b>249</b>	<b>0</b>	<b>417</b>	<b>22</b>	<b>0</b>	<b>439</b>	<b>1120</b>
Grand Total	149	0	365	0	514	74	248	0	0	322	74	329	61	0	464	0	752	47	0	799	2099
Approach %	29.0	0.0	71.0	0.0		23.0	77.0	0.0	0.0		15.9	70.9	13.1	0.0		0.0	94.1	5.9	0.0		
Total %	7.1	0.0	17.4	0.0	24.5	3.5	11.8	0.0	0.0	15.3	3.5	15.7	2.9	0.0	22.1	0.0	35.8	2.2	0.0	38.1	
Exiting Leg Total	450					1191					0					458					2099
Cars	147	0	358	0	505	69	240	0	0	309	72	313	59	0	444	0	740	45	0	785	2043
% Cars	98.7	0.0	98.1	0.0	98.2	93.2	96.8	0.0	0.0	96.0	97.3	95.1	96.7	0.0	95.7	0.0	98.4	95.7	0.0	98.2	97.3
Exiting Leg Total	427					1170					0					446					2043
Heavy Vehicles	2	0	7	0	9	5	8	0	0	13	2	16	2	0	20	0	12	2	0	14	56
% Heavy Vehicles	1.3	0.0	1.9	0.0	1.8	6.8	3.2	0.0	0.0	4.0	2.7	4.9	3.3	0.0	4.3	0.0	1.6	4.3	0.0	1.8	2.7
Exiting Leg Total	23					21					0					12					56

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	23	0	46	0	69	5	36	0	0	41	10	37	11	0	58	0	96	6	0	102	270
8:00 AM	17	0	37	0	54	18	44	0	0	62	10	51	14	0	75	0	101	9	0	110	301
8:15 AM	17	0	49	0	66	10	31	0	0	41	10	49	7	0	66	0	113	5	0	118	291
8:30 AM	21	0	46	0	67	9	25	0	0	34	8	33	6	0	47	0	107	6	0	113	261
Total Volume	78	0	178	0	256	42	136	0	0	178	38	170	38	0	246	0	417	26	0	443	1123
% Approach Total	30.5	0.0	69.5	0.0		23.6	76.4	0.0	0.0		15.4	69.1	15.4	0.0		0.0	94.1	5.9	0.0		
PHF	0.848	0.000	0.908	0.000	0.928	0.583	0.773	0.000	0.000	0.718	0.950	0.833	0.679	0.000	0.820	0.000	0.923	0.722	0.000	0.939	0.933
Cars	78	0	172	0	250	40	132	0	0	172	37	161	38	0	236	0	413	24	0	437	1095
Cars %	100.0	0.0	96.6	0.0	97.7	95.2	97.1	0.0	0.0	96.6	97.4	94.7	100.0	0.0	95.9	0.0	99.0	92.3	0.0	98.6	97.5
Heavy Vehicles	0	0	6	0	6	2	4	0	0	6	1	9	0	0	10	0	4	2	0	6	28
Heavy Vehicles %	0.0	0.0	3.4	0.0	2.3	4.8	2.9	0.0	0.0	3.4	2.6	5.3	0.0	0.0	4.1	0.0	1.0	7.7	0.0	1.4	2.5
Cars Enter Leg	78	0	172	0	250	40	132	0	0	172	37	161	38	0	236	0	413	24	0	437	1095
Heavy Enter Leg	0	0	6	0	6	2	4	0	0	6	1	9	0	0	10	0	4	2	0	6	28
Total Entering Leg	78	0	178	0	256	42	136	0	0	178	38	170	38	0	246	0	417	26	0	443	1123
Cars Exiting Leg	225					622					0					248					1095
Heavy Exiting Leg	13					11					0					4					28
Total Exiting Leg	238					633					0					252					1123

PDI File #: **197355 C**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars**

	Central Street					Summer Street					Central Street					Summer Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
7:00 AM	21	0	36	0	57	8	30	0	0	38	6	33	5	0	44	0	67	9	0	76	215					
7:15 AM	14	0	55	0	69	7	25	0	0	32	10	36	2	0	48	0	84	3	0	87	236					
7:30 AM	19	0	39	0	58	8	24	0	0	32	7	40	9	0	56	0	85	7	0	92	238					
7:45 AM	23	0	45	0	68	5	36	0	0	41	10	36	11	0	57	0	96	5	0	101	267					
<b>Total</b>	<b>77</b>	<b>0</b>	<b>175</b>	<b>0</b>	<b>252</b>	<b>28</b>	<b>115</b>	<b>0</b>	<b>0</b>	<b>143</b>	<b>33</b>	<b>145</b>	<b>27</b>	<b>0</b>	<b>205</b>	<b>0</b>	<b>332</b>	<b>24</b>	<b>0</b>	<b>356</b>	<b>956</b>					
8:00 AM	17	0	37	0	54	17	40	0	0	57	9	48	14	0	71	0	101	9	0	110	292					
8:15 AM	17	0	44	0	61	10	31	0	0	41	10	46	7	0	63	0	112	5	0	117	282					
8:30 AM	21	0	46	0	67	8	25	0	0	33	8	31	6	0	45	0	104	5	0	109	254					
8:45 AM	15	0	56	0	71	6	29	0	0	35	12	43	5	0	60	0	91	2	0	93	259					
<b>Total</b>	<b>70</b>	<b>0</b>	<b>183</b>	<b>0</b>	<b>253</b>	<b>41</b>	<b>125</b>	<b>0</b>	<b>0</b>	<b>166</b>	<b>39</b>	<b>168</b>	<b>32</b>	<b>0</b>	<b>239</b>	<b>0</b>	<b>408</b>	<b>21</b>	<b>0</b>	<b>429</b>	<b>1087</b>					
Grand Total	147	0	358	0	505	69	240	0	0	309	72	313	59	0	444	0	740	45	0	785	2043					
Approach %	29.1	0.0	70.9	0.0		22.3	77.7	0.0	0.0		16.2	70.5	13.3	0.0		0.0	94.3	5.7	0.0							
Total %	7.2	0.0	17.5	0.0	24.7	3.4	11.7	0.0	0.0	15.1	3.5	15.3	2.9	0.0	21.7	0.0	36.2	2.2	0.0	38.4						
Exiting Leg Total						427					1170					0					446					2043

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
7:45 AM	23	0	45	0	68	5	36	0	0	41	10	36	11	0	57	0	96	5	0	101	267					
8:00 AM	17	0	37	0	54	17	40	0	0	57	9	48	14	0	71	0	101	9	0	110	292					
8:15 AM	17	0	44	0	61	10	31	0	0	41	10	46	7	0	63	0	112	5	0	117	282					
8:30 AM	21	0	46	0	67	8	25	0	0	33	8	31	6	0	45	0	104	5	0	109	254					
Total Volume	78	0	172	0	250	40	132	0	0	172	37	161	38	0	236	0	413	24	0	437	1095					
% Approach Total	31.2	0.0	68.8	0.0		23.3	76.7	0.0	0.0		15.7	68.2	16.1	0.0		0.0	94.5	5.5	0.0							
PHF	0.848	0.000	0.935	0.000	0.919	0.588	0.825	0.000	0.000	0.754	0.925	0.839	0.679	0.000	0.831	0.000	0.922	0.667	0.000	0.934	0.938					
Entering Leg	78	0	172	0	250	40	132	0	0	172	37	161	38	0	236	0	413	24	0	437	1095					
Exiting Leg						225					622					0					248					1095
Total						475					794					236					685					2190

PDI File #: **197355 C**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	0	0	0	1	1	1	0	0	2	0	3	0	0	3	0	0	0	0	0	6
7:15 AM	0	0	0	0	0	1	1	0	0	2	1	2	0	0	3	0	2	0	0	2	7
7:30 AM	0	0	1	0	1	1	1	0	0	2	0	1	2	0	3	0	1	0	0	1	7
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	3
Total	1	0	2	0	3	3	3	0	0	6	1	7	2	0	10	0	3	1	0	4	23
8:00 AM	0	0	0	0	0	1	4	0	0	5	1	3	0	0	4	0	0	0	0	0	9
8:15 AM	0	0	5	0	5	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	9
8:30 AM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	3	1	0	4	7
8:45 AM	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	5	0	0	5	8
Total	1	0	5	0	6	2	5	0	0	7	1	9	0	0	10	0	9	1	0	10	33
Grand Total	2	0	7	0	9	5	8	0	0	13	2	16	2	0	20	0	12	2	0	14	56
Approach %	22.2	0.0	77.8	0.0		38.5	61.5	0.0	0.0		10.0	80.0	10.0	0.0		0.0	85.7	14.3	0.0		
Total %	3.6	0.0	12.5	0.0	16.1	8.9	14.3	0.0	0.0	23.2	3.6	28.6	3.6	0.0	35.7	0.0	21.4	3.6	0.0	25.0	
Exiting Leg Total	23					21					0					12					56
Buses	1	0	2	0	3	3	0	0	0	3	1	7	1	0	9	0	6	1	0	7	22
% Buses	50.0	0.0	28.6	0.0	33.3	60.0	0.0	0.0	0.0	23.1	50.0	43.8	50.0	0.0	45.0	0.0	50.0	50.0	0.0	50.0	39.3
Exiting Leg Total	11					9					0					2					22
Single-Unit Trucks	1	0	5	0	6	2	7	0	0	9	0	9	1	0	10	0	6	0	0	6	31
% Single-Unit	50.0	0.0	71.4	0.0	66.7	40.0	87.5	0.0	0.0	69.2	0.0	56.3	50.0	0.0	50.0	0.0	50.0	0.0	0.0	42.9	55.4
Exiting Leg Total	11					11					0					9					31
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	1	0	1	3
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	7.7	50.0	0.0	0.0	0.0	5.0	0.0	0.0	50.0	0.0	7.1	5.4
Exiting Leg Total	1					1					0					1					3

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	1	4	0	0	5	1	3	0	0	4	0	0	0	0	0	9
8:15 AM	0	0	5	0	5	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	9
8:30 AM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	3	1	0	4	7
8:45 AM	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	5	0	0	5	8
Total Volume	1	0	5	0	6	2	5	0	0	7	1	9	0	0	10	0	9	1	0	10	33
% Approach Total	16.7	0.0	83.3	0.0		28.6	71.4	0.0	0.0		10.0	90.0	0.0	0.0		0.0	90.0	10.0	0.0		
PHF	0.250	0.000	0.250	0.000	0.300	0.500	0.313	0.000	0.000	0.350	0.250	0.750	0.000	0.000	0.625	0.000	0.450	0.250	0.000	0.500	0.917
Buses	1	0	1	0	2	1	0	0	0	1	0	4	0	0	4	0	4	0	0	4	11
Buses %	100.0	0.0	20.0	0.0	33.3	50.0	0.0	0.0	0.0	14.3	0.0	44.4	0.0	0.0	40.0	0.0	44.4	0.0	0.0	40.0	33.3
Single-Unit Trucks	0	0	4	0	4	1	4	0	0	5	0	5	0	0	5	0	5	0	0	5	19
Single-Unit %	0.0	0.0	80.0	0.0	66.7	50.0	80.0	0.0	0.0	71.4	0.0	55.6	0.0	0.0	50.0	0.0	55.6	0.0	0.0	50.0	57.6
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	1	0	1	3
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	14.3	100.0	0.0	0.0	0.0	10.0	0.0	0.0	100.0	0.0	10.0	9.1
Buses	1	0	1	0	2	1	0	0	0	1	0	4	0	0	4	0	4	0	0	4	11
Single-Unit Trucks	0	0	4	0	4	1	4	0	0	5	0	5	0	0	5	0	5	0	0	5	19
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	1	0	1	3
Total Entering Leg	1	0	5	0	6	2	5	0	0	7	1	9	0	0	10	0	9	1	0	10	33
Buses	5					5					0					1					11
Single-Unit Trucks	6					9					0					4					19
Articulated Trucks	1					1					0					1					3
Total Exiting Leg	12					15					0					6					33

PDI File #: **197355 C**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Buses**

	Central Street					Summer Street					Central Street					Summer Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	0	0	2	5	
7:30 AM	0	0	1	0	1	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	3	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2	
<b>Total</b>	0	0	1	0	1	2	0	0	0	2	1	3	1	0	5	0	2	1	0	3	11	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	
8:15 AM	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3	
8:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	3	
8:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3	
<b>Total</b>	1	0	1	0	2	1	0	0	0	1	0	4	0	0	4	0	4	0	0	4	11	
Grand Total	1	0	2	0	3	3	0	0	0	3	1	7	1	0	9	0	6	1	0	7	22	
Approach %	33.3	0.0	66.7	0.0		100.0	0.0	0.0	0.0		11.1	77.8	11.1	0.0		0.0	85.7	14.3	0.0			
Total %	4.5	0.0	9.1	0.0	13.6	13.6	0.0	0.0	0.0	13.6	4.5	31.8	4.5	0.0	40.9	0.0	27.3	4.5	0.0	31.8		
Exiting Leg Total																					2	22

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	0	0	2	5	
7:30 AM	0	0	1	0	1	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	3	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	
<b>Total Volume</b>	0	0	1	0	1	1	0	0	0	1	1	5	1	0	7	0	2	1	0	3	12	
<b>% Approach Total</b>	0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		14.3	71.4	14.3	0.0		0.0	66.7	33.3	0.0			
PHF	0.000	0.000	0.250	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.250	0.625	0.250	0.000	0.583	0.000	0.250	0.250	0.000	0.375	0.600	
Entering Leg	0	0	1	0	1	1	0	0	0	1	1	5	1	0	7	0	2	1	0	3	12	
Exiting Leg																					1	12
<b>Total</b>																					4	24

PDI File #: **197355 C**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Single-Unit Trucks**

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	0	0	0	1	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	5
7:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	1	1	0	2	0	1	0	0	1	4
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>Total</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>12</b>
8:00 AM	0	0	0	0	0	1	3	0	0	4	0	1	0	0	1	0	0	0	0	0	5
8:15 AM	0	0	4	0	4	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	6
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	3	0	0	3	5
<b>Total</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>19</b>
Grand Total	1	0	5	0	6	2	7	0	0	9	0	9	1	0	10	0	6	0	0	6	31
Approach %	16.7	0.0	83.3	0.0		22.2	77.8	0.0	0.0		0.0	90.0	10.0	0.0		0.0	100.0	0.0	0.0		
Total %	3.2	0.0	16.1	0.0	19.4	6.5	22.6	0.0	0.0	29.0	0.0	29.0	3.2	0.0	32.3	0.0	19.4	0.0	0.0	19.4	
Exiting Leg Total	11					11					0					9					31

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	1	3	0	0	4	0	1	0	0	1	0	0	0	0	0	5
8:15 AM	0	0	4	0	4	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	6
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	3	0	0	3	5
Total Volume	0	0	4	0	4	1	4	0	0	5	0	5	0	0	5	0	5	0	0	5	19
% Approach Total	0.0	0.0	100.0	0.0		20.0	80.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.250	0.000	0.250	0.250	0.333	0.000	0.000	0.313	0.000	0.625	0.000	0.000	0.625	0.000	0.417	0.000	0.000	0.417	0.792
Entering Leg	0	0	4	0	4	1	4	0	0	5	0	5	0	0	5	0	5	0	0	5	19
Exiting Leg	6					9					0					4					19
Total	10					14					5					9					38

PDI File #: **197355 C**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Articulated Trucks**

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	1	0	1	3
Grand Total	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	1	0	1	3
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	33.3	0.0	0.0	0.0	33.3	0.0	0.0	33.3	0.0	33.3	
Exiting Leg Total	1					1					0					1					3

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
<b>Total Volume</b>	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	1	0	1	3
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.375
Entering Leg	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	1	0	1	3
Exiting Leg	1					1					0					1					3
<b>Total</b>	1					2					1					2					6

PDI File #: 197355 C  
 Location: N: Central Street S: Central Street  
 Location: E: Summer Street W: Summer Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

	Central Street							Summer Street							Central Street							Summer Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
7:15 AM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4			
7:30 AM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
7:45 AM	0	0	4	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7			
Total	0	0	11	0	0	0	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	16			
8:00 AM	0	0	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5			
8:15 AM	0	0	12	0	1	0	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	24			
8:30 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	9			
8:45 AM	0	0	6	0	0	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10			
Total	0	0	23	0	2	0	25	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	48			
Grand Total	0	0	34	0	2	0	36	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	64			
Approach %	0.0	0.0	94.4	0.0	5.6	0.0		100.0	0.0	0.0	0.0	0.0	0.0		14.3	85.7	0.0	0.0	0.0	0.0		0.0	93.8	6.3	0.0	0.0	0.0		
Total %	0.0	0.0	53.1	0.0	3.1	0.0	56.3	7.8	0.0	0.0	0.0	0.0	0.0	7.8	1.6	9.4	0.0	0.0	0.0	0.0	10.9	0.0	23.4	1.6	0.0	0.0	25.0		
Exiting Leg Total	14							50							0							0							64

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Central Street							Summer Street							Central Street							Summer Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5		
8:15 AM	0	0	12	0	1	0	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	24		
8:30 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	9		
8:45 AM	0	0	6	0	0	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10		
Total Volume	0	0	23	0	2	0	25	4	0	0	0	0	0	4	0	6	0	0	0	0	6	0	12	1	0	0	13	48	
% Approach Total	0.0	0.0	92.0	0.0	8.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	92.3	7.7	0.0	0.0	0.0		
PHF	0.000	0.000	0.479	0.000	0.500	0.000	0.481	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.600	0.250	0.000	0.000	0.000	0.542	0.500	
Entering Leg	0	0	23	0	2	0	25	4	0	0	0	0	4	0	6	0	0	0	0	6	0	12	1	0	0	13	48		
Exiting Leg	13							35							0							0							48
Total	38							39							6							13							96

PDI File #: 197355 C  
 Location: N: Central Street S: Central Street  
 Location: E: Summer Street W: Summer Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Pedestrians**

	Central Street							Summer Street							Central Street							Summer Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	6	0	6	0	0	0	0	3	0	3	0	0	0	0	1	0	1	0	0	0	0	1	4	5	15
7:15 AM	0	0	0	0	2	2	4	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	4	7	11	17
7:30 AM	0	0	0	0	6	3	9	0	0	0	0	4	2	6	0	0	0	0	0	4	4	0	0	0	0	2	3	5	24
7:45 AM	0	0	0	0	7	8	15	0	0	0	0	10	1	11	0	0	0	0	4	7	11	0	0	0	0	1	9	10	47
Total	0	0	0	0	21	13	34	0	0	0	0	18	3	21	0	0	0	0	6	11	17	0	0	0	0	8	23	31	103
8:00 AM	0	0	0	0	6	6	12	0	0	0	0	7	3	10	0	0	0	0	1	4	5	0	0	0	0	0	8	8	35
8:15 AM	0	0	0	0	7	4	11	0	0	0	0	2	1	3	0	0	0	0	3	1	4	0	0	0	0	5	11	16	34
8:30 AM	0	0	0	0	5	5	10	0	0	0	0	8	6	14	0	0	0	0	1	2	3	0	0	0	0	3	13	16	43
8:45 AM	0	0	0	0	5	1	6	0	0	0	0	4	2	6	0	0	0	0	1	0	1	0	0	0	0	5	9	14	27
Total	0	0	0	0	23	16	39	0	0	0	0	21	12	33	0	0	0	0	6	7	13	0	0	0	0	13	41	54	139
Grand Total	0	0	0	0	44	29	73	0	0	0	0	39	15	54	0	0	0	0	12	18	30	0	0	0	0	21	64	85	242
Approach %	0.0	0.0	0.0	0.0	60.3	39.7		0.0	0.0	0.0	0.0	72.2	27.8		0.0	0.0	0.0	0.0	40.0	60.0		0.0	0.0	0.0	0.0	24.7	75.3		
Total %	0.0	0.0	0.0	0.0	18.2	12.0	30.2	0.0	0.0	0.0	0.0	16.1	6.2	22.3	0.0	0.0	0.0	0.0	5.0	7.4	12.4	0.0	0.0	0.0	0.0	8.7	26.4	35.1	
Exiting Leg Total	73							54							30							85	242						

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Central Street							Summer Street							Central Street							Summer Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:45 AM	0	0	0	0	7	8	15	0	0	0	0	10	1	11	0	0	0	0	4	7	11	0	0	0	0	1	9	10	47
8:00 AM	0	0	0	0	6	6	12	0	0	0	0	7	3	10	0	0	0	0	1	4	5	0	0	0	0	0	8	8	35
8:15 AM	0	0	0	0	7	4	11	0	0	0	0	2	1	3	0	0	0	0	3	1	4	0	0	0	0	5	11	16	34
8:30 AM	0	0	0	0	5	5	10	0	0	0	0	8	6	14	0	0	0	0	1	2	3	0	0	0	0	3	13	16	43
Total Volume	0	0	0	0	25	23	48	0	0	0	0	27	11	38	0	0	0	0	9	14	23	0	0	0	0	9	41	50	159
% Approach Total	0.0	0.0	0.0	0.0	52.1	47.9		0.0	0.0	0.0	0.0	71.1	28.9		0.0	0.0	0.0	0.0	39.1	60.9		0.0	0.0	0.0	0.0	18.0	82.0		
PHF	0.000	0.000	0.000	0.000	0.893	0.719	0.800	0.000	0.000	0.000	0.000	0.675	0.458	0.679	0.000	0.000	0.000	0.000	0.563	0.500	0.523	0.000	0.000	0.000	0.000	0.450	0.788	0.781	0.846
Entering Leg	0	0	0	0	25	23	48	0	0	0	0	27	11	38	0	0	0	0	9	14	23	0	0	0	0	9	41	50	159
Exiting Leg	48							38							23							50	159						
Total	96							76							46							100	318						

PDI File #: **197355 CC**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	15	0	19	0	34	29	59	0	0	88	7	89	12	0	108	0	33	9	0	42	272
4:15 PM	12	0	15	0	27	16	74	0	0	90	6	90	12	0	108	0	30	5	0	35	260
4:30 PM	14	0	15	0	29	8	79	0	0	87	12	76	14	0	102	0	34	7	0	41	259
4:45 PM	12	0	16	0	28	16	96	0	0	112	13	90	18	0	121	0	34	12	0	46	307
<b>Total</b>	53	0	65	0	118	69	308	0	0	377	38	345	56	0	439	0	131	33	0	164	1098
5:00 PM	16	0	22	0	38	19	86	0	0	105	6	86	16	0	108	0	45	13	0	58	309
5:15 PM	27	0	24	0	51	17	77	0	0	94	8	92	10	0	110	0	56	9	0	65	320
5:30 PM	19	0	19	0	38	13	74	0	0	87	12	71	9	0	92	0	54	10	0	64	281
5:45 PM	15	0	24	0	39	22	87	0	0	109	12	101	9	0	122	0	43	6	0	49	319
<b>Total</b>	77	0	89	0	166	71	324	0	0	395	38	350	44	0	432	0	198	38	0	236	1229
Grand Total	130	0	154	0	284	140	632	0	0	772	76	695	100	0	871	0	329	71	0	400	2327
Approach %	45.8	0.0	54.2	0.0		18.1	81.9	0.0	0.0		8.7	79.8	11.5	0.0		0.0	82.3	17.8	0.0		
Total %	5.6	0.0	6.6	0.0	12.2	6.0	27.2	0.0	0.0	33.2	3.3	29.9	4.3	0.0	37.4	0.0	14.1	3.1	0.0	17.2	
Exiting Leg Total	906					559					0					862					2327
Cars	129	0	153	0	282	136	625	0	0	761	75	689	96	0	860	0	323	71	0	394	2297
% Cars	99.2	0.0	99.4	0.0	99.3	97.1	98.9	0.0	0.0	98.6	98.7	99.1	96.0	0.0	98.7	0.0	98.2	100.0	0.0	98.5	98.7
Exiting Leg Total	896					551					0					850					2297
Heavy Vehicles	1	0	1	0	2	4	7	0	0	11	1	6	4	0	11	0	6	0	0	6	30
% Heavy Vehicles	0.8	0.0	0.6	0.0	0.7	2.9	1.1	0.0	0.0	1.4	1.3	0.9	4.0	0.0	1.3	0.0	1.8	0.0	0.0	1.5	1.3
Exiting Leg Total	10					8					0					12					30

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	15	0	19	0	34	29	59	0	0	88	7	89	12	0	108	0	33	9	0	42	272
4:15 PM	12	0	15	0	27	16	74	0	0	90	6	90	12	0	108	0	30	5	0	35	260
4:30 PM	14	0	15	0	29	8	79	0	0	87	12	76	14	0	102	0	34	7	0	41	259
4:45 PM	12	0	16	0	28	16	96	0	0	112	13	90	18	0	121	0	34	12	0	46	307
Total Volume	53	0	65	0	118	69	308	0	0	377	38	345	56	0	439	0	131	33	0	164	1098
% Approach Total	44.9	0.0	55.1	0.0		18.3	81.7	0.0	0.0		8.7	78.6	12.8	0.0		0.0	79.9	20.1	0.0		
PHF	0.883	0.000	0.855	0.000	0.868	0.595	0.802	0.000	0.000	0.842	0.731	0.958	0.778	0.000	0.907	0.000	0.963	0.688	0.000	0.891	0.894
Cars	52	0	65	0	117	68	303	0	0	371	38	341	53	0	432	0	129	33	0	162	1082
Cars %	98.1	0.0	100.0	0.0	99.2	98.6	98.4	0.0	0.0	98.4	100.0	98.8	94.6	0.0	98.4	0.0	98.5	100.0	0.0	98.8	98.5
Heavy Vehicles	1	0	0	0	1	1	5	0	0	6	0	4	3	0	7	0	2	0	0	2	16
Heavy Vehicles %	1.9	0.0	0.0	0.0	0.8	1.4	1.6	0.0	0.0	1.6	0.0	1.2	5.4	0.0	1.6	0.0	1.5	0.0	0.0	1.2	1.5
Cars Enter Leg	52	0	65	0	117	68	303	0	0	371	38	341	53	0	432	0	129	33	0	162	1082
Heavy Enter Leg	1	0	0	0	1	1	5	0	0	6	0	4	3	0	7	0	2	0	0	2	16
Total Entering Leg	53	0	65	0	118	69	308	0	0	377	38	345	56	0	439	0	131	33	0	164	1098
Cars Exiting Leg	442					232					0					408					1082
Heavy Exiting Leg	5					2					0					9					16
Total Exiting Leg	447					234					0					417					1098

PDI File #: **197355 CC**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars**

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	15	0	19	0	34	28	59	0	0	87	7	88	12	0	107	0	33	9	0	42	270
4:15 PM	12	0	15	0	27	16	72	0	0	88	6	87	11	0	104	0	30	5	0	35	254
4:30 PM	13	0	15	0	28	8	77	0	0	85	12	76	14	0	102	0	34	7	0	41	256
4:45 PM	12	0	16	0	28	16	95	0	0	111	13	90	16	0	119	0	32	12	0	44	302
<b>Total</b>	52	0	65	0	117	68	303	0	0	371	38	341	53	0	432	0	129	33	0	162	1082
5:00 PM	16	0	22	0	38	18	85	0	0	103	6	86	15	0	107	0	44	13	0	57	305
5:15 PM	27	0	24	0	51	16	76	0	0	92	7	91	10	0	108	0	54	9	0	63	314
5:30 PM	19	0	18	0	37	13	74	0	0	87	12	71	9	0	92	0	54	10	0	64	280
5:45 PM	15	0	24	0	39	21	87	0	0	108	12	100	9	0	121	0	42	6	0	48	316
<b>Total</b>	77	0	88	0	165	68	322	0	0	390	37	348	43	0	428	0	194	38	0	232	1215
<b>Grand Total</b>	129	0	153	0	282	136	625	0	0	761	75	689	96	0	860	0	323	71	0	394	2297
Approach %	45.7	0.0	54.3	0.0		17.9	82.1	0.0	0.0		8.7	80.1	11.2	0.0		0.0	82.0	18.0	0.0		
Total %	5.6	0.0	6.7	0.0	12.3	5.9	27.2	0.0	0.0	33.1	3.3	30.0	4.2	0.0	37.4	0.0	14.1	3.1	0.0	17.2	
Exiting Leg Total	896					551					0					850					2297

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	15	0	19	0	34	28	59	0	0	87	7	88	12	0	107	0	33	9	0	42	270
4:15 PM	12	0	15	0	27	16	72	0	0	88	6	87	11	0	104	0	30	5	0	35	254
4:30 PM	13	0	15	0	28	8	77	0	0	85	12	76	14	0	102	0	34	7	0	41	256
4:45 PM	12	0	16	0	28	16	95	0	0	111	13	90	16	0	119	0	32	12	0	44	302
<b>Total Volume</b>	52	0	65	0	117	68	303	0	0	371	38	341	53	0	432	0	129	33	0	162	1082
<b>% Approach Total</b>	44.4	0.0	55.6	0.0		18.3	81.7	0.0	0.0		8.8	78.9	12.3	0.0		0.0	79.6	20.4	0.0		
PHF	0.867	0.000	0.855	0.000	0.860	0.607	0.797	0.000	0.000	0.836	0.731	0.947	0.828	0.000	0.908	0.000	0.949	0.688	0.000	0.920	0.896
Entering Leg	52	0	65	0	117	68	303	0	0	371	38	341	53	0	432	0	129	33	0	162	1082
Exiting Leg	442					232					0					408					1082
<b>Total</b>	559					603					432					570					2164

PDI File #: 197355 CC  
 Location: N: Central Street S: Central Street  
 Location: E: Summer Street W: Summer Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class: Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)



	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	3	1	0	4	0	0	0	0	0	6
4:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	2	0	0	2	5
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>16</b>
5:00 PM	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	0	1	0	0	1	4
5:15 PM	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2	0	2	0	0	2	6
5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	3
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>14</b>
<b>Grand Total</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>1</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>30</b>
Approach %	50.0	0.0	50.0	0.0		36.4	63.6	0.0	0.0		9.1	54.5	36.4	0.0		0.0	100.0	0.0	0.0		
Total %	3.3	0.0	3.3	0.0	6.7	13.3	23.3	0.0	0.0	36.7	3.3	20.0	13.3	0.0	36.7	0.0	20.0	0.0	0.0	20.0	
Exiting Leg Total	10					8					0					12					30
Buses	0	0	0	0	0	2	3	0	0	5	1	1	0	0	2	0	5	0	0	5	12
% Buses	0.0	0.0	0.0	0.0	0.0	50.0	42.9	0.0	0.0	45.5	100.0	16.7	0.0	0.0	18.2	0.0	83.3	0.0	0.0	83.3	40.0
Exiting Leg Total	3					6					0					3					12
Single-Unit Trucks	1	0	1	0	2	2	4	0	0	6	0	4	4	0	8	0	1	0	0	1	17
% Single-Unit	100.0	0.0	100.0	0.0	100.0	50.0	57.1	0.0	0.0	54.5	0.0	66.7	100.0	0.0	72.7	0.0	16.7	0.0	0.0	16.7	56.7
Exiting Leg Total	6					2					0					9					17
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	3.3
Exiting Leg Total	1					0					0					0					1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	3	1	0	4	0	0	0	0	0	6
4:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	2	0	0	2	5
<b>Total Volume</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>16</b>
% Approach Total	100.0	0.0	0.0	0.0		16.7	83.3	0.0	0.0		0.0	57.1	42.9	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.250	0.625	0.000	0.000	0.750	0.000	0.333	0.375	0.000	0.438	0.000	0.250	0.000	0.000	0.250	0.667
Buses	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	5
Buses %	0.0	0.0	0.0	0.0	0.0	100.0	40.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	31.3
Single-Unit Trucks	1	0	0	0	1	0	3	0	0	3	0	4	3	0	7	0	0	0	0	0	11
Single-Unit %	100.0	0.0	0.0	0.0	100.0	0.0	60.0	0.0	0.0	50.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	68.8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	5
Single-Unit Trucks	1	0	0	0	1	0	3	0	0	3	0	4	3	0	7	0	0	0	0	0	11
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Entering Leg</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>16</b>
Buses	1					2					0					2					5
Single-Unit Trucks	4					0					0					7					11
Articulated Trucks	0					0					0					0					0
<b>Total Exiting Leg</b>	<b>5</b>					<b>2</b>					<b>0</b>					<b>9</b>					<b>16</b>

PDI File #: **197355 CC**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Buses**

	Central Street					Summer Street					Central Street					Summer Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2
<b>Total</b>	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	0	5
5:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2
5:15 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
<b>Total</b>	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2	0	3	0	0	3	0	7
Grand Total	0	0	0	0	0	2	3	0	0	5	1	1	0	0	2	0	5	0	0	5	0	12
Approach %	0.0	0.0	0.0	0.0		40.0	60.0	0.0	0.0		50.0	50.0	0.0	0.0		0.0	100.0	0.0	0.0			
Total %	0.0	0.0	0.0	0.0	0.0	16.7	25.0	0.0	0.0	41.7	8.3	8.3	0.0	0.0	16.7	0.0	41.7	0.0	0.0	41.7		
Exiting Leg Total	3					6					0					3					12	

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2
<b>Total Volume</b>	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	0	5
% Approach Total	0.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.625
Entering Leg	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	0	5
Exiting Leg	1					2					0					2					5	
<b>Total</b>	1					5					0					4					10	

PDI File #: **197355 CC**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Single-Unit Trucks**

	Central Street					Summer Street					Central Street					Summer Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	5
4:30 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	3
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>6</b>
Grand Total	1	0	1	0	2	2	4	0	0	6	0	4	4	0	8	0	1	0	0	1	0	1	0	0	1	17
Approach %	50.0	0.0	50.0	0.0		33.3	66.7	0.0	0.0		0.0	50.0	50.0	0.0		0.0	100.0	0.0	0.0							
Total %	5.9	0.0	5.9	0.0	11.8	11.8	23.5	0.0	0.0	35.3	0.0	23.5	23.5	0.0	47.1	0.0	5.9	0.0	0.0	5.9						
Exiting Leg Total						6					2					0					9		17			

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	5
4:30 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	3
<b>Total Volume</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	57.1	42.9	0.0		0.0	0.0	0.0	0.0							
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.750	0.000	0.000	0.750	0.000	0.333	0.375	0.000	0.438	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.550	
Entering Leg	1	0	0	0	1	0	3	0	0	3	0	4	3	0	7	0	0	0	0	0	0	0	0	0	0	11
Exiting Leg						4					0					7					11					
<b>Total</b>						5					3					7					7		22			

PDI File #: **197355 CC**  
 Location: **N: Central Street S: Central Street**  
 Location: **E: Summer Street W: Summer Street**  
 City, State: **Somerville, MA**  
 Client: **DCI/ S. Siragusa**  
 Site Code: **TBA**  
 Count Date: **Tuesday, December 10, 2019**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Articulated Trucks**

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	1					0					0					0					1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street					Summer Street					Central Street					Summer Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					
Total	0					0					0					0					0

PDI File #: 197355 CC  
 Location: N: Central Street S: Central Street  
 Location: E: Summer Street W: Summer Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

	Central Street							Summer Street							Central Street							Summer Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	1	0	1	0	2	2	1	0	0	0	0	3	0	2	0	0	0	0	2	0	0	0	0	0	0	0	7
4:30 PM	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0	2	0	0	0	0	2	0	0	0	0	0	0	0	5
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	3
Total	0	0	1	0	1	0	2	4	4	0	0	0	0	8	0	6	0	0	0	0	6	0	0	0	0	0	0	0	16
5:00 PM	0	0	0	0	0	1	1	2	1	0	0	0	0	3	0	4	0	0	0	0	4	0	1	0	0	0	0	1	9
5:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	10	0	0	0	0	10	0	0	0	0	0	0	0	14
5:30 PM	0	0	0	0	0	1	1	6	1	0	0	0	0	7	0	5	0	0	0	0	5	0	1	0	0	0	0	1	14
5:45 PM	0	0	0	0	0	0	0	2	1	0	0	0	0	3	0	3	0	0	0	0	3	0	0	0	0	0	1	1	7
Total	0	0	0	0	0	2	2	14	3	0	0	0	0	17	0	22	0	0	0	0	22	0	2	0	0	0	1	3	44
Grand Total	0	0	1	0	1	2	4	18	7	0	0	0	0	25	0	28	0	0	0	0	28	0	2	0	0	0	1	3	60
Approach %	0.0	0.0	25.0	0.0	25.0	50.0		72.0	28.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	66.7	0.0	0.0	0.0	33.3		
Total %	0.0	0.0	1.7	0.0	1.7	3.3	6.7	30.0	11.7	0.0	0.0	0.0	0.0	41.7	0.0	46.7	0.0	0.0	0.0	0.0	46.7	0.0	3.3	0.0	0.0	0.0	1.7	5.0	
Exiting Leg Total	49							3							0							8	60						

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Central Street							Summer Street							Central Street							Summer Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	1	1	2	1	0	0	0	0	3	0	4	0	0	0	0	4	0	1	0	0	0	0	1	9
5:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	10	0	0	0	0	10	0	0	0	0	0	0	0	14
5:30 PM	0	0	0	0	0	1	1	6	1	0	0	0	0	7	0	5	0	0	0	0	5	0	1	0	0	0	0	1	14
5:45 PM	0	0	0	0	0	0	0	2	1	0	0	0	0	3	0	3	0	0	0	0	3	0	0	0	0	0	1	1	7
Total Volume	0	0	0	0	0	2	2	14	3	0	0	0	0	17	0	22	0	0	0	0	22	0	2	0	0	0	1	3	44
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		82.4	17.6	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	66.7	0.0	0.0	0.0	33.3		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.583	0.750	0.000	0.000	0.000	0.607	0.000	0.550	0.000	0.000	0.000	0.550	0.000	0.500	0.000	0.000	0.000	0.250	0.750	0.786		
Entering Leg	0							14							0							2	44						
Exiting Leg	38							2							0							4	44						
Total	40							19							22							7	88						

PDI File #: 197355 CC  
 Location: N: Central Street S: Central Street  
 Location: E: Summer Street W: Summer Street  
 City, State: Somerville, MA  
 Client: DCI/ S. Siragusa  
 Site Code: TBA  
 Count Date: Tuesday, December 10, 2019  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Pedestrians**

	Central Street								Summer Street								Central Street								Summer Street								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	7	3	10	19				
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	3	1	4	0	0	0	0	1	0	1	0	0	0	0	2	1	3	9				
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	4	4	0	0	0	0	0	4	4	0	0	0	0	4	6	10	19				
4:45 PM	0	0	0	0	0	2	2	0	0	0	0	1	2	3	0	0	0	0	2	0	2	0	0	0	0	4	0	4	11				
Total	0	0	0	0	4	5	9	0	0	0	0	4	7	11	0	0	0	0	5	6	11	0	0	0	0	17	10	27	58				
5:00 PM	0	0	0	0	1	1	2	0	0	0	0	2	1	3	0	0	0	0	1	2	3	0	0	0	0	3	2	5	13				
5:15 PM	0	0	0	0	0	3	3	0	0	0	0	0	7	7	0	0	0	0	5	5	10	0	0	0	0	1	1	2	22				
5:30 PM	0	0	0	0	2	0	2	0	0	0	0	4	6	10	0	0	0	0	1	1	2	0	0	0	0	6	1	7	21				
5:45 PM	0	0	0	0	2	0	2	0	0	0	0	2	7	9	0	0	0	0	2	2	4	0	0	0	0	8	2	10	25				
Total	0	0	0	0	5	4	9	0	0	0	0	8	21	29	0	0	0	0	9	10	19	0	0	0	0	18	6	24	81				
Grand Total	0	0	0	0	9	9	18	0	0	0	0	12	28	40	0	0	0	0	14	16	30	0	0	0	0	35	16	51	139				
Approach %	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	30.0	70.0		0.0	0.0	0.0	0.0	46.7	53.3		0.0	0.0	0.0	0.0	68.6	31.4						
Total %	0.0	0.0	0.0	0.0	6.5	6.5	12.9	0.0	0.0	0.0	0.0	8.6	20.1	28.8	0.0	0.0	0.0	0.0	10.1	11.5	21.6	0.0	0.0	0.0	0.0	25.2	11.5	36.7					
Exiting Leg Total	18							40							30							51							139				

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Central Street								Summer Street								Central Street								Summer Street								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
5:00 PM	0	0	0	0	1	1	2	0	0	0	0	2	1	3	0	0	0	0	1	2	3	0	0	0	0	3	2	5	13				
5:15 PM	0	0	0	0	0	3	3	0	0	0	0	0	7	7	0	0	0	0	5	5	10	0	0	0	0	1	1	2	22				
5:30 PM	0	0	0	0	2	0	2	0	0	0	0	4	6	10	0	0	0	0	1	1	2	0	0	0	0	6	1	7	21				
5:45 PM	0	0	0	0	2	0	2	0	0	0	0	2	7	9	0	0	0	0	2	2	4	0	0	0	0	8	2	10	25				
Total Volume	0	0	0	0	5	4	9	0	0	0	0	8	21	29	0	0	0	0	9	10	19	0	0	0	0	18	6	24	81				
% Approach Total	0.0	0.0	0.0	0.0	55.6	44.4		0.0	0.0	0.0	0.0	27.6	72.4		0.0	0.0	0.0	0.0	47.4	52.6		0.0	0.0	0.0	0.0	75.0	25.0						
PHF	0.000	0.000	0.000	0.000	0.625	0.333	0.750	0.000	0.000	0.000	0.000	0.500	0.750	0.725	0.000	0.000	0.000	0.000	0.450	0.500	0.475	0.000	0.000	0.000	0.000	0.563	0.750	0.600	0.810				
Entering Leg	0	0	0	0	5	4	9	0	0	0	0	8	21	29	0	0	0	0	9	10	19	0	0	0	0	18	6	24	81				
Exiting Leg	9							29							19							24							81				
Total	18							58							38							48							162				

Massachusetts Highway Department  
 Statewide Traffic Data Collection  
 2017 Weekday Seasonal Factors

Factor Group	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Axle Factor
R1	1.30	1.23	1.21	1.04	0.98	0.92	0.86	0.81	0.95	0.99	1.03	1.10	0.80
R2	0.95	0.96	0.98	0.97	0.97	0.93	0.97	0.94	0.96	0.90	0.92	0.93	0.96
R3	1.05	1.01	1.04	0.99	0.94	0.93	0.91	0.92	0.96	0.94	1.01	1.03	0.97
R4-R7	1.10	1.07	1.09	1.00	0.95	0.89	0.88	0.87	0.92	0.95	1.04	1.09	0.93
U1-Boston	1.01	1.04	0.99	0.94	0.93	0.92	0.96	0.93	0.94	0.93	0.95	0.98	0.95
U1-Essex	1.04	1.05	1.00	0.96	0.93	0.89	0.90	0.90	0.93	0.93	0.98	1.03	0.90
U1-Southeast	1.07	1.05	1.02	0.97	0.95	0.90	0.89	0.88	0.92	0.94	0.98	1.01	0.97
U1-West	1.00	0.96	0.94	0.92	0.93	0.92	0.95	0.93	0.92	0.92	0.97	0.97	0.89
U1-Worcester	1.10	1.10	1.04	0.97	0.95	0.94	0.93	0.91	0.95	0.96	0.98	1.04	0.89
U2	1.01	1.03	0.98	0.95	0.93	0.91	0.94	0.92	0.95	0.95	0.95	0.97	0.98
U3	1.03	1.05	1.01	0.95	0.92	0.90	0.94	0.93	0.93	0.92	0.96	0.99	0.96
U4-U7	1.06	1.05	1.02	0.96	0.92	0.89	0.95	0.95	0.92	0.92	0.98	1.03	0.98
Rec - East	1.18	1.17	1.08	1.03	0.95	0.87	0.83	0.83	0.97	0.98	1.19	1.19	0.98
Rec - West	1.30	1.23	1.32	1.18	0.95	0.82	0.70	0.69	0.97	0.96	1.16	1.15	0.95

Round off:

0-999 = 10

>1000 = 100

U = Urban

R = Rural

1 - Interstate

2 - Freeway and Expressway

3 - Other Principal Arterial

4 - Minor Arterial

5 - Major Collector

6 - Minor Collector

7 - Local Road and Street

**Recreational - East Group** - Cape Cod (all towns) including the town of Plymouth south of Route 3A (stations 7014,7079,7080,7090,7091,7092,7093,7094,7095,7096,7097,7108 and 7178), Martha's Vineyard and Nantucket.

**Recreational - West Group** - Continuous Stations 2 and 189 including stations 1066,1067,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1113,1114, 1116,2196,2197 and 2198.

# APPENDIX C – SAFETY ANALYSIS

---







# APPENDIX D – TRIP GENERATION

---

# Marijuana Dispensary (882)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday**

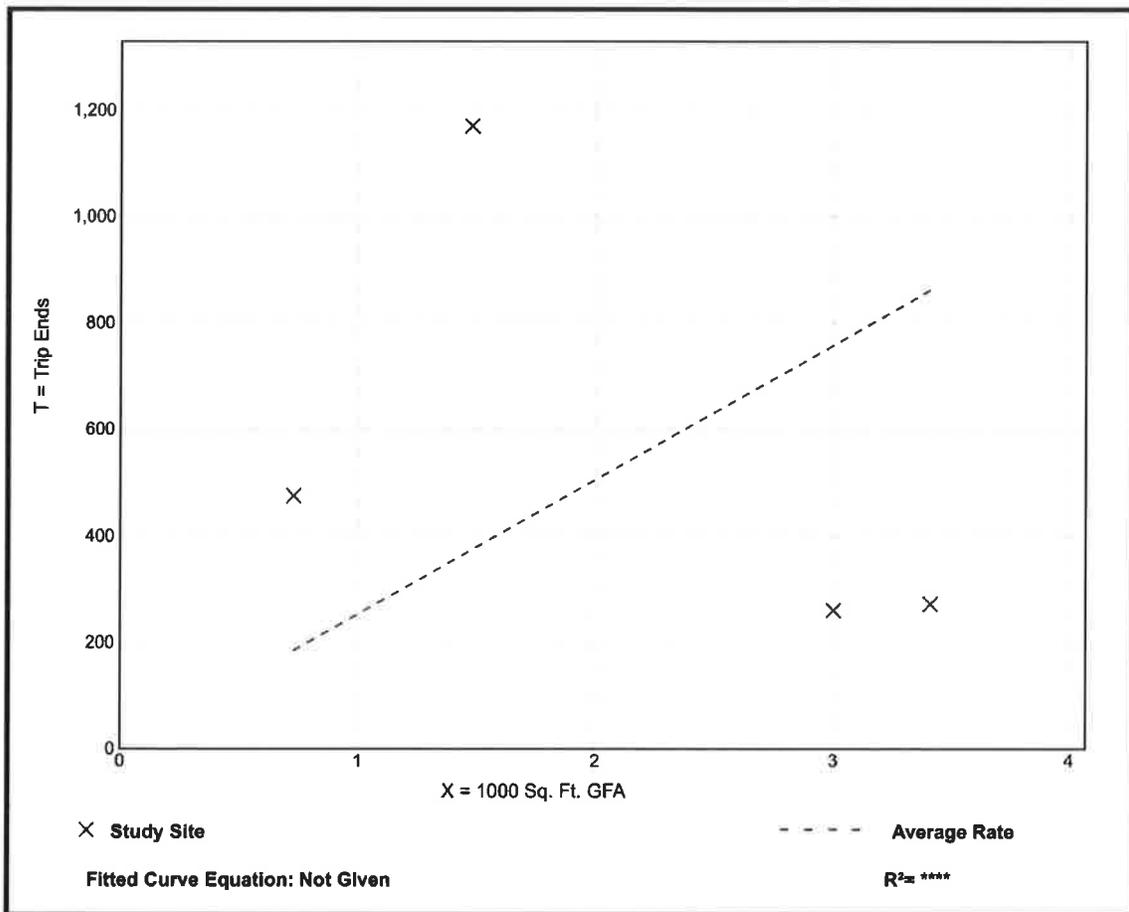
**Setting/Location: General Urban/Suburban**  
Number of Studies: 4  
1000 Sq. Ft. GFA: 2  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
252.70	79.74 - 791.22	336.11

### Data Plot and Equation

*Caution – Small Sample Size*



# Marijuana Dispensary (882)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**

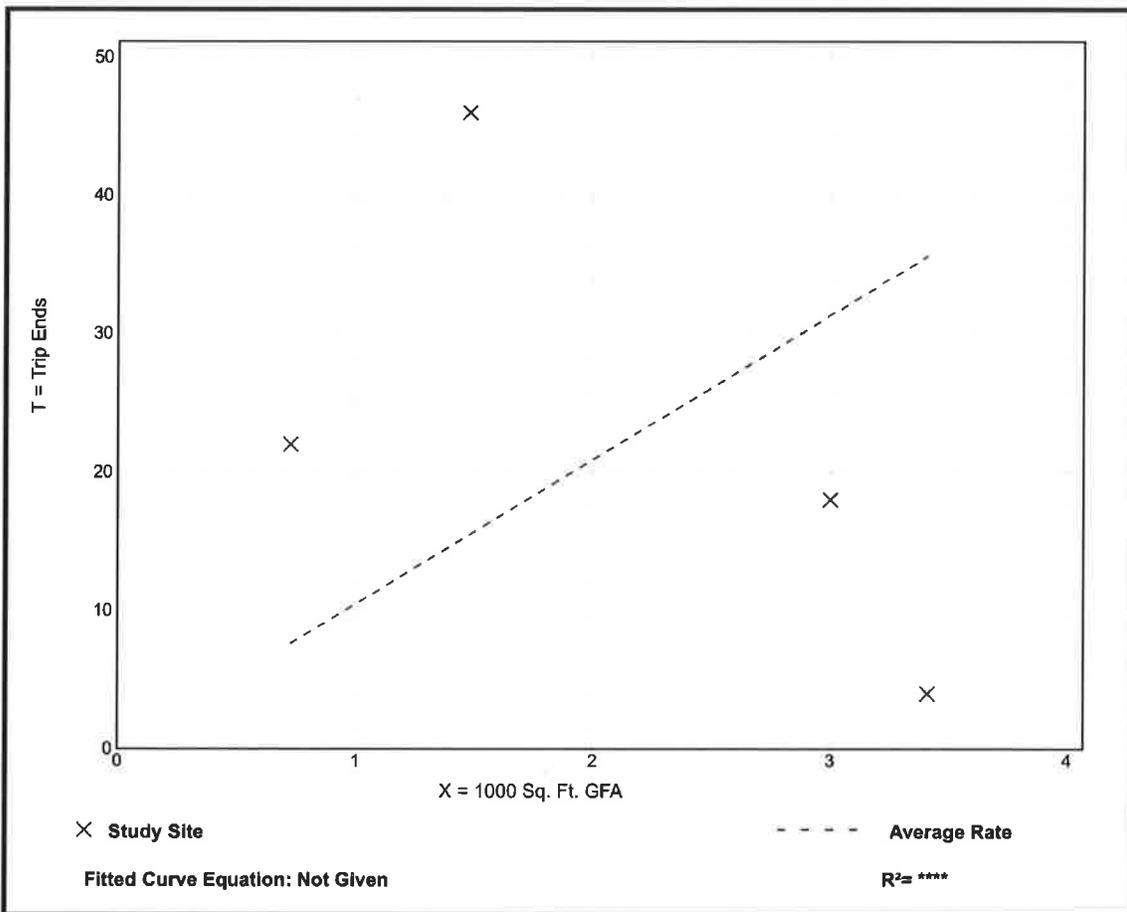
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 4  
 1000 Sq. Ft. GFA: 2  
 Directional Distribution: 56% entering, 44% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.44	1.17 - 31.08	14.00

## Data Plot and Equation

*Caution – Small Sample Size*



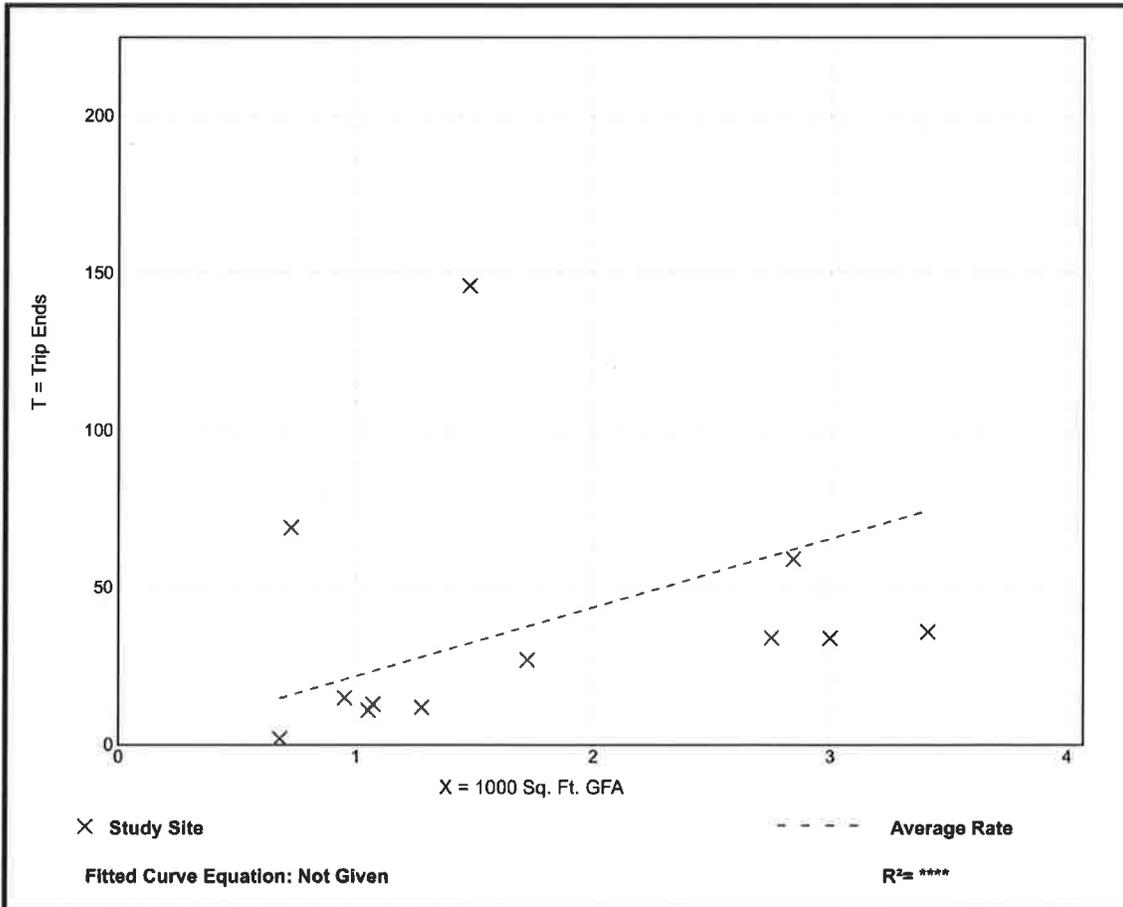
# Marijuana Dispensary (882)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 12  
 1000 Sq. Ft. GFA: 2  
 Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
21.83	2.94 - 98.65	27.36

## Data Plot and Equation





ARIZON NEW MEXICO

OKLAHOMA

ARKANSAS

TENNESSEE

NORTH CAROLINA

SOUTH CAROLINA

B08301

## MEANS OF TRANSPORTATION TO WORK

Universe: Workers 16 years and over

2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Arlington CDP, Massachusetts		Cambridge city, Massachusetts		Everett city, Massachusetts
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate
Total:	24,683	+/-577	63,654	+/-1,029	23,012
Car, truck, or van:	16,406	+/-667	19,739	+/-717	15,960
Drove alone	14,922	+/-692	17,716	+/-681	12,929
Carpooled:	1,484	+/-243	2,023	+/-271	3,031
In 2-person carpool	1,160	+/-221	1,651	+/-247	2,214
In 3-person carpool	197	+/-79	214	+/-80	570
In 4-person carpool	89	+/-62	97	+/-56	192
In 5- or 6-person carpool	10	+/-18	9	+/-15	9
In 7-or-more-person carpool	28	+/-33	52	+/-67	46
Public transportation (excluding taxicab):	5,026	+/-443	18,978	+/-950	5,264
Bus or trolley bus	1,645	+/-352	5,713	+/-531	2,789
Streetcar or trolley car (carro publico in Puerto Rico)	62	+/-62	535	+/-210	0
Subway or elevated	3,023	+/-311	12,269	+/-704	2,475
Railroad	288	+/-144	461	+/-121	0
Ferryboat	8	+/-13	0	+/-29	0
Taxicab	0	+/-26	199	+/-89	77
Motorcycle	0	+/-26	47	+/-38	75
Bicycle	812	+/-217	4,424	+/-448	145
Walked	659	+/-202	15,341	+/-762	732
Other means	150	+/-100	395	+/-101	121
Worked at home	1,630	+/-257	4,531	+/-384	638

	Everett city, Massachusetts	Medford city, Massachusetts		Somerville city, Massachusetts	
	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total:	+/-955	32,358	+/-933	52,771	+/-1,006
Car, truck, or van:	+/-980	22,100	+/-877	23,091	+/-1,090
Drove alone	+/-815	19,430	+/-849	20,029	+/-1,074
Carpooled:	+/-556	2,670	+/-515	3,062	+/-482
In 2-person carpool	+/-464	2,204	+/-453	2,296	+/-402
In 3-person carpool	+/-228	369	+/-172	454	+/-215
In 4-person carpool	+/-131	83	+/-79	269	+/-114
In 5- or 6-person carpool	+/-14	0	+/-29	22	+/-24
In 7-or-more-person carpool	+/-54	14	+/-18	21	+/-24
Public transportation (excluding taxicab):	+/-682	6,500	+/-598	17,217	+/-1,047
Bus or trolley bus	+/-513	2,001	+/-359	4,236	+/-527
Streetcar or trolley car (carro publico in Puerto Rico)	+/-26	0	+/-29	207	+/-111
Subway or elevated	+/-455	4,060	+/-501	12,468	+/-835
Railroad	+/-26	439	+/-141	306	+/-138
Ferryboat	+/-26	0	+/-29	0	+/-29
Taxicab	+/-72	50	+/-47	127	+/-74
Motorcycle	+/-65	50	+/-45	57	+/-67
Bicycle	+/-97	420	+/-177	3,631	+/-467
Walked	+/-252	1,698	+/-365	6,040	+/-591
Other means	+/-88	173	+/-91	303	+/-147
Worked at home	+/-192	1,367	+/-277	2,305	+/-337

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Workers include members of the Armed Forces and civilians who were at work last week.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

#### Explanation of Symbols:

1. An '\*\*\*' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '\*\*\*\*' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '\*\*\*\*\*' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

# APPENDIX E – INTERSECTION CAPACITY ANALYSIS

---

# Lanes, Volumes, Timings

## 3: Highland Avenue & Central Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	33	345	27	13	212	32	22	171	53	53	263	96
Future Volume (vph)	33	345	27	13	212	32	22	171	53	53	263	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.97			0.97	
Frt		0.991			0.983			0.971			0.969	
Flt Protected		0.996			0.997			0.996			0.994	
Satd. Flow (prot)	0	1823	0	0	1797	0	0	1759	0	0	1746	0
Flt Permitted		0.955			0.971			0.941			0.922	
Satd. Flow (perm)	0	1739	0	0	1746	0	0	1656	0	0	1608	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		4			9							18
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		554			1711			230			711	
Travel Time (s)		12.6			38.9			5.2			16.2	
Confl. Peds. (#/hr)	71		76	76		71	65		61	61		65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	375	29	14	230	35	24	186	58	58	286	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	440	0	0	279	0	0	268	0	0	448	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	

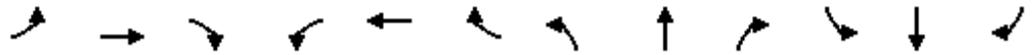
Lanes, Volumes, Timings  
 3: Highland Avenue & Central Street

01/10/2020

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
3: Highland Avenue & Central Street

01/10/2020

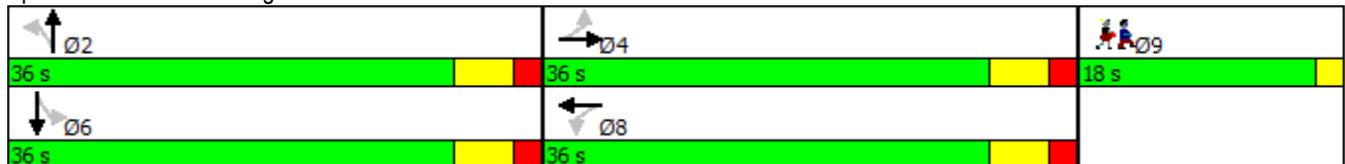


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		30.0			30.0			30.0				30.0
Actuated g/C Ratio		0.42			0.42			0.42				0.42
v/c Ratio		0.61			0.38			0.39				0.66
Control Delay		20.6			16.0			16.7				21.8
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		20.6			16.0			16.7				21.8
LOS		C			B			B				C
Approach Delay		20.6			16.0			16.7				21.8
Approach LOS		C			B			B				C

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	72
Natural Cycle:	90
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	19.4
Intersection LOS:	B
Intersection Capacity Utilization:	76.2%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: Highland Avenue & Central Street

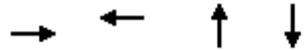


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	20%
Maximum Green (s)	16.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
<b>Intersection Summary</b>	

Queues

3: Highland Avenue & Central Street

01/10/2020



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	440	279	268	448
v/c Ratio	0.61	0.38	0.39	0.66
Control Delay	20.6	16.0	16.7	21.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	20.6	16.0	16.7	21.8
Queue Length 50th (ft)	146	80	80	148
Queue Length 95th (ft)	237	137	137	247
Internal Link Dist (ft)	474	1631	150	631
Turn Bay Length (ft)				
Base Capacity (vph)	726	732	690	680
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.61	0.38	0.39	0.66

Intersection Summary

# HCM Signalized Intersection Capacity Analysis

## 3: Highland Avenue & Central Street

01/10/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	33	345	27	13	212	32	22	171	53	53	263	96
Future Volume (vph)	33	345	27	13	212	32	22	171	53	53	263	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		0.99			0.99			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		0.99			0.98			0.97			0.97	
Flt Protected		1.00			1.00			1.00			0.99	
Satd. Flow (prot)		1817			1799			1759			1742	
Flt Permitted		0.95			0.97			0.94			0.92	
Satd. Flow (perm)		1742			1752			1662			1617	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	375	29	14	230	35	24	186	58	58	286	104
RTOR Reduction (vph)	0	2	0	0	5	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	438	0	0	274	0	0	268	0	0	438	0
Confl. Peds. (#/hr)	71		76	76		71	65		61	61		65
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.0			30.0			30.0			30.0	
Effective Green, g (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		725			730			692			673	
v/s Ratio Prot												
v/s Ratio Perm		c0.25			0.16			0.16			c0.27	
v/c Ratio		0.60			0.38			0.39			0.65	
Uniform Delay, d1		16.4			14.5			14.6			16.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.4			0.3			0.4			2.3	
Delay (s)		17.8			14.8			15.0			19.1	
Level of Service		B			B			B			B	
Approach Delay (s)		17.8			14.8			15.0			19.1	
Approach LOS		B			B			B			B	

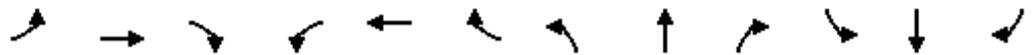
### Intersection Summary

HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	72.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings

7: Central Street & Gibbens Street/Oxford Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑			↑	
Traffic Volume (vph)	6	0	38	10	0	12	0	231	0	0	341	0
Future Volume (vph)	6	0	38	10	0	12	0	231	0	0	341	0
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.885			0.927							
Fl <sub>t</sub> Protected		0.993			0.978							
Satd. Flow (prot)	0	1637	0	0	1689	0	0	1863	0	0	1863	0
Fl <sub>t</sub> Permitted		0.993			0.978							
Satd. Flow (perm)	0	1637	0	0	1689	0	0	1863	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			872			750			230	
Travel Time (s)		11.7			19.8			17.0			5.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	0	41	11	0	13	0	251	0	0	371	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	24	0	0	251	0	0	371	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	27.9%
ICU Level of Service	A
Analysis Period (min)	15

# HCM Unsignalized Intersection Capacity Analysis

## 7: Central Street & Gibbens Street/Oxford Street

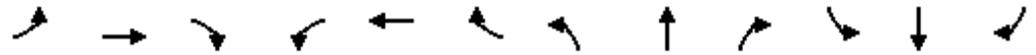
01/10/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↑			↑	
Traffic Volume (veh/h)	6	0	38	10	0	12	0	231	0	0	341	0
Future Volume (Veh/h)	6	0	38	10	0	12	0	231	0	0	341	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	0	41	11	0	13	0	251	0	0	371	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	635	622	371	663	622	251	371			251		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	490	474	181	522	474	251	181			251		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	94	97	100	98	100			100		
cM capacity (veh/h)	412	418	737	376	418	788	1193			1314		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	48	24	251	371								
Volume Left	7	11	0	0								
Volume Right	41	13	0	0								
cSH	661	524	1700	1700								
Volume to Capacity	0.07	0.05	0.15	0.22								
Queue Length 95th (ft)	6	4	0	0								
Control Delay (s)	10.9	12.2	0.0	0.0								
Lane LOS	B	B										
Approach Delay (s)	10.9	12.2	0.0	0.0								
Approach LOS	B	B										
<b>Intersection Summary</b>												
Average Delay			1.2									
Intersection Capacity Utilization			27.9%	ICU Level of Service							A	
Analysis Period (min)			15									

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	27	430	0	0	140	43	39	175	39	183	0	80
Future Volume (vph)	27	430	0	0	140	43	39	175	39	183	0	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.98			0.98			0.95	
Frt					0.968			0.979			0.959	
Flt Protected		0.997						0.992			0.966	
Satd. Flow (prot)	0	1857	0	0	1761	0	0	1786	0	0	1672	0
Flt Permitted		0.978						0.925			0.643	
Satd. Flow (perm)	0	1816	0	0	1761	0	0	1654	0	0	1086	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1150			1386			795			750	
Travel Time (s)		26.1			31.5			18.1			17.0	
Confl. Peds. (#/hr)	48					48	50		38	38		50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	467	0	0	152	47	42	190	42	199	0	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	496	0	0	199	0	0	274	0	0	286	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2		1	2	
Detector Template	Left	Thru			Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100			100		20	100		20	100	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Switch Phase</b>												
Minimum Initial (s)	21.0	21.0			21.0		21.0	21.0		21.0	21.0	
Minimum Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (%)	35.7%	35.7%			35.7%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	21.0	21.0			21.0		21.0	21.0		21.0	21.0	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
<b>Lead/Lag</b>												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None			None		Min	Min		Min	Min	
<b>Walk Time (s)</b>												
Flash Dont Walk (s)												
<b>Pedestrian Calls (#/hr)</b>												
Act Effct Green (s)		21.0			21.0			21.0			21.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
v/c Ratio		0.65			0.27			0.39			0.63	
Control Delay		16.5			10.7			12.2			19.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.5			10.7			12.2			19.3	
LOS		B			B			B			B	
Approach Delay		16.5			10.7			12.2			19.3	
Approach LOS		B			B			B			B	

**Intersection Summary**

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	50
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	15.3
Intersection LOS:	B
Intersection Capacity Utilization:	89.8%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 9: Central Street & Summer Street

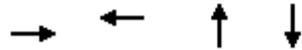


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	29%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
<b>Intersection Summary</b>	

# Queues

## 9: Central Street & Summer Street

01/10/2020



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	496	199	274	286
v/c Ratio	0.65	0.27	0.39	0.63
Control Delay	16.5	10.7	12.2	19.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.5	10.7	12.2	19.3
Queue Length 50th (ft)	109	36	52	62
Queue Length 95th (ft)	193	71	100	#140
Internal Link Dist (ft)	1070	1306	715	670
Turn Bay Length (ft)				
Base Capacity (vph)	762	739	694	456
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.65	0.27	0.39	0.63

### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis

## 9: Central Street & Summer Street

01/10/2020



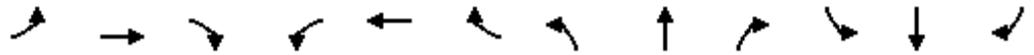
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗			↕			↕	
Traffic Volume (vph)	27	430	0	0	140	43	39	175	39	183	0	80
Future Volume (vph)	27	430	0	0	140	43	39	175	39	183	0	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		1.00			0.98			0.99			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			0.98	
Frt		1.00			0.97			0.98			0.96	
Flt Protected		1.00			1.00			0.99			0.97	
Satd. Flow (prot)		1853			1771			1783			1652	
Flt Permitted		0.98			1.00			0.92			0.64	
Satd. Flow (perm)		1816			1771			1661			1100	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	467	0	0	152	47	42	190	42	199	0	87
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	496	0	0	199	0	0	274	0	0	286	0
Confl. Peds. (#/hr)	48					48	50		38	38		50
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		21.0			21.0			21.0			21.0	
Effective Green, g (s)		21.0			21.0			21.0			21.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		762			743			697			462	
v/s Ratio Prot					0.11							
v/s Ratio Perm		c0.27						0.16			c0.26	
v/c Ratio		0.65			0.27			0.39			0.62	
Uniform Delay, d1		11.6			9.5			10.1			11.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.0			0.2			0.4			2.5	
Delay (s)		13.6			9.7			10.4			13.8	
Level of Service		B			A			B			B	
Approach Delay (s)		13.6			9.7			10.4			13.8	
Approach LOS		B			A			B			B	

### Intersection Summary

HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings  
3: Highland Avenue & Central Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	47	349	22	16	325	76	28	339	62	31	103	95
Future Volume (vph)	47	349	22	16	325	76	28	339	62	31	103	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.98			0.95	
Frt		0.993			0.975			0.981			0.944	
Flt Protected		0.994			0.998			0.997			0.993	
Satd. Flow (prot)	0	1831	0	0	1770	0	0	1797	0	0	1673	0
Flt Permitted		0.915			0.976			0.968			0.901	
Satd. Flow (perm)	0	1677	0	0	1729	0	0	1739	0	0	1512	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		3			13						42	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		554			1711			230			711	
Travel Time (s)		12.6			38.9			5.2			16.2	
Confl. Peds. (#/hr)	74		37	37		74	55		50	50		55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	51	379	24	17	353	83	30	368	67	34	112	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	454	0	0	453	0	0	465	0	0	249	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	

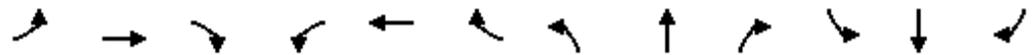
Lanes, Volumes, Timings  
 3: Highland Avenue & Central Street

01/10/2020

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
 3: Highland Avenue & Central Street

01/10/2020

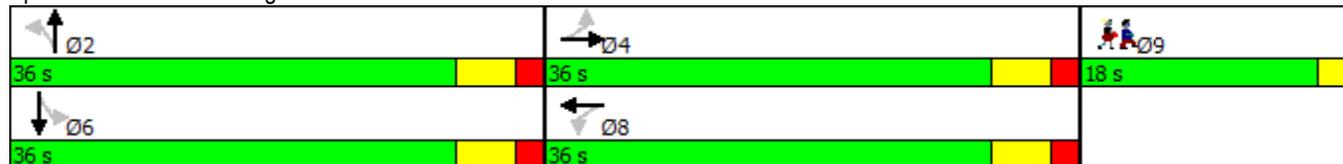


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
v/c Ratio		0.65			0.62			0.64			0.38	
Control Delay		22.0			20.6			21.8			14.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		22.0			20.6			21.8			14.0	
LOS		C			C			C			B	
Approach Delay		22.0			20.6			21.8			14.0	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	72
Natural Cycle:	90
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	20.3
Intersection LOS:	C
Intersection Capacity Utilization:	76.5%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: Highland Avenue & Central Street



Lanes, Volumes, Timings  
3: Highland Avenue & Central Street

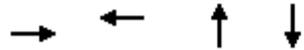
01/10/2020

Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	20%
Maximum Green (s)	16.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Queues

3: Highland Avenue & Central Street

01/10/2020



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	454	453	465	249
v/c Ratio	0.65	0.62	0.64	0.38
Control Delay	22.0	20.6	21.8	14.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.0	20.6	21.8	14.0
Queue Length 50th (ft)	154	148	159	60
Queue Length 95th (ft)	252	243	256	115
Internal Link Dist (ft)	474	1631	150	631
Turn Bay Length (ft)				
Base Capacity (vph)	700	728	724	654
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.65	0.62	0.64	0.38

Intersection Summary

# HCM Signalized Intersection Capacity Analysis

## 3: Highland Avenue & Central Street

01/10/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (vph)	47	349	22	16	325	76	28	339	62	31	103	95
Future Volume (vph)	47	349	22	16	325	76	28	339	62	31	103	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		1.00			0.98			0.99			0.96	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			0.98			0.94	
Flt Protected		0.99			1.00			1.00			0.99	
Satd. Flow (prot)		1825			1776			1795			1679	
Flt Permitted		0.92			0.98			0.97			0.90	
Satd. Flow (perm)		1679			1737			1743			1524	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	51	379	24	17	353	83	30	368	67	34	112	103
RTOR Reduction (vph)	0	2	0	0	8	0	0	0	0	0	25	0
Lane Group Flow (vph)	0	452	0	0	445	0	0	465	0	0	225	0
Confl. Peds. (#/hr)	74		37	37		74	55		50	50		55
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.0			30.0			30.0			30.0	
Effective Green, g (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		699			723			726			635	
v/s Ratio Prot												
v/s Ratio Perm		c0.27			0.26			c0.27			0.15	
v/c Ratio		0.65			0.62			0.64			0.35	
Uniform Delay, d1		16.8			16.5			16.7			14.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.1			1.6			1.9			0.3	
Delay (s)		18.8			18.0			18.6			14.7	
Level of Service		B			B			B			B	
Approach Delay (s)		18.8			18.0			18.6			14.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	72.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings

7: Central Street & Gibbens Street/Oxford Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↑			↑	
Traffic Volume (vph)	4	0	7	6	0	11	0	410	0	0	136	0
Future Volume (vph)	4	0	7	6	0	11	0	410	0	0	136	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.910			0.915							
Fl <sub>t</sub> Protected		0.984			0.982							
Satd. Flow (prot)	0	1668	0	0	1674	0	0	1863	0	0	1863	0
Fl <sub>t</sub> Permitted		0.984			0.982							
Satd. Flow (perm)	0	1668	0	0	1674	0	0	1863	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			872			750			230	
Travel Time (s)		11.7			19.8			17.0			5.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	8	7	0	12	0	446	0	0	148	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	19	0	0	446	0	0	148	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.6%
Analysis Period (min)	15
	ICU Level of Service A

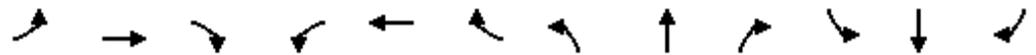
HCM Unsignalized Intersection Capacity Analysis  
 7: Central Street & Gibbens Street/Oxford Street

01/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	7	6	0	11	0	410	0	0	136	0
Future Volume (Veh/h)	4	0	7	6	0	11	0	410	0	0	136	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	0	8	7	0	12	0	446	0	0	148	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage veh												
Upstream signal (ft)												
								750			230	
pX, platoon unblocked	0.93	0.93		0.93	0.93	0.93					0.93	
vC, conflicting volume	606	594	148	602	594	446	148				446	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	542	529	148	538	529	371	148				371	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	99	100	99	98	100	98	100				100	
cM capacity (veh/h)	413	425	899	420	425	630	1434				1109	
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	12	19	446	148								
Volume Left	4	7	0	0								
Volume Right	8	12	0	0								
cSH	646	532	1700	1700								
Volume to Capacity	0.02	0.04	0.26	0.09								
Queue Length 95th (ft)	1	3	0	0								
Control Delay (s)	10.7	12.0	0.0	0.0								
Lane LOS	B	B										
Approach Delay (s)	10.7	12.0	0.0	0.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.6									
Intersection Capacity Utilization			31.6%	ICU Level of Service		A						
Analysis Period (min)			15									

Lanes, Volumes, Timings  
9: Central Street & Summer Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	34	135	0	0	317	71	58	355	39	67	0	55
Future Volume (vph)	34	135	0	0	317	71	58	355	39	67	0	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99			0.99			0.96	
Frt					0.975			0.988			0.939	
Flt Protected		0.990						0.994			0.973	
Satd. Flow (prot)	0	1844	0	0	1805	0	0	1819	0	0	1656	0
Flt Permitted		0.885						0.949			0.711	
Satd. Flow (perm)	0	1646	0	0	1805	0	0	1730	0	0	1200	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1150			1386			795			750	
Travel Time (s)		26.1			31.5			18.1			17.0	
Confl. Peds. (#/hr)	9					9	24		29	29		24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	147	0	0	345	77	63	386	42	73	0	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	184	0	0	422	0	0	491	0	0	133	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2		1	2	
Detector Template	Left	Thru			Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100			100		20	100		20	100	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Switch Phase</b>												
Minimum Initial (s)	21.0	21.0			21.0		21.0	21.0		1.0	1.0	
Minimum Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (%)	35.7%	35.7%			35.7%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	21.0	21.0			21.0		21.0	21.0		21.0	21.0	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
<b>Lead/Lag</b>												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None			None		Min	Min		Min	Min	
<b>Walk Time (s)</b>												
Flash Dont Walk (s)												
<b>Pedestrian Calls (#/hr)</b>												
Act Effct Green (s)		21.0			21.0			21.0			21.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
v/c Ratio		0.27			0.56			0.68			0.26	
Control Delay		10.8			14.5			17.6			11.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			14.5			17.6			11.3	
LOS		B			B			B			B	
Approach Delay		10.8			14.5			17.6			11.3	
Approach LOS		B			B			B			B	

**Intersection Summary**

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	50
Natural Cycle:	70
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	14.8
Intersection LOS:	B
Intersection Capacity Utilization:	67.7%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 9: Central Street & Summer Street

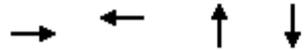


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	29%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
<b>Intersection Summary</b>	

Queues

9: Central Street & Summer Street

01/10/2020



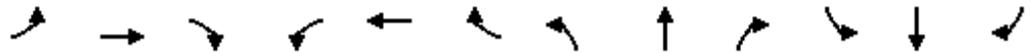
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	184	422	491	133
v/c Ratio	0.27	0.56	0.68	0.26
Control Delay	10.8	14.5	17.6	11.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.8	14.5	17.6	11.3
Queue Length 50th (ft)	33	88	110	24
Queue Length 95th (ft)	68	158	197	54
Internal Link Dist (ft)	1070	1306	715	670
Turn Bay Length (ft)				
Base Capacity (vph)	691	758	726	504
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.56	0.68	0.26

Intersection Summary

# HCM Signalized Intersection Capacity Analysis

## 9: Central Street & Summer Street

01/10/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗			↕			↕	
Traffic Volume (vph)	34	135	0	0	317	71	58	355	39	67	0	55
Future Volume (vph)	34	135	0	0	317	71	58	355	39	67	0	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frb, ped/bikes		1.00			0.99			1.00			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		1.00			0.98			0.99			0.94	
Flt Protected		0.99			1.00			0.99			0.97	
Satd. Flow (prot)		1842			1807			1816			1653	
Flt Permitted		0.88			1.00			0.95			0.71	
Satd. Flow (perm)		1647			1807			1733			1207	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	147	0	0	345	77	63	386	42	73	0	60
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	184	0	0	422	0	0	491	0	0	133	0
Confl. Peds. (#/hr)	9						9	24		29	29	24
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		21.0			21.0			21.0			21.0	
Effective Green, g (s)		21.0			21.0			21.0			21.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		691			758			727			506	
v/s Ratio Prot					c0.23							
v/s Ratio Perm		0.11						c0.28			0.11	
v/c Ratio		0.27			0.56			0.68			0.26	
Uniform Delay, d1		9.5			11.0			11.7			9.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.9			2.5			0.3	
Delay (s)		9.7			11.9			14.2			9.7	
Level of Service		A			B			B			A	
Approach Delay (s)		9.7			11.9			14.2			9.7	
Approach LOS		A			B			B			A	

### Intersection Summary

HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

# Lanes, Volumes, Timings

## 3: Highland Avenue & Central Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	34	352	28	14	216	33	23	174	54	54	268	98
Future Volume (vph)	34	352	28	14	216	33	23	174	54	54	268	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.97			0.97	
Frt		0.991			0.983			0.971			0.968	
Flt Protected		0.996			0.997			0.995			0.994	
Satd. Flow (prot)	0	1822	0	0	1797	0	0	1757	0	0	1744	0
Flt Permitted		0.953			0.969			0.938			0.921	
Satd. Flow (perm)	0	1735	0	0	1742	0	0	1650	0	0	1604	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		4			9						18	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		554			1711			230			711	
Travel Time (s)		12.6			38.9			5.2			16.2	
Confl. Peds. (#/hr)	71		76	76		71	65		61	61		65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	383	30	15	235	36	25	189	59	59	291	107
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	450	0	0	286	0	0	273	0	0	457	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	

Lanes, Volumes, Timings  
 3: Highland Avenue & Central Street

01/10/2020

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
3: Highland Avenue & Central Street

01/10/2020

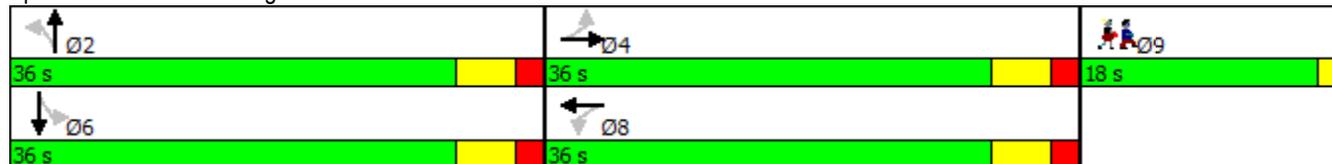


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		30.0			30.0			30.0				30.0
Actuated g/C Ratio		0.42			0.42			0.42				0.42
v/c Ratio		0.62			0.39			0.40				0.67
Control Delay		21.0			16.1			16.9				22.4
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		21.0			16.1			16.9				22.4
LOS		C			B			B				C
Approach Delay		21.0			16.1			16.9				22.4
Approach LOS		C			B			B				C

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	72
Natural Cycle:	90
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	19.7
Intersection LOS:	B
Intersection Capacity Utilization:	77.0%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: Highland Avenue & Central Street

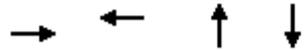


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	20%
Maximum Green (s)	16.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
<b>Intersection Summary</b>	

Queues

3: Highland Avenue & Central Street

01/10/2020



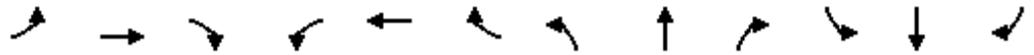
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	450	286	273	457
v/c Ratio	0.62	0.39	0.40	0.67
Control Delay	21.0	16.1	16.9	22.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	21.0	16.1	16.9	22.4
Queue Length 50th (ft)	150	83	82	152
Queue Length 95th (ft)	244	141	140	254
Internal Link Dist (ft)	474	1631	150	631
Turn Bay Length (ft)				
Base Capacity (vph)	725	731	687	678
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.62	0.39	0.40	0.67

Intersection Summary

# HCM Signalized Intersection Capacity Analysis

## 3: Highland Avenue & Central Street

01/10/2020

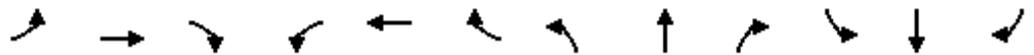


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	34	352	28	14	216	33	23	174	54	54	268	98
Future Volume (vph)	34	352	28	14	216	33	23	174	54	54	268	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		0.99			0.99			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		0.99			0.98			0.97			0.97	
Flt Protected		1.00			1.00			1.00			0.99	
Satd. Flow (prot)		1817			1799			1759			1741	
Flt Permitted		0.95			0.97			0.94			0.92	
Satd. Flow (perm)		1740			1747			1657			1614	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	383	30	15	235	36	25	189	59	59	291	107
RTOR Reduction (vph)	0	2	0	0	5	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	448	0	0	281	0	0	273	0	0	447	0
Confl. Peds. (#/hr)	71		76	76		71	65		61	61		65
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.0			30.0			30.0			30.0	
Effective Green, g (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		725			727			690			672	
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.16			0.16			c0.28	
v/c Ratio		0.62			0.39			0.40			0.66	
Uniform Delay, d1		16.5			14.6			14.7			16.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.6			0.3			0.4			2.5	
Delay (s)		18.1			14.9			15.0			19.4	
Level of Service		B			B			B			B	
Approach Delay (s)		18.1			14.9			15.0			19.4	
Approach LOS		B			B			B			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay		17.3			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.66										
Actuated Cycle Length (s)		72.0			Sum of lost time (s)			14.0				
Intersection Capacity Utilization		77.0%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

7: Central Street & Gibbens Street/Oxford Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑			↑	
Traffic Volume (vph)	7	0	39	11	0	13	0	235	0	0	347	0
Future Volume (vph)	7	0	39	11	0	13	0	235	0	0	347	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.887			0.927							
Fl <sub>t</sub> Protected		0.992			0.977							
Satd. Flow (prot)	0	1639	0	0	1687	0	0	1863	0	0	1863	0
Fl <sub>t</sub> Permitted		0.992			0.977							
Satd. Flow (perm)	0	1639	0	0	1687	0	0	1863	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			872			750			230	
Travel Time (s)		11.7			19.8			17.0			5.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	0	42	12	0	14	0	255	0	0	377	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	26	0	0	255	0	0	377	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.3%
ICU Level of Service	A
Analysis Period (min)	15

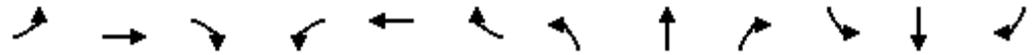
HCM Unsignalized Intersection Capacity Analysis  
 7: Central Street & Gibbens Street/Oxford Street

01/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	39	11	0	13	0	235	0	0	347	0
Future Volume (Veh/h)	7	0	39	11	0	13	0	235	0	0	347	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	42	12	0	14	0	255	0	0	377	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								750			230	
pX, platoon unblocked	0.85	0.85	0.85	0.85	0.85		0.85					
vC, conflicting volume	646	632	377	674	632	255	377			255		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	497	480	181	530	480	255	181			255		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	94	97	100	98	100			100		
cM capacity (veh/h)	404	413	734	369	413	784	1187			1310		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	50	26	255	377								
Volume Left	8	12	0	0								
Volume Right	42	14	0	0								
cSH	649	516	1700	1700								
Volume to Capacity	0.08	0.05	0.15	0.22								
Queue Length 95th (ft)	6	4	0	0								
Control Delay (s)	11.0	12.3	0.0	0.0								
Lane LOS	B	B										
Approach Delay (s)	11.0	12.3	0.0	0.0								
Approach LOS	B	B										
<b>Intersection Summary</b>												
Average Delay			1.2									
Intersection Capacity Utilization			28.3%		ICU Level of Service					A		
Analysis Period (min)			15									

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/10/2020

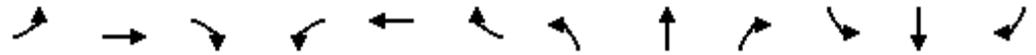


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	28	438	0	0	143	45	40	179	40	187	0	82
Future Volume (vph)	28	438	0	0	143	45	40	179	40	187	0	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.98			0.98			0.95	
Frt					0.968			0.979			0.959	
Flt Protected		0.997						0.992			0.966	
Satd. Flow (prot)	0	1857	0	0	1761	0	0	1786	0	0	1672	0
Flt Permitted		0.977						0.924			0.634	
Satd. Flow (perm)	0	1814	0	0	1761	0	0	1653	0	0	1071	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1150			1386			795			750	
Travel Time (s)		26.1			31.5			18.1			17.0	
Confl. Peds. (#/hr)	48					48	50		38	38		50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	476	0	0	155	49	43	195	43	203	0	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	506	0	0	204	0	0	281	0	0	292	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2		1	2	
Detector Template	Left	Thru			Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100			100		20	100		20	100	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	21.0	21.0			21.0		21.0	21.0		1.0	1.0	
Minimum Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (%)	35.7%	35.7%			35.7%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	21.0	21.0			21.0		21.0	21.0		21.0	21.0	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None			None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		21.0			21.0			21.0			21.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
v/c Ratio		0.66			0.28			0.40			0.65	
Control Delay		16.9			10.8			12.4			20.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.9			10.8			12.4			20.5	
LOS		B			B			B			C	
Approach Delay		16.9			10.8			12.4			20.5	
Approach LOS		B			B			B			C	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	50
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	15.8
Intersection LOS:	B
Intersection Capacity Utilization:	89.5%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 9: Central Street & Summer Street

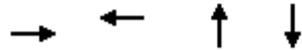


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	29%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
<b>Intersection Summary</b>	

# Queues

## 9: Central Street & Summer Street

01/10/2020



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	506	204	281	292
v/c Ratio	0.66	0.28	0.40	0.65
Control Delay	16.9	10.8	12.4	20.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.9	10.8	12.4	20.5
Queue Length 50th (ft)	112	37	54	64
Queue Length 95th (ft)	199	73	103	#162
Internal Link Dist (ft)	1070	1306	715	670
Turn Bay Length (ft)				
Base Capacity (vph)	761	739	694	449
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.66	0.28	0.40	0.65

### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis

## 9: Central Street & Summer Street

01/10/2020



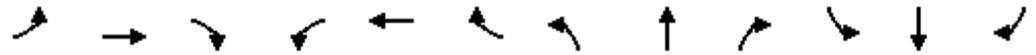
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	28	438	0	0	143	45	40	179	40	187	0	82
Future Volume (vph)	28	438	0	0	143	45	40	179	40	187	0	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		1.00			0.98			0.99			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			0.98	
Frt		1.00			0.97			0.98			0.96	
Flt Protected		1.00			1.00			0.99			0.97	
Satd. Flow (prot)		1852			1769			1783			1652	
Flt Permitted		0.98			1.00			0.92			0.63	
Satd. Flow (perm)		1815			1769			1659			1085	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	476	0	0	155	49	43	195	43	203	0	89
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	506	0	0	204	0	0	281	0	0	292	0
Confl. Peds. (#/hr)	48					48	50		38	38		50
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		21.0			21.0			21.0			21.0	
Effective Green, g (s)		21.0			21.0			21.0			21.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		762			742			696			455	
v/s Ratio Prot					0.12							
v/s Ratio Perm		c0.28						0.17			c0.27	
v/c Ratio		0.66			0.27			0.40			0.64	
Uniform Delay, d1		11.7			9.5			10.1			11.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.2			0.2			0.4			3.1	
Delay (s)		13.9			9.7			10.5			14.6	
Level of Service		B			A			B			B	
Approach Delay (s)		13.9			9.7			10.5			14.6	
Approach LOS		B			A			B			B	

### Intersection Summary

HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	89.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings  
3: Highland Avenue & Central Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	49	356	23	17	332	78	29	345	63	32	105	97
Future Volume (vph)	49	356	23	17	332	78	29	345	63	32	105	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.98			0.95	
Frt		0.993			0.975			0.981			0.944	
Flt Protected		0.994			0.998			0.997			0.993	
Satd. Flow (prot)	0	1831	0	0	1770	0	0	1797	0	0	1673	0
Flt Permitted		0.911			0.975			0.966			0.902	
Satd. Flow (perm)	0	1670	0	0	1728	0	0	1736	0	0	1514	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		3			13						42	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		554			1711			230			711	
Travel Time (s)		12.6			38.9			5.2			16.2	
Confl. Peds. (#/hr)	74		37	37		74	55		50	50		55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	53	387	25	18	361	85	32	375	68	35	114	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	465	0	0	464	0	0	475	0	0	254	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	

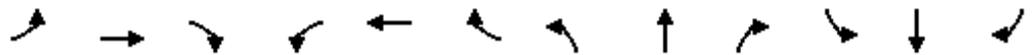
Lanes, Volumes, Timings  
 3: Highland Avenue & Central Street

01/10/2020

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
 3: Highland Avenue & Central Street

01/10/2020

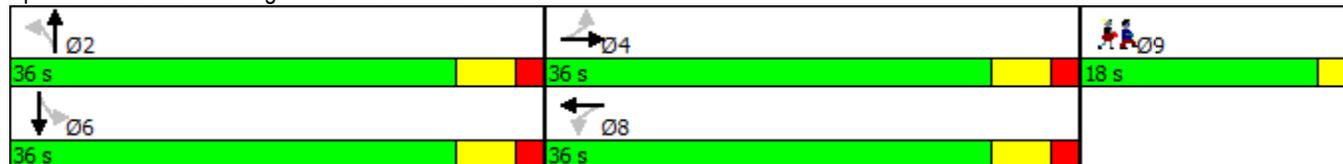


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		30.0			30.0			30.0				30.0
Actuated g/C Ratio		0.42			0.42			0.42				0.42
v/c Ratio		0.67			0.64			0.66				0.39
Control Delay		22.6			21.1			22.2				14.2
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		22.6			21.1			22.2				14.2
LOS		C			C			C				B
Approach Delay		22.6			21.1			22.2				14.2
Approach LOS		C			C			C				B

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	72
Natural Cycle:	90
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	20.8
Intersection LOS:	C
Intersection Capacity Utilization:	78.0%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: Highland Avenue & Central Street

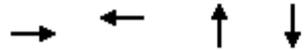


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	20%
Maximum Green (s)	16.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Queues

3: Highland Avenue & Central Street

01/10/2020



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	465	464	475	254
v/c Ratio	0.67	0.64	0.66	0.39
Control Delay	22.6	21.1	22.2	14.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.6	21.1	22.2	14.2
Queue Length 50th (ft)	160	153	164	62
Queue Length 95th (ft)	261	251	264	117
Internal Link Dist (ft)	474	1631	150	631
Turn Bay Length (ft)				
Base Capacity (vph)	697	727	723	655
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.67	0.64	0.66	0.39

Intersection Summary

# HCM Signalized Intersection Capacity Analysis

## 3: Highland Avenue & Central Street

01/10/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	49	356	23	17	332	78	29	345	63	32	105	97
Future Volume (vph)	49	356	23	17	332	78	29	345	63	32	105	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		1.00			0.98			0.99			0.96	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			0.98			0.94	
Flt Protected		0.99			1.00			1.00			0.99	
Satd. Flow (prot)		1824			1776			1795			1680	
Flt Permitted		0.91			0.97			0.97			0.90	
Satd. Flow (perm)		1671			1734			1739			1525	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	53	387	25	18	361	85	32	375	68	35	114	105
RTOR Reduction (vph)	0	2	0	0	8	0	0	0	0	0	25	0
Lane Group Flow (vph)	0	463	0	0	456	0	0	475	0	0	230	0
Confl. Peds. (#/hr)	74		37	37		74	55		50	50		55
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.0			30.0			30.0			30.0	
Effective Green, g (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		696			722			724			635	
v/s Ratio Prot												
v/s Ratio Perm		c0.28			0.26			c0.27			0.15	
v/c Ratio		0.67			0.63			0.66			0.36	
Uniform Delay, d1		17.0			16.6			16.9			14.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.4			1.8			2.2			0.4	
Delay (s)		19.4			18.4			19.0			14.8	
Level of Service		B			B			B			B	
Approach Delay (s)		19.4			18.4			19.0			14.8	
Approach LOS		B			B			B			B	

### Intersection Summary

HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	72.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings  
7: Central Street & Gibbens Street/Oxford Street

01/10/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	8	7	0	12	0	418	0	0	139	0
Future Volume (vph)	5	0	8	7	0	12	0	418	0	0	139	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.913			0.916							
Flt Protected		0.982			0.981							
Satd. Flow (prot)	0	1670	0	0	1674	0	0	1863	0	0	1863	0
Flt Permitted		0.982			0.981							
Satd. Flow (perm)	0	1670	0	0	1674	0	0	1863	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			872			750			230	
Travel Time (s)		11.7			19.8			17.0			5.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	9	8	0	13	0	454	0	0	151	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	21	0	0	454	0	0	151	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.0%
Analysis Period (min)	15
	ICU Level of Service A

# HCM Unsignalized Intersection Capacity Analysis

## 7: Central Street & Gibbens Street/Oxford Street

01/10/2020



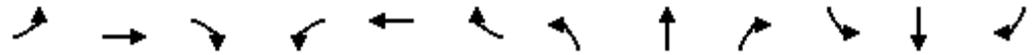
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↑			↑	
Traffic Volume (veh/h)	5	0	8	7	0	12	0	418	0	0	139	0
Future Volume (Veh/h)	5	0	8	7	0	12	0	418	0	0	139	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	0	9	8	0	13	0	454	0	0	151	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked	0.93	0.93		0.93	0.93	0.93		750		0.93	230	
vC, conflicting volume	618	605	151	614	605	454	151			454		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	550	536	151	545	536	373	151			373		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	98	100	98	100			100		
cM capacity (veh/h)	405	419	895	412	419	625	1430			1100		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	14	21	454	151
Volume Left	5	8	0	0
Volume Right	9	13	0	0
cSH	625	522	1700	1700
Volume to Capacity	0.02	0.04	0.27	0.09
Queue Length 95th (ft)	2	3	0	0
Control Delay (s)	10.9	12.2	0.0	0.0
Lane LOS	B	B		
Approach Delay (s)	10.9	12.2	0.0	0.0
Approach LOS	B	B		

Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/10/2020

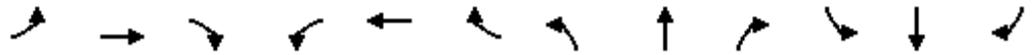


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	35	138	0	0	323	73	59	362	40	69	0	56
Future Volume (vph)	35	138	0	0	323	73	59	362	40	69	0	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99			0.99			0.97	
Frt					0.975			0.988			0.939	
Flt Protected		0.990						0.994			0.973	
Satd. Flow (prot)	0	1844	0	0	1805	0	0	1819	0	0	1657	0
Flt Permitted		0.882						0.948			0.701	
Satd. Flow (perm)	0	1641	0	0	1805	0	0	1728	0	0	1183	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1150			1386			795			750	
Travel Time (s)		26.1			31.5			18.1			17.0	
Confl. Peds. (#/hr)	9					9	24		29	29		24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	150	0	0	351	79	64	393	43	75	0	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	188	0	0	430	0	0	500	0	0	136	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2		1	2	
Detector Template	Left	Thru			Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100			100		20	100		20	100	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	21.0	21.0			21.0		21.0	21.0		1.0	1.0	
Minimum Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (%)	35.7%	35.7%			35.7%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	21.0	21.0			21.0		21.0	21.0		21.0	21.0	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None			None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		21.0			21.0			21.0			21.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
v/c Ratio		0.27			0.57			0.69			0.27	
Control Delay		10.9			14.7			18.2			11.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.9			14.7			18.2			11.4	
LOS		B			B			B			B	
Approach Delay		10.9			14.7			18.2			11.4	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	50
Natural Cycle:	70
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	15.1
Intersection LOS:	B
Intersection Capacity Utilization:	69.2%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 9: Central Street & Summer Street

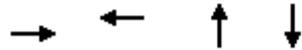


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	29%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
<b>Intersection Summary</b>	

Queues

9: Central Street & Summer Street

01/10/2020



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	188	430	500	136
v/c Ratio	0.27	0.57	0.69	0.27
Control Delay	10.9	14.7	18.2	11.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.9	14.7	18.2	11.4
Queue Length 50th (ft)	34	90	113	25
Queue Length 95th (ft)	69	162	#205	56
Internal Link Dist (ft)	1070	1306	715	670
Turn Bay Length (ft)				
Base Capacity (vph)	689	758	725	496
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.57	0.69	0.27

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis

## 9: Central Street & Summer Street

01/10/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	35	138	0	0	323	73	59	362	40	69	0	56	
Future Volume (vph)	35	138	0	0	323	73	59	362	40	69	0	56	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0			4.0			4.0			4.0		
Lane Util. Factor		1.00			1.00			1.00			1.00		
Frbp, ped/bikes		1.00			0.99			1.00			0.98		
Flpb, ped/bikes		1.00			1.00			1.00			0.99		
Frt		1.00			0.98			0.99			0.94		
Flt Protected		0.99			1.00			0.99			0.97		
Satd. Flow (prot)		1842			1806			1815			1654		
Flt Permitted		0.88			1.00			0.95			0.70		
Satd. Flow (perm)		1641			1806			1732			1192		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	38	150	0	0	351	79	64	393	43	75	0	61	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	188	0	0	430	0	0	500	0	0	136	0	
Confl. Peds. (#/hr)	9						9	24		29	29	24	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA		
Protected Phases		4			8			2			6		
Permitted Phases	4						2			6			
Actuated Green, G (s)		21.0			21.0			21.0			21.0		
Effective Green, g (s)		21.0			21.0			21.0			21.0		
Actuated g/C Ratio		0.42			0.42			0.42			0.42		
Clearance Time (s)		4.0			4.0			4.0			4.0		
Vehicle Extension (s)		3.0			3.0			3.0			3.0		
Lane Grp Cap (vph)		689			758			727			500		
v/s Ratio Prot					c0.24								
v/s Ratio Perm		0.11						c0.29			0.11		
v/c Ratio		0.27			0.57			0.69			0.27		
Uniform Delay, d1		9.5			11.0			11.8			9.5		
Progression Factor		1.00			1.00			1.00			1.00		
Incremental Delay, d2		0.2			1.0			2.7			0.3		
Delay (s)		9.7			12.0			14.5			9.8		
Level of Service		A			B			B			A		
Approach Delay (s)		9.7			12.0			14.5			9.8		
Approach LOS		A			B			B			A		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			12.4									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.71										
Actuated Cycle Length (s)			50.0									Sum of lost time (s)	13.0
Intersection Capacity Utilization			69.2%									ICU Level of Service	C
Analysis Period (min)			15										
c Critical Lane Group													

# Lanes, Volumes, Timings

## 3: Highland Avenue & Central Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	34	352	28	14	216	33	23	174	54	54	268	98
Future Volume (vph)	34	352	28	14	216	33	23	174	54	54	268	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.97			0.97	
Frt		0.991			0.983			0.971			0.968	
Flt Protected		0.996			0.997			0.995			0.994	
Satd. Flow (prot)	0	1822	0	0	1797	0	0	1757	0	0	1744	0
Flt Permitted		0.953			0.969			0.938			0.921	
Satd. Flow (perm)	0	1735	0	0	1742	0	0	1650	0	0	1604	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		4			9						18	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		554			1711			230			711	
Travel Time (s)		12.6			38.9			5.2			16.2	
Confl. Peds. (#/hr)	71		76	76		71	65		61	61		65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	383	30	15	235	36	25	189	59	59	291	107
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	450	0	0	286	0	0	273	0	0	457	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	

Lanes, Volumes, Timings  
 3: Highland Avenue & Central Street

01/10/2020

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
3: Highland Avenue & Central Street

01/10/2020

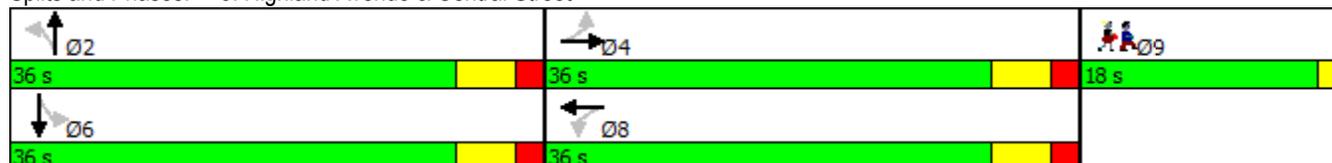


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Switch Phase</b>												
Minimum Initial (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
<b>Lead/Lag</b>												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
<b>Walk Time (s)</b>												
Flash Dont Walk (s)												
<b>Pedestrian Calls (#/hr)</b>												
Act Effct Green (s)		30.0			30.0			30.0				30.0
Actuated g/C Ratio		0.42			0.42			0.42				0.42
v/c Ratio		0.62			0.39			0.40				0.67
Control Delay		21.0			16.1			16.9				22.4
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		21.0			16.1			16.9				22.4
LOS		C			B			B				C
Approach Delay		21.0			16.1			16.9				22.4
Approach LOS		C			B			B				C

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	72
Natural Cycle:	90
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	19.7
Intersection LOS:	B
Intersection Capacity Utilization:	77.0%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: Highland Avenue & Central Street

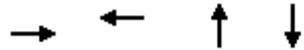


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	20%
Maximum Green (s)	16.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Queues

3: Highland Avenue & Central Street

01/10/2020



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	450	286	273	457
v/c Ratio	0.62	0.39	0.40	0.67
Control Delay	21.0	16.1	16.9	22.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	21.0	16.1	16.9	22.4
Queue Length 50th (ft)	150	83	82	152
Queue Length 95th (ft)	244	141	140	254
Internal Link Dist (ft)	474	1631	150	631
Turn Bay Length (ft)				
Base Capacity (vph)	725	731	687	678
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.62	0.39	0.40	0.67

Intersection Summary

# HCM Signalized Intersection Capacity Analysis

## 3: Highland Avenue & Central Street

01/10/2020



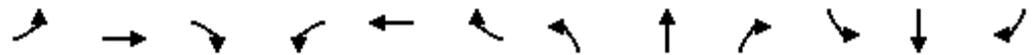
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (vph)	34	352	28	14	216	33	23	174	54	54	268	98
Future Volume (vph)	34	352	28	14	216	33	23	174	54	54	268	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		0.99			0.99			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		0.99			0.98			0.97			0.97	
Flt Protected		1.00			1.00			1.00			0.99	
Satd. Flow (prot)		1817			1799			1759			1741	
Flt Permitted		0.95			0.97			0.94			0.92	
Satd. Flow (perm)		1740			1747			1657			1614	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	383	30	15	235	36	25	189	59	59	291	107
RTOR Reduction (vph)	0	2	0	0	5	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	448	0	0	281	0	0	273	0	0	447	0
Confl. Peds. (#/hr)	71		76	76		71	65		61	61		65
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.0			30.0			30.0			30.0	
Effective Green, g (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		725			727			690			672	
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.16			0.16			c0.28	
v/c Ratio		0.62			0.39			0.40			0.66	
Uniform Delay, d1		16.5			14.6			14.7			16.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.6			0.3			0.4			2.5	
Delay (s)		18.1			14.9			15.0			19.4	
Level of Service		B			B			B			B	
Approach Delay (s)		18.1			14.9			15.0			19.4	
Approach LOS		B			B			B			B	

### Intersection Summary

HCM 2000 Control Delay	17.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	72.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings  
7: Central Street & Gibbens Street/Oxford Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑			↑	
Traffic Volume (vph)	7	0	39	11	0	13	0	235	0	0	347	0
Future Volume (vph)	7	0	39	11	0	13	0	235	0	0	347	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.887			0.927							
Flt Protected		0.992			0.977							
Satd. Flow (prot)	0	1639	0	0	1687	0	0	1863	0	0	1863	0
Flt Permitted		0.992			0.977							
Satd. Flow (perm)	0	1639	0	0	1687	0	0	1863	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			872			750			230	
Travel Time (s)		11.7			19.8			17.0			5.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	0	42	12	0	14	0	255	0	0	377	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	26	0	0	255	0	0	377	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.3%
ICU Level of Service	A
Analysis Period (min)	15

# HCM Unsignalized Intersection Capacity Analysis

## 7: Central Street & Gibbens Street/Oxford Street

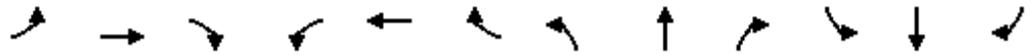
01/10/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑			↑	
Traffic Volume (veh/h)	7	0	39	11	0	13	0	235	0	0	347	0
Future Volume (Veh/h)	7	0	39	11	0	13	0	235	0	0	347	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	42	12	0	14	0	255	0	0	377	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage veh												
Upstream signal (ft)												
								750			230	
pX, platoon unblocked	0.85	0.85	0.85	0.85	0.85		0.85					
vC, conflicting volume	646	632	377	674	632	255	377			255		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	497	480	181	530	480	255	181			255		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	94	97	100	98	100			100		
cM capacity (veh/h)	404	413	734	369	413	784	1187			1310		
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	50	26	255	377								
Volume Left	8	12	0	0								
Volume Right	42	14	0	0								
cSH	649	516	1700	1700								
Volume to Capacity	0.08	0.05	0.15	0.22								
Queue Length 95th (ft)	6	4	0	0								
Control Delay (s)	11.0	12.3	0.0	0.0								
Lane LOS	B	B										
Approach Delay (s)	11.0	12.3	0.0	0.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			28.3%	ICU Level of Service		A						
Analysis Period (min)			15									

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	28	438	0	0	143	45	40	179	40	187	0	82
Future Volume (vph)	28	438	0	0	143	45	40	179	40	187	0	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.98			0.98			0.95	
Frt					0.968			0.979			0.959	
Flt Protected		0.997						0.992			0.966	
Satd. Flow (prot)	0	1857	0	0	1761	0	0	1786	0	0	1672	0
Flt Permitted		0.977						0.924			0.634	
Satd. Flow (perm)	0	1814	0	0	1761	0	0	1653	0	0	1071	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1150			1386			795			750	
Travel Time (s)		26.1			31.5			18.1			17.0	
Confl. Peds. (#/hr)	48					48	50		38	38		50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	476	0	0	155	49	43	195	43	203	0	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	506	0	0	204	0	0	281	0	0	292	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2		1	2	
Detector Template	Left	Thru			Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100			100		20	100		20	100	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/10/2020

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/10/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	21.0	21.0			21.0		21.0	21.0		1.0	1.0	
Minimum Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (%)	35.7%	35.7%			35.7%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	21.0	21.0			21.0		21.0	21.0		21.0	21.0	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None			None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		21.0			21.0			21.0			21.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
v/c Ratio		0.66			0.28			0.40			0.65	
Control Delay		16.9			10.8			12.4			20.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.9			10.8			12.4			20.5	
LOS		B			B			B			C	
Approach Delay		16.9			10.8			12.4			20.5	
Approach LOS		B			B			B			C	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	50
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	15.8
Intersection LOS:	B
Intersection Capacity Utilization:	89.5%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 9: Central Street & Summer Street

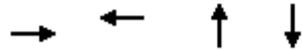


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	29%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
<b>Intersection Summary</b>	

Queues

9: Central Street & Summer Street

01/10/2020



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	506	204	281	292
v/c Ratio	0.66	0.28	0.40	0.65
Control Delay	16.9	10.8	12.4	20.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.9	10.8	12.4	20.5
Queue Length 50th (ft)	112	37	54	64
Queue Length 95th (ft)	199	73	103	#162
Internal Link Dist (ft)	1070	1306	715	670
Turn Bay Length (ft)				
Base Capacity (vph)	761	739	694	449
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.66	0.28	0.40	0.65

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis

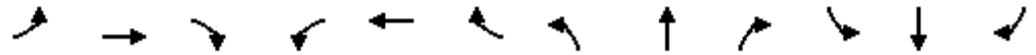
## 9: Central Street & Summer Street

01/10/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	28	438	0	0	143	45	40	179	40	187	0	82	
Future Volume (vph)	28	438	0	0	143	45	40	179	40	187	0	82	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0			4.0			4.0			4.0		
Lane Util. Factor		1.00			1.00			1.00			1.00		
Frb, ped/bikes		1.00			0.98			0.99			0.98		
Flpb, ped/bikes		1.00			1.00			0.99			0.98		
Frt		1.00			0.97			0.98			0.96		
Flt Protected		1.00			1.00			0.99			0.97		
Satd. Flow (prot)		1852			1769			1783			1652		
Flt Permitted		0.98			1.00			0.92			0.63		
Satd. Flow (perm)		1815			1769			1659			1085		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	30	476	0	0	155	49	43	195	43	203	0	89	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	506	0	0	204	0	0	281	0	0	292	0	
Confl. Peds. (#/hr)	48					48	50		38	38		50	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA		
Protected Phases		4			8			2			6		
Permitted Phases	4						2			6			
Actuated Green, G (s)		21.0			21.0			21.0			21.0		
Effective Green, g (s)		21.0			21.0			21.0			21.0		
Actuated g/C Ratio		0.42			0.42			0.42			0.42		
Clearance Time (s)		4.0			4.0			4.0			4.0		
Vehicle Extension (s)		3.0			3.0			3.0			3.0		
Lane Grp Cap (vph)		762			742			696			455		
v/s Ratio Prot					0.12								
v/s Ratio Perm		c0.28						0.17			c0.27		
v/c Ratio		0.66			0.27			0.40			0.64		
Uniform Delay, d1		11.7			9.5			10.1			11.5		
Progression Factor		1.00			1.00			1.00			1.00		
Incremental Delay, d2		2.2			0.2			0.4			3.1		
Delay (s)		13.9			9.7			10.5			14.6		
Level of Service		B			A			B			B		
Approach Delay (s)		13.9			9.7			10.5			14.6		
Approach LOS		B			A			B			B		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			12.6									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.74										
Actuated Cycle Length (s)			50.0									Sum of lost time (s)	13.0
Intersection Capacity Utilization			89.5%									ICU Level of Service	E
Analysis Period (min)			15										
c Critical Lane Group													

Lanes, Volumes, Timings  
3: Highland Avenue & Central Street

01/13/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	49	356	23	17	333	78	29	347	63	33	107	97
Future Volume (vph)	49	356	23	17	333	78	29	347	63	33	107	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.98			0.95	
Frt		0.993			0.975			0.981			0.945	
Flt Protected		0.994			0.998			0.997			0.993	
Satd. Flow (prot)	0	1831	0	0	1770	0	0	1798	0	0	1676	0
Flt Permitted		0.911			0.975			0.965			0.901	
Satd. Flow (perm)	0	1670	0	0	1728	0	0	1734	0	0	1515	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		3			13						41	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		554			1711			230			711	
Travel Time (s)		12.6			38.9			5.2			16.2	
Confl. Peds. (#/hr)	74		37	37		74	55		50	50		55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	53	387	25	18	362	85	32	377	68	36	116	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	465	0	0	465	0	0	477	0	0	257	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	

Lanes, Volumes, Timings  
 3: Highland Avenue & Central Street

01/13/2020

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
3: Highland Avenue & Central Street

01/13/2020

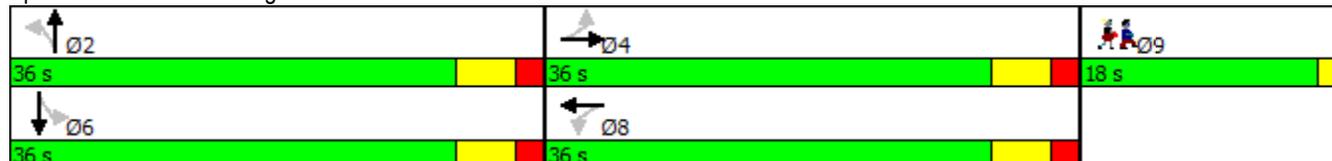


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Minimum Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (s)	36.0	36.0		36.0	36.0		36.0	36.0		36.0	36.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
v/c Ratio		0.67			0.64			0.66			0.39	
Control Delay		22.6			21.1			22.3			14.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		22.6			21.1			22.3			14.3	
LOS		C			C			C			B	
Approach Delay		22.6			21.1			22.3			14.3	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	72
Natural Cycle:	90
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	20.8
Intersection LOS:	C
Intersection Capacity Utilization:	78.0%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: Highland Avenue & Central Street

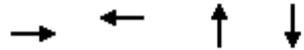


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	20%
Maximum Green (s)	16.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Queues

3: Highland Avenue & Central Street

01/13/2020



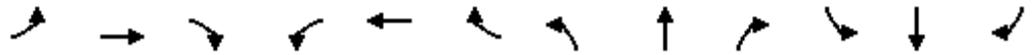
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	465	465	477	257
v/c Ratio	0.67	0.64	0.66	0.39
Control Delay	22.6	21.1	22.3	14.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.6	21.1	22.3	14.3
Queue Length 50th (ft)	160	154	165	63
Queue Length 95th (ft)	261	251	265	119
Internal Link Dist (ft)	474	1631	150	631
Turn Bay Length (ft)				
Base Capacity (vph)	697	727	722	655
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.67	0.64	0.66	0.39

Intersection Summary

# HCM Signalized Intersection Capacity Analysis

## 3: Highland Avenue & Central Street

01/13/2020



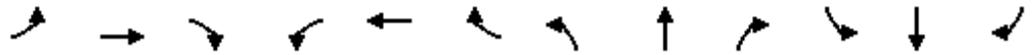
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	49	356	23	17	333	78	29	347	63	33	107	97
Future Volume (vph)	49	356	23	17	333	78	29	347	63	33	107	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.0			6.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		1.00			0.98			0.99			0.97	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			0.98			0.94	
Flt Protected		0.99			1.00			1.00			0.99	
Satd. Flow (prot)		1824			1776			1795			1681	
Flt Permitted		0.91			0.97			0.97			0.90	
Satd. Flow (perm)		1670			1735			1739			1525	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	53	387	25	18	362	85	32	377	68	36	116	105
RTOR Reduction (vph)	0	2	0	0	8	0	0	0	0	0	24	0
Lane Group Flow (vph)	0	463	0	0	457	0	0	477	0	0	233	0
Confl. Peds. (#/hr)	74		37	37		74	55		50	50		55
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.0			30.0			30.0			30.0	
Effective Green, g (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		695			722			724			635	
v/s Ratio Prot												
v/s Ratio Perm		c0.28			0.26			c0.27			0.15	
v/c Ratio		0.67			0.63			0.66			0.37	
Uniform Delay, d1		17.0			16.6			16.9			14.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.4			1.8			2.2			0.4	
Delay (s)		19.4			18.5			19.1			14.8	
Level of Service		B			B			B			B	
Approach Delay (s)		19.4			18.5			19.1			14.8	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	72.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings

7: Central Street & Gibbens Street/Oxford Street

01/13/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑			↑	
Traffic Volume (vph)	5	0	8	7	0	12	0	420	0	0	141	0
Future Volume (vph)	5	0	8	7	0	12	0	420	0	0	141	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.913			0.916							
Flt Protected		0.982			0.981							
Satd. Flow (prot)	0	1670	0	0	1674	0	0	1863	0	0	1863	0
Flt Permitted		0.982			0.981							
Satd. Flow (perm)	0	1670	0	0	1674	0	0	1863	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		515			872			750			230	
Travel Time (s)		11.7			19.8			17.0			5.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	9	8	0	13	0	457	0	0	153	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	21	0	0	457	0	0	153	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.1%
Analysis Period (min)	15
	ICU Level of Service A

# HCM Unsignalized Intersection Capacity Analysis

## 7: Central Street & Gibbens Street/Oxford Street

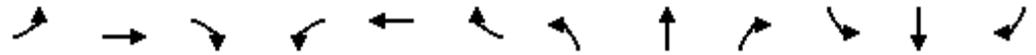
01/13/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑			↑	
Traffic Volume (veh/h)	5	0	8	7	0	12	0	420	0	0	141	0
Future Volume (Veh/h)	5	0	8	7	0	12	0	420	0	0	141	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	0	9	8	0	13	0	457	0	0	153	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage (veh)												
Upstream signal (ft)												
								750			230	
pX, platoon unblocked	0.92	0.92		0.92	0.92	0.92				0.92		
vC, conflicting volume	623	610	153	619	610	457	153			457		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	551	537	153	547	537	372	153			372		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	98	100	98	100			100		
cM capacity (veh/h)	403	416	893	410	416	623	1428			1097		
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	14	21	457	153								
Volume Left	5	8	0	0								
Volume Right	9	13	0	0								
cSH	622	520	1700	1700								
Volume to Capacity	0.02	0.04	0.27	0.09								
Queue Length 95th (ft)	2	3	0	0								
Control Delay (s)	10.9	12.2	0.0	0.0								
Lane LOS	B	B										
Approach Delay (s)	10.9	12.2	0.0	0.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.6									
Intersection Capacity Utilization			32.1%	ICU Level of Service		A						
Analysis Period (min)			15									

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/13/2020

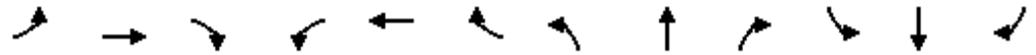


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	35	138	0	0	323	73	59	364	40	70	0	57
Future Volume (vph)	35	138	0	0	323	73	59	364	40	70	0	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99			0.99			0.97	
Frt					0.975			0.988			0.939	
Flt Protected		0.990						0.994			0.973	
Satd. Flow (prot)	0	1844	0	0	1805	0	0	1819	0	0	1657	0
Flt Permitted		0.882						0.948			0.698	
Satd. Flow (perm)	0	1641	0	0	1805	0	0	1728	0	0	1178	0
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1150			1386			795			750	
Travel Time (s)		26.1			31.5			18.1			17.0	
Confl. Peds. (#/hr)	9					9	24		29	29		24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	150	0	0	351	79	64	396	43	76	0	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	188	0	0	430	0	0	503	0	0	138	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2		1	2	
Detector Template	Left	Thru			Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100			100		20	100		20	100	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	

Lanes, Volumes, Timings  
 9: Central Street & Summer Street

01/13/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Switch Phase</b>												
Minimum Initial (s)	21.0	21.0			21.0		21.0	21.0		1.0	1.0	
Minimum Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (%)	35.7%	35.7%			35.7%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	21.0	21.0			21.0		21.0	21.0		21.0	21.0	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
<b>Lead/Lag</b>												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None			None		Min	Min		Min	Min	
<b>Walk Time (s)</b>												
Flash Dont Walk (s)												
<b>Pedestrian Calls (#/hr)</b>												
Act Effct Green (s)		21.0			21.0			21.0			21.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
v/c Ratio		0.27			0.57			0.69			0.28	
Control Delay		10.9			14.7			18.3			11.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.9			14.7			18.3			11.5	
LOS		B			B			B			B	
Approach Delay		10.9			14.7			18.3			11.5	
Approach LOS		B			B			B			B	

**Intersection Summary**

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	50
Natural Cycle:	70
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	15.2
Intersection LOS:	B
Intersection Capacity Utilization:	69.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 9: Central Street & Summer Street

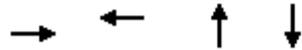


Lane Group	Ø9
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	29%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
<b>Intersection Summary</b>	

Queues

9: Central Street & Summer Street

01/13/2020



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	188	430	503	138
v/c Ratio	0.27	0.57	0.69	0.28
Control Delay	10.9	14.7	18.3	11.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.9	14.7	18.3	11.5
Queue Length 50th (ft)	34	90	114	25
Queue Length 95th (ft)	69	162	#209	57
Internal Link Dist (ft)	1070	1306	715	670
Turn Bay Length (ft)				
Base Capacity (vph)	689	758	725	494
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.57	0.69	0.28

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis

## 9: Central Street & Summer Street

01/13/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗			↕			↕	
Traffic Volume (vph)	35	138	0	0	323	73	59	364	40	70	0	57
Future Volume (vph)	35	138	0	0	323	73	59	364	40	70	0	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frbp, ped/bikes		1.00			0.99			1.00			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		1.00			0.98			0.99			0.94	
Flt Protected		0.99			1.00			0.99			0.97	
Satd. Flow (prot)		1842			1806			1816			1653	
Flt Permitted		0.88			1.00			0.95			0.70	
Satd. Flow (perm)		1641			1806			1733			1186	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	150	0	0	351	79	64	396	43	76	0	62
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	188	0	0	430	0	0	503	0	0	138	0
Confl. Peds. (#/hr)	9						9	24		29	29	24
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Actuated Green, G (s)		21.0			21.0			21.0			21.0	
Effective Green, g (s)		21.0			21.0			21.0			21.0	
Actuated g/C Ratio		0.42			0.42			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		689			758			727			498	
v/s Ratio Prot					c0.24							
v/s Ratio Perm		0.11						c0.29			0.12	
v/c Ratio		0.27			0.57			0.69			0.28	
Uniform Delay, d1		9.5			11.0			11.9			9.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			1.0			2.9			0.3	
Delay (s)		9.7			12.0			14.7			9.8	
Level of Service		A			B			B			A	
Approach Delay (s)		9.7			12.0			14.7			9.8	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			