Traffic Impact and Access Study

# Alliance Residential

## 230 Beal Street, Hingham, MA

PREPARED FOR

Alliance Residential Company
184 High Street
Suite 401
Boston, MA 02110

PREPARED BY

101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

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# 1

# Introduction

VHB has been retained by Alliance Residential Company (the "Proponent") to evaluate the potential traffic impacts associated with a proposed residential development located at 230 Beal Street in Hingham, Massachusetts. Presently the site consists of an insurance company and a children's center, under the proposed redevelopment plan, the existing structures would be removed and replaced by the residential program described below.

This traffic impact and access study quantifies the existing and future transportation conditions and identifies potential impacts associated with the proposed development. The evaluation is based on typical guidelines for the development of a traffic impact assessments, as well as traffic volume information obtained through field measurements and observations by VHB and through discussions with the developer, the Town of Hingham, and VHB's familiarities with the general study area.

The project is being proposed under the Commonwealth's "Affordable Housing" statute (Chapter 40B) and the study conforms to the requirements set forth in that program that focus on the safety and operations of the surrounding roadway network. The general finding of this study is that the proposed development is projected to have minimal impact on the safety and operations of the existing roadway facilities.

## Project Description

The project site is located at 230 Beal Street in the Town of Hingham, Massachusetts. Presently the site consists of an insurance company and a children's center, under the proposed redevelopment plan, the existing structures would be removed and replaced with residential units as outlined below. The site is bordered by Beal Street and Lynch Field (baseball fields) to the north, residential development to the east, and Back River Wildlife Sanctuary to the south and west. Figure 1 shows the site location map in relation to the surrounding roadway network.

The proposed residential development will be filed under the Commonwealth's Affordable Housing statutes, Chapter 40B, and consists of 200 residential units. Site access will remain as it is today with a single driveway

along Beal Street. A total of 310 parking spaces will be provided on-site, including 132 surface parking spaces and 178 structured parking spaces. The conceptual site plan is shown in Figure 2.

Figure 1

Site Location Map
Hingham, Massachusetts

**Figure 2**

Conceptual Site Plan

Hingham, Massachusetts

Source: Cube 3 Studio LLC.

## Study Methodology

This traffic assessment has been conducted in three phases. The first phase involved an assessment of existing conditions in the study area and included an inventory of roadways geometries, observations of traffic conditions and a review of crash data.

The second stage of the study built upon the database assembled in the first phase and established the framework for evaluating the transportation impacts of the proposed development. Specific travel demand forecasts for the project were assessed along with future traffic demands on the study area roadways due to projected background traffic growth and other proposed area development that will occur, independent of the proposed development. The year 2023, a seven-year horizon, was selected as the design year for analysis for the preparation of this traffic impact and access assessment consistent with the State's *Executive Office of Energy and Environmental Affairs/Massachusetts Department of Transportation [EEA/MassDOT]* guidelines.

The third and final stage involved conducting traffic analyses to identify both existing and projected future roadway capacities and demands. This analysis was used as the basis for determining potential project impacts.

# 2

# Existing Conditions

Evaluation of the transportation impacts associated with the proposed residential redevelopment requires a thorough understanding of the existing transportation system in the project study area. The existing conditions evaluation consisted of an inventory of the traffic control, roadway, driveway, and intersection geometry in the study area; the collection of peak period traffic volumes; and a review of recent vehicular crash history. Each of these elements is described in detail below.

## Study Area

Based on VHB's knowledge of the area, and through discussions with the Town of Hingham, a project study area has been defined and includes the following intersections[1]:

- Lincoln Street (Route 3A) at Beal Street
- Lincoln Street (Route 3A) at Essington Drive/Lincoln Plaza
- Lincoln Street (Route 3A) at Shipyard Drive/Sgt. William B. Terry Drive
- Lincoln Street (Route 3A) at Shipyard Drive/Talbots Drive
- Lincoln Street (Route 3A) at Fottler Road/Bradley Woods Drive
- Lincoln Street (Route 3A) at Bulow Road
- Beal Street at Lincoln Plaza
- Beal Street at Site Driveway
- Beal Street at Sgt. William B. Terry Drive/Lynch Field Driveway
- Beal Street at Fottler Road/Tuckers Lane

[1] The intersections of Beal Street at Backriver Road and Beal Street at Beal's Cove Road were not included as part of the study area intersections. However, field observations were conducted at these two locations.

Figure 3 shows these intersections in relation to the site.

## Roadway and Intersection Geometry

The major travel routes within the study area and the study area intersections are described below.

### Lincoln Street (Route 3A)

Lincoln Street (Route 3A) is an east-west roadway that extends from the Weymouth town line in the west to the Cohasset town line in the east. Lincoln Street (Route 3A) is under MassDOT's jurisdiction, and is an urban principal arterial roadway that provides access to Interstate 93. Within the study area, Lincoln Street generally consists of a median divided arterial with two lanes in each direction with turn lanes at major intersections. Land use along Lincoln Street within the study area includes the Hingham Shipyard, retail, residential, office, and commercial uses.

### Beal Street

Beal Street is a north-south roadway that extends from Lincoln Street (Route 3A) to the northwest to its intersection with North Street, southeast of the project study area. Under local jurisdiction. Beal Street consists of one lane in each direction, and provides access to Lincoln Plaza, Sgt. William B. Terry Drive, and Fottler Road. There is a median in the Beal Street layout that begins Lynch Field Driveway and extends to the southeast through the remainder of the study area. Land use along Beal Street consists mostly of residential, retail, and commercial space.

### Fottler Road

Fottler Road is a north-south roadway that extends from Lincoln Street (Route 3A) in the north to Beal Street in the south. Fottler Road is under local jurisdiction, and consists of one lane in each direction. Within the study area, land use along Fottler Road consists mostly of residential use.

Figure 3

Study Area Intersections
Hingham, Massachusetts

## Lincoln Street at Beal Street

Lincoln Street (Route 3A) eastbound and westbound travel lanes are separated by a median. Eastbound Lincoln Street provides one through lane and one shared through/right-turn lane that intersects with Beal Street while westbound Lincoln Street provides two through lanes. A channelized right-turn lane is provided along Beal Street and intersects with eastbound Lincoln Street. Sidewalks are provided along the north side of westbound Lincoln Street and along the south side of Lincoln Street, east of Beal Street. Crosswalks are not available at this intersection. Land uses in the vicinity of this intersection include commercial and retail uses.

Town of Hingham Lincoln Street at Beal Street[2].

## Lincoln Street at HMS Essington Drive/Lincoln Plaza

HMS Essington Drive and the Lincoln Plaza Driveway intersects Lincoln Street to form a four-way signalized intersection which is slightly off-set. Eastbound and westbound Lincoln Street provide one exclusive left-turn lane, one through lane, and one shared through/right-turn lane in each direction. Southbound HMS Essington Drive and northbound Lincoln Plaza driveway each provides one exclusive left-turn lane and one shared through/right-turn lane. Sidewalks are available on both sides of Lincoln Street and HMS Essington Drive and crosswalks are provided across the north, east, and south legs of the intersection. Land use surrounding this area consists mostly of commercial and retail uses.

▼

[2] Source: Google Earth. 42°14'52.69"N 70°55'36.38"W. Imagery Date 6/4/2016 Accessed on 6/3/2016

Town of Hingham Lincoln Street (Route 3A) at Essington Drive/Lincoln Plaza Driveway[3]

## Lincoln Street at Shipyard Drive/Sgt. William B. Sgt. William B. Terry Drive

Lincoln Street intersects with Shipyard Drive and Sgt. William B. Terry Drive to form a four-way signalized intersection. Westbound Lincoln Street provides an exclusive left-turn lane, two through lanes and one shared through/right-turn lane while eastbound Lincoln Street provides an exclusive left-turn lane, one through lane, and one shared through/right-turn lane. Southbound Shipyard Drive provides an exclusive left-turn lane, one through lane, and an exclusive right-turn lane. Northbound Sgt. William B. Terry Drive provides an exclusive left-turn lane and one shared through/right-turn lane. With the exception of the south side of Lincoln Street, east of the intersection, sidewalks are provided along both sides of Lincoln Street. Sidewalks are also available along both sides of Shipyard Drive, and on the west side of Sgt. William B. Terry Drive. Crosswalks are provided across the north and west legs of the intersection. Land use in the surrounding area includes a bank, and other commercial and retail uses.

▼

[3] Source: Google Earth. 42°14'53.78"N 70°55'30.56"W. Imagery Date 6/6/2015 Accessed on 6/3/2016

Town of Hingham Lincoln Street (Route 3A) at Shipyard Drive/Sgt William Terry Drive[4]

## Lincoln Street at Shipyard Drive/Talbots Drive

Lincoln Street intersects with Shipyard Drive and Talbots drive to form a four-way signalized intersection. Eastbound Lincoln Street consists of one left-turn lane, one through lane, and one shared through/right-turn lane, while westbound Lincoln Street consists of an exclusive left turn lane, two through lanes, and an exclusive right-turn lane. Southbound Shipyard Drive provides one left-turn lane, one shared left-turn/through lane, and one right turn lane. Northbound Talbots Drive provides one shared through/left-turn/right-turn lane. Sidewalks are available along both sides of Shipyard Drive, and along the north side of Lincoln Street. A crosswalk is provided across the north leg of the intersection. Land use in the area consists of a marina, as well as retail and commercial space.

Town of Hingham Lincoln Street (Route 3A) at Shipyard Drive/Talbots Drive[5]

## Lincoln Street at Fottler Road/Bradley Woods Drive

Lincoln Street intersects with Fottler Road and Bradley Woods Drive to form a four-way signalized intersection. Eastbound Lincoln Street provides one shared left-turn/through lane, one through lane, and one channelized right-turn lane. Westbound Lincoln Street provides one shared left-turn/through lane and one shared through/right turn lane. Northbound Fottler Road consists of one left-turn and one shared through/right turn lane. Southbound Bradley Woods drive consists of one left-turn/through/right-turn lane. Sidewalks are provided on the east side of Fottler Road and the north side of Lincoln Street. There are two crosswalks located across the north leg of the intersection and the east leg of the intersection. Land use in the surrounding area is mainly residential and commercial.

▼

[4] Source: Google Earth. 42°14'56.72"N 70°55'20.60"W . Imagery Date 6/6/2015 Accessed on 6/3/2016
[5] Source: Google Earth. 42°14'57.69"N 70°55'4.78"W . Imagery Date 6/6/2015 Accessed on 6/3/2016

Town of Hingham Lincoln Street (Route 3A) at Bradley Woods Drive/Fottler Road[6]

## Lincoln Street at Driveway/Bulow Road

Lincoln Street intersects with Bulow Road to form a three way unsignalized T-intersection. Eastbound and westbound Lincoln Street provides two lanes in each direction while northbound Bulow Road consists of one left-turn/through/right-turn lane. Sidewalks are provided on the north side of Lincoln Street. There are no crosswalks provided at this intersection. Land use in the surrounding area is mostly residential.

Town of Hingham Lincoln Street (Route 3A) at Driveway/Bulow Road[7]

[6] Source: Google Earth. 42°14'57.09"N 70°54'45.41"W . Imagery Date 6/6/2015 Accessed on 6/3/2016
[7] Source: Google Earth. 42°14'56.97"N 70°54'20.16"W . Imagery Date 6/6/2015 Accessed on 6/3/2016

## Beal Street at Lincoln Plaza Driveway

Beal Street intersects with the Lincoln Plaza driveway and the site driveway to form an unsignalized stop-controlled intersection. Eastbound and westbound Beal Street provides one lane of travel along each direction. Southbound Lincoln Plaza driveway driveway provides one shared left-turn/through/right-turn lane. Sidewalk is provided on the north side of Beal Street, and a crosswalk provided across the northern leg of the intersection. Land use in the area is mainly retail/commercial use.

Town of Hingham Beal Street at Lincoln Plaza Driveway/Site Driveway[8]

## Beal Street at Site Driveway

Beal Street intersects with the site driveway to form an unsignalized stop-controlled intersection. Eastbound and westbound Beal Street provides one lane of travel along each direction. The northbound site driveway provides one shared left-turn/through/right-turn lane. Sidewalk is provided on the north side of Beal Street. Crosswalks are not provided at this intersection. Land use in the area is mainly retail/commercial use.

Town of Hingham Beal Street at Lincoln Plaza Driveway/Site Driveway[9]

▼

[8] Source: Google Earth. 42°14'50.08"N 70°55'32.03"W . Imagery Date 6/6/2015 Accessed on 6/3/2016
[9] Source: Google Earth. 42°14'50.08"N 70°55'32.03"W . Imagery Date 6/6/2015 Accessed on 6/3/2016

## Beal Street at Sgt. William B. Terry Drive/Lynch Field Driveway

Beal Street intersects with Sgt. William B. Terry Drive and the Lynch Field Driveway to form a four-legged signalized intersection. Eastbound Beal Street consists of one shared left-turn/through/right-turn lane. Westbound Beal Street is set up the same way. Southbound Sgt. William B. Terry Drive provides one shared left-turn/through/right-turn lane as well. The southern leg, Lynch Field driveway is a one-way southbound roadway. Sidewalk is located on the north side of Beal Street, as well as on both sides of Sgt. William B. Terry Drive. Crosswalks are provided at every leg of the intersection. Parking spaces are located on the north side of Beal Street, directly east of the intersection. Land use in the surrounding area consists of athletic fields, medical use, and retail/commercial use.

Town of Hingham Beal Street at Sgt William B Terry Drive/Lynch Field Driveway[10]

## Beal Street at Fottler Road/Tuckers Lane

Beal Street intersects with Fottler Road and Tuckers Lane to form an unsignalized four-way intersection. Eastbound Beal Street provides one shared left/through/right turn lane. Westbound Beal Street consists of one shared left-turn/through lane and one channelized right-turn lane. Northbound Tuckers Lane provides one shared left-turn/through/right-turn lane. Lastly, southbound Fottler Road consists of one shared left-turn/through lane and one channelized right-turn lane. Traffic moves freely eastbound and westbound on Beal Street, but must stop at Fottler Road and Tuckers Lane according to the stop signs provided. There is one crosswalk located west of the intersection across Beal Street. Sidewalks are provided on the west side of Fottler Road, both sides of Tuckers Lane, both sides of Beal Street directly west of the intersection, and on the south side of Beal Street directly east of the intersection. Land use in the surrounding area is mainly residential and commercial.

[10] Source: Google Earth. 42°14'46.37"N 70°55'23.98"W . Imagery Date 6/6/2015 Accessed on 6/3/2016

Town of Hingham Beal Street at Fottler Road/Tuckers Lane[11]

## Traffic Volume Data

To identify current traffic flow characteristics along the major roadways serving the project study area, peak-hour turning movement counts (TMC) and daily traffic volumes were collected within the study area in May 2016.

Weekday morning and evening peak hour (7:00 AM – 9:00 AM; 4:00 PM - 6:00 PM) volumes, as well as Saturday midday (10:30 AM – 1:30 PM) volumes were collected using manual turning movement counts to identify current traffic volumes traveling through study area intersections. Weekday and Saturday daily volumes along key roadways were collected using automated traffic recorders (ATRs) over 24-hour periods, respectively. Table 1 summarizes the daily and peak hour traffic volumes along the study area roadways.

[11] Source: Google Earth. 42°14'37.90"N 70°55'2.02"W . Imagery Date 6/6/2015 Accessed on 6/3/2016

## Table 1 Observed Traffic Volume Summary

| Location | Weekday | | | | | | | Saturday | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Morning Peak Hour | | | Evening Peak Hour | | | | Midday Peak Hour | | |
| | Daily[a] | Vol.[b] | K Factor[c] | Dir. Dist.[d] | Vol. | K Factor | Dir. Dist. | Daily | Vol. | K Factor | Dir. Dist. |
| Lincoln Street, west of Essington Drive | 29,795 | 2,025 | 6.8% | 66% WB | 2,275 | 7.6% | 53% WB | 28,785 | 2,245 | 7.8% | 56% WB |
| Beal Street, west of Sgt. William B. Terry Drive | 5,895 | 340 | 5.7% | 63% EB | 640 | 10.9% | 72% EB | 5,650 | 495 | 8.7% | 67% WB |
| Sgt. William B. Terry Drive, north of Beal Street | 4,870 | 365 | 7.5% | 83% NB | 480 | 9.9% | 51% SB | 4,070 | 380 | 9.3% | 72% NB |

Source: VHB; based on automatic recorder counts conducted in May 2016.
a Average daily traffic expressed in vehicles per day
b Expressed in vehicles per hour
c percent of traffic occurs during the peak hour
d directional distribution of peak hour traffic

As Table 1 indicates, Lincoln Street accommodates approximately 29,800 vehicles on an average weekday while Beal Street, which provides access to the site driveway accommodates approximately 5,900 vehicles on an average weekday. Sgt. William B. Terry Drive, which provides connection between Lincoln Street and Beal Street, carries about 4,900 vehicles per day.

Peak hour traffic accounts between approximately six to eight percent during the morning peak hour, and between eight to eleven percent during the evening peak hour.

## Seasonality of Count Data

To evaluate the potential of seasonal fluctuation of traffic volumes on roadways near the project site, the 2011 Weekday Seasonal Factors published by MassDOT (the most recent data available), based on statewide traffic data inventory was used for the evaluation. Based on this information, the traffic volumes collected in May are approximately nine percent higher than the yearly average conditions. As such, to provide a conservative analysis, the existing traffic counts were not seasonally adjusted. Figure 4 reflects the 2016 Existing weekday morning, weekday evening and Saturday midday peak hour traffic volumes at the study area intersections, respectively.

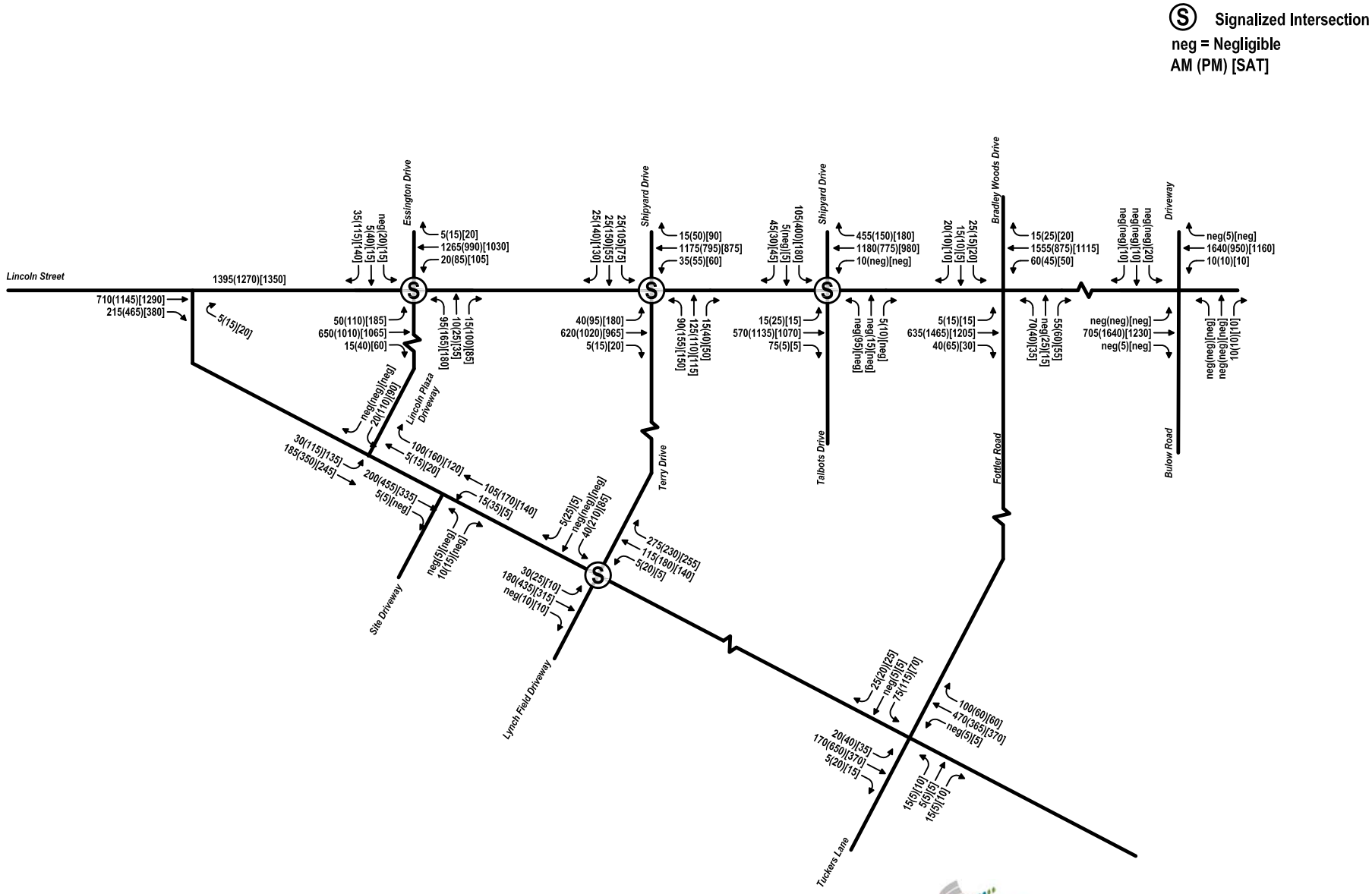


**Figure 4**
2016 Existing Condition
Peak Hour Traffic Volumes

Hingham, Massachusetts

Not to Scale

## Public Transportation

Bus service is provided near the project site by Massachusetts Bay Transportation Authority (MBTA) bus route 220. Route 220 inbound service runs from Station Street in Hingham to the Quincy Center Bus Station in Quincy and generally runs along Route 3A. The nearest bus stops to the site are located at the Lincoln Street/Beal Street intersection, at Lincoln Plaza along Lincoln Street, and at the Lincoln Street at Sgt. William B. Terry Drive/Shipyard Drive intersection. Buses run about every 30 minutes along this route, with the exception of peak commuter hours. During the morning commuting hours, nine buses leave Station Street in 10-15 minute headways. Similarly, nine buses leave Quincy Center Bus Station at 10-20 minute headways during the evening commuting hours.

Transit service into Boston is also available via Greenbush commuter rail line. West Hingham Station is located approximately 1.4 miles southeast of the study area. The Greenbush line provides service into Boston's South Station. Commuter rail schedules follow peak hour commuter flow into and out of Boston.

MBTA also provides ferry service between Rowes Wharf in Boston and Hingham Shipyard, and the ferry ride takes approximately 35 to 40 minutes. During the morning commuting hours, ferries to Rowes Wharf are available at 15-30 minute headways, while during the evening commuting hours, ferries from Rowes Wharf leave at 20-30 minute headways.

## Vehicular Crash History

To identify potential vehicle crash trends and/or roadway deficiencies within the project's study area, VHB conducted a review of the MassDOT Crash Database to document the number of vehicular collisions that have taken place over the most recent five years (2009-2013).

Using the weekday peak-period hour traffic volumes, combined with other observed traffic data, the number of crashes in the five-year total allows for the calculation of standardized crash rates for intersections. The calculation of intersection crash rate is an effective tool to measure and compare the relative safety of an intersection to other, similar, intersections. The resulting crash rate is expressed in million entering vehicles (MEV), which is an industry standard to the traffic engineering profession. It relates to how many crashes occur at a particular intersection for every million vehicles that pass through it.

By way of comparison, the 2016 MassDOT average crash rates for signalized and unsignalized intersections for District 5 (the MassDOT district designation for Hingham) are 0.77 and 0.58, respectively. These rates imply that, on average, 0.77 crashes occurred per million vehicles entering signalized intersections throughout District 5, and 0.58 crashes occurred per million vehicles entering unsignalized intersections in the District. Any crash rate higher than these factors may indicate a higher than average crash tendency for a given facility or intersection.

Table 2 presents the number of crashes, crash characteristics, as well as the crash rate for each of the study area intersections. Results from the crash database shows that none of the intersections exceed the MassDOT District 5 average crash rate values.

## Table 2 Vehicular Crash Data 2009-2013

| | Lincoln Street at | | | | | | Beal Street at | | |
|---|---|---|---|---|---|---|---|---|---|
| | Beal St | Essington Dr/ Lincoln Plaza | Sgt. William B. Terry Dr/ Shipyard Dr | Talbots Dr/ Shipyard Dr | Fottler Rd/ Bradley Woods Dr | Bulow Rd | Lincoln Plaza/ Driveway | Sgt. William B. Terry Dr/ Driveway | Fottler Rd/ Tuckers Ln |
| Signalized? | No | Yes | Yes | Yes | Yes | No | No | Yes | No |
| MassDOT Average Crash Rate | 0.58 | 0.77 | 0.77 | 0.77 | 0.77 | 0.58 | 0.58 | 0.77 | 0.58 |
| Calculated Crash Rate | 0.03 | 0.38 | 0.38 | 0.06 | 0.24 | 0.06 | 0.04 | 0.25 | 0.15 |
| Exceeds Average? | No | No | No | No | No | No | No | No | No |
| **Year** | | | | | | | | | |
| 2009 | 1 | 8 | 2 | 1 | 5 | 1 | 1 | 2 | 3 |
| 2010 | 0 | 1 | 5 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2011 | 0 | 2 | 5 | 0 | 1 | 2 | 0 | 1 | 0 |
| 2012 | 0 | 4 | 5 | 1 | 3 | 0 | 0 | 0 | 1 |
| 2013 | 1 | 6 | 6 | 1 | 4 | 0 | 0 | 0 | 0 |
| Total | 2 | 21 | 23 | 3 | 14 | 3 | 1 | 3 | 4 |
| **Collision Type** | | | | | | | | | |
| Angle | 1 | 7 | 4 | 0 | 4 | 0 | 1 | 3 | 0 |
| Head-on | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rear-end | 0 | 8 | 11 | 2 | 8 | 1 | 0 | 0 | 0 |
| Rear-to-rear | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sideswipe, opposite direction | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sideswipe, same direction | 0 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 4 |
| Single vehicle crash | 1 | 1 | 6 | 0 | 2 | 1 | 0 | 0 | 0 |
| Not Reported/Unknown | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 21 | 23 | 3 | 14 | 3 | 1 | 3 | 4 |
| **Severity** | | | | | | | | | |
| Fatal Injury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-Fatal Injury | 0 | 4 | 6 | 1 | 4 | 0 | 1 | 1 | 0 |
| Property Damage Only | 2 | 16 | 16 | 2 | 8 | 3 | 0 | 2 | 3 |
| Not Reported/Unknown | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 1 |
| Total | 2 | 21 | 23 | 3 | 14 | 3 | 1 | 3 | 4 |
| **Time of day** | | | | | | | | | |
| Weekday ,7:00 AM - 9:00 AM | 0 | 1 | 4 | 1 | 1 | 0 | 0 | 0 | 0 |
| Weekday, 4:00 – 6:00 PM | 0 | 4 | 4 | 1 | 5 | 0 | 0 | 1 | 0 |
| Saturday 11:00 AM – 2:00 PM | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Weekday, other time | 0 | 10 | 11 | 1 | 5 | 3 | 0 | 1 | 2 |
| Weekend, other time | 1 | 6 | 2 | 0 | 3 | 0 | 1 | 1 | 2 |
| Total | 2 | 21 | 23 | 3 | 14 | 3 | 1 | 3 | 4 |
| **Pavement Conditions** | | | | | | | | | |
| Dry | 0 | 16 | 18 | 2 | 13 | 1 | 0 | 2 | 3 |
| Wet | 2 | 4 | 4 | 0 | 1 | 2 | 0 | 1 | 1 |
| Snow | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ice | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Sand, mud, dirt, oil, gravel | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Water (standing, moving) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Slush | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not Reported/Unknown | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 21 | 22 | 3 | 14 | 3 | 1 | 3 | 4 |
| Non-Motorist (Bike, Pedestrian) | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |

Source: Massachusetts Department of Transportation Crash Data 2009-2013.

The intersections of Lincoln Street at HMS Essington Drive and Lincoln Street at Shipyard Drive, which provide access to the Hingham Shipyard as well as the retail and residential areas at the Hingham Shipyard, experiences the highest number of crashes, with 23 crashes and 21 crashes respectively. The majority of these crashes were angle crashes, occurring during weekday non-peak hours, resulting in property damage only. One crash that involved a pedestrian/bicyclist was recorded at each of these locations. In addition, one other pedestrian/bicyclist-related crash occurred at the intersection of Lincoln Street at Fottler Road/ Bradley Woods Drive.

No fatalities were recorded at any of the study area intersections for the years 2009 through 2013.

## Highway Safety Improvement Program

In addition to calculating the crash rate, study area intersections should also be reviewed in the MassDOT's Highway Safety Improvement Program (HSIP) database. An HSIP-eligible cluster is one in which the total number of "equivalent property damage only[12] "crashes in the area is within the top 5% of all clusters in that region. Being HSIP-eligible makes the location eligible for FHWA and MassDOT funds to address the identified safety issues at these locations.

As part of this effort, VHB reviewed this database and found that none of the study area intersections are listed as an HSIP-eligible cluster in the 2011-2013 HSIP cluster listing.

[12] "Equivalent property damage only" is a method of combining the numbers of crashes with the severity of the crashes based on a weighted scale. Crashes involving property damage only are reported at a minimal level of importance, while collisions involving personal injury (or fatalities) are weighted more heavily.

# 3

# Future Conditions

Traffic assessment for future conditions were conducted in two steps. First, the baseline traffic volumes in the study area are projected to year 2023, reflecting a seven-year traffic planning horizon (which is the normal horizon for traffic studies). Any anticipated roadway improvements that may affect the flow of traffic within the study area, and background traffic growth based on known development projects would be included in the traffic volumes on the roadway network under year 2023 No-Build Condition. Anticipated Project-generated traffic volumes were then added to the year 2023 No-Build traffic volumes to reflect the year 2023 Build Condition in the study area.

This section describes the process used to arrive at these development conditions.

## Background Traffic Growth

Traffic growth on area roadways is a function of the expected land development, economic activity, and changes in local and regional demographics. A frequently used procedure by the transportation engineering industry is to estimate the historical annual percentage increase in traffic volumes and apply that increase to the study-area traffic volumes. Another procedure involves the estimation of traffic generated by specific planned major developments that would be expected to affect traffic volumes on the study area roadways. For the purpose of this assessment, *both* methods were utilized to present a conservative assessment of the potential future traffic volume loadings.

### Historic Traffic Growth

A comparison of traffic count data and other traffic studies in the area indicates that a one percent annual growth will accurately account for the anticipated growth within the study area over the next seven-year period. This rate should adequately reflect the growth in the area and was used to determine the 2023 No-Build Conditions.

## Site Specific Growth

Based on communications with the Town of Hingham and a review of other project traffic studies recently performed, it was determined that there were a number of planned and/or approved project that have the potential to add traffic to the study area roadways. Currently, there are no planned intersection or roadway improvements at any study area intersections. Table 3 summarizes the available information relating to the potential background projects.

### Table 3 Other Area Developments

| Project | | Land Use |
|---|---|---|
| 1 | Hingham Shipyard | 83 condominium units |
| | | 5,000 s.f. vacant retail space |
| | | 11,000 s.f. retail |
| | | 22,000 s.f. office |
| 2 | "Selectmen's" Parcel / Beal Street | 40 residential units |
| 3 | Avalon Hingham Shipyard II | 250 residential units |

## No-Build Traffic Volumes

The 2023 No-Build traffic volumes were developed by applying the one percent annual growth rate over the seven-year study horizon to the 2016 Existing Conditions traffic volumes and adding the traffic volumes associated with the site-specific background projects noted previously. Figure 5 show the resulting 2023 No-Build peak hour traffic volumes.

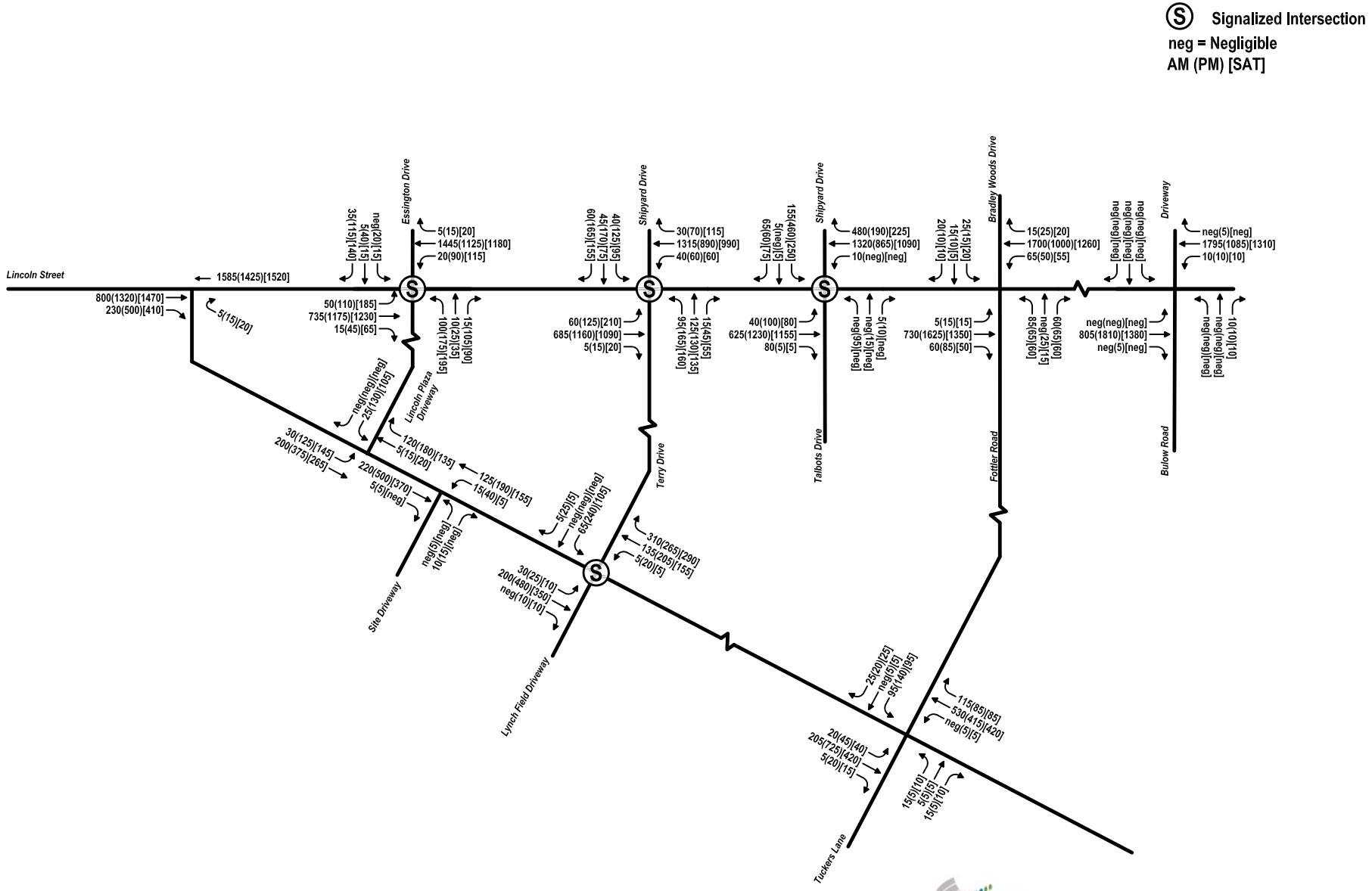


**Figure 5**
2023 No-Build Condition
Peak Hour Traffic Volumes

Hingham, Massachusetts

Not to Scale

## Trip Generation

The rate at which any development generates traffic is dependent upon a number of factors such as size, location, and concentration of surrounding developments. The number of vehicle-trips to be generated by the proposed project was estimated based on trip generation rates provided in the Trip Generation[13] manual, published by the Institute of Transportation Engineers (ITE). ITE land use code 220 (Apartments), was determined to be the most appropriate land use codes for this development.

As described in previous sections, the existing use at the site consists of an insurance company and a children's center. Based on observed traffic data, approximately 30 trips are generated during the morning peak hour, 50 trips during the evening peak hour, and only five trips are generated during the Saturday midday peak hour. To provide for a conservative analysis, no credit has been taken for trips generated by the existing use at the site, but it should be pointed out that these are observed trips that will no longer be generated by this development once the housing proposal is finalized. The projected trip generation associated with the proposed 200 residential units development based on the standardized ITE rates are shown in Table 4.

### Table 4 Trip Generation

| | Existing[a] | Proposed |
|---|---|---|
| **Development Type**<br>**Size** | **Office/**<br>**Children's Center** | **Apartments[b]**<br>**200 units** |
| ***Weekday*** | | |
| *Daily (vpd)* | - | 1,340 |
| *Morning Peak Hour (vph)* | | |
| Enter | 20 | 20 |
| Exit | 10 | 80 |
| Total | 30 | 100 |
| *Evening Peak Hour (vph)* | | |
| Enter | 35 | 85 |
| Exit | 15 | 45 |
| Total | 50 | 130 |
| ***Saturday*** | | |
| *Midday Peak Hour (vph)[c]* | | |
| Enter | 5 | 50 |
| Exit | 0 | 50 |
| Total | 5 | 100 |

a – Based on observed traffic data collected in May, 2016
b – Institute of Transportation Engineers, *Trip Generation, 9th Edition* - Land Use Code 220 [Apartments] 200 units; regression for weekday, AM Peak and PM Peak.
c – Due to lack of distribution data for Saturday midday peak hour, entering/exiting distribution is based on Saturday peak hour data for ITE LUC 230 (residential condominium/townhouse).
vpd = vehicles per day, vph = vehicles per hour

[13] Trip Generation (9th edition), Institute of Transportation Engineers, Washington DC, 2013

As shown in Table 4, according to ITE Trip Generation, the residential development is estimated to generate 100 weekday morning peak hour trips (20 entering and 80 exiting), 130 weekday evening peak hour trips (85 entering and 45 exiting), and a total of 1,340 weekday daily trips. On Saturdays, 100 midday peak hour trips (50 entering and 50 exiting) are projected for the site. As mentioned in the previous chapter, transit services are available near the project site. While it can be assumed that the number of vehicular trips presented in Table 4 could be lower due to potential residents using bus, ferry and rail services, to provide a conservative analysis, no credit has been taken for transit services.

## Trip Distribution and Assignment

The directional distribution of the vehicular traffic approaching and departing the site is a function of population densities, the location of employment, existing travel patterns, and the efficiency of the existing roadway system.

Anticipated residential trip distribution patterns were based on a review of recent traffic studies, observed traffic flow conditions on available routes, the assumption that most motorists will seek the fastest and most direct routes to and from the site, and the 2010 U.S. Census Journey-to-Work data for the Town of Hingham. Table 5 and Figure 6 illustrate the anticipated vehicular trip distribution pattern for the proposed residential development.

**Table 5 Trip Distribution**

| Travel Route | Direction To/From | Distribution |
|---|---|---|
| Lincoln Street (Route 3A) | East | 25% |
| | West | 55% |
| Beal Street | South | 20% |
| | Total | 100% |

The projected site-generated traffic volumes, as shown in Table 4, were distributed on the study area roadways using the trip distribution shown in Table 5 and added to the 2023 No-Build peak hour traffic volumes to develop the 2023 Build peak hour traffic volumes. These 2023 Build traffic volumes are shown in Figure 7.

### North Street Corridor

Based on discussions with the Hingham Police Department, concerns have been raised for several intersections along North Street (which extends east of Beal Street). In particular, the Town is concerned about the potential impacts of the proposed residential development on the intersections of North Street at Thaxter Street/Hershey Street, North Street at Lincoln Street/ Central Street and Hingham Square.

As presented in Figure 6, approximately nine percent of the site-generated traffic will travel through the three intersections. Based on the trip generation data provided in Table 4, this equates to approximately 10 additional peak hour trips traveling along North Street during both morning and evening peak hour. Impacts due to the proposed residential development will likely be negligible at the intersections of North Street at Thaxter Street/Hershey Street, North Street at Lincoln Street/ Central Street and Hingham Square.

## Beal Street at Beal's Cove Road / Beal Street at Backriver Road

In addition to the North Street Corridor, the Town was also concerned about the operations at the intersections of Beal Street at Backriver Road and Beal Street at Beal's Cove Road. Based on field observations, there are currently no more than two vehicles in queue when vehicles are turning into either Backriver Road or Beal's Cove Road. As presented previously in Figure 6, approximately 20 percent of the site-generated traffic will travel along Beal Street, which equates to approximately 20 to 25 additional peak hour trips. In other words, the proposed residential development will generate approximately one additional vehicle along Beal Street every two minutes during the peak hour. With over 300 and 600 vehicles traveling along Beal Street during the respective morning and evening peak hours, the impact of the project will also likely be negligible.

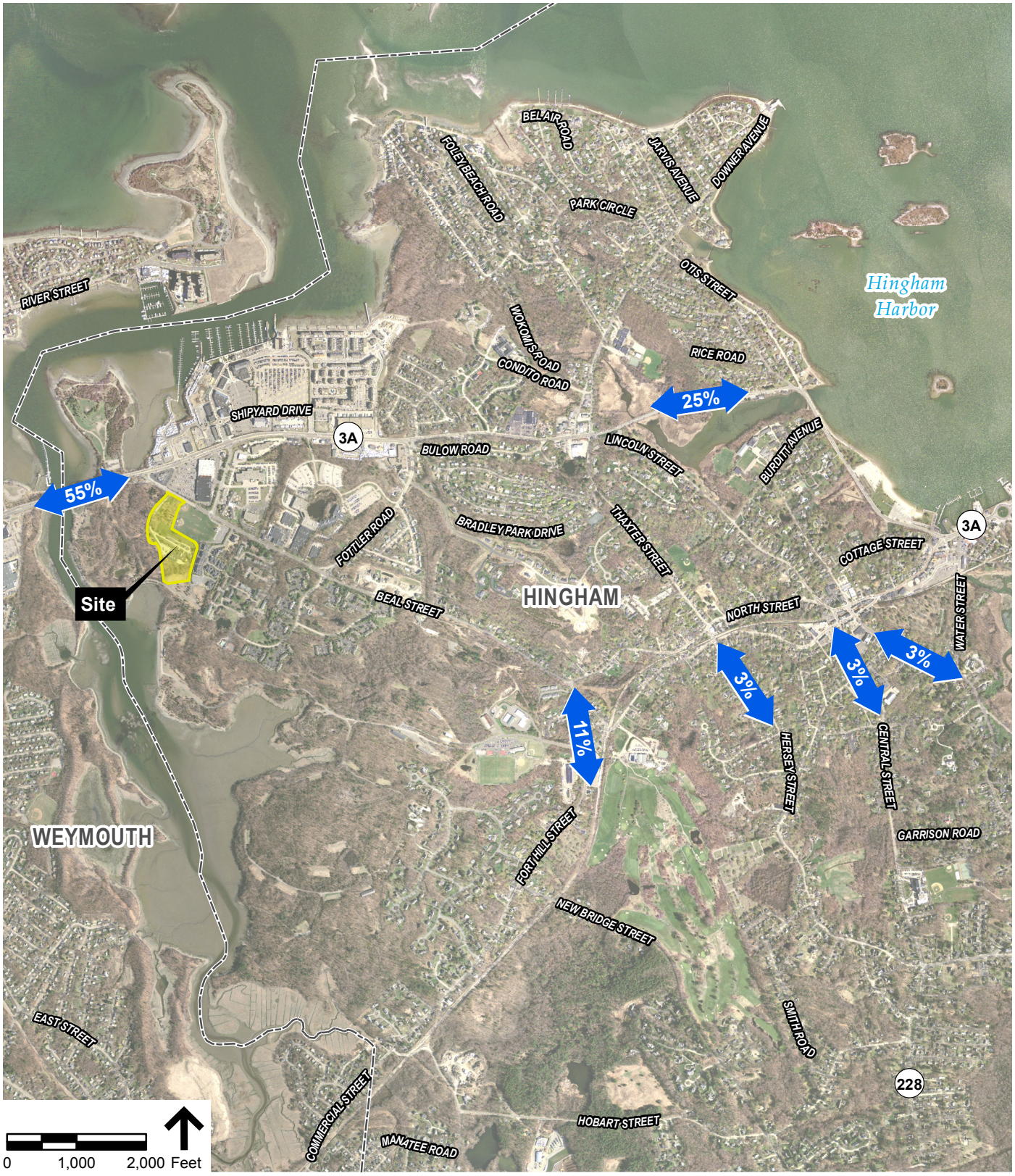


Figure 6

Trip Distribution
Hingham, Massachusetts

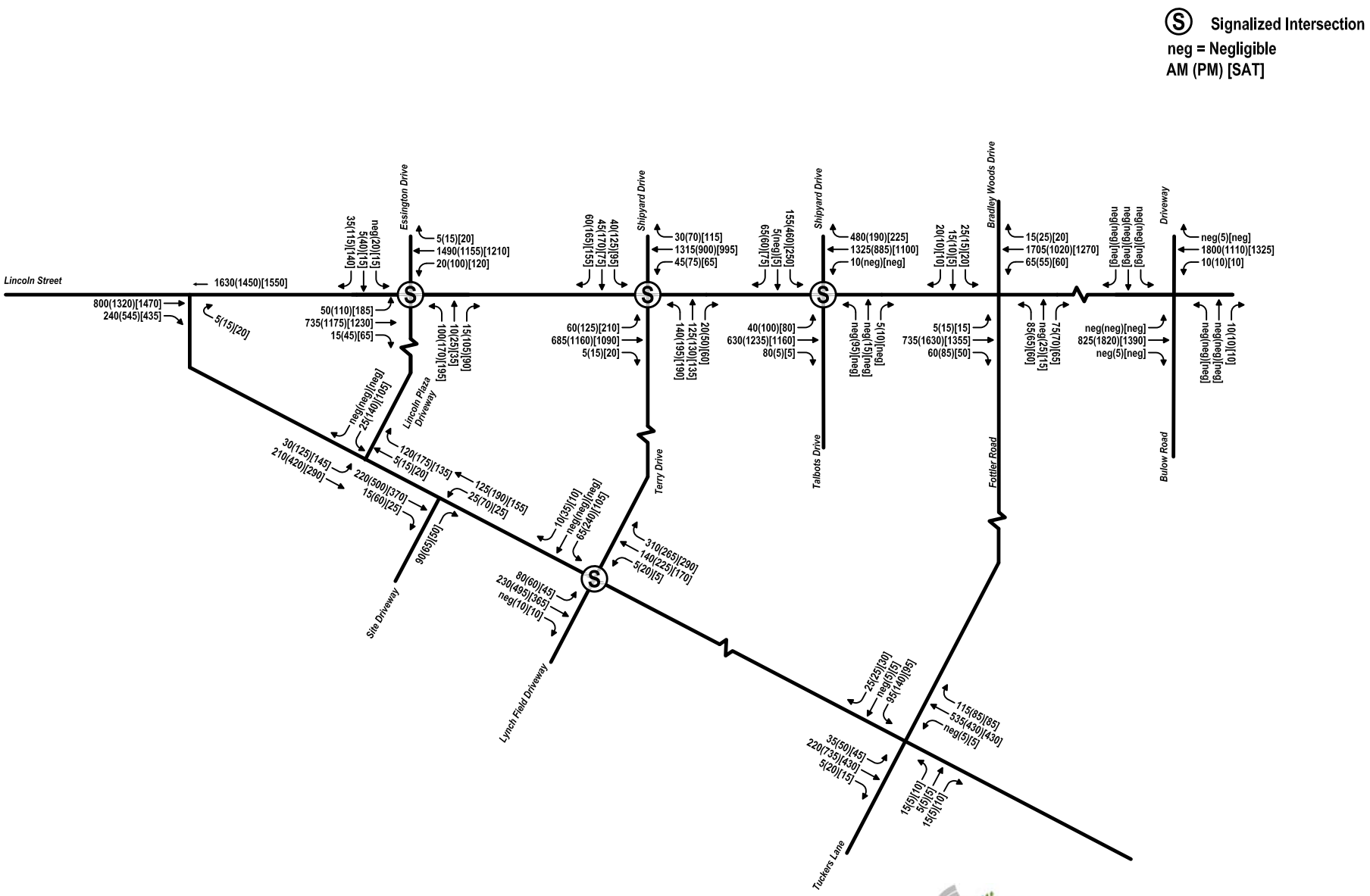


**Figure 7**
2023 Build Condition
Peak Hour Traffic Volumes

Hingham, Massachusetts

Not to Scale

# 4

# Traffic Operations Analysis

Measuring existing traffic volumes and projecting future traffic volumes quantifies traffic within the study area. To assess quality of flow, roadway capacity analyses were conducted with respect to the 2016 Existing conditions and projected 2023 No-Build and Build traffic volume conditions. Capacity analyses provide an indication of the adequacy of the roadway facilities to serve the anticipated traffic demands.

## Level of Service and Delay Criteria

The evaluation criteria used to analyze area intersections in this traffic study are based on the 2010 Highway Capacity Manual [HCM] [14](with analysis results for signalized intersections being reported directly from the Synchro 8-analysis methodology). The term 'level of service' [LOS] is used to denote the different operating conditions that occur on a given roadway segment under various traffic volume loads. It is a qualitative measure that considers a number of factors including roadway geometry, speed, travel delay, and freedom to maneuver.

- Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure of a number of factors including roadway geometrics, speed, travel delay and freedom to maneuver. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level-of-service designations range from A to F, with LOS A representing the least congested operating conditions and LOS F representing the most congested conditions.
- Delay is a complex measure that depends upon a number of variables such as quality of signal progression, cycle length, allocation of green time, and volume-to-capacity (v/c) ratio. Of all the factors cited, v/c ratios have the least effect on delay. Thus, for any given v/c ratio, a range of delay values [and, therefore, levels of service] may result. Conversely, for a given level of service, the v/c ratio may lie anywhere within a broad range. Comparison of intersection capacity results therefore requires that *in addition to the LOS, the other measures of effectiveness [MOEs] also be considered.*

▼

[14] Highway Capacity Manual; Transportation Research Board; 2010.

The level-of-service designations, which are based on delay, are reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection and the LOS designation is for overall conditions at the intersection. For unsignalized intersections, the analysis assumes that traffic on the mainline is not affected by traffic on the side streets. Thus, the LOS designation is for the critical movement exiting the side street, and is typically the left turn out of the side street or site driveway.

## Level-of-Service Analysis

Levels-of-service analyses were conducted for the 2016 Existing, 2023 No-Build, and 2023 Build Conditions for the signalized and unsignalized study-area intersections.

### Signalized Intersection Capacity Analyses

Table 6 presents a summary of the capacity analyses for the signalized intersections in the study area. The capacity analyses worksheets are included in the Appendix.

## Table 6 Signalized Intersection Capacity Analysis Summary

| | | Morning Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2016 Existing Conditions | | | 2023 No-Build Conditions | | | 2023 Build Conditions | | |
| Location | Movement | v/c [1] | Delay [2] | LOS [3] | v/c | Delay | LOS | v/c | Delay | LOS |
| Lincoln Plaza Dr./ | EB L | 0.41 | 48 | D | 0.49 | 55 | E | 0.49 | 55 | E |
| Essington Dr. at | EB T/T/R | 0.34 | 8 | A | 0.36 | 8 | A | 0.36 | 8 | A |
| Lincoln St. (RT 3A) | WB L | 0.15 | 40 | D | 0.18 | 43 | D | 0.18 | 43 | D |
| | WB T/T/R | 0.71 | 15 | B | 0.74 | 16 | B | 0.76 | 17 | B |
| | NB L | 0.55 | 44 | D | 0.63 | 52 | D | 0.63 | 52 | D |
| | NB T/R | 0.11 | 20 | C | 0.12 | 21 | C | 0.12 | 21 | C |
| | SB L | 0.02 | 31 | C | 0.02 | 32 | C | 0.02 | 32 | C |
| | SB T/R | 0.23 | 13 | B | 0.25 | 14 | B | 0.25 | 14 | B |
| | **Overall** | | **15** | **B** | | **16** | **B** | | **16** | **B** |
| Sgt. W.B. Terry Dr./ | EB L | 0.23 | 37 | D | 0.38 | 42 | D | 0.38 | 42 | D |
| Shipyard Dr. West | EB T/T/R | 0.45 | 17 | B | 0.47 | 18 | B | 0.47 | 18 | B |
| Lincoln St. (RT. 3A) | WB L | 0.19 | 37 | D | 0.26 | 40 | D | 0.28 | 41 | D |
| | WB T/T/T/R | 0.62 | 20 | B | 0.65 | 22 | C | 0.65 | 22 | C |
| | NB L | 0.32 | 22 | C | 0.33 | 23 | C | 0.53 | 28 | C |
| | NB T/R | 0.56 | 36 | D | 0.62 | 41 | D | 0.63 | 41 | D |
| | SB L | 0.11 | 20 | B | 0.17 | 21 | C | 0.17 | 21 | C |
| | SB T | 0.12 | 30 | C | 0.23 | 33 | C | 0.24 | 33 | C |
| | SB R | 0.06 | 1 | A | 0.15 | 5 | A | 0.17 | 5 | A |
| | **Overall** | | **21** | **C** | | **23** | **C** | | **23** | **C** |
| Talbots Dr./Shipyard | EB L | 0.09 | 35 | D | 0.26 | 38 | D | 0.26 | 38 | D |
| Dr. East at Lincoln St. | EB T/T/R | 0.34 | 7 | A | 0.34 | 7 | A | 0.34 | 7 | A |
| (RT. 3A) | WB L | 0.07 | 35 | D | 0.08 | 37 | D | 0.08 | 37 | D |
| | WB T/T | 0.72 | 15 | B | 0.80 | 20 | B | 0.80 | 20 | B |
| | WB R | 0.38 | 1 | A | 0.42 | 2 | A | 0.42 | 2 | A |
| | NB L/T/R | 0.13 | 27 | C | 0.15 | 29 | C | 0.15 | 29 | C |
| | SB L | 0.28 | 34 | C | 0.45 | 40 | D | 0.46 | 40 | D |
| | SB L/T | 0.29 | 34 | C | 0.44 | 40 | D | 0.45 | 40 | D |
| | SB R | 0.09 | 1 | A | 0.14 | 2 | A | 0.14 | 2 | A |
| | **Overall** | | **12** | **B** | | **15** | **B** | | **15** | **B** |
| Fottler Rd./Bradley | EB L/T/T/R | 0.30 | 4 | A | 0.37 | 5 | A | 0.38 | 5 | A |
| Woods Dr. at Lincoln | WB L/T/T/R | 0.93 | 25 | C | 1.08 | 67 | E | 1.09 | 69 | E |
| St. (RT 3A) | NB L | 0.44 | 41 | D | 0.52 | 44 | D | 0.52 | 44 | D |
| | NB L/T | 0.34 | 38 | D | 0.36 | 37 | D | 0.44 | 40 | D |
| | SB L/T/R | 0.46 | 42 | D | 0.43 | 40 | D | 0.44 | 40 | D |
| | **Overall** | | **21** | **C** | | **48** | **D** | | **49** | **D** |
| Sgt. W.B. Terry Dr. at | EB L/T/R | 0.24 | 5 | A | 0.23 | 6 | A | 0.36 | 6 | A |
| Beal St. | WB L/T/R | 0.34 | 4 | A | 0.38 | 5 | A | 0.409 | 5 | A |
| | SB L/T | 0.18 | 14 | B | 0.24 | 14 | B | 0.28 | 19 | B |
| | SB R | 0.02 | 1 | A | 0.02 | 1 | A | 0.04 | 1 | A |
| | **Overall** | | **5** | **A** | | **6** | **A** | | **7** | **A** |

Source: VHB, Inc. using Synchro 8 (Build 806, Rev 61) software.
1
2 volume-to-capacity ratio for the critical movement
3 delay of critical approach only, rounded to the nearest whole second
4 level of service
EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; R = right; T = through, L= left

## Table 6 (continued) Signalized Intersection Capacity Analysis Summary

| Evening Peak Hour | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2016 Existing Conditions | | | 2023 No-Build Conditions | | | 2023 Build Conditions[4] | | |
| Location | Movement | v/c [1] | Delay [2] | LOS [3] | v/c | Delay | LOS | v/c | Delay | LOS |
| Lincoln Plaza Dr./ | EB L | 0.68 | 62 | E | 0.75 | 71 | E | 0.75 | 72 | E |
| Essington Dr. at | EB T/T/R | 0.71 | 24 | C | 0.81 | 27 | C | 0.81 | 28 | C |
| Lincoln St. (RT 3A) | WB L | 0.50 | 49 | D | 0.55 | 53 | D | 0.59 | 54 | D |
| | WB T/T/R | 0.76 | 25 | C | 0.77 | 25 | C | 0.79 | 26 | C |
| | NB L | 0.56 | 38 | D | 0.67 | 47 | D | 0.66 | 47 | D |
| | NB T/R | 0.24 | 10 | B | 0.27 | 11 | B | 0.27 | 11 | B |
| | SB L | 0.07 | 28 | C | 0.08 | 30 | C | 0.08 | 30 | C |
| | SB T/R | 0.35 | 16 | B | 0.38 | 17 | B | 0.38 | 17 | B |
| | **Overall** | | **27** | **C** | | **29** | **C** | | **29** | **C** |
| Sgt. W.B. Terry Dr./ | EB L | 0.55 | 51 | D | 0.63 | 52 | D | 0.63 | 53 | D |
| Shipyard Dr. West | EB T/T/R | 0.74 | 27 | C | 0.86 | 34 | C | 0.87 | 34 | C |
| Lincoln St. (RT. 3A) | WB L | 0.41 | 50 | D | 0.45 | 52 | D | 0.51 | 54 | D |
| | WB T/T/T/R | 0.52 | 24 | C | 0.64 | 28 | C | 0.64 | 28 | C |
| | NB L | 0.58 | 31 | C | 0.59 | 31 | C | 0.69 | 36 | D |
| | NB T/R | 0.58 | 41 | D | 0.63 | 43 | D | 0.64 | 44 | D |
| | SB L | 0.39 | 26 | C | 0.48 | 28 | C | 0.48 | 28 | C |
| | SB T | 0.69 | 49 | D | 0.71 | 49 | D | 0.71 | 50 | D |
| | SB R | 0.29 | 4 | A | 0.31 | 4 | A | 0.31 | 4 | A |
| | **Overall** | | **28** | **C** | | **32** | **C** | | **33** | **C** |
| Talbots Dr./Shipyard | EB L | 0.19 | 42 | D | 0.57 | 51 | D | 0.57 | 51 | D |
| Dr. East at Lincoln St. | EB T/T/R | 0.76 | 22 | C | 0.75 | 21 | C | 0.75 | 21 | C |
| (RT. 3A) | WB L | 0.01 | 43 | D | 0.01 | 45 | D | 0.01 | 45 | D |
| | WB T/T | 0.67 | 26 | C | 0.78 | 31 | C | 0.79 | 31 | C |
| | WB R | 0.16 | 2 | A | 0.20 | 2 | A | 0.20 | 2 | A |
| | NB L/T/R | 0.82 | 69 | E | 0.89 | 84 | F | 0.90 | 86 | F |
| | SB L | 0.96 | 79 | E | >1.20 | >120 | F | >1.20 | >120 | F |
| | SB L/T | 0.97 | 80 | E | >1.20 | >120 | F | >1.20 | >120 | F |
| | SB R | 0.09 | 1 | A | 0.18 | 4 | A | 0.18 | 4 | A |
| | **Overall** | | **11** | **B** | | **53** | **D** | | **54** | **D** |
| Fottler Rd./Bradley | EB L/T/T/R | 0.63 | 6 | A | 0.71 | 8 | A | 0.71 | 8 | A |
| Woods Dr. at Lincoln | WB L/T/T/R | 0.63 | 13 | B | 0.73 | 15 | B | 0.77 | 17 | B |
| St. (RT 3A) | NB L | 0.25 | 38 | D | 0.47 | 49 | D | 0.46 | 48 | D |
| | NB T/R | 0.42 | 41 | D | 0.53 | 49 | D | 0.55 | 50 | D |
| | SB L/T/R | 0.26 | 38 | D | 0.31 | 43 | D | 0.30 | 42 | D |
| | **Overall** | | **13** | **B** | | **13** | **B** | | **14** | **B** |
| Sgt. W.B. Terry Dr. at | EB L/T/R | 0.68 | 15 | B | 0.67 | 14 | B | 0.71 | 15 | B |
| Beal St. | WB L/T/R | 0.68 | 14 | B | 0.70 | 14 | B | 0.66 | 13 | B |
| | SB L/T | 0.50 | 17 | B | 0.58 | 21 | C | 0.64 | 25 | C |
| | SB R | 0.06 | 1 | A | 0.06 | 1 | A | 0.10 | 3 | A |
| | **Overall** | | **15** | **B** | | **15** | **B** | | **16** | **B** |

Source: VHB, Inc. using Synchro 8 (Build 806, Rev 61) software.
1 volume to capacity ratio
2 average delay in seconds per vehicle
3 level of service
EB = Eastbound; WB = Westbound; NB = Northbound; SB=Southbound; , R = right; T = through, L= left

## Table 6 (continued) Signalized Intersection Capacity Analysis Summary

| | | Saturday Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2016 Existing Conditions | | | 2023 No Build Conditions | | | 2023 Build Conditions | | |
| Location | Movement | v/c [1] | Delay [2] | LOS [3] | v/c | Delay | LOS | v/c | Delay | LOS |
| Lincoln Plaza Dr./ | EB L | 1.11 | >120 | F | 1.19 | >120 | F | 1.20 | >120 | F |
| Essington Dr. at | EB T/T/R | 0.77 | 27 | C | 0.82 | 29 | C | 0.82 | 29 | C |
| Lincoln St. (RT 3A) | WB L | 0.56 | 51 | D | 0.62 | 55 | E | 0.63 | 56 | E |
| | WB T/T/R | 0.75 | 25 | C | 0.78 | 25 | C | 0.79 | 26 | C |
| | NB L | 0.78 | 54 | D | 0.96 | 86 | F | 0.98 | 91 | F |
| | NB T/R | 0.29 | 16 | B | 0.32 | 16 | B | 0.32 | 16 | B |
| | SB L | 0.06 | 29 | C | 0.07 | 30 | C | 0.07 | 30 | C |
| | SB T/R | 0.36 | 8 | A | 0.38 | 9 | A | 0.38 | 9 | A |
| | **Overall** | | **34** | **C** | | **38** | **D** | | **39** | **D** |
| Sgt. W.B. Terry Dr./ | EB L | 0.66 | 46 | D | 0.69 | 47 | D | 0.70 | 47 | D |
| Shipyard Dr. West | EB T/T/R | 0.62 | 23 | C | 0.71 | 26 | C | 0.72 | 26 | C |
| Lincoln St. (RT. 3A) | WB L | 0.38 | 45 | D | 0.40 | 47 | D | 0.42 | 48 | D |
| | WB T/T/T/R | 0.61 | 26 | C | 0.75 | 32 | C | 0.75 | 32 | C |
| | NB L | 0.51 | 29 | C | 0.53 | 29 | C | 0.62 | 33 | C |
| | NB T/R | 0.67 | 43 | D | 0.69 | 44 | D | 0.70 | 44 | D |
| | SB L | 0.25 | 24 | C | 0.32 | 25 | C | 0.32 | 25 | C |
| | SB T | 0.21 | 34 | C | 0.26 | 35 | C | 0.26 | 34 | C |
| | SB R | 0.22 | 4 | A | 0.24 | 3 | A | 0.24 | 3 | A |
| | **Overall** | | **27** | **C** | | **30** | **C** | | **31** | **C** |
| Talbots Dr./Shipyard | EB L | 0.07 | 34 | C | 0.40 | 41 | D | 0.40 | 41 | D |
| Dr. East at Lincoln St. | EB T/T/R | 0.59 | 12 | B | 0.59 | 13 | B | 0.59 | 13 | B |
| (RT. 3A) | WB L | 0.00 | 34 | C | 0.01 | 39 | D | 0.01 | 39 | D |
| | WB T/T | 0.66 | 16 | B | 0.74 | 21 | C | 0.74 | 21 | C |
| | WB R | 0.15 | 1 | A | 0.20 | 1 | A | 0.20 | 1 | A |
| | NB L/T/R | 0.02 | 35 | C | 0.03 | 40 | D | 0.03 | 40 | D |
| | SB L | 0.35 | 30 | C | 0.49 | 37 | D | 0.49 | 37 | D |
| | SB L/T | 0.36 | 30 | C | 0.48 | 36 | D | 0.49 | 37 | D |
| | SB R | 0.07 | 1 | A | 0.12 | 3 | A | 0.13 | 3 | A |
| | **Overall** | | **14** | **B** | | **17** | **B** | | **18** | **B** |
| Fottler Rd./Bradley | EB L/T/T/R | 0.49 | 5 | A | 0.58 | 6 | A | 0.58 | 6 | A |
| Woods Dr. at Lincoln | WB L/T/T/R | 0.70 | 13 | B | 0.86 | 19 | B | 0.89 | 22 | C |
| St. (RT 3A) | NB L | 0.28 | 41 | D | 0.47 | 48 | D | 0.47 | 47 | D |
| | NB T/R | 0.45 | 45 | D | 0.49 | 47 | D | 0.51 | 48 | D |
| | SB L/T/R | 0.33 | 42 | D | 0.33 | 42 | D | 0.32 | 42 | D |
| | **Overall** | | **11** | **B** | | **15** | **B** | | **16** | **B** |
| Sgt. W.B. Terry Dr. at | EB L/T/R | 0.41 | 8 | A | 0.43 | 9 | A | 0.47 | 8 | A |
| Beal St. | WB L/T/R | 0.47 | 7 | A | 0.51 | 8 | A | 0.48 | 7 | A |
| | SB L/T | 0.24 | 12 | B | 0.30 | 14 | B | 0.35 | 17 | B |
| | SB R | 0.02 | 0 | A | 0.01 | 0 | A | 0.03 | 0 | A |
| | **Overall** | | **8** | **A** | | **9** | **A** | | **9** | **A** |

Source: VHB, Inc. using Synchro 8 (Build 806, Rev 61) software.
1 volume to capacity ratio
2 average delay in seconds per vehicle
3 level of service
EB = Eastbound; WB = Westbound; NB = Northbound; SB=Southbound; , R = right; T = through, L= left

As shown in Table 6, some of the study area intersections are projected to have insignificant increase in delayunder the 2023 Build Condition. The levels of service at all of the study area intersections are projected to stay the same between the 2023 No-Build and 2023 Build Conditions, operating at LOS D or better.

## Unsignalized Intersection Capacity Analyses

Table 7 presents a summary of the capacity analyses for the unsignalized intersections. The capacity analyses worksheets are included in the Appendix.

The analytical methodologies typically used for the analysis of unsignalized intersections use conservative analysis parameters, such as high critical gaps[15]. Actual field observations indicate that drivers on minor streets generally accept smaller gaps in traffic than those used in the analysis procedures and therefore experience less delay than reported by the analysis software. Consequently, the analysis results tend to overstate the actual delays experienced in the field. For this reason, the results of the unsignalized intersection analyses should be considered highly conservative.

[15] 'critical gap' is defined as the minimum time, in seconds, between successive major-stream vehicles, in which a minor-street vehicle can make a maneuver

## Table 7 Unsignalized Intersection Capacity Analysis Summary

| Location | Peak Hour | Critical Mov't | 2016 Existing Conditions | | | | 2023 No-Build Conditions | | | | 2023 Build Conditions[6] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dem [1] | v/c [2] | Del [3] | LOS [4] | Dem | v/c | Del | LOS | Dem | v/c | Del | LOS |
| Beal St. at Lincoln St. (RT 3A) | Morning | NB R | 5 | 0.03 | 15 | B | 5 | 0.03 | 16 | C | 5 | 0.03 | 16 | C |
| | Evening | NB R | 15 | 0.07 | 18 | C | 15 | 0.06 | 20 | C | 15 | 0.06 | 20 | C |
| | Saturday | NB R | 20 | 0.12 | 20 | C | 20 | 0.15 | 23 | C | 20 | 0.15 | 23 | C |
| Bulow Rd. at Lincoln St. (RT 3A) | Morning | NB L/T/R | 10 | 0.03 | 11 | B | 10 | 0.03 | 11 | B | 10 | 0.03 | 12 | B |
| | | SB L/T/R | 4 | 0.24 | >120 | F | 4 | 0.36 | >120 | F | 4 | 0.37 | >120 | F |
| | Evening | NB L/T/R | 10 | 0.07 | 18 | C | 10 | 0.08 | 21 | C | 10 | 0.08 | 21 | C |
| | | SB L/T/R | 2 | 0.04 | 66 | F | 2 | 0.10 | 106 | F | 2 | 0.06 | 107 | F |
| | Saturday | NB L/T/R | 10 | 0.08 | 29 | D | 10 | 0.12 | 42 | E | 10 | 0.13 | 43 | E |
| | | SB L/T/R | 1 | 0.01 | 14 | B | 1 | 0.01 | 15 | C | 1 | 0.01 | 15 | C |
| Tuckers Lane/ Fottler Rd. at Beal Street | Morning | NB L/T/R | 35 | 0.10 | 14 | B | 35 | 0.12 | 16 | C | 35 | 0.13 | 17 | C |
| | | SB L/T | 75 | 0.31 | 20 | C | 95 | 0.55 | 30 | D | 95 | 0.60 | 36 | E |
| | Evening | NB L/T/R | 15 | 0.09 | 25 | D | 15 | 0.12 | 31 | D | 15 | 0.13 | 33 | D |
| | | SB L/T | 140 | 1.03 | >120 | F | 145 | >1.20 | >120 | F | 145 | >1.20 | >120 | F |
| | Saturday | NB L/T/R | 25 | 0.13 | 18 | C | 25 | 0.15 | 21 | C | 25 | 0.16 | 22 | C |
| | | SB L/T | 75 | 0.41 | 28 | D | 100 | 0.71 | 52 | F | 100 | 0.75 | 58 | F |
| Beal St. at Lincoln Plaza Driveway | Morning | SB L/T/R | 20 | 0.06 | 11 | B | 25 | 0.08 | 12 | B | 25 | 0.08 | 12 | B |
| | Evening | SB L/T/R | 110 | 0.35 | 21 | C | 130 | 0.46 | 25 | D | 140 | 0.53 | 29 | D |
| | Saturday | SB L/T/R | 90 | 0.27 | 18 | C | 105 | 0.34 | 20 | C | 105 | 0.35 | 21 | C |
| Beal St. at Site Driveway | Morning | NB L/T/R | 10 | 0.01 | 10 | A | 10 | 0.01 | 10 | A | 90 | 0.12 | 10 | B |
| | Evening | NB L/T/R | 20 | 0.04 | 13 | B | 20 | 0.05 | 13 | B | 65 | 0.14 | 13 | B |
| | Saturday | NB L/T/R | 1 | 0.00 | 10 | B | 1 | 0.00 | 11 | B | 80 | 0.18 | 14 | B |

Source: VHB, Inc. using Synchro 8 (Build 806, Rev 61) software.
1 demand in vehicles per hour for unsignalized intersections; the demand applies to only the most critical street approach or lane group
2 volume-to-capacity ratio for the critical movement
3 delay of critical approach only, rounded to the nearest whole second
4 level of service
EB = Eastbound; R = right; L= left

As shown in Table 7, the capacity analysis results for the unsignalized intersections are as follows:

- *Beal Street at Lincoln Street (Route 3A)* - Northbound Beal Street is projected to remain at LOS C between the 2023 No-Build and 2023 Build Conditions during both weekday morning and evening peak hours, as well as Saturday midday peak hour.
- *Bulow Road at Lincoln Road (Route 3A)* – The levels of service for northbound Bulow Road and the southbound driveway is projected to remain the same between the 2023 No-Build Condition and 2023 Build Condition.
- *Beal Street at Tuckers Lane/Fottler Road* - The level of service for southbound Fottler Road is projected to decrease from LOS D to LOS E during the morning peak hour between the 2023 No-Build and 2023 Build Conditions.
- *Beal Street and Lincoln Plaza Driveway* – Under the 2023 Build Condition, southbound Lincoln Plaza Driveway is projected to operate at reasonable levels of service (LOS D or better) during the weekday morning and evening peak hours, as well as during Saturday midday peak hour.
- *Beal Street and Site Driveway* - Northbound Site Driveway is projected to operate at LOS B during the weekday morning peak hour and Saturday midday peak hour under the 2023 Build Condition.

# 5

# Mitigation & Conclusions

The preceding study has outlined the general impacts of the proposed residential development on the study area roadways. In general, the Project will not have a noticeable impact on the operations or safety of the roadway network and will be able to be accommodated by the existing roadway infrastructure surrounding the site.

However, in order to limit the Project's impacts to the roadway system and to enhance the overall transportation network as well as the marketability of the project site, the following section discusses the actions that will be implements by the Project proponent.

## Intersection Mitigation Currently Proposed by Others

While the Project is not expected to have significant impact on existing roadways, planned roadway improvements have been proposed by a recent development project[16] for some of the study area intersections and includes:

- Route 3A corridor (Route 3A at Lincoln Plaza Driveway/HMS Essington Drive, Shipyard Drive/Sgt. William B Terry Drive, Shipyard Drive/Talbots Drive, and Bradley Woods Drive/Fottler Road) signal coordination and optimization:
    - Repair or replace the master controller at the intersection of Route 3A/Shipyard Drive West/Sgt. William B Terry Drive to restore traffic signal coordination along the corridor at the four intersections during the morning and evening peak hour.
    - Develop and implement optimal signal timings at the four signal locations.
    - Re-evaluate all pedestrian and vehicle clearance intervals per current design standards and for the prevailing travel speeds.

[16] Avalon Hingham Shipyard II Traffic Impact and Access Study. Howard Stein Hudson. February 2016.

- Route 3A/Fottler Road/Bradley Woods Drive intersection improvements:
    - Restripe Fottler Road northbound approach to provide a shared left-turn through lane and a dedicated right-turn lane.
    - Replace existing pedestrian indications with countdown signal indicators.
    - Reconstruct all curb ramps to bring them to current accessibility standards.
    - Replace all existing pedestrian push button assemblies with Accessible Pedestrian Signal (APS) assemblies per current accessibility standards.
- Beal Street/Fottler Road safety improvements:
    - Install radar speed feedback signs along each direction of Beal Street.
    - Install in road pavement markings indicating "30 mph" along each direction of Beal Street to further reinforce the speed limit.
    - Relocate the Fottler Road southbound stop line approximately nine feet south of its current location to enhance sight lines east of the intersection; extend the adjacent islands south to protect the southbound approach.
    - Enhance intersection pavement markings and signage, including reducing the Beal Street westbound travel lane to 11 feet.
- Shipyard Drive East/ HMS Essington Drive intersection and safety improvements:
    - Reduce the width of the HMS Essington eastbound channelized right-turn lane to accommodate only one lane of traffic.
    - Enlarge the channelized right-turn island to eliminate the approximately 85-foot long crosswalk across Shipyard Drive East and create a pedestrian refuge for staged crossings.
    - Realign and replace the existing crosswalks across Shipyard Drive East.

## Infrastructure Commitments

To support the active transportation options at the site, the proponent is making an investment into the non-motorized accessibility of the site. This will include the following actions:

- Providing bicycle accommodations is also a critical element of today's residential development programs. With the proximity to nearby shopping center and Hingham Shipyard, it can be assumed that a number of residents will bike to these destinations. The developer has elected to provide 96 bicycle spaces and additional bicycle racks that will be placed conveniently at main entrances and other areas within the development parcel for the exclusive use of tenants.
- Connections to the nearby park and recreational facilities should also be provided. These should take the form of direct connections between the site and the adjacent parklands as well as along an extended and formalized sidewalk along Beal Street.

## Intersection/Roadway Improvements

### Beal Street at Fottler Road/ Tuckers Lane

The level of service for the minor streets at this unsignalized intersection, southbound Fottler Road is projected to deteriorate to LOS E under the 2023 Build Conditions during the morning peak hour. The Avalon project will be undertaking some sight line improvements and to address perceived speeding issues at this location as part of their project mitigation. The Proponent will discuss with the Town of Hingham regarding opportunities that can improve the operations at this location.

### Support

The applicant, through discussions with the Police Chief, has agreed to donate two mobile variable message signs for their use in addressing speeding, parking, and other transportation issues throughout the community. Through meetings with the nearby residents, it was noted that there are several traffic and parking issues that occur on an infrequent basis in and around the project vicinity that can create issues for the Beal Street area in general. Some of these include illegal parking, speeding, and motorists ignoring the traffic control on the roadways.

These compact signs (see example to the right) can be placed by the police as needed in the areas where information and enforcement as requested. The signs can be towed by a typical police or DPW vehicle and can be used to assist with the control of parking on area streets, advising motorists and pedestrians of upcoming changes in traffic patterns or the best routes to walk, and/or provide other valuable information to the general public.

## Transportation Demand Management

As in the case with many developments, a major focus of the traffic mitigation plan focuses on the reduction of single-occupancy vehicles arriving and departing from the site. This is predominantly accomplished by developing a comprehensive Transportation Demand Management (TDM) strategy. The Proponent is committed to supporting a balanced multimodal transportation plan to serve the residents and visitors of the site. The major features of this TDM plan that support this commitment are as follows:

- Provision of on-site amenities that support non-motorized vehicle usage. This includes commuter information posted in and around the common areas of the development where tenants can find out if transit services are running on time and when they will arrive (bus, boat, and commuter rai).

- Provision of information regarding public transportation services, maps, schedules, and fare information in a central location.

## Conclusion

These actions, when combined with the limited vehicular impacts associated with the development, will serve to limit the Project's motorized vehicular impact on the surrounding roadway system and will support the Town's initiatives to upgrade the overall transportation environment in the vicinity of the Project.

# APPENDIX

- Turning Movement Counts
- Automatic Traffic Recorder Counts
- Raw Crash Data
- Crash Rate Worksheets
- Site Generated Trips
- Intersection Capacity Analyses
    - Existing Condition
    - No-Build Condition
    - Build Condition

# TURNING MOVEMENT COUNTS

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Terry Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 A
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Terry Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 7 | 5 | 2 | 0 | 5 | 305 | 10 | 0 | 2 | 32 | 21 | 0 | 1 | 88 | 12 | 0 | 490 |
| 07:15 AM | 4 | 5 | 4 | 0 | 3 | 303 | 5 | 0 | 5 | 21 | 19 | 0 | 3 | 93 | 11 | 1 | 477 |
| 07:30 AM | 12 | 7 | 9 | 0 | 5 | 297 | 7 | 0 | 4 | 50 | 20 | 0 | 1 | 149 | 12 | 1 | 574 |
| 07:45 AM | 6 | 7 | 8 | 0 | 1 | 291 | 8 | 0 | 3 | 25 | 11 | 0 | 3 | 125 | 10 | 0 | 498 |
| Total | 29 | 24 | 23 | 0 | 14 | 1196 | 30 | 0 | 14 | 128 | 71 | 0 | 8 | 455 | 45 | 2 | 2039 |
| 08:00 AM | 5 | 4 | 3 | 0 | 2 | 269 | 9 | 0 | 5 | 21 | 32 | 0 | 1 | 165 | 10 | 0 | 526 |
| 08:15 AM | 4 | 9 | 5 | 0 | 6 | 273 | 12 | 1 | 2 | 30 | 23 | 0 | 2 | 163 | 8 | 0 | 538 |
| 08:30 AM | 6 | 9 | 13 | 0 | 6 | 251 | 5 | 0 | 21 | 24 | 29 | 0 | 5 | 157 | 16 | 0 | 542 |
| 08:45 AM | 8 | 7 | 2 | 0 | 4 | 246 | 15 | 0 | 13 | 14 | 23 | 0 | 6 | 155 | 23 | 0 | 516 |
| Total | 23 | 29 | 23 | 0 | 18 | 1039 | 41 | 1 | 41 | 89 | 107 | 0 | 14 | 640 | 57 | 0 | 2122 |
| Grand Total | 52 | 53 | 46 | 0 | 32 | 2235 | 71 | 1 | 55 | 217 | 178 | 0 | 22 | 1095 | 102 | 2 | 4161 |
| Apprch % | 34.4 | 35.1 | 30.5 | 0 | 1.4 | 95.6 | 3 | 0 | 12.2 | 48.2 | 39.6 | 0 | 1.8 | 89.7 | 8.4 | 0.2 | |
| Total % | 1.2 | 1.3 | 1.1 | 0 | 0.8 | 53.7 | 1.7 | 0 | 1.3 | 5.2 | 4.3 | 0 | 0.5 | 26.3 | 2.5 | 0 | |
| Cars | 48 | 47 | 45 | 0 | 30 | 2193 | 67 | 1 | 48 | 216 | 174 | 0 | 21 | 1034 | 95 | 2 | 4021 |
| % Cars | 92.3 | 88.7 | 97.8 | 0 | 93.8 | 98.1 | 94.4 | 100 | 87.3 | 99.5 | 97.8 | 0 | 95.5 | 94.4 | 93.1 | 100 | 96.6 |
| Heavy Vehicles | 4 | 6 | 1 | 0 | 2 | 42 | 4 | 0 | 7 | 1 | 4 | 0 | 1 | 61 | 7 | 0 | 140 |
| % Heavy Vehicles | 7.7 | 11.3 | 2.2 | 0 | 6.2 | 1.9 | 5.6 | 0 | 12.7 | 0.5 | 2.2 | 0 | 4.5 | 5.6 | 6.9 | 0 | 3.4 |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 12 | 7 | 9 | 0 | 28 | 5 | 297 | 7 | 0 | 309 | 4 | 50 | 20 | 0 | 74 | 1 | 149 | 12 | 1 | 163 | 574 |
| 07:45 AM | 6 | 7 | 8 | 0 | 21 | 1 | 291 | 8 | 0 | 300 | 3 | 25 | 11 | 0 | 39 | 3 | 125 | 10 | 0 | 138 | 498 |
| 08:00 AM | 5 | 4 | 3 | 0 | 12 | 2 | 269 | 9 | 0 | 280 | 5 | 21 | 32 | 0 | 58 | 1 | 165 | 10 | 0 | 176 | 526 |
| 08:15 AM | 4 | 9 | 5 | 0 | 18 | 6 | 273 | 12 | 1 | 292 | 2 | 30 | 23 | 0 | 55 | 2 | 163 | 8 | 0 | 173 | 538 |
| Total Volume | 27 | 27 | 25 | 0 | 79 | 14 | 1130 | 36 | 1 | 1181 | 14 | 126 | 86 | 0 | 226 | 7 | 602 | 40 | 1 | 650 | 2136 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .563 | .750 | .694 | .000 | .705 | .583 | .951 | .750 | .250 | .956 | .700 | .630 | .672 | .000 | .764 | .583 | .912 | .833 | .250 | .923 | .930 |
| Cars | 25 | 24 | 25 | 0 | 74 | 12 | 1116 | 33 | 1 | 1162 | 11 | 126 | 83 | 0 | 220 | 7 | 571 | 35 | 1 | 614 | 2070 |
| % Cars | 92.6 | 88.9 | 100 | 0 | 93.7 | 85.7 | 98.8 | 91.7 | 100 | 98.4 | 78.6 | 100 | 96.5 | 0 | 97.3 | 100 | 94.9 | 87.5 | 100 | 94.5 | 96.9 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 7.4 | 11.1 | 0 | 0 | 6.3 | 14.3 | 1.2 | 8.3 | 0 | 1.6 | 21.4 | 0 | 3.5 | 0 | 2.7 | 0 | 5.1 | 12.5 | 0 | 5.5 | 3.1 |

PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Terry Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 A
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Terry Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 6 | 5 | 2 | 0 | 5 | 299 | 9 | 0 | 1 | 32 | 20 | 0 | 1 | 84 | 12 | 0 | 476 |
| 07:15 AM | 4 | 5 | 4 | 0 | 3 | 296 | 5 | 0 | 3 | 20 | 19 | 0 | 3 | 87 | 10 | 1 | 460 |
| 07:30 AM | 11 | 7 | 9 | 0 | 4 | 292 | 7 | 0 | 3 | 50 | 20 | 0 | 1 | 141 | 10 | 1 | 556 |
| 07:45 AM | 6 | 7 | 8 | 0 | 1 | 288 | 7 | 0 | 3 | 25 | 10 | 0 | 3 | 116 | 8 | 0 | 482 |
| Total | 27 | 24 | 23 | 0 | 13 | 1175 | 28 | 0 | 10 | 127 | 69 | 0 | 8 | 428 | 40 | 2 | 1974 |
| 08:00 AM | 4 | 4 | 3 | 0 | 2 | 265 | 8 | 0 | 4 | 21 | 30 | 0 | 1 | 156 | 9 | 0 | 507 |
| 08:15 AM | 4 | 6 | 5 | 0 | 5 | 271 | 11 | 1 | 1 | 30 | 23 | 0 | 2 | 158 | 8 | 0 | 525 |
| 08:30 AM | 6 | 7 | 12 | 0 | 6 | 243 | 5 | 0 | 21 | 24 | 29 | 0 | 4 | 144 | 16 | 0 | 517 |
| 08:45 AM | 7 | 6 | 2 | 0 | 4 | 239 | 15 | 0 | 12 | 14 | 23 | 0 | 6 | 148 | 22 | 0 | 498 |
| Total | 21 | 23 | 22 | 0 | 17 | 1018 | 39 | 1 | 38 | 89 | 105 | 0 | 13 | 606 | 55 | 0 | 2047 |
| Grand Total | 48 | 47 | 45 | 0 | 30 | 2193 | 67 | 1 | 48 | 216 | 174 | 0 | 21 | 1034 | 95 | 2 | 4021 |
| Apprch % | 34.3 | 33.6 | 32.1 | 0 | 1.3 | 95.7 | 2.9 | 0 | 11 | 49.3 | 39.7 | 0 | 1.8 | 89.8 | 8.2 | 0.2 | |
| Total % | 1.2 | 1.2 | 1.1 | 0 | 0.7 | 54.5 | 1.7 | 0 | 1.2 | 5.4 | 4.3 | 0 | 0.5 | 25.7 | 2.4 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 11 | 7 | 9 | 0 | 27 | 4 | 292 | 7 | 0 | 303 | 3 | 50 | 20 | 0 | 73 | 1 | 141 | 10 | 1 | 153 | 556 |
| 07:45 AM | 6 | 7 | 8 | 0 | 21 | 1 | 288 | 7 | 0 | 296 | 3 | 25 | 10 | 0 | 38 | 3 | 116 | 8 | 0 | 127 | 482 |
| 08:00 AM | 4 | 4 | 3 | 0 | 11 | 2 | 265 | 8 | 0 | 275 | 4 | 21 | 30 | 0 | 55 | 1 | 156 | 9 | 0 | 166 | 507 |
| 08:15 AM | 4 | 6 | 5 | 0 | 15 | 5 | 271 | 11 | 1 | 288 | 1 | 30 | 23 | 0 | 54 | 2 | 158 | 8 | 0 | 168 | 525 |
| Total Volume | 25 | 24 | 25 | 0 | 74 | 12 | 1116 | 33 | 1 | 1162 | 11 | 126 | 83 | 0 | 220 | 7 | 571 | 35 | 1 | 614 | 2070 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .568 | .857 | .694 | .000 | .685 | .600 | .955 | .750 | .250 | .959 | .688 | .630 | .692 | .000 | .753 | .583 | .903 | .875 | .250 | .914 | .931 |

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INDUSTRIES, LLC
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City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 A
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Terry Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 1 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 14 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 6 | 1 | 0 | 17 |
| 07:30 AM | 1 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 8 | 2 | 0 | 18 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 2 | 0 | 16 |
| Total | 2 | 0 | 0 | 0 | 1 | 21 | 2 | 0 | 4 | 1 | 2 | 0 | 0 | 27 | 5 | 0 | 65 |
| 08:00 AM | 1 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 9 | 1 | 0 | 19 |
| 08:15 AM | 0 | 3 | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 13 |
| 08:30 AM | 0 | 2 | 1 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 0 | 0 | 25 |
| 08:45 AM | 1 | 1 | 0 | 0 | 0 | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 1 | 0 | 18 |
| Total | 2 | 6 | 1 | 0 | 1 | 21 | 2 | 0 | 3 | 0 | 2 | 0 | 1 | 34 | 2 | 0 | 75 |
| Grand Total | 4 | 6 | 1 | 0 | 2 | 42 | 4 | 0 | 7 | 1 | 4 | 0 | 1 | 61 | 7 | 0 | 140 |
| Apprch % | 36.4 | 54.5 | 9.1 | 0 | 4.2 | 87.5 | 8.3 | 0 | 58.3 | 8.3 | 33.3 | 0 | 1.4 | 88.4 | 10.1 | 0 | |
| Total % | 2.9 | 4.3 | 0.7 | 0 | 1.4 | 30 | 2.9 | 0 | 5 | 0.7 | 2.9 | 0 | 0.7 | 43.6 | 5 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 1 | 0 | 0 | 0 | 1 | 0 | 4 | 1 | 0 | 5 | 1 | 0 | 2 | 0 | 3 | 0 | 9 | 1 | 0 | 10 | 19 |
| 08:15 AM | 0 | 3 | 0 | 0 | 3 | 1 | 2 | 1 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 5 | 13 |
| 08:30 AM | 0 | 2 | 1 | 0 | 3 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 0 | 0 | 14 | 25 |
| 08:45 AM | 1 | 1 | 0 | 0 | 2 | 0 | 7 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 0 | 7 | 1 | 0 | 8 | 18 |
| Total Volume | 2 | 6 | 1 | 0 | 9 | 1 | 21 | 2 | 0 | 24 | 3 | 0 | 2 | 0 | 5 | 1 | 34 | 2 | 0 | 37 | 75 |
| % App. Total | 22.2 | 66.7 | 11.1 | 0 | | 4.2 | 87.5 | 8.3 | 0 | | 60 | 0 | 40 | 0 | | 2.7 | 91.9 | 5.4 | 0 | | |
| PHF | .500 | .500 | .250 | .000 | .750 | .250 | .656 | .500 | .000 | .750 | .750 | .000 | .250 | .000 | .417 | .250 | .654 | .500 | .000 | .661 | .750 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 A
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 07:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 5 |
| 07:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 6 |
| Total | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 1 | 13 |
| 08:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 4 |
| 08:15 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Total | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 13 |
| Grand Total | 0 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 8 | 2 | 26 |
| Apprch % | 0 | 0 | 0 | 75 | 25 | 0 | 0 | 0 | 71.4 | 28.6 | 0 | 0 | 0 | 0 | 0 | 0 | 9.1 | 0 | 72.7 | 18.2 | |
| Total % | 0 | 0 | 0 | 23.1 | 7.7 | 0 | 0 | 0 | 19.2 | 7.7 | 0 | 0 | 0 | 0 | 0 | 0 | 3.8 | 0 | 30.8 | 7.7 | |

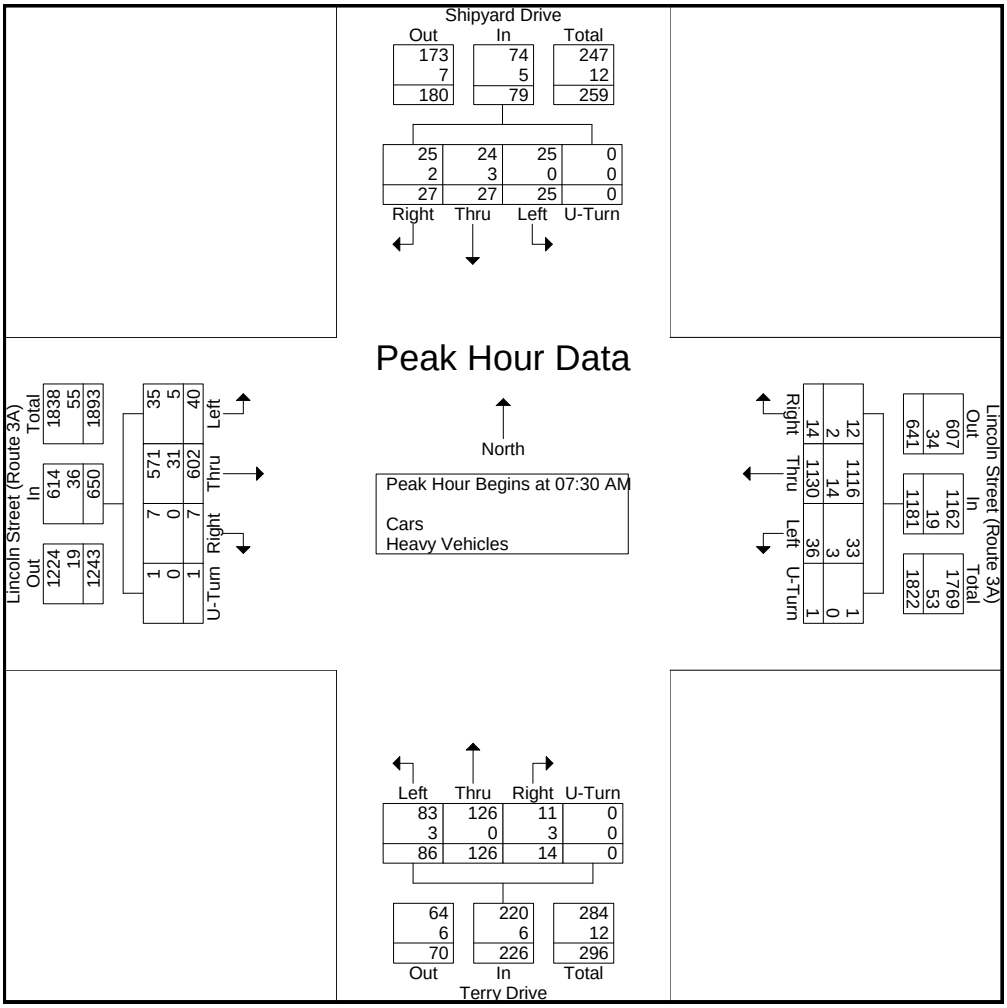
| | Shipyard Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Terry Drive From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 5 |
| 07:45 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 6 |
| 08:00 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 4 |
| 08:15 AM | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 |
| Total Volume | 0 | 0 | 0 | 3 | 2 | 5 | 0 | 0 | 0 | 2 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 8 | 1 | 10 | 19 |
| % App. Total | 0 | 0 | 0 | 60 | 40 | | 0 | 0 | 0 | 50 | 50 | | 0 | 0 | 0 | 0 | 0 | | 0 | 10 | 0 | 80 | 10 | | |
| PHF | .000 | .000 | .000 | .750 | .250 | .625 | .000 | .000 | .000 | .250 | .500 | .333 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .667 | .250 | .833 | .792 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Terry Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 A
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 12 | 7 | 9 | 0 | 28 | 5 | 297 | 7 | 0 | 309 | 4 | 50 | 20 | 0 | 74 | 1 | 149 | 12 | 1 | 163 | 574 |
| 07:45 AM | 6 | 7 | 8 | 0 | 21 | 1 | 291 | 8 | 0 | 300 | 3 | 25 | 11 | 0 | 39 | 3 | 125 | 10 | 0 | 138 | 498 |
| 08:00 AM | 5 | 4 | 3 | 0 | 12 | 2 | 269 | 9 | 0 | 280 | 5 | 21 | 32 | 0 | 58 | 1 | 165 | 10 | 0 | 176 | 526 |
| 08:15 AM | 4 | 9 | 5 | 0 | 18 | 6 | 273 | 12 | 1 | 292 | 2 | 30 | 23 | 0 | 55 | 2 | 163 | 8 | 0 | 173 | 538 |
| Total Volume | 27 | 27 | 25 | 0 | 79 | 14 | 1130 | 36 | 1 | 1181 | 14 | 126 | 86 | 0 | 226 | 7 | 602 | 40 | 1 | 650 | 2136 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .563 | .750 | .694 | .000 | .705 | .583 | .951 | .750 | .250 | .956 | .700 | .630 | .672 | .000 | .764 | .583 | .912 | .833 | .250 | .923 | .930 |
| Cars | 25 | 24 | 25 | 0 | 74 | 12 | 1116 | 33 | 1 | 1162 | 11 | 126 | 83 | 0 | 220 | 7 | 571 | 35 | 1 | 614 | 2070 |
| % Cars | 92.6 | 88.9 | 100 | 0 | 93.7 | 85.7 | 98.8 | 91.7 | 100 | 98.4 | 78.6 | 100 | 96.5 | 0 | 97.3 | 100 | 94.9 | 87.5 | 100 | 94.5 | 96.9 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 7.4 | 11.1 | 0 | 0 | 6.3 | 14.3 | 1.2 | 8.3 | 0 | 1.6 | 21.4 | 0 | 3.5 | 0 | 2.7 | 0 | 5.1 | 12.5 | 0 | 5.5 | 3.1 |



PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Terry Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 AA
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Terry Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 20 | 16 | 17 | 0 | 9 | 189 | 8 | 0 | 10 | 14 | 35 | 0 | 4 | 256 | 23 | 0 | 601 |
| 04:15 PM | 19 | 11 | 14 | 0 | 15 | 192 | 9 | 0 | 12 | 19 | 27 | 0 | 9 | 224 | 23 | 0 | 574 |
| 04:30 PM | 15 | 26 | 28 | 0 | 7 | 186 | 10 | 0 | 14 | 15 | 46 | 0 | 6 | 243 | 21 | 0 | 617 |
| 04:45 PM | 22 | 16 | 13 | 0 | 13 | 177 | 9 | 0 | 14 | 22 | 24 | 0 | 4 | 257 | 30 | 0 | 601 |
| Total | 76 | 69 | 72 | 0 | 44 | 744 | 36 | 0 | 50 | 70 | 132 | 0 | 23 | 980 | 97 | 0 | 2393 |
| 05:00 PM | 38 | 50 | 27 | 0 | 14 | 217 | 12 | 0 | 8 | 25 | 49 | 0 | 3 | 254 | 16 | 0 | 713 |
| 05:15 PM | 32 | 13 | 21 | 0 | 14 | 226 | 18 | 0 | 9 | 22 | 28 | 0 | 3 | 265 | 30 | 0 | 681 |
| 05:30 PM | 38 | 22 | 14 | 0 | 11 | 180 | 14 | 0 | 15 | 33 | 44 | 0 | 6 | 234 | 21 | 0 | 632 |
| 05:45 PM | 34 | 64 | 37 | 0 | 10 | 162 | 13 | 0 | 8 | 31 | 35 | 0 | 5 | 225 | 26 | 0 | 650 |
| Total | 142 | 149 | 99 | 0 | 49 | 785 | 57 | 0 | 40 | 111 | 156 | 0 | 17 | 978 | 93 | 0 | 2676 |
| Grand Total | 218 | 218 | 171 | 0 | 93 | 1529 | 93 | 0 | 90 | 181 | 288 | 0 | 40 | 1958 | 190 | 0 | 5069 |
| Apprch % | 35.9 | 35.9 | 28.2 | 0 | 5.4 | 89.2 | 5.4 | 0 | 16.1 | 32.4 | 51.5 | 0 | 1.8 | 89.5 | 8.7 | 0 | |
| Total % | 4.3 | 4.3 | 3.4 | 0 | 1.8 | 30.2 | 1.8 | 0 | 1.8 | 3.6 | 5.7 | 0 | 0.8 | 38.6 | 3.7 | 0 | |
| Cars | 217 | 218 | 169 | 0 | 93 | 1499 | 92 | 0 | 90 | 180 | 286 | 0 | 40 | 1940 | 189 | 0 | 5013 |
| % Cars | 99.5 | 100 | 98.8 | 0 | 100 | 98 | 98.9 | 0 | 100 | 99.4 | 99.3 | 0 | 100 | 99.1 | 99.5 | 0 | 98.9 |
| Heavy Vehicles | 1 | 0 | 2 | 0 | 0 | 30 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 18 | 1 | 0 | 56 |
| % Heavy Vehicles | 0.5 | 0 | 1.2 | 0 | 0 | 2 | 1.1 | 0 | 0 | 0.6 | 0.7 | 0 | 0 | 0.9 | 0.5 | 0 | 1.1 |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 38 | 50 | 27 | 0 | 115 | 14 | 217 | 12 | 0 | 243 | 8 | 25 | 49 | 0 | 82 | 3 | 254 | 16 | 0 | 273 | 713 |
| 05:15 PM | 32 | 13 | 21 | 0 | 66 | 14 | 226 | 18 | 0 | 258 | 9 | 22 | 28 | 0 | 59 | 3 | 265 | 30 | 0 | 298 | 681 |
| 05:30 PM | 38 | 22 | 14 | 0 | 74 | 11 | 180 | 14 | 0 | 205 | 15 | 33 | 44 | 0 | 92 | 6 | 234 | 21 | 0 | 261 | 632 |
| 05:45 PM | 34 | 64 | 37 | 0 | 135 | 10 | 162 | 13 | 0 | 185 | 8 | 31 | 35 | 0 | 74 | 5 | 225 | 26 | 0 | 256 | 650 |
| Total Volume | 142 | 149 | 99 | 0 | 390 | 49 | 785 | 57 | 0 | 891 | 40 | 111 | 156 | 0 | 307 | 17 | 978 | 93 | 0 | 1088 | 2676 |
| % App. Total | 36.4 | 38.2 | 25.4 | 0 | | 5.5 | 88.1 | 6.4 | 0 | | 13 | 36.2 | 50.8 | 0 | | 1.6 | 89.9 | 8.5 | 0 | | |
| PHF | .934 | .582 | .669 | .000 | .722 | .875 | .868 | .792 | .000 | .863 | .667 | .841 | .796 | .000 | .834 | .708 | .923 | .775 | .000 | .913 | .938 |
| Cars | 142 | 149 | 99 | 0 | 390 | 49 | 768 | 56 | 0 | 873 | 40 | 111 | 154 | 0 | 305 | 17 | 973 | 92 | 0 | 1082 | 2650 |
| % Cars | 100 | 100 | 100 | 0 | 100 | 100 | 97.8 | 98.2 | 0 | 98.0 | 100 | 100 | 98.7 | 0 | 99.3 | 100 | 99.5 | 98.9 | 0 | 99.4 | 99.0 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 1 | 0 | 18 | 0 | 0 | 2 | 0 | 2 | 0 | 5 | 1 | 0 | 6 | 26 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 2.2 | 1.8 | 0 | 2.0 | 0 | 0 | 1.3 | 0 | 0.7 | 0 | 0.5 | 1.1 | 0 | 0.6 | 1.0 |

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INDUSTRIES, LLC
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N/S: Shipyard Drive/ Terry Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 AA
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Terry Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 20 | 16 | 17 | 0 | 9 | 186 | 8 | 0 | 10 | 13 | 35 | 0 | 4 | 252 | 23 | 0 | 593 |
| 04:15 PM | 19 | 11 | 13 | 0 | 15 | 190 | 9 | 0 | 12 | 19 | 27 | 0 | 9 | 219 | 23 | 0 | 566 |
| 04:30 PM | 15 | 26 | 27 | 0 | 7 | 183 | 10 | 0 | 14 | 15 | 46 | 0 | 6 | 241 | 21 | 0 | 611 |
| 04:45 PM | 21 | 16 | 13 | 0 | 13 | 172 | 9 | 0 | 14 | 22 | 24 | 0 | 4 | 255 | 30 | 0 | 593 |
| Total | 75 | 69 | 70 | 0 | 44 | 731 | 36 | 0 | 50 | 69 | 132 | 0 | 23 | 967 | 97 | 0 | 2363 |
| 05:00 PM | 38 | 50 | 27 | 0 | 14 | 212 | 12 | 0 | 8 | 25 | 49 | 0 | 3 | 254 | 15 | 0 | 707 |
| 05:15 PM | 32 | 13 | 21 | 0 | 14 | 220 | 17 | 0 | 9 | 22 | 27 | 0 | 3 | 264 | 30 | 0 | 672 |
| 05:30 PM | 38 | 22 | 14 | 0 | 11 | 178 | 14 | 0 | 15 | 33 | 44 | 0 | 6 | 233 | 21 | 0 | 629 |
| 05:45 PM | 34 | 64 | 37 | 0 | 10 | 158 | 13 | 0 | 8 | 31 | 34 | 0 | 5 | 222 | 26 | 0 | 642 |
| Total | 142 | 149 | 99 | 0 | 49 | 768 | 56 | 0 | 40 | 111 | 154 | 0 | 17 | 973 | 92 | 0 | 2650 |
| Grand Total | 217 | 218 | 169 | 0 | 93 | 1499 | 92 | 0 | 90 | 180 | 286 | 0 | 40 | 1940 | 189 | 0 | 5013 |
| Apprch % | 35.9 | 36.1 | 28 | 0 | 5.5 | 89 | 5.5 | 0 | 16.2 | 32.4 | 51.4 | 0 | 1.8 | 89.4 | 8.7 | 0 | |
| Total % | 4.3 | 4.3 | 3.4 | 0 | 1.9 | 29.9 | 1.8 | 0 | 1.8 | 3.6 | 5.7 | 0 | 0.8 | 38.7 | 3.8 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 38 | 50 | 27 | 0 | 115 | 14 | 212 | 12 | 0 | 238 | 8 | 25 | 49 | 0 | 82 | 3 | 254 | 15 | 0 | 272 | 707 |
| 05:15 PM | 32 | 13 | 21 | 0 | 66 | 14 | 220 | 17 | 0 | 251 | 9 | 22 | 27 | 0 | 58 | 3 | 264 | 30 | 0 | 297 | 672 |
| 05:30 PM | 38 | 22 | 14 | 0 | 74 | 11 | 178 | 14 | 0 | 203 | 15 | 33 | 44 | 0 | 92 | 6 | 233 | 21 | 0 | 260 | 629 |
| 05:45 PM | 34 | 64 | 37 | 0 | 135 | 10 | 158 | 13 | 0 | 181 | 8 | 31 | 34 | 0 | 73 | 5 | 222 | 26 | 0 | 253 | 642 |
| Total Volume | 142 | 149 | 99 | 0 | 390 | 49 | 768 | 56 | 0 | 873 | 40 | 111 | 154 | 0 | 305 | 17 | 973 | 92 | 0 | 1082 | 2650 |
| % App. Total | 36.4 | 38.2 | 25.4 | 0 | | 5.6 | 88 | 6.4 | 0 | | 13.1 | 36.4 | 50.5 | 0 | | 1.6 | 89.9 | 8.5 | 0 | | |
| PHF | .934 | .582 | .669 | .000 | .722 | .875 | .873 | .824 | .000 | .870 | .667 | .841 | .786 | .000 | .829 | .708 | .921 | .767 | .000 | .911 | .937 |

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N/S: Shipyard Drive/ Terry Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 AA
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Terry Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 8 |
| 04:15 PM | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 8 |
| 04:30 PM | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 6 |
| 04:45 PM | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 8 |
| Total | 1 | 0 | 2 | 0 | 0 | 13 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 13 | 0 | 0 | 30 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 6 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 9 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 8 |
| Total | 0 | 0 | 0 | 0 | 0 | 17 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 5 | 1 | 0 | 26 |
| Grand Total | 1 | 0 | 2 | 0 | 0 | 30 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 18 | 1 | 0 | 56 |
| Apprch % | 33.3 | 0 | 66.7 | 0 | 0 | 96.8 | 3.2 | 0 | 0 | 33.3 | 66.7 | 0 | 0 | 94.7 | 5.3 | 0 | |
| Total % | 1.8 | 0 | 3.6 | 0 | 0 | 53.6 | 1.8 | 0 | 0 | 1.8 | 3.6 | 0 | 0 | 32.1 | 1.8 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 4 | 8 |
| 04:15 PM | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 8 |
| 04:30 PM | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 6 |
| 04:45 PM | 1 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 8 |
| Total Volume | 1 | 0 | 2 | 0 | 3 | 0 | 13 | 0 | 0 | 13 | 0 | 1 | 0 | 0 | 1 | 0 | 13 | 0 | 0 | 13 | 30 |
| % App. Total | 33.3 | 0 | 66.7 | 0 | | 0 | 100 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .250 | .000 | .500 | .000 | .750 | .000 | .650 | .000 | .000 | .650 | .000 | .250 | .000 | .000 | .250 | .000 | .650 | .000 | .000 | .650 | .938 |

PRECISION DATA INDUSTRIES, LLC
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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 AA
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 | 8 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 4 |
| 04:30 PM | 0 | 1 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 9 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 7 | 5 | 21 |
| 05:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 |
| 05:15 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 6 |
| 05:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Total | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 14 |
| Grand Total | 0 | 2 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 11 | 5 | 35 |
| Apprch % | 0 | 20 | 0 | 40 | 40 | 0 | 0 | 0 | 0 | 100 | 33.3 | 0 | 0 | 33.3 | 33.3 | 0 | 15.8 | 0 | 57.9 | 26.3 | |
| Total % | 0 | 5.7 | 0 | 11.4 | 11.4 | 0 | 0 | 0 | 0 | 8.6 | 2.9 | 0 | 0 | 2.9 | 2.9 | 0 | 8.6 | 0 | 31.4 | 14.3 | |

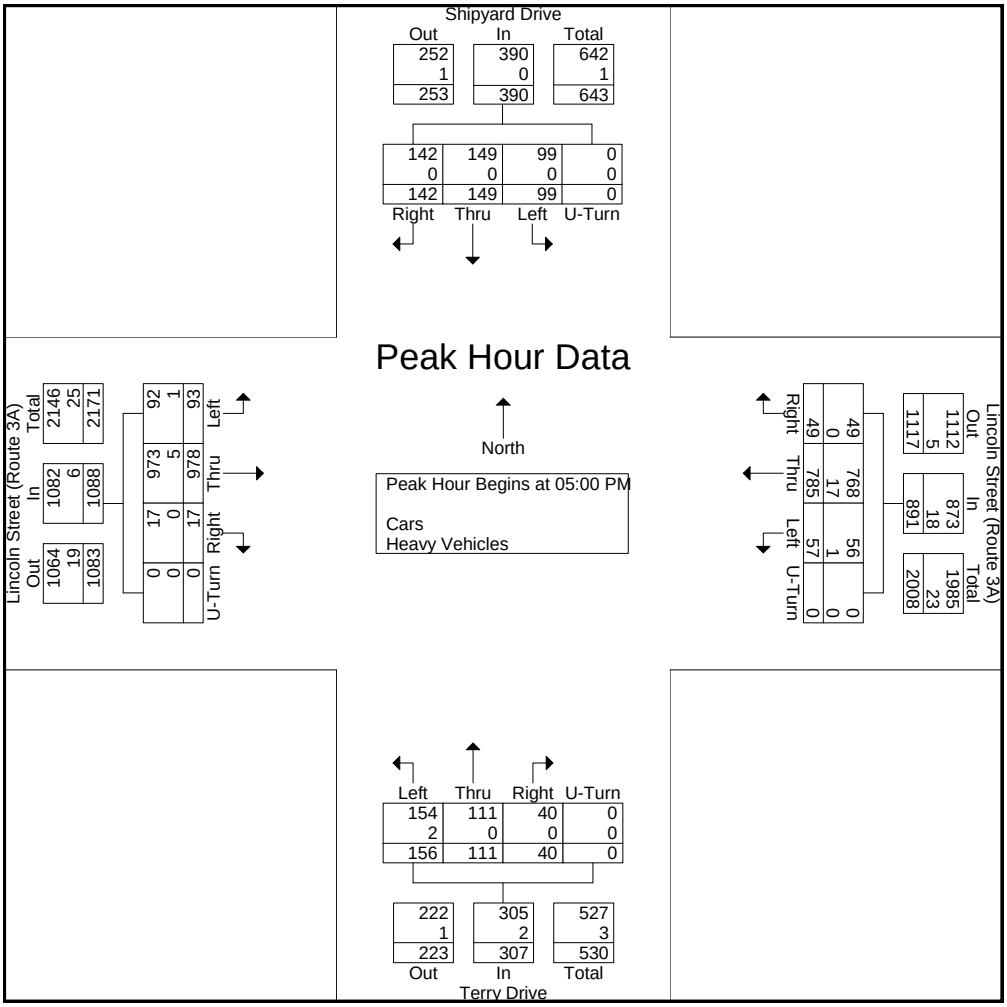
| | Shipyard Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Terry Drive From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 | 8 | 8 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 4 |
| 04:30 PM | 0 | 1 | 0 | 2 | 3 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 9 |
| 04:45 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 | 1 | 0 | 2 | 3 | 6 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 7 | 5 | 12 | 21 |
| % App. Total | 0 | 16.7 | 0 | 33.3 | 50 | | 0 | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 50 | 50 | | 0 | 0 | 0 | 58.3 | 41.7 | | |
| PHF | .000 | .250 | .000 | .250 | .250 | .250 | .000 | .000 | .000 | .000 | .250 | .250 | .000 | .000 | .000 | .250 | .250 | .250 | .000 | .000 | .000 | .292 | .417 | .375 | .583 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Terry Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 AA
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 38 | 50 | 27 | 0 | 115 | 14 | 217 | 12 | 0 | 243 | 8 | 25 | 49 | 0 | 82 | 3 | 254 | 16 | 0 | 273 | 713 |
| 05:15 PM | 32 | 13 | 21 | 0 | 66 | 14 | 226 | 18 | 0 | 258 | 9 | 22 | 28 | 0 | 59 | 3 | 265 | 30 | 0 | 298 | 681 |
| 05:30 PM | 38 | 22 | 14 | 0 | 74 | 11 | 180 | 14 | 0 | 205 | 15 | 33 | 44 | 0 | 92 | 6 | 234 | 21 | 0 | 261 | 632 |
| 05:45 PM | 34 | 64 | 37 | 0 | 135 | 10 | 162 | 13 | 0 | 185 | 8 | 31 | 35 | 0 | 74 | 5 | 225 | 26 | 0 | 256 | 650 |
| Total Volume | 142 | 149 | 99 | 0 | 390 | 49 | 785 | 57 | 0 | 891 | 40 | 111 | 156 | 0 | 307 | 17 | 978 | 93 | 0 | 1088 | 2676 |
| % App. Total | 36.4 | 38.2 | 25.4 | 0 | | 5.5 | 88.1 | 6.4 | 0 | | 13 | 36.2 | 50.8 | 0 | | 1.6 | 89.9 | 8.5 | 0 | | |
| PHF | .934 | .582 | .669 | .000 | .722 | .875 | .868 | .792 | .000 | .863 | .667 | .841 | .796 | .000 | .834 | .708 | .923 | .775 | .000 | .913 | .938 |
| Cars | 142 | 149 | 99 | 0 | 390 | 49 | 768 | 56 | 0 | 873 | 40 | 111 | 154 | 0 | 305 | 17 | 973 | 92 | 0 | 1082 | 2650 |
| % Cars | 100 | 100 | 100 | 0 | 100 | 100 | 97.8 | 98.2 | 0 | 98.0 | 100 | 100 | 98.7 | 0 | 99.3 | 100 | 99.5 | 98.9 | 0 | 99.4 | 99.0 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 1 | 0 | 18 | 0 | 0 | 2 | 0 | 2 | 0 | 5 | 1 | 0 | 6 | 26 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 2.2 | 1.8 | 0 | 2.0 | 0 | 0 | 1.3 | 0 | 0.7 | 0 | 0.5 | 1.1 | 0 | 0.6 | 1.0 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Terry Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 AAA
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Terry Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 14 | 14 | 24 | 0 | 16 | 180 | 12 | 0 | 17 | 16 | 33 | 0 | 10 | 192 | 22 | 1 | 551 |
| 10:45 AM | 24 | 12 | 14 | 0 | 20 | 216 | 18 | 0 | 13 | 22 | 30 | 0 | 5 | 172 | 37 | 0 | 583 |
| Total | 38 | 26 | 38 | 0 | 36 | 396 | 30 | 0 | 30 | 38 | 63 | 0 | 15 | 364 | 59 | 1 | 1134 |
| 11:00 AM | 24 | 15 | 11 | 0 | 19 | 205 | 16 | 0 | 13 | 30 | 34 | 0 | 6 | 210 | 31 | 0 | 614 |
| 11:15 AM | 21 | 15 | 11 | 0 | 23 | 187 | 19 | 0 | 17 | 21 | 32 | 0 | 7 | 192 | 45 | 0 | 590 |
| 11:30 AM | 36 | 12 | 16 | 0 | 18 | 202 | 11 | 0 | 15 | 20 | 32 | 0 | 8 | 186 | 34 | 2 | 592 |
| 11:45 AM | 34 | 9 | 19 | 0 | 22 | 217 | 7 | 1 | 15 | 34 | 44 | 0 | 9 | 134 | 32 | 1 | 578 |
| Total | 115 | 51 | 57 | 0 | 82 | 811 | 53 | 1 | 60 | 105 | 142 | 0 | 30 | 722 | 142 | 3 | 2374 |
| 12:00 PM | 40 | 16 | 11 | 0 | 22 | 226 | 21 | 0 | 13 | 34 | 34 | 0 | 5 | 226 | 49 | 1 | 698 |
| 12:15 PM | 23 | 13 | 14 | 0 | 22 | 216 | 12 | 0 | 15 | 27 | 30 | 0 | 4 | 230 | 48 | 0 | 654 |
| 12:30 PM | 35 | 12 | 20 | 0 | 24 | 176 | 12 | 0 | 11 | 38 | 43 | 0 | 5 | 224 | 41 | 1 | 642 |
| 12:45 PM | 29 | 13 | 23 | 0 | 20 | 214 | 15 | 0 | 12 | 18 | 30 | 1 | 5 | 239 | 43 | 0 | 662 |
| Total | 127 | 54 | 68 | 0 | 88 | 832 | 60 | 0 | 51 | 117 | 137 | 1 | 19 | 919 | 181 | 2 | 2656 |
| 01:00 PM | 39 | 26 | 13 | 0 | 23 | 207 | 10 | 1 | 10 | 23 | 46 | 0 | 2 | 208 | 49 | 1 | 658 |
| 01:15 PM | 38 | 15 | 14 | 0 | 20 | 216 | 8 | 0 | 16 | 28 | 39 | 0 | 2 | 187 | 42 | 2 | 627 |
| Grand Total | 357 | 172 | 190 | 0 | 249 | 2462 | 161 | 2 | 167 | 311 | 427 | 1 | 68 | 2400 | 473 | 9 | 7449 |
| Apprch % | 49.7 | 23.9 | 26.4 | 0 | 8.7 | 85.7 | 5.6 | 0.1 | 18.4 | 34.3 | 47.1 | 0.1 | 2.3 | 81.4 | 16 | 0.3 | |
| Total % | 4.8 | 2.3 | 2.6 | 0 | 3.3 | 33.1 | 2.2 | 0 | 2.2 | 4.2 | 5.7 | 0 | 0.9 | 32.2 | 6.3 | 0.1 | |
| Cars | 355 | 172 | 189 | 0 | 248 | 2414 | 159 | 2 | 164 | 310 | 424 | 1 | 66 | 2367 | 469 | 9 | 7349 |
| % Cars | 99.4 | 100 | 99.5 | 0 | 99.6 | 98.1 | 98.8 | 100 | 98.2 | 99.7 | 99.3 | 100 | 97.1 | 98.6 | 99.2 | 100 | 98.7 |
| Heavy Vehicles | 2 | 0 | 1 | 0 | 1 | 48 | 2 | 0 | 3 | 1 | 3 | 0 | 2 | 33 | 4 | 0 | 100 |
| % Heavy Vehicles | 0.6 | 0 | 0.5 | 0 | 0.4 | 1.9 | 1.2 | 0 | 1.8 | 0.3 | 0.7 | 0 | 2.9 | 1.4 | 0.8 | 0 | 1.3 |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 40 | 16 | 11 | 0 | 67 | 22 | 226 | 21 | 0 | 269 | 13 | 34 | 34 | 0 | 81 | 5 | 226 | 49 | 1 | 281 | 698 |
| 12:15 PM | 23 | 13 | 14 | 0 | 50 | 22 | 216 | 12 | 0 | 250 | 15 | 27 | 30 | 0 | 72 | 4 | 230 | 48 | 0 | 282 | 654 |
| 12:30 PM | 35 | 12 | 20 | 0 | 67 | 24 | 176 | 12 | 0 | 212 | 11 | 38 | 43 | 0 | 92 | 5 | 224 | 41 | 1 | 271 | 642 |
| 12:45 PM | 29 | 13 | 23 | 0 | 65 | 20 | 214 | 15 | 0 | 249 | 12 | 18 | 30 | 1 | 61 | 5 | 239 | 43 | 0 | 287 | 662 |
| Total Volume | 127 | 54 | 68 | 0 | 249 | 88 | 832 | 60 | 0 | 980 | 51 | 117 | 137 | 1 | 306 | 19 | 919 | 181 | 2 | 1121 | 2656 |
| % App. Total | 51 | 21.7 | 27.3 | 0 | | 9 | 84.9 | 6.1 | 0 | | 16.7 | 38.2 | 44.8 | 0.3 | | 1.7 | 82 | 16.1 | 0.2 | | |
| PHF | .794 | .844 | .739 | .000 | .929 | .917 | .920 | .714 | .000 | .911 | .850 | .770 | .797 | .250 | .832 | .950 | .961 | .923 | .500 | .976 | .951 |
| Cars | 125 | 54 | 67 | 0 | 246 | 87 | 809 | 59 | 0 | 955 | 50 | 117 | 137 | 1 | 305 | 19 | 906 | 178 | 2 | 1105 | 2611 |
| % Cars | 98.4 | 100 | 98.5 | 0 | 98.8 | 98.9 | 97.2 | 98.3 | 0 | 97.4 | 98.0 | 100 | 100 | 100 | 99.7 | 100 | 98.6 | 98.3 | 100 | 98.6 | 98.3 |
| Heavy Vehicles | 2 | 0 | 1 | 0 | 3 | 1 | 23 | 1 | 0 | 25 | 1 | 0 | 0 | 0 | 1 | 0 | 13 | 3 | 0 | 16 | 45 |
| % Heavy Vehicles | 1.6 | 0 | 1.5 | 0 | 1.2 | 1.1 | 2.8 | 1.7 | 0 | 2.6 | 2.0 | 0 | 0 | 0 | 0.3 | 0 | 1.4 | 1.7 | 0 | 1.4 | 1.7 |

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46 Morton Street, Framingham, MA 01702
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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 AAA
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Terry Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 14 | 14 | 24 | 0 | 16 | 177 | 12 | 0 | 16 | 16 | 33 | 0 | 8 | 191 | 22 | 1 | 544 |
| 10:45 AM | 24 | 12 | 14 | 0 | 20 | 213 | 17 | 0 | 13 | 22 | 29 | 0 | 5 | 170 | 37 | 0 | 576 |
| Total | 38 | 26 | 38 | 0 | 36 | 390 | 29 | 0 | 29 | 38 | 62 | 0 | 13 | 361 | 59 | 1 | 1120 |
| 11:00 AM | 24 | 15 | 11 | 0 | 19 | 204 | 16 | 0 | 13 | 30 | 34 | 0 | 6 | 207 | 31 | 0 | 610 |
| 11:15 AM | 21 | 15 | 11 | 0 | 23 | 183 | 19 | 0 | 17 | 20 | 32 | 0 | 7 | 188 | 44 | 0 | 580 |
| 11:30 AM | 36 | 12 | 16 | 0 | 18 | 199 | 11 | 0 | 15 | 20 | 31 | 0 | 8 | 184 | 34 | 2 | 586 |
| 11:45 AM | 34 | 9 | 19 | 0 | 22 | 215 | 7 | 1 | 15 | 34 | 44 | 0 | 9 | 133 | 32 | 1 | 575 |
| Total | 115 | 51 | 57 | 0 | 82 | 801 | 53 | 1 | 60 | 104 | 141 | 0 | 30 | 712 | 141 | 3 | 2351 |
| 12:00 PM | 39 | 16 | 11 | 0 | 22 | 219 | 21 | 0 | 13 | 34 | 34 | 0 | 5 | 221 | 49 | 1 | 685 |
| 12:15 PM | 23 | 13 | 14 | 0 | 22 | 209 | 12 | 0 | 15 | 27 | 30 | 0 | 4 | 229 | 45 | 0 | 643 |
| 12:30 PM | 34 | 12 | 20 | 0 | 23 | 171 | 11 | 0 | 11 | 38 | 43 | 0 | 5 | 220 | 41 | 1 | 630 |
| 12:45 PM | 29 | 13 | 22 | 0 | 20 | 210 | 15 | 0 | 11 | 18 | 30 | 1 | 5 | 236 | 43 | 0 | 653 |
| Total | 125 | 54 | 67 | 0 | 87 | 809 | 59 | 0 | 50 | 117 | 137 | 1 | 19 | 906 | 178 | 2 | 2611 |
| 01:00 PM | 39 | 26 | 13 | 0 | 23 | 199 | 10 | 1 | 10 | 23 | 46 | 0 | 2 | 204 | 49 | 1 | 646 |
| 01:15 PM | 38 | 15 | 14 | 0 | 20 | 215 | 8 | 0 | 15 | 28 | 38 | 0 | 2 | 184 | 42 | 2 | 621 |
| Grand Total | 355 | 172 | 189 | 0 | 248 | 2414 | 159 | 2 | 164 | 310 | 424 | 1 | 66 | 2367 | 469 | 9 | 7349 |
| Apprch % | 49.6 | 24 | 26.4 | 0 | 8.8 | 85.5 | 5.6 | 0.1 | 18.2 | 34.5 | 47.2 | 0.1 | 2.3 | 81.3 | 16.1 | 0.3 | |
| Total % | 4.8 | 2.3 | 2.6 | 0 | 3.4 | 32.8 | 2.2 | 0 | 2.2 | 4.2 | 5.8 | 0 | 0.9 | 32.2 | 6.4 | 0.1 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 39 | 16 | 11 | 0 | 66 | 22 | 219 | 21 | 0 | 262 | 13 | 34 | 34 | 0 | 81 | 5 | 221 | 49 | 1 | 276 | 685 |
| 12:15 PM | 23 | 13 | 14 | 0 | 50 | 22 | 209 | 12 | 0 | 243 | 15 | 27 | 30 | 0 | 72 | 4 | 229 | 45 | 0 | 278 | 643 |
| 12:30 PM | 34 | 12 | 20 | 0 | 66 | 23 | 171 | 11 | 0 | 205 | 11 | 38 | 43 | 0 | 92 | 5 | 220 | 41 | 1 | 267 | 630 |
| 12:45 PM | 29 | 13 | 22 | 0 | 64 | 20 | 210 | 15 | 0 | 245 | 11 | 18 | 30 | 1 | 60 | 5 | 236 | 43 | 0 | 284 | 653 |
| Total Volume | 125 | 54 | 67 | 0 | 246 | 87 | 809 | 59 | 0 | 955 | 50 | 117 | 137 | 1 | 305 | 19 | 906 | 178 | 2 | 1105 | 2611 |
| % App. Total | 50.8 | 22 | 27.2 | 0 | | 9.1 | 84.7 | 6.2 | 0 | | 16.4 | 38.4 | 44.9 | 0.3 | | 1.7 | 82 | 16.1 | 0.2 | | |
| PHF | .801 | .844 | .761 | .000 | .932 | .946 | .924 | .702 | .000 | .911 | .833 | .770 | .797 | .250 | .829 | .950 | .960 | .908 | .500 | .973 | .953 |

PRECISION
D A T A
INDUSTRIES, LLC
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Client: VHB/ E. Chan

File Name : 165077 AAA
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Terry Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 7 |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 7 |
| Total | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 3 | 0 | 0 | 14 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 4 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 1 | 0 | 10 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 6 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 10 | 1 | 0 | 23 |
| 12:00 PM | 1 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 13 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 11 |
| 12:30 PM | 1 | 0 | 0 | 0 | 1 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 12 |
| 12:45 PM | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 9 |
| Total | 2 | 0 | 1 | 0 | 1 | 23 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 13 | 3 | 0 | 45 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 12 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 6 |
| Grand Total | 2 | 0 | 1 | 0 | 1 | 48 | 2 | 0 | 3 | 1 | 3 | 0 | 2 | 33 | 4 | 0 | 100 |
| Apprch % | 66.7 | 0 | 33.3 | 0 | 2 | 94.1 | 3.9 | 0 | 42.9 | 14.3 | 42.9 | 0 | 5.1 | 84.6 | 10.3 | 0 | |
| Total % | 2 | 0 | 1 | 0 | 1 | 48 | 2 | 0 | 3 | 1 | 3 | 0 | 2 | 33 | 4 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 1 | 0 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 13 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 4 | 11 |
| 12:30 PM | 1 | 0 | 0 | 0 | 1 | 1 | 5 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 12 |
| 12:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 4 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 9 |
| Total Volume | 2 | 0 | 1 | 0 | 3 | 1 | 23 | 1 | 0 | 25 | 1 | 0 | 0 | 0 | 1 | 0 | 13 | 3 | 0 | 16 | 45 |
| % App. Total | 66.7 | 0 | 33.3 | 0 | | 4 | 92 | 4 | 0 | | 100 | 0 | 0 | 0 | | 0 | 81.2 | 18.8 | 0 | | |
| PHF | .500 | .000 | .250 | .000 | .750 | .250 | .821 | .250 | .000 | .893 | .250 | .000 | .000 | .000 | .250 | .000 | .650 | .250 | .000 | .800 | .865 |

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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 AAA
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 10:45 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 5 |
| Total | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 7 |
| 11:00 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:15 AM | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 6 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM | 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 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 8 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 8 |
| 12:45 PM | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 8 |
| Total | 0 | 0 | 0 | 3 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 5 | 3 | 19 |
| 01:00 PM | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 |
| 01:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| Grand Total | 0 | 0 | 0 | 13 | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 10 | 5 | 42 |
| Apprch % | 0 | 0 | 0 | 61.9 | 38.1 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 21.1 | 0 | 52.6 | 26.3 | |
| Total % | 0 | 0 | 0 | 31 | 19 | 0 | 0 | 0 | 0 | 2.4 | 0 | 0 | 2.4 | 0 | 0 | 0 | 9.5 | 0 | 23.8 | 11.9 | |

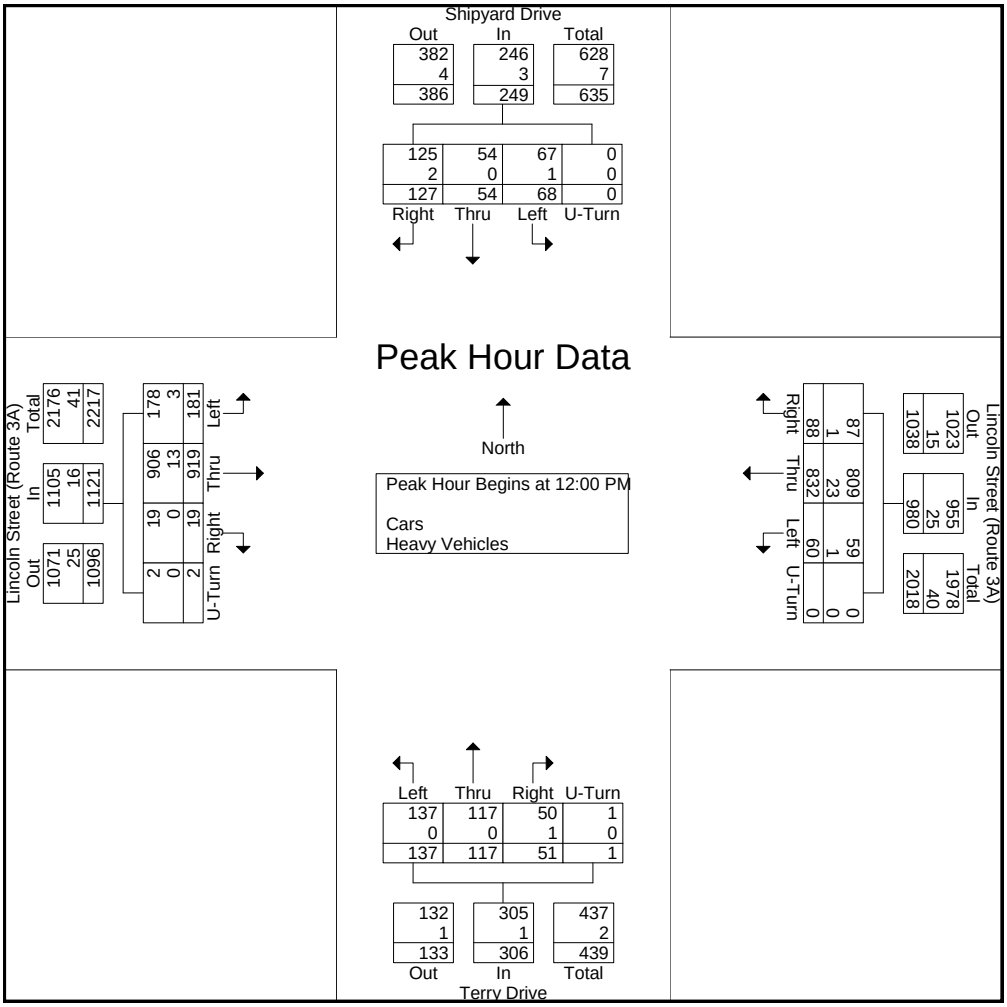
| | Shipyard Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Terry Drive From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:30 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12:30 PM | 0 | 0 | 0 | 2 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 3 | 8 |
| 12:45 PM | 0 | 0 | 0 | 1 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4 | 8 |
| 01:00 PM | 0 | 0 | 0 | 3 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 6 |
| 01:15 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Total Volume | 0 | 0 | 0 | 7 | 6 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 5 | 3 | 10 | 24 |
| % App. Total | 0 | 0 | 0 | 53.8 | 46.2 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 100 | 0 | 0 | | 0 | 20 | 0 | 50 | 30 | | |
| PHF | .000 | .000 | .000 | .583 | .500 | .813 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .250 | .000 | .500 | .000 | .417 | .375 | .625 | .750 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Terry Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 AAA
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Terry Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 40 | 16 | 11 | 0 | 67 | 22 | 226 | 21 | 0 | 269 | 13 | 34 | 34 | 0 | 81 | 5 | 226 | 49 | 1 | 281 | 698 |
| 12:15 PM | 23 | 13 | 14 | 0 | 50 | 22 | 216 | 12 | 0 | 250 | 15 | 27 | 30 | 0 | 72 | 4 | 230 | 48 | 0 | 282 | 654 |
| 12:30 PM | 35 | 12 | 20 | 0 | 67 | 24 | 176 | 12 | 0 | 212 | 11 | 38 | 43 | 0 | 92 | 5 | 224 | 41 | 1 | 271 | 642 |
| 12:45 PM | 29 | 13 | 23 | 0 | 65 | 20 | 214 | 15 | 0 | 249 | 12 | 18 | 30 | 1 | 61 | 5 | 239 | 43 | 0 | 287 | 662 |
| Total Volume | 127 | 54 | 68 | 0 | 249 | 88 | 832 | 60 | 0 | 980 | 51 | 117 | 137 | 1 | 306 | 19 | 919 | 181 | 2 | 1121 | 2656 |
| % App. Total | 51 | 21.7 | 27.3 | 0 | | 9 | 84.9 | 6.1 | 0 | | 16.7 | 38.2 | 44.8 | 0.3 | | 1.7 | 82 | 16.1 | 0.2 | | |
| PHF | .794 | .844 | .739 | .000 | .929 | .917 | .920 | .714 | .000 | .911 | .850 | .770 | .797 | .250 | .832 | .950 | .961 | .923 | .500 | .976 | .951 |
| Cars | 125 | 54 | 67 | 0 | 246 | 87 | 809 | 59 | 0 | 955 | 50 | 117 | 137 | 1 | 305 | 19 | 906 | 178 | 2 | 1105 | 2611 |
| % Cars | 98.4 | 100 | 98.5 | 0 | 98.8 | 98.9 | 97.2 | 98.3 | 0 | 97.4 | 98.0 | 100 | 100 | 100 | 99.7 | 100 | 98.6 | 98.3 | 100 | 98.6 | 98.3 |
| Heavy Vehicles | 2 | 0 | 1 | 0 | 3 | 1 | 23 | 1 | 0 | 25 | 1 | 0 | 0 | 0 | 1 | 0 | 13 | 3 | 0 | 16 | 45 |
| % Heavy Vehicles | 1.6 | 0 | 1.5 | 0 | 1.2 | 1.1 | 2.8 | 1.7 | 0 | 2.6 | 2.0 | 0 | 0 | 0 | 0.3 | 0 | 1.4 | 1.7 | 0 | 1.4 | 1.7 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

S: Beal Street
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 B
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Lincoln Street (Route 3A) From East | | | Beal Street From South | | | Lincoln Street (Route 3A) From West | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | Right | Left | U-Turn | Right | Thru | U-Turn | Int. Total |
| 07:00 AM | 314 | 0 | 0 | 1 | 0 | 0 | 32 | 103 | 0 | 450 |
| 07:15 AM | 387 | 0 | 0 | 2 | 0 | 0 | 35 | 120 | 0 | 544 |
| 07:30 AM | 334 | 0 | 0 | 2 | 0 | 0 | 44 | 174 | 0 | 554 |
| 07:45 AM | 352 | 0 | 0 | 2 | 0 | 0 | 55 | 160 | 0 | 569 |
| Total | 1387 | 0 | 0 | 7 | 0 | 0 | 166 | 557 | 0 | 2117 |
| 08:00 AM | 289 | 0 | 0 | 0 | 0 | 0 | 44 | 179 | 0 | 512 |
| 08:15 AM | 339 | 0 | 0 | 0 | 0 | 0 | 69 | 198 | 0 | 606 |
| 08:30 AM | 298 | 0 | 0 | 4 | 0 | 0 | 49 | 179 | 0 | 530 |
| 08:45 AM | 269 | 0 | 0 | 4 | 0 | 0 | 45 | 177 | 0 | 495 |
| Total | 1195 | 0 | 0 | 8 | 0 | 0 | 207 | 733 | 0 | 2143 |
| Grand Total | 2582 | 0 | 0 | 15 | 0 | 0 | 373 | 1290 | 0 | 4260 |
| Apprch % | 100 | 0 | 0 | 100 | 0 | 0 | 22.4 | 77.6 | 0 | |
| Total % | 60.6 | 0 | 0 | 0.4 | 0 | 0 | 8.8 | 30.3 | 0 | |
| Cars | 2540 | 0 | 0 | 13 | 0 | 0 | 362 | 1226 | 0 | 4141 |
| % Cars | 98.4 | 0 | 0 | 86.7 | 0 | 0 | 97.1 | 95 | 0 | 97.2 |
| Heavy Vehicles | 42 | 0 | 0 | 2 | 0 | 0 | 11 | 64 | 0 | 119 |
| % Heavy Vehicles | 1.6 | 0 | 0 | 13.3 | 0 | 0 | 2.9 | 5 | 0 | 2.8 |

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | |
| 07:30 AM | 334 | 0 | 0 | 334 | 2 | 0 | 0 | 2 | 44 | 174 | 0 | 218 | 554 |
| 07:45 AM | 352 | 0 | 0 | 352 | 2 | 0 | 0 | 2 | 55 | 160 | 0 | 215 | 569 |
| 08:00 AM | 289 | 0 | 0 | 289 | 0 | 0 | 0 | 0 | 44 | 179 | 0 | 223 | 512 |
| 08:15 AM | 339 | 0 | 0 | 339 | 0 | 0 | 0 | 0 | 69 | 198 | 0 | 267 | 606 |
| Total Volume | 1314 | 0 | 0 | 1314 | 4 | 0 | 0 | 4 | 212 | 711 | 0 | 923 | 2241 |
| % App. Total | 100 | 0 | 0 | | 100 | 0 | 0 | | 23 | 77 | 0 | | |
| PHF | .933 | .000 | .000 | .933 | .500 | .000 | .000 | .500 | .768 | .898 | .000 | .864 | .925 |
| Cars | 1295 | 0 | 0 | 1295 | 2 | 0 | 0 | 2 | 208 | 681 | 0 | 889 | 2186 |
| % Cars | 98.6 | 0 | 0 | 98.6 | 50.0 | 0 | 0 | 50.0 | 98.1 | 95.8 | 0 | 96.3 | 97.5 |
| Heavy Vehicles | 19 | 0 | 0 | 19 | 2 | 0 | 0 | 2 | 4 | 30 | 0 | 34 | 55 |
| % Heavy Vehicles | 1.4 | 0 | 0 | 1.4 | 50.0 | 0 | 0 | 50.0 | 1.9 | 4.2 | 0 | 3.7 | 2.5 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

S: Beal Street
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 B
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Lincoln Street (Route 3A) From East | | | Beal Street From South | | | Lincoln Street (Route 3A) From West | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | Right | Left | U-Turn | Right | Thru | U-Turn | Int. Total |
| 07:00 AM | 312 | 0 | 0 | 1 | 0 | 0 | 30 | 100 | 0 | 443 |
| 07:15 AM | 381 | 0 | 0 | 2 | 0 | 0 | 32 | 113 | 0 | 528 |
| 07:30 AM | 329 | 0 | 0 | 1 | 0 | 0 | 43 | 164 | 0 | 537 |
| 07:45 AM | 348 | 0 | 0 | 1 | 0 | 0 | 55 | 153 | 0 | 557 |
| Total | 1370 | 0 | 0 | 5 | 0 | 0 | 160 | 530 | 0 | 2065 |
| 08:00 AM | 282 | 0 | 0 | 0 | 0 | 0 | 42 | 171 | 0 | 495 |
| 08:15 AM | 336 | 0 | 0 | 0 | 0 | 0 | 68 | 193 | 0 | 597 |
| 08:30 AM | 293 | 0 | 0 | 4 | 0 | 0 | 49 | 164 | 0 | 510 |
| 08:45 AM | 259 | 0 | 0 | 4 | 0 | 0 | 43 | 168 | 0 | 474 |
| Total | 1170 | 0 | 0 | 8 | 0 | 0 | 202 | 696 | 0 | 2076 |
| Grand Total | 2540 | 0 | 0 | 13 | 0 | 0 | 362 | 1226 | 0 | 4141 |
| Apprch % | 100 | 0 | 0 | 100 | 0 | 0 | 22.8 | 77.2 | 0 | |
| Total % | 61.3 | 0 | 0 | 0.3 | 0 | 0 | 8.7 | 29.6 | 0 | |

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | |
| 07:30 AM | 329 | 0 | 0 | 329 | 1 | 0 | 0 | 1 | 43 | 164 | 0 | 207 | 537 |
| 07:45 AM | 348 | 0 | 0 | 348 | 1 | 0 | 0 | 1 | 55 | 153 | 0 | 208 | 557 |
| 08:00 AM | 282 | 0 | 0 | 282 | 0 | 0 | 0 | 0 | 42 | 171 | 0 | 213 | 495 |
| 08:15 AM | 336 | 0 | 0 | 336 | 0 | 0 | 0 | 0 | 68 | 193 | 0 | 261 | 597 |
| Total Volume | 1295 | 0 | 0 | 1295 | 2 | 0 | 0 | 2 | 208 | 681 | 0 | 889 | 2186 |
| % App. Total | 100 | 0 | 0 | | 100 | 0 | 0 | | 23.4 | 76.6 | 0 | | |
| PHF | .930 | .000 | .000 | .930 | .500 | .000 | .000 | .500 | .765 | .882 | .000 | .852 | .915 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

S: Beal Street
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 B
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Lincoln Street (Route 3A) From East | | | Beal Street From South | | | Lincoln Street (Route 3A) From West | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | Right | Left | U-Turn | Right | Thru | U-Turn | Int. Total |
| 07:00 AM | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 7 |
| 07:15 AM | 6 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 0 | 16 |
| 07:30 AM | 5 | 0 | 0 | 1 | 0 | 0 | 1 | 10 | 0 | 17 |
| 07:45 AM | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 0 | 12 |
| Total | 17 | 0 | 0 | 2 | 0 | 0 | 6 | 27 | 0 | 52 |
| 08:00 AM | 7 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 0 | 17 |
| 08:15 AM | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 9 |
| 08:30 AM | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 20 |
| 08:45 AM | 10 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 0 | 21 |
| Total | 25 | 0 | 0 | 0 | 0 | 0 | 5 | 37 | 0 | 67 |
| Grand Total | 42 | 0 | 0 | 2 | 0 | 0 | 11 | 64 | 0 | 119 |
| Apprch % | 100 | 0 | 0 | 100 | 0 | 0 | 14.7 | 85.3 | 0 | |
| Total % | 35.3 | 0 | 0 | 1.7 | 0 | 0 | 9.2 | 53.8 | 0 | |

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | |
| 08:00 AM | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 2 | 8 | 0 | 10 | 17 |
| 08:15 AM | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 6 | 9 |
| 08:30 AM | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 15 | 20 |
| 08:45 AM | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 2 | 9 | 0 | 11 | 21 |
| Total Volume | 25 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 5 | 37 | 0 | 42 | 67 |
| % App. Total | 100 | 0 | 0 | | 0 | 0 | 0 | | 11.9 | 88.1 | 0 | | |
| PHF | .625 | .000 | .000 | .625 | .000 | .000 | .000 | .000 | .625 | .617 | .000 | .700 | .798 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

S: Beal Street
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 B
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds SB | Peds NB | Right | Left | Peds WB | Peds EB | Right | Thru | Peds NB | Peds SB | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM | 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 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66.7 | 33.3 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66.7 | 33.3 | 0 | |

| | Lincoln Street (Route 3A) From East | | | | | Beal Street From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds SB | Peds NB | App. Total | Right | Left | Peds WB | Peds EB | App. Total | Right | Thru | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 3 |
| 07:45 AM | 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 | 2 | 1 | 0 | 3 | 3 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 66.7 | 33.3 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .250 | .000 | .250 | .250 |

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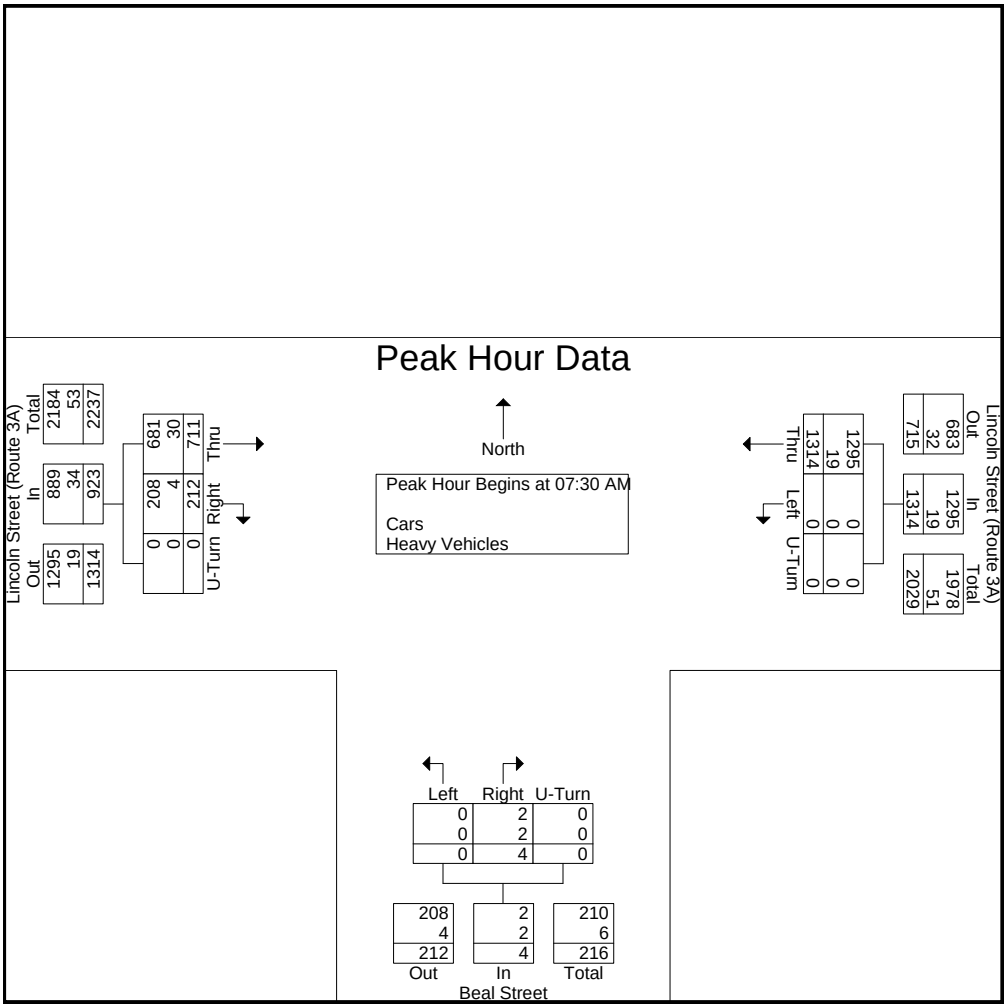
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | |
| 07:30 AM | 334 | 0 | 0 | 334 | 2 | 0 | 0 | 2 | 44 | 174 | 0 | 218 | 554 |
| 07:45 AM | 352 | 0 | 0 | 352 | 2 | 0 | 0 | 2 | 55 | 160 | 0 | 215 | 569 |
| 08:00 AM | 289 | 0 | 0 | 289 | 0 | 0 | 0 | 0 | 44 | 179 | 0 | 223 | 512 |
| 08:15 AM | 339 | 0 | 0 | 339 | 0 | 0 | 0 | 0 | 69 | 198 | 0 | 267 | 606 |
| Total Volume | 1314 | 0 | 0 | 1314 | 4 | 0 | 0 | 4 | 212 | 711 | 0 | 923 | 2241 |
| % App. Total | 100 | 0 | 0 | | 100 | 0 | 0 | | 23 | 77 | 0 | | |
| PHF | .933 | .000 | .000 | .933 | .500 | .000 | .000 | .500 | .768 | .898 | .000 | .864 | .925 |
| Cars | 1295 | 0 | 0 | 1295 | 2 | 0 | 0 | 2 | 208 | 681 | 0 | 889 | 2186 |
| % Cars | 98.6 | 0 | 0 | 98.6 | 50.0 | 0 | 0 | 50.0 | 98.1 | 95.8 | 0 | 96.3 | 97.5 |
| Heavy Vehicles | 19 | 0 | 0 | 19 | 2 | 0 | 0 | 2 | 4 | 30 | 0 | 34 | 55 |
| % Heavy Vehicles | 1.4 | 0 | 0 | 1.4 | 50.0 | 0 | 0 | 50.0 | 1.9 | 4.2 | 0 | 3.7 | 2.5 |



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File Name : 165077 BB
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Lincoln Street (Route 3A) From East | | | Beal Street From South | | | Lincoln Street (Route 3A) From West | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | Right | Left | U-Turn | Right | Thru | U-Turn | Int. Total |
| 04:00 PM | 307 | 0 | 0 | 4 | 0 | 0 | 79 | 265 | 0 | 655 |
| 04:15 PM | 259 | 0 | 0 | 2 | 0 | 0 | 85 | 274 | 0 | 620 |
| 04:30 PM | 280 | 0 | 0 | 3 | 0 | 0 | 87 | 283 | 0 | 653 |
| 04:45 PM | 266 | 0 | 0 | 1 | 0 | 0 | 72 | 328 | 0 | 667 |
| Total | 1112 | 0 | 0 | 10 | 0 | 0 | 323 | 1150 | 0 | 2595 |
| 05:00 PM | 327 | 0 | 0 | 4 | 0 | 0 | 115 | 291 | 0 | 737 |
| 05:15 PM | 324 | 0 | 0 | 5 | 0 | 0 | 123 | 298 | 0 | 750 |
| 05:30 PM | 304 | 0 | 0 | 2 | 0 | 0 | 116 | 274 | 0 | 696 |
| 05:45 PM | 295 | 0 | 0 | 2 | 0 | 0 | 106 | 274 | 0 | 677 |
| Total | 1250 | 0 | 0 | 13 | 0 | 0 | 460 | 1137 | 0 | 2860 |
| Grand Total | 2362 | 0 | 0 | 23 | 0 | 0 | 783 | 2287 | 0 | 5455 |
| Apprch % | 100 | 0 | 0 | 100 | 0 | 0 | 25.5 | 74.5 | 0 | |
| Total % | 43.3 | 0 | 0 | 0.4 | 0 | 0 | 14.4 | 41.9 | 0 | |
| Cars | 2328 | 0 | 0 | 23 | 0 | 0 | 780 | 2261 | 0 | 5392 |
| % Cars | 98.6 | 0 | 0 | 100 | 0 | 0 | 99.6 | 98.9 | 0 | 98.8 |
| Heavy Vehicles | 34 | 0 | 0 | 0 | 0 | 0 | 3 | 26 | 0 | 63 |
| % Heavy Vehicles | 1.4 | 0 | 0 | 0 | 0 | 0 | 0.4 | 1.1 | 0 | 1.2 |

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | |
| 05:00 PM | 327 | 0 | 0 | 327 | 4 | 0 | 0 | 4 | 115 | 291 | 0 | 406 | 737 |
| 05:15 PM | 324 | 0 | 0 | 324 | 5 | 0 | 0 | 5 | 123 | 298 | 0 | 421 | 750 |
| 05:30 PM | 304 | 0 | 0 | 304 | 2 | 0 | 0 | 2 | 116 | 274 | 0 | 390 | 696 |
| 05:45 PM | 295 | 0 | 0 | 295 | 2 | 0 | 0 | 2 | 106 | 274 | 0 | 380 | 677 |
| Total Volume | 1250 | 0 | 0 | 1250 | 13 | 0 | 0 | 13 | 460 | 1137 | 0 | 1597 | 2860 |
| % App. Total | 100 | 0 | 0 | | 100 | 0 | 0 | | 28.8 | 71.2 | 0 | | |
| PHF | .956 | .000 | .000 | .956 | .650 | .000 | .000 | .650 | .935 | .954 | .000 | .948 | .953 |
| Cars | 1230 | 0 | 0 | 1230 | 13 | 0 | 0 | 13 | 459 | 1131 | 0 | 1590 | 2833 |
| % Cars | 98.4 | 0 | 0 | 98.4 | 100 | 0 | 0 | 100 | 99.8 | 99.5 | 0 | 99.6 | 99.1 |
| Heavy Vehicles | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 7 | 27 |
| % Heavy Vehicles | 1.6 | 0 | 0 | 1.6 | 0 | 0 | 0 | 0 | 0.2 | 0.5 | 0 | 0.4 | 0.9 |

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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 BB
Site Code : TBA
Start Date : 5/19/2016
Page No : 2

# Peak Hour Data

Peak Hour Begins at 05:00 PM

Cars
Heavy Vehicles

North

Lincoln Street (Route 3A)

| | Out | In | Total |
|---|---|---|---|
| | 1230 | 1590 | 2820 |
| | 20 | 7 | 27 |
| | 1250 | 1597 | 2847 |

| U-Turn | Right | Thru |
|---|---|---|
| 0 | 459 | 1131 |
| 0 | 1 | 6 |
| 0 | 460 | 1137 |

| Thru | Left | U-Turn |
|---|---|---|
| 1230 | 0 | 0 |
| 20 | 0 | 0 |
| 1250 | 0 | 0 |

| | Out | In | Total |
|---|---|---|---|
| | 1144 | 1230 | 2374 |
| | 6 | 20 | 26 |
| | 1150 | 1250 | 2400 |

Beal Street

| Left | Right | U-Turn |
|---|---|---|
| 0 | 13 | 0 |
| 0 | 0 | 0 |
| 0 | 13 | 0 |

| Out | In | Total |
|---|---|---|
| 459 | 13 | 472 |
| 1 | 0 | 1 |
| 460 | 13 | 473 |

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Page No : 1

**Groups Printed- Cars**

| | Lincoln Street (Route 3A) From East | | | Beal Street From South | | | Lincoln Street (Route 3A) From West | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | Right | Left | U-Turn | Right | Thru | U-Turn | Int. Total |
| 04:00 PM | 303 | 0 | 0 | 4 | 0 | 0 | 79 | 259 | 0 | 645 |
| 04:15 PM | 256 | 0 | 0 | 2 | 0 | 0 | 84 | 268 | 0 | 610 |
| 04:30 PM | 277 | 0 | 0 | 3 | 0 | 0 | 87 | 277 | 0 | 644 |
| 04:45 PM | 262 | 0 | 0 | 1 | 0 | 0 | 71 | 326 | 0 | 660 |
| Total | 1098 | 0 | 0 | 10 | 0 | 0 | 321 | 1130 | 0 | 2559 |
| 05:00 PM | 321 | 0 | 0 | 4 | 0 | 0 | 115 | 290 | 0 | 730 |
| 05:15 PM | 317 | 0 | 0 | 5 | 0 | 0 | 123 | 296 | 0 | 741 |
| 05:30 PM | 302 | 0 | 0 | 2 | 0 | 0 | 115 | 274 | 0 | 693 |
| 05:45 PM | 290 | 0 | 0 | 2 | 0 | 0 | 106 | 271 | 0 | 669 |
| Total | 1230 | 0 | 0 | 13 | 0 | 0 | 459 | 1131 | 0 | 2833 |
| Grand Total | 2328 | 0 | 0 | 23 | 0 | 0 | 780 | 2261 | 0 | 5392 |
| Apprch % | 100 | 0 | 0 | 100 | 0 | 0 | 25.6 | 74.4 | 0 | |
| Total % | 43.2 | 0 | 0 | 0.4 | 0 | 0 | 14.5 | 41.9 | 0 | |

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | |
| 05:00 PM | 321 | 0 | 0 | 321 | 4 | 0 | 0 | 4 | 115 | 290 | 0 | 405 | 730 |
| 05:15 PM | 317 | 0 | 0 | 317 | 5 | 0 | 0 | 5 | 123 | 296 | 0 | 419 | 741 |
| 05:30 PM | 302 | 0 | 0 | 302 | 2 | 0 | 0 | 2 | 115 | 274 | 0 | 389 | 693 |
| 05:45 PM | 290 | 0 | 0 | 290 | 2 | 0 | 0 | 2 | 106 | 271 | 0 | 377 | 669 |
| Total Volume | 1230 | 0 | 0 | 1230 | 13 | 0 | 0 | 13 | 459 | 1131 | 0 | 1590 | 2833 |
| % App. Total | 100 | 0 | 0 | | 100 | 0 | 0 | | 28.9 | 71.1 | 0 | | |
| PHF | .958 | .000 | .000 | .958 | .650 | .000 | .000 | .650 | .933 | .955 | .000 | .949 | .956 |

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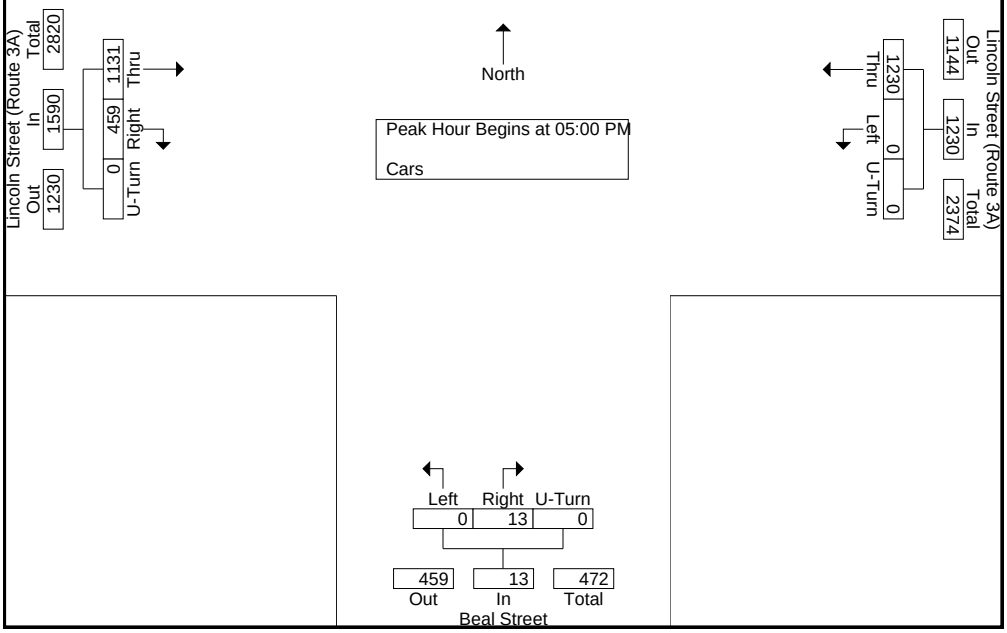
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 BB
Site Code : TBA
Start Date : 5/19/2016
Page No : 2

# Peak Hour Data



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Page No : 1

**Groups Printed- Heavy Vehicles**

| | Lincoln Street (Route 3A) From East | | | Beal Street From South | | | Lincoln Street (Route 3A) From West | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | Right | Left | U-Turn | Right | Thru | U-Turn | Int. Total |
| 04:00 PM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 10 |
| 04:15 PM | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 10 |
| 04:30 PM | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 9 |
| 04:45 PM | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 7 |
| Total | 14 | 0 | 0 | 0 | 0 | 0 | 2 | 20 | 0 | 36 |
| 05:00 PM | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 7 |
| 05:15 PM | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 9 |
| 05:30 PM | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 05:45 PM | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 8 |
| Total | 20 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 27 |
| Grand Total | 34 | 0 | 0 | 0 | 0 | 0 | 3 | 26 | 0 | 63 |
| Apprch % | 100 | 0 | 0 | 0 | 0 | 0 | 10.3 | 89.7 | 0 | |
| Total % | 54 | 0 | 0 | 0 | 0 | 0 | 4.8 | 41.3 | 0 | |

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | |
| 04:00 PM | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 10 |
| 04:15 PM | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 7 | 10 |
| 04:30 PM | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 9 |
| 04:45 PM | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 3 | 7 |
| Total Volume | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 2 | 20 | 0 | 22 | 36 |
| % App. Total | 100 | 0 | 0 | | 0 | 0 | 0 | | 9.1 | 90.9 | 0 | | |
| PHF | .875 | .000 | .000 | .875 | .000 | .000 | .000 | .000 | .500 | .833 | .000 | .786 | .900 |

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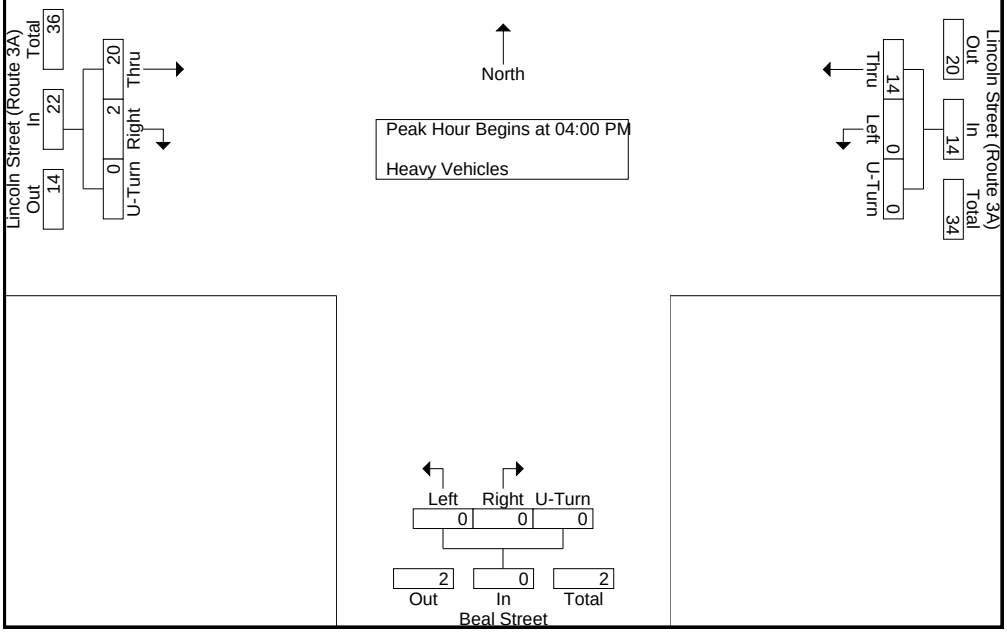
# Peak Hour Data



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**Groups Printed- Peds and Bikes**

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds SB | Peds NB | Right | Left | Peds WB | Peds EB | Right | Thru | Peds NB | Peds SB | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Grand Total | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| Apprch % | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | |
| Total % | 33.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66.7 | 0 | 0 | |

| | Lincoln Street (Route 3A) From East | | | | | Beal Street From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds SB | Peds NB | App. Total | Right | Left | Peds WB | Peds EB | App. Total | Right | Thru | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| % App. Total | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .250 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .250 | .500 |

PRECISION
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Office: 508-875-0100 Fax: 508-875-0118
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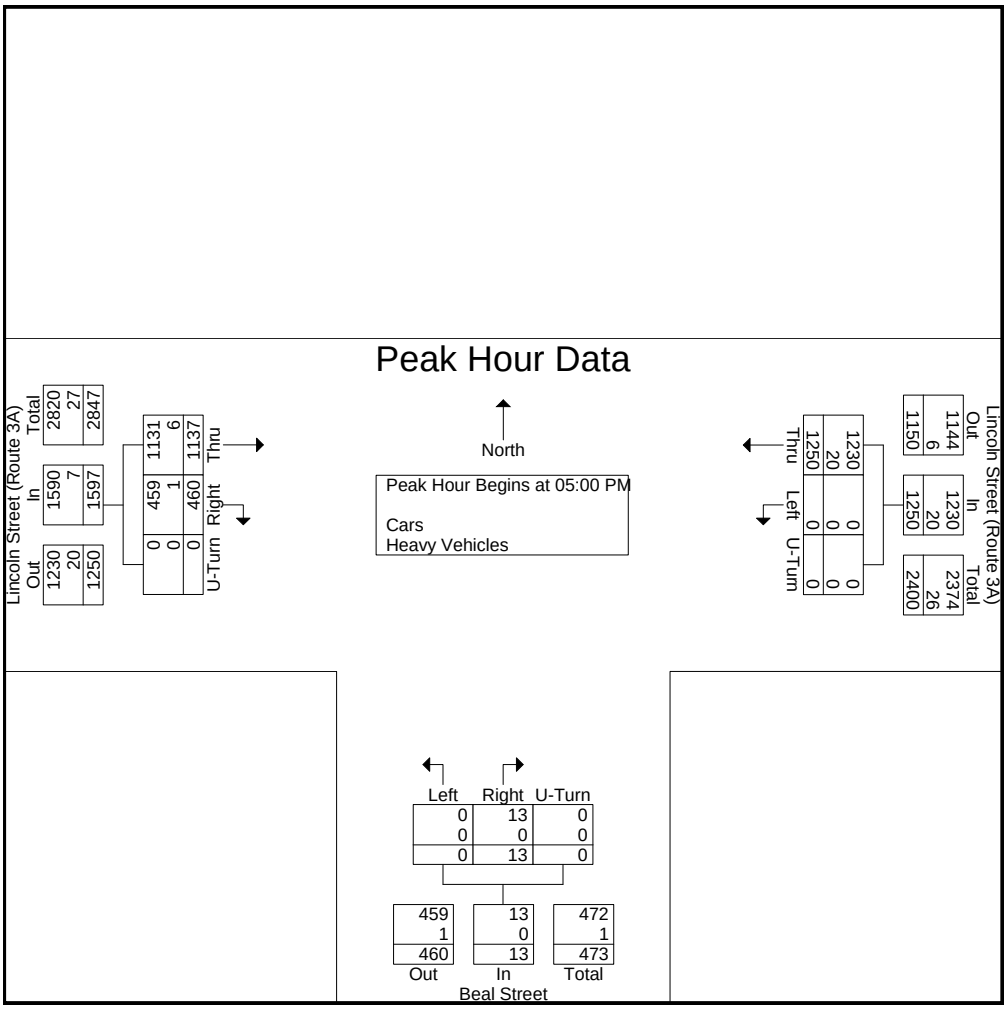
| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | |
| 05:00 PM | 327 | 0 | 0 | 327 | 4 | 0 | 0 | 4 | 115 | 291 | 0 | 406 | 737 |
| 05:15 PM | 324 | 0 | 0 | 324 | 5 | 0 | 0 | 5 | 123 | 298 | 0 | 421 | 750 |
| 05:30 PM | 304 | 0 | 0 | 304 | 2 | 0 | 0 | 2 | 116 | 274 | 0 | 390 | 696 |
| 05:45 PM | 295 | 0 | 0 | 295 | 2 | 0 | 0 | 2 | 106 | 274 | 0 | 380 | 677 |
| Total Volume | 1250 | 0 | 0 | 1250 | 13 | 0 | 0 | 13 | 460 | 1137 | 0 | 1597 | 2860 |
| % App. Total | 100 | 0 | 0 | | 100 | 0 | 0 | | 28.8 | 71.2 | 0 | | |
| PHF | .956 | .000 | .000 | .956 | .650 | .000 | .000 | .650 | .935 | .954 | .000 | .948 | .953 |
| Cars | 1230 | 0 | 0 | 1230 | 13 | 0 | 0 | 13 | 459 | 1131 | 0 | 1590 | 2833 |
| % Cars | 98.4 | 0 | 0 | 98.4 | 100 | 0 | 0 | 100 | 99.8 | 99.5 | 0 | 99.6 | 99.1 |
| Heavy Vehicles | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 7 | 27 |
| % Heavy Vehicles | 1.6 | 0 | 0 | 1.6 | 0 | 0 | 0 | 0 | 0.2 | 0.5 | 0 | 0.4 | 0.9 |



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Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Lincoln Street (Route 3A) From East | | | Beal Street From South | | | Lincoln Street (Route 3A) From West | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | Right | Left | U-Turn | Right | Thru | U-Turn | Int. Total |
| 10:30 AM | 311 | 0 | 0 | 8 | 0 | 0 | 71 | 238 | 0 | 628 |
| 10:45 AM | 305 | 0 | 0 | 2 | 0 | 0 | 76 | 237 | 0 | 620 |
| Total | 616 | 0 | 0 | 10 | 0 | 0 | 147 | 475 | 0 | 1248 |
| 11:00 AM | 308 | 0 | 0 | 4 | 0 | 0 | 90 | 266 | 0 | 668 |
| 11:15 AM | 305 | 0 | 0 | 3 | 0 | 0 | 96 | 267 | 0 | 671 |
| 11:30 AM | 322 | 0 | 0 | 4 | 0 | 0 | 63 | 223 | 0 | 612 |
| 11:45 AM | 332 | 0 | 0 | 2 | 0 | 0 | 65 | 232 | 0 | 631 |
| Total | 1267 | 0 | 0 | 13 | 0 | 0 | 314 | 988 | 0 | 2582 |
| 12:00 PM | 366 | 0 | 0 | 5 | 0 | 0 | 109 | 324 | 0 | 804 |
| 12:15 PM | 370 | 0 | 0 | 3 | 0 | 0 | 93 | 303 | 0 | 769 |
| 12:30 PM | 315 | 0 | 0 | 9 | 0 | 0 | 99 | 304 | 0 | 727 |
| 12:45 PM | 298 | 0 | 0 | 4 | 0 | 0 | 80 | 317 | 0 | 699 |
| Total | 1349 | 0 | 0 | 21 | 0 | 0 | 381 | 1248 | 0 | 2999 |
| 01:00 PM | 341 | 0 | 0 | 10 | 0 | 0 | 73 | 273 | 0 | 697 |
| 01:15 PM | 345 | 0 | 0 | 5 | 0 | 0 | 91 | 262 | 0 | 703 |
| Grand Total | 3918 | 0 | 0 | 59 | 0 | 0 | 1006 | 3246 | 0 | 8229 |
| Apprch % | 100 | 0 | 0 | 100 | 0 | 0 | 23.7 | 76.3 | 0 | |
| Total % | 47.6 | 0 | 0 | 0.7 | 0 | 0 | 12.2 | 39.4 | 0 | |
| Cars | 3851 | 0 | 0 | 57 | 0 | 0 | 995 | 3204 | 0 | 8107 |
| % Cars | 98.3 | 0 | 0 | 96.6 | 0 | 0 | 98.9 | 98.7 | 0 | 98.5 |
| Heavy Vehicles | 67 | 0 | 0 | 2 | 0 | 0 | 11 | 42 | 0 | 122 |
| % Heavy Vehicles | 1.7 | 0 | 0 | 3.4 | 0 | 0 | 1.1 | 1.3 | 0 | 1.5 |

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | |
| 12:00 PM | 366 | 0 | 0 | 366 | 5 | 0 | 0 | 5 | 109 | 324 | 0 | 433 | 804 |
| 12:15 PM | 370 | 0 | 0 | 370 | 3 | 0 | 0 | 3 | 93 | 303 | 0 | 396 | 769 |
| 12:30 PM | 315 | 0 | 0 | 315 | 9 | 0 | 0 | 9 | 99 | 304 | 0 | 403 | 727 |
| 12:45 PM | 298 | 0 | 0 | 298 | 4 | 0 | 0 | 4 | 80 | 317 | 0 | 397 | 699 |
| Total Volume | 1349 | 0 | 0 | 1349 | 21 | 0 | 0 | 21 | 381 | 1248 | 0 | 1629 | 2999 |
| % App. Total | 100 | 0 | 0 | | 100 | 0 | 0 | | 23.4 | 76.6 | 0 | | |
| PHF | .911 | .000 | .000 | .911 | .583 | .000 | .000 | .583 | .874 | .963 | .000 | .941 | .933 |
| Cars | 1318 | 0 | 0 | 1318 | 20 | 0 | 0 | 20 | 377 | 1233 | 0 | 1610 | 2948 |
| % Cars | 97.7 | 0 | 0 | 97.7 | 95.2 | 0 | 0 | 95.2 | 99.0 | 98.8 | 0 | 98.8 | 98.3 |
| Heavy Vehicles | 31 | 0 | 0 | 31 | 1 | 0 | 0 | 1 | 4 | 15 | 0 | 19 | 51 |
| % Heavy Vehicles | 2.3 | 0 | 0 | 2.3 | 4.8 | 0 | 0 | 4.8 | 1.0 | 1.2 | 0 | 1.2 | 1.7 |

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File Name : 165077 BBB
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars**

| | Lincoln Street (Route 3A) From East | | | Beal Street From South | | | Lincoln Street (Route 3A) From West | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | Right | Left | U-Turn | Right | Thru | U-Turn | Int. Total |
| 10:30 AM | 306 | 0 | 0 | 7 | 0 | 0 | 71 | 234 | 0 | 618 |
| 10:45 AM | 299 | 0 | 0 | 2 | 0 | 0 | 75 | 234 | 0 | 610 |
| Total | 605 | 0 | 0 | 9 | 0 | 0 | 146 | 468 | 0 | 1228 |
| 11:00 AM | 307 | 0 | 0 | 4 | 0 | 0 | 89 | 262 | 0 | 662 |
| 11:15 AM | 301 | 0 | 0 | 3 | 0 | 0 | 94 | 264 | 0 | 662 |
| 11:30 AM | 318 | 0 | 0 | 4 | 0 | 0 | 63 | 221 | 0 | 606 |
| 11:45 AM | 327 | 0 | 0 | 2 | 0 | 0 | 64 | 228 | 0 | 621 |
| Total | 1253 | 0 | 0 | 13 | 0 | 0 | 310 | 975 | 0 | 2551 |
| 12:00 PM | 356 | 0 | 0 | 4 | 0 | 0 | 107 | 320 | 0 | 787 |
| 12:15 PM | 361 | 0 | 0 | 3 | 0 | 0 | 93 | 299 | 0 | 756 |
| 12:30 PM | 309 | 0 | 0 | 9 | 0 | 0 | 98 | 301 | 0 | 717 |
| 12:45 PM | 292 | 0 | 0 | 4 | 0 | 0 | 79 | 313 | 0 | 688 |
| Total | 1318 | 0 | 0 | 20 | 0 | 0 | 377 | 1233 | 0 | 2948 |
| 01:00 PM | 333 | 0 | 0 | 10 | 0 | 0 | 72 | 271 | 0 | 686 |
| 01:15 PM | 342 | 0 | 0 | 5 | 0 | 0 | 90 | 257 | 0 | 694 |
| Grand Total | 3851 | 0 | 0 | 57 | 0 | 0 | 995 | 3204 | 0 | 8107 |
| Apprch % | 100 | 0 | 0 | 100 | 0 | 0 | 23.7 | 76.3 | 0 | |
| Total % | 47.5 | 0 | 0 | 0.7 | 0 | 0 | 12.3 | 39.5 | 0 | |

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | |
| 12:00 PM | 356 | 0 | 0 | 356 | 4 | 0 | 0 | 4 | 107 | 320 | 0 | 427 | 787 |
| 12:15 PM | 361 | 0 | 0 | 361 | 3 | 0 | 0 | 3 | 93 | 299 | 0 | 392 | 756 |
| 12:30 PM | 309 | 0 | 0 | 309 | 9 | 0 | 0 | 9 | 98 | 301 | 0 | 399 | 717 |
| 12:45 PM | 292 | 0 | 0 | 292 | 4 | 0 | 0 | 4 | 79 | 313 | 0 | 392 | 688 |
| Total Volume | 1318 | 0 | 0 | 1318 | 20 | 0 | 0 | 20 | 377 | 1233 | 0 | 1610 | 2948 |
| % App. Total | 100 | 0 | 0 | | 100 | 0 | 0 | | 23.4 | 76.6 | 0 | | |
| PHF | .913 | .000 | .000 | .913 | .556 | .000 | .000 | .556 | .881 | .963 | .000 | .943 | .936 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

S: Beal Street
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 BBB
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Lincoln Street (Route 3A) From East | | | Beal Street From South | | | Lincoln Street (Route 3A) From West | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | Right | Left | U-Turn | Right | Thru | U-Turn | Int. Total |
| 10:30 AM | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 10 |
| 10:45 AM | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 10 |
| Total | 11 | 0 | 0 | 1 | 0 | 0 | 1 | 7 | 0 | 20 |
| 11:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 6 |
| 11:15 AM | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 9 |
| 11:30 AM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 6 |
| 11:45 AM | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 10 |
| Total | 14 | 0 | 0 | 0 | 0 | 0 | 4 | 13 | 0 | 31 |
| 12:00 PM | 10 | 0 | 0 | 1 | 0 | 0 | 2 | 4 | 0 | 17 |
| 12:15 PM | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 13 |
| 12:30 PM | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 10 |
| 12:45 PM | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 11 |
| Total | 31 | 0 | 0 | 1 | 0 | 0 | 4 | 15 | 0 | 51 |
| 01:00 PM | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 11 |
| 01:15 PM | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 9 |
| Grand Total | 67 | 0 | 0 | 2 | 0 | 0 | 11 | 42 | 0 | 122 |
| Apprch % | 100 | 0 | 0 | 100 | 0 | 0 | 20.8 | 79.2 | 0 | |
| Total % | 54.9 | 0 | 0 | 1.6 | 0 | 0 | 9 | 34.4 | 0 | |

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | |
| 12:00 PM | 10 | 0 | 0 | 10 | 1 | 0 | 0 | 1 | 2 | 4 | 0 | 6 | 17 |
| 12:15 PM | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 13 |
| 12:30 PM | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 4 | 10 |
| 12:45 PM | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 5 | 11 |
| Total Volume | 31 | 0 | 0 | 31 | 1 | 0 | 0 | 1 | 4 | 15 | 0 | 19 | 51 |
| % App. Total | 100 | 0 | 0 | | 100 | 0 | 0 | | 21.1 | 78.9 | 0 | | |
| PHF | .775 | .000 | .000 | .775 | .250 | .000 | .000 | .250 | .500 | .938 | .000 | .792 | .750 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

S: Beal Street
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 BBB
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds SB | Peds NB | Right | Left | Peds WB | Peds EB | Right | Thru | Peds NB | Peds SB | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 12:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| Total | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 |
| 01:00 PM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:15 PM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Grand Total | 5 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 12 |
| Apprch % | 71.4 | 0 | 14.3 | 14.3 | 0 | 0 | 0 | 100 | 0 | 100 | 0 | 0 | |
| Total % | 41.7 | 0 | 8.3 | 8.3 | 0 | 0 | 0 | 8.3 | 0 | 33.3 | 0 | 0 | |

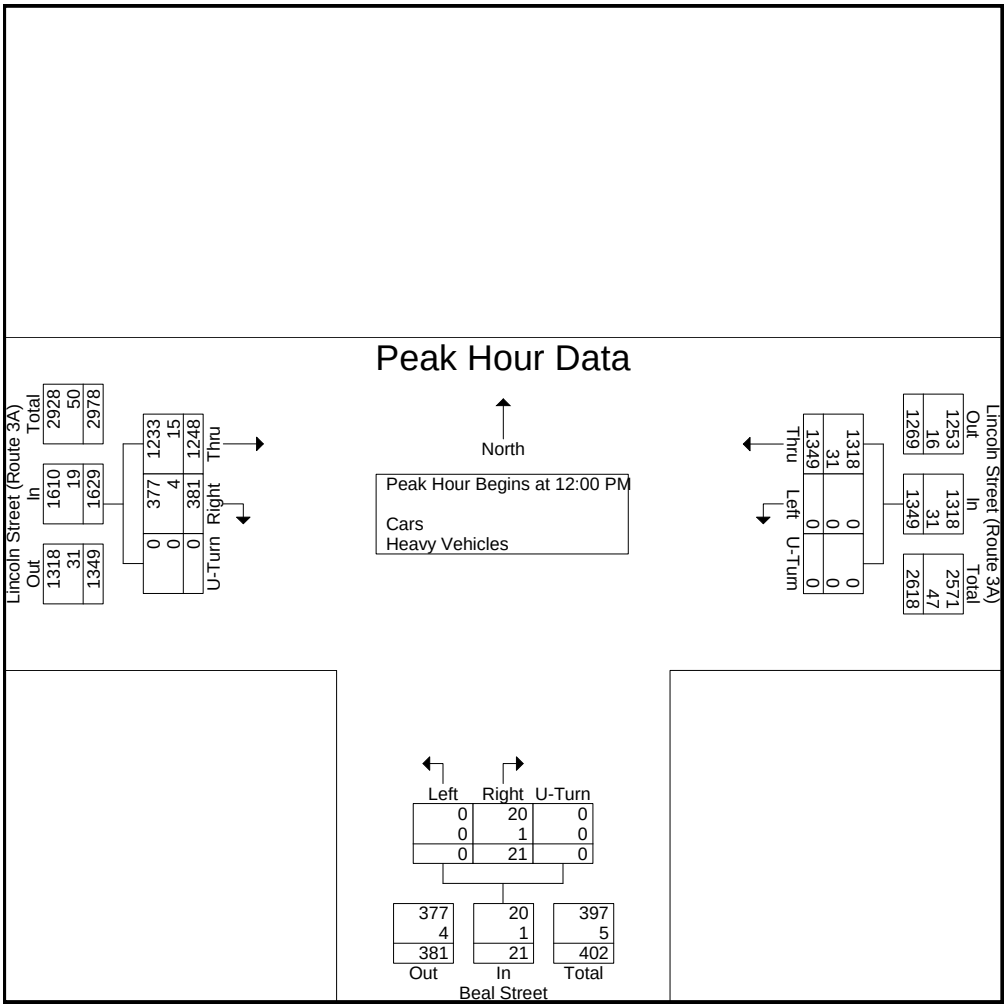
| | Lincoln Street (Route 3A) From East | | | | | Beal Street From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | Peds SB | Peds NB | App. Total | Right | Left | Peds WB | Peds EB | App. Total | Right | Thru | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:30 PM | | | | | | | | | | | | | | | | |
| 12:30 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 12:45 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 01:00 PM | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:15 PM | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total Volume | 5 | 0 | 1 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 9 |
| % App. Total | 71.4 | 0 | 14.3 | 14.3 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .625 | .000 | .250 | .250 | .583 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .000 | .500 | .750 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

S: Beal Street
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 BBB
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

| | Lincoln Street (Route 3A) From East | | | | Beal Street From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Left | U-Turn | App. Total | Right | Left | U-Turn | App. Total | Right | Thru | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | |
| 12:00 PM | 366 | 0 | 0 | 366 | 5 | 0 | 0 | 5 | 109 | 324 | 0 | 433 | 804 |
| 12:15 PM | 370 | 0 | 0 | 370 | 3 | 0 | 0 | 3 | 93 | 303 | 0 | 396 | 769 |
| 12:30 PM | 315 | 0 | 0 | 315 | 9 | 0 | 0 | 9 | 99 | 304 | 0 | 403 | 727 |
| 12:45 PM | 298 | 0 | 0 | 298 | 4 | 0 | 0 | 4 | 80 | 317 | 0 | 397 | 699 |
| Total Volume | 1349 | 0 | 0 | 1349 | 21 | 0 | 0 | 21 | 381 | 1248 | 0 | 1629 | 2999 |
| % App. Total | 100 | 0 | 0 | | 100 | 0 | 0 | | 23.4 | 76.6 | 0 | | |
| PHF | .911 | .000 | .000 | .911 | .583 | .000 | .000 | .583 | .874 | .963 | .000 | .941 | .933 |
| Cars | 1318 | 0 | 0 | 1318 | 20 | 0 | 0 | 20 | 377 | 1233 | 0 | 1610 | 2948 |
| % Cars | 97.7 | 0 | 0 | 97.7 | 95.2 | 0 | 0 | 95.2 | 99.0 | 98.8 | 0 | 98.8 | 98.3 |
| Heavy Vehicles | 31 | 0 | 0 | 31 | 1 | 0 | 0 | 1 | 4 | 15 | 0 | 19 | 51 |
| % Heavy Vehicles | 2.3 | 0 | 0 | 2.3 | 4.8 | 0 | 0 | 4.8 | 1.0 | 1.2 | 0 | 1.2 | 1.7 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Essington Drive/ Plaza Driveway
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 C
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Essington Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Plaza Driveway From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 8 | 1 | 0 | 0 | 0 | 318 | 6 | 0 | 5 | 1 | 31 | 0 | 2 | 93 | 9 | 0 | 474 |
| 07:15 AM | 7 | 0 | 0 | 0 | 2 | 354 | 1 | 0 | 3 | 1 | 26 | 0 | 3 | 114 | 6 | 0 | 517 |
| 07:30 AM | 6 | 2 | 0 | 0 | 2 | 339 | 4 | 0 | 2 | 1 | 24 | 0 | 5 | 153 | 16 | 0 | 554 |
| 07:45 AM | 8 | 0 | 1 | 0 | 1 | 344 | 5 | 0 | 2 | 4 | 25 | 0 | 4 | 148 | 6 | 0 | 548 |
| Total | 29 | 3 | 1 | 0 | 5 | 1355 | 16 | 0 | 12 | 7 | 106 | 0 | 14 | 508 | 37 | 0 | 2093 |
| 08:00 AM | 8 | 0 | 0 | 0 | 1 | 267 | 5 | 0 | 5 | 2 | 27 | 0 | 4 | 157 | 18 | 0 | 494 |
| 08:15 AM | 15 | 2 | 1 | 0 | 2 | 314 | 8 | 0 | 7 | 2 | 21 | 0 | 2 | 185 | 12 | 0 | 571 |
| 08:30 AM | 14 | 1 | 1 | 0 | 5 | 259 | 7 | 0 | 8 | 1 | 18 | 0 | 5 | 166 | 18 | 0 | 503 |
| 08:45 AM | 10 | 0 | 2 | 0 | 2 | 249 | 8 | 0 | 6 | 2 | 18 | 0 | 2 | 161 | 12 | 0 | 472 |
| Total | 47 | 3 | 4 | 0 | 10 | 1089 | 28 | 0 | 26 | 7 | 84 | 0 | 13 | 669 | 60 | 0 | 2040 |
| Grand Total | 76 | 6 | 5 | 0 | 15 | 2444 | 44 | 0 | 38 | 14 | 190 | 0 | 27 | 1177 | 97 | 0 | 4133 |
| Apprch % | 87.4 | 6.9 | 5.7 | 0 | 0.6 | 97.6 | 1.8 | 0 | 15.7 | 5.8 | 78.5 | 0 | 2.1 | 90.5 | 7.5 | 0 | |
| Total % | 1.8 | 0.1 | 0.1 | 0 | 0.4 | 59.1 | 1.1 | 0 | 0.9 | 0.3 | 4.6 | 0 | 0.7 | 28.5 | 2.3 | 0 | |
| Cars | 73 | 6 | 5 | 0 | 15 | 2395 | 42 | 0 | 36 | 14 | 189 | 0 | 24 | 1120 | 94 | 0 | 4013 |
| % Cars | 96.1 | 100 | 100 | 0 | 100 | 98 | 95.5 | 0 | 94.7 | 100 | 99.5 | 0 | 88.9 | 95.2 | 96.9 | 0 | 97.1 |
| Heavy Vehicles | 3 | 0 | 0 | 0 | 0 | 49 | 2 | 0 | 2 | 0 | 1 | 0 | 3 | 57 | 3 | 0 | 120 |
| % Heavy Vehicles | 3.9 | 0 | 0 | 0 | 0 | 2 | 4.5 | 0 | 5.3 | 0 | 0.5 | 0 | 11.1 | 4.8 | 3.1 | 0 | 2.9 |

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 6 | 2 | 0 | 0 | 8 | 2 | 339 | 4 | 0 | 345 | 2 | 1 | 24 | 0 | 27 | 5 | 153 | 16 | 0 | 174 | 554 |
| 07:45 AM | 8 | 0 | 1 | 0 | 9 | 1 | 344 | 5 | 0 | 350 | 2 | 4 | 25 | 0 | 31 | 4 | 148 | 6 | 0 | 158 | 548 |
| 08:00 AM | 8 | 0 | 0 | 0 | 8 | 1 | 267 | 5 | 0 | 273 | 5 | 2 | 27 | 0 | 34 | 4 | 157 | 18 | 0 | 179 | 494 |
| 08:15 AM | 15 | 2 | 1 | 0 | 18 | 2 | 314 | 8 | 0 | 324 | 7 | 2 | 21 | 0 | 30 | 2 | 185 | 12 | 0 | 199 | 571 |
| Total Volume | 37 | 4 | 2 | 0 | 43 | 6 | 1264 | 22 | 0 | 1292 | 16 | 9 | 97 | 0 | 122 | 15 | 643 | 52 | 0 | 710 | 2167 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .617 | .500 | .500 | .000 | .597 | .750 | .919 | .688 | .000 | .923 | .571 | .563 | .898 | .000 | .897 | .750 | .869 | .722 | .000 | .892 | .949 |
| Cars | 36 | 4 | 2 | 0 | 42 | 6 | 1242 | 21 | 0 | 1269 | 15 | 9 | 97 | 0 | 121 | 13 | 615 | 49 | 0 | 677 | 2109 |
| % Cars | 97.3 | 100 | 100 | 0 | 97.7 | 100 | 98.3 | 95.5 | 0 | 98.2 | 93.8 | 100 | 100 | 0 | 99.2 | 86.7 | 95.6 | 94.2 | 0 | 95.4 | 97.3 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 2.7 | 0 | 0 | 0 | 2.3 | 0 | 1.7 | 4.5 | 0 | 1.8 | 6.3 | 0 | 0 | 0 | 0.8 | 13.3 | 4.4 | 5.8 | 0 | 4.6 | 2.7 |

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Client: VHB/ E. Chan

File Name : 165077 C
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Essington Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Plaza Driveway From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 8 | 1 | 0 | 0 | 0 | 311 | 6 | 0 | 5 | 1 | 31 | 0 | 2 | 91 | 9 | 0 | 465 |
| 07:15 AM | 6 | 0 | 0 | 0 | 2 | 351 | 1 | 0 | 2 | 1 | 26 | 0 | 3 | 107 | 6 | 0 | 505 |
| 07:30 AM | 6 | 2 | 0 | 0 | 2 | 333 | 3 | 0 | 2 | 1 | 24 | 0 | 4 | 145 | 15 | 0 | 537 |
| 07:45 AM | 8 | 0 | 1 | 0 | 1 | 338 | 5 | 0 | 2 | 4 | 25 | 0 | 4 | 139 | 6 | 0 | 533 |
| Total | 28 | 3 | 1 | 0 | 5 | 1333 | 15 | 0 | 11 | 7 | 106 | 0 | 13 | 482 | 36 | 0 | 2040 |
| 08:00 AM | 8 | 0 | 0 | 0 | 1 | 260 | 5 | 0 | 4 | 2 | 27 | 0 | 4 | 150 | 16 | 0 | 477 |
| 08:15 AM | 14 | 2 | 1 | 0 | 2 | 311 | 8 | 0 | 7 | 2 | 21 | 0 | 1 | 181 | 12 | 0 | 562 |
| 08:30 AM | 14 | 1 | 1 | 0 | 5 | 251 | 6 | 0 | 8 | 1 | 18 | 0 | 4 | 155 | 18 | 0 | 482 |
| 08:45 AM | 9 | 0 | 2 | 0 | 2 | 240 | 8 | 0 | 6 | 2 | 17 | 0 | 2 | 152 | 12 | 0 | 452 |
| Total | 45 | 3 | 4 | 0 | 10 | 1062 | 27 | 0 | 25 | 7 | 83 | 0 | 11 | 638 | 58 | 0 | 1973 |
| Grand Total | 73 | 6 | 5 | 0 | 15 | 2395 | 42 | 0 | 36 | 14 | 189 | 0 | 24 | 1120 | 94 | 0 | 4013 |
| Apprch % | 86.9 | 7.1 | 6 | 0 | 0.6 | 97.7 | 1.7 | 0 | 15.1 | 5.9 | 79.1 | 0 | 1.9 | 90.5 | 7.6 | 0 | |
| Total % | 1.8 | 0.1 | 0.1 | 0 | 0.4 | 59.7 | 1 | 0 | 0.9 | 0.3 | 4.7 | 0 | 0.6 | 27.9 | 2.3 | 0 | |

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 6 | 2 | 0 | 0 | 8 | 2 | 333 | 3 | 0 | 338 | 2 | 1 | 24 | 0 | 27 | 4 | 145 | 15 | 0 | 164 | 537 |
| 07:45 AM | 8 | 0 | 1 | 0 | 9 | 1 | 338 | 5 | 0 | 344 | 2 | 4 | 25 | 0 | 31 | 4 | 139 | 6 | 0 | 149 | 533 |
| 08:00 AM | 8 | 0 | 0 | 0 | 8 | 1 | 260 | 5 | 0 | 266 | 4 | 2 | 27 | 0 | 33 | 4 | 150 | 16 | 0 | 170 | 477 |
| 08:15 AM | 14 | 2 | 1 | 0 | 17 | 2 | 311 | 8 | 0 | 321 | 7 | 2 | 21 | 0 | 30 | 1 | 181 | 12 | 0 | 194 | 562 |
| Total Volume | 36 | 4 | 2 | 0 | 42 | 6 | 1242 | 21 | 0 | 1269 | 15 | 9 | 97 | 0 | 121 | 13 | 615 | 49 | 0 | 677 | 2109 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .643 | .500 | .500 | .000 | .618 | .750 | .919 | .656 | .000 | .922 | .536 | .563 | .898 | .000 | .917 | .813 | .849 | .766 | .000 | .872 | .938 |

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Client: VHB/ E. Chan

File Name : 165077 C
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Essington Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Plaza Driveway From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 9 |
| 07:15 AM | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 12 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 1 | 0 | 17 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 15 |
| Total | 1 | 0 | 0 | 0 | 0 | 22 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 26 | 1 | 0 | 53 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 2 | 0 | 17 |
| 08:15 AM | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 9 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 0 | 0 | 21 |
| 08:45 AM | 1 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 0 | 0 | 20 |
| Total | 2 | 0 | 0 | 0 | 0 | 27 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 31 | 2 | 0 | 67 |
| Grand Total | 3 | 0 | 0 | 0 | 0 | 49 | 2 | 0 | 2 | 0 | 1 | 0 | 3 | 57 | 3 | 0 | 120 |
| Apprch % | 100 | 0 | 0 | 0 | 0 | 96.1 | 3.9 | 0 | 66.7 | 0 | 33.3 | 0 | 4.8 | 90.5 | 4.8 | 0 | |
| Total % | 2.5 | 0 | 0 | 0 | 0 | 40.8 | 1.7 | 0 | 1.7 | 0 | 0.8 | 0 | 2.5 | 47.5 | 2.5 | 0 | |

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 0 | 7 | 2 | 0 | 9 | 17 |
| 08:15 AM | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 5 | 9 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 0 | 0 | 12 | 21 |
| 08:45 AM | 1 | 0 | 0 | 0 | 1 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 1 | 0 | 1 | 0 | 9 | 0 | 0 | 9 | 20 |
| Total Volume | 2 | 0 | 0 | 0 | 2 | 0 | 27 | 1 | 0 | 28 | 1 | 0 | 1 | 0 | 2 | 2 | 31 | 2 | 0 | 35 | 67 |
| % App. Total | 100 | 0 | 0 | 0 | | 0 | 96.4 | 3.6 | 0 | | 50 | 0 | 50 | 0 | | 5.7 | 88.6 | 5.7 | 0 | | |
| PHF | .500 | .000 | .000 | .000 | .500 | .000 | .750 | .250 | .000 | .778 | .250 | .000 | .250 | .000 | .500 | .500 | .705 | .250 | .000 | .729 | .798 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Essington Drive/ Plaza Driveway
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 C
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| 07:45 AM | 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 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:45 AM | 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 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Grand Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 9 |
| Apprch % | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 16.7 | 83.3 | 0 | 100 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 11.1 | 0 | 0 | 0 | 11.1 | 55.6 | 0 | 11.1 | 0 | 0 | 0 | 0 | 11.1 | 0 | 0 | 0 | |

| | Essington Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Plaza Driveway From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 3 |
| 07:45 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 |
| 08:00 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 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 6 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 100 | | 0 | 100 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .333 | .333 | .000 | .250 | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .000 | .000 | .250 | .500 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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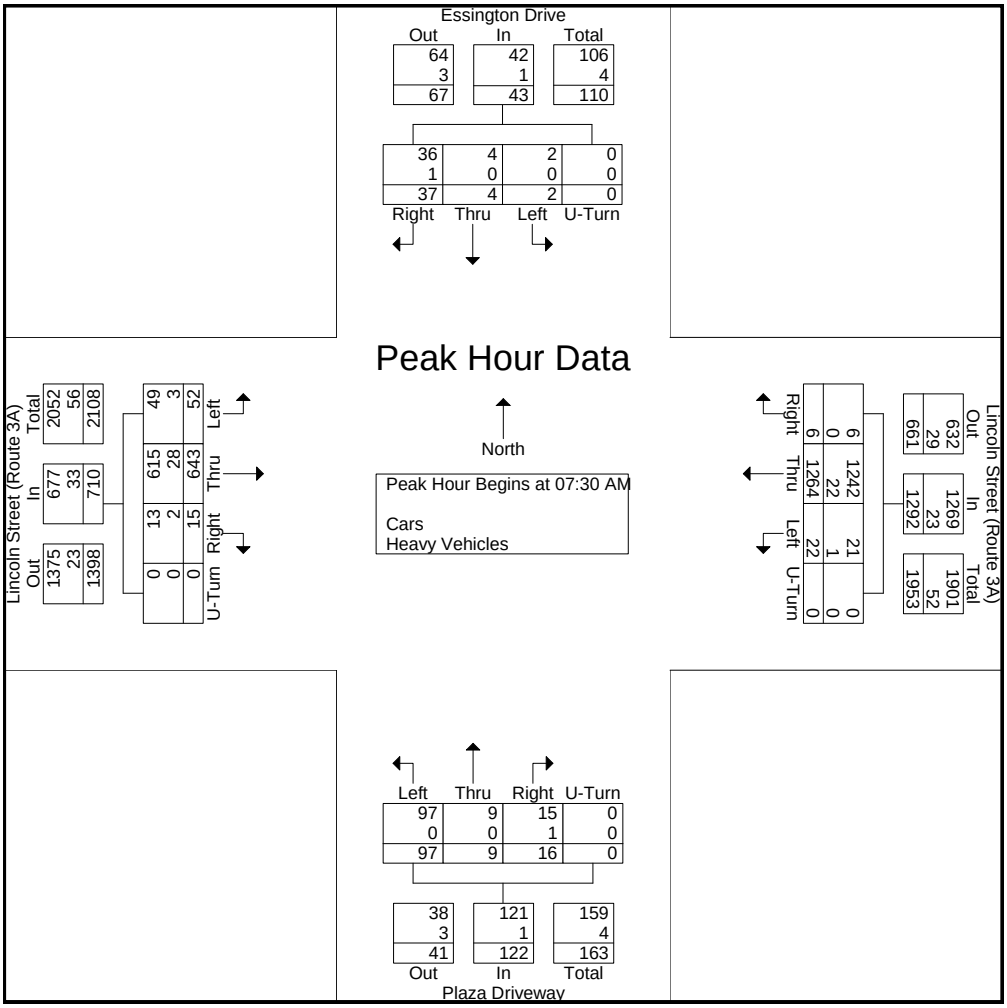
| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 6 | 2 | 0 | 0 | 8 | 2 | 339 | 4 | 0 | 345 | 2 | 1 | 24 | 0 | 27 | 5 | 153 | 16 | 0 | 174 | 554 |
| 07:45 AM | 8 | 0 | 1 | 0 | 9 | 1 | 344 | 5 | 0 | 350 | 2 | 4 | 25 | 0 | 31 | 4 | 148 | 6 | 0 | 158 | 548 |
| 08:00 AM | 8 | 0 | 0 | 0 | 8 | 1 | 267 | 5 | 0 | 273 | 5 | 2 | 27 | 0 | 34 | 4 | 157 | 18 | 0 | 179 | 494 |
| 08:15 AM | 15 | 2 | 1 | 0 | 18 | 2 | 314 | 8 | 0 | 324 | 7 | 2 | 21 | 0 | 30 | 2 | 185 | 12 | 0 | 199 | 571 |
| Total Volume | 37 | 4 | 2 | 0 | 43 | 6 | 1264 | 22 | 0 | 1292 | 16 | 9 | 97 | 0 | 122 | 15 | 643 | 52 | 0 | 710 | 2167 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .617 | .500 | .500 | .000 | .597 | .750 | .919 | .688 | .000 | .923 | .571 | .563 | .898 | .000 | .897 | .750 | .869 | .722 | .000 | .892 | .949 |
| Cars | 36 | 4 | 2 | 0 | 42 | 6 | 1242 | 21 | 0 | 1269 | 15 | 9 | 97 | 0 | 121 | 13 | 615 | 49 | 0 | 677 | 2109 |
| % Cars | 97.3 | 100 | 100 | 0 | 97.7 | 100 | 98.3 | 95.5 | 0 | 98.2 | 93.8 | 100 | 100 | 0 | 99.2 | 86.7 | 95.6 | 94.2 | 0 | 95.4 | 97.3 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 2.7 | 0 | 0 | 0 | 2.3 | 0 | 1.7 | 4.5 | 0 | 1.8 | 6.3 | 0 | 0 | 0 | 0.8 | 13.3 | 4.4 | 5.8 | 0 | 4.6 | 2.7 |



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Office: 508-875-0100 Fax: 508-875-0118
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City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 CC
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Essington Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Plaza Driveway From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 28 | 9 | 3 | 0 | 7 | 224 | 10 | 0 | 28 | 4 | 46 | 0 | 10 | 228 | 31 | 2 | 630 |
| 04:15 PM | 22 | 5 | 6 | 0 | 9 | 219 | 24 | 0 | 30 | 6 | 24 | 0 | 17 | 212 | 36 | 0 | 610 |
| 04:30 PM | 25 | 11 | 5 | 0 | 8 | 219 | 19 | 0 | 24 | 9 | 45 | 0 | 17 | 239 | 28 | 1 | 650 |
| 04:45 PM | 27 | 4 | 2 | 0 | 5 | 214 | 22 | 0 | 29 | 6 | 40 | 0 | 14 | 254 | 42 | 1 | 660 |
| Total | 102 | 29 | 16 | 0 | 29 | 876 | 75 | 0 | 111 | 25 | 155 | 0 | 58 | 933 | 137 | 4 | 2550 |
| 05:00 PM | 29 | 7 | 8 | 0 | 5 | 267 | 19 | 0 | 28 | 6 | 38 | 0 | 9 | 244 | 32 | 0 | 692 |
| 05:15 PM | 27 | 8 | 2 | 0 | 4 | 268 | 24 | 0 | 27 | 8 | 40 | 0 | 7 | 274 | 32 | 0 | 721 |
| 05:30 PM | 29 | 8 | 3 | 0 | 2 | 236 | 30 | 0 | 27 | 6 | 40 | 0 | 15 | 248 | 26 | 1 | 671 |
| 05:45 PM | 31 | 15 | 6 | 0 | 3 | 212 | 14 | 0 | 18 | 6 | 45 | 0 | 11 | 232 | 22 | 0 | 615 |
| Total | 116 | 38 | 19 | 0 | 14 | 983 | 87 | 0 | 100 | 26 | 163 | 0 | 42 | 998 | 112 | 1 | 2699 |
| Grand Total | 218 | 67 | 35 | 0 | 43 | 1859 | 162 | 0 | 211 | 51 | 318 | 0 | 100 | 1931 | 249 | 5 | 5249 |
| Apprch % | 68.1 | 20.9 | 10.9 | 0 | 2.1 | 90.1 | 7.8 | 0 | 36.4 | 8.8 | 54.8 | 0 | 4.4 | 84.5 | 10.9 | 0.2 | |
| Total % | 4.2 | 1.3 | 0.7 | 0 | 0.8 | 35.4 | 3.1 | 0 | 4 | 1 | 6.1 | 0 | 1.9 | 36.8 | 4.7 | 0.1 | |
| Cars | 217 | 66 | 35 | 0 | 43 | 1826 | 162 | 0 | 211 | 50 | 318 | 0 | 100 | 1913 | 248 | 5 | 5194 |
| % Cars | 99.5 | 98.5 | 100 | 0 | 100 | 98.2 | 100 | 0 | 100 | 98 | 100 | 0 | 100 | 99.1 | 99.6 | 100 | 99 |
| Heavy Vehicles | 1 | 1 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 18 | 1 | 0 | 55 |
| % Heavy Vehicles | 0.5 | 1.5 | 0 | 0 | 0 | 1.8 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0.9 | 0.4 | 0 | 1 |

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:45 PM | 27 | 4 | 2 | 0 | 33 | 5 | 214 | 22 | 0 | 241 | 29 | 6 | 40 | 0 | 75 | 14 | 254 | 42 | 1 | 311 | 660 |
| 05:00 PM | 29 | 7 | 8 | 0 | 44 | 5 | 267 | 19 | 0 | 291 | 28 | 6 | 38 | 0 | 72 | 9 | 244 | 32 | 0 | 285 | 692 |
| 05:15 PM | 27 | 8 | 2 | 0 | 37 | 4 | 268 | 24 | 0 | 296 | 27 | 8 | 40 | 0 | 75 | 7 | 274 | 32 | 0 | 313 | 721 |
| 05:30 PM | 29 | 8 | 3 | 0 | 40 | 2 | 236 | 30 | 0 | 268 | 27 | 6 | 40 | 0 | 73 | 15 | 248 | 26 | 1 | 290 | 671 |
| Total Volume | 112 | 27 | 15 | 0 | 154 | 16 | 985 | 95 | 0 | 1096 | 111 | 26 | 158 | 0 | 295 | 45 | 1020 | 132 | 2 | 1199 | 2744 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .966 | .844 | .469 | .000 | .875 | .800 | .919 | .792 | .000 | .926 | .957 | .813 | .988 | .000 | .983 | .750 | .931 | .786 | .500 | .958 | .951 |
| Cars | 112 | 27 | 15 | 0 | 154 | 16 | 965 | 95 | 0 | 1076 | 111 | 26 | 158 | 0 | 295 | 45 | 1015 | 132 | 2 | 1194 | 2719 |
| % Cars | 100 | 100 | 100 | 0 | 100 | 100 | 98.0 | 100 | 0 | 98.2 | 100 | 100 | 100 | 0 | 100 | 100 | 99.5 | 100 | 100 | 99.6 | 99.1 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 2.0 | 0 | 0 | 1.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 | 0.4 | 0.9 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 CC
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Essington Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Plaza Driveway From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 28 | 9 | 3 | 0 | 7 | 221 | 10 | 0 | 28 | 4 | 46 | 0 | 10 | 225 | 30 | 2 | 623 |
| 04:15 PM | 22 | 5 | 6 | 0 | 9 | 216 | 24 | 0 | 30 | 6 | 24 | 0 | 17 | 207 | 36 | 0 | 602 |
| 04:30 PM | 24 | 11 | 5 | 0 | 8 | 217 | 19 | 0 | 24 | 9 | 45 | 0 | 17 | 237 | 28 | 1 | 645 |
| 04:45 PM | 27 | 4 | 2 | 0 | 5 | 208 | 22 | 0 | 29 | 6 | 40 | 0 | 14 | 252 | 42 | 1 | 652 |
| Total | 101 | 29 | 16 | 0 | 29 | 862 | 75 | 0 | 111 | 25 | 155 | 0 | 58 | 921 | 136 | 4 | 2522 |
| 05:00 PM | 29 | 7 | 8 | 0 | 5 | 262 | 19 | 0 | 28 | 6 | 38 | 0 | 9 | 243 | 32 | 0 | 686 |
| 05:15 PM | 27 | 8 | 2 | 0 | 4 | 262 | 24 | 0 | 27 | 8 | 40 | 0 | 7 | 273 | 32 | 0 | 714 |
| 05:30 PM | 29 | 8 | 3 | 0 | 2 | 233 | 30 | 0 | 27 | 6 | 40 | 0 | 15 | 247 | 26 | 1 | 667 |
| 05:45 PM | 31 | 14 | 6 | 0 | 3 | 207 | 14 | 0 | 18 | 5 | 45 | 0 | 11 | 229 | 22 | 0 | 605 |
| Total | 116 | 37 | 19 | 0 | 14 | 964 | 87 | 0 | 100 | 25 | 163 | 0 | 42 | 992 | 112 | 1 | 2672 |
| Grand Total | 217 | 66 | 35 | 0 | 43 | 1826 | 162 | 0 | 211 | 50 | 318 | 0 | 100 | 1913 | 248 | 5 | 5194 |
| Apprch % | 68.2 | 20.8 | 11 | 0 | 2.1 | 89.9 | 8 | 0 | 36.4 | 8.6 | 54.9 | 0 | 4.4 | 84.4 | 10.9 | 0.2 | |
| Total % | 4.2 | 1.3 | 0.7 | 0 | 0.8 | 35.2 | 3.1 | 0 | 4.1 | 1 | 6.1 | 0 | 1.9 | 36.8 | 4.8 | 0.1 | |

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:45 PM | 27 | 4 | 2 | 0 | 33 | 5 | 208 | 22 | 0 | 235 | 29 | 6 | 40 | 0 | 75 | 14 | 252 | 42 | 1 | 309 | 652 |
| 05:00 PM | 29 | 7 | 8 | 0 | 44 | 5 | 262 | 19 | 0 | 286 | 28 | 6 | 38 | 0 | 72 | 9 | 243 | 32 | 0 | 284 | 686 |
| 05:15 PM | 27 | 8 | 2 | 0 | 37 | 4 | 262 | 24 | 0 | 290 | 27 | 8 | 40 | 0 | 75 | 7 | 273 | 32 | 0 | 312 | 714 |
| 05:30 PM | 29 | 8 | 3 | 0 | 40 | 2 | 233 | 30 | 0 | 265 | 27 | 6 | 40 | 0 | 73 | 15 | 247 | 26 | 1 | 289 | 667 |
| Total Volume | 112 | 27 | 15 | 0 | 154 | 16 | 965 | 95 | 0 | 1076 | 111 | 26 | 158 | 0 | 295 | 45 | 1015 | 132 | 2 | 1194 | 2719 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .966 | .844 | .469 | .000 | .875 | .800 | .921 | .792 | .000 | .928 | .957 | .813 | .988 | .000 | .983 | .750 | .929 | .786 | .500 | .957 | .952 |

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Client: VHB/ E. Chan

File Name : 165077 CC
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Essington Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Plaza Driveway From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 7 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 8 |
| 04:30 PM | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 8 |
| Total | 1 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 0 | 28 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 05:45 PM | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 10 |
| Total | 0 | 1 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 27 |
| Grand Total | 1 | 1 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 18 | 1 | 0 | 55 |
| Apprch % | 50 | 50 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 94.7 | 5.3 | 0 | |
| Total % | 1.8 | 1.8 | 0 | 0 | 0 | 60 | 0 | 0 | 0 | 1.8 | 0 | 0 | 0 | 32.7 | 1.8 | 0 | |

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 4 | 7 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 8 |
| 04:30 PM | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 5 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 8 |
| Total Volume | 1 | 0 | 0 | 0 | 1 | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 0 | 13 | 28 |
| % App. Total | 100 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 92.3 | 7.7 | 0 | | |
| PHF | .250 | .000 | .000 | .000 | .250 | .000 | .583 | .000 | .000 | .583 | .000 | .000 | .000 | .000 | .000 | .000 | .600 | .250 | .000 | .650 | .875 |

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**Groups Printed- Peds and Bikes**

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 6 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 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 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Grand Total | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 9 |
| Apprch % | 0 | 0 | 0 | 50 | 50 | 0 | 20 | 0 | 0 | 80 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 100 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 11.1 | 11.1 | 0 | 11.1 | 0 | 0 | 44.4 | 0 | 0 | 0 | 0 | 11.1 | 0 | 0 | 11.1 | 0 | 0 | |

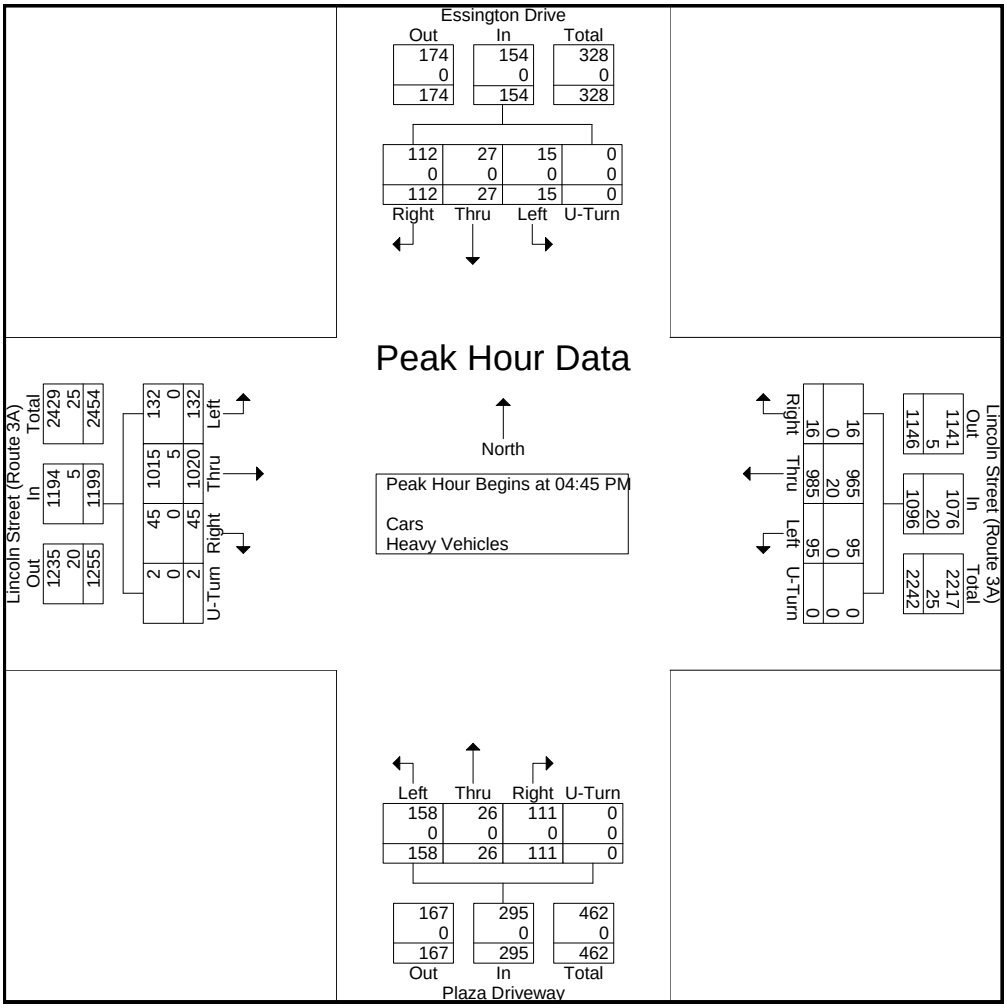
| | Essington Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Plaza Driveway From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:30 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:45 PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Volume | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| % App. Total | 0 | 0 | 0 | 50 | 50 | | 0 | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .250 | .250 | .500 | .000 | .000 | .000 | .000 | .500 | .500 | .000 | .000 | .000 | .000 | .250 | .250 | .000 | .000 | .000 | .000 | .000 | .000 | .583 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Essington Drive/ Plaza Driveway
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 CC
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:45 PM | 27 | 4 | 2 | 0 | 33 | 5 | 214 | 22 | 0 | 241 | 29 | 6 | 40 | 0 | 75 | 14 | 254 | 42 | 1 | 311 | 660 |
| 05:00 PM | 29 | 7 | 8 | 0 | 44 | 5 | 267 | 19 | 0 | 291 | 28 | 6 | 38 | 0 | 72 | 9 | 244 | 32 | 0 | 285 | 692 |
| 05:15 PM | 27 | 8 | 2 | 0 | 37 | 4 | 268 | 24 | 0 | 296 | 27 | 8 | 40 | 0 | 75 | 7 | 274 | 32 | 0 | 313 | 721 |
| 05:30 PM | 29 | 8 | 3 | 0 | 40 | 2 | 236 | 30 | 0 | 268 | 27 | 6 | 40 | 0 | 73 | 15 | 248 | 26 | 1 | 290 | 671 |
| Total Volume | 112 | 27 | 15 | 0 | 154 | 16 | 985 | 95 | 0 | 1096 | 111 | 26 | 158 | 0 | 295 | 45 | 1020 | 132 | 2 | 1199 | 2744 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .966 | .844 | .469 | .000 | .875 | .800 | .919 | .792 | .000 | .926 | .957 | .813 | .988 | .000 | .983 | .750 | .931 | .786 | .500 | .958 | .951 |
| Cars | 112 | 27 | 15 | 0 | 154 | 16 | 965 | 95 | 0 | 1076 | 111 | 26 | 158 | 0 | 295 | 45 | 1015 | 132 | 2 | 1194 | 2719 |
| % Cars | 100 | 100 | 100 | 0 | 100 | 100 | 98.0 | 100 | 0 | 98.2 | 100 | 100 | 100 | 0 | 100 | 100 | 99.5 | 100 | 100 | 99.6 | 99.1 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 2.0 | 0 | 0 | 1.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 | 0.4 | 0.9 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 CCC
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Essington Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Plaza Driveway From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 35 | 7 | 3 | 0 | 4 | 221 | 21 | 1 | 22 | 2 | 48 | 0 | 14 | 199 | 29 | 5 | 611 |
| 10:45 AM | 36 | 6 | 2 | 0 | 11 | 220 | 24 | 0 | 22 | 7 | 43 | 0 | 14 | 196 | 30 | 1 | 612 |
| Total | 71 | 13 | 5 | 0 | 15 | 441 | 45 | 1 | 44 | 9 | 91 | 0 | 28 | 395 | 59 | 6 | 1223 |
| 11:00 AM | 32 | 2 | 1 | 0 | 7 | 233 | 21 | 0 | 20 | 8 | 45 | 0 | 14 | 222 | 37 | 0 | 642 |
| 11:15 AM | 28 | 6 | 3 | 0 | 8 | 220 | 20 | 1 | 16 | 6 | 56 | 0 | 16 | 221 | 34 | 2 | 637 |
| 11:30 AM | 33 | 7 | 4 | 0 | 8 | 243 | 19 | 0 | 26 | 9 | 43 | 0 | 14 | 185 | 30 | 0 | 621 |
| 11:45 AM | 32 | 6 | 1 | 0 | 2 | 257 | 21 | 0 | 28 | 6 | 37 | 0 | 14 | 171 | 40 | 1 | 616 |
| Total | 125 | 21 | 9 | 0 | 25 | 953 | 81 | 1 | 90 | 29 | 181 | 0 | 58 | 799 | 141 | 3 | 2516 |
| 12:00 PM | 32 | 6 | 1 | 0 | 5 | 260 | 29 | 0 | 14 | 9 | 42 | 0 | 9 | 267 | 48 | 1 | 723 |
| 12:15 PM | 29 | 0 | 5 | 0 | 4 | 268 | 21 | 1 | 23 | 9 | 58 | 0 | 17 | 256 | 49 | 1 | 741 |
| 12:30 PM | 44 | 5 | 5 | 0 | 7 | 231 | 21 | 0 | 19 | 8 | 43 | 0 | 17 | 249 | 43 | 0 | 692 |
| 12:45 PM | 31 | 5 | 2 | 0 | 4 | 238 | 32 | 0 | 22 | 11 | 34 | 0 | 16 | 249 | 42 | 1 | 687 |
| Total | 136 | 16 | 13 | 0 | 20 | 997 | 103 | 1 | 78 | 37 | 177 | 0 | 59 | 1021 | 182 | 3 | 2843 |
| 01:00 PM | 51 | 3 | 6 | 0 | 6 | 245 | 35 | 0 | 24 | 7 | 54 | 0 | 14 | 221 | 50 | 1 | 717 |
| 01:15 PM | 41 | 17 | 3 | 0 | 4 | 280 | 14 | 0 | 19 | 5 | 39 | 0 | 14 | 215 | 49 | 1 | 701 |
| Grand Total | 424 | 70 | 36 | 0 | 70 | 2916 | 278 | 3 | 255 | 87 | 542 | 0 | 173 | 2651 | 481 | 14 | 8000 |
| Apprch % | 80 | 13.2 | 6.8 | 0 | 2.1 | 89.3 | 8.5 | 0.1 | 28.8 | 9.8 | 61.3 | 0 | 5.2 | 79.9 | 14.5 | 0.4 | |
| Total % | 5.3 | 0.9 | 0.4 | 0 | 0.9 | 36.5 | 3.5 | 0 | 3.2 | 1.1 | 6.8 | 0 | 2.2 | 33.1 | 6 | 0.2 | |
| Cars | 418 | 70 | 36 | 0 | 70 | 2865 | 276 | 3 | 254 | 87 | 537 | 0 | 171 | 2611 | 477 | 14 | 7889 |
| % Cars | 98.6 | 100 | 100 | 0 | 100 | 98.3 | 99.3 | 100 | 99.6 | 100 | 99.1 | 0 | 98.8 | 98.5 | 99.2 | 100 | 98.6 |
| Heavy Vehicles | 6 | 0 | 0 | 0 | 0 | 51 | 2 | 0 | 1 | 0 | 5 | 0 | 2 | 40 | 4 | 0 | 111 |
| % Heavy Vehicles | 1.4 | 0 | 0 | 0 | 0 | 1.7 | 0.7 | 0 | 0.4 | 0 | 0.9 | 0 | 1.2 | 1.5 | 0.8 | 0 | 1.4 |

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 32 | 6 | 1 | 0 | 39 | 5 | 260 | 29 | 0 | 294 | 14 | 9 | 42 | 0 | 65 | 9 | 267 | 48 | 1 | 325 | 723 |
| 12:15 PM | 29 | 0 | 5 | 0 | 34 | 4 | 268 | 21 | 1 | 294 | 23 | 9 | 58 | 0 | 90 | 17 | 256 | 49 | 1 | 323 | 741 |
| 12:30 PM | 44 | 5 | 5 | 0 | 54 | 7 | 231 | 21 | 0 | 259 | 19 | 8 | 43 | 0 | 70 | 17 | 249 | 43 | 0 | 309 | 692 |
| 12:45 PM | 31 | 5 | 2 | 0 | 38 | 4 | 238 | 32 | 0 | 274 | 22 | 11 | 34 | 0 | 67 | 16 | 249 | 42 | 1 | 308 | 687 |
| Total Volume | 136 | 16 | 13 | 0 | 165 | 20 | 997 | 103 | 1 | 1121 | 78 | 37 | 177 | 0 | 292 | 59 | 1021 | 182 | 3 | 1265 | 2843 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .773 | .667 | .650 | .000 | .764 | .714 | .930 | .805 | .250 | .953 | .848 | .841 | .763 | .000 | .811 | .868 | .956 | .929 | .750 | .973 | .959 |
| Cars | 133 | 16 | 13 | 0 | 162 | 20 | 973 | 102 | 1 | 1096 | 77 | 37 | 176 | 0 | 290 | 59 | 1008 | 181 | 3 | 1251 | 2799 |
| % Cars | 97.8 | 100 | 100 | 0 | 98.2 | 100 | 97.6 | 99.0 | 100 | 97.8 | 98.7 | 100 | 99.4 | 0 | 99.3 | 100 | 98.7 | 99.5 | 100 | 98.9 | 98.5 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 2.2 | 0 | 0 | 0 | 1.8 | 0 | 2.4 | 1.0 | 0 | 2.2 | 1.3 | 0 | 0.6 | 0 | 0.7 | 0 | 1.3 | 0.5 | 0 | 1.1 | 1.5 |

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

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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 CCC
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars**

| | Essington Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Plaza Driveway From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 34 | 7 | 3 | 0 | 4 | 217 | 21 | 1 | 22 | 2 | 48 | 0 | 13 | 196 | 27 | 5 | 600 |
| 10:45 AM | 35 | 6 | 2 | 0 | 11 | 216 | 24 | 0 | 22 | 7 | 42 | 0 | 14 | 195 | 29 | 1 | 604 |
| Total | 69 | 13 | 5 | 0 | 15 | 433 | 45 | 1 | 44 | 9 | 90 | 0 | 27 | 391 | 56 | 6 | 1204 |
| 11:00 AM | 32 | 2 | 1 | 0 | 7 | 232 | 21 | 0 | 20 | 8 | 45 | 0 | 14 | 218 | 37 | 0 | 637 |
| 11:15 AM | 27 | 6 | 3 | 0 | 8 | 217 | 20 | 1 | 16 | 6 | 56 | 0 | 16 | 217 | 34 | 2 | 629 |
| 11:30 AM | 33 | 7 | 4 | 0 | 8 | 240 | 19 | 0 | 26 | 9 | 43 | 0 | 14 | 183 | 30 | 0 | 616 |
| 11:45 AM | 32 | 6 | 1 | 0 | 2 | 254 | 21 | 0 | 28 | 6 | 35 | 0 | 14 | 166 | 40 | 1 | 606 |
| Total | 124 | 21 | 9 | 0 | 25 | 943 | 81 | 1 | 90 | 29 | 179 | 0 | 58 | 784 | 141 | 3 | 2488 |
| 12:00 PM | 32 | 6 | 1 | 0 | 5 | 252 | 29 | 0 | 14 | 9 | 42 | 0 | 9 | 262 | 48 | 1 | 710 |
| 12:15 PM | 26 | 0 | 5 | 0 | 4 | 262 | 20 | 1 | 22 | 9 | 58 | 0 | 17 | 252 | 48 | 1 | 725 |
| 12:30 PM | 44 | 5 | 5 | 0 | 7 | 225 | 21 | 0 | 19 | 8 | 43 | 0 | 17 | 247 | 43 | 0 | 684 |
| 12:45 PM | 31 | 5 | 2 | 0 | 4 | 234 | 32 | 0 | 22 | 11 | 33 | 0 | 16 | 247 | 42 | 1 | 680 |
| Total | 133 | 16 | 13 | 0 | 20 | 973 | 102 | 1 | 77 | 37 | 176 | 0 | 59 | 1008 | 181 | 3 | 2799 |
| 01:00 PM | 51 | 3 | 6 | 0 | 6 | 239 | 34 | 0 | 24 | 7 | 53 | 0 | 14 | 217 | 50 | 1 | 705 |
| 01:15 PM | 41 | 17 | 3 | 0 | 4 | 277 | 14 | 0 | 19 | 5 | 39 | 0 | 13 | 211 | 49 | 1 | 693 |
| Grand Total | 418 | 70 | 36 | 0 | 70 | 2865 | 276 | 3 | 254 | 87 | 537 | 0 | 171 | 2611 | 477 | 14 | 7889 |
| Apprch % | 79.8 | 13.4 | 6.9 | 0 | 2.2 | 89.1 | 8.6 | 0.1 | 28.9 | 9.9 | 61.2 | 0 | 5.2 | 79.8 | 14.6 | 0.4 | |
| Total % | 5.3 | 0.9 | 0.5 | 0 | 0.9 | 36.3 | 3.5 | 0 | 3.2 | 1.1 | 6.8 | 0 | 2.2 | 33.1 | 6 | 0.2 | |

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 32 | 6 | 1 | 0 | 39 | 5 | 252 | 29 | 0 | 286 | 14 | 9 | 42 | 0 | 65 | 9 | 262 | 48 | 1 | 320 | 710 |
| 12:15 PM | 26 | 0 | 5 | 0 | 31 | 4 | 262 | 20 | 1 | 287 | 22 | 9 | 58 | 0 | 89 | 17 | 252 | 48 | 1 | 318 | 725 |
| 12:30 PM | 44 | 5 | 5 | 0 | 54 | 7 | 225 | 21 | 0 | 253 | 19 | 8 | 43 | 0 | 70 | 17 | 247 | 43 | 0 | 307 | 684 |
| 12:45 PM | 31 | 5 | 2 | 0 | 38 | 4 | 234 | 32 | 0 | 270 | 22 | 11 | 33 | 0 | 66 | 16 | 247 | 42 | 1 | 306 | 680 |
| Total Volume | 133 | 16 | 13 | 0 | 162 | 20 | 973 | 102 | 1 | 1096 | 77 | 37 | 176 | 0 | 290 | 59 | 1008 | 181 | 3 | 1251 | 2799 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .756 | .667 | .650 | .000 | .750 | .714 | .928 | .797 | .250 | .955 | .875 | .841 | .759 | .000 | .815 | .868 | .962 | .943 | .750 | .977 | .965 |

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Client: VHB/ E. Chan

File Name : 165077 CCC
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Essington Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Plaza Driveway From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 0 | 11 |
| 10:45 AM | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 8 |
| Total | 2 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 4 | 3 | 0 | 19 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 5 |
| 11:15 AM | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 8 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 | 0 | 0 | 10 |
| Total | 1 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 15 | 0 | 0 | 28 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 13 |
| 12:15 PM | 3 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 16 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 8 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 7 |
| Total | 3 | 0 | 0 | 0 | 0 | 24 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 13 | 1 | 0 | 44 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 12 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 8 |
| Grand Total | 6 | 0 | 0 | 0 | 0 | 51 | 2 | 0 | 1 | 0 | 5 | 0 | 2 | 40 | 4 | 0 | 111 |
| Apprch % | 100 | 0 | 0 | 0 | 0 | 96.2 | 3.8 | 0 | 16.7 | 0 | 83.3 | 0 | 4.3 | 87 | 8.7 | 0 | |
| Total % | 5.4 | 0 | 0 | 0 | 0 | 45.9 | 1.8 | 0 | 0.9 | 0 | 4.5 | 0 | 1.8 | 36 | 3.6 | 0 | |

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 11:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 2 | 0 | 5 | 0 | 0 | 5 | 10 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 13 |
| 12:15 PM | 3 | 0 | 0 | 0 | 3 | 0 | 6 | 1 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 0 | 4 | 1 | 0 | 5 | 16 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 8 |
| Total Volume | 3 | 0 | 0 | 0 | 3 | 0 | 23 | 1 | 0 | 24 | 1 | 0 | 2 | 0 | 3 | 0 | 16 | 1 | 0 | 17 | 47 |
| % App. Total | 100 | 0 | 0 | 0 | | 0 | 95.8 | 4.2 | 0 | | 33.3 | 0 | 66.7 | 0 | | 0 | 94.1 | 5.9 | 0 | | |
| PHF | .250 | .000 | .000 | .000 | .250 | .000 | .719 | .250 | .000 | .750 | .250 | .000 | .250 | .000 | .375 | .000 | .800 | .250 | .000 | .850 | .734 |

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Client: VHB/ E. Chan

File Name : 165077 CCC
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:45 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 |
| Total | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| 12:45 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 9 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:15 PM | 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 | 4 | 2 | 0 | 3 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 18 |
| Apprch % | 0 | 0 | 0 | 66.7 | 33.3 | 0 | 37.5 | 0 | 25 | 37.5 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 22.2 | 11.1 | 0 | 16.7 | 0 | 11.1 | 16.7 | 0 | 0 | 0 | 0 | 0 | 0 | 22.2 | 0 | 0 | 0 | |

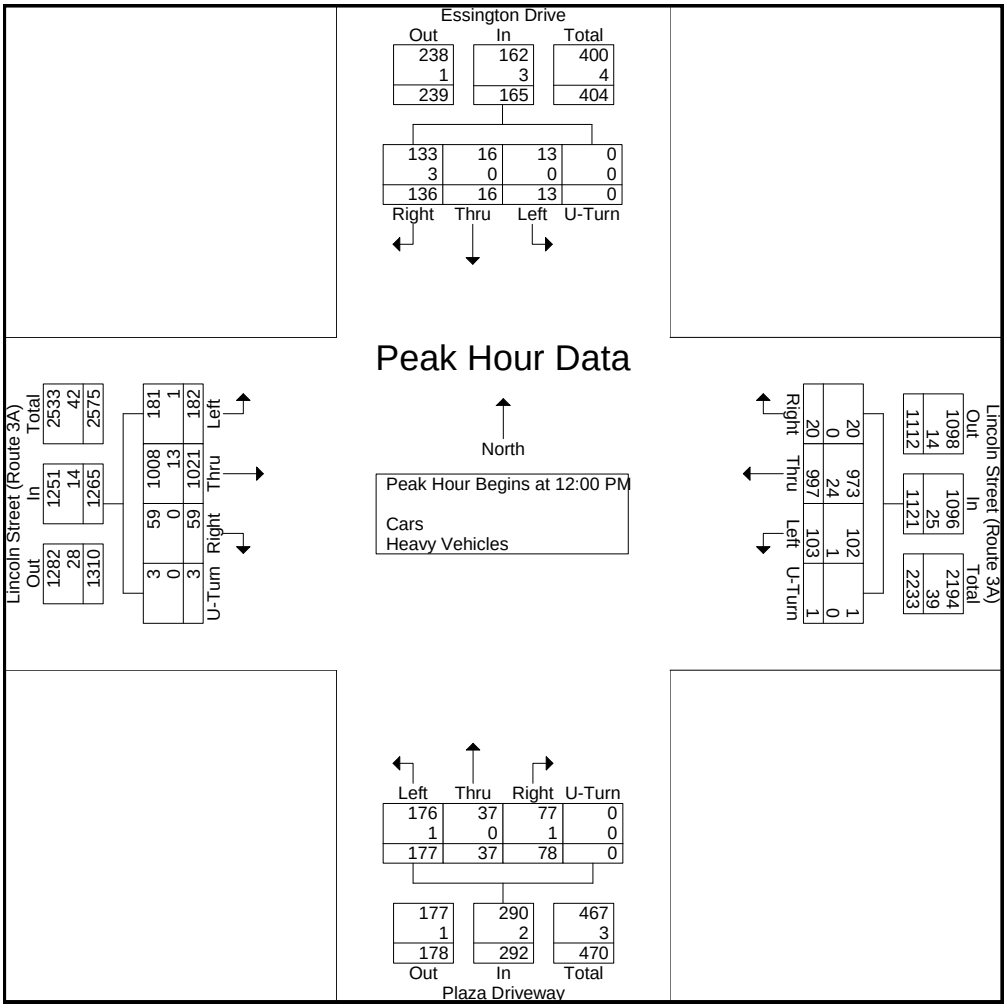
| | Essington Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Plaza Driveway From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:15 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12:15 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 |
| 12:30 PM | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 5 |
| 12:45 PM | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Volume | 0 | 0 | 0 | 2 | 2 | 4 | 0 | 3 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 10 |
| % App. Total | 0 | 0 | 0 | 50 | 50 | | 0 | 75 | 0 | 0 | 25 | | 0 | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .500 | .500 | .500 | .000 | .375 | .000 | .000 | .250 | .500 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .000 | .000 | .500 | .500 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Essington Drive/ Plaza Driveway
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 CCC
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

| | Essington Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Plaza Driveway From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 32 | 6 | 1 | 0 | 39 | 5 | 260 | 29 | 0 | 294 | 14 | 9 | 42 | 0 | 65 | 9 | 267 | 48 | 1 | 325 | 723 |
| 12:15 PM | 29 | 0 | 5 | 0 | 34 | 4 | 268 | 21 | 1 | 294 | 23 | 9 | 58 | 0 | 90 | 17 | 256 | 49 | 1 | 323 | 741 |
| 12:30 PM | 44 | 5 | 5 | 0 | 54 | 7 | 231 | 21 | 0 | 259 | 19 | 8 | 43 | 0 | 70 | 17 | 249 | 43 | 0 | 309 | 692 |
| 12:45 PM | 31 | 5 | 2 | 0 | 38 | 4 | 238 | 32 | 0 | 274 | 22 | 11 | 34 | 0 | 67 | 16 | 249 | 42 | 1 | 308 | 687 |
| Total Volume | 136 | 16 | 13 | 0 | 165 | 20 | 997 | 103 | 1 | 1121 | 78 | 37 | 177 | 0 | 292 | 59 | 1021 | 182 | 3 | 1265 | 2843 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .773 | .667 | .650 | .000 | .764 | .714 | .930 | .805 | .250 | .953 | .848 | .841 | .763 | .000 | .811 | .868 | .956 | .929 | .750 | .973 | .959 |
| Cars | 133 | 16 | 13 | 0 | 162 | 20 | 973 | 102 | 1 | 1096 | 77 | 37 | 176 | 0 | 290 | 59 | 1008 | 181 | 3 | 1251 | 2799 |
| % Cars | 97.8 | 100 | 100 | 0 | 98.2 | 100 | 97.6 | 99.0 | 100 | 97.8 | 98.7 | 100 | 99.4 | 0 | 99.3 | 100 | 98.7 | 99.5 | 100 | 98.9 | 98.5 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 2.2 | 0 | 0 | 0 | 1.8 | 0 | 2.4 | 1.0 | 0 | 2.2 | 1.3 | 0 | 0.6 | 0 | 0.7 | 0 | 1.3 | 0.5 | 0 | 1.1 | 1.5 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Terry Drive/ Lynch Field Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 D
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Terry Drive From North | | | | Beal Street From East | | | | Lynch Field Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 1 | 8 | 0 | 63 | 27 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 4 | 0 | 125 |
| 07:15 AM | 2 | 0 | 5 | 0 | 62 | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 6 | 0 | 132 |
| 07:30 AM | 0 | 0 | 7 | 0 | 72 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 33 | 8 | 0 | 149 |
| 07:45 AM | 0 | 0 | 12 | 0 | 59 | 28 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 8 | 0 | 152 |
| Total | 2 | 1 | 32 | 0 | 256 | 113 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 123 | 26 | 0 | 558 |
| 08:00 AM | 2 | 0 | 10 | 0 | 71 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 7 | 0 | 161 |
| 08:15 AM | 2 | 1 | 13 | 0 | 75 | 22 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 59 | 9 | 0 | 186 |
| 08:30 AM | 1 | 0 | 15 | 0 | 65 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 37 | 12 | 0 | 156 |
| 08:45 AM | 2 | 0 | 14 | 0 | 46 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 7 | 0 | 141 |
| Total | 7 | 1 | 52 | 0 | 257 | 120 | 3 | 0 | 0 | 1 | 0 | 0 | 2 | 166 | 35 | 0 | 644 |
| Grand Total | 9 | 2 | 84 | 0 | 513 | 233 | 7 | 0 | 0 | 1 | 0 | 0 | 3 | 289 | 61 | 0 | 1202 |
| Apprch % | 9.5 | 2.1 | 88.4 | 0 | 68.1 | 30.9 | 0.9 | 0 | 0 | 100 | 0 | 0 | 0.8 | 81.9 | 17.3 | 0 | |
| Total % | 0.7 | 0.2 | 7 | 0 | 42.7 | 19.4 | 0.6 | 0 | 0 | 0.1 | 0 | 0 | 0.2 | 24 | 5.1 | 0 | |
| Cars | 9 | 2 | 75 | 0 | 511 | 232 | 6 | 0 | 0 | 1 | 0 | 0 | 3 | 280 | 61 | 0 | 1180 |
| % Cars | 100 | 100 | 89.3 | 0 | 99.6 | 99.6 | 85.7 | 0 | 0 | 100 | 0 | 0 | 100 | 96.9 | 100 | 0 | 98.2 |
| Heavy Vehicles | 0 | 0 | 9 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 22 |
| % Heavy Vehicles | 0 | 0 | 10.7 | 0 | 0.4 | 0.4 | 14.3 | 0 | 0 | 0 | 0 | 0 | 0 | 3.1 | 0 | 0 | 1.8 |

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:45 AM | 0 | 0 | 12 | 0 | 12 | 59 | 28 | 2 | 0 | 89 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 8 | 0 | 51 | 152 |
| 08:00 AM | 2 | 0 | 10 | 0 | 12 | 71 | 35 | 0 | 0 | 106 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 7 | 0 | 43 | 161 |
| 08:15 AM | 2 | 1 | 13 | 0 | 16 | 75 | 22 | 3 | 0 | 100 | 0 | 1 | 0 | 0 | 1 | 1 | 59 | 9 | 0 | 69 | 186 |
| 08:30 AM | 1 | 0 | 15 | 0 | 16 | 65 | 25 | 0 | 0 | 90 | 0 | 0 | 0 | 0 | 0 | 1 | 37 | 12 | 0 | 50 | 156 |
| Total Volume | 5 | 1 | 50 | 0 | 56 | 270 | 110 | 5 | 0 | 385 | 0 | 1 | 0 | 0 | 1 | 2 | 175 | 36 | 0 | 213 | 655 |
| % App. Total | 8.9 | 1.8 | 89.3 | 0 | | 70.1 | 28.6 | 1.3 | 0 | | 0 | 100 | 0 | 0 | | 0.9 | 82.2 | 16.9 | 0 | | |
| PHF | .625 | .250 | .833 | .000 | .875 | .900 | .786 | .417 | .000 | .908 | .000 | .250 | .000 | .000 | .250 | .500 | .742 | .750 | .000 | .772 | .880 |
| Cars | 5 | 1 | 43 | 0 | 49 | 270 | 110 | 4 | 0 | 384 | 0 | 1 | 0 | 0 | 1 | 2 | 173 | 36 | 0 | 211 | 645 |
| % Cars | 100 | 100 | 86.0 | 0 | 87.5 | 100 | 100 | 80.0 | 0 | 99.7 | 0 | 100 | 0 | 0 | 100 | 100 | 98.9 | 100 | 0 | 99.1 | 98.5 |
| Heavy Vehicles | 0 | 0 | 7 | 0 | 7 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 10 |
| % Heavy Vehicles | 0 | 0 | 14.0 | 0 | 12.5 | 0 | 0 | 20.0 | 0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 | 0.9 | 1.5 |

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N/S: Terry Drive/ Lynch Field Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 D
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Terry Drive From North | | | | Beal Street From East | | | | Lynch Field Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 1 | 8 | 0 | 63 | 27 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 4 | 0 | 123 |
| 07:15 AM | 2 | 0 | 5 | 0 | 61 | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 6 | 0 | 129 |
| 07:30 AM | 0 | 0 | 7 | 0 | 71 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 31 | 8 | 0 | 145 |
| 07:45 AM | 0 | 0 | 11 | 0 | 59 | 28 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 8 | 0 | 150 |
| Total | 2 | 1 | 31 | 0 | 254 | 112 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 117 | 26 | 0 | 547 |
| 08:00 AM | 2 | 0 | 10 | 0 | 71 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 7 | 0 | 161 |
| 08:15 AM | 2 | 1 | 9 | 0 | 75 | 22 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 58 | 9 | 0 | 181 |
| 08:30 AM | 1 | 0 | 13 | 0 | 65 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 36 | 12 | 0 | 153 |
| 08:45 AM | 2 | 0 | 12 | 0 | 46 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 7 | 0 | 138 |
| Total | 7 | 1 | 44 | 0 | 257 | 120 | 3 | 0 | 0 | 1 | 0 | 0 | 2 | 163 | 35 | 0 | 633 |
| Grand Total | 9 | 2 | 75 | 0 | 511 | 232 | 6 | 0 | 0 | 1 | 0 | 0 | 3 | 280 | 61 | 0 | 1180 |
| Apprch % | 10.5 | 2.3 | 87.2 | 0 | 68.2 | 31 | 0.8 | 0 | 0 | 100 | 0 | 0 | 0.9 | 81.4 | 17.7 | 0 | |
| Total % | 0.8 | 0.2 | 6.4 | 0 | 43.3 | 19.7 | 0.5 | 0 | 0 | 0.1 | 0 | 0 | 0.3 | 23.7 | 5.2 | 0 | |

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:45 AM | 0 | 0 | 11 | 0 | 11 | 59 | 28 | 1 | 0 | 88 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 8 | 0 | 51 | 150 |
| 08:00 AM | 2 | 0 | 10 | 0 | 12 | 71 | 35 | 0 | 0 | 106 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 7 | 0 | 43 | 161 |
| 08:15 AM | 2 | 1 | 9 | 0 | 12 | 75 | 22 | 3 | 0 | 100 | 0 | 1 | 0 | 0 | 1 | 1 | 58 | 9 | 0 | 68 | 181 |
| 08:30 AM | 1 | 0 | 13 | 0 | 14 | 65 | 25 | 0 | 0 | 90 | 0 | 0 | 0 | 0 | 0 | 1 | 36 | 12 | 0 | 49 | 153 |
| Total Volume | 5 | 1 | 43 | 0 | 49 | 270 | 110 | 4 | 0 | 384 | 0 | 1 | 0 | 0 | 1 | 2 | 173 | 36 | 0 | 211 | 645 |
| % App. Total | 10.2 | 2 | 87.8 | 0 | | 70.3 | 28.6 | 1 | 0 | | 0 | 100 | 0 | 0 | | 0.9 | 82 | 17.1 | 0 | | |
| PHF | .625 | .250 | .827 | .000 | .875 | .900 | .786 | .333 | .000 | .906 | .000 | .250 | .000 | .000 | .250 | .500 | .746 | .750 | .000 | .776 | .891 |

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E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 D
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Terry Drive From North | | | | Beal Street From East | | | | Lynch Field Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 07:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| 07:30 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 |
| 07:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 11 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 |
| 08:30 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 08:45 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| Total | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 11 |
| Grand Total | 0 | 0 | 9 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 22 |
| Apprch % | 0 | 0 | 100 | 0 | 50 | 25 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | |
| Total % | 0 | 0 | 40.9 | 0 | 9.1 | 4.5 | 4.5 | 0 | 0 | 0 | 0 | 0 | 0 | 40.9 | 0 | 0 | |

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 3 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 4 |
| 07:45 AM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Volume | 0 | 0 | 1 | 0 | 1 | 2 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 11 |
| % App. Total | 0 | 0 | 100 | 0 | | 50 | 25 | 25 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .000 | .000 | .250 | .000 | .250 | .500 | .250 | .250 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .000 | .750 | .000 | .000 | .750 | .688 |

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Client: VHB/ E. Chan

File Name : 165077 D
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 07:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| 08:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:15 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:45 AM | 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 | 1 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Grand Total | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 10 |
| Apprch % | 0 | 0 | 25 | 25 | 50 | 0 | 0 | 0 | 50 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 50 | |
| Total % | 0 | 0 | 10 | 10 | 20 | 0 | 0 | 0 | 20 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 10 | |

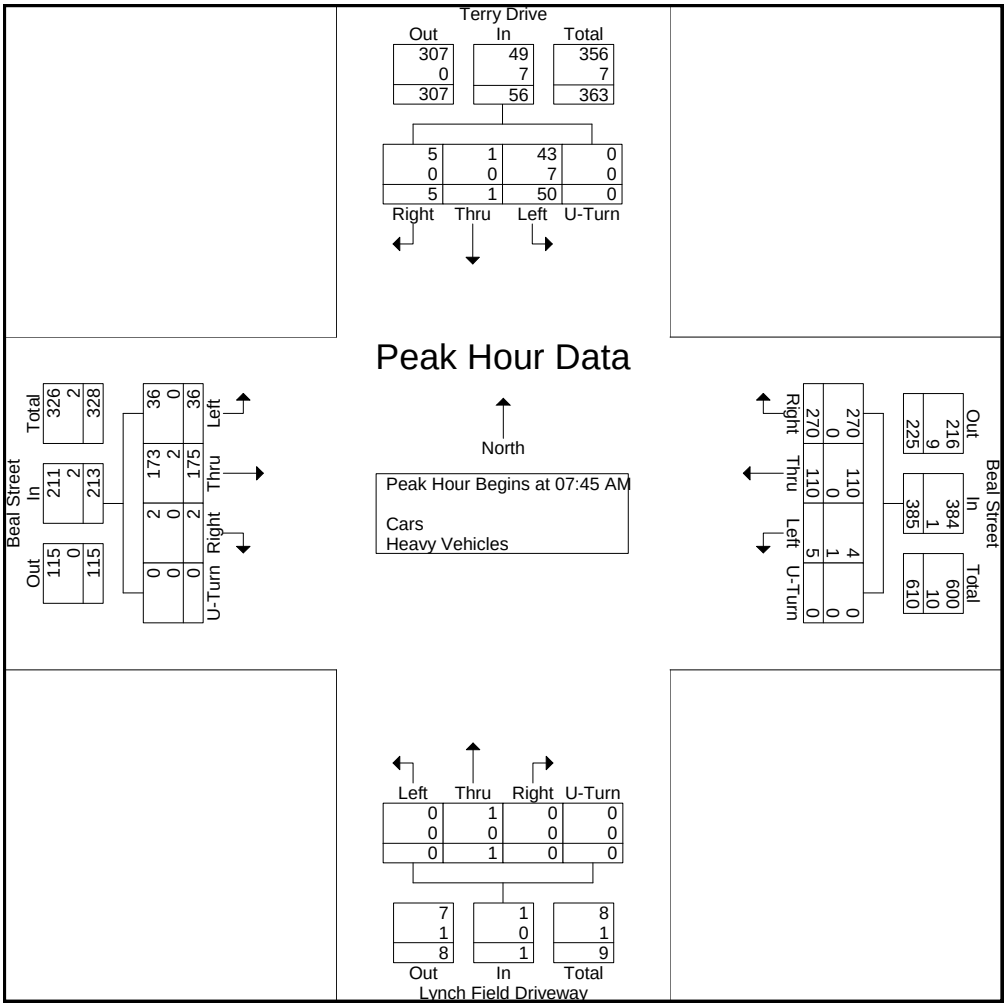
| | Terry Drive From North | | | | | | Beal Street From East | | | | | | Lynch Field Driveway From South | | | | | | Beal Street From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 07:45 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 |
| 08:00 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:15 AM | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total Volume | 0 | 0 | 1 | 1 | 2 | 4 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 7 |
| % App. Total | 0 | 0 | 25 | 25 | 50 | | 0 | 0 | 0 | 100 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | 0 | | |
| PHF | .000 | .000 | .250 | .250 | .500 | .500 | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .438 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Terry Drive/ Lynch Field Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 D
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:45 AM | 0 | 0 | 12 | 0 | 12 | 59 | 28 | 2 | 0 | 89 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 8 | 0 | 51 | 152 |
| 08:00 AM | 2 | 0 | 10 | 0 | 12 | 71 | 35 | 0 | 0 | 106 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 7 | 0 | 43 | 161 |
| 08:15 AM | 2 | 1 | 13 | 0 | 16 | 75 | 22 | 3 | 0 | 100 | 0 | 1 | 0 | 0 | 1 | 1 | 59 | 9 | 0 | 69 | 186 |
| 08:30 AM | 1 | 0 | 15 | 0 | 16 | 65 | 25 | 0 | 0 | 90 | 0 | 0 | 0 | 0 | 0 | 1 | 37 | 12 | 0 | 50 | 156 |
| Total Volume | 5 | 1 | 50 | 0 | 56 | 270 | 110 | 5 | 0 | 385 | 0 | 1 | 0 | 0 | 1 | 2 | 175 | 36 | 0 | 213 | 655 |
| % App. Total | 8.9 | 1.8 | 89.3 | 0 | | 70.1 | 28.6 | 1.3 | 0 | | 0 | 100 | 0 | 0 | | 0.9 | 82.2 | 16.9 | 0 | | |
| PHF | .625 | .250 | .833 | .000 | .875 | .900 | .786 | .417 | .000 | .908 | .000 | .250 | .000 | .000 | .250 | .500 | .742 | .750 | .000 | .772 | .880 |
| Cars | 5 | 1 | 43 | 0 | 49 | 270 | 110 | 4 | 0 | 384 | 0 | 1 | 0 | 0 | 1 | 2 | 173 | 36 | 0 | 211 | 645 |
| % Cars | 100 | 100 | 86.0 | 0 | 87.5 | 100 | 100 | 80.0 | 0 | 99.7 | 0 | 100 | 0 | 0 | 100 | 100 | 98.9 | 100 | 0 | 99.1 | 98.5 |
| Heavy Vehicles | 0 | 0 | 7 | 0 | 7 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 10 |
| % Heavy Vehicles | 0 | 0 | 14.0 | 0 | 12.5 | 0 | 0 | 20.0 | 0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 | 0.9 | 1.5 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Terry Drive/ Lynch Field Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 DD
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Terry Drive From North | | | | Beal Street From East | | | | Lynch Field Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 3 | 0 | 39 | 0 | 48 | 38 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 84 | 4 | 0 | 218 |
| 04:15 PM | 1 | 0 | 32 | 0 | 41 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 | 2 | 0 | 178 |
| 04:30 PM | 2 | 0 | 62 | 0 | 45 | 34 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 70 | 7 | 0 | 224 |
| 04:45 PM | 5 | 0 | 30 | 0 | 52 | 21 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 68 | 1 | 0 | 178 |
| Total | 11 | 0 | 163 | 0 | 186 | 111 | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 306 | 14 | 0 | 798 |
| 05:00 PM | 3 | 0 | 66 | 0 | 53 | 53 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 96 | 3 | 0 | 280 |
| 05:15 PM | 5 | 0 | 37 | 0 | 51 | 40 | 9 | 0 | 0 | 0 | 0 | 0 | 5 | 114 | 7 | 0 | 268 |
| 05:30 PM | 8 | 0 | 42 | 0 | 71 | 54 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 116 | 12 | 0 | 309 |
| 05:45 PM | 7 | 2 | 67 | 0 | 53 | 31 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 5 | 0 | 275 |
| Total | 23 | 2 | 212 | 0 | 228 | 178 | 18 | 0 | 0 | 0 | 0 | 0 | 10 | 434 | 27 | 0 | 1132 |
| Grand Total | 34 | 2 | 375 | 0 | 414 | 289 | 24 | 0 | 0 | 0 | 0 | 0 | 11 | 740 | 41 | 0 | 1930 |
| Apprch % | 8.3 | 0.5 | 91.2 | 0 | 56.9 | 39.8 | 3.3 | 0 | 0 | 0 | 0 | 0 | 1.4 | 93.4 | 5.2 | 0 | |
| Total % | 1.8 | 0.1 | 19.4 | 0 | 21.5 | 15 | 1.2 | 0 | 0 | 0 | 0 | 0 | 0.6 | 38.3 | 2.1 | 0 | |
| Cars | 34 | 2 | 371 | 0 | 409 | 289 | 24 | 0 | 0 | 0 | 0 | 0 | 11 | 737 | 41 | 0 | 1918 |
| % Cars | 100 | 100 | 98.9 | 0 | 98.8 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 100 | 99.6 | 100 | 0 | 99.4 |
| Heavy Vehicles | 0 | 0 | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 12 |
| % Heavy Vehicles | 0 | 0 | 1.1 | 0 | 1.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0 | 0 | 0.6 |

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 3 | 0 | 66 | 0 | 69 | 53 | 53 | 4 | 0 | 110 | 0 | 0 | 0 | 0 | 0 | 2 | 96 | 3 | 0 | 101 | 280 |
| 05:15 PM | 5 | 0 | 37 | 0 | 42 | 51 | 40 | 9 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 5 | 114 | 7 | 0 | 126 | 268 |
| 05:30 PM | 8 | 0 | 42 | 0 | 50 | 71 | 54 | 3 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 3 | 116 | 12 | 0 | 131 | 309 |
| 05:45 PM | 7 | 2 | 67 | 0 | 76 | 53 | 31 | 2 | 0 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 5 | 0 | 113 | 275 |
| Total Volume | 23 | 2 | 212 | 0 | 237 | 228 | 178 | 18 | 0 | 424 | 0 | 0 | 0 | 0 | 0 | 10 | 434 | 27 | 0 | 471 | 1132 |
| % App. Total | 9.7 | 0.8 | 89.5 | 0 | | 53.8 | 42 | 4.2 | 0 | | 0 | 0 | 0 | 0 | | 2.1 | 92.1 | 5.7 | 0 | | |
| PHF | .719 | .250 | .791 | .000 | .780 | .803 | .824 | .500 | .000 | .828 | .000 | .000 | .000 | .000 | .000 | .500 | .935 | .563 | .000 | .899 | .916 |
| Cars | 23 | 2 | 210 | 0 | 235 | 225 | 178 | 18 | 0 | 421 | 0 | 0 | 0 | 0 | 0 | 10 | 433 | 27 | 0 | 470 | 1126 |
| % Cars | 100 | 100 | 99.1 | 0 | 99.2 | 98.7 | 100 | 100 | 0 | 99.3 | 0 | 0 | 0 | 0 | 0 | 100 | 99.8 | 100 | 0 | 99.8 | 99.5 |
| Heavy Vehicles | 0 | 0 | 2 | 0 | 2 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| % Heavy Vehicles | 0 | 0 | 0.9 | 0 | 0.8 | 1.3 | 0 | 0 | 0 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 0 | 0.2 | 0.5 |

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E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 DD
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Terry Drive From North | | | | Beal Street From East | | | | Lynch Field Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 3 | 0 | 37 | 0 | 47 | 38 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 83 | 4 | 0 | 214 |
| 04:15 PM | 1 | 0 | 32 | 0 | 40 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 | 2 | 0 | 176 |
| 04:30 PM | 2 | 0 | 62 | 0 | 45 | 34 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 70 | 7 | 0 | 224 |
| 04:45 PM | 5 | 0 | 30 | 0 | 52 | 21 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 68 | 1 | 0 | 178 |
| Total | 11 | 0 | 161 | 0 | 184 | 111 | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 304 | 14 | 0 | 792 |
| 05:00 PM | 3 | 0 | 66 | 0 | 53 | 53 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 96 | 3 | 0 | 280 |
| 05:15 PM | 5 | 0 | 36 | 0 | 49 | 40 | 9 | 0 | 0 | 0 | 0 | 0 | 5 | 114 | 7 | 0 | 265 |
| 05:30 PM | 8 | 0 | 42 | 0 | 70 | 54 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 116 | 12 | 0 | 308 |
| 05:45 PM | 7 | 2 | 66 | 0 | 53 | 31 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 107 | 5 | 0 | 273 |
| Total | 23 | 2 | 210 | 0 | 225 | 178 | 18 | 0 | 0 | 0 | 0 | 0 | 10 | 433 | 27 | 0 | 1126 |
| Grand Total | 34 | 2 | 371 | 0 | 409 | 289 | 24 | 0 | 0 | 0 | 0 | 0 | 11 | 737 | 41 | 0 | 1918 |
| Apprch % | 8.4 | 0.5 | 91.2 | 0 | 56.6 | 40 | 3.3 | 0 | 0 | 0 | 0 | 0 | 1.4 | 93.4 | 5.2 | 0 | |
| Total % | 1.8 | 0.1 | 19.3 | 0 | 21.3 | 15.1 | 1.3 | 0 | 0 | 0 | 0 | 0 | 0.6 | 38.4 | 2.1 | 0 | |

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 3 | 0 | 66 | 0 | 69 | 53 | 53 | 4 | 0 | 110 | 0 | 0 | 0 | 0 | 0 | 2 | 96 | 3 | 0 | 101 | 280 |
| 05:15 PM | 5 | 0 | 36 | 0 | 41 | 49 | 40 | 9 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 5 | 114 | 7 | 0 | 126 | 265 |
| 05:30 PM | 8 | 0 | 42 | 0 | 50 | 70 | 54 | 3 | 0 | 127 | 0 | 0 | 0 | 0 | 0 | 3 | 116 | 12 | 0 | 131 | 308 |
| 05:45 PM | 7 | 2 | 66 | 0 | 75 | 53 | 31 | 2 | 0 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 107 | 5 | 0 | 112 | 273 |
| Total Volume | 23 | 2 | 210 | 0 | 235 | 225 | 178 | 18 | 0 | 421 | 0 | 0 | 0 | 0 | 0 | 10 | 433 | 27 | 0 | 470 | 1126 |
| % App. Total | 9.8 | 0.9 | 89.4 | 0 | | 53.4 | 42.3 | 4.3 | 0 | | 0 | 0 | 0 | 0 | | 2.1 | 92.1 | 5.7 | 0 | | |
| PHF | .719 | .250 | .795 | .000 | .783 | .804 | .824 | .500 | .000 | .829 | .000 | .000 | .000 | .000 | .000 | .500 | .933 | .563 | .000 | .897 | .914 |

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E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 DD
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Terry Drive From North | | | | Beal Street From East | | | | Lynch Field Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 04:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 6 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 05:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| Total | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 |
| Grand Total | 0 | 0 | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 12 |
| Apprch % | 0 | 0 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | |
| Total % | 0 | 0 | 33.3 | 0 | 41.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | |

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 4 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 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 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 6 |
| % App. Total | 0 | 0 | 100 | 0 | | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .000 | .000 | .250 | .000 | .250 | .500 | .000 | .000 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .000 | .500 | .375 |

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Client: VHB/ E. Chan

File Name : 165077 DD
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:45 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 05:00 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 05:15 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| 05:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 7 |
| Grand Total | 0 | 0 | 2 | 3 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 12 |
| Apprch % | 0 | 0 | 18.2 | 27.3 | 54.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | |
| Total % | 0 | 0 | 16.7 | 25 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8.3 | 0 | |

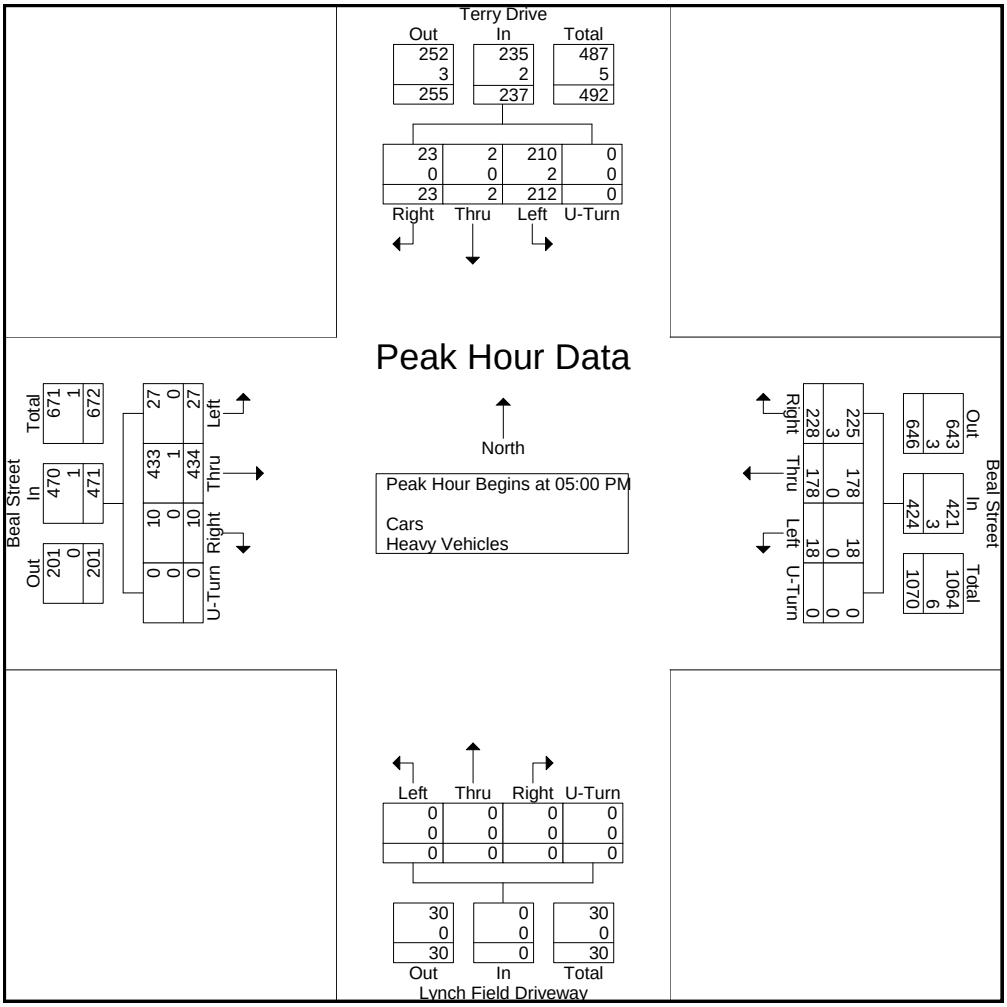
| | Terry Drive From North | | | | | | Beal Street From East | | | | | | Lynch Field Driveway From South | | | | | | Beal Street From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04:45 PM | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 05:00 PM | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 05:15 PM | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 |
| 05:30 PM | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Volume | 0 | 0 | 1 | 3 | 5 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 10 |
| % App. Total | 0 | 0 | 11.1 | 33.3 | 55.6 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | 0 | | |
| PHF | .000 | .000 | .250 | .250 | .625 | .750 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .833 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Terry Drive/ Lynch Field Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 DD
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 3 | 0 | 66 | 0 | 69 | 53 | 53 | 4 | 0 | 110 | 0 | 0 | 0 | 0 | 0 | 2 | 96 | 3 | 0 | 101 | 280 |
| 05:15 PM | 5 | 0 | 37 | 0 | 42 | 51 | 40 | 9 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 5 | 114 | 7 | 0 | 126 | 268 |
| 05:30 PM | 8 | 0 | 42 | 0 | 50 | 71 | 54 | 3 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 3 | 116 | 12 | 0 | 131 | 309 |
| 05:45 PM | 7 | 2 | 67 | 0 | 76 | 53 | 31 | 2 | 0 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 5 | 0 | 113 | 275 |
| Total Volume | 23 | 2 | 212 | 0 | 237 | 228 | 178 | 18 | 0 | 424 | 0 | 0 | 0 | 0 | 0 | 10 | 434 | 27 | 0 | 471 | 1132 |
| % App. Total | 9.7 | 0.8 | 89.5 | 0 | | 53.8 | 42 | 4.2 | 0 | | 0 | 0 | 0 | 0 | | 2.1 | 92.1 | 5.7 | 0 | | |
| PHF | .719 | .250 | .791 | .000 | .780 | .803 | .824 | .500 | .000 | .828 | .000 | .000 | .000 | .000 | .000 | .500 | .935 | .563 | .000 | .899 | .916 |
| Cars | 23 | 2 | 210 | 0 | 235 | 225 | 178 | 18 | 0 | 421 | 0 | 0 | 0 | 0 | 0 | 10 | 433 | 27 | 0 | 470 | 1126 |
| % Cars | 100 | 100 | 99.1 | 0 | 99.2 | 98.7 | 100 | 100 | 0 | 99.3 | 0 | 0 | 0 | 0 | 0 | 100 | 99.8 | 100 | 0 | 99.8 | 99.5 |
| Heavy Vehicles | 0 | 0 | 2 | 0 | 2 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| % Heavy Vehicles | 0 | 0 | 0.9 | 0 | 0.8 | 1.3 | 0 | 0 | 0 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 0 | 0.2 | 0.5 |



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Client: VHB/ E. Chan

File Name : 165077 DDD
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Terry Drive From North | | | | Beal Street From East | | | | Lynch Field Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 2 | 1 | 18 | 0 | 55 | 37 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 69 | 5 | 0 | 192 |
| 10:45 AM | 5 | 0 | 24 | 0 | 59 | 35 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 84 | 3 | 0 | 214 |
| Total | 7 | 1 | 42 | 0 | 114 | 72 | 4 | 0 | 0 | 0 | 0 | 0 | 5 | 153 | 8 | 0 | 406 |
| 11:00 AM | 2 | 0 | 27 | 0 | 69 | 50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 5 | 0 | 242 |
| 11:15 AM | 3 | 0 | 27 | 0 | 55 | 36 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 88 | 5 | 0 | 219 |
| 11:30 AM | 1 | 1 | 26 | 0 | 60 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 67 | 4 | 0 | 199 |
| 11:45 AM | 3 | 0 | 13 | 0 | 75 | 33 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 67 | 4 | 0 | 201 |
| Total | 9 | 1 | 93 | 0 | 259 | 156 | 8 | 0 | 0 | 0 | 0 | 0 | 8 | 309 | 18 | 0 | 861 |
| 12:00 PM | 2 | 0 | 31 | 0 | 70 | 32 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 90 | 5 | 0 | 234 |
| 12:15 PM | 0 | 0 | 18 | 0 | 57 | 39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 1 | 0 | 191 |
| 12:30 PM | 2 | 1 | 18 | 0 | 78 | 33 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 88 | 2 | 0 | 227 |
| 12:45 PM | 3 | 0 | 20 | 0 | 50 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 63 | 2 | 0 | 178 |
| Total | 7 | 1 | 87 | 0 | 255 | 142 | 4 | 0 | 0 | 0 | 0 | 0 | 8 | 316 | 10 | 0 | 830 |
| 01:00 PM | 2 | 1 | 41 | 0 | 64 | 33 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 4 | 0 | 221 |
| 01:15 PM | 3 | 0 | 28 | 0 | 68 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 7 | 0 | 228 |
| Grand Total | 28 | 4 | 291 | 0 | 760 | 447 | 17 | 0 | 0 | 0 | 0 | 0 | 21 | 931 | 47 | 0 | 2546 |
| Apprch % | 8.7 | 1.2 | 90.1 | 0 | 62.1 | 36.5 | 1.4 | 0 | 0 | 0 | 0 | 0 | 2.1 | 93.2 | 4.7 | 0 | |
| Total % | 1.1 | 0.2 | 11.4 | 0 | 29.9 | 17.6 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0.8 | 36.6 | 1.8 | 0 | |
| Cars | 27 | 4 | 290 | 0 | 754 | 442 | 17 | 0 | 0 | 0 | 0 | 0 | 21 | 928 | 46 | 0 | 2529 |
| % Cars | 96.4 | 100 | 99.7 | 0 | 99.2 | 98.9 | 100 | 0 | 0 | 0 | 0 | 0 | 100 | 99.7 | 97.9 | 0 | 99.3 |
| Heavy Vehicles | 1 | 0 | 1 | 0 | 6 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 17 |
| % Heavy Vehicles | 3.6 | 0 | 0.3 | 0 | 0.8 | 1.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 2.1 | 0 | 0.7 |

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 10:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 10:45 AM | 5 | 0 | 24 | 0 | 29 | 59 | 35 | 2 | 0 | 96 | 0 | 0 | 0 | 0 | 0 | 2 | 84 | 3 | 0 | 89 | 214 |
| 11:00 AM | 2 | 0 | 27 | 0 | 29 | 69 | 50 | 2 | 0 | 121 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 5 | 0 | 92 | 242 |
| 11:15 AM | 3 | 0 | 27 | 0 | 30 | 55 | 36 | 2 | 0 | 93 | 0 | 0 | 0 | 0 | 0 | 3 | 88 | 5 | 0 | 96 | 219 |
| 11:30 AM | 1 | 1 | 26 | 0 | 28 | 60 | 37 | 0 | 0 | 97 | 0 | 0 | 0 | 0 | 0 | 3 | 67 | 4 | 0 | 74 | 199 |
| Total Volume | 11 | 1 | 104 | 0 | 116 | 243 | 158 | 6 | 0 | 407 | 0 | 0 | 0 | 0 | 0 | 8 | 326 | 17 | 0 | 351 | 874 |
| % App. Total | 9.5 | 0.9 | 89.7 | 0 | | 59.7 | 38.8 | 1.5 | 0 | | 0 | 0 | 0 | 0 | | 2.3 | 92.9 | 4.8 | 0 | | |
| PHF | .550 | .250 | .963 | .000 | .967 | .880 | .790 | .750 | .000 | .841 | .000 | .000 | .000 | .000 | .000 | .667 | .926 | .850 | .000 | .914 | .903 |
| Cars | 11 | 1 | 103 | 0 | 115 | 238 | 156 | 6 | 0 | 400 | 0 | 0 | 0 | 0 | 0 | 8 | 325 | 17 | 0 | 350 | 865 |
| % Cars | 100 | 100 | 99.0 | 0 | 99.1 | 97.9 | 98.7 | 100 | 0 | 98.3 | 0 | 0 | 0 | 0 | 0 | 100 | 99.7 | 100 | 0 | 99.7 | 99.0 |
| Heavy Vehicles | 0 | 0 | 1 | 0 | 1 | 5 | 2 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 9 |
| % Heavy Vehicles | 0 | 0 | 1.0 | 0 | 0.9 | 2.1 | 1.3 | 0 | 0 | 1.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0.3 | 1.0 |

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46 Morton Street, Framingham, MA 01702
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E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 DDD
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars**

| | Terry Drive From North | | | | Beal Street From East | | | | Lynch Field Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 1 | 1 | 18 | 0 | 55 | 36 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 68 | 5 | 0 | 189 |
| 10:45 AM | 5 | 0 | 23 | 0 | 59 | 35 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 83 | 3 | 0 | 212 |
| Total | 6 | 1 | 41 | 0 | 114 | 71 | 4 | 0 | 0 | 0 | 0 | 0 | 5 | 151 | 8 | 0 | 401 |
| 11:00 AM | 2 | 0 | 27 | 0 | 66 | 49 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 5 | 0 | 238 |
| 11:15 AM | 3 | 0 | 27 | 0 | 54 | 36 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 88 | 5 | 0 | 218 |
| 11:30 AM | 1 | 1 | 26 | 0 | 59 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 67 | 4 | 0 | 197 |
| 11:45 AM | 3 | 0 | 13 | 0 | 75 | 32 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 67 | 4 | 0 | 200 |
| Total | 9 | 1 | 93 | 0 | 254 | 153 | 8 | 0 | 0 | 0 | 0 | 0 | 8 | 309 | 18 | 0 | 853 |
| 12:00 PM | 2 | 0 | 31 | 0 | 70 | 31 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 90 | 5 | 0 | 233 |
| 12:15 PM | 0 | 0 | 18 | 0 | 57 | 39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 1 | 0 | 191 |
| 12:30 PM | 2 | 1 | 18 | 0 | 77 | 33 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 87 | 2 | 0 | 225 |
| 12:45 PM | 3 | 0 | 20 | 0 | 50 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 63 | 2 | 0 | 178 |
| Total | 7 | 1 | 87 | 0 | 254 | 141 | 4 | 0 | 0 | 0 | 0 | 0 | 8 | 315 | 10 | 0 | 827 |
| 01:00 PM | 2 | 1 | 41 | 0 | 64 | 33 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 4 | 0 | 221 |
| 01:15 PM | 3 | 0 | 28 | 0 | 68 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 6 | 0 | 227 |
| Grand Total | 27 | 4 | 290 | 0 | 754 | 442 | 17 | 0 | 0 | 0 | 0 | 0 | 21 | 928 | 46 | 0 | 2529 |
| Apprch % | 8.4 | 1.2 | 90.3 | 0 | 62.2 | 36.4 | 1.4 | 0 | 0 | 0 | 0 | 0 | 2.1 | 93.3 | 4.6 | 0 | |
| Total % | 1.1 | 0.2 | 11.5 | 0 | 29.8 | 17.5 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0.8 | 36.7 | 1.8 | 0 | |

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 10:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 10:45 AM | 5 | 0 | 23 | 0 | 28 | 59 | 35 | 2 | 0 | 96 | 0 | 0 | 0 | 0 | 0 | 2 | 83 | 3 | 0 | 88 | 212 |
| 11:00 AM | 2 | 0 | 27 | 0 | 29 | 66 | 49 | 2 | 0 | 117 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 5 | 0 | 92 | 238 |
| 11:15 AM | 3 | 0 | 27 | 0 | 30 | 54 | 36 | 2 | 0 | 92 | 0 | 0 | 0 | 0 | 0 | 3 | 88 | 5 | 0 | 96 | 218 |
| 11:30 AM | 1 | 1 | 26 | 0 | 28 | 59 | 36 | 0 | 0 | 95 | 0 | 0 | 0 | 0 | 0 | 3 | 67 | 4 | 0 | 74 | 197 |
| Total Volume | 11 | 1 | 103 | 0 | 115 | 238 | 156 | 6 | 0 | 400 | 0 | 0 | 0 | 0 | 0 | 8 | 325 | 17 | 0 | 350 | 865 |
| % App. Total | 9.6 | 0.9 | 89.6 | 0 | | 59.5 | 39 | 1.5 | 0 | | 0 | 0 | 0 | 0 | | 2.3 | 92.9 | 4.9 | 0 | | |
| PHF | .550 | .250 | .954 | .000 | .958 | .902 | .796 | .750 | .000 | .855 | .000 | .000 | .000 | .000 | .000 | .667 | .923 | .850 | .000 | .911 | .909 |

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Client: VHB/ E. Chan

File Name : 165077 DDD
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Terry Drive From North | | | | Beal Street From East | | | | Lynch Field Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 10:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| Total | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 11:00 AM | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 11:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:30 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Grand Total | 1 | 0 | 1 | 0 | 6 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 17 |
| Apprch % | 50 | 0 | 50 | 0 | 54.5 | 45.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 25 | 0 | |
| Total % | 5.9 | 0 | 5.9 | 0 | 35.3 | 29.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17.6 | 5.9 | 0 | |

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 10:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 10:30 AM | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 |
| 10:45 AM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 1 | 0 | 1 | 0 | 2 | 4 | 2 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 10 |
| % App. Total | 50 | 0 | 50 | 0 | | 66.7 | 33.3 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .250 | .000 | .250 | .000 | .500 | .333 | .500 | .000 | .000 | .375 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .000 | .500 | .625 |

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File Name : 165077 DDD
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 10:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 4 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 12:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 5 |
| Total | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 8 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 0 | 0 | 0 | 1 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 2 | 4 | 15 |
| Apprch % | 0 | 0 | 0 | 20 | 80 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66.7 | 33.3 | 0 | 0 | 0 | 33.3 | 66.7 | |
| Total % | 0 | 0 | 0 | 6.7 | 26.7 | 6.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13.3 | 6.7 | 0 | 0 | 0 | 13.3 | 26.7 | |

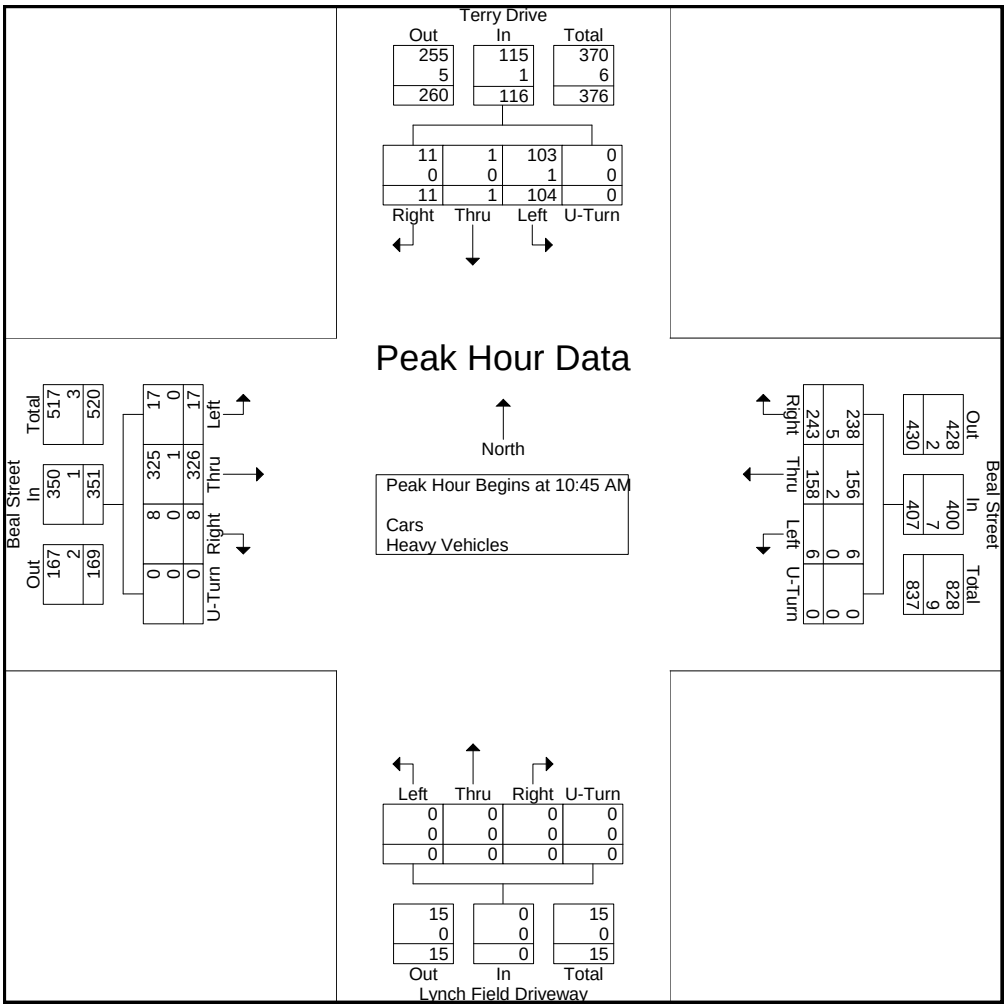
| | Terry Drive From North | | | | | | Beal Street From East | | | | | | Lynch Field Driveway From South | | | | | | Beal Street From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 12:15 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 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 12:45 PM | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 5 |
| Total Volume | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 2 | 3 | 8 |
| % App. Total | 0 | 0 | 0 | 0 | 100 | | 100 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 50 | 50 | | 0 | 0 | 0 | 33.3 | 66.7 | | |
| PHF | .000 | .000 | .000 | .000 | .250 | .250 | .250 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .250 | .250 | .500 | .000 | .000 | .000 | .250 | .500 | .375 | .400 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Terry Drive/ Lynch Field Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 DDD
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

| | Terry Drive From North | | | | | Beal Street From East | | | | | Lynch Field Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 10:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 10:45 AM | 5 | 0 | 24 | 0 | 29 | 59 | 35 | 2 | 0 | 96 | 0 | 0 | 0 | 0 | 0 | 2 | 84 | 3 | 0 | 89 | 214 |
| 11:00 AM | 2 | 0 | 27 | 0 | 29 | 69 | 50 | 2 | 0 | 121 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 5 | 0 | 92 | 242 |
| 11:15 AM | 3 | 0 | 27 | 0 | 30 | 55 | 36 | 2 | 0 | 93 | 0 | 0 | 0 | 0 | 0 | 3 | 88 | 5 | 0 | 96 | 219 |
| 11:30 AM | 1 | 1 | 26 | 0 | 28 | 60 | 37 | 0 | 0 | 97 | 0 | 0 | 0 | 0 | 0 | 3 | 67 | 4 | 0 | 74 | 199 |
| Total Volume | 11 | 1 | 104 | 0 | 116 | 243 | 158 | 6 | 0 | 407 | 0 | 0 | 0 | 0 | 0 | 8 | 326 | 17 | 0 | 351 | 874 |
| % App. Total | 9.5 | 0.9 | 89.7 | 0 | | 59.7 | 38.8 | 1.5 | 0 | | 0 | 0 | 0 | 0 | | 2.3 | 92.9 | 4.8 | 0 | | |
| PHF | .550 | .250 | .963 | .000 | .967 | .880 | .790 | .750 | .000 | .841 | .000 | .000 | .000 | .000 | .000 | .667 | .926 | .850 | .000 | .914 | .903 |
| Cars | 11 | 1 | 103 | 0 | 115 | 238 | 156 | 6 | 0 | 400 | 0 | 0 | 0 | 0 | 0 | 8 | 325 | 17 | 0 | 350 | 865 |
| % Cars | 100 | 100 | 99.0 | 0 | 99.1 | 97.9 | 98.7 | 100 | 0 | 98.3 | 0 | 0 | 0 | 0 | 0 | 100 | 99.7 | 100 | 0 | 99.7 | 99.0 |
| Heavy Vehicles | 0 | 0 | 1 | 0 | 1 | 5 | 2 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 9 |
| % Heavy Vehicles | 0 | 0 | 1.0 | 0 | 0.9 | 2.1 | 1.3 | 0 | 0 | 1.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0.3 | 1.0 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Plaza Driveway/ Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 E
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Plaza Driveway From North | | | | Beal Street From East | | | | Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 1 | 2 | 0 | 24 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 9 | 0 | 61 |
| 07:15 AM | 0 | 0 | 5 | 0 | 23 | 3 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 27 | 6 | 0 | 70 |
| 07:30 AM | 0 | 0 | 1 | 0 | 25 | 2 | 3 | 0 | 4 | 0 | 0 | 0 | 1 | 35 | 6 | 0 | 77 |
| 07:45 AM | 1 | 0 | 3 | 0 | 26 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 46 | 7 | 0 | 88 |
| Total | 1 | 1 | 11 | 0 | 98 | 5 | 11 | 0 | 7 | 0 | 0 | 0 | 3 | 131 | 28 | 0 | 296 |
| 08:00 AM | 0 | 1 | 6 | 0 | 27 | 0 | 10 | 0 | 2 | 0 | 0 | 0 | 1 | 36 | 9 | 0 | 92 |
| 08:15 AM | 0 | 1 | 9 | 0 | 22 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 65 | 10 | 0 | 110 |
| 08:30 AM | 1 | 2 | 5 | 0 | 18 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 43 | 7 | 0 | 85 |
| 08:45 AM | 0 | 0 | 6 | 0 | 39 | 4 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 36 | 9 | 0 | 97 |
| Total | 1 | 4 | 26 | 0 | 106 | 7 | 16 | 0 | 8 | 0 | 0 | 0 | 1 | 180 | 35 | 0 | 384 |
| Grand Total | 2 | 5 | 37 | 0 | 204 | 12 | 27 | 0 | 15 | 0 | 0 | 0 | 4 | 311 | 63 | 0 | 680 |
| Apprch % | 4.5 | 11.4 | 84.1 | 0 | 84 | 4.9 | 11.1 | 0 | 100 | 0 | 0 | 0 | 1.1 | 82.3 | 16.7 | 0 | |
| Total % | 0.3 | 0.7 | 5.4 | 0 | 30 | 1.8 | 4 | 0 | 2.2 | 0 | 0 | 0 | 0.6 | 45.7 | 9.3 | 0 | |
| Cars | 1 | 5 | 36 | 0 | 204 | 11 | 27 | 0 | 15 | 0 | 0 | 0 | 4 | 309 | 60 | 0 | 672 |
| % Cars | 50 | 100 | 97.3 | 0 | 100 | 91.7 | 100 | 0 | 100 | 0 | 0 | 0 | 100 | 99.4 | 95.2 | 0 | 98.8 |
| Heavy Vehicles | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 8 |
| % Heavy Vehicles | 50 | 0 | 2.7 | 0 | 0 | 8.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 4.8 | 0 | 1.2 |

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 1 | 6 | 0 | 7 | 27 | 0 | 10 | 0 | 37 | 2 | 0 | 0 | 0 | 2 | 1 | 36 | 9 | 0 | 46 | 92 |
| 08:15 AM | 0 | 1 | 9 | 0 | 10 | 22 | 0 | 2 | 0 | 24 | 1 | 0 | 0 | 0 | 1 | 0 | 65 | 10 | 0 | 75 | 110 |
| 08:30 AM | 1 | 2 | 5 | 0 | 8 | 18 | 3 | 3 | 0 | 24 | 3 | 0 | 0 | 0 | 3 | 0 | 43 | 7 | 0 | 50 | 85 |
| 08:45 AM | 0 | 0 | 6 | 0 | 6 | 39 | 4 | 1 | 0 | 44 | 2 | 0 | 0 | 0 | 2 | 0 | 36 | 9 | 0 | 45 | 97 |
| Total Volume | 1 | 4 | 26 | 0 | 31 | 106 | 7 | 16 | 0 | 129 | 8 | 0 | 0 | 0 | 8 | 1 | 180 | 35 | 0 | 216 | 384 |
| % App. Total | 3.2 | 12.9 | 83.9 | 0 | | 82.2 | 5.4 | 12.4 | 0 | | 100 | 0 | 0 | 0 | | 0.5 | 83.3 | 16.2 | 0 | | |
| PHF | .250 | .500 | .722 | .000 | .775 | .679 | .438 | .400 | .000 | .733 | .667 | .000 | .000 | .000 | .667 | .250 | .692 | .875 | .000 | .720 | .873 |
| Cars | 0 | 4 | 25 | 0 | 29 | 106 | 7 | 16 | 0 | 129 | 8 | 0 | 0 | 0 | 8 | 1 | 180 | 33 | 0 | 214 | 380 |
| % Cars | 0 | 100 | 96.2 | 0 | 93.5 | 100 | 100 | 100 | 0 | 100 | 100 | 0 | 0 | 0 | 100 | 100 | 100 | 94.3 | 0 | 99.1 | 99.0 |
| Heavy Vehicles | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 4 |
| % Heavy Vehicles | 100 | 0 | 3.8 | 0 | 6.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5.7 | 0 | 0.9 | 1.0 |

PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Plaza Driveway/ Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 E
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Plaza Driveway From North | | | | Beal Street From East | | | | Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 1 | 2 | 0 | 24 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 9 | 0 | 61 |
| 07:15 AM | 0 | 0 | 5 | 0 | 23 | 3 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 25 | 6 | 0 | 68 |
| 07:30 AM | 0 | 0 | 1 | 0 | 25 | 1 | 3 | 0 | 4 | 0 | 0 | 0 | 1 | 35 | 5 | 0 | 75 |
| 07:45 AM | 1 | 0 | 3 | 0 | 26 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 46 | 7 | 0 | 88 |
| Total | 1 | 1 | 11 | 0 | 98 | 4 | 11 | 0 | 7 | 0 | 0 | 0 | 3 | 129 | 27 | 0 | 292 |
| 08:00 AM | 0 | 1 | 6 | 0 | 27 | 0 | 10 | 0 | 2 | 0 | 0 | 0 | 1 | 36 | 8 | 0 | 91 |
| 08:15 AM | 0 | 1 | 9 | 0 | 22 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 65 | 10 | 0 | 110 |
| 08:30 AM | 0 | 2 | 4 | 0 | 18 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 43 | 7 | 0 | 83 |
| 08:45 AM | 0 | 0 | 6 | 0 | 39 | 4 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 36 | 8 | 0 | 96 |
| Total | 0 | 4 | 25 | 0 | 106 | 7 | 16 | 0 | 8 | 0 | 0 | 0 | 1 | 180 | 33 | 0 | 380 |
| Grand Total | 1 | 5 | 36 | 0 | 204 | 11 | 27 | 0 | 15 | 0 | 0 | 0 | 4 | 309 | 60 | 0 | 672 |
| Apprch % | 2.4 | 11.9 | 85.7 | 0 | 84.3 | 4.5 | 11.2 | 0 | 100 | 0 | 0 | 0 | 1.1 | 82.8 | 16.1 | 0 | |
| Total % | 0.1 | 0.7 | 5.4 | 0 | 30.4 | 1.6 | 4 | 0 | 2.2 | 0 | 0 | 0 | 0.6 | 46 | 8.9 | 0 | |

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 1 | 6 | 0 | 7 | 27 | 0 | 10 | 0 | 37 | 2 | 0 | 0 | 0 | 2 | 1 | 36 | 8 | 0 | 45 | 91 |
| 08:15 AM | 0 | 1 | 9 | 0 | 10 | 22 | 0 | 2 | 0 | 24 | 1 | 0 | 0 | 0 | 1 | 0 | 65 | 10 | 0 | 75 | 110 |
| 08:30 AM | 0 | 2 | 4 | 0 | 6 | 18 | 3 | 3 | 0 | 24 | 3 | 0 | 0 | 0 | 3 | 0 | 43 | 7 | 0 | 50 | 83 |
| 08:45 AM | 0 | 0 | 6 | 0 | 6 | 39 | 4 | 1 | 0 | 44 | 2 | 0 | 0 | 0 | 2 | 0 | 36 | 8 | 0 | 44 | 96 |
| Total Volume | 0 | 4 | 25 | 0 | 29 | 106 | 7 | 16 | 0 | 129 | 8 | 0 | 0 | 0 | 8 | 1 | 180 | 33 | 0 | 214 | 380 |
| % App. Total | 0 | 13.8 | 86.2 | 0 | | 82.2 | 5.4 | 12.4 | 0 | | 100 | 0 | 0 | 0 | | 0.5 | 84.1 | 15.4 | 0 | | |
| PHF | .000 | .500 | .694 | .000 | .725 | .679 | .438 | .400 | .000 | .733 | .667 | .000 | .000 | .000 | .667 | .250 | .692 | .825 | .000 | .713 | .864 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Plaza Driveway/ Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 E
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Plaza Driveway From North | | | | Beal Street From East | | | | Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 4 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 |
| Grand Total | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 8 |
| Apprch % | 50 | 0 | 50 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 60 | 0 | |
| Total % | 12.5 | 0 | 12.5 | 0 | 0 | 12.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 37.5 | 0 | |

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 4 | 5 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 50 | 50 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .250 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .500 | .000 | .500 | .625 |

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E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 E
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM | 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 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM | 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 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total % | | | | | | | | | | | | | | | | | | | | | |

| | Plaza Driveway From North | | | | | | Beal Street From East | | | | | | Driveway From South | | | | | | Beal Street From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:00 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 |
| 07:15 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 |
| 07:30 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 |
| 07:45 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 |
| 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 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

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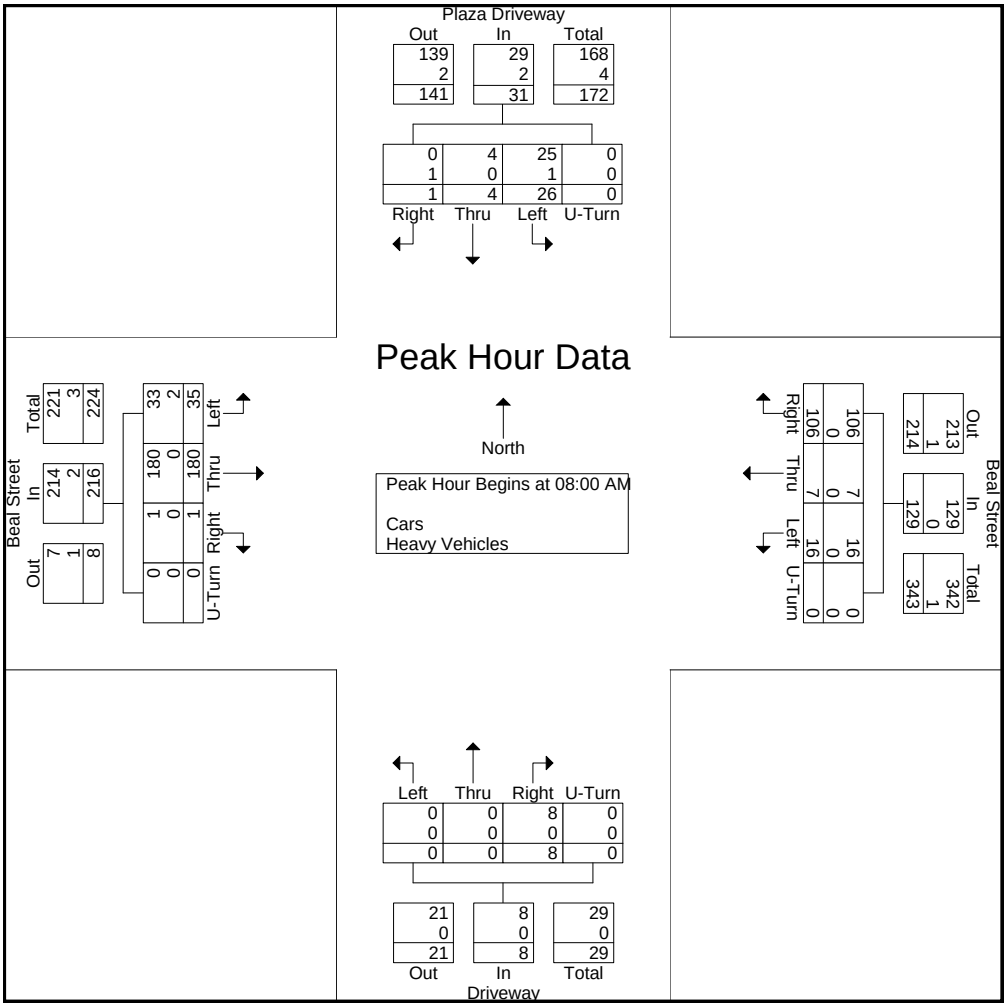
| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 1 | 6 | 0 | 7 | 27 | 0 | 10 | 0 | 37 | 2 | 0 | 0 | 0 | 2 | 1 | 36 | 9 | 0 | 46 | 92 |
| 08:15 AM | 0 | 1 | 9 | 0 | 10 | 22 | 0 | 2 | 0 | 24 | 1 | 0 | 0 | 0 | 1 | 0 | 65 | 10 | 0 | 75 | 110 |
| 08:30 AM | 1 | 2 | 5 | 0 | 8 | 18 | 3 | 3 | 0 | 24 | 3 | 0 | 0 | 0 | 3 | 0 | 43 | 7 | 0 | 50 | 85 |
| 08:45 AM | 0 | 0 | 6 | 0 | 6 | 39 | 4 | 1 | 0 | 44 | 2 | 0 | 0 | 0 | 2 | 0 | 36 | 9 | 0 | 45 | 97 |
| Total Volume | 1 | 4 | 26 | 0 | 31 | 106 | 7 | 16 | 0 | 129 | 8 | 0 | 0 | 0 | 8 | 1 | 180 | 35 | 0 | 216 | 384 |
| % App. Total | 3.2 | 12.9 | 83.9 | 0 | | 82.2 | 5.4 | 12.4 | 0 | | 100 | 0 | 0 | 0 | | 0.5 | 83.3 | 16.2 | 0 | | |
| PHF | .250 | .500 | .722 | .000 | .775 | .679 | .438 | .400 | .000 | .733 | .667 | .000 | .000 | .000 | .667 | .250 | .692 | .875 | .000 | .720 | .873 |
| Cars | 0 | 4 | 25 | 0 | 29 | 106 | 7 | 16 | 0 | 129 | 8 | 0 | 0 | 0 | 8 | 1 | 180 | 33 | 0 | 214 | 380 |
| % Cars | 0 | 100 | 96.2 | 0 | 93.5 | 100 | 100 | 100 | 0 | 100 | 100 | 0 | 0 | 0 | 100 | 100 | 100 | 94.3 | 0 | 99.1 | 99.0 |
| Heavy Vehicles | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 4 |
| % Heavy Vehicles | 100 | 0 | 3.8 | 0 | 6.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5.7 | 0 | 0.9 | 1.0 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Plaza Driveway/ Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 EE
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Plaza Driveway From North | | | | Beal Street From East | | | | Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 1 | 0 | 27 | 0 | 30 | 2 | 1 | 3 | 2 | 0 | 0 | 0 | 0 | 49 | 18 | 0 | 133 |
| 04:15 PM | 1 | 0 | 26 | 0 | 12 | 5 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 55 | 26 | 0 | 132 |
| 04:30 PM | 0 | 0 | 15 | 0 | 28 | 5 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 58 | 28 | 0 | 138 |
| 04:45 PM | 1 | 0 | 18 | 0 | 19 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 50 | 18 | 0 | 110 |
| Total | 3 | 0 | 86 | 0 | 89 | 15 | 2 | 4 | 12 | 0 | 0 | 0 | 0 | 212 | 90 | 0 | 513 |
| 05:00 PM | 0 | 0 | 24 | 0 | 48 | 6 | 1 | 5 | 1 | 0 | 0 | 0 | 1 | 76 | 32 | 0 | 194 |
| 05:15 PM | 0 | 0 | 30 | 0 | 26 | 5 | 1 | 8 | 3 | 2 | 0 | 0 | 1 | 92 | 27 | 0 | 195 |
| 05:30 PM | 0 | 0 | 26 | 0 | 47 | 3 | 2 | 6 | 5 | 1 | 0 | 0 | 1 | 86 | 29 | 0 | 206 |
| 05:45 PM | 0 | 0 | 26 | 0 | 25 | 3 | 5 | 2 | 4 | 0 | 0 | 0 | 1 | 78 | 27 | 0 | 171 |
| Total | 0 | 0 | 106 | 0 | 146 | 17 | 9 | 21 | 13 | 3 | 0 | 0 | 4 | 332 | 115 | 0 | 766 |
| Grand Total | 3 | 0 | 192 | 0 | 235 | 32 | 11 | 25 | 25 | 3 | 0 | 0 | 4 | 544 | 205 | 0 | 1279 |
| Apprch % | 1.5 | 0 | 98.5 | 0 | 77.6 | 10.6 | 3.6 | 8.3 | 89.3 | 10.7 | 0 | 0 | 0.5 | 72.2 | 27.2 | 0 | |
| Total % | 0.2 | 0 | 15 | 0 | 18.4 | 2.5 | 0.9 | 2 | 2 | 0.2 | 0 | 0 | 0.3 | 42.5 | 16 | 0 | |
| Cars | 3 | 0 | 191 | 0 | 235 | 32 | 11 | 25 | 24 | 3 | 0 | 0 | 4 | 543 | 204 | 0 | 1275 |
| % Cars | 100 | 0 | 99.5 | 0 | 100 | 100 | 100 | 100 | 96 | 100 | 0 | 0 | 100 | 99.8 | 99.5 | 0 | 99.7 |
| Heavy Vehicles | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 4 |
| % Heavy Vehicles | 0 | 0 | 0.5 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0.2 | 0.5 | 0 | 0.3 |

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 0 | 24 | 0 | 24 | 48 | 6 | 1 | 5 | 60 | 1 | 0 | 0 | 0 | 1 | 1 | 76 | 32 | 0 | 109 | 194 |
| 05:15 PM | 0 | 0 | 30 | 0 | 30 | 26 | 5 | 1 | 8 | 40 | 3 | 2 | 0 | 0 | 5 | 1 | 92 | 27 | 0 | 120 | 195 |
| 05:30 PM | 0 | 0 | 26 | 0 | 26 | 47 | 3 | 2 | 6 | 58 | 5 | 1 | 0 | 0 | 6 | 1 | 86 | 29 | 0 | 116 | 206 |
| 05:45 PM | 0 | 0 | 26 | 0 | 26 | 25 | 3 | 5 | 2 | 35 | 4 | 0 | 0 | 0 | 4 | 1 | 78 | 27 | 0 | 106 | 171 |
| Total Volume | 0 | 0 | 106 | 0 | 106 | 146 | 17 | 9 | 21 | 193 | 13 | 3 | 0 | 0 | 16 | 4 | 332 | 115 | 0 | 451 | 766 |
| % App. Total | 0 | 0 | 100 | 0 | | 75.6 | 8.8 | 4.7 | 10.9 | | 81.2 | 18.8 | 0 | 0 | | 0.9 | 73.6 | 25.5 | 0 | | |
| PHF | .000 | .000 | .883 | .000 | .883 | .760 | .708 | .450 | .656 | .804 | .650 | .375 | .000 | .000 | .667 | 1.00 | .902 | .898 | .000 | .940 | .930 |
| Cars | 0 | 0 | 105 | 0 | 105 | 146 | 17 | 9 | 21 | 193 | 13 | 3 | 0 | 0 | 16 | 4 | 332 | 114 | 0 | 450 | 764 |
| % Cars | 0 | 0 | 99.1 | 0 | 99.1 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 100 | 100 | 100 | 99.1 | 0 | 99.8 | 99.7 |
| Heavy Vehicles | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| % Heavy Vehicles | 0 | 0 | 0.9 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0.2 | 0.3 |

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46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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N/S: Plaza Driveway/ Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 EE
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Plaza Driveway From North | | | | Beal Street From East | | | | Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 1 | 0 | 27 | 0 | 30 | 2 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 49 | 18 | 0 | 132 |
| 04:15 PM | 1 | 0 | 26 | 0 | 12 | 5 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 54 | 26 | 0 | 131 |
| 04:30 PM | 0 | 0 | 15 | 0 | 28 | 5 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 58 | 28 | 0 | 138 |
| 04:45 PM | 1 | 0 | 18 | 0 | 19 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 50 | 18 | 0 | 110 |
| Total | 3 | 0 | 86 | 0 | 89 | 15 | 2 | 4 | 11 | 0 | 0 | 0 | 0 | 211 | 90 | 0 | 511 |
| 05:00 PM | 0 | 0 | 24 | 0 | 48 | 6 | 1 | 5 | 1 | 0 | 0 | 0 | 1 | 76 | 32 | 0 | 194 |
| 05:15 PM | 0 | 0 | 30 | 0 | 26 | 5 | 1 | 8 | 3 | 2 | 0 | 0 | 1 | 92 | 27 | 0 | 195 |
| 05:30 PM | 0 | 0 | 26 | 0 | 47 | 3 | 2 | 6 | 5 | 1 | 0 | 0 | 1 | 86 | 28 | 0 | 205 |
| 05:45 PM | 0 | 0 | 25 | 0 | 25 | 3 | 5 | 2 | 4 | 0 | 0 | 0 | 1 | 78 | 27 | 0 | 170 |
| Total | 0 | 0 | 105 | 0 | 146 | 17 | 9 | 21 | 13 | 3 | 0 | 0 | 4 | 332 | 114 | 0 | 764 |
| Grand Total | 3 | 0 | 191 | 0 | 235 | 32 | 11 | 25 | 24 | 3 | 0 | 0 | 4 | 543 | 204 | 0 | 1275 |
| Apprch % | 1.5 | 0 | 98.5 | 0 | 77.6 | 10.6 | 3.6 | 8.3 | 88.9 | 11.1 | 0 | 0 | 0.5 | 72.3 | 27.2 | 0 | |
| Total % | 0.2 | 0 | 15 | 0 | 18.4 | 2.5 | 0.9 | 2 | 1.9 | 0.2 | 0 | 0 | 0.3 | 42.6 | 16 | 0 | |

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 0 | 24 | 0 | 24 | 48 | 6 | 1 | 5 | 60 | 1 | 0 | 0 | 0 | 1 | 1 | 76 | 32 | 0 | 109 | 194 |
| 05:15 PM | 0 | 0 | 30 | 0 | 30 | 26 | 5 | 1 | 8 | 40 | 3 | 2 | 0 | 0 | 5 | 1 | 92 | 27 | 0 | 120 | 195 |
| 05:30 PM | 0 | 0 | 26 | 0 | 26 | 47 | 3 | 2 | 6 | 58 | 5 | 1 | 0 | 0 | 6 | 1 | 86 | 28 | 0 | 115 | 205 |
| 05:45 PM | 0 | 0 | 25 | 0 | 25 | 25 | 3 | 5 | 2 | 35 | 4 | 0 | 0 | 0 | 4 | 1 | 78 | 27 | 0 | 106 | 170 |
| Total Volume | 0 | 0 | 105 | 0 | 105 | 146 | 17 | 9 | 21 | 193 | 13 | 3 | 0 | 0 | 16 | 4 | 332 | 114 | 0 | 450 | 764 |
| % App. Total | 0 | 0 | 100 | 0 | | 75.6 | 8.8 | 4.7 | 10.9 | | 81.2 | 18.8 | 0 | 0 | | 0.9 | 73.8 | 25.3 | 0 | | |
| PHF | .000 | .000 | .875 | .000 | .875 | .760 | .708 | .450 | .656 | .804 | .650 | .375 | .000 | .000 | .667 | 1.00 | .902 | .891 | .000 | .938 | .932 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Plaza Driveway/ Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 EE
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Plaza Driveway From North | | | | Beal Street From East | | | | Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 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 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 05:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| Grand Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 4 |
| Apprch % | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 50 | 50 | 0 | |
| Total % | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 25 | 25 | 0 | |

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 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 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 2 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 100 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .000 | .250 | .500 |

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City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 EE
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 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 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Grand Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Apprch % | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | |
| Total % | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | |

| | Plaza Driveway From North | | | | | | Beal Street From East | | | | | | Driveway From South | | | | | | Beal Street From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 05:15 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 |
| 05:30 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 |
| 05:45 PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| % App. Total | 0 | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 100 | | |
| PHF | .000 | .000 | .000 | .000 | .250 | .250 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .250 | .500 |

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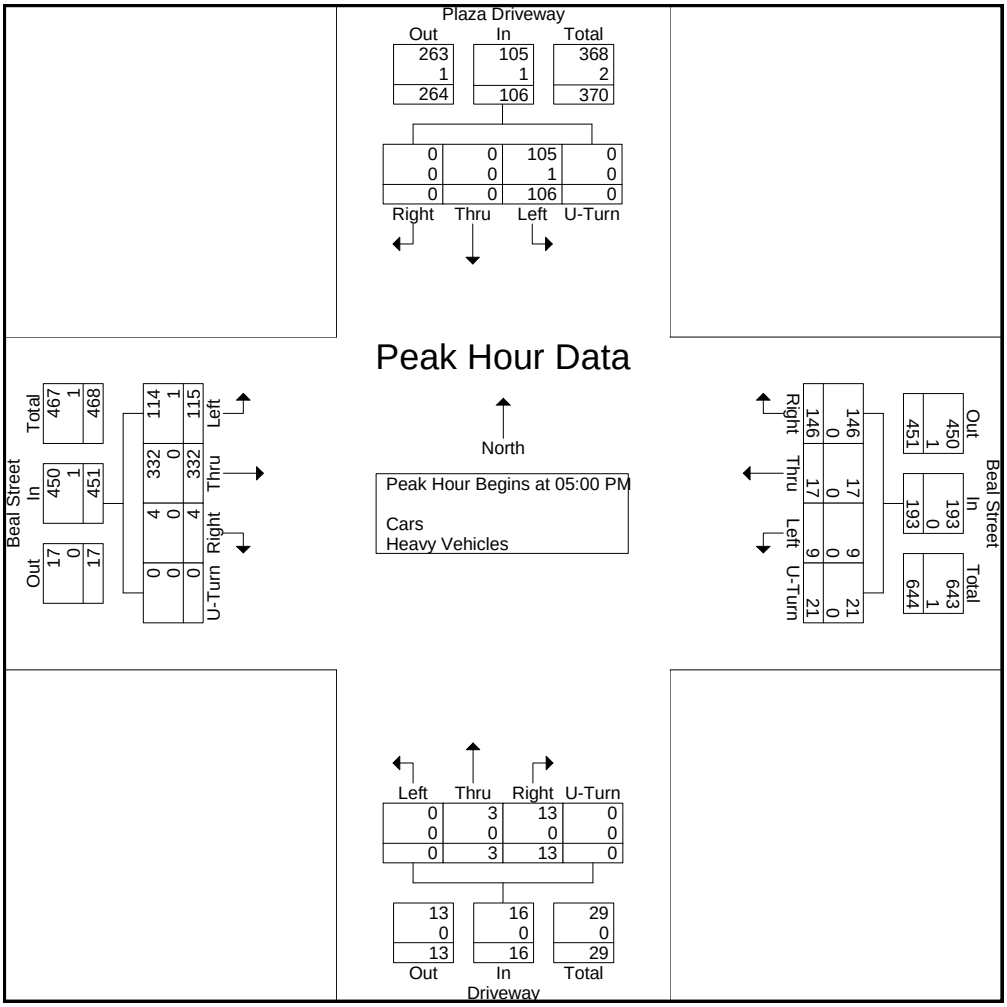
File Name : 165077 EE
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 0 | 24 | 0 | 24 | 48 | 6 | 1 | 5 | 60 | 1 | 0 | 0 | 0 | 1 | 1 | 76 | 32 | 0 | 109 | 194 |
| 05:15 PM | 0 | 0 | 30 | 0 | 30 | 26 | 5 | 1 | 8 | 40 | 3 | 2 | 0 | 0 | 5 | 1 | 92 | 27 | 0 | 120 | 195 |
| 05:30 PM | 0 | 0 | 26 | 0 | 26 | 47 | 3 | 2 | 6 | 58 | 5 | 1 | 0 | 0 | 6 | 1 | 86 | 29 | 0 | 116 | 206 |
| 05:45 PM | 0 | 0 | 26 | 0 | 26 | 25 | 3 | 5 | 2 | 35 | 4 | 0 | 0 | 0 | 4 | 1 | 78 | 27 | 0 | 106 | 171 |
| Total Volume | 0 | 0 | 106 | 0 | 106 | 146 | 17 | 9 | 21 | 193 | 13 | 3 | 0 | 0 | 16 | 4 | 332 | 115 | 0 | 451 | 766 |
| % App. Total | 0 | 0 | 100 | 0 | | 75.6 | 8.8 | 4.7 | 10.9 | | 81.2 | 18.8 | 0 | 0 | | 0.9 | 73.6 | 25.5 | 0 | | |
| PHF | .000 | .000 | .883 | .000 | .883 | .760 | .708 | .450 | .656 | .804 | .650 | .375 | .000 | .000 | .667 | 1.00 | .902 | .898 | .000 | .940 | .930 |
| Cars | 0 | 0 | 105 | 0 | 105 | 146 | 17 | 9 | 21 | 193 | 13 | 3 | 0 | 0 | 16 | 4 | 332 | 114 | 0 | 450 | 764 |
| % Cars | 0 | 0 | 99.1 | 0 | 99.1 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 100 | 100 | 100 | 99.1 | 0 | 99.8 | 99.7 |
| Heavy Vehicles | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| % Heavy Vehicles | 0 | 0 | 0.9 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0.2 | 0.3 |



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Email: datarequests@pdillc.com

N/S: Plaza Driveway/ Driveway
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 EEE
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Plaza Driveway From North | | | | Beal Street From East | | | | Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 0 | 0 | 20 | 0 | 29 | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 48 | 26 | 0 | 133 |
| 10:45 AM | 1 | 0 | 33 | 0 | 38 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 56 | 22 | 0 | 155 |
| Total | 1 | 0 | 53 | 0 | 67 | 10 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 104 | 48 | 0 | 288 |
| 11:00 AM | 0 | 0 | 29 | 0 | 48 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 62 | 27 | 0 | 172 |
| 11:15 AM | 1 | 0 | 27 | 0 | 35 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 67 | 30 | 0 | 167 |
| 11:30 AM | 0 | 0 | 27 | 0 | 27 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 18 | 0 | 122 |
| 11:45 AM | 0 | 0 | 28 | 0 | 34 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 16 | 0 | 129 |
| Total | 1 | 0 | 111 | 0 | 144 | 19 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 220 | 91 | 0 | 590 |
| 12:00 PM | 0 | 0 | 24 | 0 | 30 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 72 | 34 | 0 | 166 |
| 12:15 PM | 0 | 0 | 26 | 0 | 34 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 54 | 39 | 0 | 158 |
| 12:30 PM | 0 | 0 | 22 | 0 | 26 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 72 | 25 | 0 | 153 |
| 12:45 PM | 2 | 0 | 20 | 0 | 30 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 34 | 0 | 138 |
| Total | 2 | 0 | 92 | 0 | 120 | 22 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 242 | 132 | 0 | 615 |
| 01:00 PM | 3 | 0 | 29 | 0 | 29 | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 45 | 26 | 0 | 141 |
| 01:15 PM | 3 | 0 | 25 | 0 | 40 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 29 | 0 | 161 |
| Grand Total | 10 | 0 | 310 | 0 | 400 | 64 | 3 | 4 | 4 | 1 | 0 | 0 | 3 | 670 | 326 | 0 | 1795 |
| Apprch % | 3.1 | 0 | 96.9 | 0 | 84.9 | 13.6 | 0.6 | 0.8 | 80 | 20 | 0 | 0 | 0.3 | 67.1 | 32.6 | 0 | |
| Total % | 0.6 | 0 | 17.3 | 0 | 22.3 | 3.6 | 0.2 | 0.2 | 0.2 | 0.1 | 0 | 0 | 0.2 | 37.3 | 18.2 | 0 | |
| Cars | 10 | 0 | 310 | 0 | 398 | 62 | 3 | 4 | 4 | 1 | 0 | 0 | 2 | 666 | 324 | 0 | 1784 |
| % Cars | 100 | 0 | 100 | 0 | 99.5 | 96.9 | 100 | 100 | 100 | 100 | 0 | 0 | 66.7 | 99.4 | 99.4 | 0 | 99.4 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 0 | 11 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0.5 | 3.1 | 0 | 0 | 0 | 0 | 0 | 0 | 33.3 | 0.6 | 0.6 | 0 | 0.6 |

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 10:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 10:30 AM | 0 | 0 | 20 | 0 | 20 | 29 | 9 | 0 | 1 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 26 | 0 | 74 | 133 |
| 10:45 AM | 1 | 0 | 33 | 0 | 34 | 38 | 1 | 1 | 1 | 41 | 1 | 1 | 0 | 0 | 2 | 0 | 56 | 22 | 0 | 78 | 155 |
| 11:00 AM | 0 | 0 | 29 | 0 | 29 | 48 | 4 | 0 | 0 | 52 | 1 | 0 | 0 | 0 | 1 | 1 | 62 | 27 | 0 | 90 | 172 |
| 11:15 AM | 1 | 0 | 27 | 0 | 28 | 35 | 5 | 0 | 1 | 41 | 0 | 0 | 0 | 0 | 0 | 1 | 67 | 30 | 0 | 98 | 167 |
| Total Volume | 2 | 0 | 109 | 0 | 111 | 150 | 19 | 1 | 3 | 173 | 2 | 1 | 0 | 0 | 3 | 2 | 233 | 105 | 0 | 340 | 627 |
| % App. Total | 1.8 | 0 | 98.2 | 0 | | 86.7 | 11 | 0.6 | 1.7 | | 66.7 | 33.3 | 0 | 0 | | 0.6 | 68.5 | 30.9 | 0 | | |
| PHF | .500 | .000 | .826 | .000 | .816 | .781 | .528 | .250 | .750 | .832 | .500 | .250 | .000 | .000 | .375 | .500 | .869 | .875 | .000 | .867 | .911 |
| Cars | 2 | 0 | 109 | 0 | 111 | 150 | 18 | 1 | 3 | 172 | 2 | 1 | 0 | 0 | 3 | 1 | 231 | 105 | 0 | 337 | 623 |
| % Cars | 100 | 0 | 100 | 0 | 100 | 100 | 94.7 | 100 | 100 | 99.4 | 100 | 100 | 0 | 0 | 100 | 50.0 | 99.1 | 100 | 0 | 99.1 | 99.4 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 4 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 5.3 | 0 | 0 | 0.6 | 0 | 0 | 0 | 0 | 0 | 50.0 | 0.9 | 0 | 0 | 0.9 | 0.6 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 EEE
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars**

| | Plaza Driveway From North | | | | Beal Street From East | | | | Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 0 | 0 | 20 | 0 | 29 | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 47 | 26 | 0 | 131 |
| 10:45 AM | 1 | 0 | 33 | 0 | 38 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 55 | 22 | 0 | 154 |
| Total | 1 | 0 | 53 | 0 | 67 | 9 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 102 | 48 | 0 | 285 |
| 11:00 AM | 0 | 0 | 29 | 0 | 48 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 62 | 27 | 0 | 172 |
| 11:15 AM | 1 | 0 | 27 | 0 | 35 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 67 | 30 | 0 | 166 |
| 11:30 AM | 0 | 0 | 27 | 0 | 26 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 18 | 0 | 121 |
| 11:45 AM | 0 | 0 | 28 | 0 | 33 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 16 | 0 | 128 |
| Total | 1 | 0 | 111 | 0 | 142 | 19 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 220 | 91 | 0 | 587 |
| 12:00 PM | 0 | 0 | 24 | 0 | 30 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 72 | 33 | 0 | 164 |
| 12:15 PM | 0 | 0 | 26 | 0 | 34 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 54 | 39 | 0 | 158 |
| 12:30 PM | 0 | 0 | 22 | 0 | 26 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 71 | 25 | 0 | 152 |
| 12:45 PM | 2 | 0 | 20 | 0 | 30 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 33 | 0 | 137 |
| Total | 2 | 0 | 92 | 0 | 120 | 21 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 241 | 130 | 0 | 611 |
| 01:00 PM | 3 | 0 | 29 | 0 | 29 | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 45 | 26 | 0 | 141 |
| 01:15 PM | 3 | 0 | 25 | 0 | 40 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 29 | 0 | 160 |
| Grand Total | 10 | 0 | 310 | 0 | 398 | 62 | 3 | 4 | 4 | 1 | 0 | 0 | 2 | 666 | 324 | 0 | 1784 |
| Apprch % | 3.1 | 0 | 96.9 | 0 | 85.2 | 13.3 | 0.6 | 0.9 | 80 | 20 | 0 | 0 | 0.2 | 67.1 | 32.7 | 0 | |
| Total % | 0.6 | 0 | 17.4 | 0 | 22.3 | 3.5 | 0.2 | 0.2 | 0.2 | 0.1 | 0 | 0 | 0.1 | 37.3 | 18.2 | 0 | |

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 10:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 10:30 AM | 0 | 0 | 20 | 0 | 20 | 29 | 8 | 0 | 1 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 26 | 0 | 73 | 131 |
| 10:45 AM | 1 | 0 | 33 | 0 | 34 | 38 | 1 | 1 | 1 | 41 | 1 | 1 | 0 | 0 | 2 | 0 | 55 | 22 | 0 | 77 | 154 |
| 11:00 AM | 0 | 0 | 29 | 0 | 29 | 48 | 4 | 0 | 0 | 52 | 1 | 0 | 0 | 0 | 1 | 1 | 62 | 27 | 0 | 90 | 172 |
| 11:15 AM | 1 | 0 | 27 | 0 | 28 | 35 | 5 | 0 | 1 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 30 | 0 | 97 | 166 |
| Total Volume | 2 | 0 | 109 | 0 | 111 | 150 | 18 | 1 | 3 | 172 | 2 | 1 | 0 | 0 | 3 | 1 | 231 | 105 | 0 | 337 | 623 |
| % App. Total | 1.8 | 0 | 98.2 | 0 | | 87.2 | 10.5 | 0.6 | 1.7 | | 66.7 | 33.3 | 0 | 0 | | 0.3 | 68.5 | 31.2 | 0 | | |
| PHF | .500 | .000 | .826 | .000 | .816 | .781 | .563 | .250 | .750 | .827 | .500 | .250 | .000 | .000 | .375 | .250 | .862 | .875 | .000 | .869 | .906 |

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City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 EEE
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Plaza Driveway From North | | | | Beal Street From East | | | | Driveway From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 11:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 4 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Grand Total | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 0 | 11 |
| Apprch % | 0 | 0 | 0 | 0 | 50 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 14.3 | 57.1 | 28.6 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 18.2 | 18.2 | 0 | 0 | 0 | 0 | 0 | 0 | 9.1 | 36.4 | 18.2 | 0 | |

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 11:15 AM | | | | | | | | | | | | | | | | | | | | | |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 5 |
| % App. Total | 0 | 0 | 0 | 0 | | 66.7 | 33.3 | 0 | 0 | | 0 | 0 | 0 | 0 | | 50 | 0 | 50 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .500 | .250 | .000 | .000 | .750 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .500 | .625 |

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**Groups Printed- Peds and Bikes**

| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 10:45 AM | 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 | 1 | 0 | 0 | 1 |
| 11:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| 12:45 PM | 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 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 6 |
| Apprch % | 33.3 | 0 | 0 | 33.3 | 33.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 50 | 0 | 0 | 100 | 0 | 0 | |
| Total % | 16.7 | 0 | 0 | 16.7 | 16.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16.7 | 16.7 | 0 | 0 | 16.7 | 0 | 0 | |

| | Plaza Driveway From North | | | | | | Beal Street From East | | | | | | Driveway From South | | | | | | Beal Street From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 10:30 AM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 10:45 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 |
| 11:00 AM | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 3 |
| % App. Total | 100 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | 0 | | 0 | 0 | 100 | 0 | 0 | | |
| PHF | .250 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .000 | .250 | .000 | .000 | .250 | .750 |

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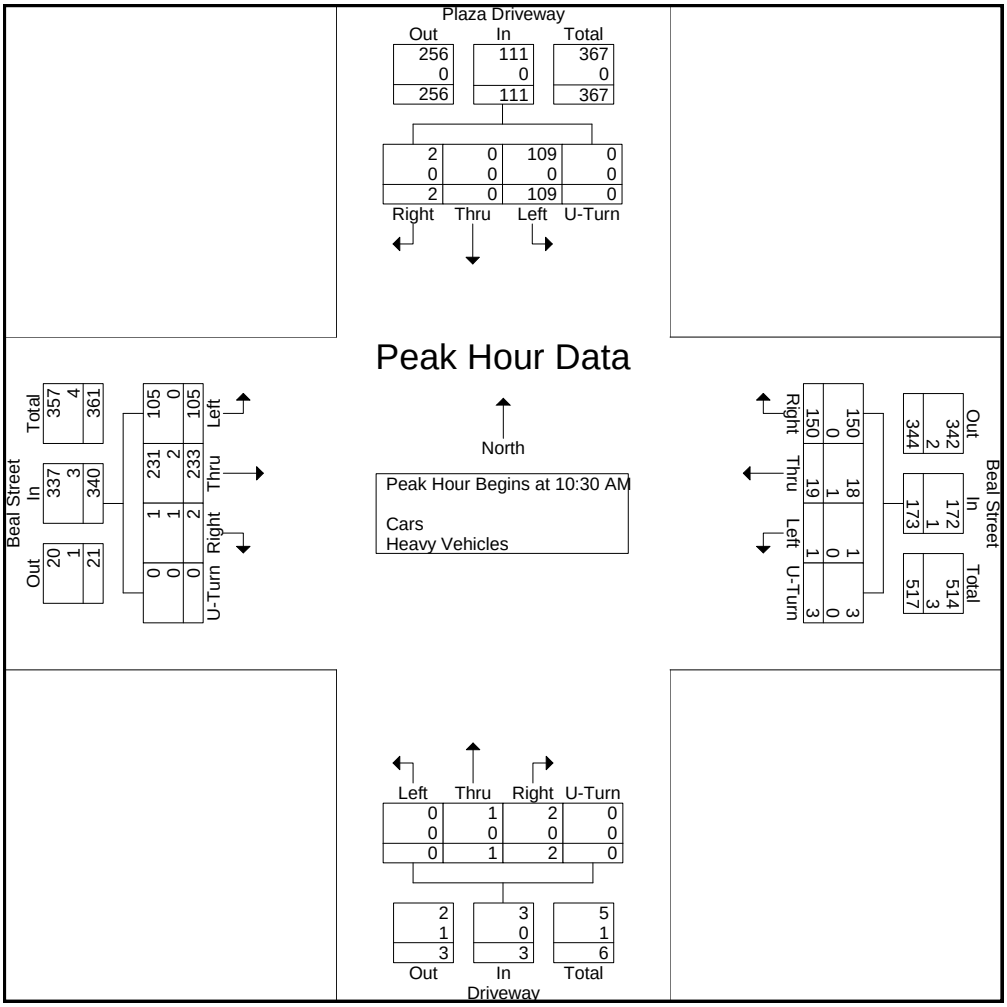
| | Plaza Driveway From North | | | | | Beal Street From East | | | | | Driveway From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 10:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 10:30 AM | 0 | 0 | 20 | 0 | 20 | 29 | 9 | 0 | 1 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 26 | 0 | 74 | 133 |
| 10:45 AM | 1 | 0 | 33 | 0 | 34 | 38 | 1 | 1 | 1 | 41 | 1 | 1 | 0 | 0 | 2 | 0 | 56 | 22 | 0 | 78 | 155 |
| 11:00 AM | 0 | 0 | 29 | 0 | 29 | 48 | 4 | 0 | 0 | 52 | 1 | 0 | 0 | 0 | 1 | 1 | 62 | 27 | 0 | 90 | 172 |
| 11:15 AM | 1 | 0 | 27 | 0 | 28 | 35 | 5 | 0 | 1 | 41 | 0 | 0 | 0 | 0 | 0 | 1 | 67 | 30 | 0 | 98 | 167 |
| Total Volume | 2 | 0 | 109 | 0 | 111 | 150 | 19 | 1 | 3 | 173 | 2 | 1 | 0 | 0 | 3 | 2 | 233 | 105 | 0 | 340 | 627 |
| % App. Total | 1.8 | 0 | 98.2 | 0 | | 86.7 | 11 | 0.6 | 1.7 | | 66.7 | 33.3 | 0 | 0 | | 0.6 | 68.5 | 30.9 | 0 | | |
| PHF | .500 | .000 | .826 | .000 | .816 | .781 | .528 | .250 | .750 | .832 | .500 | .250 | .000 | .000 | .375 | .500 | .869 | .875 | .000 | .867 | .911 |
| Cars | 2 | 0 | 109 | 0 | 111 | 150 | 18 | 1 | 3 | 172 | 2 | 1 | 0 | 0 | 3 | 1 | 231 | 105 | 0 | 337 | 623 |
| % Cars | 100 | 0 | 100 | 0 | 100 | 100 | 94.7 | 100 | 100 | 99.4 | 100 | 100 | 0 | 0 | 100 | 50.0 | 99.1 | 100 | 0 | 99.1 | 99.4 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 4 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 5.3 | 0 | 0 | 0.6 | 0 | 0 | 0 | 0 | 0 | 50.0 | 0.9 | 0 | 0 | 0.9 | 0.6 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Fottler Road/ Tuckers Lane
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 F
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Fottlers Road From North | | | | Beal Street From East | | | | Tuckers Lane From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 4 | 0 | 9 | 0 | 11 | 82 | 2 | 0 | 2 | 0 | 7 | 0 | 4 | 32 | 2 | 0 | 155 |
| 07:15 AM | 7 | 0 | 11 | 0 | 15 | 88 | 0 | 0 | 6 | 1 | 1 | 0 | 1 | 25 | 9 | 0 | 164 |
| 07:30 AM | 5 | 0 | 18 | 0 | 27 | 112 | 0 | 0 | 4 | 1 | 5 | 0 | 2 | 32 | 5 | 0 | 211 |
| 07:45 AM | 7 | 0 | 15 | 0 | 24 | 117 | 0 | 0 | 4 | 2 | 1 | 0 | 2 | 49 | 4 | 0 | 225 |
| Total | 23 | 0 | 53 | 0 | 77 | 399 | 2 | 0 | 16 | 4 | 14 | 0 | 9 | 138 | 20 | 0 | 755 |
| 08:00 AM | 8 | 0 | 24 | 0 | 23 | 117 | 0 | 0 | 4 | 0 | 6 | 0 | 1 | 42 | 5 | 0 | 230 |
| 08:15 AM | 5 | 2 | 18 | 0 | 24 | 122 | 1 | 0 | 1 | 3 | 3 | 0 | 2 | 48 | 6 | 0 | 235 |
| 08:30 AM | 3 | 0 | 8 | 0 | 36 | 124 | 2 | 0 | 5 | 2 | 4 | 0 | 1 | 44 | 2 | 0 | 231 |
| 08:45 AM | 6 | 1 | 13 | 0 | 16 | 77 | 0 | 0 | 2 | 2 | 3 | 0 | 1 | 53 | 5 | 0 | 179 |
| Total | 22 | 3 | 63 | 0 | 99 | 440 | 3 | 0 | 12 | 7 | 16 | 0 | 5 | 187 | 18 | 0 | 875 |
| Grand Total | 45 | 3 | 116 | 0 | 176 | 839 | 5 | 0 | 28 | 11 | 30 | 0 | 14 | 325 | 38 | 0 | 1630 |
| Apprch % | 27.4 | 1.8 | 70.7 | 0 | 17.3 | 82.3 | 0.5 | 0 | 40.6 | 15.9 | 43.5 | 0 | 3.7 | 86.2 | 10.1 | 0 | |
| Total % | 2.8 | 0.2 | 7.1 | 0 | 10.8 | 51.5 | 0.3 | 0 | 1.7 | 0.7 | 1.8 | 0 | 0.9 | 19.9 | 2.3 | 0 | |
| Cars | 45 | 3 | 112 | 0 | 174 | 833 | 5 | 0 | 28 | 10 | 30 | 0 | 12 | 312 | 35 | 0 | 1599 |
| % Cars | 100 | 100 | 96.6 | 0 | 98.9 | 99.3 | 100 | 0 | 100 | 90.9 | 100 | 0 | 85.7 | 96 | 92.1 | 0 | 98.1 |
| Heavy Vehicles | 0 | 0 | 4 | 0 | 2 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 13 | 3 | 0 | 31 |
| % Heavy Vehicles | 0 | 0 | 3.4 | 0 | 1.1 | 0.7 | 0 | 0 | 0 | 9.1 | 0 | 0 | 14.3 | 4 | 7.9 | 0 | 1.9 |

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:45 AM | 7 | 0 | 15 | 0 | 22 | 24 | 117 | 0 | 0 | 141 | 4 | 2 | 1 | 0 | 7 | 2 | 49 | 4 | 0 | 55 | 225 |
| 08:00 AM | 8 | 0 | 24 | 0 | 32 | 23 | 117 | 0 | 0 | 140 | 4 | 0 | 6 | 0 | 10 | 1 | 42 | 5 | 0 | 48 | 230 |
| 08:15 AM | 5 | 2 | 18 | 0 | 25 | 24 | 122 | 1 | 0 | 147 | 1 | 3 | 3 | 0 | 7 | 2 | 48 | 6 | 0 | 56 | 235 |
| 08:30 AM | 3 | 0 | 8 | 0 | 11 | 36 | 124 | 2 | 0 | 162 | 5 | 2 | 4 | 0 | 11 | 1 | 44 | 2 | 0 | 47 | 231 |
| Total Volume | 23 | 2 | 65 | 0 | 90 | 107 | 480 | 3 | 0 | 590 | 14 | 7 | 14 | 0 | 35 | 6 | 183 | 17 | 0 | 206 | 921 |
| % App. Total | 25.6 | 2.2 | 72.2 | 0 | | 18.1 | 81.4 | 0.5 | 0 | | 40 | 20 | 40 | 0 | | 2.9 | 88.8 | 8.3 | 0 | | |
| PHF | .719 | .250 | .677 | .000 | .703 | .743 | .968 | .375 | .000 | .910 | .700 | .583 | .583 | .000 | .795 | .750 | .934 | .708 | .000 | .920 | .980 |
| Cars | 23 | 2 | 62 | 0 | 87 | 106 | 479 | 3 | 0 | 588 | 14 | 6 | 14 | 0 | 34 | 4 | 174 | 16 | 0 | 194 | 903 |
| % Cars | 100 | 100 | 95.4 | 0 | 96.7 | 99.1 | 99.8 | 100 | 0 | 99.7 | 100 | 85.7 | 100 | 0 | 97.1 | 66.7 | 95.1 | 94.1 | 0 | 94.2 | 98.0 |
| Heavy Vehicles | 0 | 0 | 3 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 2 | 9 | 1 | 0 | 12 | 18 |
| % Heavy Vehicles | 0 | 0 | 4.6 | 0 | 3.3 | 0.9 | 0.2 | 0 | 0 | 0.3 | 0 | 14.3 | 0 | 0 | 2.9 | 33.3 | 4.9 | 5.9 | 0 | 5.8 | 2.0 |

PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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N/S: Fottler Road/ Tuckers Lane
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 F
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Fottlers Road From North | | | | Beal Street From East | | | | Tuckers Lane From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 4 | 0 | 9 | 0 | 11 | 82 | 2 | 0 | 2 | 0 | 7 | 0 | 4 | 31 | 2 | 0 | 154 |
| 07:15 AM | 7 | 0 | 11 | 0 | 15 | 87 | 0 | 0 | 6 | 1 | 1 | 0 | 1 | 25 | 7 | 0 | 161 |
| 07:30 AM | 5 | 0 | 17 | 0 | 27 | 109 | 0 | 0 | 4 | 1 | 5 | 0 | 2 | 32 | 5 | 0 | 207 |
| 07:45 AM | 7 | 0 | 15 | 0 | 24 | 116 | 0 | 0 | 4 | 2 | 1 | 0 | 2 | 47 | 3 | 0 | 221 |
| Total | 23 | 0 | 52 | 0 | 77 | 394 | 2 | 0 | 16 | 4 | 14 | 0 | 9 | 135 | 17 | 0 | 743 |
| 08:00 AM | 8 | 0 | 23 | 0 | 22 | 117 | 0 | 0 | 4 | 0 | 6 | 0 | 1 | 42 | 5 | 0 | 228 |
| 08:15 AM | 5 | 2 | 16 | 0 | 24 | 122 | 1 | 0 | 1 | 2 | 3 | 0 | 1 | 43 | 6 | 0 | 226 |
| 08:30 AM | 3 | 0 | 8 | 0 | 36 | 124 | 2 | 0 | 5 | 2 | 4 | 0 | 0 | 42 | 2 | 0 | 228 |
| 08:45 AM | 6 | 1 | 13 | 0 | 15 | 76 | 0 | 0 | 2 | 2 | 3 | 0 | 1 | 50 | 5 | 0 | 174 |
| Total | 22 | 3 | 60 | 0 | 97 | 439 | 3 | 0 | 12 | 6 | 16 | 0 | 3 | 177 | 18 | 0 | 856 |
| Grand Total | 45 | 3 | 112 | 0 | 174 | 833 | 5 | 0 | 28 | 10 | 30 | 0 | 12 | 312 | 35 | 0 | 1599 |
| Apprch % | 28.1 | 1.9 | 70 | 0 | 17.2 | 82.3 | 0.5 | 0 | 41.2 | 14.7 | 44.1 | 0 | 3.3 | 86.9 | 9.7 | 0 | |
| Total % | 2.8 | 0.2 | 7 | 0 | 10.9 | 52.1 | 0.3 | 0 | 1.8 | 0.6 | 1.9 | 0 | 0.8 | 19.5 | 2.2 | 0 | |

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:45 AM | 7 | 0 | 15 | 0 | 22 | 24 | 116 | 0 | 0 | 140 | 4 | 2 | 1 | 0 | 7 | 2 | 47 | 3 | 0 | 52 | 221 |
| 08:00 AM | 8 | 0 | 23 | 0 | 31 | 22 | 117 | 0 | 0 | 139 | 4 | 0 | 6 | 0 | 10 | 1 | 42 | 5 | 0 | 48 | 228 |
| 08:15 AM | 5 | 2 | 16 | 0 | 23 | 24 | 122 | 1 | 0 | 147 | 1 | 2 | 3 | 0 | 6 | 1 | 43 | 6 | 0 | 50 | 226 |
| 08:30 AM | 3 | 0 | 8 | 0 | 11 | 36 | 124 | 2 | 0 | 162 | 5 | 2 | 4 | 0 | 11 | 0 | 42 | 2 | 0 | 44 | 228 |
| Total Volume | 23 | 2 | 62 | 0 | 87 | 106 | 479 | 3 | 0 | 588 | 14 | 6 | 14 | 0 | 34 | 4 | 174 | 16 | 0 | 194 | 903 |
| % App. Total | 26.4 | 2.3 | 71.3 | 0 | | 18 | 81.5 | 0.5 | 0 | | 41.2 | 17.6 | 41.2 | 0 | | 2.1 | 89.7 | 8.2 | 0 | | |
| PHF | .719 | .250 | .674 | .000 | .702 | .736 | .966 | .375 | .000 | .907 | .700 | .750 | .583 | .000 | .773 | .500 | .926 | .667 | .000 | .933 | .990 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Fottler Road/ Tuckers Lane
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 F
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Fottlers Road From North | | | | Beal Street From East | | | | Tuckers Lane From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 |
| 07:30 AM | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 4 |
| Total | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 12 |
| 08:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:15 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 5 | 0 | 0 | 9 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 |
| 08:45 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 5 |
| Total | 0 | 0 | 3 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 10 | 0 | 0 | 19 |
| Grand Total | 0 | 0 | 4 | 0 | 2 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 13 | 3 | 0 | 31 |
| Apprch % | 0 | 0 | 100 | 0 | 25 | 75 | 0 | 0 | 0 | 100 | 0 | 0 | 11.1 | 72.2 | 16.7 | 0 | |
| Total % | 0 | 0 | 12.9 | 0 | 6.5 | 19.4 | 0 | 0 | 0 | 3.2 | 0 | 0 | 6.5 | 41.9 | 9.7 | 0 | |

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 4 |
| 08:00 AM | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:15 AM | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 5 | 0 | 0 | 6 | 9 |
| Total Volume | 0 | 0 | 4 | 0 | 4 | 1 | 4 | 0 | 0 | 5 | 0 | 1 | 0 | 0 | 1 | 1 | 7 | 1 | 0 | 9 | 19 |
| % App. Total | 0 | 0 | 100 | 0 | | 20 | 80 | 0 | 0 | | 0 | 100 | 0 | 0 | | 11.1 | 77.8 | 11.1 | 0 | | |
| PHF | .000 | .000 | .500 | .000 | .500 | .250 | .333 | .000 | .000 | .417 | .000 | .250 | .000 | .000 | .250 | .250 | .350 | .250 | .000 | .375 | .528 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Fottler Road/ Tuckers Lane
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 F
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:45 AM | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 4 |
| Grand Total | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 8 |
| Apprch % | 0 | 100 | 0 | 0 | 0 | 50 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 25 | 75 | 0 | 0 | 0 | 100 | 0 | |
| Total % | 0 | 12.5 | 0 | 0 | 0 | 12.5 | 0 | 0 | 12.5 | 0 | 0 | 0 | 0 | 12.5 | 37.5 | 0 | 0 | 0 | 12.5 | 0 | |

| | Fottlers Road From North | | | | | | Beal Street From East | | | | | | Tuckers Lane From South | | | | | | Beal Street From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:45 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 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 1 | 0 | 1 | 5 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | 0 | | 0 | 0 | 0 | 33.3 | 66.7 | | 0 | 0 | 0 | 100 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .000 | .000 | .250 | .250 | .375 | .000 | .000 | .000 | .250 | .000 | .250 | .625 |

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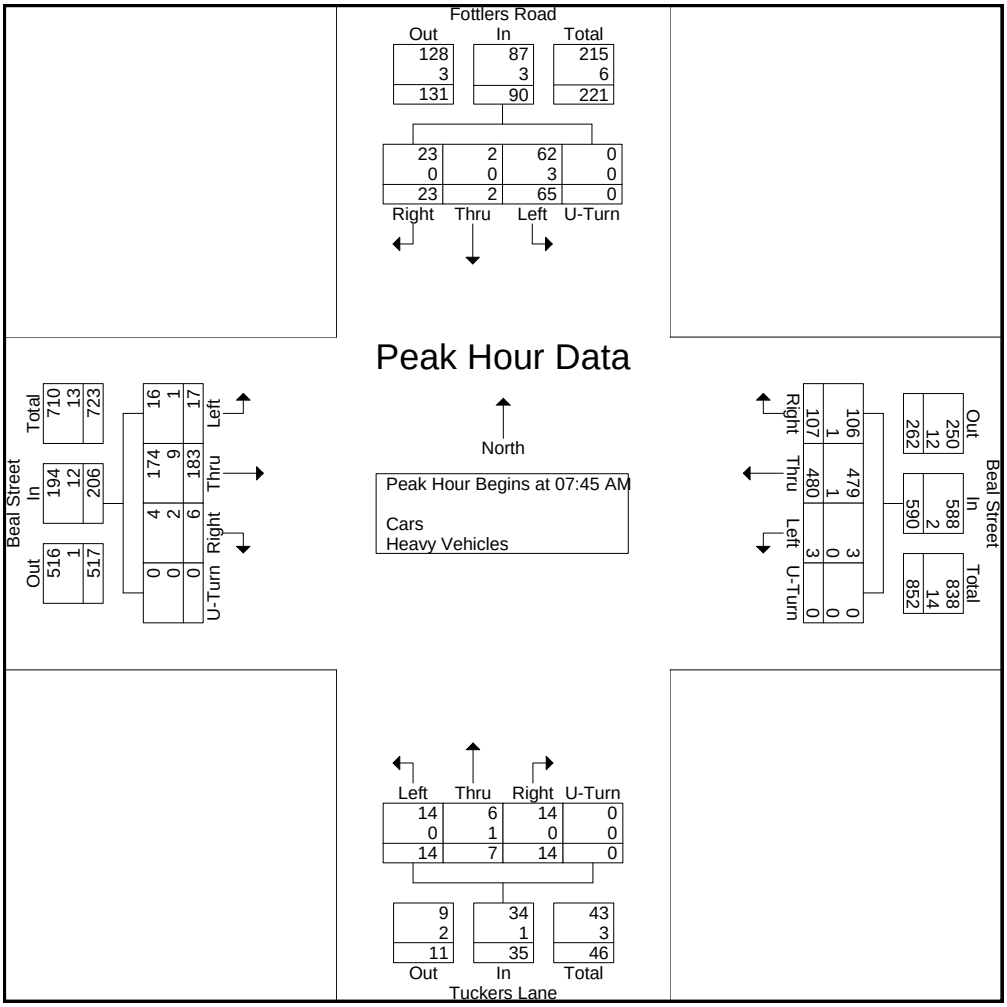
File Name : 165077 F
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:45 AM | 7 | 0 | 15 | 0 | 22 | 24 | 117 | 0 | 0 | 141 | 4 | 2 | 1 | 0 | 7 | 2 | 49 | 4 | 0 | 55 | 225 |
| 08:00 AM | 8 | 0 | 24 | 0 | 32 | 23 | 117 | 0 | 0 | 140 | 4 | 0 | 6 | 0 | 10 | 1 | 42 | 5 | 0 | 48 | 230 |
| 08:15 AM | 5 | 2 | 18 | 0 | 25 | 24 | 122 | 1 | 0 | 147 | 1 | 3 | 3 | 0 | 7 | 2 | 48 | 6 | 0 | 56 | 235 |
| 08:30 AM | 3 | 0 | 8 | 0 | 11 | 36 | 124 | 2 | 0 | 162 | 5 | 2 | 4 | 0 | 11 | 1 | 44 | 2 | 0 | 47 | 231 |
| Total Volume | 23 | 2 | 65 | 0 | 90 | 107 | 480 | 3 | 0 | 590 | 14 | 7 | 14 | 0 | 35 | 6 | 183 | 17 | 0 | 206 | 921 |
| % App. Total | 25.6 | 2.2 | 72.2 | 0 | | 18.1 | 81.4 | 0.5 | 0 | | 40 | 20 | 40 | 0 | | 2.9 | 88.8 | 8.3 | 0 | | |
| PHF | .719 | .250 | .677 | .000 | .703 | .743 | .968 | .375 | .000 | .910 | .700 | .583 | .583 | .000 | .795 | .750 | .934 | .708 | .000 | .920 | .980 |
| Cars | 23 | 2 | 62 | 0 | 87 | 106 | 479 | 3 | 0 | 588 | 14 | 6 | 14 | 0 | 34 | 4 | 174 | 16 | 0 | 194 | 903 |
| % Cars | 100 | 100 | 95.4 | 0 | 96.7 | 99.1 | 99.8 | 100 | 0 | 99.7 | 100 | 85.7 | 100 | 0 | 97.1 | 66.7 | 95.1 | 94.1 | 0 | 94.2 | 98.0 |
| Heavy Vehicles | 0 | 0 | 3 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 2 | 9 | 1 | 0 | 12 | 18 |
| % Heavy Vehicles | 0 | 0 | 4.6 | 0 | 3.3 | 0.9 | 0.2 | 0 | 0 | 0.3 | 0 | 14.3 | 0 | 0 | 2.9 | 33.3 | 4.9 | 5.9 | 0 | 5.8 | 2.0 |



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File Name : 165077 FF
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Fottlers Road From North | | | | Beal Street From East | | | | Tuckers Lane From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 3 | 0 | 22 | 0 | 16 | 76 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 118 | 6 | 0 | 253 |
| 04:15 PM | 5 | 0 | 18 | 0 | 16 | 62 | 3 | 0 | 2 | 0 | 0 | 0 | 9 | 105 | 7 | 0 | 227 |
| 04:30 PM | 5 | 1 | 21 | 0 | 17 | 69 | 2 | 0 | 3 | 0 | 1 | 0 | 4 | 152 | 7 | 0 | 282 |
| 04:45 PM | 3 | 2 | 14 | 0 | 13 | 69 | 1 | 0 | 2 | 1 | 4 | 0 | 4 | 94 | 11 | 0 | 218 |
| Total | 16 | 3 | 75 | 0 | 62 | 276 | 9 | 0 | 10 | 1 | 8 | 0 | 20 | 469 | 31 | 0 | 980 |
| 05:00 PM | 5 | 1 | 34 | 0 | 9 | 89 | 3 | 0 | 1 | 2 | 2 | 0 | 2 | 169 | 6 | 0 | 323 |
| 05:15 PM | 8 | 0 | 35 | 0 | 12 | 82 | 1 | 0 | 1 | 1 | 1 | 0 | 6 | 166 | 10 | 0 | 323 |
| 05:30 PM | 5 | 0 | 17 | 0 | 19 | 110 | 0 | 0 | 3 | 0 | 1 | 0 | 4 | 154 | 12 | 0 | 325 |
| 05:45 PM | 4 | 2 | 27 | 0 | 21 | 86 | 1 | 0 | 1 | 1 | 2 | 0 | 7 | 160 | 13 | 0 | 325 |
| Total | 22 | 3 | 113 | 0 | 61 | 367 | 5 | 0 | 6 | 4 | 6 | 0 | 19 | 649 | 41 | 0 | 1296 |
| Grand Total | 38 | 6 | 188 | 0 | 123 | 643 | 14 | 0 | 16 | 5 | 14 | 0 | 39 | 1118 | 72 | 0 | 2276 |
| Apprch % | 16.4 | 2.6 | 81 | 0 | 15.8 | 82.4 | 1.8 | 0 | 45.7 | 14.3 | 40 | 0 | 3.2 | 91 | 5.9 | 0 | |
| Total % | 1.7 | 0.3 | 8.3 | 0 | 5.4 | 28.3 | 0.6 | 0 | 0.7 | 0.2 | 0.6 | 0 | 1.7 | 49.1 | 3.2 | 0 | |
| Cars | 38 | 6 | 185 | 0 | 122 | 640 | 14 | 0 | 15 | 5 | 14 | 0 | 38 | 1112 | 72 | 0 | 2261 |
| % Cars | 100 | 100 | 98.4 | 0 | 99.2 | 99.5 | 100 | 0 | 93.8 | 100 | 100 | 0 | 97.4 | 99.5 | 100 | 0 | 99.3 |
| Heavy Vehicles | 0 | 0 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 15 |
| % Heavy Vehicles | 0 | 0 | 1.6 | 0 | 0.8 | 0.5 | 0 | 0 | 6.2 | 0 | 0 | 0 | 2.6 | 0.5 | 0 | 0 | 0.7 |

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 5 | 1 | 34 | 0 | 40 | 9 | 89 | 3 | 0 | 101 | 1 | 2 | 2 | 0 | 5 | 2 | 169 | 6 | 0 | 177 | 323 |
| 05:15 PM | 8 | 0 | 35 | 0 | 43 | 12 | 82 | 1 | 0 | 95 | 1 | 1 | 1 | 0 | 3 | 6 | 166 | 10 | 0 | 182 | 323 |
| 05:30 PM | 5 | 0 | 17 | 0 | 22 | 19 | 110 | 0 | 0 | 129 | 3 | 0 | 1 | 0 | 4 | 4 | 154 | 12 | 0 | 170 | 325 |
| 05:45 PM | 4 | 2 | 27 | 0 | 33 | 21 | 86 | 1 | 0 | 108 | 1 | 1 | 2 | 0 | 4 | 7 | 160 | 13 | 0 | 180 | 325 |
| Total Volume | 22 | 3 | 113 | 0 | 138 | 61 | 367 | 5 | 0 | 433 | 6 | 4 | 6 | 0 | 16 | 19 | 649 | 41 | 0 | 709 | 1296 |
| % App. Total | 15.9 | 2.2 | 81.9 | 0 | | 14.1 | 84.8 | 1.2 | 0 | | 37.5 | 25 | 37.5 | 0 | | 2.7 | 91.5 | 5.8 | 0 | | |
| PHF | .688 | .375 | .807 | .000 | .802 | .726 | .834 | .417 | .000 | .839 | .500 | .500 | .750 | .000 | .800 | .679 | .960 | .788 | .000 | .974 | .997 |
| Cars | 22 | 3 | 112 | 0 | 137 | 60 | 365 | 5 | 0 | 430 | 5 | 4 | 6 | 0 | 15 | 19 | 647 | 41 | 0 | 707 | 1289 |
| % Cars | 100 | 100 | 99.1 | 0 | 99.3 | 98.4 | 99.5 | 100 | 0 | 99.3 | 83.3 | 100 | 100 | 0 | 93.8 | 100 | 99.7 | 100 | 0 | 99.7 | 99.5 |
| Heavy Vehicles | 0 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 7 |
| % Heavy Vehicles | 0 | 0 | 0.9 | 0 | 0.7 | 1.6 | 0.5 | 0 | 0 | 0.7 | 16.7 | 0 | 0 | 0 | 6.3 | 0 | 0.3 | 0 | 0 | 0.3 | 0.5 |

PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Fottler Road/ Tuckers Lane
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 FF
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Fottlers Road From North | | | | Beal Street From East | | | | Tuckers Lane From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 3 | 0 | 21 | 0 | 16 | 75 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 116 | 6 | 0 | 249 |
| 04:15 PM | 5 | 0 | 17 | 0 | 16 | 62 | 3 | 0 | 2 | 0 | 0 | 0 | 8 | 104 | 7 | 0 | 224 |
| 04:30 PM | 5 | 1 | 21 | 0 | 17 | 69 | 2 | 0 | 3 | 0 | 1 | 0 | 4 | 151 | 7 | 0 | 281 |
| 04:45 PM | 3 | 2 | 14 | 0 | 13 | 69 | 1 | 0 | 2 | 1 | 4 | 0 | 4 | 94 | 11 | 0 | 218 |
| Total | 16 | 3 | 73 | 0 | 62 | 275 | 9 | 0 | 10 | 1 | 8 | 0 | 19 | 465 | 31 | 0 | 972 |
| 05:00 PM | 5 | 1 | 34 | 0 | 9 | 89 | 3 | 0 | 0 | 2 | 2 | 0 | 2 | 169 | 6 | 0 | 322 |
| 05:15 PM | 8 | 0 | 35 | 0 | 11 | 80 | 1 | 0 | 1 | 1 | 1 | 0 | 6 | 165 | 10 | 0 | 319 |
| 05:30 PM | 5 | 0 | 17 | 0 | 19 | 110 | 0 | 0 | 3 | 0 | 1 | 0 | 4 | 154 | 12 | 0 | 325 |
| 05:45 PM | 4 | 2 | 26 | 0 | 21 | 86 | 1 | 0 | 1 | 1 | 2 | 0 | 7 | 159 | 13 | 0 | 323 |
| Total | 22 | 3 | 112 | 0 | 60 | 365 | 5 | 0 | 5 | 4 | 6 | 0 | 19 | 647 | 41 | 0 | 1289 |
| Grand Total | 38 | 6 | 185 | 0 | 122 | 640 | 14 | 0 | 15 | 5 | 14 | 0 | 38 | 1112 | 72 | 0 | 2261 |
| Apprch % | 16.6 | 2.6 | 80.8 | 0 | 15.7 | 82.5 | 1.8 | 0 | 44.1 | 14.7 | 41.2 | 0 | 3.1 | 91 | 5.9 | 0 | |
| Total % | 1.7 | 0.3 | 8.2 | 0 | 5.4 | 28.3 | 0.6 | 0 | 0.7 | 0.2 | 0.6 | 0 | 1.7 | 49.2 | 3.2 | 0 | |

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 5 | 1 | 34 | 0 | 40 | 9 | 89 | 3 | 0 | 101 | 0 | 2 | 2 | 0 | 4 | 2 | 169 | 6 | 0 | 177 | 322 |
| 05:15 PM | 8 | 0 | 35 | 0 | 43 | 11 | 80 | 1 | 0 | 92 | 1 | 1 | 1 | 0 | 3 | 6 | 165 | 10 | 0 | 181 | 319 |
| 05:30 PM | 5 | 0 | 17 | 0 | 22 | 19 | 110 | 0 | 0 | 129 | 3 | 0 | 1 | 0 | 4 | 4 | 154 | 12 | 0 | 170 | 325 |
| 05:45 PM | 4 | 2 | 26 | 0 | 32 | 21 | 86 | 1 | 0 | 108 | 1 | 1 | 2 | 0 | 4 | 7 | 159 | 13 | 0 | 179 | 323 |
| Total Volume | 22 | 3 | 112 | 0 | 137 | 60 | 365 | 5 | 0 | 430 | 5 | 4 | 6 | 0 | 15 | 19 | 647 | 41 | 0 | 707 | 1289 |
| % App. Total | 16.1 | 2.2 | 81.8 | 0 | | 14 | 84.9 | 1.2 | 0 | | 33.3 | 26.7 | 40 | 0 | | 2.7 | 91.5 | 5.8 | 0 | | |
| PHF | .688 | .375 | .800 | .000 | .797 | .714 | .830 | .417 | .000 | .833 | .417 | .500 | .750 | .000 | .938 | .679 | .957 | .788 | .000 | .977 | .992 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Fottler Road/ Tuckers Lane
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 FF
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Fottlers Road From North | | | | Beal Street From East | | | | Tuckers Lane From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 |
| 04:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 3 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 8 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:15 PM | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| Total | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 7 |
| Grand Total | 0 | 0 | 3 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 15 |
| Apprch % | 0 | 0 | 100 | 0 | 25 | 75 | 0 | 0 | 100 | 0 | 0 | 0 | 14.3 | 85.7 | 0 | 0 | |
| Total % | 0 | 0 | 20 | 0 | 6.7 | 20 | 0 | 0 | 6.7 | 0 | 0 | 0 | 6.7 | 40 | 0 | 0 | |

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 4 |
| 04:15 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 3 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 04:45 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 | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 5 | 8 |
| % App. Total | 0 | 0 | 100 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 20 | 80 | 0 | 0 | | |
| PHF | .000 | .000 | .500 | .000 | .500 | .000 | .250 | .000 | .000 | .250 | .000 | .000 | .000 | .000 | .000 | .250 | .500 | .000 | .000 | .625 | .500 |

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E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 FF
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 4 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 6 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 0 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 16.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33.3 | 0 | 50 | 0 | 0 | 0 | |

| | Fottlers Road From North | | | | | | Beal Street From East | | | | | | Tuckers Lane From South | | | | | | Beal Street From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 3 | 0 | 0 | 0 | 3 | 6 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 100 | | 0 | 100 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .000 | .500 | .500 | .000 | .750 | .000 | .000 | .000 | .750 | .750 |

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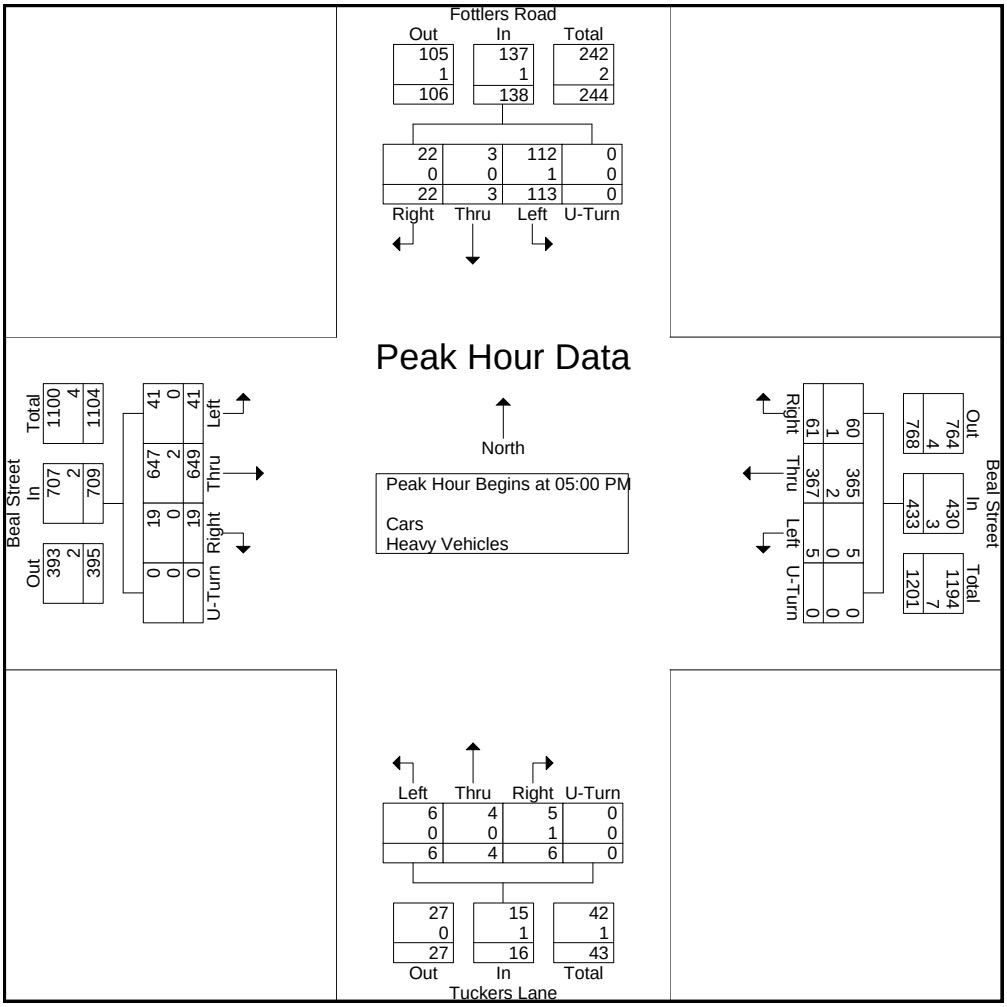
File Name : 165077 FF
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 5 | 1 | 34 | 0 | 40 | 9 | 89 | 3 | 0 | 101 | 1 | 2 | 2 | 0 | 5 | 2 | 169 | 6 | 0 | 177 | 323 |
| 05:15 PM | 8 | 0 | 35 | 0 | 43 | 12 | 82 | 1 | 0 | 95 | 1 | 1 | 1 | 0 | 3 | 6 | 166 | 10 | 0 | 182 | 323 |
| 05:30 PM | 5 | 0 | 17 | 0 | 22 | 19 | 110 | 0 | 0 | 129 | 3 | 0 | 1 | 0 | 4 | 4 | 154 | 12 | 0 | 170 | 325 |
| 05:45 PM | 4 | 2 | 27 | 0 | 33 | 21 | 86 | 1 | 0 | 108 | 1 | 1 | 2 | 0 | 4 | 7 | 160 | 13 | 0 | 180 | 325 |
| Total Volume | 22 | 3 | 113 | 0 | 138 | 61 | 367 | 5 | 0 | 433 | 6 | 4 | 6 | 0 | 16 | 19 | 649 | 41 | 0 | 709 | 1296 |
| % App. Total | 15.9 | 2.2 | 81.9 | 0 | | 14.1 | 84.8 | 1.2 | 0 | | 37.5 | 25 | 37.5 | 0 | | 2.7 | 91.5 | 5.8 | 0 | | |
| PHF | .688 | .375 | .807 | .000 | .802 | .726 | .834 | .417 | .000 | .839 | .500 | .500 | .750 | .000 | .800 | .679 | .960 | .788 | .000 | .974 | .997 |
| Cars | 22 | 3 | 112 | 0 | 137 | 60 | 365 | 5 | 0 | 430 | 5 | 4 | 6 | 0 | 15 | 19 | 647 | 41 | 0 | 707 | 1289 |
| % Cars | 100 | 100 | 99.1 | 0 | 99.3 | 98.4 | 99.5 | 100 | 0 | 99.3 | 83.3 | 100 | 100 | 0 | 93.8 | 100 | 99.7 | 100 | 0 | 99.7 | 99.5 |
| Heavy Vehicles | 0 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 7 |
| % Heavy Vehicles | 0 | 0 | 0.9 | 0 | 0.7 | 1.6 | 0.5 | 0 | 0 | 0.7 | 16.7 | 0 | 0 | 0 | 6.3 | 0 | 0.3 | 0 | 0 | 0.3 | 0.5 |



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E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 FFF
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Fottlers Road From North | | | | Beal Street From East | | | | Tuckers Lane From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 3 | 2 | 13 | 0 | 12 | 86 | 3 | 0 | 3 | 2 | 5 | 0 | 5 | 80 | 2 | 0 | 216 |
| 10:45 AM | 4 | 1 | 15 | 0 | 14 | 96 | 2 | 0 | 4 | 1 | 0 | 0 | 2 | 97 | 6 | 0 | 242 |
| Total | 7 | 3 | 28 | 0 | 26 | 182 | 5 | 0 | 7 | 3 | 5 | 0 | 7 | 177 | 8 | 0 | 458 |
| 11:00 AM | 6 | 2 | 10 | 0 | 14 | 101 | 3 | 0 | 3 | 2 | 6 | 0 | 5 | 104 | 3 | 0 | 259 |
| 11:15 AM | 5 | 2 | 13 | 0 | 12 | 75 | 1 | 0 | 6 | 2 | 3 | 0 | 5 | 114 | 8 | 0 | 246 |
| 11:30 AM | 3 | 1 | 11 | 0 | 11 | 82 | 1 | 0 | 3 | 1 | 6 | 0 | 3 | 89 | 3 | 0 | 214 |
| 11:45 AM | 4 | 1 | 16 | 0 | 10 | 104 | 5 | 0 | 3 | 1 | 2 | 0 | 0 | 89 | 4 | 0 | 239 |
| Total | 18 | 6 | 50 | 0 | 47 | 362 | 10 | 0 | 15 | 6 | 17 | 0 | 13 | 396 | 18 | 0 | 958 |
| 12:00 PM | 6 | 4 | 21 | 0 | 13 | 88 | 3 | 0 | 4 | 1 | 4 | 0 | 3 | 103 | 10 | 0 | 260 |
| 12:15 PM | 7 | 0 | 18 | 0 | 19 | 92 | 0 | 0 | 4 | 1 | 1 | 0 | 5 | 86 | 7 | 0 | 240 |
| 12:30 PM | 6 | 1 | 10 | 0 | 17 | 108 | 2 | 0 | 2 | 1 | 2 | 0 | 3 | 97 | 12 | 0 | 261 |
| 12:45 PM | 4 | 1 | 20 | 0 | 13 | 80 | 2 | 0 | 1 | 1 | 1 | 0 | 4 | 84 | 5 | 0 | 216 |
| Total | 23 | 6 | 69 | 0 | 62 | 368 | 7 | 0 | 11 | 4 | 8 | 0 | 15 | 370 | 34 | 0 | 977 |
| 01:00 PM | 4 | 1 | 16 | 0 | 12 | 92 | 5 | 0 | 1 | 1 | 3 | 0 | 2 | 106 | 5 | 0 | 248 |
| 01:15 PM | 6 | 3 | 12 | 0 | 15 | 94 | 1 | 0 | 2 | 1 | 5 | 0 | 10 | 103 | 2 | 0 | 254 |
| Grand Total | 58 | 19 | 175 | 0 | 162 | 1098 | 28 | 0 | 36 | 15 | 38 | 0 | 47 | 1152 | 67 | 0 | 2895 |
| Apprch % | 23 | 7.5 | 69.4 | 0 | 12.6 | 85.2 | 2.2 | 0 | 40.4 | 16.9 | 42.7 | 0 | 3.7 | 91 | 5.3 | 0 | |
| Total % | 2 | 0.7 | 6 | 0 | 5.6 | 37.9 | 1 | 0 | 1.2 | 0.5 | 1.3 | 0 | 1.6 | 39.8 | 2.3 | 0 | |
| Cars | 57 | 18 | 173 | 0 | 160 | 1092 | 28 | 0 | 36 | 15 | 38 | 0 | 47 | 1149 | 66 | 0 | 2879 |
| % Cars | 98.3 | 94.7 | 98.9 | 0 | 98.8 | 99.5 | 100 | 0 | 100 | 100 | 100 | 0 | 100 | 99.7 | 98.5 | 0 | 99.4 |
| Heavy Vehicles | 1 | 1 | 2 | 0 | 2 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 16 |
| % Heavy Vehicles | 1.7 | 5.3 | 1.1 | 0 | 1.2 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 1.5 | 0 | 0.6 |

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 11:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 11:45 AM | 4 | 1 | 16 | 0 | 21 | 10 | 104 | 5 | 0 | 119 | 3 | 1 | 2 | 0 | 6 | 0 | 89 | 4 | 0 | 93 | 239 |
| 12:00 PM | 6 | 4 | 21 | 0 | 31 | 13 | 88 | 3 | 0 | 104 | 4 | 1 | 4 | 0 | 9 | 3 | 103 | 10 | 0 | 116 | 260 |
| 12:15 PM | 7 | 0 | 18 | 0 | 25 | 19 | 92 | 0 | 0 | 111 | 4 | 1 | 1 | 0 | 6 | 5 | 86 | 7 | 0 | 98 | 240 |
| 12:30 PM | 6 | 1 | 10 | 0 | 17 | 17 | 108 | 2 | 0 | 127 | 2 | 1 | 2 | 0 | 5 | 3 | 97 | 12 | 0 | 112 | 261 |
| Total Volume | 23 | 6 | 65 | 0 | 94 | 59 | 392 | 10 | 0 | 461 | 13 | 4 | 9 | 0 | 26 | 11 | 375 | 33 | 0 | 419 | 1000 |
| % App. Total | 24.5 | 6.4 | 69.1 | 0 | | 12.8 | 85 | 2.2 | 0 | | 50 | 15.4 | 34.6 | 0 | | 2.6 | 89.5 | 7.9 | 0 | | |
| PHF | .821 | .375 | .774 | .000 | .758 | .776 | .907 | .500 | .000 | .907 | .813 | 1.00 | .563 | .000 | .722 | .550 | .910 | .688 | .000 | .903 | .958 |
| Cars | 22 | 6 | 64 | 0 | 92 | 59 | 390 | 10 | 0 | 459 | 13 | 4 | 9 | 0 | 26 | 11 | 374 | 33 | 0 | 418 | 995 |
| % Cars | 95.7 | 100 | 98.5 | 0 | 97.9 | 100 | 99.5 | 100 | 0 | 99.6 | 100 | 100 | 100 | 0 | 100 | 100 | 99.7 | 100 | 0 | 99.8 | 99.5 |
| Heavy Vehicles | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 5 |
| % Heavy Vehicles | 4.3 | 0 | 1.5 | 0 | 2.1 | 0 | 0.5 | 0 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0.2 | 0.5 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Fottler Road/ Tuckers Lane
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 FFF
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars**

| | Fottlers Road From North | | | | Beal Street From East | | | | Tuckers Lane From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 3 | 2 | 12 | 0 | 12 | 86 | 3 | 0 | 3 | 2 | 5 | 0 | 5 | 80 | 2 | 0 | 215 |
| 10:45 AM | 4 | 1 | 15 | 0 | 14 | 96 | 2 | 0 | 4 | 1 | 0 | 0 | 2 | 96 | 5 | 0 | 240 |
| Total | 7 | 3 | 27 | 0 | 26 | 182 | 5 | 0 | 7 | 3 | 5 | 0 | 7 | 176 | 7 | 0 | 455 |
| 11:00 AM | 6 | 1 | 10 | 0 | 14 | 100 | 3 | 0 | 3 | 2 | 6 | 0 | 5 | 104 | 3 | 0 | 257 |
| 11:15 AM | 5 | 2 | 13 | 0 | 11 | 74 | 1 | 0 | 6 | 2 | 3 | 0 | 5 | 114 | 8 | 0 | 244 |
| 11:30 AM | 3 | 1 | 11 | 0 | 11 | 80 | 1 | 0 | 3 | 1 | 6 | 0 | 3 | 89 | 3 | 0 | 212 |
| 11:45 AM | 4 | 1 | 16 | 0 | 10 | 103 | 5 | 0 | 3 | 1 | 2 | 0 | 0 | 89 | 4 | 0 | 238 |
| Total | 18 | 5 | 50 | 0 | 46 | 357 | 10 | 0 | 15 | 6 | 17 | 0 | 13 | 396 | 18 | 0 | 951 |
| 12:00 PM | 5 | 4 | 21 | 0 | 13 | 88 | 3 | 0 | 4 | 1 | 4 | 0 | 3 | 103 | 10 | 0 | 259 |
| 12:15 PM | 7 | 0 | 17 | 0 | 19 | 92 | 0 | 0 | 4 | 1 | 1 | 0 | 5 | 86 | 7 | 0 | 239 |
| 12:30 PM | 6 | 1 | 10 | 0 | 17 | 107 | 2 | 0 | 2 | 1 | 2 | 0 | 3 | 96 | 12 | 0 | 259 |
| 12:45 PM | 4 | 1 | 20 | 0 | 13 | 80 | 2 | 0 | 1 | 1 | 1 | 0 | 4 | 84 | 5 | 0 | 216 |
| Total | 22 | 6 | 68 | 0 | 62 | 367 | 7 | 0 | 11 | 4 | 8 | 0 | 15 | 369 | 34 | 0 | 973 |
| 01:00 PM | 4 | 1 | 16 | 0 | 11 | 92 | 5 | 0 | 1 | 1 | 3 | 0 | 2 | 105 | 5 | 0 | 246 |
| 01:15 PM | 6 | 3 | 12 | 0 | 15 | 94 | 1 | 0 | 2 | 1 | 5 | 0 | 10 | 103 | 2 | 0 | 254 |
| Grand Total | 57 | 18 | 173 | 0 | 160 | 1092 | 28 | 0 | 36 | 15 | 38 | 0 | 47 | 1149 | 66 | 0 | 2879 |
| Apprch % | 23 | 7.3 | 69.8 | 0 | 12.5 | 85.3 | 2.2 | 0 | 40.4 | 16.9 | 42.7 | 0 | 3.7 | 91 | 5.2 | 0 | |
| Total % | 2 | 0.6 | 6 | 0 | 5.6 | 37.9 | 1 | 0 | 1.3 | 0.5 | 1.3 | 0 | 1.6 | 39.9 | 2.3 | 0 | |

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 11:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 11:45 AM | 4 | 1 | 16 | 0 | 21 | 10 | 103 | 5 | 0 | 118 | 3 | 1 | 2 | 0 | 6 | 0 | 89 | 4 | 0 | 93 | 238 |
| 12:00 PM | 5 | 4 | 21 | 0 | 30 | 13 | 88 | 3 | 0 | 104 | 4 | 1 | 4 | 0 | 9 | 3 | 103 | 10 | 0 | 116 | 259 |
| 12:15 PM | 7 | 0 | 17 | 0 | 24 | 19 | 92 | 0 | 0 | 111 | 4 | 1 | 1 | 0 | 6 | 5 | 86 | 7 | 0 | 98 | 239 |
| 12:30 PM | 6 | 1 | 10 | 0 | 17 | 17 | 107 | 2 | 0 | 126 | 2 | 1 | 2 | 0 | 5 | 3 | 96 | 12 | 0 | 111 | 259 |
| Total Volume | 22 | 6 | 64 | 0 | 92 | 59 | 390 | 10 | 0 | 459 | 13 | 4 | 9 | 0 | 26 | 11 | 374 | 33 | 0 | 418 | 995 |
| % App. Total | 23.9 | 6.5 | 69.6 | 0 | | 12.9 | 85 | 2.2 | 0 | | 50 | 15.4 | 34.6 | 0 | | 2.6 | 89.5 | 7.9 | 0 | | |
| PHF | .786 | .375 | .762 | .000 | .767 | .776 | .911 | .500 | .000 | .911 | .813 | 1.00 | .563 | .000 | .722 | .550 | .908 | .688 | .000 | .901 | .960 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Fottler Road/ Tuckers Lane
E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 FFF
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Fottlers Road From North | | | | Beal Street From East | | | | Tuckers Lane From South | | | | Beal Street From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 |
| 11:00 AM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:15 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 1 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 12:00 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| 01:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 1 | 1 | 2 | 0 | 2 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 16 |
| Apprch % | 25 | 25 | 50 | 0 | 25 | 75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 25 | 0 | |
| Total % | 6.2 | 6.2 | 12.5 | 0 | 12.5 | 37.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18.8 | 6.2 | 0 | |

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 10:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 2 |
| 11:00 AM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Volume | 0 | 1 | 0 | 0 | 1 | 1 | 4 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 8 |
| % App. Total | 0 | 100 | 0 | 0 | | 20 | 80 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 50 | 50 | 0 | | |
| PHF | .000 | .250 | .000 | .000 | .250 | .250 | .500 | .000 | .000 | .625 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .250 | .000 | .250 | 1.00 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

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E/W: Beal Street
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 FFF
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:45 AM | 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 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 6 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 01:15 PM | 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 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 1 | 0 | 0 | 0 | 11 |
| Apprch % | 0 | 0 | 100 | 0 | 0 | 0 | 66.7 | 0 | 33.3 | 0 | 0 | 0 | 0 | 50 | 50 | 0 | 100 | 0 | 0 | 0 | |
| Total % | 0 | 0 | 9.1 | 0 | 0 | 0 | 18.2 | 0 | 9.1 | 0 | 0 | 0 | 0 | 27.3 | 27.3 | 0 | 9.1 | 0 | 0 | 0 | |

| | Fottlers Road From North | | | | | | Beal Street From East | | | | | | Tuckers Lane From South | | | | | | Beal Street From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:15 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 4 | 0 | 1 | 0 | 0 | 0 | 1 | 7 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 50 | 50 | | 0 | 100 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .000 | .000 | .500 | .000 | .000 | .000 | .500 | .250 | .500 | .000 | .250 | .000 | .000 | .000 | .250 | .875 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
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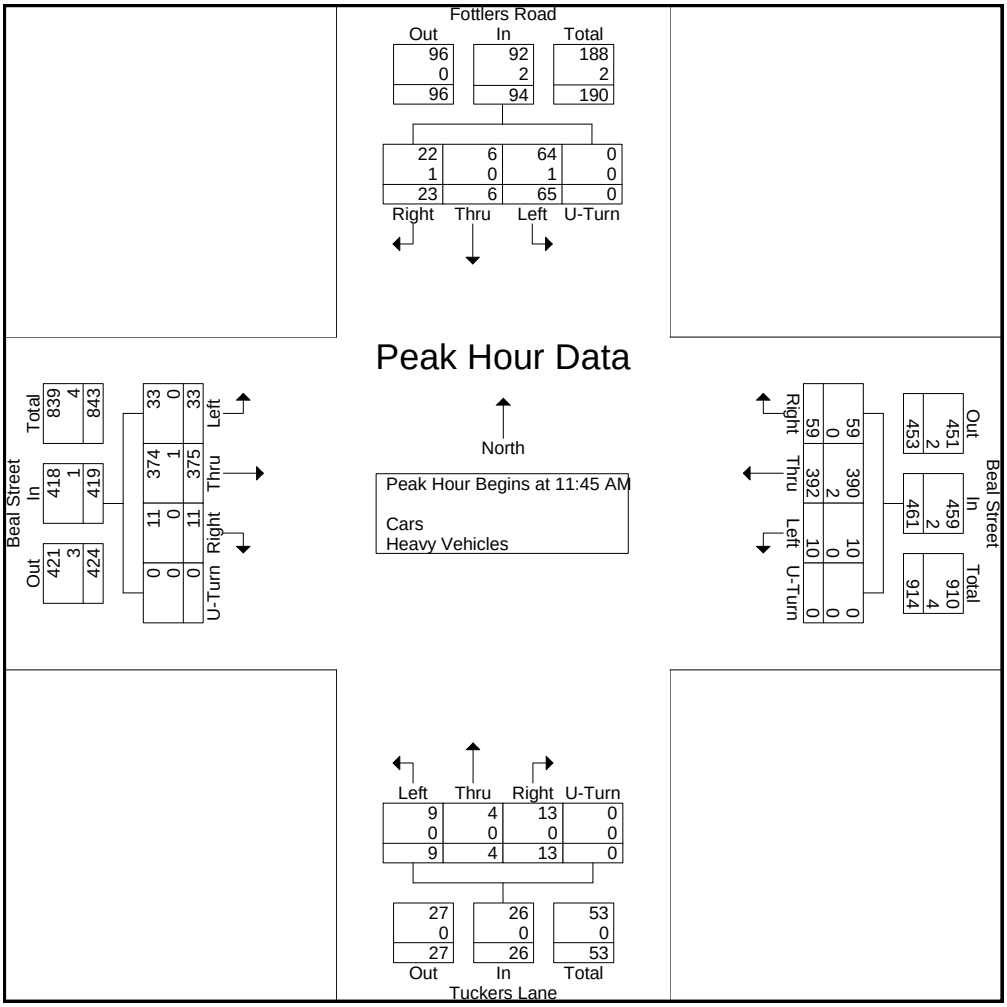
| | Fottlers Road From North | | | | | Beal Street From East | | | | | Tuckers Lane From South | | | | | Beal Street From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 11:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 11:45 AM | 4 | 1 | 16 | 0 | 21 | 10 | 104 | 5 | 0 | 119 | 3 | 1 | 2 | 0 | 6 | 0 | 89 | 4 | 0 | 93 | 239 |
| 12:00 PM | 6 | 4 | 21 | 0 | 31 | 13 | 88 | 3 | 0 | 104 | 4 | 1 | 4 | 0 | 9 | 3 | 103 | 10 | 0 | 116 | 260 |
| 12:15 PM | 7 | 0 | 18 | 0 | 25 | 19 | 92 | 0 | 0 | 111 | 4 | 1 | 1 | 0 | 6 | 5 | 86 | 7 | 0 | 98 | 240 |
| 12:30 PM | 6 | 1 | 10 | 0 | 17 | 17 | 108 | 2 | 0 | 127 | 2 | 1 | 2 | 0 | 5 | 3 | 97 | 12 | 0 | 112 | 261 |
| Total Volume | 23 | 6 | 65 | 0 | 94 | 59 | 392 | 10 | 0 | 461 | 13 | 4 | 9 | 0 | 26 | 11 | 375 | 33 | 0 | 419 | 1000 |
| % App. Total | 24.5 | 6.4 | 69.1 | 0 | | 12.8 | 85 | 2.2 | 0 | | 50 | 15.4 | 34.6 | 0 | | 2.6 | 89.5 | 7.9 | 0 | | |
| PHF | .821 | .375 | .774 | .000 | .758 | .776 | .907 | .500 | .000 | .907 | .813 | 1.00 | .563 | .000 | .722 | .550 | .910 | .688 | .000 | .903 | .958 |
| Cars | 22 | 6 | 64 | 0 | 92 | 59 | 390 | 10 | 0 | 459 | 13 | 4 | 9 | 0 | 26 | 11 | 374 | 33 | 0 | 418 | 995 |
| % Cars | 95.7 | 100 | 98.5 | 0 | 97.9 | 100 | 99.5 | 100 | 0 | 99.6 | 100 | 100 | 100 | 0 | 100 | 100 | 99.7 | 100 | 0 | 99.8 | 99.5 |
| Heavy Vehicles | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 5 |
| % Heavy Vehicles | 4.3 | 0 | 1.5 | 0 | 2.1 | 0 | 0.5 | 0 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0.2 | 0.5 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Talbots Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 G
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Talbots Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 9 | 0 | 16 | 0 | 143 | 300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 | 2 | 0 | 561 |
| 07:15 AM | 10 | 0 | 21 | 0 | 98 | 316 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 94 | 4 | 0 | 545 |
| 07:30 AM | 9 | 1 | 24 | 0 | 167 | 304 | 2 | 0 | 0 | 1 | 0 | 0 | 5 | 159 | 3 | 0 | 675 |
| 07:45 AM | 10 | 3 | 31 | 0 | 121 | 275 | 3 | 0 | 2 | 0 | 1 | 0 | 13 | 114 | 4 | 0 | 577 |
| Total | 38 | 4 | 92 | 0 | 529 | 1195 | 5 | 0 | 2 | 1 | 1 | 0 | 20 | 458 | 13 | 0 | 2358 |
| 08:00 AM | 16 | 0 | 28 | 0 | 101 | 256 | 2 | 0 | 1 | 0 | 1 | 0 | 19 | 156 | 5 | 0 | 585 |
| 08:15 AM | 8 | 3 | 21 | 0 | 64 | 287 | 1 | 0 | 0 | 0 | 0 | 0 | 40 | 132 | 3 | 0 | 559 |
| 08:30 AM | 7 | 0 | 27 | 0 | 84 | 256 | 4 | 0 | 0 | 2 | 1 | 0 | 34 | 152 | 4 | 0 | 571 |
| 08:45 AM | 1 | 0 | 17 | 0 | 57 | 257 | 2 | 0 | 0 | 1 | 1 | 0 | 23 | 140 | 12 | 0 | 511 |
| Total | 32 | 3 | 93 | 0 | 306 | 1056 | 9 | 0 | 1 | 3 | 3 | 0 | 116 | 580 | 24 | 0 | 2226 |
| Grand Total | 70 | 7 | 185 | 0 | 835 | 2251 | 14 | 0 | 3 | 4 | 4 | 0 | 136 | 1038 | 37 | 0 | 4584 |
| Apprch % | 26.7 | 2.7 | 70.6 | 0 | 26.9 | 72.6 | 0.5 | 0 | 27.3 | 36.4 | 36.4 | 0 | 11.2 | 85.7 | 3.1 | 0 | |
| Total % | 1.5 | 0.2 | 4 | 0 | 18.2 | 49.1 | 0.3 | 0 | 0.1 | 0.1 | 0.1 | 0 | 3 | 22.6 | 0.8 | 0 | |
| Cars | 70 | 7 | 180 | 0 | 830 | 2205 | 14 | 0 | 3 | 4 | 4 | 0 | 136 | 995 | 34 | 0 | 4482 |
| % Cars | 100 | 100 | 97.3 | 0 | 99.4 | 98 | 100 | 0 | 100 | 100 | 100 | 0 | 100 | 95.9 | 91.9 | 0 | 97.8 |
| Heavy Vehicles | 0 | 0 | 5 | 0 | 5 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 3 | 0 | 102 |
| % Heavy Vehicles | 0 | 0 | 2.7 | 0 | 0.6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.1 | 8.1 | 0 | 2.2 |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 9 | 1 | 24 | 0 | 34 | 167 | 304 | 2 | 0 | 473 | 0 | 1 | 0 | 0 | 1 | 5 | 159 | 3 | 0 | 167 | 675 |
| 07:45 AM | 10 | 3 | 31 | 0 | 44 | 121 | 275 | 3 | 0 | 399 | 2 | 0 | 1 | 0 | 3 | 13 | 114 | 4 | 0 | 131 | 577 |
| 08:00 AM | 16 | 0 | 28 | 0 | 44 | 101 | 256 | 2 | 0 | 359 | 1 | 0 | 1 | 0 | 2 | 19 | 156 | 5 | 0 | 180 | 585 |
| 08:15 AM | 8 | 3 | 21 | 0 | 32 | 64 | 287 | 1 | 0 | 352 | 0 | 0 | 0 | 0 | 0 | 40 | 132 | 3 | 0 | 175 | 559 |
| Total Volume | 43 | 7 | 104 | 0 | 154 | 453 | 1122 | 8 | 0 | 1583 | 3 | 1 | 2 | 0 | 6 | 77 | 561 | 15 | 0 | 653 | 2396 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .672 | .583 | .839 | .000 | .875 | .678 | .923 | .667 | .000 | .837 | .375 | .250 | .500 | .000 | .500 | .481 | .882 | .750 | .000 | .907 | .887 |
| Cars | 43 | 7 | 101 | 0 | 151 | 450 | 1104 | 8 | 0 | 1562 | 3 | 1 | 2 | 0 | 6 | 77 | 538 | 14 | 0 | 629 | 2348 |
| % Cars | 100 | 100 | 97.1 | 0 | 98.1 | 99.3 | 98.4 | 100 | 0 | 98.7 | 100 | 100 | 100 | 0 | 100 | 100 | 95.9 | 93.3 | 0 | 96.3 | 98.0 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 2.9 | 0 | 1.9 | 0.7 | 1.6 | 0 | 0 | 1.3 | 0 | 0 | 0 | 0 | 0 | 0 | 4.1 | 6.7 | 0 | 3.7 | 2.0 |

PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Talbots Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 G
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Talbots Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 9 | 0 | 16 | 0 | 141 | 294 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 2 | 0 | 549 |
| 07:15 AM | 10 | 0 | 21 | 0 | 98 | 310 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 87 | 4 | 0 | 532 |
| 07:30 AM | 9 | 1 | 23 | 0 | 166 | 298 | 2 | 0 | 0 | 1 | 0 | 0 | 5 | 150 | 3 | 0 | 658 |
| 07:45 AM | 10 | 3 | 29 | 0 | 119 | 273 | 3 | 0 | 2 | 0 | 1 | 0 | 13 | 109 | 4 | 0 | 566 |
| Total | 38 | 4 | 89 | 0 | 524 | 1175 | 5 | 0 | 2 | 1 | 1 | 0 | 20 | 433 | 13 | 0 | 2305 |
| 08:00 AM | 16 | 0 | 28 | 0 | 101 | 251 | 2 | 0 | 1 | 0 | 1 | 0 | 19 | 151 | 4 | 0 | 574 |
| 08:15 AM | 8 | 3 | 21 | 0 | 64 | 282 | 1 | 0 | 0 | 0 | 0 | 0 | 40 | 128 | 3 | 0 | 550 |
| 08:30 AM | 7 | 0 | 26 | 0 | 84 | 249 | 4 | 0 | 0 | 2 | 1 | 0 | 34 | 146 | 3 | 0 | 556 |
| 08:45 AM | 1 | 0 | 16 | 0 | 57 | 248 | 2 | 0 | 0 | 1 | 1 | 0 | 23 | 137 | 11 | 0 | 497 |
| Total | 32 | 3 | 91 | 0 | 306 | 1030 | 9 | 0 | 1 | 3 | 3 | 0 | 116 | 562 | 21 | 0 | 2177 |
| Grand Total | 70 | 7 | 180 | 0 | 830 | 2205 | 14 | 0 | 3 | 4 | 4 | 0 | 136 | 995 | 34 | 0 | 4482 |
| Apprch % | 27.2 | 2.7 | 70 | 0 | 27.2 | 72.3 | 0.5 | 0 | 27.3 | 36.4 | 36.4 | 0 | 11.7 | 85.4 | 2.9 | 0 | |
| Total % | 1.6 | 0.2 | 4 | 0 | 18.5 | 49.2 | 0.3 | 0 | 0.1 | 0.1 | 0.1 | 0 | 3 | 22.2 | 0.8 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 9 | 1 | 23 | 0 | 33 | 166 | 298 | 2 | 0 | 466 | 0 | 1 | 0 | 0 | 1 | 5 | 150 | 3 | 0 | 158 | 658 |
| 07:45 AM | 10 | 3 | 29 | 0 | 42 | 119 | 273 | 3 | 0 | 395 | 2 | 0 | 1 | 0 | 3 | 13 | 109 | 4 | 0 | 126 | 566 |
| 08:00 AM | 16 | 0 | 28 | 0 | 44 | 101 | 251 | 2 | 0 | 354 | 1 | 0 | 1 | 0 | 2 | 19 | 151 | 4 | 0 | 174 | 574 |
| 08:15 AM | 8 | 3 | 21 | 0 | 32 | 64 | 282 | 1 | 0 | 347 | 0 | 0 | 0 | 0 | 0 | 40 | 128 | 3 | 0 | 171 | 550 |
| Total Volume | 43 | 7 | 101 | 0 | 151 | 450 | 1104 | 8 | 0 | 1562 | 3 | 1 | 2 | 0 | 6 | 77 | 538 | 14 | 0 | 629 | 2348 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .672 | .583 | .871 | .000 | .858 | .678 | .926 | .667 | .000 | .838 | .375 | .250 | .500 | .000 | .500 | .481 | .891 | .875 | .000 | .904 | .892 |

PRECISION
D A T A
INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Talbots Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 G
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Talbots Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 2 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 12 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 13 |
| 07:30 AM | 0 | 0 | 1 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 17 |
| 07:45 AM | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 11 |
| Total | 0 | 0 | 3 | 0 | 5 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 53 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 11 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 9 |
| 08:30 AM | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 15 |
| 08:45 AM | 0 | 0 | 1 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 14 |
| Total | 0 | 0 | 2 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 3 | 0 | 49 |
| Grand Total | 0 | 0 | 5 | 0 | 5 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 3 | 0 | 102 |
| Apprch % | 0 | 0 | 100 | 0 | 9.8 | 90.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93.5 | 6.5 | 0 | |
| Total % | 0 | 0 | 4.9 | 0 | 4.9 | 45.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42.2 | 2.9 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 12 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 13 |
| 07:30 AM | 0 | 0 | 1 | 0 | 1 | 1 | 6 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 17 |
| 07:45 AM | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 11 |
| Total Volume | 0 | 0 | 3 | 0 | 3 | 5 | 20 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 25 | 53 |
| % App. Total | 0 | 0 | 100 | 0 | | 20 | 80 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .000 | .000 | .375 | .000 | .375 | .625 | .833 | .000 | .000 | .781 | .000 | .000 | .000 | .000 | .000 | .000 | .694 | .000 | .000 | .694 | .779 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Talbots Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 G
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 07:45 AM | 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 | 1 | 0 | 0 | 0 | 1 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM | 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 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 3 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 50 | 0 | 0 | 50 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33.3 | 0 | 33.3 | 0 | 0 | 33.3 | |

| | Shipyard Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Talbots Drive From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 07:45 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 |
| 08:00 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 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 3 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 100 | | 0 | 50 | 0 | 0 | 50 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .250 | .000 | .250 | .000 | .000 | .250 | .500 | .375 |

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File Name : 165077 G
Site Code : TBA
Start Date : 5/19/2016
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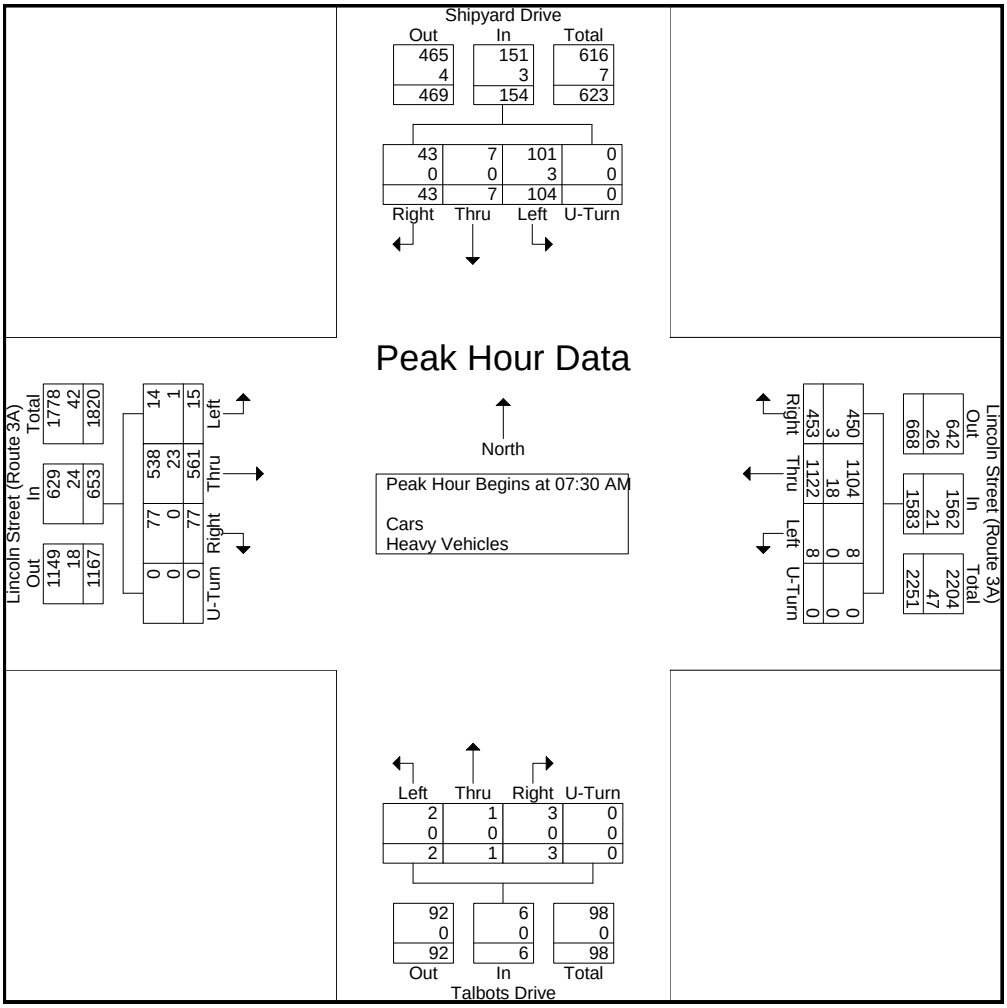
| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 9 | 1 | 24 | 0 | 34 | 167 | 304 | 2 | 0 | 473 | 0 | 1 | 0 | 0 | 1 | 5 | 159 | 3 | 0 | 167 | 675 |
| 07:45 AM | 10 | 3 | 31 | 0 | 44 | 121 | 275 | 3 | 0 | 399 | 2 | 0 | 1 | 0 | 3 | 13 | 114 | 4 | 0 | 131 | 577 |
| 08:00 AM | 16 | 0 | 28 | 0 | 44 | 101 | 256 | 2 | 0 | 359 | 1 | 0 | 1 | 0 | 2 | 19 | 156 | 5 | 0 | 180 | 585 |
| 08:15 AM | 8 | 3 | 21 | 0 | 32 | 64 | 287 | 1 | 0 | 352 | 0 | 0 | 0 | 0 | 0 | 40 | 132 | 3 | 0 | 175 | 559 |
| Total Volume | 43 | 7 | 104 | 0 | 154 | 453 | 1122 | 8 | 0 | 1583 | 3 | 1 | 2 | 0 | 6 | 77 | 561 | 15 | 0 | 653 | 2396 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .672 | .583 | .839 | .000 | .875 | .678 | .923 | .667 | .000 | .837 | .375 | .250 | .500 | .000 | .500 | .481 | .882 | .750 | .000 | .907 | .887 |
| Cars | 43 | 7 | 101 | 0 | 151 | 450 | 1104 | 8 | 0 | 1562 | 3 | 1 | 2 | 0 | 6 | 77 | 538 | 14 | 0 | 629 | 2348 |
| % Cars | 100 | 100 | 97.1 | 0 | 98.1 | 99.3 | 98.4 | 100 | 0 | 98.7 | 100 | 100 | 100 | 0 | 100 | 100 | 95.9 | 93.3 | 0 | 96.3 | 98.0 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 2.9 | 0 | 1.9 | 0.7 | 1.6 | 0 | 0 | 1.3 | 0 | 0 | 0 | 0 | 0 | 0 | 4.1 | 6.7 | 0 | 3.7 | 2.0 |



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Client: VHB/ E. Chan

File Name : 165077 GG
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Talbots Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 7 | 0 | 75 | 0 | 37 | 183 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 281 | 12 | 0 | 601 |
| 04:15 PM | 12 | 0 | 53 | 0 | 28 | 189 | 0 | 0 | 2 | 1 | 5 | 1 | 1 | 217 | 6 | 0 | 515 |
| 04:30 PM | 12 | 0 | 83 | 0 | 35 | 190 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 286 | 4 | 0 | 614 |
| 04:45 PM | 8 | 0 | 59 | 0 | 40 | 182 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 299 | 8 | 0 | 601 |
| Total | 39 | 0 | 270 | 0 | 140 | 744 | 0 | 0 | 2 | 1 | 19 | 1 | 2 | 1083 | 30 | 0 | 2331 |
| 05:00 PM | 10 | 1 | 115 | 0 | 34 | 214 | 1 | 0 | 2 | 2 | 37 | 0 | 1 | 290 | 8 | 0 | 715 |
| 05:15 PM | 7 | 0 | 75 | 0 | 38 | 211 | 0 | 0 | 2 | 4 | 28 | 0 | 1 | 309 | 2 | 0 | 677 |
| 05:30 PM | 6 | 0 | 47 | 0 | 29 | 178 | 0 | 0 | 6 | 7 | 17 | 0 | 0 | 272 | 8 | 0 | 570 |
| 05:45 PM | 5 | 1 | 163 | 0 | 50 | 167 | 0 | 0 | 1 | 0 | 13 | 0 | 2 | 264 | 5 | 0 | 671 |
| Total | 28 | 2 | 400 | 0 | 151 | 770 | 1 | 0 | 11 | 13 | 95 | 0 | 4 | 1135 | 23 | 0 | 2633 |
| Grand Total | 67 | 2 | 670 | 0 | 291 | 1514 | 1 | 0 | 13 | 14 | 114 | 1 | 6 | 2218 | 53 | 0 | 4964 |
| Apprch % | 9.1 | 0.3 | 90.7 | 0 | 16.1 | 83.8 | 0.1 | 0 | 9.2 | 9.9 | 80.3 | 0.7 | 0.3 | 97.4 | 2.3 | 0 | |
| Total % | 1.3 | 0 | 13.5 | 0 | 5.9 | 30.5 | 0 | 0 | 0.3 | 0.3 | 2.3 | 0 | 0.1 | 44.7 | 1.1 | 0 | |
| Cars | 66 | 2 | 668 | 0 | 289 | 1489 | 1 | 0 | 12 | 14 | 111 | 0 | 5 | 2201 | 53 | 0 | 4911 |
| % Cars | 98.5 | 100 | 99.7 | 0 | 99.3 | 98.3 | 100 | 0 | 92.3 | 100 | 97.4 | 0 | 83.3 | 99.2 | 100 | 0 | 98.9 |
| Heavy Vehicles | 1 | 0 | 2 | 0 | 2 | 25 | 0 | 0 | 1 | 0 | 3 | 1 | 1 | 17 | 0 | 0 | 53 |
| % Heavy Vehicles | 1.5 | 0 | 0.3 | 0 | 0.7 | 1.7 | 0 | 0 | 7.7 | 0 | 2.6 | 100 | 16.7 | 0.8 | 0 | 0 | 1.1 |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 10 | 1 | 115 | 0 | 126 | 34 | 214 | 1 | 0 | 249 | 2 | 2 | 37 | 0 | 41 | 1 | 290 | 8 | 0 | 299 | 715 |
| 05:15 PM | 7 | 0 | 75 | 0 | 82 | 38 | 211 | 0 | 0 | 249 | 2 | 4 | 28 | 0 | 34 | 1 | 309 | 2 | 0 | 312 | 677 |
| 05:30 PM | 6 | 0 | 47 | 0 | 53 | 29 | 178 | 0 | 0 | 207 | 6 | 7 | 17 | 0 | 30 | 0 | 272 | 8 | 0 | 280 | 570 |
| 05:45 PM | 5 | 1 | 163 | 0 | 169 | 50 | 167 | 0 | 0 | 217 | 1 | 0 | 13 | 0 | 14 | 2 | 264 | 5 | 0 | 271 | 671 |
| Total Volume | 28 | 2 | 400 | 0 | 430 | 151 | 770 | 1 | 0 | 922 | 11 | 13 | 95 | 0 | 119 | 4 | 1135 | 23 | 0 | 1162 | 2633 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .700 | .500 | .613 | .000 | .636 | .755 | .900 | .250 | .000 | .926 | .458 | .464 | .642 | .000 | .726 | .500 | .918 | .719 | .000 | .931 | .921 |
| Cars | 28 | 2 | 399 | 0 | 429 | 151 | 756 | 1 | 0 | 908 | 10 | 13 | 93 | 0 | 116 | 4 | 1129 | 23 | 0 | 1156 | 2609 |
| % Cars | 100 | 100 | 99.8 | 0 | 99.8 | 100 | 98.2 | 100 | 0 | 98.5 | 90.9 | 100 | 97.9 | 0 | 97.5 | 100 | 99.5 | 100 | 0 | 99.5 | 99.1 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0.3 | 0 | 0.2 | 0 | 1.8 | 0 | 0 | 1.5 | 9.1 | 0 | 2.1 | 0 | 2.5 | 0 | 0.5 | 0 | 0 | 0.5 | 0.9 |

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Office: 508-875-0100 Fax: 508-875-0118
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N/S: Shipyard Drive/ Talbots Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 GG
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Talbots Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 7 | 0 | 75 | 0 | 37 | 181 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 277 | 12 | 0 | 595 |
| 04:15 PM | 12 | 0 | 53 | 0 | 28 | 187 | 0 | 0 | 2 | 1 | 4 | 0 | 0 | 214 | 6 | 0 | 507 |
| 04:30 PM | 11 | 0 | 82 | 0 | 33 | 188 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 283 | 4 | 0 | 605 |
| 04:45 PM | 8 | 0 | 59 | 0 | 40 | 177 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 298 | 8 | 0 | 595 |
| Total | 38 | 0 | 269 | 0 | 138 | 733 | 0 | 0 | 2 | 1 | 18 | 0 | 1 | 1072 | 30 | 0 | 2302 |
| 05:00 PM | 10 | 1 | 114 | 0 | 34 | 209 | 1 | 0 | 2 | 2 | 36 | 0 | 1 | 289 | 8 | 0 | 707 |
| 05:15 PM | 7 | 0 | 75 | 0 | 38 | 207 | 0 | 0 | 1 | 4 | 28 | 0 | 1 | 308 | 2 | 0 | 671 |
| 05:30 PM | 6 | 0 | 47 | 0 | 29 | 176 | 0 | 0 | 6 | 7 | 16 | 0 | 0 | 271 | 8 | 0 | 566 |
| 05:45 PM | 5 | 1 | 163 | 0 | 50 | 164 | 0 | 0 | 1 | 0 | 13 | 0 | 2 | 261 | 5 | 0 | 665 |
| Total | 28 | 2 | 399 | 0 | 151 | 756 | 1 | 0 | 10 | 13 | 93 | 0 | 4 | 1129 | 23 | 0 | 2609 |
| Grand Total | 66 | 2 | 668 | 0 | 289 | 1489 | 1 | 0 | 12 | 14 | 111 | 0 | 5 | 2201 | 53 | 0 | 4911 |
| Apprch % | 9 | 0.3 | 90.8 | 0 | 16.2 | 83.7 | 0.1 | 0 | 8.8 | 10.2 | 81 | 0 | 0.2 | 97.4 | 2.3 | 0 | |
| Total % | 1.3 | 0 | 13.6 | 0 | 5.9 | 30.3 | 0 | 0 | 0.2 | 0.3 | 2.3 | 0 | 0.1 | 44.8 | 1.1 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 10 | 1 | 114 | 0 | 125 | 34 | 209 | 1 | 0 | 244 | 2 | 2 | 36 | 0 | 40 | 1 | 289 | 8 | 0 | 298 | 707 |
| 05:15 PM | 7 | 0 | 75 | 0 | 82 | 38 | 207 | 0 | 0 | 245 | 1 | 4 | 28 | 0 | 33 | 1 | 308 | 2 | 0 | 311 | 671 |
| 05:30 PM | 6 | 0 | 47 | 0 | 53 | 29 | 176 | 0 | 0 | 205 | 6 | 7 | 16 | 0 | 29 | 0 | 271 | 8 | 0 | 279 | 566 |
| 05:45 PM | 5 | 1 | 163 | 0 | 169 | 50 | 164 | 0 | 0 | 214 | 1 | 0 | 13 | 0 | 14 | 2 | 261 | 5 | 0 | 268 | 665 |
| Total Volume | 28 | 2 | 399 | 0 | 429 | 151 | 756 | 1 | 0 | 908 | 10 | 13 | 93 | 0 | 116 | 4 | 1129 | 23 | 0 | 1156 | 2609 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .700 | .500 | .612 | .000 | .635 | .755 | .904 | .250 | .000 | .927 | .417 | .464 | .646 | .000 | .725 | .500 | .916 | .719 | .000 | .929 | .923 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 GG
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Talbots Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 6 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 8 |
| 04:30 PM | 1 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 9 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 |
| Total | 1 | 0 | 1 | 0 | 2 | 11 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 11 | 0 | 0 | 29 |
| 05:00 PM | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 8 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 4 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 6 |
| Total | 0 | 0 | 1 | 0 | 0 | 14 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 6 | 0 | 0 | 24 |
| Grand Total | 1 | 0 | 2 | 0 | 2 | 25 | 0 | 0 | 1 | 0 | 3 | 1 | 1 | 17 | 0 | 0 | 53 |
| Apprch % | 33.3 | 0 | 66.7 | 0 | 7.4 | 92.6 | 0 | 0 | 20 | 0 | 60 | 20 | 5.6 | 94.4 | 0 | 0 | |
| Total % | 1.9 | 0 | 3.8 | 0 | 3.8 | 47.2 | 0 | 0 | 1.9 | 0 | 5.7 | 1.9 | 1.9 | 32.1 | 0 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 2 | 1 | 3 | 0 | 0 | 4 | 8 |
| 04:30 PM | 1 | 0 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 9 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| 05:00 PM | 0 | 0 | 1 | 0 | 1 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 8 |
| Total Volume | 1 | 0 | 2 | 0 | 3 | 2 | 14 | 0 | 0 | 16 | 0 | 0 | 2 | 1 | 3 | 1 | 8 | 0 | 0 | 9 | 31 |
| % App. Total | 33.3 | 0 | 66.7 | 0 | | 12.5 | 87.5 | 0 | 0 | | 0 | 0 | 66.7 | 33.3 | | 11.1 | 88.9 | 0 | 0 | | |
| PHF | .250 | .000 | .500 | .000 | .375 | .250 | .700 | .000 | .000 | .800 | .000 | .000 | .500 | .250 | .375 | .250 | .667 | .000 | .000 | .563 | .861 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 GG
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 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 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 05:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 |
| Grand Total | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 5 |
| Apprch % | 0 | 33.3 | 0 | 66.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 50 | 0 | |
| Total % | 0 | 20 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 20 | 0 | |

| | Shipyard Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Talbots Drive From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04:15 PM | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 04:30 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 |
| 04:45 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 |
| 05:00 PM | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Total Volume | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 4 |
| % App. Total | 0 | 33.3 | 0 | 66.7 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | 0 | | |
| PHF | .000 | .250 | .000 | .250 | .000 | .375 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .500 |

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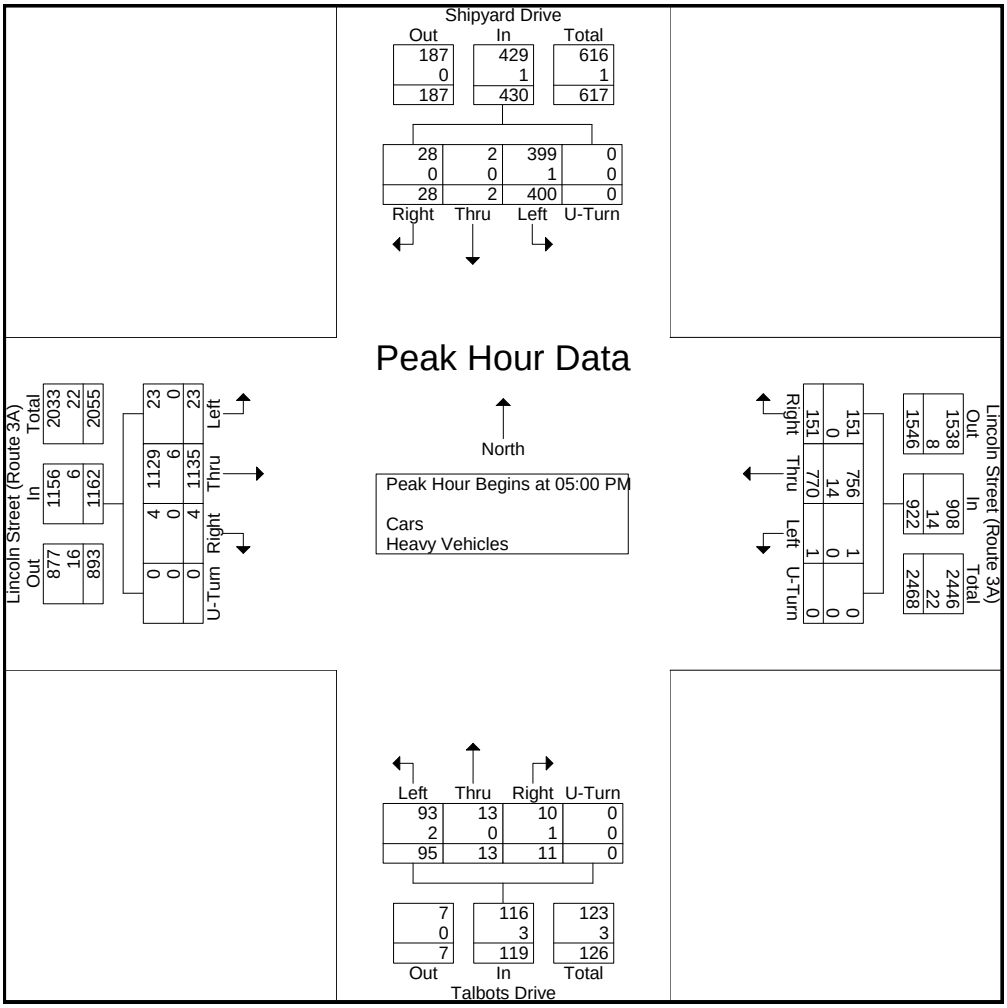
File Name : 165077 GG
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 10 | 1 | 115 | 0 | 126 | 34 | 214 | 1 | 0 | 249 | 2 | 2 | 37 | 0 | 41 | 1 | 290 | 8 | 0 | 299 | 715 |
| 05:15 PM | 7 | 0 | 75 | 0 | 82 | 38 | 211 | 0 | 0 | 249 | 2 | 4 | 28 | 0 | 34 | 1 | 309 | 2 | 0 | 312 | 677 |
| 05:30 PM | 6 | 0 | 47 | 0 | 53 | 29 | 178 | 0 | 0 | 207 | 6 | 7 | 17 | 0 | 30 | 0 | 272 | 8 | 0 | 280 | 570 |
| 05:45 PM | 5 | 1 | 163 | 0 | 169 | 50 | 167 | 0 | 0 | 217 | 1 | 0 | 13 | 0 | 14 | 2 | 264 | 5 | 0 | 271 | 671 |
| Total Volume | 28 | 2 | 400 | 0 | 430 | 151 | 770 | 1 | 0 | 922 | 11 | 13 | 95 | 0 | 119 | 4 | 1135 | 23 | 0 | 1162 | 2633 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .700 | .500 | .613 | .000 | .636 | .755 | .900 | .250 | .000 | .926 | .458 | .464 | .642 | .000 | .726 | .500 | .918 | .719 | .000 | .931 | .921 |
| Cars | 28 | 2 | 399 | 0 | 429 | 151 | 756 | 1 | 0 | 908 | 10 | 13 | 93 | 0 | 116 | 4 | 1129 | 23 | 0 | 1156 | 2609 |
| % Cars | 100 | 100 | 99.8 | 0 | 99.8 | 100 | 98.2 | 100 | 0 | 98.5 | 90.9 | 100 | 97.9 | 0 | 97.5 | 100 | 99.5 | 100 | 0 | 99.5 | 99.1 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0.3 | 0 | 0.2 | 0 | 1.8 | 0 | 0 | 1.5 | 9.1 | 0 | 2.1 | 0 | 2.5 | 0 | 0.5 | 0 | 0 | 0.5 | 0.9 |



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Client: VHB/ E. Chan

File Name : 165077 GGG
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Talbots Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 3 | 1 | 34 | 0 | 37 | 215 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 232 | 4 | 0 | 527 |
| 10:45 AM | 10 | 0 | 33 | 0 | 32 | 249 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 204 | 3 | 0 | 531 |
| Total | 13 | 1 | 67 | 0 | 69 | 464 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 436 | 7 | 0 | 1058 |
| 11:00 AM | 12 | 1 | 16 | 0 | 25 | 220 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 226 | 4 | 0 | 504 |
| 11:15 AM | 6 | 0 | 22 | 0 | 35 | 217 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 217 | 7 | 0 | 504 |
| 11:30 AM | 9 | 0 | 36 | 0 | 36 | 224 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 215 | 2 | 1 | 526 |
| 11:45 AM | 7 | 1 | 47 | 0 | 38 | 252 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 152 | 0 | 0 | 498 |
| Total | 34 | 2 | 121 | 0 | 134 | 913 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 810 | 13 | 1 | 2032 |
| 12:00 PM | 10 | 1 | 39 | 0 | 50 | 248 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 260 | 5 | 0 | 616 |
| 12:15 PM | 8 | 2 | 37 | 0 | 43 | 233 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 250 | 1 | 0 | 575 |
| 12:30 PM | 8 | 1 | 44 | 0 | 43 | 201 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 233 | 6 | 0 | 537 |
| 12:45 PM | 11 | 0 | 46 | 0 | 41 | 217 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 271 | 2 | 0 | 589 |
| Total | 37 | 4 | 166 | 0 | 177 | 899 | 1 | 0 | 0 | 0 | 2 | 0 | 3 | 1014 | 14 | 0 | 2317 |
| 01:00 PM | 8 | 1 | 43 | 0 | 32 | 236 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 229 | 3 | 0 | 556 |
| 01:15 PM | 4 | 1 | 62 | 0 | 36 | 269 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 209 | 4 | 0 | 585 |
| Grand Total | 96 | 9 | 459 | 0 | 448 | 2781 | 4 | 1 | 3 | 1 | 3 | 0 | 3 | 2698 | 41 | 1 | 6548 |
| Apprch % | 17 | 1.6 | 81.4 | 0 | 13.9 | 86 | 0.1 | 0 | 42.9 | 14.3 | 42.9 | 0 | 0.1 | 98.4 | 1.5 | 0 | |
| Total % | 1.5 | 0.1 | 7 | 0 | 6.8 | 42.5 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 41.2 | 0.6 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 10 | 1 | 39 | 0 | 50 | 50 | 248 | 0 | 0 | 298 | 0 | 0 | 1 | 0 | 1 | 2 | 260 | 5 | 0 | 267 | 616 |
| 12:15 PM | 8 | 2 | 37 | 0 | 47 | 43 | 233 | 0 | 0 | 276 | 0 | 0 | 0 | 0 | 0 | 1 | 250 | 1 | 0 | 252 | 575 |
| 12:30 PM | 8 | 1 | 44 | 0 | 53 | 43 | 201 | 0 | 0 | 244 | 0 | 0 | 1 | 0 | 1 | 0 | 233 | 6 | 0 | 239 | 537 |
| 12:45 PM | 11 | 0 | 46 | 0 | 57 | 41 | 217 | 1 | 0 | 259 | 0 | 0 | 0 | 0 | 0 | 0 | 271 | 2 | 0 | 273 | 589 |
| Total Volume | 37 | 4 | 166 | 0 | 207 | 177 | 899 | 1 | 0 | 1077 | 0 | 0 | 2 | 0 | 2 | 3 | 1014 | 14 | 0 | 1031 | 2317 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .841 | .500 | .902 | .000 | .908 | .885 | .906 | .250 | .000 | .904 | .000 | .000 | .500 | .000 | .500 | .375 | .935 | .583 | .000 | .944 | .940 |

PRECISION
D A T A
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**Groups Printed- Heavy Vehicles**

| | Shipyard Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Talbots Drive From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 |
| 10:45 AM | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 7 |
| Total | 1 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 11 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 6 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| Total | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 1 | 0 | 17 |
| 12:00 PM | 1 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 12 |
| 12:15 PM | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 10 |
| 12:45 PM | 1 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 9 |
| Total | 2 | 0 | 2 | 0 | 1 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 1 | 0 | 40 |
| 01:00 PM | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 11 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 8 |
| Grand Total | 4 | 0 | 3 | 0 | 1 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 2 | 0 | 87 |
| Apprch % | 57.1 | 0 | 42.9 | 0 | 2 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93.5 | 6.5 | 0 | |
| Total % | 4.6 | 0 | 3.4 | 0 | 1.1 | 55.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33.3 | 2.3 | 0 | |

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 1 | 0 | 1 | 0 | 2 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 5 | 12 |
| 12:15 PM | 0 | 0 | 1 | 0 | 1 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 9 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 10 |
| 12:45 PM | 1 | 0 | 0 | 0 | 1 | 1 | 4 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 9 |
| Total Volume | 2 | 0 | 2 | 0 | 4 | 1 | 23 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 1 | 0 | 12 | 40 |
| % App. Total | 50 | 0 | 50 | 0 | | 4.2 | 95.8 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 91.7 | 8.3 | 0 | | |
| PHF | .500 | .000 | .500 | .000 | .500 | .250 | .821 | .000 | .000 | .857 | .000 | .000 | .000 | .000 | .000 | .000 | .688 | .250 | .000 | .600 | .833 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Shipyard Drive/ Talbots Drive
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 GGG
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 11:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:45 AM | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 12:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 5 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:15 PM | 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 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 1 | 1 | 13 |
| Apprch % | 0 | 0 | 0 | 66.7 | 33.3 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 71.4 | 0 | 14.3 | 14.3 | |
| Total % | 0 | 0 | 0 | 15.4 | 7.7 | 0 | 15.4 | 0 | 0 | 0 | 0 | 0 | 0 | 7.7 | 0 | 0 | 38.5 | 0 | 7.7 | 7.7 | |

| | Shipyard Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Talbots Drive From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:15 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 12:30 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 3 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Volume | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 4 | 7 |
| % App. Total | 0 | 0 | 0 | 100 | 0 | | 0 | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 75 | 0 | 0 | 25 | | |
| PHF | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .250 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .375 | .000 | .000 | .250 | .500 | .583 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

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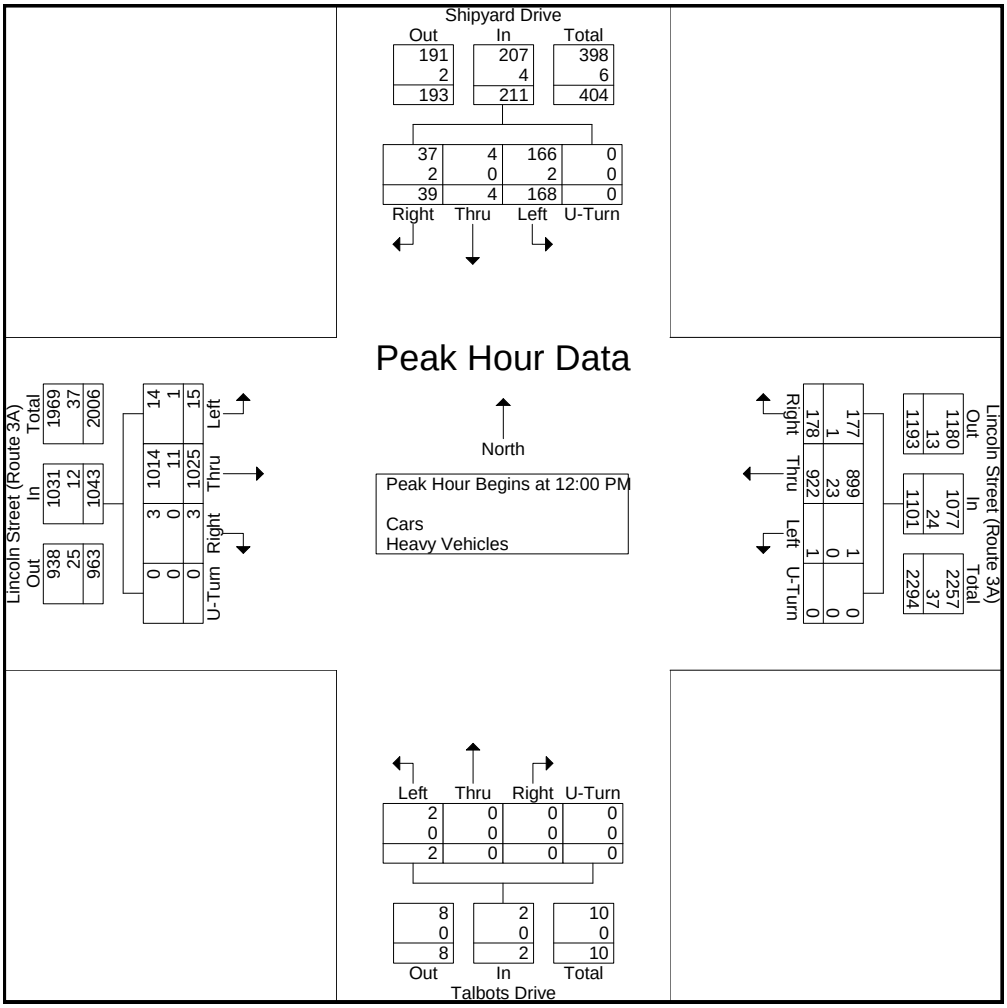
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 GGG
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

| | Shipyard Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Talbots Drive From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 11 | 1 | 40 | 0 | 52 | 50 | 253 | 0 | 0 | 303 | 0 | 0 | 1 | 0 | 1 | 2 | 264 | 6 | 0 | 272 | 628 |
| 12:15 PM | 8 | 2 | 38 | 0 | 48 | 43 | 240 | 0 | 0 | 283 | 0 | 0 | 0 | 0 | 0 | 1 | 251 | 1 | 0 | 253 | 584 |
| 12:30 PM | 8 | 1 | 44 | 0 | 53 | 43 | 208 | 0 | 0 | 251 | 0 | 0 | 1 | 0 | 1 | 0 | 236 | 6 | 0 | 242 | 547 |
| 12:45 PM | 12 | 0 | 46 | 0 | 58 | 42 | 221 | 1 | 0 | 264 | 0 | 0 | 0 | 0 | 0 | 0 | 274 | 2 | 0 | 276 | 598 |
| Total Volume | 39 | 4 | 168 | 0 | 211 | 178 | 922 | 1 | 0 | 1101 | 0 | 0 | 2 | 0 | 2 | 3 | 1025 | 15 | 0 | 1043 | 2357 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .813 | .500 | .913 | .000 | .909 | .890 | .911 | .250 | .000 | .908 | .000 | .000 | .500 | .000 | .500 | .375 | .935 | .625 | .000 | .945 | .938 |
| Cars | 37 | 4 | 166 | 0 | 207 | 177 | 899 | 1 | 0 | 1077 | 0 | 0 | 2 | 0 | 2 | 3 | 1014 | 14 | 0 | 1031 | 2317 |
| % Cars | 94.9 | 100 | 98.8 | 0 | 98.1 | 99.4 | 97.5 | 100 | 0 | 97.8 | 0 | 0 | 100 | 0 | 100 | 100 | 98.9 | 93.3 | 0 | 98.8 | 98.3 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 5.1 | 0 | 1.2 | 0 | 1.9 | 0.6 | 2.5 | 0 | 0 | 2.2 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 6.7 | 0 | 1.2 | 1.7 |



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

N/S: Bradley Woods Drive/ Fottler Road
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 H
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Bradley Woods Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Fottler Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 9 | 3 | 4 | 0 | 1 | 410 | 5 | 0 | 7 | 2 | 13 | 0 | 3 | 97 | 2 | 0 | 556 |
| 07:15 AM | 4 | 4 | 4 | 0 | 1 | 410 | 8 | 0 | 7 | 2 | 8 | 0 | 5 | 114 | 1 | 0 | 568 |
| 07:30 AM | 8 | 3 | 7 | 0 | 0 | 453 | 10 | 0 | 11 | 1 | 16 | 0 | 11 | 168 | 0 | 0 | 688 |
| 07:45 AM | 5 | 5 | 6 | 0 | 4 | 369 | 9 | 0 | 13 | 0 | 23 | 0 | 10 | 128 | 2 | 0 | 574 |
| Total | 26 | 15 | 21 | 0 | 6 | 1642 | 32 | 0 | 38 | 5 | 60 | 0 | 29 | 507 | 5 | 0 | 2386 |
| 08:00 AM | 6 | 5 | 9 | 0 | 8 | 347 | 16 | 0 | 17 | 1 | 16 | 0 | 15 | 153 | 3 | 0 | 596 |
| 08:15 AM | 0 | 2 | 4 | 0 | 1 | 370 | 27 | 0 | 15 | 0 | 13 | 0 | 5 | 163 | 2 | 0 | 602 |
| 08:30 AM | 7 | 1 | 4 | 0 | 6 | 313 | 17 | 0 | 8 | 1 | 18 | 0 | 8 | 173 | 0 | 0 | 556 |
| 08:45 AM | 4 | 5 | 3 | 0 | 2 | 319 | 20 | 0 | 7 | 2 | 8 | 0 | 5 | 145 | 1 | 0 | 521 |
| Total | 17 | 13 | 20 | 0 | 17 | 1349 | 80 | 0 | 47 | 4 | 55 | 0 | 33 | 634 | 6 | 0 | 2275 |
| Grand Total | 43 | 28 | 41 | 0 | 23 | 2991 | 112 | 0 | 85 | 9 | 115 | 0 | 62 | 1141 | 11 | 0 | 4661 |
| Apprch % | 38.4 | 25 | 36.6 | 0 | 0.7 | 95.7 | 3.6 | 0 | 40.7 | 4.3 | 55 | 0 | 5.1 | 94 | 0.9 | 0 | |
| Total % | 0.9 | 0.6 | 0.9 | 0 | 0.5 | 64.2 | 2.4 | 0 | 1.8 | 0.2 | 2.5 | 0 | 1.3 | 24.5 | 0.2 | 0 | |
| Cars | 41 | 27 | 39 | 0 | 18 | 2946 | 110 | 0 | 79 | 9 | 114 | 0 | 57 | 1087 | 11 | 0 | 4538 |
| % Cars | 95.3 | 96.4 | 95.1 | 0 | 78.3 | 98.5 | 98.2 | 0 | 92.9 | 100 | 99.1 | 0 | 91.9 | 95.3 | 100 | 0 | 97.4 |
| Heavy Vehicles | 2 | 1 | 2 | 0 | 5 | 45 | 2 | 0 | 6 | 0 | 1 | 0 | 5 | 54 | 0 | 0 | 123 |
| % Heavy Vehicles | 4.7 | 3.6 | 4.9 | 0 | 21.7 | 1.5 | 1.8 | 0 | 7.1 | 0 | 0.9 | 0 | 8.1 | 4.7 | 0 | 0 | 2.6 |

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 8 | 3 | 7 | 0 | 18 | 0 | 453 | 10 | 0 | 463 | 11 | 1 | 16 | 0 | 28 | 11 | 168 | 0 | 0 | 179 | 688 |
| 07:45 AM | 5 | 5 | 6 | 0 | 16 | 4 | 369 | 9 | 0 | 382 | 13 | 0 | 23 | 0 | 36 | 10 | 128 | 2 | 0 | 140 | 574 |
| 08:00 AM | 6 | 5 | 9 | 0 | 20 | 8 | 347 | 16 | 0 | 371 | 17 | 1 | 16 | 0 | 34 | 15 | 153 | 3 | 0 | 171 | 596 |
| 08:15 AM | 0 | 2 | 4 | 0 | 6 | 1 | 370 | 27 | 0 | 398 | 15 | 0 | 13 | 0 | 28 | 5 | 163 | 2 | 0 | 170 | 602 |
| Total Volume | 19 | 15 | 26 | 0 | 60 | 13 | 1539 | 62 | 0 | 1614 | 56 | 2 | 68 | 0 | 126 | 41 | 612 | 7 | 0 | 660 | 2460 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .594 | .750 | .722 | .000 | .750 | .406 | .849 | .574 | .000 | .871 | .824 | .500 | .739 | .000 | .875 | .683 | .911 | .583 | .000 | .922 | .894 |
| Cars | 18 | 14 | 25 | 0 | 57 | 10 | 1520 | 60 | 0 | 1590 | 50 | 2 | 67 | 0 | 119 | 38 | 584 | 7 | 0 | 629 | 2395 |
| % Cars | 94.7 | 93.3 | 96.2 | 0 | 95.0 | 76.9 | 98.8 | 96.8 | 0 | 98.5 | 89.3 | 100 | 98.5 | 0 | 94.4 | 92.7 | 95.4 | 100 | 0 | 95.3 | 97.4 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 5.3 | 6.7 | 3.8 | 0 | 5.0 | 23.1 | 1.2 | 3.2 | 0 | 1.5 | 10.7 | 0 | 1.5 | 0 | 5.6 | 7.3 | 4.6 | 0 | 0 | 4.7 | 2.6 |

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City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 H
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Bradley Woods Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Fottler Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 8 | 3 | 3 | 0 | 0 | 404 | 5 | 0 | 7 | 2 | 13 | 0 | 3 | 94 | 2 | 0 | 544 |
| 07:15 AM | 4 | 4 | 4 | 0 | 0 | 404 | 8 | 0 | 7 | 2 | 8 | 0 | 4 | 107 | 1 | 0 | 553 |
| 07:30 AM | 7 | 3 | 7 | 0 | 0 | 447 | 10 | 0 | 11 | 1 | 16 | 0 | 9 | 160 | 0 | 0 | 671 |
| 07:45 AM | 5 | 4 | 6 | 0 | 2 | 366 | 9 | 0 | 12 | 0 | 22 | 0 | 9 | 122 | 2 | 0 | 559 |
| Total | 24 | 14 | 20 | 0 | 2 | 1621 | 32 | 0 | 37 | 5 | 59 | 0 | 25 | 483 | 5 | 0 | 2327 |
| 08:00 AM | 6 | 5 | 8 | 0 | 7 | 343 | 15 | 0 | 14 | 1 | 16 | 0 | 15 | 147 | 3 | 0 | 580 |
| 08:15 AM | 0 | 2 | 4 | 0 | 1 | 364 | 26 | 0 | 13 | 0 | 13 | 0 | 5 | 155 | 2 | 0 | 585 |
| 08:30 AM | 7 | 1 | 4 | 0 | 6 | 307 | 17 | 0 | 8 | 1 | 18 | 0 | 8 | 164 | 0 | 0 | 541 |
| 08:45 AM | 4 | 5 | 3 | 0 | 2 | 311 | 20 | 0 | 7 | 2 | 8 | 0 | 4 | 138 | 1 | 0 | 505 |
| Total | 17 | 13 | 19 | 0 | 16 | 1325 | 78 | 0 | 42 | 4 | 55 | 0 | 32 | 604 | 6 | 0 | 2211 |
| Grand Total | 41 | 27 | 39 | 0 | 18 | 2946 | 110 | 0 | 79 | 9 | 114 | 0 | 57 | 1087 | 11 | 0 | 4538 |
| Apprch % | 38.3 | 25.2 | 36.4 | 0 | 0.6 | 95.8 | 3.6 | 0 | 39.1 | 4.5 | 56.4 | 0 | 4.9 | 94.1 | 1 | 0 | |
| Total % | 0.9 | 0.6 | 0.9 | 0 | 0.4 | 64.9 | 2.4 | 0 | 1.7 | 0.2 | 2.5 | 0 | 1.3 | 24 | 0.2 | 0 | |

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 7 | 3 | 7 | 0 | 17 | 0 | 447 | 10 | 0 | 457 | 11 | 1 | 16 | 0 | 28 | 9 | 160 | 0 | 0 | 169 | 671 |
| 07:45 AM | 5 | 4 | 6 | 0 | 15 | 2 | 366 | 9 | 0 | 377 | 12 | 0 | 22 | 0 | 34 | 9 | 122 | 2 | 0 | 133 | 559 |
| 08:00 AM | 6 | 5 | 8 | 0 | 19 | 7 | 343 | 15 | 0 | 365 | 14 | 1 | 16 | 0 | 31 | 15 | 147 | 3 | 0 | 165 | 580 |
| 08:15 AM | 0 | 2 | 4 | 0 | 6 | 1 | 364 | 26 | 0 | 391 | 13 | 0 | 13 | 0 | 26 | 5 | 155 | 2 | 0 | 162 | 585 |
| Total Volume | 18 | 14 | 25 | 0 | 57 | 10 | 1520 | 60 | 0 | 1590 | 50 | 2 | 67 | 0 | 119 | 38 | 584 | 7 | 0 | 629 | 2395 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .643 | .700 | .781 | .000 | .750 | .357 | .850 | .577 | .000 | .870 | .893 | .500 | .761 | .000 | .875 | .633 | .913 | .583 | .000 | .930 | .892 |

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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 H
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Bradley Woods Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Fottler Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 1 | 0 | 1 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 12 |
| 07:15 AM | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 0 | 0 | 15 |
| 07:30 AM | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 0 | 0 | 17 |
| 07:45 AM | 0 | 1 | 0 | 0 | 2 | 3 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 6 | 0 | 0 | 15 |
| Total | 2 | 1 | 1 | 0 | 4 | 21 | 0 | 0 | 1 | 0 | 1 | 0 | 4 | 24 | 0 | 0 | 59 |
| 08:00 AM | 0 | 0 | 1 | 0 | 1 | 4 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 16 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 17 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 15 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 0 | 0 | 16 |
| Total | 0 | 0 | 1 | 0 | 1 | 24 | 2 | 0 | 5 | 0 | 0 | 0 | 1 | 30 | 0 | 0 | 64 |
| Grand Total | 2 | 1 | 2 | 0 | 5 | 45 | 2 | 0 | 6 | 0 | 1 | 0 | 5 | 54 | 0 | 0 | 123 |
| Apprch % | 40 | 20 | 40 | 0 | 9.6 | 86.5 | 3.8 | 0 | 85.7 | 0 | 14.3 | 0 | 8.5 | 91.5 | 0 | 0 | |
| Total % | 1.6 | 0.8 | 1.6 | 0 | 4.1 | 36.6 | 1.6 | 0 | 4.9 | 0 | 0.8 | 0 | 4.1 | 43.9 | 0 | 0 | |

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 1 | 0 | 0 | 0 | 1 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 0 | 0 | 10 | 17 |
| 07:45 AM | 0 | 1 | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 5 | 1 | 0 | 1 | 0 | 2 | 1 | 6 | 0 | 0 | 7 | 15 |
| 08:00 AM | 0 | 0 | 1 | 0 | 1 | 1 | 4 | 1 | 0 | 6 | 3 | 0 | 0 | 0 | 3 | 0 | 6 | 0 | 0 | 6 | 16 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 7 | 2 | 0 | 0 | 0 | 2 | 0 | 8 | 0 | 0 | 8 | 17 |
| Total Volume | 1 | 1 | 1 | 0 | 3 | 3 | 19 | 2 | 0 | 24 | 6 | 0 | 1 | 0 | 7 | 3 | 28 | 0 | 0 | 31 | 65 |
| % App. Total | 33.3 | 33.3 | 33.3 | 0 | | 12.5 | 79.2 | 8.3 | 0 | | 85.7 | 0 | 14.3 | 0 | | 9.7 | 90.3 | 0 | 0 | | |
| PHF | .250 | .250 | .250 | .000 | .750 | .375 | .792 | .500 | .000 | .857 | .500 | .000 | .250 | .000 | .583 | .375 | .875 | .000 | .000 | .775 | .956 |

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

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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 H
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM | 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 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 8 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 0 | 16.7 | 0 | 33.3 | 50 | 0 | 0 | 0 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 12.5 | 0 | 25 | 37.5 | 0 | 0 | 0 | 12.5 | 0 | 0 | 12.5 | 0 | 0 | 0 | |

| | Bradley Woods Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Fottler Road From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 AM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:15 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 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 | 6 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 8 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | | 0 | 16.7 | 0 | 33.3 | 50 | | 0 | 0 | 0 | 100 | 0 | | 0 | 100 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .500 | .250 | .375 | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .250 | .000 | .000 | .000 | .250 | .400 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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Client: VHB/ E. Chan

File Name : 165077 H
Site Code : TBA
Start Date : 5/19/2016
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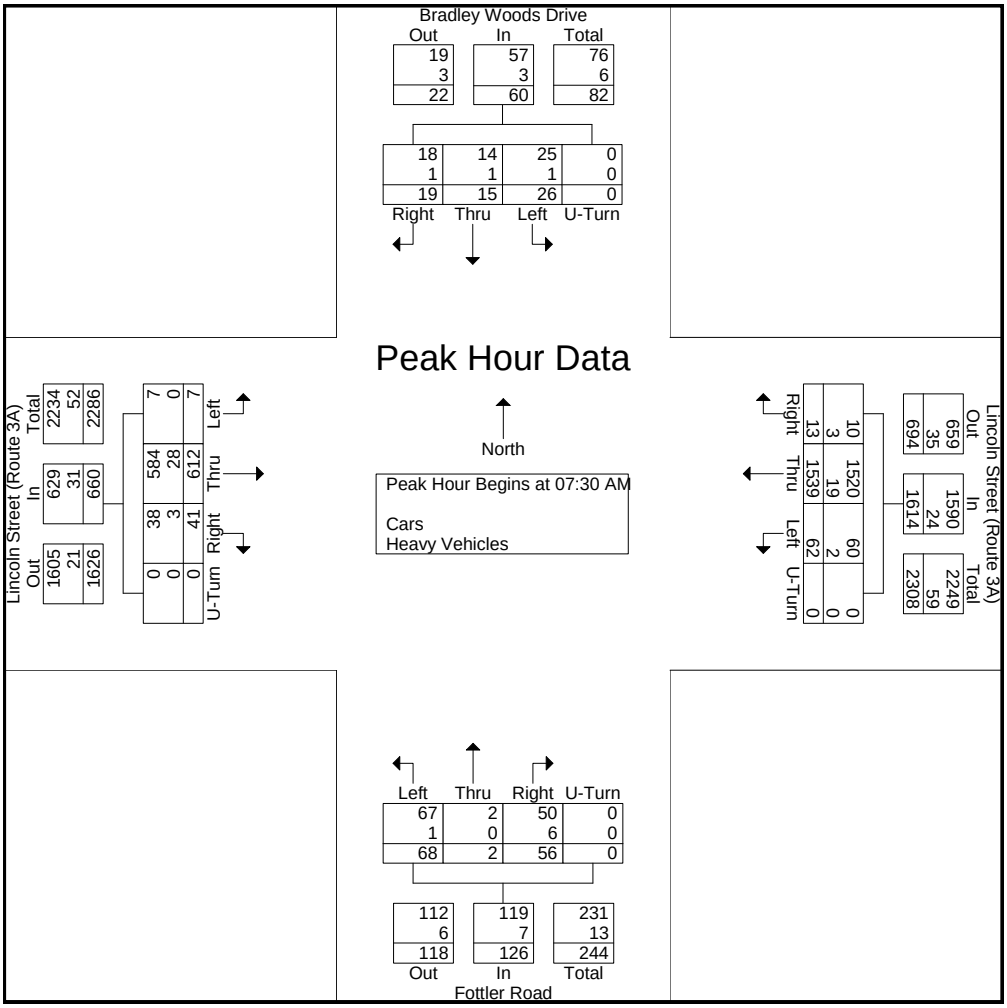
| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 8 | 3 | 7 | 0 | 18 | 0 | 453 | 10 | 0 | 463 | 11 | 1 | 16 | 0 | 28 | 11 | 168 | 0 | 0 | 179 | 688 |
| 07:45 AM | 5 | 5 | 6 | 0 | 16 | 4 | 369 | 9 | 0 | 382 | 13 | 0 | 23 | 0 | 36 | 10 | 128 | 2 | 0 | 140 | 574 |
| 08:00 AM | 6 | 5 | 9 | 0 | 20 | 8 | 347 | 16 | 0 | 371 | 17 | 1 | 16 | 0 | 34 | 15 | 153 | 3 | 0 | 171 | 596 |
| 08:15 AM | 0 | 2 | 4 | 0 | 6 | 1 | 370 | 27 | 0 | 398 | 15 | 0 | 13 | 0 | 28 | 5 | 163 | 2 | 0 | 170 | 602 |
| Total Volume | 19 | 15 | 26 | 0 | 60 | 13 | 1539 | 62 | 0 | 1614 | 56 | 2 | 68 | 0 | 126 | 41 | 612 | 7 | 0 | 660 | 2460 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .594 | .750 | .722 | .000 | .750 | .406 | .849 | .574 | .000 | .871 | .824 | .500 | .739 | .000 | .875 | .683 | .911 | .583 | .000 | .922 | .894 |
| Cars | 18 | 14 | 25 | 0 | 57 | 10 | 1520 | 60 | 0 | 1590 | 50 | 2 | 67 | 0 | 119 | 38 | 584 | 7 | 0 | 629 | 2395 |
| % Cars | 94.7 | 93.3 | 96.2 | 0 | 95.0 | 76.9 | 98.8 | 96.8 | 0 | 98.5 | 89.3 | 100 | 98.5 | 0 | 94.4 | 92.7 | 95.4 | 100 | 0 | 95.3 | 97.4 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 5.3 | 6.7 | 3.8 | 0 | 5.0 | 23.1 | 1.2 | 3.2 | 0 | 1.5 | 10.7 | 0 | 1.5 | 0 | 5.6 | 7.3 | 4.6 | 0 | 0 | 4.7 | 2.6 |



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Office: 508-875-0100 Fax: 508-875-0118
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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 HH
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Bradley Woods Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Fottler Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 7 | 2 | 2 | 0 | 3 | 208 | 1 | 0 | 21 | 0 | 14 | 0 | 9 | 356 | 7 | 0 | 630 |
| 04:15 PM | 6 | 2 | 7 | 0 | 5 | 217 | 9 | 0 | 10 | 1 | 8 | 0 | 11 | 264 | 4 | 0 | 544 |
| 04:30 PM | 4 | 2 | 2 | 0 | 5 | 220 | 9 | 0 | 7 | 4 | 14 | 0 | 14 | 352 | 3 | 0 | 636 |
| 04:45 PM | 1 | 1 | 4 | 0 | 5 | 219 | 8 | 0 | 17 | 3 | 15 | 0 | 6 | 344 | 3 | 0 | 626 |
| Total | 18 | 7 | 15 | 0 | 18 | 864 | 27 | 0 | 55 | 8 | 51 | 0 | 40 | 1316 | 17 | 0 | 2436 |
| 05:00 PM | 1 | 3 | 4 | 0 | 3 | 249 | 12 | 0 | 21 | 3 | 8 | 0 | 22 | 382 | 4 | 0 | 712 |
| 05:15 PM | 2 | 3 | 3 | 0 | 11 | 228 | 18 | 0 | 14 | 6 | 12 | 0 | 13 | 384 | 2 | 0 | 696 |
| 05:30 PM | 5 | 5 | 3 | 0 | 6 | 206 | 6 | 0 | 14 | 6 | 9 | 0 | 12 | 314 | 3 | 0 | 589 |
| 05:45 PM | 4 | 1 | 4 | 0 | 5 | 191 | 11 | 0 | 13 | 8 | 12 | 0 | 20 | 383 | 5 | 0 | 657 |
| Total | 12 | 12 | 14 | 0 | 25 | 874 | 47 | 0 | 62 | 23 | 41 | 0 | 67 | 1463 | 14 | 0 | 2654 |
| Grand Total | 30 | 19 | 29 | 0 | 43 | 1738 | 74 | 0 | 117 | 31 | 92 | 0 | 107 | 2779 | 31 | 0 | 5090 |
| Apprch % | 38.5 | 24.4 | 37.2 | 0 | 2.3 | 93.7 | 4 | 0 | 48.8 | 12.9 | 38.3 | 0 | 3.7 | 95.3 | 1.1 | 0 | |
| Total % | 0.6 | 0.4 | 0.6 | 0 | 0.8 | 34.1 | 1.5 | 0 | 2.3 | 0.6 | 1.8 | 0 | 2.1 | 54.6 | 0.6 | 0 | |
| Cars | 30 | 19 | 29 | 0 | 43 | 1711 | 74 | 0 | 117 | 31 | 92 | 0 | 107 | 2754 | 30 | 0 | 5037 |
| % Cars | 100 | 100 | 100 | 0 | 100 | 98.4 | 100 | 0 | 100 | 100 | 100 | 0 | 100 | 99.1 | 96.8 | 0 | 99 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 1 | 0 | 53 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 3.2 | 0 | 1 |

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:30 PM | 4 | 2 | 2 | 0 | 8 | 5 | 220 | 9 | 0 | 234 | 7 | 4 | 14 | 0 | 25 | 14 | 352 | 3 | 0 | 369 | 636 |
| 04:45 PM | 1 | 1 | 4 | 0 | 6 | 5 | 219 | 8 | 0 | 232 | 17 | 3 | 15 | 0 | 35 | 6 | 344 | 3 | 0 | 353 | 626 |
| 05:00 PM | 1 | 3 | 4 | 0 | 8 | 3 | 249 | 12 | 0 | 264 | 21 | 3 | 8 | 0 | 32 | 22 | 382 | 4 | 0 | 408 | 712 |
| 05:15 PM | 2 | 3 | 3 | 0 | 8 | 11 | 228 | 18 | 0 | 257 | 14 | 6 | 12 | 0 | 32 | 13 | 384 | 2 | 0 | 399 | 696 |
| Total Volume | 8 | 9 | 13 | 0 | 30 | 24 | 916 | 47 | 0 | 987 | 59 | 16 | 49 | 0 | 124 | 55 | 1462 | 12 | 0 | 1529 | 2670 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .500 | .750 | .813 | .000 | .938 | .545 | .920 | .653 | .000 | .935 | .702 | .667 | .817 | .000 | .886 | .625 | .952 | .750 | .000 | .937 | .938 |
| Cars | 8 | 9 | 13 | 0 | 30 | 24 | 897 | 47 | 0 | 968 | 59 | 16 | 49 | 0 | 124 | 55 | 1450 | 11 | 0 | 1516 | 2638 |
| % Cars | 100 | 100 | 100 | 0 | 100 | 100 | 97.9 | 100 | 0 | 98.1 | 100 | 100 | 100 | 0 | 100 | 100 | 99.2 | 91.7 | 0 | 99.1 | 98.8 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 | 1.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 8.3 | 0 | 0.9 | 1.2 |

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City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 HH
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Bradley Woods Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Fottler Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 7 | 2 | 2 | 0 | 3 | 207 | 1 | 0 | 21 | 0 | 14 | 0 | 9 | 353 | 7 | 0 | 626 |
| 04:15 PM | 6 | 2 | 7 | 0 | 5 | 215 | 9 | 0 | 10 | 1 | 8 | 0 | 11 | 260 | 4 | 0 | 538 |
| 04:30 PM | 4 | 2 | 2 | 0 | 5 | 217 | 9 | 0 | 7 | 4 | 14 | 0 | 14 | 347 | 2 | 0 | 627 |
| 04:45 PM | 1 | 1 | 4 | 0 | 5 | 214 | 8 | 0 | 17 | 3 | 15 | 0 | 6 | 341 | 3 | 0 | 618 |
| Total | 18 | 7 | 15 | 0 | 18 | 853 | 27 | 0 | 55 | 8 | 51 | 0 | 40 | 1301 | 16 | 0 | 2409 |
| 05:00 PM | 1 | 3 | 4 | 0 | 3 | 243 | 12 | 0 | 21 | 3 | 8 | 0 | 22 | 381 | 4 | 0 | 705 |
| 05:15 PM | 2 | 3 | 3 | 0 | 11 | 223 | 18 | 0 | 14 | 6 | 12 | 0 | 13 | 381 | 2 | 0 | 688 |
| 05:30 PM | 5 | 5 | 3 | 0 | 6 | 204 | 6 | 0 | 14 | 6 | 9 | 0 | 12 | 312 | 3 | 0 | 585 |
| 05:45 PM | 4 | 1 | 4 | 0 | 5 | 188 | 11 | 0 | 13 | 8 | 12 | 0 | 20 | 379 | 5 | 0 | 650 |
| Total | 12 | 12 | 14 | 0 | 25 | 858 | 47 | 0 | 62 | 23 | 41 | 0 | 67 | 1453 | 14 | 0 | 2628 |
| Grand Total | 30 | 19 | 29 | 0 | 43 | 1711 | 74 | 0 | 117 | 31 | 92 | 0 | 107 | 2754 | 30 | 0 | 5037 |
| Apprch % | 38.5 | 24.4 | 37.2 | 0 | 2.4 | 93.6 | 4 | 0 | 48.8 | 12.9 | 38.3 | 0 | 3.7 | 95.3 | 1 | 0 | |
| Total % | 0.6 | 0.4 | 0.6 | 0 | 0.9 | 34 | 1.5 | 0 | 2.3 | 0.6 | 1.8 | 0 | 2.1 | 54.7 | 0.6 | 0 | |

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:30 PM | 4 | 2 | 2 | 0 | 8 | 5 | 217 | 9 | 0 | 231 | 7 | 4 | 14 | 0 | 25 | 14 | 347 | 2 | 0 | 363 | 627 |
| 04:45 PM | 1 | 1 | 4 | 0 | 6 | 5 | 214 | 8 | 0 | 227 | 17 | 3 | 15 | 0 | 35 | 6 | 341 | 3 | 0 | 350 | 618 |
| 05:00 PM | 1 | 3 | 4 | 0 | 8 | 3 | 243 | 12 | 0 | 258 | 21 | 3 | 8 | 0 | 32 | 22 | 381 | 4 | 0 | 407 | 705 |
| 05:15 PM | 2 | 3 | 3 | 0 | 8 | 11 | 223 | 18 | 0 | 252 | 14 | 6 | 12 | 0 | 32 | 13 | 381 | 2 | 0 | 396 | 688 |
| Total Volume | 8 | 9 | 13 | 0 | 30 | 24 | 897 | 47 | 0 | 968 | 59 | 16 | 49 | 0 | 124 | 55 | 1450 | 11 | 0 | 1516 | 2638 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .500 | .750 | .813 | .000 | .938 | .545 | .923 | .653 | .000 | .938 | .702 | .667 | .817 | .000 | .886 | .625 | .951 | .688 | .000 | .931 | .935 |

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Client: VHB/ E. Chan

File Name : 165077 HH
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Bradley Woods Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Fottler Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 4 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 6 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 9 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 8 |
| Total | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 1 | 0 | 27 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 8 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 7 |
| Total | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 26 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 1 | 0 | 53 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 96.2 | 3.8 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 50.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47.2 | 1.9 | 0 | |

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 6 | 9 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 8 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 7 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 8 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 0 | 13 | 32 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 92.3 | 7.7 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .792 | .000 | .000 | .792 | .000 | .000 | .000 | .000 | .000 | .000 | .600 | .250 | .000 | .542 | .889 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Bradley Woods Drive/ Fottler Road
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 HH
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 05:15 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| 05:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:45 PM | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Total | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 14 |
| Grand Total | 0 | 0 | 0 | 9 | 5 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 21 |
| Apprch % | 0 | 0 | 0 | 64.3 | 35.7 | 0 | 0 | 0 | 50 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 42.9 | 23.8 | 0 | 0 | 0 | 14.3 | 14.3 | 0 | 0 | 0 | 0 | 0 | 0 | 4.8 | 0 | 0 | 0 | |

| | Bradley Woods Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Fottler Road From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 05:15 PM | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 4 |
| 05:30 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:45 PM | 0 | 0 | 0 | 3 | 2 | 5 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Total Volume | 0 | 0 | 0 | 5 | 3 | 8 | 0 | 0 | 0 | 3 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 14 |
| % App. Total | 0 | 0 | 0 | 62.5 | 37.5 | | 0 | 0 | 0 | 60 | 40 | | 0 | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .417 | .375 | .400 | .000 | .000 | .000 | .750 | .250 | .417 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .250 | .583 |

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46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
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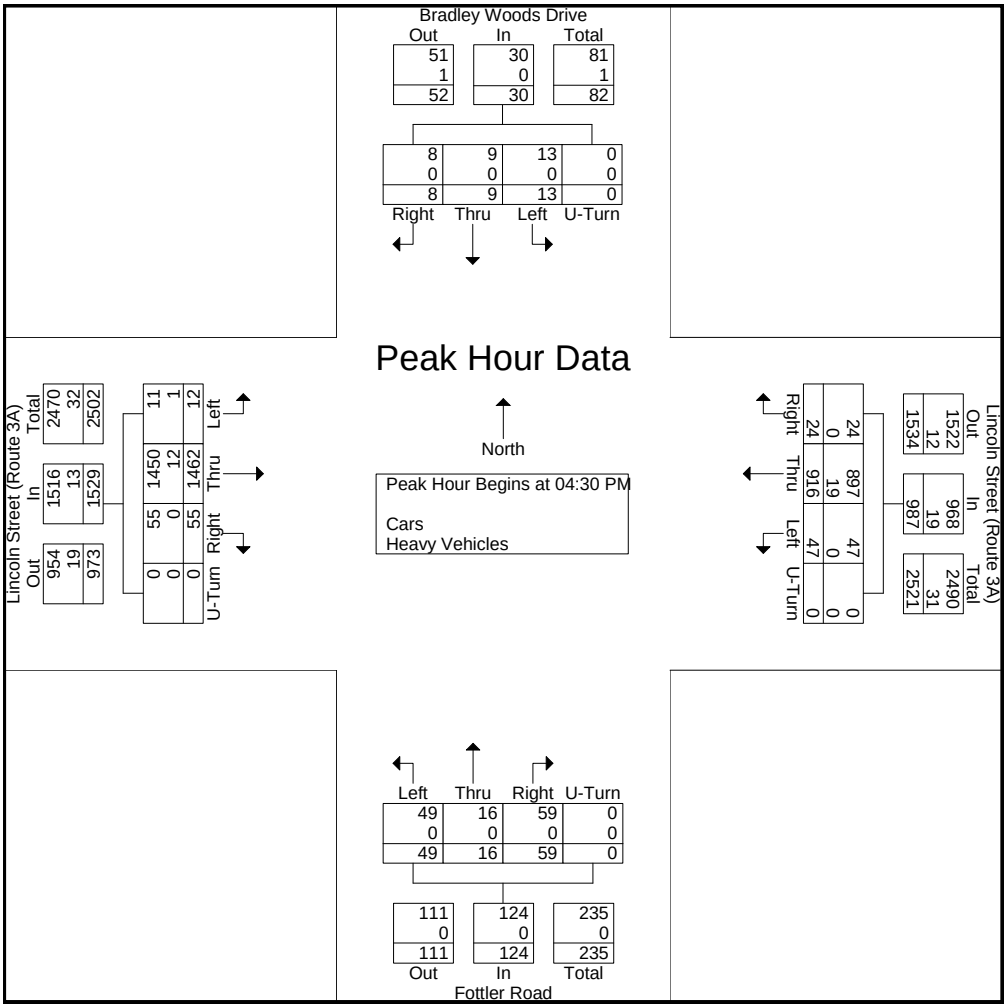
File Name : 165077 HH
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:30 PM | 4 | 2 | 2 | 0 | 8 | 5 | 220 | 9 | 0 | 234 | 7 | 4 | 14 | 0 | 25 | 14 | 352 | 3 | 0 | 369 | 636 |
| 04:45 PM | 1 | 1 | 4 | 0 | 6 | 5 | 219 | 8 | 0 | 232 | 17 | 3 | 15 | 0 | 35 | 6 | 344 | 3 | 0 | 353 | 626 |
| 05:00 PM | 1 | 3 | 4 | 0 | 8 | 3 | 249 | 12 | 0 | 264 | 21 | 3 | 8 | 0 | 32 | 22 | 382 | 4 | 0 | 408 | 712 |
| 05:15 PM | 2 | 3 | 3 | 0 | 8 | 11 | 228 | 18 | 0 | 257 | 14 | 6 | 12 | 0 | 32 | 13 | 384 | 2 | 0 | 399 | 696 |
| Total Volume | 8 | 9 | 13 | 0 | 30 | 24 | 916 | 47 | 0 | 987 | 59 | 16 | 49 | 0 | 124 | 55 | 1462 | 12 | 0 | 1529 | 2670 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .500 | .750 | .813 | .000 | .938 | .545 | .920 | .653 | .000 | .935 | .702 | .667 | .817 | .000 | .886 | .625 | .952 | .750 | .000 | .937 | .938 |
| Cars | 8 | 9 | 13 | 0 | 30 | 24 | 897 | 47 | 0 | 968 | 59 | 16 | 49 | 0 | 124 | 55 | 1450 | 11 | 0 | 1516 | 2638 |
| % Cars | 100 | 100 | 100 | 0 | 100 | 100 | 97.9 | 100 | 0 | 98.1 | 100 | 100 | 100 | 0 | 100 | 100 | 99.2 | 91.7 | 0 | 99.1 | 98.8 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 | 1.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 8.3 | 0 | 0.9 | 1.2 |



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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 HHH
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Bradley Woods Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Fottler Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 7 | 2 | 6 | 0 | 5 | 248 | 7 | 0 | 6 | 3 | 9 | 0 | 5 | 259 | 3 | 0 | 560 |
| 10:45 AM | 1 | 4 | 6 | 0 | 5 | 264 | 9 | 0 | 13 | 7 | 9 | 0 | 8 | 230 | 4 | 0 | 560 |
| Total | 8 | 6 | 12 | 0 | 10 | 512 | 16 | 0 | 19 | 10 | 18 | 0 | 13 | 489 | 7 | 0 | 1120 |
| 11:00 AM | 6 | 3 | 4 | 0 | 2 | 237 | 6 | 0 | 16 | 2 | 6 | 0 | 5 | 238 | 6 | 0 | 531 |
| 11:15 AM | 0 | 4 | 7 | 0 | 6 | 256 | 7 | 0 | 13 | 5 | 6 | 0 | 4 | 239 | 1 | 0 | 548 |
| 11:30 AM | 4 | 3 | 5 | 0 | 4 | 258 | 12 | 0 | 5 | 2 | 6 | 0 | 8 | 239 | 2 | 0 | 548 |
| 11:45 AM | 3 | 4 | 4 | 0 | 5 | 287 | 7 | 0 | 10 | 1 | 3 | 0 | 11 | 191 | 2 | 0 | 528 |
| Total | 13 | 14 | 20 | 0 | 17 | 1038 | 32 | 0 | 44 | 10 | 21 | 0 | 28 | 907 | 11 | 0 | 2155 |
| 12:00 PM | 0 | 2 | 5 | 0 | 7 | 314 | 17 | 0 | 15 | 3 | 3 | 0 | 6 | 315 | 1 | 0 | 688 |
| 12:15 PM | 5 | 0 | 7 | 0 | 3 | 275 | 13 | 0 | 13 | 2 | 10 | 0 | 6 | 305 | 5 | 0 | 644 |
| 12:30 PM | 3 | 3 | 5 | 0 | 5 | 257 | 10 | 0 | 14 | 5 | 8 | 0 | 6 | 284 | 5 | 0 | 605 |
| 12:45 PM | 1 | 2 | 1 | 0 | 4 | 255 | 11 | 0 | 13 | 3 | 12 | 0 | 11 | 302 | 5 | 0 | 620 |
| Total | 9 | 7 | 18 | 0 | 19 | 1101 | 51 | 0 | 55 | 13 | 33 | 0 | 29 | 1206 | 16 | 0 | 2557 |
| 01:00 PM | 4 | 1 | 4 | 0 | 4 | 261 | 9 | 0 | 9 | 4 | 11 | 0 | 7 | 271 | 3 | 0 | 588 |
| 01:15 PM | 6 | 5 | 1 | 0 | 5 | 299 | 5 | 0 | 3 | 4 | 13 | 0 | 13 | 254 | 6 | 0 | 614 |
| Grand Total | 40 | 33 | 55 | 0 | 55 | 3211 | 113 | 0 | 130 | 41 | 96 | 0 | 90 | 3127 | 43 | 0 | 7034 |
| Apprch % | 31.2 | 25.8 | 43 | 0 | 1.6 | 95 | 3.3 | 0 | 48.7 | 15.4 | 36 | 0 | 2.8 | 95.9 | 1.3 | 0 | |
| Total % | 0.6 | 0.5 | 0.8 | 0 | 0.8 | 45.6 | 1.6 | 0 | 1.8 | 0.6 | 1.4 | 0 | 1.3 | 44.5 | 0.6 | 0 | |
| Cars | 39 | 32 | 55 | 0 | 54 | 3165 | 113 | 0 | 130 | 39 | 93 | 0 | 89 | 3092 | 43 | 0 | 6944 |
| % Cars | 97.5 | 97 | 100 | 0 | 98.2 | 98.6 | 100 | 0 | 100 | 95.1 | 96.9 | 0 | 98.9 | 98.9 | 100 | 0 | 98.7 |
| Heavy Vehicles | 1 | 1 | 0 | 0 | 1 | 46 | 0 | 0 | 0 | 2 | 3 | 0 | 1 | 35 | 0 | 0 | 90 |
| % Heavy Vehicles | 2.5 | 3 | 0 | 0 | 1.8 | 1.4 | 0 | 0 | 0 | 4.9 | 3.1 | 0 | 1.1 | 1.1 | 0 | 0 | 1.3 |

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 0 | 2 | 5 | 0 | 7 | 7 | 314 | 17 | 0 | 338 | 15 | 3 | 3 | 0 | 21 | 6 | 315 | 1 | 0 | 322 | 688 |
| 12:15 PM | 5 | 0 | 7 | 0 | 12 | 3 | 275 | 13 | 0 | 291 | 13 | 2 | 10 | 0 | 25 | 6 | 305 | 5 | 0 | 316 | 644 |
| 12:30 PM | 3 | 3 | 5 | 0 | 11 | 5 | 257 | 10 | 0 | 272 | 14 | 5 | 8 | 0 | 27 | 6 | 284 | 5 | 0 | 295 | 605 |
| 12:45 PM | 1 | 2 | 1 | 0 | 4 | 4 | 255 | 11 | 0 | 270 | 13 | 3 | 12 | 0 | 28 | 11 | 302 | 5 | 0 | 318 | 620 |
| Total Volume | 9 | 7 | 18 | 0 | 34 | 19 | 1101 | 51 | 0 | 1171 | 55 | 13 | 33 | 0 | 101 | 29 | 1206 | 16 | 0 | 1251 | 2557 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .450 | .583 | .643 | .000 | .708 | .679 | .877 | .750 | .000 | .866 | .917 | .650 | .688 | .000 | .902 | .659 | .957 | .800 | .000 | .971 | .929 |
| Cars | 9 | 7 | 18 | 0 | 34 | 18 | 1077 | 51 | 0 | 1146 | 55 | 11 | 32 | 0 | 98 | 28 | 1194 | 16 | 0 | 1238 | 2516 |
| % Cars | 100 | 100 | 100 | 0 | 100 | 94.7 | 97.8 | 100 | 0 | 97.9 | 100 | 84.6 | 97.0 | 0 | 97.0 | 96.6 | 99.0 | 100 | 0 | 99.0 | 98.4 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 5.3 | 2.2 | 0 | 0 | 2.1 | 0 | 15.4 | 3.0 | 0 | 3.0 | 3.4 | 1.0 | 0 | 0 | 1.0 | 1.6 |

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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 HHH
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars**

| | Bradley Woods Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Fottler Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 7 | 2 | 6 | 0 | 5 | 245 | 7 | 0 | 6 | 3 | 9 | 0 | 5 | 257 | 3 | 0 | 555 |
| 10:45 AM | 1 | 4 | 6 | 0 | 5 | 263 | 9 | 0 | 13 | 7 | 8 | 0 | 8 | 227 | 4 | 0 | 555 |
| Total | 8 | 6 | 12 | 0 | 10 | 508 | 16 | 0 | 19 | 10 | 17 | 0 | 13 | 484 | 7 | 0 | 1110 |
| 11:00 AM | 6 | 3 | 4 | 0 | 2 | 234 | 6 | 0 | 16 | 2 | 6 | 0 | 5 | 236 | 6 | 0 | 526 |
| 11:15 AM | 0 | 3 | 7 | 0 | 6 | 254 | 7 | 0 | 13 | 5 | 6 | 0 | 4 | 234 | 1 | 0 | 540 |
| 11:30 AM | 4 | 3 | 5 | 0 | 4 | 255 | 12 | 0 | 5 | 2 | 6 | 0 | 8 | 237 | 2 | 0 | 543 |
| 11:45 AM | 3 | 4 | 4 | 0 | 5 | 285 | 7 | 0 | 10 | 1 | 3 | 0 | 11 | 191 | 2 | 0 | 526 |
| Total | 13 | 13 | 20 | 0 | 17 | 1028 | 32 | 0 | 44 | 10 | 21 | 0 | 28 | 898 | 11 | 0 | 2135 |
| 12:00 PM | 0 | 2 | 5 | 0 | 7 | 306 | 17 | 0 | 15 | 3 | 3 | 0 | 6 | 311 | 1 | 0 | 676 |
| 12:15 PM | 5 | 0 | 7 | 0 | 3 | 270 | 13 | 0 | 13 | 2 | 10 | 0 | 6 | 303 | 5 | 0 | 637 |
| 12:30 PM | 3 | 3 | 5 | 0 | 5 | 251 | 10 | 0 | 14 | 4 | 8 | 0 | 6 | 281 | 5 | 0 | 595 |
| 12:45 PM | 1 | 2 | 1 | 0 | 3 | 250 | 11 | 0 | 13 | 2 | 11 | 0 | 10 | 299 | 5 | 0 | 608 |
| Total | 9 | 7 | 18 | 0 | 18 | 1077 | 51 | 0 | 55 | 11 | 32 | 0 | 28 | 1194 | 16 | 0 | 2516 |
| 01:00 PM | 4 | 1 | 4 | 0 | 4 | 256 | 9 | 0 | 9 | 4 | 10 | 0 | 7 | 267 | 3 | 0 | 578 |
| 01:15 PM | 5 | 5 | 1 | 0 | 5 | 296 | 5 | 0 | 3 | 4 | 13 | 0 | 13 | 249 | 6 | 0 | 605 |
| Grand Total | 39 | 32 | 55 | 0 | 54 | 3165 | 113 | 0 | 130 | 39 | 93 | 0 | 89 | 3092 | 43 | 0 | 6944 |
| Apprch % | 31 | 25.4 | 43.7 | 0 | 1.6 | 95 | 3.4 | 0 | 49.6 | 14.9 | 35.5 | 0 | 2.8 | 95.9 | 1.3 | 0 | |
| Total % | 0.6 | 0.5 | 0.8 | 0 | 0.8 | 45.6 | 1.6 | 0 | 1.9 | 0.6 | 1.3 | 0 | 1.3 | 44.5 | 0.6 | 0 | |

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 0 | 2 | 5 | 0 | 7 | 7 | 306 | 17 | 0 | 330 | 15 | 3 | 3 | 0 | 21 | 6 | 311 | 1 | 0 | 318 | 676 |
| 12:15 PM | 5 | 0 | 7 | 0 | 12 | 3 | 270 | 13 | 0 | 286 | 13 | 2 | 10 | 0 | 25 | 6 | 303 | 5 | 0 | 314 | 637 |
| 12:30 PM | 3 | 3 | 5 | 0 | 11 | 5 | 251 | 10 | 0 | 266 | 14 | 4 | 8 | 0 | 26 | 6 | 281 | 5 | 0 | 292 | 595 |
| 12:45 PM | 1 | 2 | 1 | 0 | 4 | 3 | 250 | 11 | 0 | 264 | 13 | 2 | 11 | 0 | 26 | 10 | 299 | 5 | 0 | 314 | 608 |
| Total Volume | 9 | 7 | 18 | 0 | 34 | 18 | 1077 | 51 | 0 | 1146 | 55 | 11 | 32 | 0 | 98 | 28 | 1194 | 16 | 0 | 1238 | 2516 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .450 | .583 | .643 | .000 | .708 | .643 | .880 | .750 | .000 | .868 | .917 | .688 | .727 | .000 | .942 | .700 | .960 | .800 | .000 | .973 | .930 |

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Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Bradley Woods Drive From North | | | | Lincoln Street (Route 3A) From East | | | | Fottler Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 5 |
| Total | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 10 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 11:15 AM | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 8 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 1 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 20 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 12 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 7 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 10 |
| 12:45 PM | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 0 | 12 |
| Total | 0 | 0 | 0 | 0 | 1 | 24 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 12 | 0 | 0 | 41 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 10 |
| 01:15 PM | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 9 |
| Grand Total | 1 | 1 | 0 | 0 | 1 | 46 | 0 | 0 | 0 | 2 | 3 | 0 | 1 | 35 | 0 | 0 | 90 |
| Apprch % | 50 | 50 | 0 | 0 | 2.1 | 97.9 | 0 | 0 | 0 | 40 | 60 | 0 | 2.8 | 97.2 | 0 | 0 | |
| Total % | 1.1 | 1.1 | 0 | 0 | 1.1 | 51.1 | 0 | 0 | 0 | 2.2 | 3.3 | 0 | 1.1 | 38.9 | 0 | 0 | |

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 12 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 7 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 10 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 6 | 0 | 1 | 1 | 0 | 2 | 1 | 3 | 0 | 0 | 4 | 12 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 1 | 24 | 0 | 0 | 25 | 0 | 2 | 1 | 0 | 3 | 1 | 12 | 0 | 0 | 13 | 41 |
| % App. Total | 0 | 0 | 0 | 0 | | 4 | 96 | 0 | 0 | | 0 | 66.7 | 33.3 | 0 | | 7.7 | 92.3 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .250 | .750 | .000 | .000 | .781 | .000 | .500 | .250 | .000 | .375 | .250 | .750 | .000 | .000 | .813 | .854 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Bradley Woods Drive/ Fottler Road
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 HHH
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 10:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 |
| 11:00 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 11:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:30 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11:45 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 3 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 PM | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 8 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 01:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 0 | 1 | 0 | 6 | 7 | 0 | 2 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 25 |
| Apprch % | 0 | 7.1 | 0 | 42.9 | 50 | 0 | 33.3 | 0 | 50 | 16.7 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 0 | 0 | 0 | |
| Total % | 0 | 4 | 0 | 24 | 28 | 0 | 8 | 0 | 12 | 4 | 0 | 0 | 0 | 0 | 8 | 0 | 12 | 0 | 0 | 0 | |

| | Bradley Woods Drive From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Fottler Road From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:15 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12:15 PM | 0 | 0 | 0 | 2 | 2 | 4 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 2 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total Volume | 0 | 0 | 0 | 2 | 2 | 4 | 0 | 2 | 0 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 11 |
| % App. Total | 0 | 0 | 0 | 50 | 50 | | 0 | 50 | 0 | 25 | 25 | | 0 | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .250 | .250 | .250 | .000 | .250 | .000 | .250 | .250 | .333 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .375 | .000 | .000 | .000 | .375 | .550 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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File Name : 165077 HHH
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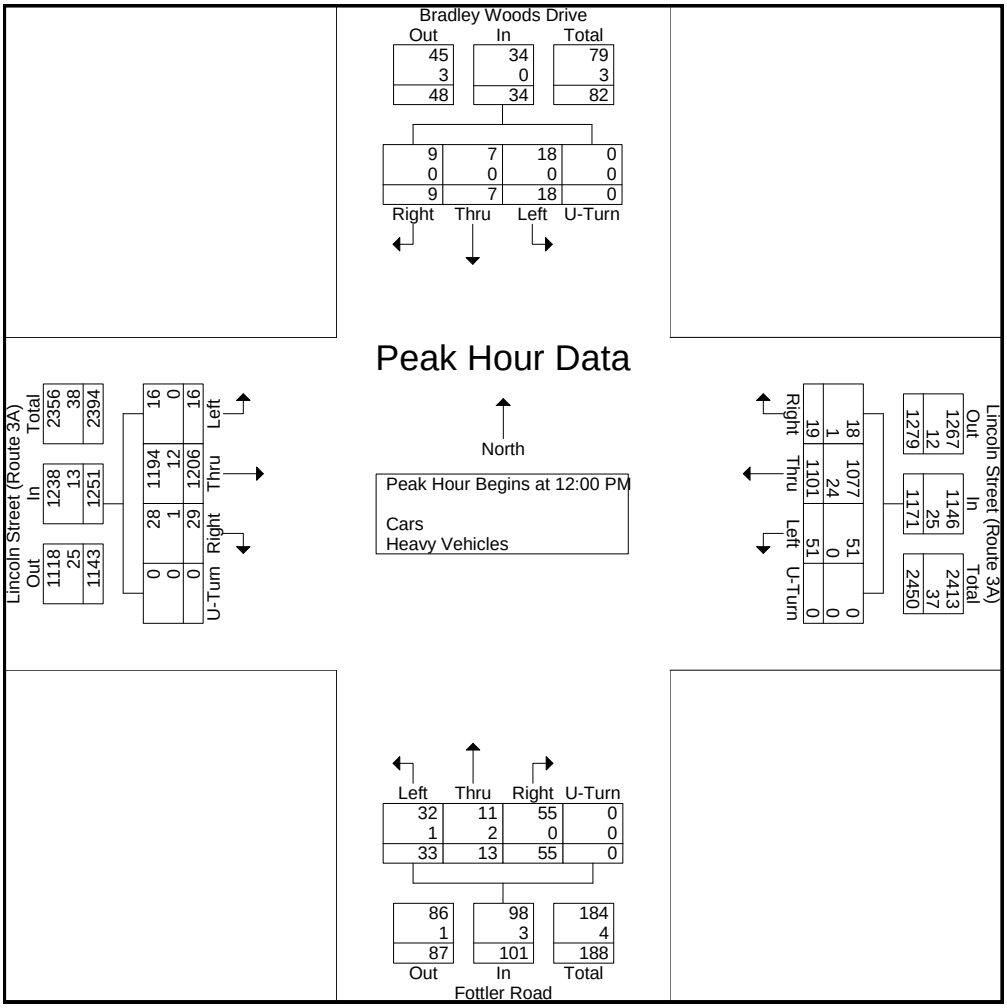
| | Bradley Woods Drive From North | | | | | Lincoln Street (Route 3A) From East | | | | | Fottler Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 0 | 2 | 5 | 0 | 7 | 7 | 314 | 17 | 0 | 338 | 15 | 3 | 3 | 0 | 21 | 6 | 315 | 1 | 0 | 322 | 688 |
| 12:15 PM | 5 | 0 | 7 | 0 | 12 | 3 | 275 | 13 | 0 | 291 | 13 | 2 | 10 | 0 | 25 | 6 | 305 | 5 | 0 | 316 | 644 |
| 12:30 PM | 3 | 3 | 5 | 0 | 11 | 5 | 257 | 10 | 0 | 272 | 14 | 5 | 8 | 0 | 27 | 6 | 284 | 5 | 0 | 295 | 605 |
| 12:45 PM | 1 | 2 | 1 | 0 | 4 | 4 | 255 | 11 | 0 | 270 | 13 | 3 | 12 | 0 | 28 | 11 | 302 | 5 | 0 | 318 | 620 |
| Total Volume | 9 | 7 | 18 | 0 | 34 | 19 | 1101 | 51 | 0 | 1171 | 55 | 13 | 33 | 0 | 101 | 29 | 1206 | 16 | 0 | 1251 | 2557 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .450 | .583 | .643 | .000 | .708 | .679 | .877 | .750 | .000 | .866 | .917 | .650 | .688 | .000 | .902 | .659 | .957 | .800 | .000 | .971 | .929 |
| Cars | 9 | 7 | 18 | 0 | 34 | 18 | 1077 | 51 | 0 | 1146 | 55 | 11 | 32 | 0 | 98 | 28 | 1194 | 16 | 0 | 1238 | 2516 |
| % Cars | 100 | 100 | 100 | 0 | 100 | 94.7 | 97.8 | 100 | 0 | 97.9 | 100 | 84.6 | 97.0 | 0 | 97.0 | 96.6 | 99.0 | 100 | 0 | 99.0 | 98.4 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 5.3 | 2.2 | 0 | 0 | 2.1 | 0 | 15.4 | 3.0 | 0 | 3.0 | 3.4 | 1.0 | 0 | 0 | 1.0 | 1.6 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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N/S: Driveway/ Bulow Road
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 I
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Driveway From North | | | | Lincoln Street (Route 3A) From East | | | | Bulow Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 404 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 114 | 0 | 0 | 520 |
| 07:15 AM | 0 | 0 | 1 | 0 | 0 | 421 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 132 | 1 | 0 | 556 |
| 07:30 AM | 1 | 0 | 0 | 0 | 1 | 446 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 188 | 0 | 0 | 640 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 402 | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 160 | 0 | 0 | 567 |
| Total | 1 | 0 | 1 | 0 | 1 | 1673 | 6 | 0 | 5 | 0 | 0 | 0 | 1 | 594 | 1 | 0 | 2283 |
| 08:00 AM | 0 | 0 | 1 | 0 | 0 | 392 | 2 | 0 | 4 | 0 | 0 | 0 | 1 | 184 | 0 | 0 | 584 |
| 08:15 AM | 1 | 0 | 1 | 0 | 1 | 398 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 174 | 0 | 0 | 580 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 341 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 176 | 0 | 0 | 522 |
| 08:45 AM | 0 | 0 | 4 | 0 | 0 | 328 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 169 | 1 | 0 | 507 |
| Total | 1 | 0 | 6 | 0 | 1 | 1459 | 9 | 0 | 12 | 0 | 0 | 0 | 1 | 703 | 1 | 0 | 2193 |
| Grand Total | 2 | 0 | 7 | 0 | 2 | 3132 | 15 | 0 | 17 | 0 | 0 | 0 | 2 | 1297 | 2 | 0 | 4476 |
| Apprch % | 22.2 | 0 | 77.8 | 0 | 0.1 | 99.5 | 0.5 | 0 | 100 | 0 | 0 | 0 | 0.2 | 99.7 | 0.2 | 0 | |
| Total % | 0 | 0 | 0.2 | 0 | 0 | 70 | 0.3 | 0 | 0.4 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | |
| Cars | 1 | 0 | 7 | 0 | 1 | 3074 | 14 | 0 | 17 | 0 | 0 | 0 | 2 | 1229 | 2 | 0 | 4347 |
| % Cars | 50 | 0 | 100 | 0 | 50 | 98.1 | 93.3 | 0 | 100 | 0 | 0 | 0 | 100 | 94.8 | 100 | 0 | 97.1 |
| Heavy Vehicles | 1 | 0 | 0 | 0 | 1 | 58 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 68 | 0 | 0 | 129 |
| % Heavy Vehicles | 50 | 0 | 0 | 0 | 50 | 1.9 | 6.7 | 0 | 0 | 0 | 0 | 0 | 0 | 5.2 | 0 | 0 | 2.9 |

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 1 | 0 | 0 | 0 | 1 | 1 | 446 | 1 | 0 | 448 | 3 | 0 | 0 | 0 | 3 | 0 | 188 | 0 | 0 | 188 | 640 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 402 | 2 | 0 | 404 | 2 | 0 | 0 | 0 | 2 | 1 | 160 | 0 | 0 | 161 | 567 |
| 08:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 392 | 2 | 0 | 394 | 4 | 0 | 0 | 0 | 4 | 1 | 184 | 0 | 0 | 185 | 584 |
| 08:15 AM | 1 | 0 | 1 | 0 | 2 | 1 | 398 | 5 | 0 | 404 | 0 | 0 | 0 | 0 | 0 | 0 | 174 | 0 | 0 | 174 | 580 |
| Total Volume | 2 | 0 | 2 | 0 | 4 | 2 | 1638 | 10 | 0 | 1650 | 9 | 0 | 0 | 0 | 9 | 2 | 706 | 0 | 0 | 708 | 2371 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .500 | .000 | .500 | .000 | .500 | .500 | .918 | .500 | .000 | .921 | .563 | .000 | .000 | .000 | .563 | .500 | .939 | .000 | .000 | .941 | .926 |
| Cars | 1 | 0 | 2 | 0 | 3 | 1 | 1609 | 9 | 0 | 1619 | 9 | 0 | 0 | 0 | 9 | 2 | 668 | 0 | 0 | 670 | 2301 |
| % Cars | 50.0 | 0 | 100 | 0 | 75.0 | 50.0 | 98.2 | 90.0 | 0 | 98.1 | 100 | 0 | 0 | 0 | 100 | 100 | 94.6 | 0 | 0 | 94.6 | 97.0 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 50.0 | 0 | 0 | 0 | 25.0 | 50.0 | 1.8 | 10.0 | 0 | 1.9 | 0 | 0 | 0 | 0 | 0 | 0 | 5.4 | 0 | 0 | 5.4 | 3.0 |

PRECISION
D A T A
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Client: VHB/ E. Chan

File Name : 165077 I
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars**

| | Driveway From North | | | | Lincoln Street (Route 3A) From East | | | | Bulow Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 395 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 109 | 0 | 0 | 506 |
| 07:15 AM | 0 | 0 | 1 | 0 | 0 | 413 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 123 | 1 | 0 | 539 |
| 07:30 AM | 1 | 0 | 0 | 0 | 0 | 438 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 180 | 0 | 0 | 623 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 395 | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 152 | 0 | 0 | 552 |
| Total | 1 | 0 | 1 | 0 | 0 | 1641 | 6 | 0 | 5 | 0 | 0 | 0 | 1 | 564 | 1 | 0 | 2220 |
| 08:00 AM | 0 | 0 | 1 | 0 | 0 | 386 | 1 | 0 | 4 | 0 | 0 | 0 | 1 | 170 | 0 | 0 | 563 |
| 08:15 AM | 0 | 0 | 1 | 0 | 1 | 390 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 166 | 0 | 0 | 563 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 333 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 167 | 0 | 0 | 505 |
| 08:45 AM | 0 | 0 | 4 | 0 | 0 | 324 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 162 | 1 | 0 | 496 |
| Total | 0 | 0 | 6 | 0 | 1 | 1433 | 8 | 0 | 12 | 0 | 0 | 0 | 1 | 665 | 1 | 0 | 2127 |
| Grand Total | 1 | 0 | 7 | 0 | 1 | 3074 | 14 | 0 | 17 | 0 | 0 | 0 | 2 | 1229 | 2 | 0 | 4347 |
| Apprch % | 12.5 | 0 | 87.5 | 0 | 0 | 99.5 | 0.5 | 0 | 100 | 0 | 0 | 0 | 0.2 | 99.7 | 0.2 | 0 | |
| Total % | 0 | 0 | 0.2 | 0 | 0 | 70.7 | 0.3 | 0 | 0.4 | 0 | 0 | 0 | 0 | 28.3 | 0 | 0 | |

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 1 | 0 | 0 | 0 | 1 | 0 | 438 | 1 | 0 | 439 | 3 | 0 | 0 | 0 | 3 | 0 | 180 | 0 | 0 | 180 | 623 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 395 | 2 | 0 | 397 | 2 | 0 | 0 | 0 | 2 | 1 | 152 | 0 | 0 | 153 | 552 |
| 08:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 386 | 1 | 0 | 387 | 4 | 0 | 0 | 0 | 4 | 1 | 170 | 0 | 0 | 171 | 563 |
| 08:15 AM | 0 | 0 | 1 | 0 | 1 | 1 | 390 | 5 | 0 | 396 | 0 | 0 | 0 | 0 | 0 | 0 | 166 | 0 | 0 | 166 | 563 |
| Total Volume | 1 | 0 | 2 | 0 | 3 | 1 | 1609 | 9 | 0 | 1619 | 9 | 0 | 0 | 0 | 9 | 2 | 668 | 0 | 0 | 670 | 2301 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .250 | .000 | .500 | .000 | .750 | .250 | .918 | .450 | .000 | .922 | .563 | .000 | .000 | .000 | .563 | .500 | .928 | .000 | .000 | .931 | .923 |

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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 I
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Driveway From North | | | | Lincoln Street (Route 3A) From East | | | | Bulow Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 14 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 17 |
| 07:30 AM | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 17 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 15 |
| Total | 0 | 0 | 0 | 0 | 1 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 63 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 21 |
| 08:15 AM | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 17 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 17 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 11 |
| Total | 1 | 0 | 0 | 0 | 0 | 26 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 0 | 0 | 66 |
| Grand Total | 1 | 0 | 0 | 0 | 1 | 58 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 68 | 0 | 0 | 129 |
| Apprch % | 100 | 0 | 0 | 0 | 1.7 | 96.7 | 1.7 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | |
| Total % | 0.8 | 0 | 0 | 0 | 0.8 | 45 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0 | 52.7 | 0 | 0 | |

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 17 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 17 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 15 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 14 | 21 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 1 | 29 | 1 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 39 | 70 |
| % App. Total | 0 | 0 | 0 | 0 | | 3.2 | 93.5 | 3.2 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .250 | .906 | .250 | .000 | .861 | .000 | .000 | .000 | .000 | .000 | .000 | .696 | .000 | .000 | .696 | .833 |

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**Groups Printed- Peds and Bikes**

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 08:30 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Grand Total | 0 | 0 | 0 | 4 | 4 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| Apprch % | 0 | 0 | 0 | 50 | 50 | 0 | 50 | 0 | 25 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 33.3 | 33.3 | 0 | 16.7 | 0 | 8.3 | 8.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

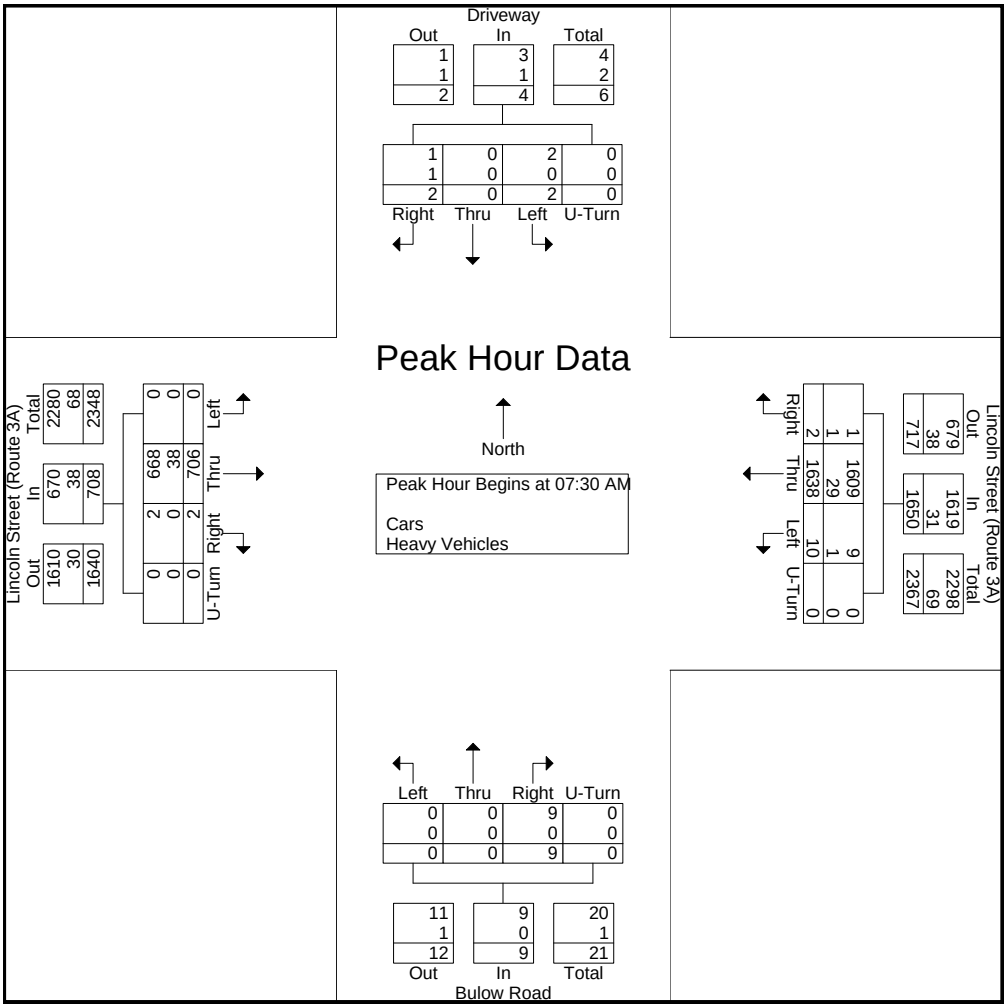
| | Driveway From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Bulow Road From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:00 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 |
| 08:15 AM | 0 | 0 | 0 | 3 | 1 | 4 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Total Volume | 0 | 0 | 0 | 3 | 2 | 5 | 0 | 2 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| % App. Total | 0 | 0 | 0 | 60 | 40 | | 0 | 66.7 | 0 | 0 | 33.3 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .250 | .500 | .313 | .000 | .500 | .000 | .000 | .250 | .750 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .400 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Driveway/ Bulow Road
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 I
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 1 | 0 | 0 | 0 | 1 | 1 | 446 | 1 | 0 | 448 | 3 | 0 | 0 | 0 | 3 | 0 | 188 | 0 | 0 | 188 | 640 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 402 | 2 | 0 | 404 | 2 | 0 | 0 | 0 | 2 | 1 | 160 | 0 | 0 | 161 | 567 |
| 08:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 392 | 2 | 0 | 394 | 4 | 0 | 0 | 0 | 4 | 1 | 184 | 0 | 0 | 185 | 584 |
| 08:15 AM | 1 | 0 | 1 | 0 | 2 | 1 | 398 | 5 | 0 | 404 | 0 | 0 | 0 | 0 | 0 | 0 | 174 | 0 | 0 | 174 | 580 |
| Total Volume | 2 | 0 | 2 | 0 | 4 | 2 | 1638 | 10 | 0 | 1650 | 9 | 0 | 0 | 0 | 9 | 2 | 706 | 0 | 0 | 708 | 2371 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .500 | .000 | .500 | .000 | .500 | .500 | .918 | .500 | .000 | .921 | .563 | .000 | .000 | .000 | .563 | .500 | .939 | .000 | .000 | .941 | .926 |
| Cars | 1 | 0 | 2 | 0 | 3 | 1 | 1609 | 9 | 0 | 1619 | 9 | 0 | 0 | 0 | 9 | 2 | 668 | 0 | 0 | 670 | 2301 |
| % Cars | 50.0 | 0 | 100 | 0 | 75.0 | 50.0 | 98.2 | 90.0 | 0 | 98.1 | 100 | 0 | 0 | 0 | 100 | 100 | 94.6 | 0 | 0 | 94.6 | 97.0 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 50.0 | 0 | 0 | 0 | 25.0 | 50.0 | 1.8 | 10.0 | 0 | 1.9 | 0 | 0 | 0 | 0 | 0 | 0 | 5.4 | 0 | 0 | 5.4 | 3.0 |



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46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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N/S: Driveway/ Bulow Road
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 II
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Driveway From North | | | | Lincoln Street (Route 3A) From East | | | | Bulow Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 220 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 368 | 0 | 0 | 591 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 237 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 276 | 0 | 0 | 518 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 241 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 347 | 0 | 0 | 592 |
| 04:45 PM | 0 | 0 | 0 | 0 | 1 | 241 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 351 | 0 | 0 | 596 |
| Total | 0 | 0 | 0 | 0 | 1 | 939 | 4 | 0 | 11 | 0 | 0 | 0 | 0 | 1342 | 0 | 0 | 2297 |
| 05:00 PM | 1 | 0 | 0 | 0 | 2 | 262 | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 446 | 0 | 0 | 718 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 245 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 446 | 0 | 0 | 692 |
| 05:30 PM | 0 | 0 | 0 | 0 | 1 | 235 | 1 | 0 | 4 | 0 | 0 | 0 | 1 | 339 | 0 | 1 | 582 |
| 05:45 PM | 0 | 0 | 1 | 0 | 0 | 210 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 409 | 0 | 0 | 625 |
| Total | 1 | 0 | 1 | 0 | 3 | 952 | 8 | 0 | 8 | 0 | 0 | 0 | 3 | 1640 | 0 | 1 | 2617 |
| Grand Total | 1 | 0 | 1 | 0 | 4 | 1891 | 12 | 0 | 19 | 0 | 0 | 0 | 3 | 2982 | 0 | 1 | 4914 |
| Apprch % | 50 | 0 | 50 | 0 | 0.2 | 99.2 | 0.6 | 0 | 100 | 0 | 0 | 0 | 0.1 | 99.9 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 0.1 | 38.5 | 0.2 | 0 | 0.4 | 0 | 0 | 0 | 0.1 | 60.7 | 0 | 0 | |
| Cars | 1 | 0 | 1 | 0 | 3 | 1865 | 12 | 0 | 19 | 0 | 0 | 0 | 2 | 2955 | 0 | 1 | 4859 |
| % Cars | 100 | 0 | 100 | 0 | 75 | 98.6 | 100 | 0 | 100 | 0 | 0 | 0 | 66.7 | 99.1 | 0 | 100 | 98.9 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 1 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 27 | 0 | 0 | 55 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 25 | 1.4 | 0 | 0 | 0 | 0 | 0 | 0 | 33.3 | 0.9 | 0 | 0 | 1.1 |

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 1 | 0 | 0 | 0 | 1 | 2 | 262 | 5 | 0 | 269 | 2 | 0 | 0 | 0 | 2 | 0 | 446 | 0 | 0 | 446 | 718 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 245 | 0 | 0 | 245 | 1 | 0 | 0 | 0 | 1 | 0 | 446 | 0 | 0 | 446 | 692 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 235 | 1 | 0 | 237 | 4 | 0 | 0 | 0 | 4 | 1 | 339 | 0 | 1 | 341 | 582 |
| 05:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 210 | 2 | 0 | 212 | 1 | 0 | 0 | 0 | 1 | 2 | 409 | 0 | 0 | 411 | 625 |
| Total Volume | 1 | 0 | 1 | 0 | 2 | 3 | 952 | 8 | 0 | 963 | 8 | 0 | 0 | 0 | 8 | 3 | 1640 | 0 | 1 | 1644 | 2617 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .250 | .000 | .250 | .000 | .500 | .375 | .908 | .400 | .000 | .895 | .500 | .000 | .000 | .000 | .500 | .375 | .919 | .000 | .250 | .922 | .911 |
| Cars | 1 | 0 | 1 | 0 | 2 | 2 | 939 | 8 | 0 | 949 | 8 | 0 | 0 | 0 | 8 | 2 | 1631 | 0 | 1 | 1634 | 2593 |
| % Cars | 100 | 0 | 100 | 0 | 100 | 66.7 | 98.6 | 100 | 0 | 98.5 | 100 | 0 | 0 | 0 | 100 | 66.7 | 99.5 | 0 | 100 | 99.4 | 99.1 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 33.3 | 1.4 | 0 | 0 | 1.5 | 0 | 0 | 0 | 0 | 0 | 33.3 | 0.5 | 0 | 0 | 0.6 | 0.9 |

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**Groups Printed- Cars**

| | Driveway From North | | | | Lincoln Street (Route 3A) From East | | | | Bulow Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 216 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 362 | 0 | 0 | 581 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 236 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 271 | 0 | 0 | 512 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 237 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 343 | 0 | 0 | 584 |
| 04:45 PM | 0 | 0 | 0 | 0 | 1 | 237 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 348 | 0 | 0 | 589 |
| Total | 0 | 0 | 0 | 0 | 1 | 926 | 4 | 0 | 11 | 0 | 0 | 0 | 0 | 1324 | 0 | 0 | 2266 |
| 05:00 PM | 1 | 0 | 0 | 0 | 2 | 255 | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 445 | 0 | 0 | 710 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 243 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 443 | 0 | 0 | 687 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 234 | 1 | 0 | 4 | 0 | 0 | 0 | 1 | 337 | 0 | 1 | 578 |
| 05:45 PM | 0 | 0 | 1 | 0 | 0 | 207 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 406 | 0 | 0 | 618 |
| Total | 1 | 0 | 1 | 0 | 2 | 939 | 8 | 0 | 8 | 0 | 0 | 0 | 2 | 1631 | 0 | 1 | 2593 |
| Grand Total | 1 | 0 | 1 | 0 | 3 | 1865 | 12 | 0 | 19 | 0 | 0 | 0 | 2 | 2955 | 0 | 1 | 4859 |
| Apprch % | 50 | 0 | 50 | 0 | 0.2 | 99.2 | 0.6 | 0 | 100 | 0 | 0 | 0 | 0.1 | 99.9 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 0.1 | 38.4 | 0.2 | 0 | 0.4 | 0 | 0 | 0 | 0 | 60.8 | 0 | 0 | |

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 1 | 0 | 0 | 0 | 1 | 2 | 255 | 5 | 0 | 262 | 2 | 0 | 0 | 0 | 2 | 0 | 445 | 0 | 0 | 445 | 710 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 243 | 0 | 0 | 243 | 1 | 0 | 0 | 0 | 1 | 0 | 443 | 0 | 0 | 443 | 687 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 234 | 1 | 0 | 235 | 4 | 0 | 0 | 0 | 4 | 1 | 337 | 0 | 1 | 339 | 578 |
| 05:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 207 | 2 | 0 | 209 | 1 | 0 | 0 | 0 | 1 | 1 | 406 | 0 | 0 | 407 | 618 |
| Total Volume | 1 | 0 | 1 | 0 | 2 | 2 | 939 | 8 | 0 | 949 | 8 | 0 | 0 | 0 | 8 | 2 | 1631 | 0 | 1 | 1634 | 2593 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .250 | .000 | .250 | .000 | .500 | .250 | .921 | .400 | .000 | .906 | .500 | .000 | .000 | .000 | .500 | .500 | .916 | .000 | .250 | .918 | .913 |

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Client: VHB/ E. Chan

File Name : 165077 II
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Driveway From North | | | | Lincoln Street (Route 3A) From East | | | | Bulow Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 10 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 6 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 8 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 7 |
| Total | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 31 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 8 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 5 |
| 05:30 PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 7 |
| Total | 0 | 0 | 0 | 0 | 1 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 | 0 | 24 |
| Grand Total | 0 | 0 | 0 | 0 | 1 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 27 | 0 | 0 | 55 |
| Apprch % | 0 | 0 | 0 | 0 | 3.7 | 96.3 | 0 | 0 | 0 | 0 | 0 | 0 | 3.6 | 96.4 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 1.8 | 47.3 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 49.1 | 0 | 0 | |

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 10 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 6 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 8 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 7 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 31 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .813 | .000 | .000 | .813 | .000 | .000 | .000 | .000 | .000 | .000 | .750 | .000 | .000 | .750 | .775 |

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| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 04:30 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 04:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 05:00 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 05:15 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 |
| Grand Total | 0 | 0 | 0 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 13 |
| Apprch % | 0 | 0 | 0 | 50 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 46.2 | 46.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7.7 | 0 | 0 | 0 | |

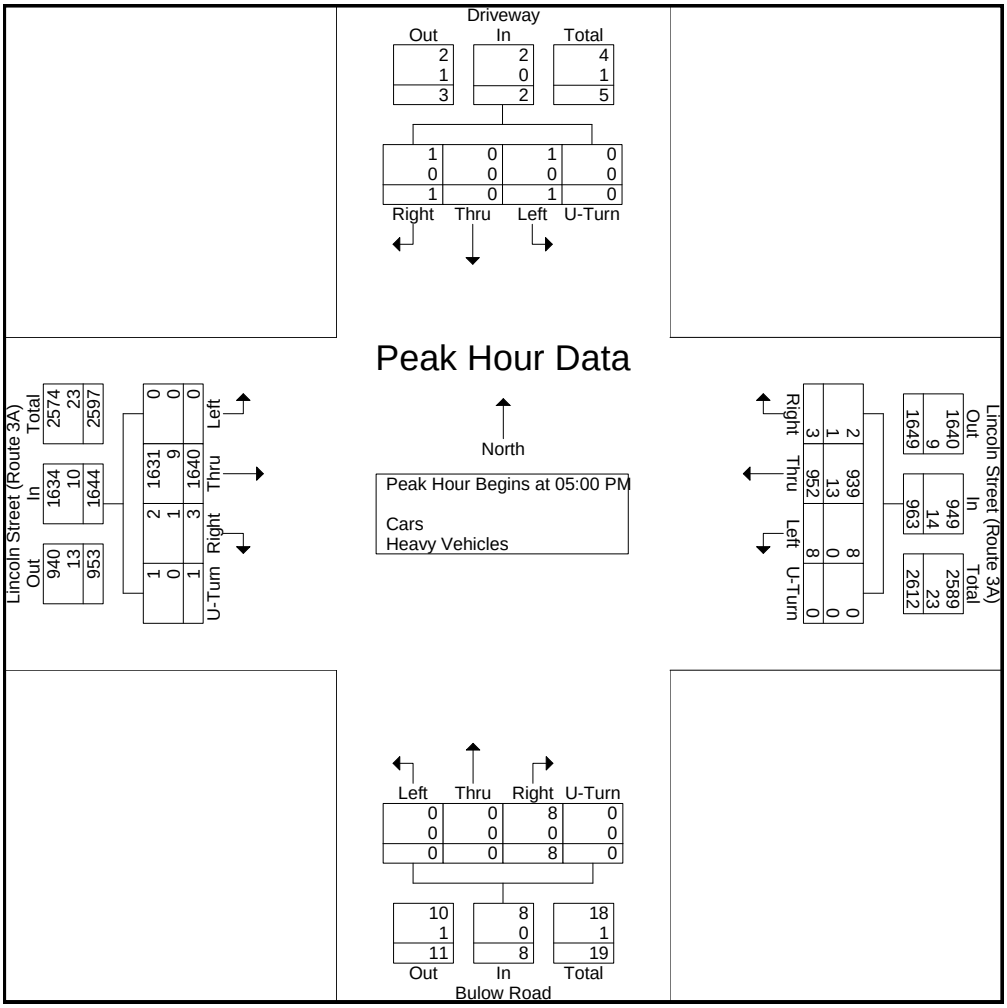
| | Driveway From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Bulow Road From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04:30 PM | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 04:45 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:00 PM | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 05:15 PM | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 |
| Total Volume | 0 | 0 | 0 | 4 | 3 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 8 |
| % App. Total | 0 | 0 | 0 | 57.1 | 42.9 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | 1.00 | .750 | .875 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .250 | .667 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Driveway/ Bulow Road
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 II
Site Code : TBA
Start Date : 5/19/2016
Page No : 1

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 1 | 0 | 0 | 0 | 1 | 2 | 262 | 5 | 0 | 269 | 2 | 0 | 0 | 0 | 2 | 0 | 446 | 0 | 0 | 446 | 718 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 245 | 0 | 0 | 245 | 1 | 0 | 0 | 0 | 1 | 0 | 446 | 0 | 0 | 446 | 692 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 235 | 1 | 0 | 237 | 4 | 0 | 0 | 0 | 4 | 1 | 339 | 0 | 1 | 341 | 582 |
| 05:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 210 | 2 | 0 | 212 | 1 | 0 | 0 | 0 | 1 | 2 | 409 | 0 | 0 | 411 | 625 |
| Total Volume | 1 | 0 | 1 | 0 | 2 | 3 | 952 | 8 | 0 | 963 | 8 | 0 | 0 | 0 | 8 | 3 | 1640 | 0 | 1 | 1644 | 2617 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .250 | .000 | .250 | .000 | .500 | .375 | .908 | .400 | .000 | .895 | .500 | .000 | .000 | .000 | .500 | .375 | .919 | .000 | .250 | .922 | .911 |
| Cars | 1 | 0 | 1 | 0 | 2 | 2 | 939 | 8 | 0 | 949 | 8 | 0 | 0 | 0 | 8 | 2 | 1631 | 0 | 1 | 1634 | 2593 |
| % Cars | 100 | 0 | 100 | 0 | 100 | 66.7 | 98.6 | 100 | 0 | 98.5 | 100 | 0 | 0 | 0 | 100 | 66.7 | 99.5 | 0 | 100 | 99.4 | 99.1 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 33.3 | 1.4 | 0 | 0 | 1.5 | 0 | 0 | 0 | 0 | 0 | 33.3 | 0.5 | 0 | 0 | 0.6 | 0.9 |



PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 III
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars - Heavy Vehicles**

| | Driveway From North | | | | Lincoln Street (Route 3A) From East | | | | Bulow Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 1 | 253 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 275 | 0 | 0 | 533 |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 286 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 255 | 0 | 0 | 544 |
| Total | 0 | 0 | 0 | 0 | 1 | 539 | 3 | 0 | 3 | 0 | 0 | 0 | 1 | 530 | 0 | 0 | 1077 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 272 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 273 | 0 | 0 | 546 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 260 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 257 | 0 | 0 | 520 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 237 | 1 | 0 | 3 | 0 | 0 | 0 | 1 | 265 | 0 | 0 | 507 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 296 | 5 | 0 | 2 | 0 | 0 | 0 | 1 | 197 | 1 | 0 | 502 |
| Total | 0 | 0 | 0 | 0 | 0 | 1065 | 9 | 0 | 6 | 0 | 0 | 0 | 2 | 992 | 1 | 0 | 2075 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 332 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 324 | 0 | 0 | 662 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 287 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 309 | 0 | 0 | 601 |
| 12:30 PM | 1 | 0 | 0 | 0 | 1 | 278 | 3 | 0 | 3 | 1 | 0 | 0 | 0 | 296 | 0 | 0 | 583 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 265 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 301 | 0 | 0 | 570 |
| Total | 1 | 0 | 0 | 0 | 1 | 1162 | 9 | 0 | 12 | 1 | 0 | 0 | 0 | 1230 | 0 | 0 | 2416 |
| 01:00 PM | 0 | 1 | 1 | 0 | 0 | 281 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 255 | 0 | 0 | 543 |
| 01:15 PM | 0 | 0 | 0 | 0 | 1 | 303 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 244 | 0 | 0 | 552 |
| Grand Total | 1 | 1 | 1 | 0 | 3 | 3350 | 25 | 0 | 24 | 2 | 0 | 0 | 4 | 3251 | 1 | 0 | 6663 |
| Apprch % | 33.3 | 33.3 | 33.3 | 0 | 0.1 | 99.2 | 0.7 | 0 | 92.3 | 7.7 | 0 | 0 | 0.1 | 99.8 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 50.3 | 0.4 | 0 | 0.4 | 0 | 0 | 0 | 0.1 | 48.8 | 0 | 0 | |
| Cars | 1 | 1 | 1 | 0 | 3 | 3307 | 24 | 0 | 23 | 2 | 0 | 0 | 4 | 3216 | 1 | 0 | 6583 |
| % Cars | 100 | 100 | 100 | 0 | 100 | 98.7 | 96 | 0 | 95.8 | 100 | 0 | 0 | 100 | 98.9 | 100 | 0 | 98.8 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 43 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 80 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 1.3 | 4 | 0 | 4.2 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 | 1.2 |

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 332 | 3 | 0 | 335 | 3 | 0 | 0 | 0 | 3 | 0 | 324 | 0 | 0 | 324 | 662 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 287 | 2 | 0 | 289 | 3 | 0 | 0 | 0 | 3 | 0 | 309 | 0 | 0 | 309 | 601 |
| 12:30 PM | 1 | 0 | 0 | 0 | 1 | 1 | 278 | 3 | 0 | 282 | 3 | 1 | 0 | 0 | 4 | 0 | 296 | 0 | 0 | 296 | 583 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 265 | 1 | 0 | 266 | 3 | 0 | 0 | 0 | 3 | 0 | 301 | 0 | 0 | 301 | 570 |
| Total Volume | 1 | 0 | 0 | 0 | 1 | 1 | 1162 | 9 | 0 | 1172 | 12 | 1 | 0 | 0 | 13 | 0 | 1230 | 0 | 0 | 1230 | 2416 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .250 | .000 | .000 | .000 | .250 | .250 | .875 | .750 | .000 | .875 | 1.00 | .250 | .000 | .000 | .813 | .000 | .949 | .000 | .000 | .949 | .912 |
| Cars | 1 | 0 | 0 | 0 | 1 | 1 | 1138 | 9 | 0 | 1148 | 12 | 1 | 0 | 0 | 13 | 0 | 1218 | 0 | 0 | 1218 | 2380 |
| % Cars | 100 | 0 | 0 | 0 | 100 | 100 | 97.9 | 100 | 0 | 98.0 | 100 | 100 | 0 | 0 | 100 | 0 | 99.0 | 0 | 0 | 99.0 | 98.5 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 | 2.0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.0 | 0 | 0 | 1.0 | 1.5 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 III
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Cars**

| | Driveway From North | | | | Lincoln Street (Route 3A) From East | | | | Bulow Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 1 | 250 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 273 | 0 | 0 | 528 |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 285 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 251 | 0 | 0 | 539 |
| Total | 0 | 0 | 0 | 0 | 1 | 535 | 3 | 0 | 3 | 0 | 0 | 0 | 1 | 524 | 0 | 0 | 1067 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 269 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 271 | 0 | 0 | 541 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 259 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 252 | 0 | 0 | 514 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 235 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 263 | 0 | 0 | 502 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 294 | 4 | 0 | 2 | 0 | 0 | 0 | 1 | 197 | 1 | 0 | 499 |
| Total | 0 | 0 | 0 | 0 | 0 | 1057 | 8 | 0 | 5 | 0 | 0 | 0 | 2 | 983 | 1 | 0 | 2056 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 325 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 319 | 0 | 0 | 650 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 281 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 307 | 0 | 0 | 593 |
| 12:30 PM | 1 | 0 | 0 | 0 | 1 | 272 | 3 | 0 | 3 | 1 | 0 | 0 | 0 | 292 | 0 | 0 | 573 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 260 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 300 | 0 | 0 | 564 |
| Total | 1 | 0 | 0 | 0 | 1 | 1138 | 9 | 0 | 12 | 1 | 0 | 0 | 0 | 1218 | 0 | 0 | 2380 |
| 01:00 PM | 0 | 1 | 1 | 0 | 0 | 276 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 252 | 0 | 0 | 535 |
| 01:15 PM | 0 | 0 | 0 | 0 | 1 | 301 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 239 | 0 | 0 | 545 |
| Grand Total | 1 | 1 | 1 | 0 | 3 | 3307 | 24 | 0 | 23 | 2 | 0 | 0 | 4 | 3216 | 1 | 0 | 6583 |
| Apprch % | 33.3 | 33.3 | 33.3 | 0 | 0.1 | 99.2 | 0.7 | 0 | 92 | 8 | 0 | 0 | 0.1 | 99.8 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 50.2 | 0.4 | 0 | 0.3 | 0 | 0 | 0 | 0.1 | 48.9 | 0 | 0 | |

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 325 | 3 | 0 | 328 | 3 | 0 | 0 | 0 | 3 | 0 | 319 | 0 | 0 | 319 | 650 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 281 | 2 | 0 | 283 | 3 | 0 | 0 | 0 | 3 | 0 | 307 | 0 | 0 | 307 | 593 |
| 12:30 PM | 1 | 0 | 0 | 0 | 1 | 1 | 272 | 3 | 0 | 276 | 3 | 1 | 0 | 0 | 4 | 0 | 292 | 0 | 0 | 292 | 573 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 260 | 1 | 0 | 261 | 3 | 0 | 0 | 0 | 3 | 0 | 300 | 0 | 0 | 300 | 564 |
| Total Volume | 1 | 0 | 0 | 0 | 1 | 1 | 1138 | 9 | 0 | 1148 | 12 | 1 | 0 | 0 | 13 | 0 | 1218 | 0 | 0 | 1218 | 2380 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .250 | .000 | .000 | .000 | .250 | .250 | .875 | .750 | .000 | .875 | 1.00 | .250 | .000 | .000 | .813 | .000 | .955 | .000 | .000 | .955 | .915 |

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City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 III
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Heavy Vehicles**

| | Driveway From North | | | | Lincoln Street (Route 3A) From East | | | | Bulow Road From South | | | | Lincoln Street (Route 3A) From West | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 10:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 5 |
| Total | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 10 |
| 11:00 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 11:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 6 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 0 | 0 | 8 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 19 |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 12 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 8 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 10 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 |
| Total | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 36 |
| 01:00 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 8 |
| 01:15 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 7 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 43 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 80 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 97.7 | 2.3 | 0 | 100 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 53.8 | 1.2 | 0 | 1.2 | 0 | 0 | 0 | 0 | 43.8 | 0 | 0 | |

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 12 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 8 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 10 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 36 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .857 | .000 | .000 | .857 | .000 | .000 | .000 | .000 | .000 | .000 | .600 | .000 | .000 | .600 | .750 |

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Client: VHB/ E. Chan

File Name : 165077 III
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

**Groups Printed- Peds and Bikes**

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | Right | Thru | Left | Peds SB | Peds NB | Right | Thru | Left | Peds WB | Peds EB | Right | Thru | Left | Peds NB | Peds SB | Int. Total |
| 10:30 AM | 0 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 10:45 AM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total | 0 | 0 | 0 | 3 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 11:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11:15 AM | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 11:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 4 |
| Total | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 2 | 0 | 10 |
| 12:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12:15 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 6 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 12:45 PM | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| Total | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 0 | 13 |
| 01:00 PM | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 01:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 0 | 0 | 0 | 10 | 17 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 3 | 0 | 3 | 0 | 39 |
| Apprch % | 0 | 0 | 0 | 37 | 63 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 20 | 0 | 50 | 0 | 50 | 0 | |
| Total % | 0 | 0 | 0 | 25.6 | 43.6 | 0 | 2.6 | 0 | 0 | 0 | 0 | 0 | 0 | 10.3 | 2.6 | 0 | 7.7 | 0 | 7.7 | 0 | |

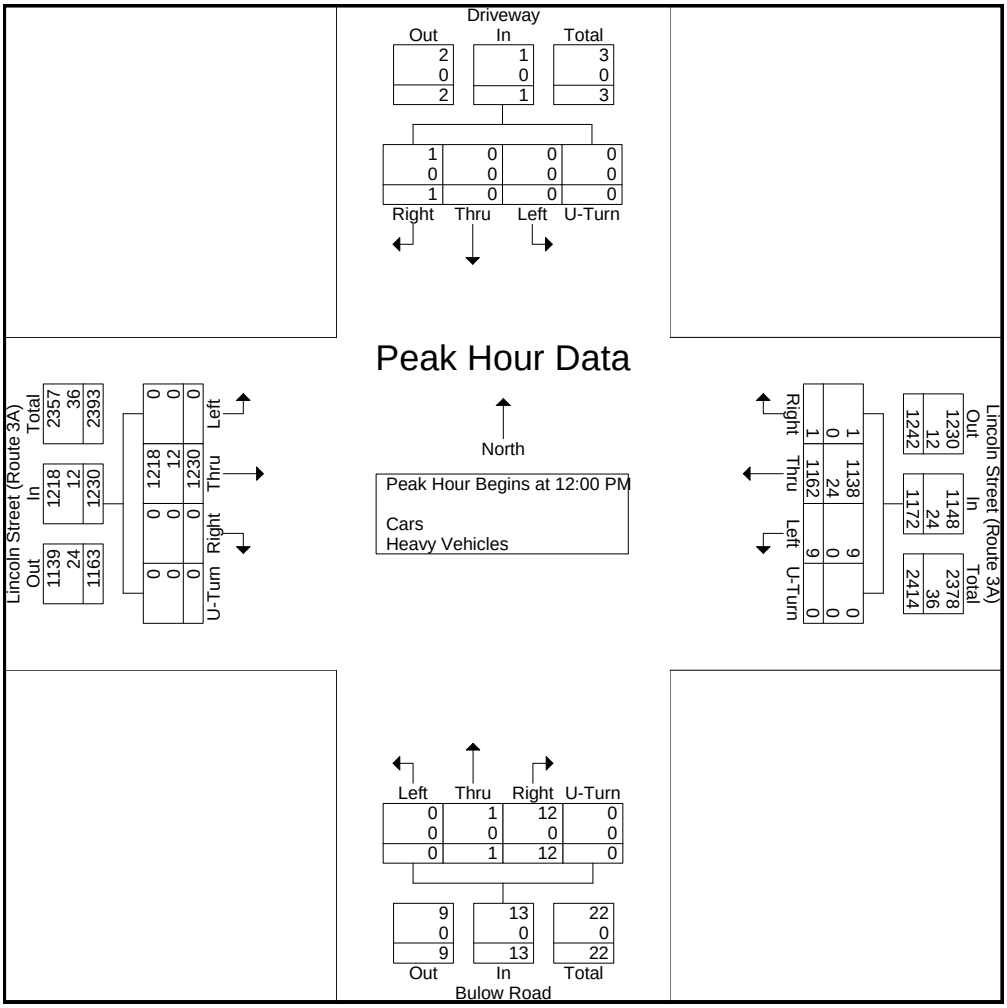
| | Driveway From North | | | | | | Lincoln Street (Route 3A) From East | | | | | | Bulow Road From South | | | | | | Lincoln Street (Route 3A) From West | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds EB | Peds WB | App. Total | Right | Thru | Left | Peds SB | Peds NB | App. Total | Right | Thru | Left | Peds WB | Peds EB | App. Total | Right | Thru | Left | Peds NB | Peds SB | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:15 PM | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12:15 PM | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 6 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 12:45 PM | 0 | 0 | 0 | 2 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 5 |
| 01:00 PM | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Total Volume | 0 | 0 | 0 | 5 | 8 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 2 | 0 | 1 | 0 | 3 | 18 |
| % App. Total | 0 | 0 | 0 | 38.5 | 61.5 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 50 | 50 | | 0 | 66.7 | 0 | 33.3 | 0 | | |
| PHF | .000 | .000 | .000 | .417 | .333 | .542 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .250 | .250 | .000 | .500 | .000 | .250 | .000 | .750 | .750 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

N/S: Driveway/ Bulow Road
E/W: Lincoln Street (Route 3A)
City, State: Hingham, MA
Client: VHB/ E. Chan

File Name : 165077 III
Site Code : TBA
Start Date : 5/21/2016
Page No : 1

| | Driveway From North | | | | | Lincoln Street (Route 3A) From East | | | | | Bulow Road From South | | | | | Lincoln Street (Route 3A) From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Right | Thru | Left | U-Turn | App. Total | Int. Total |
| Peak Hour Analysis From 10:30 AM to 01:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 332 | 3 | 0 | 335 | 3 | 0 | 0 | 0 | 3 | 0 | 324 | 0 | 0 | 324 | 662 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 287 | 2 | 0 | 289 | 3 | 0 | 0 | 0 | 3 | 0 | 309 | 0 | 0 | 309 | 601 |
| 12:30 PM | 1 | 0 | 0 | 0 | 1 | 1 | 278 | 3 | 0 | 282 | 3 | 1 | 0 | 0 | 4 | 0 | 296 | 0 | 0 | 296 | 583 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 265 | 1 | 0 | 266 | 3 | 0 | 0 | 0 | 3 | 0 | 301 | 0 | 0 | 301 | 570 |
| Total Volume | 1 | 0 | 0 | 0 | 1 | 1 | 1162 | 9 | 0 | 1172 | 12 | 1 | 0 | 0 | 13 | 0 | 1230 | 0 | 0 | 1230 | 2416 |
| % App. Total | | | | | | | | | | | | | | | | | | | | | |
| PHF | .250 | .000 | .000 | .000 | .250 | .250 | .875 | .750 | .000 | .875 | 1.00 | .250 | .000 | .000 | .813 | .000 | .949 | .000 | .000 | .949 | .912 |
| Cars | 1 | 0 | 0 | 0 | 1 | 1 | 1138 | 9 | 0 | 1148 | 12 | 1 | 0 | 0 | 13 | 0 | 1218 | 0 | 0 | 1218 | 2380 |
| % Cars | 100 | 0 | 0 | 0 | 100 | 100 | 97.9 | 100 | 0 | 98.0 | 100 | 100 | 0 | 0 | 100 | 0 | 99.0 | 0 | 0 | 99.0 | 98.5 |
| Heavy Vehicles | | | | | | | | | | | | | | | | | | | | | |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 | 2.0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.0 | 0 | 0 | 1.0 | 1.5 |



# AUTOMATIC TRAFFIC RECORDER COUNTS

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Lincoln Street (Route 3A)
west of Essington Drive
City, State: Hingham, MA
Client: VHB/ E. Chan
WB

165077 A Class
Site Code: TBA

| Start Time | Cars | Medium Heavy | Large Heavy | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/18/1 | | | | | | | | | | | | | | |
| 6 | 65 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| 01:00 | 24 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 02:00 | 18 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 03:00 | 23 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 04:00 | 134 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 05:00 | 696 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 703 |
| 06:00 | 1156 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1169 |
| 07:00 | 1320 | 23 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1345 |
| 08:00 | 1284 | 26 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1311 |
| 09:00 | 998 | 23 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1024 |
| 10:00 | 968 | 22 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 992 |
| 11:00 | 1015 | 26 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1042 |
| 12 PM | 1016 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1041 |
| 13:00 | 974 | 28 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1005 |
| 14:00 | 917 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 941 |
| 15:00 | 1066 | 42 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1110 |
| 16:00 | 1089 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1113 |
| 17:00 | 1115 | 19 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1136 |
| 18:00 | 934 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 947 |
| 19:00 | 750 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 759 |
| 20:00 | 591 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 598 |
| 21:00 | 445 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 450 |
| 22:00 | 292 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 293 |
| 23:00 | 176 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 178 |
| Total | 17066 | 342 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17429 |
| Percent | 97.9% | 2.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 07:00 | 08:00 | 09:00 | | | | | | | | | | | 07:00 |
| Vol. | 1320 | 26 | 3 | | | | | | | | | | | 1345 |
| PM Peak | 17:00 | 15:00 | 13:00 | | | | | | | | | | | 17:00 |
| Vol. | 1115 | 42 | 3 | | | | | | | | | | | 1136 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Lincoln Street (Route 3A)
west of Essington Drive
City, State: Hingham, MA
Client: VHB/ E. Chan
WB

165077 A Class
Site Code: TBA

| Start Time | Cars | Medium Heavy | Large Heavy | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/19/1 | | | | | | | | | | | | | | |
| 6 | 70 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 |
| 01:00 | 24 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 02:00 | 20 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| 03:00 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 04:00 | 146 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 149 |
| 05:00 | 613 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 615 |
| 06:00 | 1135 | 13 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1149 |
| 07:00 | 1384 | 24 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1412 |
| 08:00 | 1188 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1216 |
| 09:00 | 1037 | 24 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1064 |
| 10:00 | 1001 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1031 |
| 11:00 | 916 | 31 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 953 |
| 12 PM | 968 | 29 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1003 |
| 13:00 | 948 | 24 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 975 |
| 14:00 | 986 | 29 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1016 |
| 15:00 | 1065 | 32 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1100 |
| 16:00 | 1092 | 21 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1114 |
| 17:00 | 1247 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1264 |
| 18:00 | 907 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 917 |
| 19:00 | 809 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 822 |
| 20:00 | 622 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 624 |
| 21:00 | 438 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 441 |
| 22:00 | 287 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 289 |
| 23:00 | 141 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 142 |
| Total | 17058 | 340 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17430 |
| Percent | 97.9% | 2.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 07:00 | 11:00 | 11:00 | | | | | | | | | | | 07:00 |
| Vol. | 1384 | 31 | 6 | | | | | | | | | | | 1412 |
| PM Peak | 17:00 | 15:00 | 12:00 | | | | | | | | | | | 17:00 |
| Vol. | 1247 | 32 | 6 | | | | | | | | | | | 1264 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
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Lincoln Street (Route 3A)
west of Essington Drive
City, State: Hingham, MA
Client: VHB/ E. Chan

165077 A Class
Site Code: TBA

EB

| Start Time | Cars | Medium Heavy | Large Heavy | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/18/1 | | | | | | | | | | | | | | |
| 6 | 81 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| 01:00 | 41 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 |
| 02:00 | 16 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 03:00 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 04:00 | 30 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 |
| 05:00 | 108 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117 |
| 06:00 | 345 | 22 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 369 |
| 07:00 | 525 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 540 |
| 08:00 | 642 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 673 |
| 09:00 | 532 | 22 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 555 |
| 10:00 | 651 | 22 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 676 |
| 11:00 | 698 | 20 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 719 |
| 12 PM | 694 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 714 |
| 13:00 | 705 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 734 |
| 14:00 | 686 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 707 |
| 15:00 | 922 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 935 |
| 16:00 | 880 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 889 |
| 17:00 | 1070 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1095 |
| 18:00 | 1201 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1217 |
| 19:00 | 802 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 804 |
| 20:00 | 601 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 607 |
| 21:00 | 392 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 394 |
| 22:00 | 218 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 219 |
| 23:00 | 139 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141 |
| Total | 11995 | 289 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12297 |
| Percent | 97.5% | 2.4% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 08:00 | 10:00 | | | | | | | | | | | 11:00 |
| Vol. | 698 | 31 | 3 | | | | | | | | | | | 719 |
| PM Peak | 18:00 | 13:00 | 16:00 | | | | | | | | | | | 18:00 |
| Vol. | 1201 | 29 | 1 | | | | | | | | | | | 1217 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Lincoln Street (Route 3A)
west of Essington Drive
City, State: Hingham, MA
Client: VHB/ E. Chan
EB

165077 A Class
Site Code: TBA

| Start Time | Cars | Medium Heavy | Large Heavy | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/19/1 | | | | | | | | | | | | | | |
| 6 | 74 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 |
| 01:00 | 28 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 02:00 | 18 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 03:00 | 17 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 04:00 | 33 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| 05:00 | 98 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 |
| 06:00 | 309 | 13 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 323 |
| 07:00 | 519 | 30 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 551 |
| 08:00 | 711 | 28 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 741 |
| 09:00 | 569 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 593 |
| 10:00 | 574 | 25 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 601 |
| 11:00 | 646 | 17 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 666 |
| 12 PM | 687 | 14 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 703 |
| 13:00 | 733 | 17 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 751 |
| 14:00 | 739 | 19 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 759 |
| 15:00 | 1015 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1028 |
| 16:00 | 1115 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1128 |
| 17:00 | 1048 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1054 |
| 18:00 | 1139 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1147 |
| 19:00 | 847 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 854 |
| 20:00 | 521 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 523 |
| 21:00 | 355 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 360 |
| 22:00 | 222 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 223 |
| 23:00 | 142 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 144 |
| Total | 12159 | 251 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12432 |
| Percent | 97.8% | 2.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 08:00 | 07:00 | 11:00 | | | | | | | | | | | 08:00 |
| Vol. | 711 | 30 | 3 | | | | | | | | | | | 741 |
| PM Peak | 18:00 | 14:00 | 12:00 | | | | | | | | | | | 18:00 |
| Vol. | 1139 | 19 | 2 | | | | | | | | | | | 1147 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Lincoln Street (Route 3A)
west of Essington Drive
City, State: Hingham, MA
Client: VHB/ E. Chan

165077 A Volume
Site Code: TBA

| Start | WB | | | | EB | | | | Combined | | | | 5/18/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Wed |
| 12:00 | 23 | | 272 | | 28 | | 181 | | 51 | | 453 | | |
| 12:15 | 19 | | 261 | | 18 | | 176 | | 37 | | 437 | | |
| 12:30 | 15 | | 228 | | 20 | | 209 | | 35 | | 437 | | |
| 12:45 | 9 | 66 | 280 | 1041 | 17 | 83 | 148 | 714 | 26 | 149 | 428 | 1755 | |
| 01:00 | 13 | | 275 | | 11 | | 153 | | 24 | | 428 | | |
| 01:15 | 3 | | 247 | | 11 | | 254 | | 14 | | 501 | | |
| 01:30 | 9 | | 249 | | 8 | | 165 | | 17 | | 414 | | |
| 01:45 | 1 | 26 | 234 | 1005 | 12 | 42 | 162 | 734 | 13 | 68 | 396 | 1739 | |
| 02:00 | 8 | | 238 | | 5 | | 148 | | 13 | | 386 | | |
| 02:15 | 3 | | 248 | | 5 | | 163 | | 8 | | 411 | | |
| 02:30 | 3 | | 204 | | 2 | | 120 | | 5 | | 324 | | |
| 02:45 | 5 | 19 | 251 | 941 | 6 | 18 | 276 | 707 | 11 | 37 | 527 | 1648 | |
| 03:00 | 4 | | 284 | | 6 | | 231 | | 10 | | 515 | | |
| 03:15 | 2 | | 292 | | 2 | | 232 | | 4 | | 524 | | |
| 03:30 | 10 | | 273 | | 4 | | 241 | | 14 | | 514 | | |
| 03:45 | 10 | 26 | 261 | 1110 | 5 | 17 | 231 | 935 | 15 | 43 | 492 | 2045 | |
| 04:00 | 22 | | 285 | | 3 | | 168 | | 25 | | 453 | | |
| 04:15 | 17 | | 284 | | 5 | | 246 | | 22 | | 530 | | |
| 04:30 | 39 | | 273 | | 10 | | 239 | | 49 | | 512 | | |
| 04:45 | 57 | 135 | 271 | 1113 | 14 | 32 | 236 | 889 | 71 | 167 | 507 | 2002 | |
| 05:00 | 112 | | 320 | | 23 | | 264 | | 135 | | 584 | | |
| 05:15 | 177 | | 302 | | 19 | | 284 | | 196 | | 586 | | |
| 05:30 | 191 | | 275 | | 31 | | 274 | | 222 | | 549 | | |
| 05:45 | 223 | 703 | 239 | 1136 | 44 | 117 | 273 | 1095 | 267 | 820 | 512 | 2231 | |
| 06:00 | 260 | | 243 | | 52 | | 301 | | 312 | | 544 | | |
| 06:15 | 287 | | 220 | | 67 | | 300 | | 354 | | 520 | | |
| 06:30 | 275 | | 233 | | 116 | | 312 | | 391 | | 545 | | |
| 06:45 | 347 | 1169 | 251 | 947 | 134 | 369 | 304 | 1217 | 481 | 1538 | 555 | 2164 | |
| 07:00 | 339 | | 205 | | 113 | | 259 | | 452 | | 464 | | |
| 07:15 | 325 | | 209 | | 111 | | 216 | | 436 | | 425 | | |
| 07:30 | 319 | | 177 | | 162 | | 166 | | 481 | | 343 | | |
| 07:45 | 362 | 1345 | 168 | 759 | 154 | 540 | 163 | 804 | 516 | 1885 | 331 | 1563 | |
| 08:00 | 310 | | 165 | | 166 | | 173 | | 476 | | 338 | | |
| 08:15 | 333 | | 178 | | 183 | | 177 | | 516 | | 355 | | |
| 08:30 | 366 | | 132 | | 161 | | 133 | | 527 | | 265 | | |
| 08:45 | 302 | 1311 | 123 | 598 | 163 | 673 | 124 | 607 | 465 | 1984 | 247 | 1205 | |
| 09:00 | 271 | | 129 | | 145 | | 123 | | 416 | | 252 | | |
| 09:15 | 250 | | 122 | | 126 | | 81 | | 376 | | 203 | | |
| 09:30 | 266 | | 93 | | 133 | | 97 | | 399 | | 190 | | |
| 09:45 | 237 | 1024 | 106 | 450 | 151 | 555 | 93 | 394 | 388 | 1579 | 199 | 844 | |
| 10:00 | 260 | | 100 | | 144 | | 64 | | 404 | | 164 | | |
| 10:15 | 242 | | 74 | | 148 | | 48 | | 390 | | 122 | | |
| 10:30 | 251 | | 66 | | 181 | | 65 | | 432 | | 131 | | |
| 10:45 | 239 | 992 | 53 | 293 | 203 | 676 | 42 | 219 | 442 | 1668 | 95 | 512 | |
| 11:00 | 250 | | 53 | | 143 | | 46 | | 393 | | 99 | | |
| 11:15 | 268 | | 49 | | 194 | | 35 | | 462 | | 84 | | |
| 11:30 | 264 | | 60 | | 185 | | 26 | | 449 | | 86 | | |
| 11:45 | 260 | 1042 | 16 | 178 | 197 | 719 | 34 | 141 | 457 | 1761 | 50 | 319 | |
| Total | 7858 | | 9571 | | 3841 | | 8456 | | 11699 | | 18027 | | |
| Percent | 67.2% | | 53.1% | | 32.8% | | 46.9% | | | | | | |
| Day Total | | 17429 | | | | 12297 | | | | 29726 | | | |
| Peak | 07:45 | - | 04:45 | - | 10:45 | - | 06:00 | - | 07:45 | - | 05:00 | - | - | - |
| Vol. | 1371 | - | 1168 | - | 725 | - | 1217 | - | 2035 | - | 2231 | - | - | - |
| P.H.F. | 0.936 | | 0.913 | | 0.893 | | 0.975 | | 0.965 | | 0.952 | | |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Lincoln Street (Route 3A)
west of Essington Drive
City, State: Hingham, MA
Client: VHB/ E. Chan

165077 A Volume
Site Code: TBA

| Start | WB | | | | EB | | | | Combined | | | | 5/19/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Thu |
| 12:00 | 28 | | 241 | | 35 | | 169 | | 63 | | 410 | | |
| 12:15 | 15 | | 267 | | 18 | | 178 | | 33 | | 445 | | |
| 12:30 | 14 | | 240 | | 12 | | 172 | | 26 | | 412 | | |
| 12:45 | 15 | 72 | 255 | 1003 | 10 | 75 | 184 | 703 | 25 | 147 | 439 | 1706 | |
| 01:00 | 12 | | 243 | | 7 | | 188 | | 19 | | 431 | | |
| 01:15 | 3 | | 255 | | 10 | | 193 | | 13 | | 448 | | |
| 01:30 | 7 | | 239 | | 10 | | 167 | | 17 | | 406 | | |
| 01:45 | 4 | 26 | 238 | 975 | 3 | 30 | 203 | 751 | 7 | 56 | 441 | 1726 | |
| 02:00 | 7 | | 273 | | 4 | | 168 | | 11 | | 441 | | |
| 02:15 | 3 | | 238 | | 5 | | 198 | | 8 | | 436 | | |
| 02:30 | 5 | | 235 | | 6 | | 201 | | 11 | | 436 | | |
| 02:45 | 6 | 21 | 270 | 1016 | 4 | 19 | 192 | 759 | 10 | 40 | 462 | 1775 | |
| 03:00 | 2 | | 264 | | 7 | | 242 | | 9 | | 506 | | |
| 03:15 | 3 | | 258 | | 3 | | 240 | | 6 | | 498 | | |
| 03:30 | 5 | | 300 | | 4 | | 250 | | 9 | | 550 | | |
| 03:45 | 5 | 15 | 278 | 1100 | 5 | 19 | 296 | 1028 | 10 | 34 | 574 | 2128 | |
| 04:00 | 26 | | 295 | | 4 | | 266 | | 30 | | 561 | | |
| 04:15 | 27 | | 272 | | 4 | | 256 | | 31 | | 528 | | |
| 04:30 | 39 | | 269 | | 11 | | 282 | | 50 | | 551 | | |
| 04:45 | 57 | 149 | 278 | 1114 | 15 | 34 | 324 | 1128 | 72 | 183 | 602 | 2242 | |
| 05:00 | 80 | | 339 | | 14 | | 266 | | 94 | | 605 | | |
| 05:15 | 149 | | 331 | | 23 | | 298 | | 172 | | 629 | | |
| 05:30 | 174 | | 302 | | 39 | | 245 | | 213 | | 547 | | |
| 05:45 | 212 | 615 | 292 | 1264 | 30 | 106 | 245 | 1054 | 242 | 721 | 537 | 2318 | |
| 06:00 | 271 | | 223 | | 49 | | 259 | | 320 | | 482 | | |
| 06:15 | 275 | | 266 | | 61 | | 279 | | 336 | | 545 | | |
| 06:30 | 282 | | 214 | | 96 | | 321 | | 378 | | 535 | | |
| 06:45 | 321 | 1149 | 214 | 917 | 117 | 323 | 288 | 1147 | 438 | 1472 | 502 | 2064 | |
| 07:00 | 343 | | 197 | | 106 | | 280 | | 449 | | 477 | | |
| 07:15 | 368 | | 199 | | 122 | | 198 | | 490 | | 397 | | |
| 07:30 | 343 | | 247 | | 171 | | 189 | | 514 | | 436 | | |
| 07:45 | 358 | 1412 | 179 | 822 | 152 | 551 | 187 | 854 | 510 | 1963 | 366 | 1676 | |
| 08:00 | 296 | | 182 | | 181 | | 137 | | 477 | | 319 | | |
| 08:15 | 350 | | 162 | | 206 | | 143 | | 556 | | 305 | | |
| 08:30 | 296 | | 152 | | 179 | | 127 | | 475 | | 279 | | |
| 08:45 | 274 | 1216 | 128 | 624 | 175 | 741 | 116 | 523 | 449 | 1957 | 244 | 1147 | |
| 09:00 | 267 | | 124 | | 162 | | 114 | | 429 | | 238 | | |
| 09:15 | 249 | | 115 | | 124 | | 100 | | 373 | | 215 | | |
| 09:30 | 276 | | 106 | | 147 | | 92 | | 423 | | 198 | | |
| 09:45 | 272 | 1064 | 96 | 441 | 160 | 593 | 54 | 360 | 432 | 1657 | 150 | 801 | |
| 10:00 | 287 | | 85 | | 144 | | 61 | | 431 | | 146 | | |
| 10:15 | 234 | | 84 | | 143 | | 50 | | 377 | | 134 | | |
| 10:30 | 255 | | 65 | | 161 | | 68 | | 416 | | 133 | | |
| 10:45 | 255 | 1031 | 55 | 289 | 153 | 601 | 44 | 223 | 408 | 1632 | 99 | 512 | |
| 11:00 | 240 | | 48 | | 147 | | 36 | | 387 | | 84 | | |
| 11:15 | 246 | | 42 | | 175 | | 28 | | 421 | | 70 | | |
| 11:30 | 243 | | 31 | | 178 | | 34 | | 421 | | 65 | | |
| 11:45 | 224 | 953 | 21 | 142 | 166 | 666 | 46 | 144 | 390 | 1619 | 67 | 286 | |
| Total | 7723 | | 9707 | | 3758 | | 8674 | | 11481 | | 18381 | | |
| Percent | 67.3% | | 52.8% | | 32.7% | | 47.2% | | | | | | |
| Day Total | | 17430 | | | | 12432 | | | | 29862 | | | |
| Peak | 07:00 | - | 05:00 | - | 08:00 | - | 04:30 | - | 07:30 | - | 04:30 | - | - - |
| Vol. | 1412 | - | 1264 | - | 741 | - | 1170 | - | 2057 | - | 2387 | - | - - |
| P.H.F. | 0.959 | | 0.932 | | 0.899 | | 0.903 | | 0.925 | | 0.949 | | |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Lincoln Street (Route 3A)
west of Essington Drive
City, State: Hingham, MA
Client: VHB/ E. Chan
WB

165077 AA Class
Site Code: TBA

| Start Time | Cars | Medium Heavy | Large Heavy | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/21/1 | | | | | | | | | | | | | | |
| 6 | 122 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 |
| 01:00 | 75 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 |
| 02:00 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| 03:00 | 25 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 04:00 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 56 |
| 05:00 | 136 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 138 |
| 06:00 | 286 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 299 |
| 07:00 | 460 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 473 |
| 08:00 | 770 | 15 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 787 |
| 09:00 | 973 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 995 |
| 10:00 | 1130 | 20 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1151 |
| 11:00 | 1237 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1259 |
| 12 PM | 806 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 824 |
| 13:00 | 1420 | 19 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1440 |
| 14:00 | 1391 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1412 |
| 15:00 | 1346 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1356 |
| 16:00 | 1181 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1189 |
| 17:00 | 1112 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1119 |
| 18:00 | 963 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 974 |
| 19:00 | 712 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 715 |
| 20:00 | 641 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 645 |
| 21:00 | 504 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 507 |
| 22:00 | 258 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 259 |
| 23:00 | 256 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 257 |
| Total | 15884 | 218 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16108 |
| Percent | 98.6% | 1.4% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 09:00 | 08:00 | | | | | | | | | | | 11:00 |
| Vol. | 1237 | 22 | 2 | | | | | | | | | | | 1259 |
| PM Peak | 13:00 | 14:00 | 13:00 | | | | | | | | | | | 13:00 |
| Vol. | 1420 | 21 | 1 | | | | | | | | | | | 1440 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Lincoln Street (Route 3A)
west of Essington Drive
City, State: Hingham, MA
Client: VHB/ E. Chan
EB

165077 AA Class
Site Code: TBA

| Start Time | Cars | Medium Heavy | Large Heavy | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/21/1 | | | | | | | | | | | | | | |
| 6 | 133 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134 |
| 01:00 | 81 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| 02:00 | 31 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 |
| 03:00 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 04:00 | 36 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| 05:00 | 49 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 |
| 06:00 | 171 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 183 |
| 07:00 | 376 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 392 |
| 08:00 | 554 | 22 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 577 |
| 09:00 | 728 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 744 |
| 10:00 | 938 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 952 |
| 11:00 | 974 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 986 |
| 12 PM | 1168 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1179 |
| 13:00 | 1109 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1121 |
| 14:00 | 980 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 986 |
| 15:00 | 938 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 941 |
| 16:00 | 943 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 951 |
| 17:00 | 782 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 791 |
| 18:00 | 711 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 713 |
| 19:00 | 567 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 572 |
| 20:00 | 447 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 449 |
| 21:00 | 296 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 298 |
| 22:00 | 276 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 277 |
| 23:00 | 198 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 200 |
| Total | 12512 | 157 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12678 |
| Percent | 98.7% | 1.2% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 08:00 | 01:00 | | | | | | | | | | | 11:00 |
| Vol. | 974 | 22 | 1 | | | | | | | | | | | 986 |
| PM Peak | 12:00 | 13:00 | 12:00 | | | | | | | | | | | 12:00 |
| Vol. | 1168 | 12 | 1 | | | | | | | | | | | 1179 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Lincoln Street (Route 3A)
west of Essington Drive
City, State: Hingham, MA
Client: VHB/ E. Chan

165077 AA Volume
Site Code: TBA

| Start | | WB | | | | EB | | | | Combined | | | 5/21/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Sat |
| 12:00 | 43 | | 202 | | 47 | | 303 | | 90 | | 505 | | |
| 12:15 | 34 | | 221 | | 33 | | 294 | | 67 | | 515 | | |
| 12:30 | 30 | | 209 | | 32 | | 285 | | 62 | | 494 | | |
| 12:45 | 17 | 124 | 192 | 824 | 22 | 134 | 297 | 1179 | 39 | 258 | 489 | 2003 | |
| 01:00 | 31 | | 347 | | 29 | | 289 | | 60 | | 636 | | |
| 01:15 | 22 | | 362 | | 22 | | 280 | | 44 | | 642 | | |
| 01:30 | 14 | | 357 | | 15 | | 275 | | 29 | | 632 | | |
| 01:45 | 10 | 77 | 374 | 1440 | 17 | 83 | 277 | 1121 | 27 | 160 | 651 | 2561 | |
| 02:00 | 5 | | 346 | | 9 | | 253 | | 14 | | 599 | | |
| 02:15 | 9 | | 366 | | 6 | | 251 | | 15 | | 617 | | |
| 02:30 | 5 | | 356 | | 8 | | 243 | | 13 | | 599 | | |
| 02:45 | 6 | 25 | 344 | 1412 | 10 | 33 | 239 | 986 | 16 | 58 | 583 | 2398 | |
| 03:00 | 4 | | 358 | | 4 | | 215 | | 8 | | 573 | | |
| 03:15 | 8 | | 348 | | 4 | | 240 | | 12 | | 588 | | |
| 03:30 | 7 | | 325 | | 3 | | 210 | | 10 | | 535 | | |
| 03:45 | 8 | 27 | 325 | 1356 | 15 | 26 | 276 | 941 | 23 | 53 | 601 | 2297 | |
| 04:00 | 13 | | 300 | | 6 | | 213 | | 19 | | 513 | | |
| 04:15 | 12 | | 302 | | 3 | | 231 | | 15 | | 533 | | |
| 04:30 | 10 | | 287 | | 10 | | 271 | | 20 | | 558 | | |
| 04:45 | 21 | 56 | 300 | 1189 | 18 | 37 | 236 | 951 | 39 | 93 | 536 | 2140 | |
| 05:00 | 22 | | 278 | | 8 | | 184 | | 30 | | 462 | | |
| 05:15 | 43 | | 281 | | 11 | | 214 | | 54 | | 495 | | |
| 05:30 | 35 | | 292 | | 14 | | 193 | | 49 | | 485 | | |
| 05:45 | 38 | 138 | 268 | 1119 | 20 | 53 | 200 | 791 | 58 | 191 | 468 | 1910 | |
| 06:00 | 56 | | 264 | | 25 | | 184 | | 81 | | 448 | | |
| 06:15 | 72 | | 271 | | 27 | | 186 | | 99 | | 457 | | |
| 06:30 | 71 | | 236 | | 52 | | 179 | | 123 | | 415 | | |
| 06:45 | 100 | 299 | 203 | 974 | 79 | 183 | 164 | 713 | 179 | 482 | 367 | 1687 | |
| 07:00 | 93 | | 184 | | 93 | | 145 | | 186 | | 329 | | |
| 07:15 | 127 | | 216 | | 89 | | 150 | | 216 | | 366 | | |
| 07:30 | 112 | | 143 | | 92 | | 153 | | 204 | | 296 | | |
| 07:45 | 141 | 473 | 172 | 715 | 118 | 392 | 124 | 572 | 259 | 865 | 296 | 1287 | |
| 08:00 | 171 | | 174 | | 116 | | 131 | | 287 | | 305 | | |
| 08:15 | 199 | | 151 | | 126 | | 112 | | 325 | | 263 | | |
| 08:30 | 221 | | 155 | | 156 | | 108 | | 377 | | 263 | | |
| 08:45 | 196 | 787 | 165 | 645 | 179 | 577 | 98 | 449 | 375 | 1364 | 263 | 1094 | |
| 09:00 | 238 | | 166 | | 161 | | 81 | | 399 | | 247 | | |
| 09:15 | 244 | | 134 | | 172 | | 75 | | 416 | | 209 | | |
| 09:30 | 264 | | 100 | | 174 | | 32 | | 438 | | 132 | | |
| 09:45 | 249 | 995 | 107 | 507 | 237 | 744 | 110 | 298 | 486 | 1739 | 217 | 805 | |
| 10:00 | 265 | | 68 | | 227 | | 65 | | 492 | | 133 | | |
| 10:15 | 275 | | 74 | | 249 | | 75 | | 524 | | 149 | | |
| 10:30 | 306 | | 67 | | 241 | | 70 | | 547 | | 137 | | |
| 10:45 | 305 | 1151 | 50 | 259 | 235 | 952 | 67 | 277 | 540 | 2103 | 117 | 536 | |
| 11:00 | 299 | | 76 | | 270 | | 47 | | 569 | | 123 | | |
| 11:15 | 304 | | 67 | | 268 | | 60 | | 572 | | 127 | | |
| 11:30 | 322 | | 67 | | 227 | | 42 | | 549 | | 109 | | |
| 11:45 | 334 | 1259 | 47 | 257 | 221 | 986 | 51 | 200 | 555 | 2245 | 98 | 457 | |
| Total | 5411 | | 10697 | | 4200 | | 8478 | | 9611 | | 19175 | | |
| Percent | 56.3% | | 55.8% | | 43.7% | | 44.2% | | | | | | |
| Day Total | | 16108 | | | | 12678 | | | | 28786 | | | |
| Peak | 11:00 | - | 01:30 | - | 10:30 | - | 12:00 | - | 11:00 | - | 01:00 | - | - | - |
| Vol. | 1259 | - | 1443 | - | 1014 | - | 1179 | - | 2245 | - | 2561 | - | - | - |
| P.H.F. | 0.942 | | 0.965 | | 0.939 | | 0.973 | | 0.981 | | 0.983 | | | |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
EB

165077 B Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/18/1 | | | | | | | | | | | | | | |
| 6 | 0 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 01:00 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 02:00 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 03:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:00 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 05:00 | 0 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 06:00 | 2 | 62 | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 |
| 07:00 | 4 | 114 | 27 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 149 |
| 08:00 | 0 | 198 | 35 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 237 |
| 09:00 | 0 | 132 | 30 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 164 |
| 10:00 | 0 | 158 | 41 | 2 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 206 |
| 11:00 | 3 | 178 | 29 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 218 |
| 12 PM | 1 | 190 | 45 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 240 |
| 13:00 | 1 | 246 | 36 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 289 |
| 14:00 | 2 | 206 | 47 | 0 | 7 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 265 |
| 15:00 | 3 | 271 | 46 | 0 | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 329 |
| 16:00 | 3 | 314 | 70 | 0 | 5 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 395 |
| 17:00 | 8 | 366 | 78 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 458 |
| 18:00 | 6 | 328 | 56 | 0 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 396 |
| 19:00 | 4 | 249 | 39 | 0 | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 300 |
| 20:00 | 0 | 144 | 28 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 175 |
| 21:00 | 1 | 71 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86 |
| 22:00 | 0 | 49 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 |
| 23:00 | 0 | 24 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| Percent | 0.9% | 81.2% | 15.7% | 0.1% | 1.5% | 0.2% | 0.0% | 0.2% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 07:00 | 08:00 | 10:00 | 10:00 | 11:00 | 06:00 | 10:00 | 08:00 | | | | | | 08:00 |
| Vol. | 4 | 198 | 41 | 2 | 8 | 1 | 1 | 2 | | | | | | 237 |
| PM Peak | 17:00 | 17:00 | 17:00 | 13:00 | 15:00 | 14:00 | | 14:00 | 16:00 | | | | | 17:00 |
| Vol. | 8 | 366 | 78 | 1 | 8 | 2 | | 1 | 1 | | | | | 458 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
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Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
EB

165077 B Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/19/1 | | | | | | | | | | | | | | |
| 6 | 0 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 01:00 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 02:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 03:00 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 04:00 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 05:00 | 0 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 06:00 | 0 | 58 | 12 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 |
| 07:00 | 1 | 119 | 26 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 150 |
| 08:00 | 0 | 172 | 26 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 202 |
| 09:00 | 1 | 136 | 20 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 161 |
| 10:00 | 1 | 137 | 43 | 1 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 186 |
| 11:00 | 2 | 189 | 23 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 217 |
| 12 PM | 3 | 197 | 38 | 1 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 246 |
| 13:00 | 3 | 234 | 50 | 1 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 293 |
| 14:00 | 2 | 218 | 56 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 281 |
| 15:00 | 1 | 273 | 44 | 0 | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 326 |
| 16:00 | 1 | 256 | 57 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 321 |
| 17:00 | 6 | 372 | 77 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 459 |
| 18:00 | 7 | 337 | 50 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 398 |
| 19:00 | 4 | 224 | 37 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 267 |
| 20:00 | 2 | 155 | 29 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 189 |
| 21:00 | 0 | 101 | 14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 116 |
| 22:00 | 0 | 49 | 5 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 56 |
| 23:00 | 0 | 34 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| Percent | 0.8% | 81.9% | 15.4% | 0.2% | 1.1% | 0.1% | 0.0% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 11:00 | 10:00 | 11:00 | 09:00 | 06:00 | | 08:00 | | | | | | 11:00 |
| Vol. | 2 | 189 | 43 | 2 | 4 | 1 | | 3 | | | | | | 217 |
| PM Peak | 18:00 | 17:00 | 17:00 | 12:00 | 12:00 | 15:00 | 15:00 | 13:00 | 12:00 | | | | | 17:00 |
| Vol. | 7 | 372 | 77 | 1 | 6 | 2 | 1 | 2 | 1 | | | | | 459 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
EB

165077 B Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/20/1 | | | | | | | | | | | | | | |
| 6 | 0 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 01:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:00 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:00 | 0 | 19 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 06:00 | 0 | 60 | 11 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 74 |
| 07:00 | 3 | 110 | 26 | 2 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 146 |
| 08:00 | 3 | 175 | 31 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 211 |
| 09:00 | 3 | 149 | 24 | 1 | 3 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 183 |
| 10:00 | 1 | 155 | 41 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 206 |
| 11:00 | 2 | 243 | 38 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 288 |
| 12 PM | 3 | 224 | 46 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 278 |
| 13:00 | 5 | 244 | 52 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 306 |
| 14:00 | 6 | 248 | 50 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 308 |
| 15:00 | 4 | 331 | 67 | 1 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 408 |
| 16:00 | 6 | 350 | 62 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 426 |
| 17:00 | 7 | 375 | 54 | 0 | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 445 |
| 18:00 | 4 | 321 | 47 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 375 |
| 19:00 | 3 | 196 | 33 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 237 |
| 20:00 | 0 | 141 | 28 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 170 |
| 21:00 | 2 | 108 | 19 | 0 | 4 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 135 |
| 22:00 | 1 | 74 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |
| 23:00 | 0 | 36 | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| Percent | 1.2% | 82.0% | 14.8% | 0.2% | 1.4% | 0.2% | 0.0% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 07:00 | 11:00 | 10:00 | 07:00 | 10:00 | 10:00 | | 09:00 | | | | | | 11:00 |
| Vol. | 3 | 243 | 41 | 2 | 7 | 2 | | 2 | | | | | | 288 |
| PM Peak | 17:00 | 17:00 | 15:00 | 12:00 | 16:00 | 13:00 | | 12:00 | | | | | | 17:00 |
| Vol. | 7 | 375 | 67 | 1 | 7 | 1 | | 1 | | | | | | 445 |

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Client: VHB / E. Chan
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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/21/1 | | | | | | | | | | | | | | |
| 6 | 0 | 21 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| 01:00 | 1 | 16 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 02:00 | 0 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 03:00 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 04:00 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 05:00 | 0 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 06:00 | 0 | 22 | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 07:00 | 1 | 58 | 16 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| 08:00 | 2 | 119 | 31 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 157 |
| 09:00 | 1 | 170 | 39 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 213 |
| 10:00 | 5 | 243 | 43 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 299 |
| 11:00 | 2 | 284 | 43 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 332 |
| 12 PM | 5 | 264 | 51 | 1 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 327 |
| 13:00 | 4 | 285 | 38 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 329 |
| 14:00 | 5 | 269 | 48 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 324 |
| 15:00 | 3 | 268 | 41 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 314 |
| 16:00 | 4 | 242 | 39 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 286 |
| 17:00 | 5 | 266 | 46 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 320 |
| 18:00 | 2 | 154 | 37 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 195 |
| 19:00 | 0 | 115 | 33 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 149 |
| 20:00 | 1 | 122 | 17 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 145 |
| 21:00 | 0 | 79 | 12 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92 |
| 22:00 | 0 | 48 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 |
| 23:00 | 0 | 34 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 |
| Percent | 1.1% | 82.7% | 14.9% | 0.2% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 10:00 | 11:00 | 10:00 | 08:00 | 10:00 | 11:00 | | | 09:00 | | | | | 11:00 |
| Vol. | 5 | 284 | 43 | 2 | 7 | 1 | | | 1 | | | | | 332 |
| PM Peak | 12:00 | 13:00 | 12:00 | 20:00 | 12:00 | | | 12:00 | | | | | | 13:00 |
| Vol. | 5 | 285 | 51 | 2 | 5 | | | 1 | | | | | | 329 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/18/1 | | | | | | | | | | | | | | |
| 6 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 03:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:00 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 05:00 | 1 | 22 | 8 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 34 |
| 06:00 | 1 | 57 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 69 |
| 07:00 | 5 | 94 | 13 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 114 |
| 08:00 | 0 | 123 | 18 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 143 |
| 09:00 | 0 | 85 | 19 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 105 |
| 10:00 | 0 | 92 | 9 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 104 |
| 11:00 | 1 | 94 | 20 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 |
| 12 PM | 2 | 84 | 16 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 |
| 13:00 | 2 | 93 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 114 |
| 14:00 | 2 | 86 | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99 |
| 15:00 | 3 | 111 | 15 | 0 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 136 |
| 16:00 | 2 | 119 | 26 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 149 |
| 17:00 | 6 | 144 | 28 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 180 |
| 18:00 | 3 | 115 | 18 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 138 |
| 19:00 | 4 | 76 | 12 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 |
| 20:00 | 0 | 43 | 11 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 56 |
| 21:00 | 0 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 22:00 | 0 | 24 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 23:00 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| Percent | 1.8% | 81.7% | 14.4% | 0.2% | 1.6% | 0.2% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 07:00 | 08:00 | 11:00 | 07:00 | 11:00 | 09:00 | | 05:00 | | | | | | 08:00 |
| Vol. | 5 | 123 | 20 | 1 | 6 | 1 | | 1 | | | | | | 143 |
| PM Peak | 17:00 | 17:00 | 17:00 | 12:00 | 15:00 | 17:00 | | 15:00 | | | | | | 17:00 |
| Vol. | 6 | 144 | 28 | 1 | 6 | 2 | | 1 | | | | | | 180 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/19/1 | | | | | | | | | | | | | | |
| 6 | 1 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 01:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:00 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 05:00 | 1 | 23 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| 06:00 | 0 | 61 | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| 07:00 | 0 | 90 | 22 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 113 |
| 08:00 | 0 | 103 | 21 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 |
| 09:00 | 1 | 95 | 12 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 |
| 10:00 | 0 | 74 | 11 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 |
| 11:00 | 0 | 94 | 22 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117 |
| 12 PM | 0 | 113 | 16 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 135 |
| 13:00 | 0 | 103 | 19 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 123 |
| 14:00 | 0 | 90 | 22 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 116 |
| 15:00 | 1 | 105 | 17 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 128 |
| 16:00 | 1 | 98 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 114 |
| 17:00 | 8 | 153 | 21 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 183 |
| 18:00 | 2 | 98 | 14 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 116 |
| 19:00 | 0 | 85 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 |
| 20:00 | 1 | 51 | 9 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 63 |
| 21:00 | 1 | 35 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 22:00 | 0 | 23 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 23:00 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Percent | 0.9% | 82.7% | 14.5% | 0.1% | 1.6% | 0.2% | 0.0% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 00:00 | 08:00 | 07:00 | 10:00 | 09:00 | 00:00 | | | | | | | | 08:00 |
| Vol. | 1 | 103 | 22 | 1 | 3 | 1 | | | | | | | | 125 |
| PM Peak | 17:00 | 17:00 | 14:00 | | 12:00 | 14:00 | | 20:00 | 12:00 | | | | | 17:00 |
| Vol. | 8 | 153 | 22 | | 5 | 1 | | 1 | 1 | | | | | 183 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/20/1 | | | | | | | | | | | | | | |
| 6 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 02:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 03:00 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 04:00 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 05:00 | 2 | 18 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 06:00 | 0 | 44 | 6 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 |
| 07:00 | 1 | 88 | 17 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 107 |
| 08:00 | 0 | 100 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 115 |
| 09:00 | 2 | 90 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 113 |
| 10:00 | 1 | 98 | 14 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 116 |
| 11:00 | 1 | 107 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121 |
| 12 PM | 4 | 113 | 23 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 145 |
| 13:00 | 2 | 113 | 15 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 131 |
| 14:00 | 4 | 80 | 18 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 104 |
| 15:00 | 3 | 110 | 17 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 131 |
| 16:00 | 3 | 109 | 22 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 138 |
| 17:00 | 3 | 131 | 20 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 155 |
| 18:00 | 1 | 97 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 |
| 19:00 | 0 | 80 | 21 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 103 |
| 20:00 | 1 | 53 | 14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 69 |
| 21:00 | 0 | 36 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 |
| 22:00 | 1 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 23:00 | 0 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| Percent | 1.6% | 81.9% | 15.1% | 0.1% | 1.2% | 0.1% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 05:00 | 11:00 | 09:00 | 10:00 | 06:00 | | | 07:00 | | | | | | 11:00 |
| Vol. | 2 | 107 | 21 | 1 | 3 | | | 1 | | | | | | 121 |
| PM Peak | 12:00 | 17:00 | 18:00 | 12:00 | 12:00 | 17:00 | | | | | | | | 17:00 |
| Vol. | 4 | 131 | 24 | 1 | 4 | 1 | | | | | | | | 155 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/21/1 | | | | | | | | | | | | | | |
| 6 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 01:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 05:00 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 06:00 | 0 | 20 | 8 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 32 |
| 07:00 | 1 | 49 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| 08:00 | 0 | 78 | 12 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 |
| 09:00 | 1 | 100 | 19 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 |
| 10:00 | 1 | 109 | 25 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 139 |
| 11:00 | 1 | 130 | 25 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 162 |
| 12 PM | 1 | 128 | 13 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 144 |
| 13:00 | 5 | 144 | 25 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 177 |
| 14:00 | 2 | 127 | 19 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| 15:00 | 4 | 147 | 21 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 175 |
| 16:00 | 4 | 139 | 28 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 172 |
| 17:00 | 2 | 129 | 22 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 159 |
| 18:00 | 0 | 91 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 107 |
| 19:00 | 0 | 52 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63 |
| 20:00 | 1 | 53 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
| 21:00 | 0 | 21 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| 22:00 | 0 | 22 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 23:00 | 0 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| Percent | 1.2% | 82.2% | 14.5% | 0.3% | 1.6% | 0.3% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 07:00 | 11:00 | 10:00 | 10:00 | 11:00 | 09:00 | | 06:00 | | | | | | 11:00 |
| Vol. | 1 | 130 | 25 | 2 | 5 | 1 | | 1 | | | | | | 162 |
| PM Peak | 13:00 | 15:00 | 16:00 | 12:00 | 17:00 | 17:00 | | | | | | | | 13:00 |
| Vol. | 5 | 147 | 28 | 1 | 4 | 2 | | | | | | | | 177 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
EB

165077 B Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/18/ 16 | 0 | 0 | 0 | 0 | 7 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 38 | 35 |
| 01:00 | 0 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 38 | 33 |
| 02:00 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 28 | 27 |
| 03:00 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 33 | 32 |
| 04:00 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 42 | 37 |
| 05:00 | 0 | 0 | 0 | 2 | 6 | 6 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 17 | 40 | 35 |
| 06:00 | 0 | 1 | 1 | 6 | 32 | 26 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 75 | 38 | 34 |
| 07:00 | **4** | 2 | 4 | 20 | 61 | 47 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 149 | 37 | 33 |
| 08:00 | 0 | 2 | 14 | 54 | **96** | **56** | **11** | **4** | 0 | 0 | 0 | 0 | 0 | **237** | 37 | 32 |
| 09:00 | 0 | 2 | 8 | 37 | 62 | 42 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 164 | 37 | 32 |
| 10:00 | 0 | 4 | **34** | **69** | 76 | 22 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 206 | 33 | 29 |
| 11:00 | 1 | **6** | 26 | 63 | 96 | 24 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 218 | 33 | 29 |
| 12 PM | 2 | 12 | 36 | 78 | 79 | 25 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 240 | 33 | 29 |
| 13:00 | 2 | 8 | 41 | 85 | 101 | 46 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 289 | 34 | 30 |
| 14:00 | 1 | 7 | 29 | 79 | 93 | 46 | **9** | 0 | 0 | 0 | 0 | **1** | 0 | 265 | 35 | 30 |
| 15:00 | 12 | 15 | 52 | 91 | 112 | 38 | 7 | 1 | **1** | 0 | 0 | 0 | 0 | 329 | 33 | 28 |
| 16:00 | 10 | 17 | 70 | **133** | **114** | **47** | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 395 | 33 | 28 |
| 17:00 | **56** | **80** | 130 | 126 | 53 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **458** | 28 | 22 |
| 18:00 | 21 | 67 | **131** | 99 | 63 | 13 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 396 | 30 | 24 |
| 19:00 | 24 | 34 | 70 | 88 | 65 | 17 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 300 | 31 | 25 |
| 20:00 | 2 | 5 | 14 | 53 | 73 | 21 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 175 | 34 | 30 |
| 21:00 | 0 | 1 | 5 | 15 | 39 | 19 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 86 | 37 | 32 |
| 22:00 | 0 | 0 | 0 | 12 | 22 | 14 | 4 | 0 | 0 | 0 | **1** | 0 | 0 | 53 | 37 | 34 |
| 23:00 | 1 | 0 | 0 | 0 | 10 | 15 | 1 | **2** | 0 | 0 | 0 | 0 | 0 | 29 | 38 | 35 |
| Total | 136 | 263 | 665 | 1116 | 1264 | 547 | 106 | 15 | 1 | 0 | 1 | 1 | 0 | 4115 | | |
| % | 3.3% | 6.4% | 16.2% | 27.1% | 30.7% | 13.3% | 2.6% | 0.4% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 07:00 | 11:00 | 10:00 | 10:00 | 08:00 | 08:00 | 08:00 | 08:00 | | | | | | 08:00 | | |
| Vol. | 4 | 6 | 34 | 69 | 96 | 56 | 11 | 4 | | | | | | 237 | | |
| PM Peak | 17:00 | 17:00 | 18:00 | 16:00 | 16:00 | 16:00 | 14:00 | 23:00 | 15:00 | | 22:00 | 14:00 | | 17:00 | | |
| Vol. | 56 | 80 | 131 | 133 | 114 | 47 | 9 | 2 | 1 | | 1 | 1 | | 458 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 20 MPH |
| 50th Percentile : | 28 MPH |
| 85th Percentile : | 34 MPH |
| 95th Percentile : | 38 MPH |
| Mean Speed(Average) : | 28 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 2380 |
| Percent in Pace : | 57.8% |
| Number of Vehicles > 30 MPH : | 1682 |
| Percent of Vehicles > 30 MPH : | 40.9% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
EB

165077 B Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/19/ 16 | 0 | 0 | 0 | 3 | 5 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 12 | 37 | 33 |
| 01:00 | 0 | 0 | 0 | 0 | 4 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 38 | 36 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 42 | 40 |
| 03:00 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 37 | 35 |
| 04:00 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 36 | 34 |
| 05:00 | 0 | 0 | 0 | 2 | 4 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 38 | 35 |
| 06:00 | 0 | 1 | 2 | 5 | 28 | 28 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 72 | 38 | 34 |
| 07:00 | **4** | 2 | 7 | 24 | 55 | 40 | **14** | 3 | **1** | 0 | 0 | 0 | 0 | 150 | 38 | 33 |
| 08:00 | 0 | 0 | **16** | 37 | 78 | **53** | 14 | **4** | 0 | 0 | 0 | 0 | 0 | 202 | 37 | 33 |
| 09:00 | 0 | 0 | 11 | 39 | 64 | 41 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 161 | 36 | 32 |
| 10:00 | 1 | 0 | 15 | 46 | 85 | 37 | 1 | 0 | 0 | 0 | 0 | 0 | **1** | 186 | 35 | 31 |
| 11:00 | 1 | **3** | 15 | **71** | **88** | 33 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | **217** | 34 | 30 |
| 12 PM | 2 | 4 | 26 | 79 | 102 | 26 | 6 | 0 | 0 | **1** | 0 | 0 | 0 | 246 | 33 | 30 |
| 13:00 | 5 | 12 | 24 | 77 | **130** | 42 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 293 | 34 | 30 |
| 14:00 | 2 | 2 | 24 | 72 | 118 | 56 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 281 | 35 | 31 |
| 15:00 | 4 | 18 | 41 | 90 | 102 | **59** | **11** | 1 | 0 | 0 | 0 | 0 | 0 | 326 | 35 | 30 |
| 16:00 | 6 | 12 | 43 | 113 | 110 | 31 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 321 | 33 | 29 |
| 17:00 | **56** | **74** | **128** | **122** | 63 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **459** | 29 | 23 |
| 18:00 | 24 | 43 | 98 | 120 | 92 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 398 | 31 | 25 |
| 19:00 | 10 | 15 | 53 | 95 | 72 | 20 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 267 | 32 | 27 |
| 20:00 | 7 | 10 | 31 | 56 | 62 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 189 | 33 | 28 |
| 21:00 | 0 | 0 | 6 | 22 | 53 | 30 | 3 | **2** | 0 | 0 | 0 | 0 | 0 | 116 | 36 | 32 |
| 22:00 | 0 | 1 | 1 | 10 | 23 | 13 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 56 | 38 | 33 |
| 23:00 | 0 | 0 | 1 | 7 | 13 | 16 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 38 | 34 |
| Total | 122 | 197 | 542 | 1090 | 1354 | 603 | 98 | 17 | 1 | 1 | 0 | 0 | 1 | 4026 | | |
| % | 3.0% | 4.9% | 13.5% | 27.1% | 33.6% | 15.0% | 2.4% | 0.4% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 07:00 | 11:00 | 08:00 | 11:00 | 11:00 | 08:00 | 07:00 | 08:00 | 07:00 | | | | 10:00 | 11:00 | | |
| Vol. | 4 | 3 | 16 | 71 | 88 | 53 | 14 | 4 | 1 | | | | 1 | 217 | | |
| PM Peak | 17:00 | 17:00 | 17:00 | 17:00 | 13:00 | 15:00 | 15:00 | 21:00 | | 12:00 | | | | 17:00 | | |
| Vol. | 56 | 74 | 128 | 122 | 130 | 59 | 11 | 2 | | 1 | | | | 459 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 21 MPH |
| 50th Percentile : | 29 MPH |
| 85th Percentile : | 34 MPH |
| 95th Percentile : | 38 MPH |
| Mean Speed(Average) : | 29 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 2444 |
| Percent in Pace : | 60.7% |
| Number of Vehicles > 30 MPH : | 1804 |
| Percent of Vehicles > 30 MPH : | 44.8% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
EB

165077 B Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/20/16 | 0 | 0 | 0 | 0 | 2 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 42 | 38 |
| 01:00 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 37 | 32 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 41 | 38 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 04:00 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 28 | 27 |
| 05:00 | 0 | 0 | 0 | 2 | 9 | 4 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 20 | 41 | 35 |
| 06:00 | 0 | 0 | 0 | 8 | 23 | 31 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 74 | 39 | 35 |
| 07:00 | 0 | 1 | 2 | 18 | 66 | 42 | 14 | **2** | **1** | 0 | 0 | 0 | 0 | 146 | 38 | 34 |
| 08:00 | **3** | 2 | 12 | 50 | 80 | 46 | **17** | 1 | 0 | 0 | 0 | 0 | 0 | 211 | 37 | 32 |
| 09:00 | 1 | 1 | 11 | 45 | 64 | **54** | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 183 | 37 | 32 |
| 10:00 | 0 | 0 | 15 | 70 | 82 | 34 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 206 | 35 | 31 |
| 11:00 | 3 | **10** | **51** | **72** | **105** | 44 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | **288** | 34 | 29 |
| 12 PM | 3 | 6 | 39 | 93 | 107 | 28 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 278 | 33 | 29 |
| 13:00 | 2 | 13 | 37 | 80 | 108 | **56** | **9** | 1 | 0 | 0 | 0 | 0 | 0 | 306 | 35 | 30 |
| 14:00 | 9 | 10 | 38 | 87 | 106 | 51 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 308 | 35 | 29 |
| 15:00 | 7 | 15 | 78 | 124 | **127** | 48 | 7 | 1 | 0 | 0 | **1** | 0 | 0 | 408 | 33 | 28 |
| 16:00 | 14 | 22 | 94 | **137** | 116 | 34 | 6 | **2** | 0 | 0 | 0 | 0 | **1** | 426 | 33 | 27 |
| 17:00 | **23** | **40** | **102** | 131 | 117 | 30 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | **445** | 32 | 26 |
| 18:00 | 3 | 19 | 74 | 135 | 116 | 26 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 375 | 32 | 28 |
| 19:00 | 17 | 16 | 39 | 80 | 69 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 237 | 32 | 26 |
| 20:00 | 5 | 6 | 52 | 70 | 31 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 170 | 30 | 26 |
| 21:00 | 3 | 25 | 33 | 50 | 21 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 135 | 29 | 25 |
| 22:00 | 4 | 1 | 3 | 26 | 32 | 15 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 84 | 35 | 30 |
| 23:00 | 0 | 0 | 1 | 9 | 21 | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 36 | 32 |
| Total | 97 | 187 | 681 | 1289 | 1402 | 580 | 108 | 13 | 1 | 0 | 1 | 0 | 1 | 4360 | | |
| % | 2.2% | 4.3% | 15.6% | 29.6% | 32.2% | 13.3% | 2.5% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 08:00 | 11:00 | 11:00 | 11:00 | 11:00 | 09:00 | 08:00 | 07:00 | 07:00 | | | | | 11:00 | | |
| Vol. | 3 | 10 | 51 | 72 | 105 | 54 | 17 | 2 | 1 | | | | | 288 | | |
| PM Peak | 17:00 | 17:00 | 17:00 | 16:00 | 15:00 | 13:00 | 13:00 | 16:00 | | | 15:00 | | 16:00 | 17:00 | | |
| Vol. | 23 | 40 | 102 | 137 | 127 | 56 | 9 | 2 | | | 1 | | 1 | 445 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 21 MPH |
| 50th Percentile : | 28 MPH |
| 85th Percentile : | 34 MPH |
| 95th Percentile : | 38 MPH |
| Mean Speed(Average) : | 29 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 2691 |
| Percent in Pace : | 61.7% |
| Number of Vehicles > 30 MPH : | 1826 |
| Percent of Vehicles > 30 MPH : | 41.9% |

PRECISION DATA INDUSTRIES, LLC
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Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
EB

165077 B Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/21/ 16 | 0 | 0 | 0 | 4 | 8 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 37 | 34 |
| 01:00 | 0 | 0 | 1 | 1 | 2 | 12 | 2 | 0 | **1** | 0 | 0 | 0 | 0 | 19 | 39 | 36 |
| 02:00 | 0 | 0 | 0 | 1 | 1 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 38 | 36 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 41 | 39 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 41 | 39 |
| 05:00 | 0 | 0 | 1 | 0 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 40 | 35 |
| 06:00 | 0 | 0 | 0 | 2 | 8 | 16 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 29 | 38 | 36 |
| 07:00 | 0 | 1 | 1 | 14 | 29 | 27 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 78 | 37 | 33 |
| 08:00 | 2 | 0 | 5 | 24 | 62 | **53** | **8** | **3** | 0 | 0 | 0 | 0 | 0 | 157 | 37 | 33 |
| 09:00 | 3 | 1 | 22 | 73 | 75 | 37 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 213 | 34 | 30 |
| 10:00 | **8** | **13** | 32 | 104 | 101 | 39 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 299 | 33 | 29 |
| 11:00 | 4 | 7 | **59** | **110** | **118** | 30 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | **332** | 33 | 29 |
| 12 PM | 4 | 6 | 55 | 92 | 112 | 53 | 4 | **1** | 0 | 0 | 0 | 0 | 0 | 327 | 34 | 29 |
| 13:00 | 5 | 8 | 34 | 112 | 106 | **59** | 4 | 1 | 0 | 0 | 0 | 0 | 0 | **329** | 35 | 30 |
| 14:00 | 3 | 8 | 40 | 102 | **116** | 46 | **9** | 0 | 0 | 0 | 0 | 0 | 0 | 324 | 34 | 30 |
| 15:00 | 8 | 16 | 54 | **118** | 72 | 42 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 314 | 33 | 28 |
| 16:00 | 18 | 44 | **102** | 75 | 37 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 286 | 29 | 23 |
| 17:00 | **58** | **54** | 79 | 85 | 41 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 320 | 28 | 21 |
| 18:00 | 12 | 23 | 59 | 59 | 35 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 195 | 30 | 24 |
| 19:00 | 3 | 14 | 55 | 42 | 27 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 149 | 31 | 25 |
| 20:00 | 20 | 10 | 30 | 42 | 36 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 145 | 31 | 24 |
| 21:00 | 0 | 0 | 8 | 24 | 39 | 20 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 92 | 35 | 31 |
| 22:00 | 0 | 0 | 1 | 6 | 24 | 18 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 37 | 34 |
| 23:00 | 0 | 0 | 1 | 5 | 19 | 13 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 39 | 37 | 33 |
| Total | 148 | 205 | 639 | 1095 | 1071 | 520 | 59 | 8 | 1 | 0 | 0 | 0 | 0 | 3746 | | |
| % | 4.0% | 5.5% | 17.1% | 29.2% | 28.6% | 13.9% | 1.6% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 10:00 | 10:00 | 11:00 | 11:00 | 11:00 | 08:00 | 08:00 | 08:00 | 01:00 | | | | | 11:00 | | |
| Vol. | 8 | 13 | 59 | 110 | 118 | 53 | 8 | 3 | 1 | | | | | 332 | | |
| PM Peak | 17:00 | 17:00 | 16:00 | 15:00 | 14:00 | 13:00 | 14:00 | 12:00 | | | | | | 13:00 | | |
| Vol. | 58 | 54 | 102 | 118 | 116 | 59 | 9 | 1 | | | | | | 329 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 20 MPH |
| 50th Percentile : | 28 MPH |
| 85th Percentile : | 34 MPH |
| 95th Percentile : | 37 MPH |
| Mean Speed(Average) : | 28 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 2166 |
| Percent in Pace : | 57.8% |
| Number of Vehicles > 30 MPH : | 1445 |
| Percent of Vehicles > 30 MPH : | 38.6% |

PRECISION DATA INDUSTRIES, LLC
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Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
WB

165077 B Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/18/ 16 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 33 | 32 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 42 | 40 |
| 02:00 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 33 | 32 |
| 03:00 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 33 | 32 |
| 04:00 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 42 | 39 |
| 05:00 | 0 | 0 | 0 | 0 | 14 | 15 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 34 | 38 | 36 |
| 06:00 | 0 | 0 | 0 | 4 | 18 | 29 | 15 | **3** | 0 | 0 | 0 | 0 | 0 | 69 | 41 | 37 |
| 07:00 | **2** | 0 | 0 | 4 | 37 | **54** | **16** | 1 | 0 | 0 | 0 | 0 | 0 | 114 | 38 | 35 |
| 08:00 | 0 | 0 | **4** | 18 | **65** | 46 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | **143** | 37 | 33 |
| 09:00 | 0 | 0 | 2 | 11 | 48 | 36 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 105 | 37 | 34 |
| 10:00 | 0 | **1** | 3 | 24 | 54 | 20 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 104 | 35 | 32 |
| 11:00 | 1 | 0 | 3 | **26** | 61 | 24 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 122 | 36 | 32 |
| 12 PM | 0 | 0 | 1 | 25 | 43 | 35 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 106 | 37 | 33 |
| 13:00 | 0 | 1 | 1 | 30 | 60 | 19 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 114 | 35 | 32 |
| 14:00 | 2 | 0 | 1 | 23 | 50 | 20 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 36 | 32 |
| 15:00 | 3 | 0 | 1 | 30 | 65 | 35 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 136 | 36 | 32 |
| 16:00 | 1 | 2 | 8 | 22 | **73** | **38** | **5** | 0 | 0 | 0 | 0 | 0 | 0 | 149 | 36 | 32 |
| 17:00 | **13** | **19** | **48** | **64** | 28 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **180** | 30 | 24 |
| 18:00 | 5 | 8 | 40 | 43 | 36 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 138 | 31 | 26 |
| 19:00 | 6 | 13 | 18 | 29 | 24 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 | 31 | 25 |
| 20:00 | 0 | 1 | 6 | 13 | 27 | 6 | 1 | **2** | 0 | 0 | 0 | 0 | 0 | 56 | 34 | 31 |
| 21:00 | 0 | 0 | 1 | 2 | 10 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 36 | 32 |
| 22:00 | 0 | 0 | 0 | 4 | 15 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 37 | 33 |
| 23:00 | 0 | 0 | 0 | 0 | 6 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 38 | 34 |
| Total | 33 | 45 | 137 | 372 | 739 | 407 | 82 | 11 | 0 | 0 | 0 | 0 | 0 | 1826 | | |
| % | 1.8% | 2.5% | 7.5% | 20.4% | 40.5% | 22.3% | 4.5% | 0.6% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 07:00 | 10:00 | 08:00 | 11:00 | 08:00 | 07:00 | 07:00 | 06:00 | | | | | | 08:00 | | |
| Vol. | 2 | 1 | 4 | 26 | 65 | 54 | 16 | 3 | | | | | | 143 | | |
| PM Peak | 17:00 | 17:00 | 17:00 | 17:00 | 16:00 | 16:00 | 16:00 | 20:00 | | | | | | 17:00 | | |
| Vol. | 13 | 19 | 48 | 64 | 73 | 38 | 5 | 2 | | | | | | 180 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 24 MPH |
| 50th Percentile : | 31 MPH |
| 85th Percentile : | 36 MPH |
| 95th Percentile : | 39 MPH |
| Mean Speed(Average) : | 31 MPH |
| 10 MPH Pace Speed : | 30-39 MPH |
| Number in Pace : | 1146 |
| Percent in Pace : | 62.8% |
| Number of Vehicles > 30 MPH : | 1091 |
| Percent of Vehicles > 30 MPH : | 59.8% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
WB

165077 B Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/19/ 16 | 0 | **2** | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 44 | 30 |
| 01:00 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 33 | 32 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 03:00 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 28 | 27 |
| 04:00 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 42 | 34 |
| 05:00 | 0 | 0 | 0 | 0 | 10 | 18 | 4 | **2** | 0 | 0 | 0 | 0 | 0 | 34 | 40 | 37 |
| 06:00 | 0 | 0 | 0 | 2 | 20 | 35 | 13 | 1 | 0 | 0 | 0 | 0 | 0 | 71 | 40 | 36 |
| 07:00 | 0 | 0 | 0 | 5 | 39 | **54** | **14** | 1 | 0 | 0 | 0 | 0 | 0 | 113 | 38 | 36 |
| 08:00 | 0 | 0 | **5** | 18 | 56 | 43 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | **125** | 37 | 33 |
| 09:00 | 0 | 0 | 0 | 15 | 53 | 37 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 111 | 37 | 34 |
| 10:00 | 0 | 0 | 3 | 20 | 44 | 17 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 36 | 32 |
| 11:00 | 0 | 0 | 1 | **22** | **66** | 25 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 117 | 36 | 32 |
| 12 PM | 0 | 0 | 7 | 29 | **72** | 23 | 3 | 0 | 0 | 0 | 0 | 0 | **1** | 135 | 35 | 31 |
| 13:00 | 0 | 0 | 5 | 24 | 56 | **34** | **4** | 0 | 0 | 0 | 0 | 0 | 0 | 123 | 36 | 32 |
| 14:00 | 0 | 0 | 1 | 19 | 64 | 31 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 116 | 36 | 33 |
| 15:00 | 2 | 1 | 1 | 21 | 67 | 32 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 128 | 36 | 32 |
| 16:00 | 1 | **5** | 5 | 20 | 54 | 26 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 114 | 36 | 31 |
| 17:00 | **13** | 5 | **31** | **66** | 57 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **183** | 32 | 27 |
| 18:00 | 1 | 4 | 13 | 47 | 38 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 116 | 33 | 29 |
| 19:00 | 2 | 1 | 12 | 34 | 42 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 33 | 29 |
| 20:00 | 1 | 0 | 4 | 11 | 36 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 34 | 31 |
| 21:00 | 1 | 0 | 3 | 5 | 19 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 36 | 31 |
| 22:00 | 0 | 0 | 1 | 8 | 13 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 36 | 32 |
| 23:00 | 0 | 0 | 0 | 0 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 38 | 36 |
| Total | 21 | 18 | 93 | 367 | 815 | 432 | 72 | 6 | 0 | 0 | 0 | 0 | 1 | 1825 | | |
| % | 1.2% | 1.0% | 5.1% | 20.1% | 44.7% | 23.7% | 3.9% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | | | |
| AM Peak | | 00:00 | 08:00 | 11:00 | 11:00 | 07:00 | 07:00 | 05:00 | | | | | | 08:00 | | |
| Vol. | | 2 | 5 | 22 | 66 | 54 | 14 | 2 | | | | | | 125 | | |
| PM Peak | 17:00 | 16:00 | 17:00 | 17:00 | 12:00 | 13:00 | 13:00 | | | | | | 12:00 | 17:00 | | |
| Vol. | 13 | 5 | 31 | 66 | 72 | 34 | 4 | | | | | | 1 | 183 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 25 MPH |
| 50th Percentile : | 31 MPH |
| 85th Percentile : | 36 MPH |
| 95th Percentile : | 38 MPH |
| Mean Speed(Average) : | 32 MPH |
| 10 MPH Pace Speed : | 30-39 MPH |
| Number in Pace : | 1247 |
| Percent in Pace : | 68.3% |
| Number of Vehicles > 30 MPH : | 1163 |
| Percent of Vehicles > 30 MPH : | 63.7% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
WB

165077 B Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/20/16 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 42 | 35 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 38 | 37 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 38 | 37 |
| 03:00 | **1** | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 32 | 24 |
| 04:00 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 41 | 33 |
| 05:00 | 0 | 0 | 0 | 0 | 9 | 13 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 40 | 37 |
| 06:00 | 0 | 0 | 0 | 4 | 14 | 21 | 12 | **2** | 0 | 0 | 0 | 0 | 0 | 53 | 41 | 36 |
| 07:00 | 0 | 0 | 0 | 7 | 32 | **55** | **13** | 0 | 0 | 0 | 0 | 0 | 0 | 107 | 38 | 35 |
| 08:00 | 0 | 0 | 1 | 13 | **55** | 37 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 115 | 37 | 34 |
| 09:00 | 0 | 0 | 2 | 23 | 45 | 36 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 113 | 37 | 33 |
| 10:00 | 0 | 0 | **5** | **26** | 52 | 30 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 116 | 36 | 32 |
| 11:00 | 0 | 0 | 3 | 17 | 48 | 45 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | **121** | 37 | 34 |
| 12 PM | 0 | 0 | 4 | 28 | 70 | **39** | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 145 | 36 | 32 |
| 13:00 | 0 | 0 | 5 | 19 | **72** | 31 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 131 | 36 | 32 |
| 14:00 | 2 | 0 | 1 | 15 | 42 | 36 | 5 | **3** | 0 | 0 | 0 | 0 | 0 | 104 | 37 | 33 |
| 15:00 | 1 | 1 | 2 | 23 | 69 | 27 | 6 | 0 | 0 | 0 | 0 | 0 | **2** | 131 | 36 | 32 |
| 16:00 | 1 | 1 | 6 | 29 | 64 | 31 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 138 | 36 | 32 |
| 17:00 | **4** | 3 | 8 | 38 | 71 | 24 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | **155** | 35 | 31 |
| 18:00 | 0 | 1 | 14 | **41** | 46 | 17 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 122 | 34 | 30 |
| 19:00 | 4 | **4** | **18** | 25 | 43 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 103 | 33 | 28 |
| 20:00 | 3 | 3 | 18 | 29 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 31 | 26 |
| 21:00 | 3 | 0 | 12 | 12 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 32 | 26 |
| 22:00 | 1 | 0 | 0 | 8 | 13 | 3 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 26 | 34 | 31 |
| 23:00 | 0 | 1 | 0 | 2 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 36 | 31 |
| Total | 20 | 14 | 99 | 362 | 780 | 463 | 93 | 9 | 1 | 0 | 0 | 0 | 2 | 1843 | | |
| % | 1.1% | 0.8% | 5.4% | 19.6% | 42.3% | 25.1% | 5.0% | 0.5% | 0.1% | 0.0% | 0.0% | 0.0% | 0.1% | | | |
| AM Peak | 03:00 | | 10:00 | 10:00 | 08:00 | 07:00 | 07:00 | 06:00 | | | | | | 11:00 | | |
| Vol. | 1 | | 5 | 26 | 55 | 55 | 13 | 2 | | | | | | 121 | | |
| PM Peak | 17:00 | 19:00 | 19:00 | 18:00 | 13:00 | 12:00 | 17:00 | 14:00 | 22:00 | | | | 15:00 | 17:00 | | |
| Vol. | 4 | 4 | 18 | 41 | 72 | 39 | 7 | 3 | 1 | | | | 2 | 155 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 25 MPH |
| 50th Percentile : | 31 MPH |
| 85th Percentile : | 37 MPH |
| 95th Percentile : | 39 MPH |
| Mean Speed(Average) : | 32 MPH |
| 10 MPH Pace Speed : | 30-39 MPH |
| Number in Pace : | 1243 |
| Percent in Pace : | 67.4% |
| Number of Vehicles > 30 MPH : | 1192 |
| Percent of Vehicles > 30 MPH : | 64.7% |

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Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan
WB

165077 B Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/21/ 16 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | **2** | 0 | 0 | 0 | 0 | 0 | 8 | 46 | 38 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 38 | 37 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 04:00 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 33 | 32 |
| 05:00 | 0 | 0 | 0 | 0 | 2 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 42 | 38 |
| 06:00 | 0 | 1 | 0 | 1 | 10 | 14 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 32 | 40 | 36 |
| 07:00 | 0 | 0 | 0 | 2 | 33 | 26 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 66 | 38 | 35 |
| 08:00 | 0 | 0 | 2 | 14 | 46 | 23 | **6** | 2 | 0 | 0 | 0 | 0 | 0 | 93 | 37 | 33 |
| 09:00 | 0 | **4** | **18** | 13 | 53 | **32** | 3 | 0 | 0 | **1** | 0 | 0 | 0 | 124 | 36 | 31 |
| 10:00 | **1** | 3 | 4 | 40 | **66** | 22 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 139 | 34 | 31 |
| 11:00 | 1 | 1 | 8 | **63** | 57 | 27 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | **162** | 35 | 30 |
| 12 PM | 1 | 0 | 1 | 32 | 81 | 27 | 1 | **1** | 0 | 0 | 0 | 0 | 0 | 144 | 35 | 32 |
| 13:00 | 3 | 0 | 3 | 31 | **100** | 31 | **8** | 0 | 0 | 0 | **1** | 0 | 0 | **177** | 36 | 32 |
| 14:00 | 1 | 0 | 6 | 36 | 65 | **41** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 150 | 36 | 32 |
| 15:00 | 2 | 4 | 14 | **50** | 75 | 24 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 175 | 34 | 30 |
| 16:00 | **26** | 15 | 38 | 42 | 45 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 172 | 31 | 24 |
| 17:00 | 22 | **22** | **51** | 39 | 22 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 159 | 29 | 22 |
| 18:00 | 7 | 18 | 27 | 31 | 21 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 107 | 30 | 24 |
| 19:00 | 0 | 7 | 18 | 20 | 14 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 32 | 26 |
| 20:00 | 3 | 4 | 11 | 22 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 31 | 26 |
| 21:00 | 0 | 0 | 0 | 13 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 35 | 31 |
| 22:00 | 0 | 0 | 1 | 4 | 14 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 37 | 33 |
| 23:00 | 0 | 0 | 0 | 2 | 10 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 33 | 32 |
| Total | 67 | 79 | 202 | 455 | 744 | 299 | 51 | 7 | 0 | 1 | 1 | 0 | 0 | 1906 | | |
| % | 3.5% | 4.1% | 10.6% | 23.9% | 39.0% | 15.7% | 2.7% | 0.4% | 0.0% | 0.1% | 0.1% | 0.0% | 0.0% | | | |
| AM Peak | 10:00 | 09:00 | 09:00 | 11:00 | 10:00 | 09:00 | 08:00 | 00:00 | | 09:00 | | | | 11:00 | | |
| Vol. | 1 | 4 | 18 | 63 | 66 | 32 | 6 | 2 | | 1 | | | | 162 | | |
| PM Peak | 16:00 | 17:00 | 17:00 | 15:00 | 13:00 | 14:00 | 13:00 | 12:00 | | | 13:00 | | | 13:00 | | |
| Vol. | 26 | 22 | 51 | 50 | 100 | 41 | 8 | 1 | | | 1 | | | 177 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 22 MPH |
| 50th Percentile : | 30 MPH |
| 85th Percentile : | 35 MPH |
| 95th Percentile : | 38 MPH |
| Mean Speed(Average) : | 29 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 1199 |
| Percent in Pace : | 62.9% |
| Number of Vehicles > 30 MPH : | 954 |
| Percent of Vehicles > 30 MPH : | 50.1% |

PRECISION DATA INDUSTRIES, LLC
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Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan

165077 B Volume
Site Code:

| Start | | EB | | | | WB | | | | Combined | | | 5/18/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Wed |
| 12:00 | 10 | | 63 | | 0 | | 30 | | 10 | | 93 | | |
| 12:15 | 3 | | 55 | | 1 | | 22 | | 4 | | 77 | | |
| 12:30 | 1 | | 64 | | 1 | | 23 | | 2 | | 87 | | |
| 12:45 | 2 | 16 | 58 | 240 | 0 | 2 | 31 | 106 | 2 | 18 | 89 | 346 | |
| 01:00 | 2 | | 74 | | 0 | | 32 | | 2 | | 106 | | |
| 01:15 | 2 | | 96 | | 1 | | 24 | | 3 | | 120 | | |
| 01:30 | 2 | | 59 | | 1 | | 31 | | 3 | | 90 | | |
| 01:45 | 1 | 7 | 60 | 289 | 0 | 2 | 27 | 114 | 1 | 9 | 87 | 403 | |
| 02:00 | 0 | | 71 | | 1 | | 25 | | 1 | | 96 | | |
| 02:15 | 2 | | 56 | | 0 | | 25 | | 2 | | 81 | | |
| 02:30 | 0 | | 50 | | 0 | | 22 | | 0 | | 72 | | |
| 02:45 | 1 | 3 | 88 | 265 | 0 | 1 | 27 | 99 | 1 | 4 | 115 | 364 | |
| 03:00 | 1 | | 63 | | 1 | | 42 | | 2 | | 105 | | |
| 03:15 | 0 | | 86 | | 0 | | 30 | | 0 | | 116 | | |
| 03:30 | 0 | | 88 | | 0 | | 28 | | 0 | | 116 | | |
| 03:45 | 0 | 1 | 92 | 329 | 0 | 1 | 36 | 136 | 0 | 2 | 128 | 465 | |
| 04:00 | 1 | | 89 | | 1 | | 37 | | 2 | | 126 | | |
| 04:15 | 1 | | 98 | | 1 | | 44 | | 2 | | 142 | | |
| 04:30 | 2 | | 91 | | 1 | | 34 | | 3 | | 125 | | |
| 04:45 | 3 | 7 | 117 | 395 | 2 | 5 | 34 | 149 | 5 | 12 | 151 | 544 | |
| 05:00 | 2 | | 103 | | 6 | | 45 | | 8 | | 148 | | |
| 05:15 | 2 | | 126 | | 7 | | 41 | | 9 | | 167 | | |
| 05:30 | 5 | | 121 | | 11 | | 51 | | 16 | | 172 | | |
| 05:45 | 8 | 17 | 108 | 458 | 10 | 34 | 43 | 180 | 18 | 51 | 151 | 638 | |
| 06:00 | 8 | | 105 | | 11 | | 39 | | 19 | | 144 | | |
| 06:15 | 15 | | 109 | | 18 | | 31 | | 33 | | 140 | | |
| 06:30 | 19 | | 89 | | 16 | | 42 | | 35 | | 131 | | |
| 06:45 | 33 | 75 | 93 | 396 | 24 | 69 | 26 | 138 | 57 | 144 | 119 | 534 | |
| 07:00 | 29 | | 82 | | 28 | | 18 | | 57 | | 100 | | |
| 07:15 | 33 | | 79 | | 27 | | 26 | | 60 | | 105 | | |
| 07:30 | 39 | | 72 | | 30 | | 27 | | 69 | | 99 | | |
| 07:45 | 48 | 149 | 67 | 300 | 29 | 114 | 22 | 93 | 77 | 263 | 89 | 393 | |
| 08:00 | 42 | | 54 | | 38 | | 18 | | 80 | | 72 | | |
| 08:15 | 59 | | 34 | | 36 | | 19 | | 95 | | 53 | | |
| 08:30 | 65 | | 49 | | 37 | | 10 | | 102 | | 59 | | |
| 08:45 | 71 | 237 | 38 | 175 | 32 | 143 | 9 | 56 | 103 | 380 | 47 | 231 | |
| 09:00 | 41 | | 30 | | 30 | | 5 | | 71 | | 35 | | |
| 09:15 | 49 | | 22 | | 28 | | 5 | | 77 | | 27 | | |
| 09:30 | 32 | | 23 | | 21 | | 5 | | 53 | | 28 | | |
| 09:45 | 42 | 164 | 11 | 86 | 26 | 105 | 2 | 17 | 68 | 269 | 13 | 103 | |
| 10:00 | 50 | | 16 | | 23 | | 11 | | 73 | | 27 | | |
| 10:15 | 52 | | 10 | | 26 | | 10 | | 78 | | 20 | | |
| 10:30 | 56 | | 16 | | 28 | | 6 | | 84 | | 22 | | |
| 10:45 | 48 | 206 | 11 | 53 | 27 | 104 | 0 | 27 | 75 | 310 | 11 | 80 | |
| 11:00 | 58 | | 10 | | 34 | | 3 | | 92 | | 13 | | |
| 11:15 | 47 | | 11 | | 31 | | 3 | | 78 | | 14 | | |
| 11:30 | 55 | | 3 | | 30 | | 1 | | 85 | | 4 | | |
| 11:45 | 58 | 218 | 5 | 29 | 27 | 122 | 2 | 9 | 85 | 340 | 7 | 38 | |
| Total | 1100 | | 3015 | | 702 | | 1124 | | 1802 | | 4139 | | |
| Percent | 61.0% | | 72.8% | | 39.0% | | 27.2% | | | | | | |
| Day Total | | 4115 | | | | 1826 | | | | 5941 | | | |
| Peak | 08:00 | - | 04:45 | - | 08:00 | - | 05:00 | - | 08:00 | - | 04:45 | - | - | - |
| Vol. | 237 | - | 467 | - | 143 | - | 180 | - | 380 | - | 638 | - | - | - |
| P.H.F. | 0.835 | | 0.927 | | 0.941 | | 0.882 | | 0.922 | | 0.927 | | | |

PRECISION DATA INDUSTRIES, LLC
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Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan

165077 B Volume
Site Code:

| Start | EB | | | | WB | | | | Combined | | | | 5/19/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Thu |
| 12:00 | 4 | | 59 | | 3 | | 39 | | 7 | | 98 | | |
| 12:15 | 2 | | 56 | | 1 | | 34 | | 3 | | 90 | | |
| 12:30 | 1 | | 63 | | 1 | | 32 | | 2 | | 95 | | |
| 12:45 | 5 | 12 | 68 | 246 | 1 | 6 | 30 | 135 | 6 | 18 | 98 | 381 | |
| 01:00 | 1 | | 68 | | 0 | | 32 | | 1 | | 100 | | |
| 01:15 | 7 | | 80 | | 0 | | 27 | | 7 | | 107 | | |
| 01:30 | 0 | | 73 | | 1 | | 34 | | 1 | | 107 | | |
| 01:45 | 0 | 8 | 72 | 293 | 0 | 1 | 30 | 123 | 0 | 9 | 102 | 416 | |
| 02:00 | 0 | | 54 | | 0 | | 29 | | 0 | | 83 | | |
| 02:15 | 0 | | 70 | | 0 | | 33 | | 0 | | 103 | | |
| 02:30 | 1 | | 84 | | 0 | | 23 | | 1 | | 107 | | |
| 02:45 | 1 | 2 | 73 | 281 | 0 | 0 | 31 | 116 | 1 | 2 | 104 | 397 | |
| 03:00 | 1 | | 74 | | 0 | | 35 | | 1 | | 109 | | |
| 03:15 | 1 | | 88 | | 1 | | 32 | | 2 | | 120 | | |
| 03:30 | 0 | | 76 | | 0 | | 25 | | 0 | | 101 | | |
| 03:45 | 1 | 3 | 88 | 326 | 0 | 1 | 36 | 128 | 1 | 4 | 124 | 454 | |
| 04:00 | 2 | | 88 | | 0 | | 39 | | 2 | | 127 | | |
| 04:15 | 0 | | 87 | | 3 | | 19 | | 3 | | 106 | | |
| 04:30 | 1 | | 77 | | 1 | | 34 | | 2 | | 111 | | |
| 04:45 | 0 | 3 | 69 | 321 | 1 | 5 | 22 | 114 | 1 | 8 | 91 | 435 | |
| 05:00 | 1 | | 97 | | 1 | | 58 | | 2 | | 155 | | |
| 05:15 | 6 | | 130 | | 10 | | 40 | | 16 | | 170 | | |
| 05:30 | 6 | | 123 | | 12 | | 54 | | 18 | | 177 | | |
| 05:45 | 4 | 17 | 109 | 459 | 11 | 34 | 31 | 183 | 15 | 51 | 140 | 642 | |
| 06:00 | 11 | | 117 | | 12 | | 33 | | 23 | | 150 | | |
| 06:15 | 12 | | 114 | | 13 | | 29 | | 25 | | 143 | | |
| 06:30 | 16 | | 94 | | 16 | | 26 | | 32 | | 120 | | |
| 06:45 | 33 | 72 | 73 | 398 | 30 | 71 | 28 | 116 | 63 | 143 | 101 | 514 | |
| 07:00 | 26 | | 92 | | 26 | | 29 | | 52 | | 121 | | |
| 07:15 | 33 | | 73 | | 32 | | 27 | | 65 | | 100 | | |
| 07:30 | 41 | | 52 | | 27 | | 20 | | 68 | | 72 | | |
| 07:45 | 50 | 150 | 50 | 267 | 28 | 113 | 24 | 100 | 78 | 263 | 74 | 367 | |
| 08:00 | 43 | | 73 | | 36 | | 26 | | 79 | | 99 | | |
| 08:15 | 67 | | 47 | | 24 | | 15 | | 91 | | 62 | | |
| 08:30 | 50 | | 35 | | 23 | | 14 | | 73 | | 49 | | |
| 08:45 | 42 | 202 | 34 | 189 | 42 | 125 | 8 | 63 | 84 | 327 | 42 | 252 | |
| 09:00 | 44 | | 49 | | 25 | | 10 | | 69 | | 59 | | |
| 09:15 | 43 | | 22 | | 34 | | 13 | | 77 | | 35 | | |
| 09:30 | 33 | | 25 | | 22 | | 7 | | 55 | | 32 | | |
| 09:45 | 41 | 161 | 20 | 116 | 30 | 111 | 8 | 38 | 71 | 272 | 28 | 154 | |
| 10:00 | 41 | | 17 | | 28 | | 7 | | 69 | | 24 | | |
| 10:15 | 54 | | 16 | | 26 | | 7 | | 80 | | 23 | | |
| 10:30 | 51 | | 12 | | 20 | | 8 | | 71 | | 20 | | |
| 10:45 | 40 | 186 | 11 | 56 | 15 | 89 | 7 | 29 | 55 | 275 | 18 | 85 | |
| 11:00 | 60 | | 18 | | 28 | | 3 | | 88 | | 21 | | |
| 11:15 | 62 | | 14 | | 34 | | 4 | | 96 | | 18 | | |
| 11:30 | 48 | | 7 | | 25 | | 0 | | 73 | | 7 | | |
| 11:45 | 47 | 217 | 2 | 41 | 30 | 117 | 0 | 7 | 77 | 334 | 2 | 48 | |
| Total | 1033 | | 2993 | | 673 | | 1152 | | 1706 | | 4145 | | |
| Percent | 60.6% | | 72.2% | | 39.4% | | 27.8% | | | | | | |
| Day Total | | 4026 | | | | 1825 | | | | 5851 | | | |
| Peak | 11:00 | - | 05:15 | - | 08:00 | - | 05:00 | - | 11:00 | - | 05:00 | - | - | - |
| Vol. | 217 | - | 479 | - | 125 | - | 183 | - | 334 | - | 642 | - | - | - |
| P.H.F. | 0.875 | | 0.921 | | 0.744 | | 0.789 | | 0.870 | | 0.907 | | |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan

165077 B Volume
Site Code:

| Start | EB | | | | WB | | | | Combined | | | | 5/20/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Fri |
| 12:00 | 2 | | 72 | | 0 | | 37 | | 2 | | 109 | | |
| 12:15 | 1 | | 69 | | 1 | | 34 | | 2 | | 103 | | |
| 12:30 | 3 | | 76 | | 1 | | 42 | | 4 | | 118 | | |
| 12:45 | 4 | 10 | 61 | 278 | 0 | 2 | 32 | 145 | 4 | 12 | 93 | 423 | |
| 01:00 | 0 | | 67 | | 1 | | 27 | | 1 | | 94 | | |
| 01:15 | 1 | | 75 | | 0 | | 32 | | 1 | | 107 | | |
| 01:30 | 1 | | 77 | | 0 | | 40 | | 1 | | 117 | | |
| 01:45 | 0 | 2 | 87 | 306 | 0 | 1 | 32 | 131 | 0 | 3 | 119 | 437 | |
| 02:00 | 3 | | 86 | | 0 | | 28 | | 3 | | 114 | | |
| 02:15 | 0 | | 65 | | 0 | | 23 | | 0 | | 88 | | |
| 02:30 | 0 | | 92 | | 1 | | 29 | | 1 | | 121 | | |
| 02:45 | 1 | 4 | 65 | 308 | 0 | 1 | 24 | 104 | 1 | 5 | 89 | 412 | |
| 03:00 | 0 | | 100 | | 0 | | 30 | | 0 | | 130 | | |
| 03:15 | 0 | | 104 | | 1 | | 35 | | 1 | | 139 | | |
| 03:30 | 0 | | 101 | | 0 | | 26 | | 0 | | 127 | | |
| 03:45 | 0 | 0 | 103 | 408 | 2 | 3 | 40 | 131 | 2 | 3 | 143 | 539 | |
| 04:00 | 0 | | 92 | | 0 | | 33 | | 0 | | 125 | | |
| 04:15 | 1 | | 98 | | 0 | | 38 | | 1 | | 136 | | |
| 04:30 | 0 | | 120 | | 1 | | 38 | | 1 | | 158 | | |
| 04:45 | 0 | 1 | 116 | 426 | 3 | 4 | 29 | 138 | 3 | 5 | 145 | 564 | |
| 05:00 | 2 | | 108 | | 1 | | 45 | | 3 | | 153 | | |
| 05:15 | 5 | | 117 | | 4 | | 37 | | 9 | | 154 | | |
| 05:30 | 3 | | 108 | | 10 | | 40 | | 13 | | 148 | | |
| 05:45 | 10 | 20 | 112 | 445 | 14 | 29 | 33 | 155 | 24 | 49 | 145 | 600 | |
| 06:00 | 7 | | 107 | | 14 | | 28 | | 21 | | 135 | | |
| 06:15 | 17 | | 99 | | 15 | | 31 | | 32 | | 130 | | |
| 06:30 | 16 | | 89 | | 12 | | 37 | | 28 | | 126 | | |
| 06:45 | 34 | 74 | 80 | 375 | 12 | 53 | 26 | 122 | 46 | 127 | 106 | 497 | |
| 07:00 | 40 | | 78 | | 26 | | 26 | | 66 | | 104 | | |
| 07:15 | 31 | | 52 | | 29 | | 32 | | 60 | | 84 | | |
| 07:30 | 39 | | 55 | | 18 | | 22 | | 57 | | 77 | | |
| 07:45 | 36 | 146 | 52 | 237 | 34 | 107 | 23 | 103 | 70 | 253 | 75 | 340 | |
| 08:00 | 41 | | 49 | | 35 | | 24 | | 76 | | 73 | | |
| 08:15 | 63 | | 50 | | 22 | | 13 | | 85 | | 63 | | |
| 08:30 | 60 | | 33 | | 26 | | 22 | | 86 | | 55 | | |
| 08:45 | 47 | 211 | 38 | 170 | 32 | 115 | 10 | 69 | 79 | 326 | 48 | 239 | |
| 09:00 | 29 | | 34 | | 25 | | 13 | | 54 | | 47 | | |
| 09:15 | 50 | | 32 | | 27 | | 11 | | 77 | | 43 | | |
| 09:30 | 51 | | 35 | | 32 | | 14 | | 83 | | 49 | | |
| 09:45 | 53 | 183 | 34 | 135 | 29 | 113 | 6 | 44 | 82 | 296 | 40 | 179 | |
| 10:00 | 54 | | 28 | | 26 | | 8 | | 80 | | 36 | | |
| 10:15 | 53 | | 21 | | 24 | | 9 | | 77 | | 30 | | |
| 10:30 | 46 | | 19 | | 29 | | 6 | | 75 | | 25 | | |
| 10:45 | 53 | 206 | 16 | 84 | 37 | 116 | 3 | 26 | 90 | 322 | 19 | 110 | |
| 11:00 | 71 | | 12 | | 29 | | 4 | | 100 | | 16 | | |
| 11:15 | 59 | | 9 | | 29 | | 0 | | 88 | | 9 | | |
| 11:30 | 75 | | 11 | | 33 | | 1 | | 108 | | 12 | | |
| 11:45 | 83 | 288 | 11 | 43 | 30 | 121 | 5 | 10 | 113 | 409 | 16 | 53 | |
| Total | 1145 | | 3215 | | 665 | | 1178 | | 1810 | | 4393 | | |
| Percent | 63.3% | | 73.2% | | 36.7% | | 26.8% | | | | | | |
| Day Total | | 4360 | | | | 1843 | | | | 6203 | | | |
| Peak | 11:00 | - | 04:30 | - | 10:45 | - | 05:00 | - | 11:00 | - | 04:30 | - | - | - |
| Vol. | 288 | - | 461 | - | 128 | - | 155 | - | 409 | - | 610 | - | - | - |
| P.H.F. | 0.867 | | 0.960 | | 0.865 | | 0.861 | | 0.905 | | 0.965 | | |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Beal Street
east of Sgt William B Terry Drive
City, State: Hingham, MA
Client: VHB / E. Chan

165077 B Volume
Site Code:

| Start | EB | | | | WB | | | | Combined | | | | 5/21/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Sat |
| 12:00 | 8 | | 95 | | 1 | | 31 | | 9 | | 126 | | |
| 12:15 | 6 | | 77 | | 2 | | 39 | | 8 | | 116 | | |
| 12:30 | 3 | | 89 | | 2 | | 33 | | 5 | | 122 | | |
| 12:45 | 5 | 22 | 66 | 327 | 3 | 8 | 41 | 144 | 8 | 30 | 107 | 471 | |
| 01:00 | 7 | | 77 | | 1 | | 32 | | 8 | | 109 | | |
| 01:15 | 4 | | 86 | | 1 | | 46 | | 5 | | 132 | | |
| 01:30 | 5 | | 67 | | 0 | | 51 | | 5 | | 118 | | |
| 01:45 | 3 | 19 | 99 | 329 | 0 | 2 | 48 | 177 | 3 | 21 | 147 | 506 | |
| 02:00 | 2 | | 93 | | 0 | | 46 | | 2 | | 139 | | |
| 02:15 | 5 | | 76 | | 0 | | 36 | | 5 | | 112 | | |
| 02:30 | 3 | | 73 | | 0 | | 35 | | 3 | | 108 | | |
| 02:45 | 0 | 10 | 82 | 324 | 0 | 0 | 33 | 150 | 0 | 10 | 115 | 474 | |
| 03:00 | 0 | | 77 | | 0 | | 38 | | 0 | | 115 | | |
| 03:15 | 1 | | 84 | | 0 | | 41 | | 1 | | 125 | | |
| 03:30 | 2 | | 75 | | 0 | | 46 | | 2 | | 121 | | |
| 03:45 | 0 | 3 | 78 | 314 | 0 | 0 | 50 | 175 | 0 | 3 | 128 | 489 | |
| 04:00 | 1 | | 77 | | 0 | | 46 | | 1 | | 123 | | |
| 04:15 | 1 | | 57 | | 1 | | 41 | | 2 | | 98 | | |
| 04:30 | 1 | | 75 | | 0 | | 43 | | 1 | | 118 | | |
| 04:45 | 0 | 3 | 77 | 286 | 1 | 2 | 42 | 172 | 1 | 5 | 119 | 458 | |
| 05:00 | 1 | | 92 | | 0 | | 46 | | 1 | | 138 | | |
| 05:15 | 1 | | 76 | | 3 | | 49 | | 4 | | 125 | | |
| 05:30 | 1 | | 87 | | 2 | | 38 | | 3 | | 125 | | |
| 05:45 | 6 | 9 | 65 | 320 | 2 | 7 | 26 | 159 | 8 | 16 | 91 | 479 | |
| 06:00 | 2 | | 50 | | 4 | | 33 | | 6 | | 83 | | |
| 06:15 | 6 | | 54 | | 7 | | 32 | | 13 | | 86 | | |
| 06:30 | 7 | | 59 | | 7 | | 21 | | 14 | | 80 | | |
| 06:45 | 14 | 29 | 32 | 195 | 14 | 32 | 21 | 107 | 28 | 61 | 53 | 302 | |
| 07:00 | 14 | | 39 | | 15 | | 17 | | 29 | | 56 | | |
| 07:15 | 23 | | 38 | | 23 | | 13 | | 46 | | 51 | | |
| 07:30 | 16 | | 35 | | 18 | | 21 | | 34 | | 56 | | |
| 07:45 | 25 | 78 | 37 | 149 | 10 | 66 | 12 | 63 | 35 | 144 | 49 | 212 | |
| 08:00 | 29 | | 39 | | 19 | | 18 | | 48 | | 57 | | |
| 08:15 | 42 | | 52 | | 24 | | 22 | | 66 | | 74 | | |
| 08:30 | 43 | | 23 | | 23 | | 9 | | 66 | | 32 | | |
| 08:45 | 43 | 157 | 31 | 145 | 27 | 93 | 10 | 59 | 70 | 250 | 41 | 204 | |
| 09:00 | 41 | | 28 | | 32 | | 7 | | 73 | | 35 | | |
| 09:15 | 51 | | 25 | | 22 | | 5 | | 73 | | 30 | | |
| 09:30 | 56 | | 13 | | 37 | | 4 | | 93 | | 17 | | |
| 09:45 | 65 | 213 | 26 | 92 | 33 | 124 | 9 | 25 | 98 | 337 | 35 | 117 | |
| 10:00 | 56 | | 20 | | 36 | | 9 | | 92 | | 29 | | |
| 10:15 | 81 | | 14 | | 29 | | 3 | | 110 | | 17 | | |
| 10:30 | 70 | | 8 | | 37 | | 7 | | 107 | | 15 | | |
| 10:45 | 92 | 299 | 10 | 52 | 37 | 139 | 7 | 26 | 129 | 438 | 17 | 78 | |
| 11:00 | 91 | | 7 | | 51 | | 4 | | 142 | | 11 | | |
| 11:15 | 97 | | 11 | | 37 | | 4 | | 134 | | 15 | | |
| 11:30 | 70 | | 12 | | 38 | | 5 | | 108 | | 17 | | |
| 11:45 | 74 | 332 | 9 | 39 | 36 | 162 | 1 | 14 | 110 | 494 | 10 | 53 | |
| Total | 1174 | | 2572 | | 635 | | 1271 | | 1809 | | 3843 | | |
| Percent | 64.9% | | 66.9% | | 35.1% | | 33.1% | | | | | | |
| Day Total | | 3746 | | | | 1906 | | | | 5652 | | | |
| Peak | 10:30 | - | 01:15 | - | 10:45 | - | 01:15 | - | 10:45 | - | 01:15 | - | - | - |
| Vol. | 350 | - | 345 | - | 163 | - | 191 | - | 513 | - | 536 | - | - | - |
| P.H.F. | 0.902 | | 0.871 | | 0.799 | | 0.936 | | 0.903 | | 0.912 | | | |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
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Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
SB

165077 C Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/18/1 | | | | | | | | | | | | | | |
| 6 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 01:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 06:00 | 1 | 13 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 07:00 | 0 | 26 | 8 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 |
| 08:00 | 1 | 53 | 9 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67 |
| 09:00 | 3 | 39 | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| 10:00 | 0 | 55 | 9 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| 11:00 | 1 | 71 | 10 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86 |
| 12 PM | 0 | 98 | 7 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 107 |
| 13:00 | 3 | 89 | 14 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 |
| 14:00 | 2 | 101 | 16 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 124 |
| 15:00 | 2 | 162 | 13 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 179 |
| 16:00 | 1 | 171 | 23 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 198 |
| 17:00 | 4 | 235 | 18 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 259 |
| 18:00 | 4 | 196 | 26 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 227 |
| 19:00 | 0 | 83 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 |
| 20:00 | 2 | 63 | 5 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 |
| 21:00 | 0 | 40 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 |
| 22:00 | 0 | 26 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 23:00 | 0 | 13 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| Percent | 1.4% | 86.3% | 10.1% | 0.4% | 1.2% | 0.4% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 09:00 | 11:00 | 11:00 | 08:00 | 11:00 | 05:00 | | | | | | | | 11:00 |
| Vol. | 3 | 71 | 10 | 2 | 3 | 1 | | | | | | | | 86 |
| PM Peak | 17:00 | 17:00 | 18:00 | 14:00 | 13:00 | 15:00 | | 12:00 | | | | | | 17:00 |
| Vol. | 4 | 235 | 26 | 2 | 5 | 1 | | 1 | | | | | | 259 |

PRECISION DATA INDUSTRIES, LLC
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Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
SB

165077 C Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/19/1 | | | | | | | | | | | | | | |
| 6 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 01:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 05:00 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 06:00 | 0 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 07:00 | 0 | 28 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| 08:00 | 2 | 51 | 3 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 64 |
| 09:00 | 1 | 47 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 |
| 10:00 | 1 | 64 | 5 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 72 |
| 11:00 | 1 | 71 | 9 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 84 |
| 12 PM | 1 | 101 | 12 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 120 |
| 13:00 | 0 | 92 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 |
| 14:00 | 0 | 90 | 14 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 109 |
| 15:00 | 1 | 143 | 18 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 166 |
| 16:00 | 1 | 161 | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 174 |
| 17:00 | 5 | 204 | 22 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 233 |
| 18:00 | 1 | 175 | 22 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 199 |
| 19:00 | 0 | 120 | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 131 |
| 20:00 | 0 | 87 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95 |
| 21:00 | 1 | 46 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 |
| 22:00 | 0 | 24 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 23:00 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| Percent | 0.8% | 87.3% | 9.5% | 0.5% | 1.5% | 0.1% | 0.0% | 0.1% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 08:00 | 11:00 | 11:00 | 09:00 | 08:00 | | | 10:00 | 11:00 | | | | | 11:00 |
| Vol. | 2 | 71 | 9 | 2 | 7 | | | 1 | 1 | | | | | 84 |
| PM Peak | 17:00 | 17:00 | 17:00 | 14:00 | 16:00 | 15:00 | | 18:00 | 12:00 | | | | | 17:00 |
| Vol. | 5 | 204 | 22 | 2 | 6 | 1 | | 1 | 1 | | | | | 233 |

PRECISION DATA INDUSTRIES, LLC
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Office: 508-875-0100 Fax: 508-875-0118
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Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
SB

165077 C Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/20/1 | | | | | | | | | | | | | | |
| 6 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 06:00 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| 07:00 | 0 | 34 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| 08:00 | 1 | 44 | 8 | 1 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 60 |
| 09:00 | 1 | 62 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 |
| 10:00 | 1 | 57 | 9 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| 11:00 | 0 | 67 | 7 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79 |
| 12 PM | 1 | 91 | 12 | 1 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 |
| 13:00 | 2 | 111 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 14:00 | 2 | 123 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 146 |
| 15:00 | 2 | 167 | 17 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 190 |
| 16:00 | 1 | 201 | 20 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 228 |
| 17:00 | 7 | 212 | 25 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 247 |
| 18:00 | 3 | 173 | 16 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 193 |
| 19:00 | 1 | 72 | 17 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 |
| 20:00 | 1 | 82 | 9 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95 |
| 21:00 | 1 | 59 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63 |
| 22:00 | 0 | 43 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| 23:00 | 0 | 25 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 |
| Percent | 1.3% | 85.8% | 10.7% | 0.3% | 1.5% | 0.4% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 08:00 | 11:00 | 09:00 | 07:00 | 08:00 | 08:00 | | | 08:00 | | | | | 11:00 |
| Vol. | 1 | 67 | 11 | 2 | 4 | 1 | | | 1 | | | | | 79 |
| PM Peak | 17:00 | 17:00 | 17:00 | 12:00 | 16:00 | 12:00 | | | | | | | | 17:00 |
| Vol. | 7 | 212 | 25 | 1 | 6 | 2 | | | | | | | | 247 |

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Sgt William B Terry Drive
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Client: VHB / E. Chan
SB

165077 C Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/21/1 | | | | | | | | | | | | | | |
| 6 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 01:00 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 02:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 06:00 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 07:00 | 0 | 9 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 08:00 | 1 | 36 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 |
| 09:00 | 1 | 62 | 9 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 |
| 10:00 | 2 | 78 | 5 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88 |
| 11:00 | 0 | 94 | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 |
| 12 PM | 5 | 81 | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 96 |
| 13:00 | 1 | 122 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134 |
| 14:00 | 0 | 115 | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 |
| 15:00 | 2 | 119 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 136 |
| 16:00 | 0 | 123 | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 17:00 | 0 | 94 | 12 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108 |
| 18:00 | 1 | 90 | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| 19:00 | 1 | 63 | 4 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 70 |
| 20:00 | 0 | 60 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| 21:00 | 0 | 44 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 |
| 22:00 | 0 | 22 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 23:00 | 0 | 15 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| Percent | 1.0% | 88.9% | 8.6% | 0.1% | 1.1% | 0.2% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 10:00 | 11:00 | 11:00 | 10:00 | 10:00 | 09:00 | | | | | | | | 11:00 |
| Vol. | 2 | 94 | 10 | 1 | 2 | 1 | | | | | | | | 106 |
| PM Peak | 12:00 | 16:00 | 15:00 | | 14:00 | 17:00 | | 19:00 | | | | | | 15:00 |
| Vol. | 5 | 123 | 13 | | 2 | 1 | | 1 | | | | | | 136 |

PRECISION DATA INDUSTRIES, LLC
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Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
NB

165077 C Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/18/1 | | | | | | | | | | | | | | |
| 6 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 01:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | 0 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 05:00 | 0 | 62 | 9 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| 06:00 | 1 | 189 | 25 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 218 |
| 07:00 | 1 | 277 | 31 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 316 |
| 08:00 | 1 | 246 | 37 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 290 |
| 09:00 | 2 | 147 | 30 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 183 |
| 10:00 | 1 | 151 | 28 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 186 |
| 11:00 | 1 | 148 | 22 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 177 |
| 12 PM | 1 | 201 | 36 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 241 |
| 13:00 | 3 | 157 | 28 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 192 |
| 14:00 | 1 | 147 | 17 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 170 |
| 15:00 | 2 | 161 | 23 | 2 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 195 |
| 16:00 | 1 | 186 | 28 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 217 |
| 17:00 | 2 | 193 | 22 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 220 |
| 18:00 | 1 | 139 | 21 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 162 |
| 19:00 | 1 | 114 | 25 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 142 |
| 20:00 | 1 | 73 | 14 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 94 |
| 21:00 | 0 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| 22:00 | 0 | 16 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 23:00 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Percent | 0.6% | 84.3% | 12.8% | 0.3% | 1.6% | 0.2% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 09:00 | 07:00 | 08:00 | 09:00 | 07:00 | 05:00 | | | | | | | | 07:00 |
| Vol. | 2 | 277 | 37 | 2 | 7 | 1 | | | | | | | | 316 |
| PM Peak | 13:00 | 12:00 | 12:00 | 15:00 | 15:00 | 12:00 | | 12:00 | 20:00 | | | | | 12:00 |
| Vol. | 3 | 201 | 36 | 2 | 6 | 1 | | 1 | 1 | | | | | 241 |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
NB

165077 C Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/19/1 | | | | | | | | | | | | | | |
| 6 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:00 | 0 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 05:00 | 0 | 46 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 |
| 06:00 | 0 | 188 | 23 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 215 |
| 07:00 | 2 | 238 | 30 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 273 |
| 08:00 | 0 | 250 | 35 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 289 |
| 09:00 | 3 | 151 | 25 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 185 |
| 10:00 | 0 | 126 | 25 | 1 | 3 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 159 |
| 11:00 | 2 | 137 | 21 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 163 |
| 12 PM | 4 | 173 | 36 | 0 | 4 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 220 |
| 13:00 | 0 | 160 | 31 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 195 |
| 14:00 | 0 | 132 | 28 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 161 |
| 15:00 | 3 | 163 | 28 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 198 |
| 16:00 | 0 | 164 | 22 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 190 |
| 17:00 | 2 | 210 | 35 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 250 |
| 18:00 | 1 | 156 | 21 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 180 |
| 19:00 | 0 | 117 | 23 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 143 |
| 20:00 | 1 | 74 | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |
| 21:00 | 0 | 27 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 22:00 | 1 | 24 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 23:00 | 0 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Percent | 0.6% | 83.8% | 13.6% | 0.1% | 1.4% | 0.2% | 0.0% | 0.2% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 09:00 | 08:00 | 08:00 | 06:00 | 09:00 | 10:00 | | 10:00 | 07:00 | | | | | 08:00 |
| Vol. | 3 | 250 | 35 | 1 | 5 | 2 | | 1 | 2 | | | | | 289 |
| PM Peak | 12:00 | 17:00 | 12:00 | | 12:00 | 15:00 | | 12:00 | 12:00 | | | | | 17:00 |
| Vol. | 4 | 210 | 36 | | 4 | 1 | | 2 | 1 | | | | | 250 |

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Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
NB

165077 C Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/20/1 | | | | | | | | | | | | | | |
| 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 04:00 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 05:00 | 0 | 50 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 |
| 06:00 | 2 | 166 | 15 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 185 |
| 07:00 | 1 | 239 | 30 | 2 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 276 |
| 08:00 | 2 | 224 | 36 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 265 |
| 09:00 | 0 | 172 | 31 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 210 |
| 10:00 | 3 | 147 | 27 | 1 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 185 |
| 11:00 | 0 | 174 | 27 | 2 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 210 |
| 12 PM | 6 | 214 | 38 | 1 | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 266 |
| 13:00 | 2 | 184 | 39 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 229 |
| 14:00 | 1 | 167 | 29 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 200 |
| 15:00 | 3 | 174 | 27 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 207 |
| 16:00 | 2 | 217 | 29 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 253 |
| 17:00 | 2 | 187 | 35 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 227 |
| 18:00 | 5 | 193 | 21 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 223 |
| 19:00 | 2 | 112 | 21 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 136 |
| 20:00 | 1 | 79 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 87 |
| 21:00 | 3 | 43 | 10 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
| 22:00 | 0 | 25 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 23:00 | 0 | 16 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| Percent | 1.0% | 83.6% | 13.2% | 0.2% | 1.5% | 0.2% | 0.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 10:00 | 07:00 | 08:00 | 07:00 | 09:00 | 08:00 | | 07:00 | | | | | | 07:00 |
| Vol. | 3 | 239 | 36 | 2 | 6 | 1 | | 1 | | | | | | 276 |
| PM Peak | 12:00 | 16:00 | 13:00 | 12:00 | 12:00 | 13:00 | | 12:00 | | | | | | 12:00 |
| Vol. | 6 | 217 | 39 | 1 | 4 | 1 | | 3 | | | | | | 266 |

PRECISION DATA INDUSTRIES, LLC
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Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
NB

165077 C Class
Site Code:

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/21/1 | | | | | | | | | | | | | | |
| 6 | 0 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 01:00 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 04:00 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 05:00 | 0 | 8 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 06:00 | 0 | 31 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| 07:00 | 0 | 61 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| 08:00 | 0 | 99 | 20 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 |
| 09:00 | 3 | 175 | 29 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 209 |
| 10:00 | 3 | 189 | 30 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 225 |
| 11:00 | 0 | 231 | 35 | 0 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 273 |
| 12 PM | 5 | 216 | 34 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 260 |
| 13:00 | 5 | 220 | 23 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 250 |
| 14:00 | 3 | 169 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 196 |
| 15:00 | 3 | 193 | 22 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 219 |
| 16:00 | 4 | 145 | 22 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 172 |
| 17:00 | 0 | 168 | 27 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 197 |
| 18:00 | 1 | 121 | 21 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 146 |
| 19:00 | 2 | 88 | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| 20:00 | 0 | 62 | 12 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 76 |
| 21:00 | 0 | 39 | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| 22:00 | 0 | 27 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 |
| 23:00 | 0 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Percent | 1.1% | 84.7% | 12.8% | 0.1% | 1.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 09:00 | 11:00 | 11:00 | 10:00 | 11:00 | 01:00 | | 11:00 | | | | | | 11:00 |
| Vol. | 3 | 231 | 35 | 1 | 6 | 1 | | 1 | | | | | | 273 |
| PM Peak | 12:00 | 13:00 | 12:00 | 13:00 | 12:00 | 12:00 | | 12:00 | | | | | | 12:00 |
| Vol. | 5 | 220 | 34 | 1 | 3 | 1 | | 1 | | | | | | 260 |

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Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
SB

165077 C Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/18/ 16 | 0 | 1 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 36 | 29 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 38 | 37 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 05:00 | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 35 | 29 |
| 06:00 | 0 | 1 | 0 | 5 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 33 | 30 |
| 07:00 | 0 | 1 | 2 | 15 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 32 | 29 |
| 08:00 | **1** | 1 | 12 | 29 | 19 | **4** | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 32 | 28 |
| 09:00 | 1 | 1 | 6 | 27 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 32 | 28 |
| 10:00 | 0 | 2 | 16 | 27 | 19 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 | 31 | 27 |
| 11:00 | 0 | **4** | **19** | **37** | **22** | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **86** | 31 | 27 |
| 12 PM | 0 | 3 | 28 | 50 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 107 | 30 | 27 |
| 13:00 | 2 | 1 | 28 | 48 | 28 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 | 31 | 27 |
| 14:00 | 0 | 1 | 33 | 63 | 26 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 | 30 | 27 |
| 15:00 | 0 | 6 | 51 | 85 | 30 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 179 | 30 | 26 |
| 16:00 | 1 | 5 | 61 | 82 | 45 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 198 | 31 | 26 |
| 17:00 | 13 | **33** | **63** | **106** | 37 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **259** | 29 | 25 |
| 18:00 | **17** | 18 | 59 | 73 | **48** | **9** | **2** | 0 | 0 | 0 | 0 | 0 | **1** | 227 | 31 | 25 |
| 19:00 | 0 | 3 | 20 | 44 | 22 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 | 31 | 27 |
| 20:00 | 0 | 0 | 17 | 36 | 17 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 | 31 | 27 |
| 21:00 | 0 | 0 | 10 | 24 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 30 | 27 |
| 22:00 | 0 | 0 | 7 | 17 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 30 | 27 |
| 23:00 | 0 | 1 | 4 | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 31 | 26 |
| Total | 35 | 82 | 439 | 774 | 401 | 53 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1790 | | |
| % | 2.0% | 4.6% | 24.5% | 43.2% | 22.4% | 3.0% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | | | |
| AM Peak | 08:00 | 11:00 | 11:00 | 11:00 | 11:00 | 08:00 | 08:00 | | | | | | | 11:00 | | |
| Vol. | 1 | 4 | 19 | 37 | 22 | 4 | 1 | | | | | | | 86 | | |
| PM Peak | 18:00 | 17:00 | 17:00 | 17:00 | 18:00 | 18:00 | 18:00 | | | | | | 18:00 | 17:00 | | |
| Vol. | 17 | 33 | 63 | 106 | 48 | 9 | 2 | | | | | | 1 | 259 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 20 MPH |
| 50th Percentile : | 26 MPH |
| 85th Percentile : | 31 MPH |
| 95th Percentile : | 33 MPH |
| Mean Speed(Average) : | 26 MPH |
| 10 MPH Pace Speed : | 20-29 MPH |
| Number in Pace : | 1213 |
| Percent in Pace : | 67.8% |
| Number of Vehicles > 30 MPH : | 380 |
| Percent of Vehicles > 30 MPH : | 21.2% |

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Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
SB

165077 C Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/19/ 16 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 31 | 26 |
| 01:00 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 32 | 25 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 04:00 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 32 | 30 |
| 05:00 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 32 | 27 |
| 06:00 | 0 | 0 | 2 | 8 | 5 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 33 | 29 |
| 07:00 | 0 | 0 | 5 | 17 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 32 | 28 |
| 08:00 | **1** | **3** | **22** | 23 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 64 | 30 | 26 |
| 09:00 | 1 | 1 | 7 | 29 | **19** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 31 | 28 |
| 10:00 | 0 | 3 | 16 | 37 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 | 30 | 27 |
| 11:00 | 1 | 2 | 21 | **44** | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **84** | 30 | 26 |
| 12 PM | 1 | 5 | 28 | 62 | 21 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 120 | 30 | 26 |
| 13:00 | 0 | 4 | 35 | 43 | 22 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 | 30 | 26 |
| 14:00 | 0 | 2 | 13 | 52 | 37 | 3 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 109 | 32 | 28 |
| 15:00 | 0 | 3 | 38 | 81 | 40 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 166 | 31 | 27 |
| 16:00 | 1 | 6 | 45 | 83 | 37 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 174 | 30 | 26 |
| 17:00 | 21 | 18 | **64** | **88** | 39 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **233** | 29 | 24 |
| 18:00 | **22** | **21** | 46 | 62 | **44** | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 199 | 31 | 24 |
| 19:00 | 1 | 3 | 29 | 62 | 32 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 131 | 31 | 27 |
| 20:00 | 0 | 3 | 17 | 47 | 25 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95 | 31 | 27 |
| 21:00 | 0 | 2 | 7 | 25 | 13 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 32 | 28 |
| 22:00 | 0 | 0 | 3 | 14 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 32 | 28 |
| 23:00 | 0 | 0 | 1 | 3 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 32 | 30 |
| Total | 49 | 79 | 399 | 785 | 413 | 38 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1767 | | |
| % | 2.8% | 4.5% | 22.6% | 44.4% | 23.4% | 2.2% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 08:00 | 08:00 | 08:00 | 11:00 | 09:00 | 06:00 | | | | | | | | 11:00 | | |
| Vol. | 1 | 3 | 22 | 44 | 19 | 2 | | | | | | | | 84 | | |
| PM Peak | 18:00 | 18:00 | 17:00 | 17:00 | 18:00 | 21:00 | 14:00 | | | | | | | 17:00 | | |
| Vol. | 22 | 21 | 64 | 88 | 44 | 5 | 2 | | | | | | | 233 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 20 MPH |
| 50th Percentile : | 26 MPH |
| 85th Percentile : | 31 MPH |
| 95th Percentile : | 33 MPH |
| Mean Speed(Average) : | 26 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 1198 |
| Percent in Pace : | 67.8% |
| Number of Vehicles > 30 MPH : | 372 |
| Percent of Vehicles > 30 MPH : | 21.1% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
SB

165077 C Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/20/16 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 32 | 28 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 05:00 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 33 | 31 |
| 06:00 | 0 | 1 | 1 | 7 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 31 | 28 |
| 07:00 | 0 | 3 | 7 | 14 | 17 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 32 | 28 |
| 08:00 | 0 | 3 | 5 | 27 | 23 | 1 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 32 | 28 |
| 09:00 | 0 | **6** | 15 | **33** | 17 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 | 31 | 27 |
| 10:00 | 0 | 5 | 7 | 32 | **25** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 | 32 | 28 |
| 11:00 | 0 | 0 | **18** | 32 | 25 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **79** | 32 | 28 |
| 12 PM | 1 | 0 | 21 | 60 | 25 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 | 31 | 27 |
| 13:00 | 1 | 6 | 31 | 56 | 33 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 | 31 | 27 |
| 14:00 | 1 | 7 | 36 | 59 | 40 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 146 | 31 | 27 |
| 15:00 | 1 | 10 | 50 | 82 | 36 | **10** | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 190 | 31 | 27 |
| 16:00 | 10 | 13 | **77** | 81 | 37 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 228 | 30 | 25 |
| 17:00 | **14** | **28** | 47 | **98** | **48** | 10 | 1 | **1** | 0 | 0 | 0 | 0 | 0 | **247** | 31 | 25 |
| 18:00 | 8 | 7 | 44 | 88 | 39 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 193 | 31 | 26 |
| 19:00 | 1 | 4 | 12 | 40 | 30 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 | 32 | 28 |
| 20:00 | 0 | 3 | 31 | 45 | 14 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 95 | 29 | 26 |
| 21:00 | 0 | 1 | 22 | 34 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 28 | 26 |
| 22:00 | 1 | 2 | 10 | 25 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 29 | 26 |
| 23:00 | 0 | 0 | 5 | 13 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 32 | 28 |
| Total | 38 | 99 | 440 | 829 | 443 | 64 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 1918 | | |
| % | 2.0% | 5.2% | 22.9% | 43.2% | 23.1% | 3.3% | 0.2% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | | 09:00 | 11:00 | 09:00 | 10:00 | 11:00 | 08:00 | | | | | | | 11:00 | | |
| Vol. | | 6 | 18 | 33 | 25 | 4 | 1 | | | | | | | 79 | | |
| PM Peak | 17:00 | 17:00 | 16:00 | 17:00 | 17:00 | 15:00 | 15:00 | 17:00 | | | | | | 17:00 | | |
| Vol. | 14 | 28 | 77 | 98 | 48 | 10 | 1 | 1 | | | | | | 247 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 20 MPH |
| 50th Percentile : | 26 MPH |
| 85th Percentile : | 31 MPH |
| 95th Percentile : | 33 MPH |
| Mean Speed(Average) : | 26 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 1272 |
| Percent in Pace : | 66.3% |
| Number of Vehicles > 30 MPH : | 423 |
| Percent of Vehicles > 30 MPH : | 22.1% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
SB

165077 C Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/21/ 16 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 32 | 29 |
| 01:00 | 0 | 0 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 32 | 29 |
| 02:00 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 28 | 27 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 05:00 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 32 | 29 |
| 06:00 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 27 | 24 |
| 07:00 | 0 | 1 | 1 | 4 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 34 | 29 |
| 08:00 | 0 | 1 | 5 | 12 | 19 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 32 | 29 |
| 09:00 | 0 | 0 | 13 | 36 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 | 31 | 28 |
| 10:00 | **1** | 1 | 17 | 42 | 21 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 32 | 28 |
| 11:00 | 0 | **2** | **21** | **50** | **29** | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **106** | 31 | 28 |
| 12 PM | **2** | 0 | 23 | 40 | 25 | 4 | **1** | 0 | **1** | 0 | 0 | 0 | 0 | 96 | 32 | 28 |
| 13:00 | 0 | 6 | 25 | **76** | 26 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134 | 30 | 27 |
| 14:00 | 0 | 7 | 32 | 54 | 28 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 | 31 | 27 |
| 15:00 | 2 | **8** | **35** | 66 | 24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **136** | 29 | 26 |
| 16:00 | 0 | 3 | 27 | 61 | **38** | **6** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 | 32 | 28 |
| 17:00 | 0 | 4 | 20 | 53 | 28 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 31 | 27 |
| 18:00 | 1 | 6 | 19 | 53 | 22 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 | 30 | 26 |
| 19:00 | 1 | 0 | 19 | 39 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 | 29 | 26 |
| 20:00 | 0 | 1 | 23 | 31 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 | 29 | 26 |
| 21:00 | 0 | 0 | 12 | 23 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 31 | 27 |
| 22:00 | 0 | 1 | 6 | 12 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 31 | 27 |
| 23:00 | 0 | 0 | 6 | 8 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 30 | 26 |
| Total | 7 | 42 | 306 | 669 | 339 | 37 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 1403 | | |
| % | 0.5% | 3.0% | 21.8% | 47.7% | 24.2% | 2.6% | 0.1% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 10:00 | 11:00 | 11:00 | 11:00 | 11:00 | 10:00 | | | | | | | | 11:00 | | |
| Vol. | 1 | 2 | 21 | 50 | 29 | 6 | | | | | | | | 106 | | |
| PM Peak | 12:00 | 15:00 | 15:00 | 13:00 | 16:00 | 16:00 | 12:00 | | 12:00 | | | | | 15:00 | | |
| Vol. | 2 | 8 | 35 | 76 | 38 | 6 | 1 | | 1 | | | | | 136 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 21 MPH |
| 50th Percentile : | 26 MPH |
| 85th Percentile : | 31 MPH |
| 95th Percentile : | 33 MPH |
| Mean Speed(Average) : | 27 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 1008 |
| Percent in Pace : | 71.8% |
| Number of Vehicles > 30 MPH : | 311 |
| Percent of Vehicles > 30 MPH : | 22.2% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
NB

165077 C Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/18/ 16 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 28 | 27 |
| 01:00 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 27 | 25 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 04:00 | 0 | 0 | 0 | 3 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 32 | 30 |
| 05:00 | **1** | 0 | 7 | 23 | 38 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 33 | 29 |
| 06:00 | 0 | 5 | **30** | 108 | 66 | 7 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 218 | 32 | 28 |
| 07:00 | 0 | 0 | 22 | **145** | **134** | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **316** | 32 | 29 |
| 08:00 | 1 | 3 | 27 | 124 | 112 | **21** | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 290 | 33 | 29 |
| 09:00 | 1 | **8** | 20 | 88 | 59 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 183 | 32 | 28 |
| 10:00 | 1 | 5 | 18 | 111 | 45 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 186 | 31 | 28 |
| 11:00 | 0 | 3 | 24 | 90 | 55 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 177 | 32 | 28 |
| 12 PM | 0 | **7** | **31** | **126** | 71 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **241** | 31 | 28 |
| 13:00 | **7** | 0 | 22 | 104 | 54 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 192 | 31 | 27 |
| 14:00 | 1 | 1 | 17 | 84 | 61 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 170 | 32 | 28 |
| 15:00 | 0 | 1 | 24 | 96 | 68 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 195 | 32 | 28 |
| 16:00 | 2 | 0 | 13 | 90 | **95** | 13 | **3** | **1** | 0 | 0 | 0 | 0 | 0 | 217 | 33 | 30 |
| 17:00 | 1 | 0 | 19 | 96 | 84 | **19** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 220 | 33 | 29 |
| 18:00 | 0 | 0 | 17 | 75 | 58 | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 162 | 32 | 29 |
| 19:00 | 0 | 6 | 20 | 69 | 39 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 142 | 32 | 28 |
| 20:00 | 0 | 3 | 8 | 42 | 39 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 32 | 29 |
| 21:00 | 0 | 1 | 3 | 12 | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 32 | 28 |
| 22:00 | 0 | 0 | 2 | 7 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 32 | 29 |
| 23:00 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 35 | 30 |
| Total | 15 | 43 | 326 | 1498 | 1102 | 139 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 3138 | | |
| % | 0.5% | 1.4% | 10.4% | 47.7% | 35.1% | 4.4% | 0.4% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 05:00 | 09:00 | 06:00 | 07:00 | 07:00 | 08:00 | 06:00 | | | | | | | 07:00 | | |
| Vol. | 1 | 8 | 30 | 145 | 134 | 21 | 2 | | | | | | | 316 | | |
| PM Peak | 13:00 | 12:00 | 12:00 | 12:00 | 16:00 | 17:00 | 16:00 | 16:00 | | | | | | 12:00 | | |
| Vol. | 7 | 7 | 31 | 126 | 95 | 19 | 3 | 1 | | | | | | 241 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 24 MPH |
| 50th Percentile : | 27 MPH |
| 85th Percentile : | 32 MPH |
| 95th Percentile : | 33 MPH |
| Mean Speed(Average) : | 29 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 2600 |
| Percent in Pace : | 82.9% |
| Number of Vehicles > 30 MPH : | 1036 |
| Percent of Vehicles > 30 MPH : | 33.0% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
NB

165077 C Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/19/ 16 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 31 | 27 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 03:00 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 33 | 32 |
| 04:00 | 0 | 0 | 1 | 5 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 35 | 30 |
| 05:00 | 0 | 0 | 6 | 19 | 28 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 61 | 33 | 30 |
| 06:00 | 0 | 0 | 38 | 100 | 65 | 10 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 215 | 32 | 28 |
| 07:00 | **1** | **9** | 36 | 129 | 78 | **19** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 273 | 32 | 28 |
| 08:00 | 1 | 3 | **45** | **143** | **86** | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | **289** | 32 | 28 |
| 09:00 | 1 | 3 | 34 | 85 | 54 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 185 | 32 | 28 |
| 10:00 | 1 | 5 | 28 | 85 | 34 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 159 | 31 | 27 |
| 11:00 | 0 | 6 | 32 | 86 | 36 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 163 | 31 | 27 |
| 12 PM | 0 | **6** | **40** | 106 | 62 | 5 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 220 | 31 | 28 |
| 13:00 | 0 | 1 | 35 | 108 | 45 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 195 | 31 | 28 |
| 14:00 | 0 | 3 | 22 | 72 | 52 | 9 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 161 | 32 | 29 |
| 15:00 | 0 | 3 | 26 | 86 | 71 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 198 | 32 | 29 |
| 16:00 | 0 | 0 | 15 | 92 | 64 | **18** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 190 | 33 | 29 |
| 17:00 | **3** | 4 | 32 | **127** | **75** | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **250** | 32 | 28 |
| 18:00 | 0 | 2 | 17 | 92 | 63 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 180 | 32 | 29 |
| 19:00 | 0 | 1 | 28 | 63 | 40 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 143 | 32 | 28 |
| 20:00 | 0 | 3 | 8 | 40 | 31 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 | 32 | 28 |
| 21:00 | 0 | 0 | 3 | 14 | 9 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 34 | 30 |
| 22:00 | 0 | 1 | 9 | 7 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 32 | 27 |
| 23:00 | 0 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 28 | 28 |
| Total | 7 | 50 | 456 | 1467 | 907 | 144 | 14 | 0 | 1 | 0 | 0 | 0 | 0 | 3046 | | |
| % | 0.2% | 1.6% | 15.0% | 48.2% | 29.8% | 4.7% | 0.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 07:00 | 07:00 | 08:00 | 08:00 | 08:00 | 07:00 | 06:00 | | | | | | | 08:00 | | |
| Vol. | 1 | 9 | 45 | 143 | 86 | 19 | 2 | | | | | | | 289 | | |
| PM Peak | 17:00 | 12:00 | 12:00 | 17:00 | 17:00 | 16:00 | 14:00 | | 12:00 | | | | | 17:00 | | |
| Vol. | 3 | 6 | 40 | 127 | 75 | 18 | 3 | | 1 | | | | | 250 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 23 MPH |
| 50th Percentile : | 27 MPH |
| 85th Percentile : | 32 MPH |
| 95th Percentile : | 34 MPH |
| Mean Speed(Average) : | 28 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 2374 |
| Percent in Pace : | 77.9% |
| Number of Vehicles > 30 MPH : | 885 |
| Percent of Vehicles > 30 MPH : | 29.0% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
NB

165077 C Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/20/16 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 28 | 27 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 03:00 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 32 | 30 |
| 04:00 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 32 | 30 |
| 05:00 | 0 | 0 | 2 | 29 | 28 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 | 33 | 30 |
| 06:00 | 0 | 1 | 17 | 87 | 71 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 185 | 32 | 29 |
| 07:00 | 1 | 3 | 19 | **148** | 95 | 8 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | **276** | 32 | 29 |
| 08:00 | **3** | **7** | 21 | 114 | **97** | **23** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 265 | 33 | 29 |
| 09:00 | 0 | 2 | 35 | 96 | 64 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 210 | 32 | 28 |
| 10:00 | 0 | 2 | 21 | 92 | 63 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 185 | 32 | 28 |
| 11:00 | 1 | 3 | **38** | 86 | 75 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 210 | 32 | 28 |
| 12 PM | 0 | **11** | 27 | **133** | 85 | 9 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | **266** | 32 | 28 |
| 13:00 | 0 | 1 | **32** | 104 | 82 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 229 | 32 | 29 |
| 14:00 | 0 | 1 | 22 | 100 | 64 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 200 | 32 | 29 |
| 15:00 | 1 | 0 | 19 | 103 | 67 | **17** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 207 | 32 | 29 |
| 16:00 | 0 | 4 | 25 | 112 | 94 | 14 | **3** | **1** | 0 | 0 | 0 | 0 | 0 | 253 | 32 | 29 |
| 17:00 | 0 | 1 | 9 | 110 | **98** | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 227 | 32 | 29 |
| 18:00 | **4** | 1 | 6 | 112 | 83 | 15 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 223 | 33 | 29 |
| 19:00 | 0 | 1 | 11 | 73 | 47 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 136 | 32 | 29 |
| 20:00 | 0 | 2 | 11 | 33 | 36 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 32 | 29 |
| 21:00 | 1 | 3 | 3 | 32 | 15 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 32 | 28 |
| 22:00 | 0 | 0 | 6 | 9 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 32 | 29 |
| 23:00 | 0 | 0 | 4 | 10 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 32 | 28 |
| Total | 11 | 43 | 328 | 1587 | 1184 | 174 | 9 | 2 | 0 | 1 | 0 | 0 | 0 | 3339 | | |
| % | 0.3% | 1.3% | 9.8% | 47.5% | 35.5% | 5.2% | 0.3% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 08:00 | 08:00 | 11:00 | 07:00 | 08:00 | 08:00 | 07:00 | | | | | | | 07:00 | | |
| Vol. | 3 | 7 | 38 | 148 | 97 | 23 | 2 | | | | | | | 276 | | |
| PM Peak | 18:00 | 12:00 | 13:00 | 12:00 | 17:00 | 15:00 | 16:00 | 16:00 | | 12:00 | | | | 12:00 | | |
| Vol. | 4 | 11 | 32 | 133 | 98 | 17 | 3 | 1 | | 1 | | | | 266 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 24 MPH |
| 50th Percentile : | 28 MPH |
| 85th Percentile : | 32 MPH |
| 95th Percentile : | 34 MPH |
| Mean Speed(Average) : | 29 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 2771 |
| Percent in Pace : | 83.0% |
| Number of Vehicles > 30 MPH : | 1133 |
| Percent of Vehicles > 30 MPH : | 33.9% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan
NB

165077 C Speed
Site Code:

| Start Time | 1 14 | 15 19 | 20 24 | 25 29 | 30 34 | 35 39 | 40 44 | 45 49 | 50 54 | 55 59 | 60 64 | 65 69 | 70 9999 | Total | 85th % ile | Ave Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/21/16 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 32 | 29 |
| 01:00 | **2** | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 26 | 16 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * |
| 03:00 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 32 | 30 |
| 04:00 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 36 | 32 |
| 05:00 | 0 | 0 | 3 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 31 | 27 |
| 06:00 | 0 | 0 | 6 | 16 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 32 | 28 |
| 07:00 | 0 | 0 | 6 | 25 | 37 | 4 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 33 | 30 |
| 08:00 | 0 | **3** | 9 | 38 | 60 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 122 | 33 | 30 |
| 09:00 | 1 | 1 | 14 | 99 | 81 | **13** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 209 | 32 | 29 |
| 10:00 | 0 | 0 | 17 | 113 | **86** | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 225 | 32 | 29 |
| 11:00 | 0 | 3 | **34** | **140** | 84 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **273** | 32 | 28 |
| 12 PM | **2** | **9** | 28 | 105 | **100** | **16** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **260** | 32 | 29 |
| 13:00 | 0 | 0 | **31** | **127** | 81 | 8 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 250 | 32 | 28 |
| 14:00 | 1 | 1 | 27 | 82 | 79 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 196 | 32 | 28 |
| 15:00 | 2 | 0 | 31 | 102 | 76 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 219 | 32 | 28 |
| 16:00 | 0 | 1 | 12 | 74 | 68 | 15 | 1 | **1** | 0 | 0 | 0 | 0 | 0 | 172 | 33 | 30 |
| 17:00 | 0 | 1 | 21 | 106 | 60 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 197 | 32 | 28 |
| 18:00 | 0 | 0 | 14 | 68 | 51 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 146 | 33 | 29 |
| 19:00 | 0 | 0 | 11 | 55 | 31 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 | 32 | 28 |
| 20:00 | 0 | 3 | 12 | 45 | 14 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 76 | 30 | 27 |
| 21:00 | 0 | 1 | 4 | 22 | 15 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 33 | 29 |
| 22:00 | 0 | 0 | 0 | 17 | 7 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 33 | 30 |
| 23:00 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 31 | 29 |
| Total | 8 | 23 | 281 | 1252 | 956 | 133 | 13 | 1 | 0 | 0 | 0 | 0 | 1 | 2668 | | |
| % | 0.3% | 0.9% | 10.5% | 46.9% | 35.8% | 5.0% | 0.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| AM Peak | 01:00 | 08:00 | 11:00 | 11:00 | 10:00 | 09:00 | 07:00 | | | | | | 11:00 | 11:00 | | |
| Vol. | 2 | 3 | 34 | 140 | 86 | 13 | 1 | | | | | | 1 | 273 | | |
| PM Peak | 12:00 | 12:00 | 13:00 | 13:00 | 12:00 | 12:00 | 13:00 | 16:00 | | | | | | 12:00 | | |
| Vol. | 2 | 9 | 31 | 127 | 100 | 16 | 3 | 1 | | | | | | 260 | | |

Stats

| | |
|---|---|
| 15th Percentile : | 24 MPH |
| 50th Percentile : | 28 MPH |
| 85th Percentile : | 32 MPH |
| 95th Percentile : | 34 MPH |
| Mean Speed(Average) : | 29 MPH |
| 10 MPH Pace Speed : | 25-34 MPH |
| Number in Pace : | 2208 |
| Percent in Pace : | 82.8% |
| Number of Vehicles > 30 MPH : | 913 |
| Percent of Vehicles > 30 MPH : | 34.2% |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan

165077 C Volume
Site Code:

| Start | SB | | | | NB | | | | Combined | | | | 5/18/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Wed |
| 12:00 | 1 | | 21 | | 0 | | 54 | | 1 | | 75 | | |
| 12:15 | 4 | | 22 | | 2 | | 58 | | 6 | | 80 | | |
| 12:30 | 1 | | 33 | | 0 | | 53 | | 1 | | 86 | | |
| 12:45 | 1 | 7 | 31 | 107 | 1 | 3 | 76 | 241 | 2 | 10 | 107 | 348 | |
| 01:00 | 0 | | 28 | | 0 | | 46 | | 0 | | 74 | | |
| 01:15 | 1 | | 27 | | 1 | | 53 | | 2 | | 80 | | |
| 01:30 | 0 | | 34 | | 1 | | 48 | | 1 | | 82 | | |
| 01:45 | 0 | 1 | 22 | 111 | 0 | 2 | 45 | 192 | 0 | 3 | 67 | 303 | |
| 02:00 | 0 | | 32 | | 0 | | 49 | | 0 | | 81 | | |
| 02:15 | 0 | | 32 | | 0 | | 33 | | 0 | | 65 | | |
| 02:30 | 0 | | 26 | | 0 | | 44 | | 0 | | 70 | | |
| 02:45 | 0 | 0 | 34 | 124 | 0 | 0 | 44 | 170 | 0 | 0 | 78 | 294 | |
| 03:00 | 0 | | 52 | | 0 | | 56 | | 0 | | 108 | | |
| 03:15 | 0 | | 30 | | 0 | | 36 | | 0 | | 66 | | |
| 03:30 | 0 | | 67 | | 0 | | 43 | | 0 | | 110 | | |
| 03:45 | 0 | 0 | 30 | 179 | 0 | 0 | 60 | 195 | 0 | 0 | 90 | 374 | |
| 04:00 | 0 | | 52 | | 1 | | 46 | | 1 | | 98 | | |
| 04:15 | 0 | | 42 | | 1 | | 44 | | 1 | | 86 | | |
| 04:30 | 0 | | 62 | | 4 | | 57 | | 4 | | 119 | | |
| 04:45 | 0 | 0 | 42 | 198 | 3 | 9 | 70 | 217 | 3 | 9 | 112 | 415 | |
| 05:00 | 0 | | 72 | | 4 | | 46 | | 4 | | 118 | | |
| 05:15 | 2 | | 56 | | 9 | | 58 | | 11 | | 114 | | |
| 05:30 | 0 | | 48 | | 25 | | 64 | | 25 | | 112 | | |
| 05:45 | 3 | 5 | 83 | 259 | 35 | 73 | 52 | 220 | 38 | 78 | 135 | 479 | |
| 06:00 | 2 | | 79 | | 26 | | 40 | | 28 | | 119 | | |
| 06:15 | 1 | | 52 | | 51 | | 50 | | 52 | | 102 | | |
| 06:30 | 5 | | 58 | | 64 | | 36 | | 69 | | 94 | | |
| 06:45 | 8 | 16 | 38 | 227 | 77 | 218 | 36 | 162 | 85 | 234 | 74 | 389 | |
| 07:00 | 9 | | 21 | | 76 | | 37 | | 85 | | 58 | | |
| 07:15 | 9 | | 25 | | 68 | | 39 | | 77 | | 64 | | |
| 07:30 | 8 | | 30 | | 95 | | 37 | | 103 | | 67 | | |
| 07:45 | 10 | 36 | 15 | 91 | 77 | 316 | 29 | 142 | 87 | 352 | 44 | 233 | |
| 08:00 | 18 | | 20 | | 69 | | 30 | | 87 | | 50 | | |
| 08:15 | 16 | | 13 | | 75 | | 27 | | 91 | | 40 | | |
| 08:30 | 22 | | 19 | | 87 | | 19 | | 109 | | 38 | | |
| 08:45 | 11 | 67 | 20 | 72 | 59 | 290 | 18 | 94 | 70 | 357 | 38 | 166 | |
| 09:00 | 8 | | 13 | | 64 | | 11 | | 72 | | 24 | | |
| 09:15 | 13 | | 9 | | 37 | | 7 | | 50 | | 16 | | |
| 09:30 | 18 | | 12 | | 38 | | 4 | | 56 | | 16 | | |
| 09:45 | 10 | 49 | 10 | 44 | 44 | 183 | 3 | 25 | 54 | 232 | 13 | 69 | |
| 10:00 | 6 | | 10 | | 50 | | 5 | | 56 | | 15 | | |
| 10:15 | 12 | | 7 | | 49 | | 10 | | 61 | | 17 | | |
| 10:30 | 30 | | 10 | | 38 | | 2 | | 68 | | 12 | | |
| 10:45 | 18 | 66 | 4 | 31 | 49 | 186 | 1 | 18 | 67 | 252 | 5 | 49 | |
| 11:00 | 19 | | 3 | | 49 | | 0 | | 68 | | 3 | | |
| 11:15 | 18 | | 4 | | 44 | | 1 | | 62 | | 5 | | |
| 11:30 | 25 | | 5 | | 46 | | 3 | | 71 | | 8 | | |
| 11:45 | 24 | 86 | 2 | 14 | 38 | 177 | 1 | 5 | 62 | 263 | 3 | 19 | |
| Total | 333 | | 1457 | | 1457 | | 1681 | | 1790 | | 3138 | | |
| Percent | 18.6% | | 46.4% | | 81.4% | | 53.6% | | | | | | |
| Day Total | | 1790 | | | | 3138 | | | | 4928 | | | |
| Peak | 11:00 | - | 05:45 | - | 06:45 | - | 12:00 | - | 07:45 | - | 05:15 | - | - - |
| Vol. | 86 | - | 272 | - | 316 | - | 241 | - | 374 | - | 480 | - | - - |
| P.H.F. | 0.860 | | 0.819 | | 0.832 | | 0.793 | | 0.858 | | 0.889 | | |

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan

165077 C Volume
Site Code:

| Start | SB | | | | NB | | | | Combined | | | | 5/19/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Thu |
| 12:00 | 2 | | 27 | | 1 | | 50 | | 3 | | 77 | | |
| 12:15 | 2 | | 29 | | 1 | | 54 | | 3 | | 83 | | |
| 12:30 | 0 | | 33 | | 0 | | 51 | | 0 | | 84 | | |
| 12:45 | 0 | 4 | 31 | 120 | 1 | 3 | 65 | 220 | 1 | 7 | 96 | 340 | |
| 01:00 | 1 | | 30 | | 0 | | 55 | | 1 | | 85 | | |
| 01:15 | 1 | | 26 | | 0 | | 41 | | 1 | | 67 | | |
| 01:30 | 0 | | 25 | | 0 | | 48 | | 0 | | 73 | | |
| 01:45 | 0 | 2 | 25 | 106 | 0 | 0 | 51 | 195 | 0 | 2 | 76 | 301 | |
| 02:00 | 0 | | 29 | | 0 | | 46 | | 0 | | 75 | | |
| 02:15 | 0 | | 29 | | 0 | | 28 | | 0 | | 57 | | |
| 02:30 | 0 | | 20 | | 0 | | 46 | | 0 | | 66 | | |
| 02:45 | 0 | 0 | 31 | 109 | 0 | 0 | 41 | 161 | 0 | 0 | 72 | 270 | |
| 03:00 | 0 | | 26 | | 0 | | 50 | | 0 | | 76 | | |
| 03:15 | 0 | | 35 | | 0 | | 48 | | 0 | | 83 | | |
| 03:30 | 0 | | 63 | | 1 | | 52 | | 1 | | 115 | | |
| 03:45 | 0 | 0 | 42 | 166 | 0 | 1 | 48 | 198 | 0 | 1 | 90 | 364 | |
| 04:00 | 0 | | 44 | | 0 | | 48 | | 0 | | 92 | | |
| 04:15 | 1 | | 31 | | 2 | | 42 | | 3 | | 73 | | |
| 04:30 | 1 | | 64 | | 4 | | 50 | | 5 | | 114 | | |
| 04:45 | 0 | 2 | 35 | 174 | 4 | 10 | 50 | 190 | 4 | 12 | 85 | 364 | |
| 05:00 | 0 | | 68 | | 4 | | 55 | | 4 | | 123 | | |
| 05:15 | 0 | | 43 | | 6 | | 60 | | 6 | | 103 | | |
| 05:30 | 0 | | 47 | | 20 | | 77 | | 20 | | 124 | | |
| 05:45 | 5 | 5 | 75 | 233 | 31 | 61 | 58 | 250 | 36 | 66 | 133 | 483 | |
| 06:00 | 1 | | 74 | | 22 | | 43 | | 23 | | 117 | | |
| 06:15 | 3 | | 44 | | 48 | | 69 | | 51 | | 113 | | |
| 06:30 | 9 | | 52 | | 57 | | 32 | | 66 | | 84 | | |
| 06:45 | 4 | 17 | 29 | 199 | 88 | 215 | 36 | 180 | 92 | 232 | 65 | 379 | |
| 07:00 | 9 | | 21 | | 65 | | 38 | | 74 | | 59 | | |
| 07:15 | 6 | | 40 | | 64 | | 45 | | 70 | | 85 | | |
| 07:30 | 8 | | 51 | | 79 | | 34 | | 87 | | 85 | | |
| 07:45 | 12 | 35 | 19 | 131 | 65 | 273 | 26 | 143 | 77 | 308 | 45 | 274 | |
| 08:00 | 13 | | 37 | | 78 | | 23 | | 91 | | 60 | | |
| 08:15 | 16 | | 20 | | 83 | | 23 | | 99 | | 43 | | |
| 08:30 | 15 | | 17 | | 76 | | 19 | | 91 | | 36 | | |
| 08:45 | 20 | 64 | 21 | 95 | 52 | 289 | 19 | 84 | 72 | 353 | 40 | 179 | |
| 09:00 | 19 | | 21 | | 54 | | 8 | | 73 | | 29 | | |
| 09:15 | 8 | | 11 | | 30 | | 5 | | 38 | | 16 | | |
| 09:30 | 11 | | 9 | | 38 | | 8 | | 49 | | 17 | | |
| 09:45 | 20 | 58 | 11 | 52 | 63 | 185 | 10 | 31 | 83 | 243 | 21 | 83 | |
| 10:00 | 14 | | 9 | | 41 | | 4 | | 55 | | 13 | | |
| 10:15 | 14 | | 8 | | 39 | | 11 | | 53 | | 19 | | |
| 10:30 | 26 | | 5 | | 43 | | 7 | | 69 | | 12 | | |
| 10:45 | 18 | 72 | 5 | 27 | 36 | 159 | 5 | 27 | 54 | 231 | 10 | 54 | |
| 11:00 | 15 | | 3 | | 28 | | 3 | | 43 | | 6 | | |
| 11:15 | 25 | | 7 | | 44 | | 2 | | 69 | | 9 | | |
| 11:30 | 27 | | 1 | | 36 | | 0 | | 63 | | 1 | | |
| 11:45 | 17 | 84 | 1 | 12 | 55 | 163 | 3 | 8 | 72 | 247 | 4 | 20 | |
| Total | 343 | | 1424 | | 1359 | | 1687 | | 1702 | | 3111 | | |
| Percent | 20.2% | | 45.8% | | 79.8% | | 54.2% | | | | | | |
| Day Total | | 1767 | | | | 3046 | | | | 4813 | | | |
| Peak | 10:45 | - | 05:45 | - | 07:30 | - | 05:00 | - | 07:45 | - | 05:30 | - | - | - |
| Vol. | 85 | - | 245 | - | 305 | - | 250 | - | 358 | - | 487 | - | - | - |
| P.H.F. | 0.787 | | 0.817 | | 0.919 | | 0.812 | | 0.904 | | 0.915 | | |

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Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan

165077 C Volume
Site Code:

| Start | SB | | | | NB | | | | Combined | | | | 5/20/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Fri |
| 12:00 | 3 | | 28 | | 0 | | 71 | | 3 | | 99 | | |
| 12:15 | 1 | | 31 | | 1 | | 67 | | 2 | | 98 | | |
| 12:30 | 0 | | 33 | | 0 | | 72 | | 0 | | 105 | | |
| 12:45 | 1 | 5 | 19 | 111 | 0 | 1 | 56 | 266 | 1 | 6 | 75 | 377 | |
| 01:00 | 0 | | 28 | | 0 | | 61 | | 0 | | 89 | | |
| 01:15 | 0 | | 36 | | 0 | | 58 | | 0 | | 94 | | |
| 01:30 | 0 | | 31 | | 0 | | 47 | | 0 | | 78 | | |
| 01:45 | 0 | 0 | 35 | 130 | 0 | 0 | 63 | 229 | 0 | 0 | 98 | 359 | |
| 02:00 | 0 | | 31 | | 0 | | 60 | | 0 | | 91 | | |
| 02:15 | 0 | | 48 | | 0 | | 43 | | 0 | | 91 | | |
| 02:30 | 0 | | 38 | | 0 | | 54 | | 0 | | 92 | | |
| 02:45 | 0 | 0 | 29 | 146 | 0 | 0 | 43 | 200 | 0 | 0 | 72 | 346 | |
| 03:00 | 0 | | 44 | | 0 | | 61 | | 0 | | 105 | | |
| 03:15 | 0 | | 36 | | 1 | | 35 | | 1 | | 71 | | |
| 03:30 | 0 | | 68 | | 1 | | 46 | | 1 | | 114 | | |
| 03:45 | 0 | 0 | 42 | 190 | 0 | 2 | 65 | 207 | 0 | 2 | 107 | 397 | |
| 04:00 | 0 | | 52 | | 0 | | 57 | | 0 | | 109 | | |
| 04:15 | 0 | | 73 | | 3 | | 50 | | 3 | | 123 | | |
| 04:30 | 0 | | 38 | | 0 | | 64 | | 0 | | 102 | | |
| 04:45 | 0 | 0 | 65 | 228 | 2 | 5 | 82 | 253 | 2 | 5 | 147 | 481 | |
| 05:00 | 3 | | 82 | | 4 | | 55 | | 7 | | 137 | | |
| 05:15 | 1 | | 62 | | 14 | | 68 | | 15 | | 130 | | |
| 05:30 | 0 | | 44 | | 17 | | 61 | | 17 | | 105 | | |
| 05:45 | 1 | 5 | 59 | 247 | 30 | 65 | 43 | 227 | 31 | 70 | 102 | 474 | |
| 06:00 | 2 | | 71 | | 21 | | 58 | | 23 | | 129 | | |
| 06:15 | 0 | | 39 | | 44 | | 57 | | 44 | | 96 | | |
| 06:30 | 5 | | 53 | | 56 | | 63 | | 61 | | 116 | | |
| 06:45 | 7 | 14 | 30 | 193 | 64 | 185 | 45 | 223 | 71 | 199 | 75 | 416 | |
| 07:00 | 11 | | 23 | | 84 | | 38 | | 95 | | 61 | | |
| 07:15 | 10 | | 30 | | 52 | | 42 | | 62 | | 72 | | |
| 07:30 | 12 | | 18 | | 68 | | 36 | | 80 | | 54 | | |
| 07:45 | 10 | 43 | 20 | 91 | 72 | 276 | 20 | 136 | 82 | 319 | 40 | 227 | |
| 08:00 | 12 | | 25 | | 83 | | 26 | | 95 | | 51 | | |
| 08:15 | 17 | | 28 | | 63 | | 19 | | 80 | | 47 | | |
| 08:30 | 17 | | 22 | | 65 | | 19 | | 82 | | 41 | | |
| 08:45 | 14 | 60 | 20 | 95 | 54 | 265 | 23 | 87 | 68 | 325 | 43 | 182 | |
| 09:00 | 11 | | 28 | | 57 | | 17 | | 68 | | 45 | | |
| 09:15 | 20 | | 14 | | 59 | | 12 | | 79 | | 26 | | |
| 09:30 | 22 | | 12 | | 45 | | 13 | | 67 | | 25 | | |
| 09:45 | 21 | 74 | 9 | 63 | 49 | 210 | 17 | 59 | 70 | 284 | 26 | 122 | |
| 10:00 | 20 | | 5 | | 46 | | 9 | | 66 | | 14 | | |
| 10:15 | 14 | | 16 | | 40 | | 8 | | 54 | | 24 | | |
| 10:30 | 17 | | 9 | | 42 | | 9 | | 59 | | 18 | | |
| 10:45 | 19 | 70 | 16 | 46 | 57 | 185 | 4 | 30 | 76 | 255 | 20 | 76 | |
| 11:00 | 14 | | 10 | | 47 | | 10 | | 61 | | 20 | | |
| 11:15 | 10 | | 11 | | 43 | | 5 | | 53 | | 16 | | |
| 11:30 | 35 | | 3 | | 53 | | 2 | | 88 | | 5 | | |
| 11:45 | 20 | 79 | 4 | 28 | 67 | 210 | 1 | 18 | 87 | 289 | 5 | 46 | |
| Total | 350 | | 1568 | | 1404 | | 1935 | | 1754 | | 3503 | | |
| Percent | 20.0% | | 44.8% | | 80.0% | | 55.2% | | | | | | |
| Day Total | | 1918 | | | | 3339 | | | | 5257 | | | |
| Peak | 09:15 | - | 04:15 | - | 07:30 | - | 04:30 | - | 07:45 | - | 04:45 | - | - - |
| Vol. | 83 | - | 258 | - | 286 | - | 269 | - | 339 | - | 519 | - | - - |
| P.H.F. | 0.943 | | 0.787 | | 0.861 | | 0.820 | | 0.892 | | 0.883 | | |

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Sgt William B Terry Drive
north of Beal Street
City, State: Hingham, MA
Client: VHB / E. Chan

165077 C Volume
Site Code:

| Start | SB | | | | NB | | | | Combined | | | | 5/21/2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | A.M. | | P.M. | | A.M. | | P.M. | | A.M. | | P.M. | | Sat |
| 12:00 | 3 | | 32 | | 1 | | 72 | | 4 | | 104 | | |
| 12:15 | 4 | | 17 | | 2 | | 57 | | 6 | | 74 | | |
| 12:30 | 1 | | 21 | | 2 | | 80 | | 3 | | 101 | | |
| 12:45 | 0 | 8 | 26 | 96 | 3 | 8 | 51 | 260 | 3 | 16 | 77 | 356 | |
| 01:00 | 3 | | 43 | | 1 | | 65 | | 4 | | 108 | | |
| 01:15 | 3 | | 29 | | 2 | | 72 | | 5 | | 101 | | |
| 01:30 | 0 | | 34 | | 0 | | 54 | | 0 | | 88 | | |
| 01:45 | 0 | 6 | 28 | 134 | 1 | 4 | 59 | 250 | 1 | 10 | 87 | 384 | |
| 02:00 | 1 | | 31 | | 0 | | 40 | | 1 | | 71 | | |
| 02:15 | 0 | | 35 | | 0 | | 57 | | 0 | | 92 | | |
| 02:30 | 0 | | 27 | | 0 | | 51 | | 0 | | 78 | | |
| 02:45 | 0 | 1 | 32 | 125 | 0 | 0 | 48 | 196 | 0 | 1 | 80 | 321 | |
| 03:00 | 0 | | 37 | | 0 | | 47 | | 0 | | 84 | | |
| 03:15 | 0 | | 40 | | 0 | | 57 | | 0 | | 97 | | |
| 03:30 | 0 | | 27 | | 2 | | 56 | | 2 | | 83 | | |
| 03:45 | 0 | 0 | 32 | 136 | 0 | 2 | 59 | 219 | 0 | 2 | 91 | 355 | |
| 04:00 | 0 | | 41 | | 0 | | 41 | | 0 | | 82 | | |
| 04:15 | 0 | | 27 | | 1 | | 44 | | 1 | | 71 | | |
| 04:30 | 0 | | 37 | | 0 | | 51 | | 0 | | 88 | | |
| 04:45 | 0 | 0 | 30 | 135 | 3 | 4 | 36 | 172 | 3 | 4 | 66 | 307 | |
| 05:00 | 1 | | 29 | | 0 | | 57 | | 1 | | 86 | | |
| 05:15 | 1 | | 21 | | 5 | | 54 | | 6 | | 75 | | |
| 05:30 | 0 | | 30 | | 0 | | 43 | | 0 | | 73 | | |
| 05:45 | 1 | 3 | 28 | 108 | 8 | 13 | 43 | 197 | 9 | 16 | 71 | 305 | |
| 06:00 | 0 | | 28 | | 0 | | 41 | | 0 | | 69 | | |
| 06:15 | 1 | | 22 | | 9 | | 43 | | 10 | | 65 | | |
| 06:30 | 0 | | 27 | | 7 | | 24 | | 7 | | 51 | | |
| 06:45 | 2 | 3 | 25 | 102 | 21 | 37 | 38 | 146 | 23 | 40 | 63 | 248 | |
| 07:00 | 3 | | 23 | | 13 | | 23 | | 16 | | 46 | | |
| 07:15 | 1 | | 20 | | 17 | | 30 | | 18 | | 50 | | |
| 07:30 | 3 | | 12 | | 20 | | 23 | | 23 | | 35 | | |
| 07:45 | 6 | 13 | 15 | 70 | 23 | 73 | 26 | 102 | 29 | 86 | 41 | 172 | |
| 08:00 | 8 | | 17 | | 28 | | 13 | | 36 | | 30 | | |
| 08:15 | 9 | | 15 | | 26 | | 28 | | 35 | | 43 | | |
| 08:30 | 9 | | 14 | | 27 | | 21 | | 36 | | 35 | | |
| 08:45 | 13 | 39 | 20 | 66 | 41 | 122 | 14 | 76 | 54 | 161 | 34 | 142 | |
| 09:00 | 16 | | 18 | | 59 | | 21 | | 75 | | 39 | | |
| 09:15 | 18 | | 14 | | 51 | | 9 | | 69 | | 23 | | |
| 09:30 | 21 | | 12 | | 50 | | 7 | | 71 | | 19 | | |
| 09:45 | 19 | 74 | 4 | 48 | 49 | 209 | 9 | 46 | 68 | 283 | 13 | 94 | |
| 10:00 | 14 | | 9 | | 47 | | 10 | | 61 | | 19 | | |
| 10:15 | 23 | | 8 | | 61 | | 9 | | 84 | | 17 | | |
| 10:30 | 21 | | 4 | | 58 | | 5 | | 79 | | 9 | | |
| 10:45 | 30 | 88 | 3 | 24 | 59 | 225 | 4 | 28 | 89 | 313 | 7 | 52 | |
| 11:00 | 29 | | 7 | | 75 | | 2 | | 104 | | 9 | | |
| 11:15 | 31 | | 3 | | 57 | | 1 | | 88 | | 4 | | |
| 11:30 | 30 | | 4 | | 62 | | 2 | | 92 | | 6 | | |
| 11:45 | 16 | 106 | 4 | 18 | 79 | 273 | 1 | 6 | 95 | 379 | 5 | 24 | |
| Total | 341 | | 1062 | | 970 | | 1698 | | 1311 | | 2760 | | |
| Percent | 26.0% | | 38.5% | | 74.0% | | 61.5% | | | | | | |
| Day Total | | 1403 | | | | 2668 | | | | 4071 | | | |
| Peak | 10:45 | - | 03:15 | - | 11:00 | - | 00:30 | - | 11:00 | - | 00:30 | - | - | - |
| Vol. | 120 | - | 140 | - | 273 | - | 268 | - | 379 | - | 387 | - | - | - |
| P.H.F. | 0.968 | | 0.854 | | 0.864 | | 0.838 | | 0.911 | | 0.896 | | | |

# RAW CRASH DATA

| Sub Group | Crash ID | Town | Year | Crash Date | Crash Time | Crash Severity | Total Vehicles | Total Injured | Total Fatals | Collision manner | Road Surface | Lighting | Weather | Street | Intersection | Distance From Nearest Intersection | Vehicles Travel Directions | Most Harmful Events | Vehicle Action Prior to Crash | Vehicle Configuration | Non Motorist Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lincoln at Terry/Shipyard | 2468621 | HINGHAM | 2009 | 4/23/2009 | 7:36 AM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Dry | Daylight | Clear/Clear | | | SHIPYARD DRIVE / LINCOLN STREET | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Turning right | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Truck/trailer | |
| Lincoln at Terry/Shipyard | 2500886 | HINGHAM | 2009 | 7/28/2009 | 1:24 AM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Dry | Dark - lighted roadway | Clear/Clear | LINCOLN STREET / WILLIAM B TERRY DRIVE | LINCOLN STREET / WILLIAM B TERRY DRIVE | | V1:Southbound | V1: Collision with highway traffic sign post | V1: Travelling straight ahead | V1: Passenger car | |
| Lincoln at Terry/Shipyard | 2578468 | HINGHAM | 2010 | 1/27/2010 | 6:49 PM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Dry | Dark - lighted roadway | Clear/Clear | | | 350 LINCOLN STREET Rte 3A | V1:Northbound | V1: Collision with highway traffic sign post | V1: Travelling straight ahead | V1: Passenger car | |
| Lincoln at Terry/Shipyard | 2587521 | HINGHAM | 2010 | 3/29/2010 | 8:54 AM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Wet | Daylight | Cloudy/Rain | Rte 3A / LINCOLN STREET / SGT WM B TERRY DRIVE | Rte 3A / LINCOLN STREET / SGT WM B TERRY DRIVE | | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Passenger car | |
| Lincoln at Terry/Shipyard | 2614364 | HINGHAM | 2010 | 5/29/2010 | 2:22 PM | Non-fatal injury | 3 | 2 | 0 | Angle | Dry | Daylight | Clear/Clear | Rte 3A / LINCOLN STREET / WILLIAM B TERRY DRIVE | Rte 3A / LINCOLN STREET / WILLIAM B TERRY DRIVE | | V1:Eastbound / V2:Southbound / V3:Northbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in | V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in | V1: Passenger car / V2:Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Terry/Shipyard | 2677607 | HINGHAM | 2010 | 11/30/2010 | 4:08 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Dusk | Clear/Clear | LINCOLN STREET / SHIPYARD DRIVE | LINCOLN STREET / SHIPYARD DRIVE | | V1:Westbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Slowing or stopped in traffic / V2:Travelling straight ahead | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Terry/Shipyard | 2681568 | HINGHAM | 2010 | 12/31/2010 | 1:07 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Wet | Daylight | Clear/Clear | Rte 3A / LINCOLN STREET / WILLIAM B TERRY DRIVE | Rte 3A / LINCOLN STREET / WILLIAM B TERRY DRIVE | | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Travelling straight ahead | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Terry/Shipyard | 2728874 | HINGHAM | 2011 | 3/24/2011 | 2:04 PM | Property damage only (none injured) | 2 | 0 | 0 | Sideswipe, same direction | Dry | Daylight | Cloudy/Cloudy | | | 22 SHIPYARD DRIVE | V1:Westbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Parked | V1: Single-unit truck (2-axle, 6-tire) / V2:Passenger car | |
| Lincoln at Terry/Shipyard | 2785993 | HINGHAM | 2011 | 9/27/2011 | 6:45 AM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Dry | Daylight | Cloudy/Fog, smog, smoke | Rte 3A / LINCOLN STREET / SHIPYARD DRIVE | Rte 3A / LINCOLN STREET / SHIPYARD DRIVE | | V1:Northbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Turning right | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Terry/Shipyard | 2838135 | HINGHAM | 2011 | 12/9/2011 | 4:00 PM | Property damage only (none injured) | 1 | 0 | 0 | Head-on | Dry | Daylight | Clear/Clear | SHIPYARD DRIVE / LINCOLN STREET | SHIPYARD DRIVE / LINCOLN STREET | | V1:Westbound | V1: Collision with cyclist (bicycle, tricycle, unicycle, pedal car) | V1: Travelling straight ahead | V1: Not reported | P3:Pedalcyclist (bicycle, tricycle, unicycle, pedal car) |
| Lincoln at Terry/Shipyard | 2861853 | HINGHAM | 2011 | 11/2/2011 | 10:46 AM | Non-fatal injury | 2 | 1 | 0 | Rear-end | Dry | Daylight | Clear/Cloudy | SHIPYARD DRIVE / LINCOLN STREET Rte 3A E / WILLIAM B TERRY DRIVE | SHIPYARD DRIVE / LINCOLN STREET Rte 3A E / WILLIAM B TERRY DRIVE | | V1:Westbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Terry/Shipyard | 2947532 | HINGHAM | 2011 | 1/21/2011 | 11:50 PM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Dry | Dark - lighted roadway | Clear/Clear | LINCOLN STREET / SHIPYARD DRIVE | LINCOLN STREET / SHIPYARD DRIVE | | V1:Eastbound | V1: Collision with highway traffic sign post | V1: Travelling straight ahead | V1: Passenger car | |
| Lincoln at Terry/Shipyard | 3114288 | HINGHAM | 2012 | 5/18/2012 | 2:35 PM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Dry | Daylight | Clear | | | 5 SHIPYARD DRIVE | V1:Eastbound | V1: Collision with highway traffic sign post | V1: Entering traffic lane | V1: Truck/trailer | |
| Lincoln at Terry/Shipyard | 3183910 | HINGHAM | 2012 | 6/21/2012 | 3:45 PM | Not Reported | 1 | 0 | 0 | Single vehicle crash | Dry | Daylight | Cloudy | LINCOLN STREET Rte 3A S / SHIPYARD DRIVE | LINCOLN STREET Rte 3A S / SHIPYARD DRIVE | | V1:Eastbound | V1: Not reported | V1: Turning left | V1: Passenger car | |
| Lincoln at Terry/Shipyard | 3246636 | HINGHAM | 2012 | 7/5/2012 | 9:44 AM | Non-fatal injury | 2 | 1 | 0 | Rear-end | Dry | Daylight | Clear | LINCOLN STREET Rte 3A / SHIPYARD DRIVE | LINCOLN STREET Rte 3A / SHIPYARD DRIVE | | V1:Westbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Passenger car | |
| Lincoln at Terry/Shipyard | 3312033 | HINGHAM | 2012 | 10/31/2012 | 10:55 AM | Non-fatal injury | 2 | 2 | 0 | Angle | Dry | Daylight | Clear | Rte 3A / LINCOLN STREET / SGT WM B TERRY DRIVE | Rte 3A / LINCOLN STREET / SGT WM B TERRY DRIVE | | V1:Eastbound / V2:Northbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Travelling straight ahead | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Terry/Shipyard | 3327660 | HINGHAM | 2012 | 11/16/2012 | 5:48 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Dark - lighted roadway | Clear | WILLIAM B TERRY DRIVE / LINCOLN STREET | WILLIAM B TERRY DRIVE / LINCOLN STREET | | V1:Northbound / V2:Southbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Slowing or stopped in traffic / V2:Backing | V1: Passenger car / V2:Passenger car | |
| Lincoln at Terry/Shipyard | 3368947 | HINGHAM | 2013 | 1/16/2013 | 11:35 AM | Non-fatal injury | 3 | 2 | 0 | Rear-end | Wet | Daylight | Rain | LINCOLN STREET / SHIPYARD DRIVE | LINCOLN STREET / SHIPYARD DRIVE | | V1:Westbound / V2:Westbound / V3:Not reported | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Not reported | V1: Slowing or stopped in traffic / V2:Travelling straight ahead / V3:Not reported | V1: Bus (seats for more than 15 people, including driver) / V2:Passenger car / V3:Passenger car | |
| Lincoln at Terry/Shipyard | 3371410 | HINGHAM | 2013 | 3/9/2013 | 00:00 AM | Non-fatal injury | 2 | 1 | 0 | Rear-end | Wet | Daylight | Not Reported | | | 400 LINCOLN STREET Rte 3A E | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Passenger car | |
| Lincoln at Terry/Shipyard | 3390557 | HINGHAM | 2013 | 3/7/2013 | 8:43 AM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Slush | Daylight | Severe crosswinds/Sleet, hail (freezing rain or drizzle) | LINCOLN STREET / WILLIAM B TERRY DRIVE | LINCOLN STREET / WILLIAM B TERRY DRIVE | | V1:Eastbound | V1: Collision with curb | V1: Travelling straight ahead | V1: Passenger car | |
| Lincoln at Terry/Shipyard | 3392297 | HINGHAM | 2013 | 3/23/2013 | 11:38 AM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Daylight | Clear | | | LINCOLN STREET Rte 3A / SHIPYARD DRIVE Rte 3A | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Terry/Shipyard | 3736103 | HINGHAM | 2013 | 10/30/2013 | 3:46 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Daylight | Clear | | | SGT WILLIAM B TERRY DRIVE | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Terry/Shipyard | 3736741 | HINGHAM | 2013 | 12/7/2013 | 3:43 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Daylight | Cloudy | LINCOLN STREET Rte 3A N / SGT WILLIAM B TERRY DRIVE | LINCOLN STREET Rte 3A N / SGT WILLIAM B TERRY DRIVE | | V1:Eastbound / V2:Not reported | V1: Collision with motor vehicle in traffic / V2: Not reported | V1: Travelling straight ahead / V2:Not reported | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Talbots/Shipyard | 2566064 | HINGHAM | 2009 | 12/17/2009 | 6:00 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Dark - lighted roadway | Clear/Clear | TALBOT DRIVE / LINCOLN STREET Rte 3A S | TALBOT DRIVE / LINCOLN STREET Rte 3A S | | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger | |
| Lincoln at Talbots/Shipyard | 3183908 | HINGHAM | 2012 | 5/22/2012 | 11:28 AM | Property damage only (none injured) | 3 | 0 | 0 | Not reported | Not reported | Not reported | Not Reported | | | 322 LINCOLN STREET Rte 3A S | V1:Eastbound / V2:Eastbound / V2:Not reported | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Not | V1: Turning right / V2:Travelling straight ahead / V3:Not reported | V1: Passenger car / V2:Passenger car / V3:Unknown vehicle | |
| Lincoln at Talbots/Shipyard | 3480735 | HINGHAM | 2013 | 6/19/2013 | 9:09 AM | Non-fatal injury | 2 | 1 | 0 | Rear-end | Dry | Daylight | Clear | | | 322 LINCOLN STREET Rte 3A S | V1:Southbound / V2:Southbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Turning left | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Fottler | 2454966 | HINGHAM | 2009 | 3/13/2009 | 5:27 PM | Non-fatal injury | 2 | 2 | 0 | Angle | Dry | Daylight | Clear/Clear | LINCOLN STREET / BRADLEY WOODS DRIVE | LINCOLN STREET / BRADLEY WOODS DRIVE | | V1:Westbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Entering traffic lane / V2:Turning left | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger | |
| Lincoln at Fottler | 2472931 | HINGHAM | 2009 | 5/1/2009 | 4:24 PM | Non-fatal injury | 2 | 1 | 0 | Angle | Dry | Daylight | Clear/Clear | LINCOLN STREET / BRADLEY WOODS DRIVE | LINCOLN STREET / BRADLEY WOODS DRIVE | | V1:Northbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Turning left / V2:Travelling straight ahead | V1: Passenger car / V2:Passenger car | |
| Lincoln at Fottler | 2601267 | HINGHAM | 2009 | 8/4/2009 | 8:40 AM | Non-fatal injury | 2 | 1 | 0 | Rear-end | Dry | Daylight | Clear | Rte 3A / LINCOLN STREET / FOTTLER ROAD | Rte 3A / LINCOLN STREET / FOTTLER ROAD | | V1:Northbound / V2:Northbound | V1: Not reported / V2: Not reported | V1: Slowing or stopped in traffic / V2:Travelling | V1: Passenger car / V2:Passenger car | |
| Lincoln at Fottler | 2603292 | HINGHAM | 2009 | 9/5/2009 | 10:40 AM | Not Reported | 2 | 0 | 0 | Angle | Dry | Daylight | Clear | BRADLEY WOODS DRIVE / LINCOLN STREET Rte 3A | BRADLEY WOODS DRIVE / LINCOLN STREET Rte 3A | | V1:Northbound / V2:Northbound | V1: Not reported / V2: Not reported | V1: Backing / V2:Backing | V1: Not reported / V2:Passenger car | |
| Lincoln at Fottler | 2566402 | HINGHAM | 2009 | 12/23/2009 | 4:32 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Dark - lighted roadway | Clear/Clear | LINCOLN STREET / FOTTLER ROAD | LINCOLN STREET / FOTTLER ROAD | | V1:Westbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Passenger car | |
| Lincoln at Fottler | 2585243 | HINGHAM | 2010 | 3/1/2010 | 11:26 AM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Daylight | Clear/Clear | LINCOLN STREET / FOTTLER ROAD | LINCOLN STREET / FOTTLER ROAD | | V1:Northbound / V2:Northbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Slowing or stopped in traffic / V2:Travelling straight ahead | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger | |
| Lincoln at Fottler | 2728792 | HINGHAM | 2011 | 3/20/2011 | 11:26 AM | Property damage only (none injured) | 3 | 0 | 0 | Rear-end | Dry | Daylight | Clear/Clear | LINCOLN STREET / FOTTLER ROAD | LINCOLN STREET / FOTTLER ROAD | | V1:Westbound / V2:Westbound / V3:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in | V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V3:Passenger car | |
| Lincoln at Fottler | 3137432 | HINGHAM | 2012 | 4/16/2012 | 5:53 PM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Dry | Daylight | Clear | LINCOLN STREET Rte 3A / FOTTLER ROAD | LINCOLN STREET Rte 3A / FOTTLER ROAD | | V1:Southbound / V2:Northbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Turning left | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Fottler | 3351140 | HINGHAM | 2012 | 11/29/2012 | 4:38 PM | Non-fatal injury | 3 | 2 | 0 | Rear-end | Dry | Dusk | Clear | | | LINCOLN STREET / FOTTLER ROAD | V1:Southbound / V2:Southbound / V3:Southbound | V1: Collision with motor vehicle in traffic / V2: Collision with parked motor vehicle / V3: Collision with motor vehicle in | V1: Slowing or stopped in traffic / V2:Changing lanes / V3:Parked | V1: Passenger car / V2:Passenger car / V3:Passenger car | |
| Lincoln at Fottler | 3414937 | HINGHAM | 2013 | 4/15/2013 | 1:24 PM | Property damage only (none injured) | 3 | 0 | 0 | Rear-end | Dry | Daylight | Clear | LINCOLN STREET Rte 3A S / BRADLEY WOODS DRIVE | LINCOLN STREET Rte 3A S / BRADLEY WOODS DRIVE | | V1:Southbound / V2:Southbound / V3:Southbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V3:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires | |

| Sub Group | Crash ID | Town | Year | Crash Date | Crash Time | Crash Severity | Total Vehicles | Total Injured | Total Fatals | Collision manner | Road Surface | Lighting | Weather | Street | Intersection | Distance From Nearest Intersection | Vehicles Travel Directions | Most Harmful Events | Vehicle Action Prior to Crash | Vehicle Configuration | Non Motorist Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lincoln at Fottler | 3588812 | HINGHAM | 2013 | 8/13/2013 | 3:29 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Daylight | Clear | LINCOLN STREET Rte 3A S / FOTTLER ROAD | LINCOLN STREET Rte 3A S / FOTTLER ROAD | | V1:Southbound / V2:Southbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger | |
| Lincoln at Fottler | 3647536 | HINGHAM | 2013 | 9/15/2013 | 5:09 PM | Not Reported | 2 | 0 | 0 | Rear-end | Dry | Daylight | Clear | FOTTLER ROAD / LINCOLN STREET | FOTTLER ROAD / LINCOLN STREET | | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Slowing or stopped in traffic / V2:Travelling straight ahead | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger | |
| Lincoln at Fottler | 3647538 | HINGHAM | 2013 | 9/20/2013 | 10:47 PM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Dry | Dark - lighted roadway | Clear | LINCOLN STREET Rte 3A / BRADLEY WOODS DRIVE | LINCOLN STREET Rte 3A / BRADLEY WOODS DRIVE | | V1:Westbound | V1: Collision with pedestrian | V1: Travelling straight ahead | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires | P3:Pedestrian |
| Lincoln at Essington | 2484906 | HINGHAM | 2009 | 6/18/2009 | 9:06 PM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Wet | Dark - lighted roadway | Cloudy/Cloudy | | | 400 LINCOLN STREET | V1:Eastbound / V2:Northbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Travelling straight ahead | V1: Passenger car / V2:Passenger car | |
| Lincoln at Essington | 2496587 | HINGHAM | 2009 | 7/10/2009 | 2:27 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Daylight | Clear/Clear | | | 400 LINCOLN STREET Rte 3A S | V1:Southbound / V2:Southbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Passenger car | |
| Lincoln at Essington | 2616958 | HINGHAM | 2009 | 7/17/2009 | 3:40 PM | Not Reported | 2 | 0 | 0 | Rear-end | Dry | Daylight | Clear | | | 400 LINCOLN STREET | V1:Not reported / V2:Not reported | V1: Not reported / V2: Not reported | V1: Slowing or stopped in traffic / V2:Slowing or | V1: Not reported / V2:Passenger car | |
| Lincoln at Essington | 2508324 | HINGHAM | 2009 | 8/13/2009 | 4:52 PM | Property damage only (none injured) | 2 | 0 | 0 | Sideswipe, same direction | Dry | Daylight | Clear/Clear | | | 400 LINCOLN STREET | V1:Not reported / V2:Not reported | V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Parked | V1: Truck/trailer / V2:Passenger car | |
| Lincoln at Essington | 2534927 | HINGHAM | 2009 | 10/4/2009 | 3:34 PM | Property damage only (none injured) | 3 | 0 | 0 | Rear-end | Dry | Daylight | Clear/Clear | | | 400 LINCOLN STREET | V1:Westbound / V2:Westbound / V3:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V3:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires | |
| Lincoln at Essington | 2538612 | HINGHAM | 2009 | 10/15/2009 | 2:24 PM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Dry | Daylight | Cloudy/Cloudy | | | 400 LINCOLN STREET / SGT WM B TERRY DRIVE | V1:Southbound / V2:Southbound | V1: Not reported / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Turning right | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Essington | 2532674 | HINGHAM | 2009 | 10/22/2009 | 8:04 PM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Dry | Dark - lighted roadway | Clear/Clear | | | 400 LINCOLN STREET | V1:Eastbound / V2:Northbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Slowing or stopped in traffic / V2:Travelling straight ahead | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger | |
| Lincoln at Essington | 2552272 | HINGHAM | 2009 | 11/21/2009 | 9:24 PM | Property damage only (none injured) | 2 | 0 | 0 | Sideswipe, same direction | Dry | Dark - lighted roadway | Clear/Clear | | | 425 LINCOLN STREET Rte 3A N | V1:Westbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Changing lanes / V2:Travelling straight ahead | V1: Passenger car / V2:Passenger car | |
| Lincoln at Essington | 2587822 | HINGHAM | 2010 | 4/7/2010 | 10:26 AM | Non-fatal injury | 2 | 1 | 0 | Angle | Dry | Daylight | Clear/Clear | | | 400 LINCOLN STREET Rte 3A / HMS ESSINGTON DRIVE | V1:Southbound / V2:Northbound | V1: Unknown / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Turning left | V1: Single-unit truck (2-axle, 6-tire) / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires | |
| Lincoln at Essington | 2728640 | HINGHAM | 2011 | 5/5/2011 | 10:15 AM | Non-fatal injury | 2 | 1 | 0 | Rear-end | Dry | Daylight | Cloudy/Cloudy | | ESSINGTON DRIVE / LINCOLN STREET Rte 3A | | V1:Westbound / V2:Not reported | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Passenger car | |
| Lincoln at Essington | 2864543 | HINGHAM | 2011 | 11/22/2011 | 4:50 PM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Dry | Dark - lighted roadway | Clear/Clear | | | 400 LINCOLN STREET Rte 3A E | V1:Eastbound / V2:Southbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Turning left | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger | |
| Lincoln at Essington | 3246638 | HINGHAM | 2012 | 7/5/2012 | 9:27 AM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Daylight | Clear | | | 425 LINCOLN STREET | V1:Westbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Changing lanes / V2:Travelling straight ahead | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Essington | 3297904 | HINGHAM | 2012 | 11/13/2012 | 10:56 AM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Dry | Daylight | Clear | | | 400 LINCOLN STREET | V1:Westbound / V2:Not reported | V1: Collision with parked motor vehicle / V2: Collision with motor vehicle in traffic | V1: Backing / V2:Parked | V1: Bus (seats for 7-15 people, including driver) / V2:Passenger car | |
| Lincoln at Essington | 3292232 | HINGHAM | 2012 | 10/1/2012 | 5:34 PM | Property damage only (none injured) | 2 | 0 | 0 | Sideswipe, same direction | Dry | Daylight | Clear | | | 400 LINCOLN STREET | V1:Northbound / V2:Northbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Travelling straight ahead | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Essington | 3312034 | HINGHAM | 2012 | 10/30/2012 | 6:56 PM | Property damage only (none injured) | 2 | 0 | 0 | Sideswipe, same direction | Wet | Dark - lighted roadway | Rain | | | 400 LINCOLN STREET | V1:Westbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Turning left | V1: Passenger car / V2:Passenger car | |
| Lincoln at Essington | 3362645 | HINGHAM | 2013 | 1/4/2013 | 6:37 AM | Property damage only (none injured) | 2 | 0 | 0 | Head-on | Dry | Daylight | Clear | | | LINCOLN STREET Rte 3A S | V1:Southbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Turning left | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Essington | 3359351 | HINGHAM | 2013 | 2/10/2013 | 2:43 PM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Snow | Daylight | Clear | | | 400 LINCOLN STREET | V1:Southbound / V2:Eastbound | V1: Other non-collision / V2: Collision with tree | V1: Turning right / V2:Not reported | V1: Single-unit truck (2-axle, 6-tire) / V2:Unknown heavy truck, cannot classify | |
| Lincoln at Essington | 3392298 | HINGHAM | 2013 | 3/23/2013 | 3:13 PM | Non-fatal injury | 2 | 1 | 0 | Rear-end | Dry | Daylight | Clear | HMS ESSINGTON DRIVE / LINCOLN STREET Rte 3A N | HMS ESSINGTON DRIVE / LINCOLN STREET Rte 3A N | | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Passenger car | |
| Lincoln at Essington | 3450604 | HINGHAM | 2013 | 5/22/2013 | 9:16 PM | Non-fatal injury | 1 | 1 | 0 | Single vehicle crash | Wet | Dark - lighted roadway | Rain/Cloudy | | | 421 LINCOLN STREET Rte 3A N | V1:Northbound | V1: Collision with pedestrian | V1: Changing lanes | V1: Passenger car | P2:Pedestrian |
| Lincoln at Essington | 3510010 | HINGHAM | 2013 | 6/29/2013 | 9:00 AM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Wet | Daylight | Cloudy/Rain | | | 428 LINCOLN STREET Rte 3A S | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Essington | 3563401 | HINGHAM | 2013 | 8/3/2013 | 11:50 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Dry | Dark - lighted roadway | Clear/Clear | LINCOLN STREET Rte 3A N / HMS ESSINGTON | LINCOLN STREET Rte 3A N / HMS ESSINGTON | | V1:Westbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Travelling straight ahead / V2:Slowing or stopped in traffic | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Bulow | 2460578 | HINGHAM | 2009 | 4/2/2009 | 2:07 PM | Property damage only (none injured) | 2 | 0 | 0 | Sideswipe, same direction | Wet | Daylight | Cloudy/Cloudy | LINCOLN STREET / BULOW ROAD | LINCOLN STREET / BULOW ROAD | | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Changing lanes / V2:Travelling straight ahead | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Bulow | 2736407 | HINGHAM | 2011 | 6/1/2011 | 00:00 AM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Dry | Dark - lighted roadway | Clear/Clear | LINCOLN STREET Rte 3A S / BULOW ROAD | LINCOLN STREET Rte 3A S / BULOW ROAD | | V1:Southbound | V1: Collision with other movable object | V1: Travelling straight ahead | V1: Passenger car | |
| Lincoln at Bulow | 2789864 | HINGHAM | 2011 | 9/22/2011 | 12:53 PM | Property damage only (none injured) | 2 | 0 | 0 | Rear-end | Wet | Daylight | Rain/Rain | | | 211 LINCOLN STREET Rte 3A / BULOW ROAD | V1:Eastbound / V2:Eastbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic | V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Lincoln at Beal | 2654649 | HINGHAM | 2009 | 10/3/2009 | 11:00 AM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Wet | Daylight | Rain | LINCOLN STREET / BEAL STREET | LINCOLN STREET / BEAL STREET | | V1:Westbound / V2:Northbound | V1: Not reported / V2: Not reported | V1: Slowing or stopped in traffic / V2:Turning | V1: Not reported / V2:Not reported | |
| Lincoln at Beal | 3369417 | HINGHAM | 2013 | 1/12/2013 | 1:32 AM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Wet | Dark - lighted roadway | Sleet, hail (freezing rain or drizzle)/Cloudy | LINCOLN STREET / BEAL STREET | LINCOLN STREET / BEAL STREET | | V1:Eastbound | V1: Collision with curb | V1: Leaving traffic lane | V1: Passenger car | |
| Beal at Terry | 2439974 | HINGHAM | 2009 | 2/22/2009 | 1:36 PM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Dry | Daylight | Clear | BEAL STREET / SGT WILLIAM B TERRY DRIVE | BEAL STREET / SGT WILLIAM B TERRY DRIVE | | V1:Eastbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Turning left / V2:Traveling straight ahead | V1: Passenger car / V2:Passenger car | |
| Beal at Terry | 2468740 | HINGHAM | 2009 | 4/29/2009 | 6:18 PM | Property damage only (none injured) | 2 | 0 | 0 | Angle | Dry | Daylight | Cloudy/Cloudy | BEAL STREET / WILLIAM B TERRY DRIVE | BEAL STREET / WILLIAM B TERRY DRIVE | | V1:Southbound / V2:Westbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Turning left / V2:Turning left | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Beal at Terry | 2709470 | HINGHAM | 2011 | 3/14/2011 | 11:33 AM | Non-fatal injury | 2 | 1 | 0 | Angle | Wet | Daylight | Cloudy/Cloudy | BEAL STREET / WILLIAM B TERRY DRIVE | BEAL STREET / WILLIAM B TERRY DRIVE | | V1:Westbound / V2:Northbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Turning left / V2:Traveling straight ahead | V1: Single-unit truck (2-axle, 6-tire) / V2:Passenger car | |
| Beal at Lincoln Plaza | 2439955 | HINGHAM | 2009 | 3/1/2009 | 6:17 PM | Non-fatal injury | 2 | 4 | 0 | Angle | Ice | Dark - lighted roadway | Cloudy/Cloudy | | | LINCOLN STREET | V1:Westbound / V2:Southbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Turning right / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |
| Beal at Fottler | 2541707 | HINGHAM | 2009 | 10/2/2009 | 11:17 AM | Unknown | 1 | 0 | 0 | Single vehicle crash | Dry | Daylight | Clear/Clear | BEAL STREET / BEALS COVE ROAD / FOTTLER ROAD | BEAL STREET / BEALS COVE ROAD / FOTTLER ROAD | | V1:Eastbound | V1: Collision with curb | V1: Changing lanes | V1: Not reported | |
| Beal at Fottler | 2546695 | HINGHAM | 2009 | 11/5/2009 | 7:51 PM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Dry | Dark - lighted roadway | Cloudy/Cloudy | BEAL STREET / FOTTLER ROAD | BEAL STREET / FOTTLER ROAD | | V1:Eastbound | V1: Collision with curb | V1: Travelling straight ahead | V1: Not reported | |
| Beal at Fottler | 2556806 | HINGHAM | 2009 | 12/13/2009 | 4:35 PM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Wet | Dark - lighted roadway | Rain/Rain | BEAL STREET / FOTTLER ROAD | BEAL STREET / FOTTLER ROAD | | V1:Westbound | V1: Collision with curb | V1: Travelling straight ahead | V1: Passenger car | |
| Beal at Fottler | 3351137 | HINGHAM | 2012 | 12/1/2012 | 5:06 AM | Property damage only (none injured) | 1 | 0 | 0 | Single vehicle crash | Dry | Dark - lighted roadway | Cloudy | BEAL STREET / FOTTLER ROAD | BEAL STREET / FOTTLER ROAD | | V1:Southbound | V1: Collision with tree | V1: Travelling straight ahead | V1: Passenger car | |
| Beal at Lincoln Plaza | 2439955 | HINGHAM | 2009 | 3/1/2009 | 6:17 PM | Non-fatal injury | 2 | 4 | 0 | Angle | Ice | Dark - lighted roadway | Cloudy/Cloudy | | | LINCOLN STREET | V1:Westbound / V2:Southbound | V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic | V1: Turning right / V2:Slowing or stopped in traffic | V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only | |

# CRASH RATE WORKSHEETS

# INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hingham, MA COUNT DATE : 5/19/2016

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

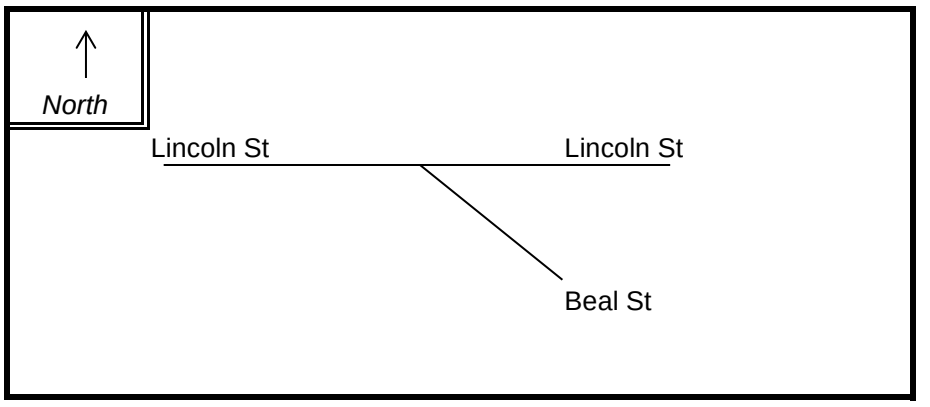
0.58 0.76

**~ INTERSECTION DATA ~**

MAJOR STREET : Lincoln St

MINOR STREET(S) : Beal St

**INTERSECTION DIAGRAM**
**(Label Approaches)**




**PEAK HOUR VOLUMES**

| APPROACH : | 1 | 2 | 3 | 4 | 5 | Total Peak Hourly Approach Volume |
|---|---|---|---|---|---|---|
| DIRECTION : | EB | WB | NB | SB | | |
| PEAK HOURLY VOLUMES (PM) : | 1,600 | 1,250 | 15 | 0 | | 2,865 |

" K " FACTOR : **0.090** INTERSECTION ADT ( **V** ) = TOTAL DAILY APPROACH VOLUME : **31,833**

TOTAL # OF CRASHES : 2 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR ( **A** ) : **0.40**

**CRASH RATE CALCULATION :** **0.03**

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

Comments : 2009 - 2013 MassDOT Crash Data

Project Title & Date:

# INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hingham, MA COUNT DATE : 5/19/2016

DISTRICT : 5 UNSIGNALIZED : [ ] 0.58 SIGNALIZED : [X] 0.76

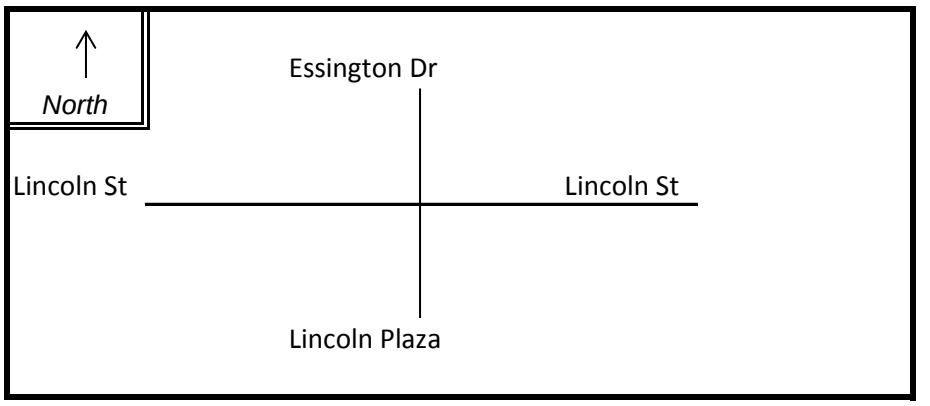
**~ INTERSECTION DATA ~**

MAJOR STREET : Lincoln St

MINOR STREET(S) : Essington

Lincoln Plaza

**INTERSECTION DIAGRAM**
**(Label Approaches)**




**PEAK HOUR VOLUMES**

| APPROACH : | 1 | 2 | 3 | 4 | 5 | Total Peak Hourly Approach Volume |
|---|---|---|---|---|---|---|
| DIRECTION : | EB | WB | NB | SB | | |
| PEAK HOURLY VOLUMES (PM) : | 1,200 | 1,095 | 295 | 155 | | 2,745 |

" K " FACTOR : **0.090** INTERSECTION ADT ( **V** ) = TOTAL DAILY APPROACH VOLUME : **30,500**

TOTAL # OF CRASHES : 21 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR ( **A** ) : **4.20**

**CRASH RATE CALCULATION :** **0.38**

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

Comments : 2009 - 2013 MassDOT Crash Data

Project Title & Date:

# INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hingham, MA COUNT DATE : 5/19/2016

DISTRICT : 5 UNSIGNALIZED : [ ] SIGNALIZED : [X]

0.58 0.76

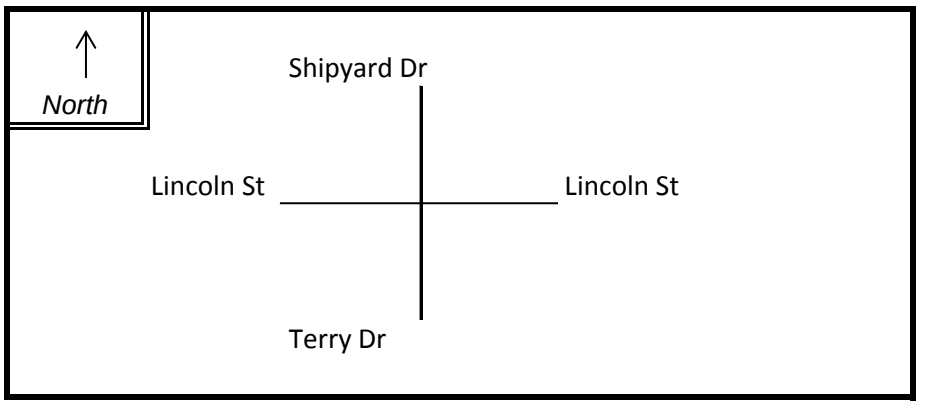
**~ INTERSECTION DATA ~**

MAJOR STREET : Lincoln St

MINOR STREET(S) : Terry Dr

Shipyard Dr

**INTERSECTION DIAGRAM**
**(Label Approaches)**




**PEAK HOUR VOLUMES**

| APPROACH : | 1 | 2 | 3 | 4 | 5 | Total Peak Hourly Approach Volume |
|---|---|---|---|---|---|---|
| DIRECTION : | EB | WB | NB | SB | | |
| PEAK HOURLY VOLUMES (PM) : | 1,095 | 1,345 | 305 | 250 | | 2,995 |

" K " FACTOR : **0.090** INTERSECTION ADT ( **V** ) = TOTAL DAILY APPROACH VOLUME : **33,278**

TOTAL # OF CRASHES : 23 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR ( **A** ) : **4.60**

**CRASH RATE CALCULATION :** **0.38**

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

Comments : 2009 - 2013 MassDOT Crash Data

Project Title & Date:

# INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hingham, MA COUNT DATE : 5/19/2016

DISTRICT : 5 UNSIGNALIZED : [ ] SIGNALIZED : [X]

0.58 0.76

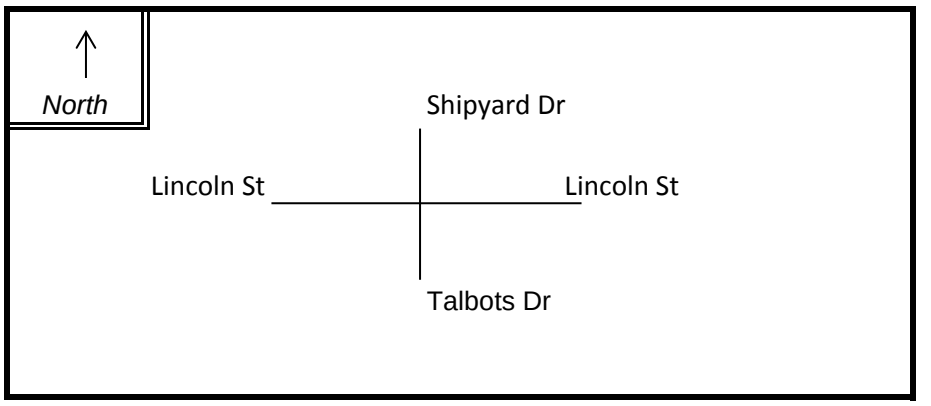
**~ INTERSECTION DATA ~**

MAJOR STREET : Lincoln St

MINOR STREET(S) : Shipyard Dr

Talbots Dr

**INTERSECTION DIAGRAM**
**(Label Approaches)**




**PEAK HOUR VOLUMES**

| APPROACH : | 1 | 2 | 3 | 4 | | Total Peak Hourly Approach Volume |
|---|---|---|---|---|---|---|
| DIRECTION : | EB | WB | NB | SB | | |
| PEAK HOURLY VOLUMES (PM) : | 1,165 | 920 | 120 | 430 | | 2,635 |

" K " FACTOR : **0.090** INTERSECTION ADT ( **V** ) = TOTAL DAILY APPROACH VOLUME : **29,278**

TOTAL # OF CRASHES : 3 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR ( **A** ) : **0.60**

**CRASH RATE CALCULATION :** **0.06**

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

Comments : 2009 - 2013 MassDOT Crash Data

Project Title & Date:

# INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hingham, MA COUNT DATE : 5/19/2016

DISTRICT : 5 UNSIGNALIZED : [ ] SIGNALIZED : [X]

0.58 0.76

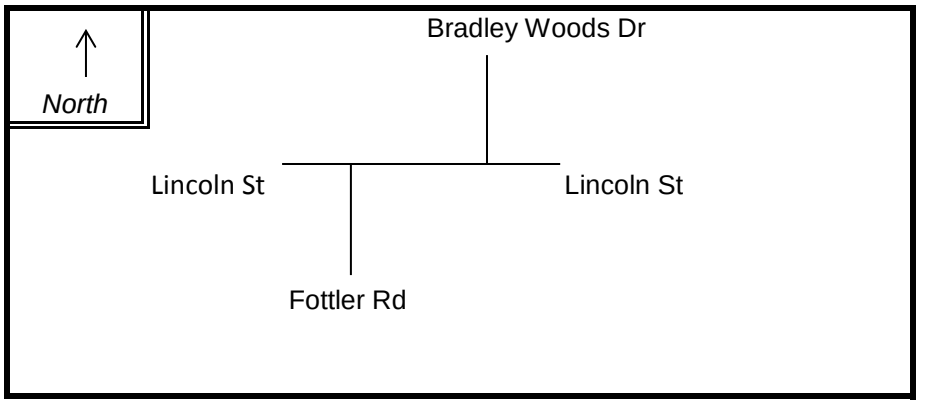
**~ INTERSECTION DATA ~**

MAJOR STREET : Lincoln St

MINOR STREET(S) : Fottler Rd

Bradley Woods Dr

**INTERSECTION DIAGRAM**
**(Label Approaches)**




**PEAK HOUR VOLUMES**

| APPROACH : | 1 | 2 | 3 | 4 | 5 | Total Peak Hourly Approach Volume |
|---|---|---|---|---|---|---|
| DIRECTION : | EB | WB | NB | SB | | |
| PEAK HOURLY VOLUMES (PM) : | 1,525 | 990 | 125 | 35 | | 2,675 |

" K " FACTOR : **0.090**

INTERSECTION ADT ( **V** ) = TOTAL DAILY APPROACH VOLUME : **29,722**

TOTAL # OF CRASHES : 13

# OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR ( **A** ) : **2.60**

**CRASH RATE CALCULATION :** **0.24**

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

Comments : 2009 - 2013 MassDOT Crash Data

Project Title & Date:

# INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hingham, MA COUNT DATE : 5/19/2016

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

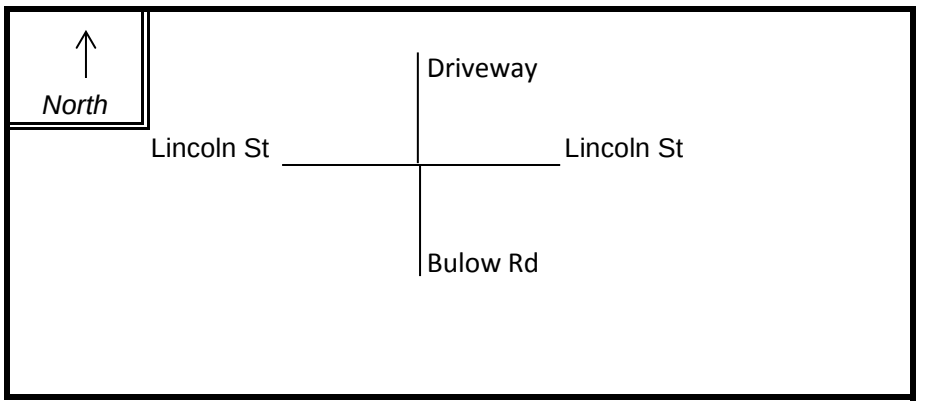
0.58 0.76

**~ INTERSECTION DATA ~**

MAJOR STREET : Lincoln St

MINOR STREET(S) : Bulow Rd

**INTERSECTION DIAGRAM**
**(Label Approaches)**




**PEAK HOUR VOLUMES**

| APPROACH : | 1 | 2 | 3 | 4 | 5 | Total Peak Hourly Approach Volume |
|---|---|---|---|---|---|---|
| DIRECTION : | EB | WB | NB | SB | | |
| PEAK HOURLY VOLUMES (PM) : | 1,645 | 965 | 10 | 2 | | 2,622 |

" K " FACTOR : **0.090** INTERSECTION ADT ( **V** ) = TOTAL DAILY APPROACH VOLUME : **29,133**

TOTAL # OF CRASHES : 3 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR ( **A** ) : **0.60**

**CRASH RATE CALCULATION :** **0.06** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : 2009 - 2013 MassDOT Crash Data

Project Title & Date:

# INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hingham, MA COUNT DATE : 5/19/2016

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

0.58 0.76

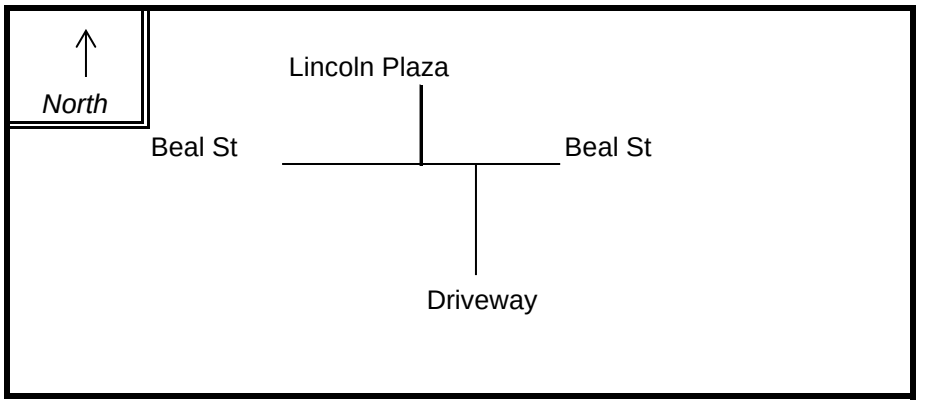
**~ INTERSECTION DATA ~**

MAJOR STREET : Massachusetts Ave

MINOR STREET(S) : Lincoln Plaza

Driveway

**INTERSECTION DIAGRAM**
**(Label Approaches)**




**PEAK HOUR VOLUMES**

| APPROACH : | 1 | 2 | 3 | 4 | 5 | Total Peak Hourly Approach Volume |
|---|---|---|---|---|---|---|
| DIRECTION : | EB | WB | NB | SB | | |
| PEAK HOURLY VOLUMES (PM) : | 475 | 430 | 0 | 240 | | 1,145 |

" K " FACTOR : **0.090** INTERSECTION ADT ( **V** ) = TOTAL DAILY APPROACH VOLUME : **12,722**

TOTAL # OF CRASHES : 1 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR ( **A** ) : **0.20**

**CRASH RATE CALCULATION :** **0.04**

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

Comments : 2009 - 2013 MassDOT Crash Data

Project Title & Date:

# INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hingham, MA COUNT DATE : 5/19/2016

DISTRICT : 5 UNSIGNALIZED : [ ] 0.58 SIGNALIZED : [X] 0.76

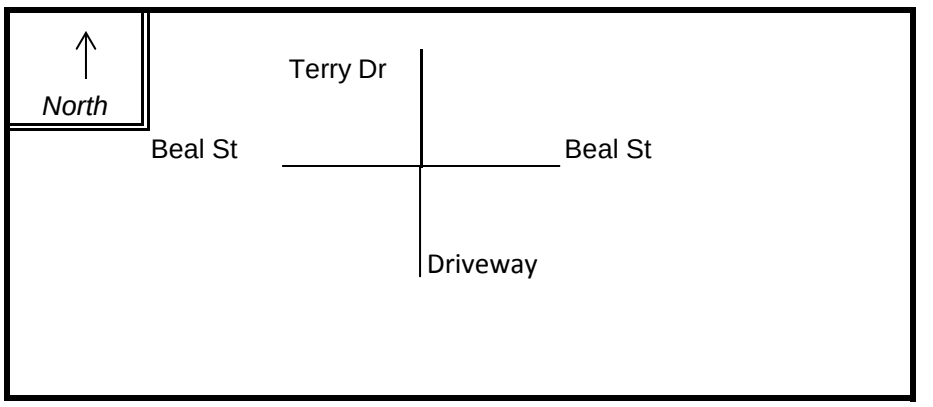
**~ INTERSECTION DATA ~**

MAJOR STREET : Beal St

MINOR STREET(S) : Terry Dr

Driveway

**INTERSECTION DIAGRAM**
**(Label Approaches)**




**PEAK HOUR VOLUMES**

| APPROACH : | 1 | 2 | 3 | 4 | 5 | Total Peak Hourly Approach Volume |
|---|---|---|---|---|---|---|
| DIRECTION : | EB | WB | NB | SB | | |
| PEAK HOURLY VOLUMES (PM) : | 345 | 135 | 15 | 100 | | **595** |

" K " FACTOR : **0.090**

INTERSECTION ADT ( **V** ) = TOTAL DAILY APPROACH VOLUME : **6,611**

TOTAL # OF CRASHES : 3

# OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR ( **A** ) : **0.60**

**CRASH RATE CALCULATION :** **0.25**

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

Comments : 2009 - 2013 MassDOT Crash Data

Project Title & Date:

# INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hingham, MA COUNT DATE : 5/19/2016

DISTRICT : 5 UNSIGNALIZED : X SIGNALIZED :

0.58 0.76

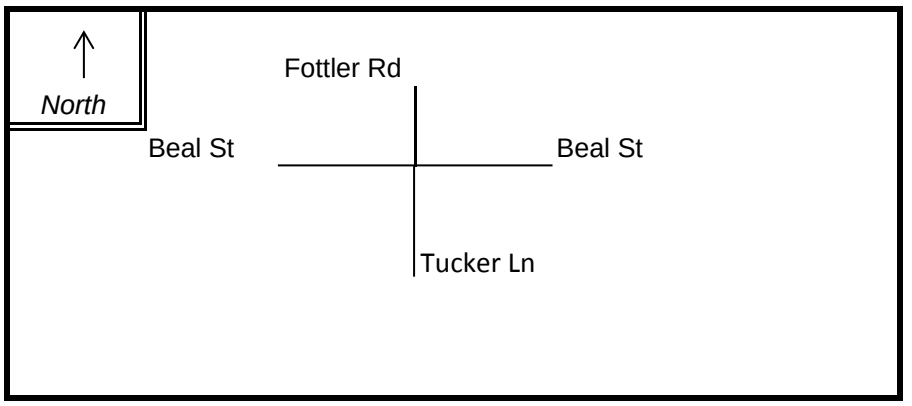
**~ INTERSECTION DATA ~**

MAJOR STREET : Beal St

MINOR STREET(S) : Fottler Rd

Tuckers Ln

**INTERSECTION DIAGRAM (Label Approaches)**




**PEAK HOUR VOLUMES**

| APPROACH : | 1 | 2 | 3 | 4 | 5 | Total Peak Hourly Approach Volume |
|---|---|---|---|---|---|---|
| DIRECTION : | EB | WB | NB | SB | | |
| PEAK HOURLY VOLUMES (PM) : | 710 | 435 | 15 | 140 | | 1,300 |

" K " FACTOR : **0.090** INTERSECTION ADT ( **V** ) = TOTAL DAILY APPROACH VOLUME : **14,444**

TOTAL # OF CRASHES : 4 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR ( **A** ) : **0.80**

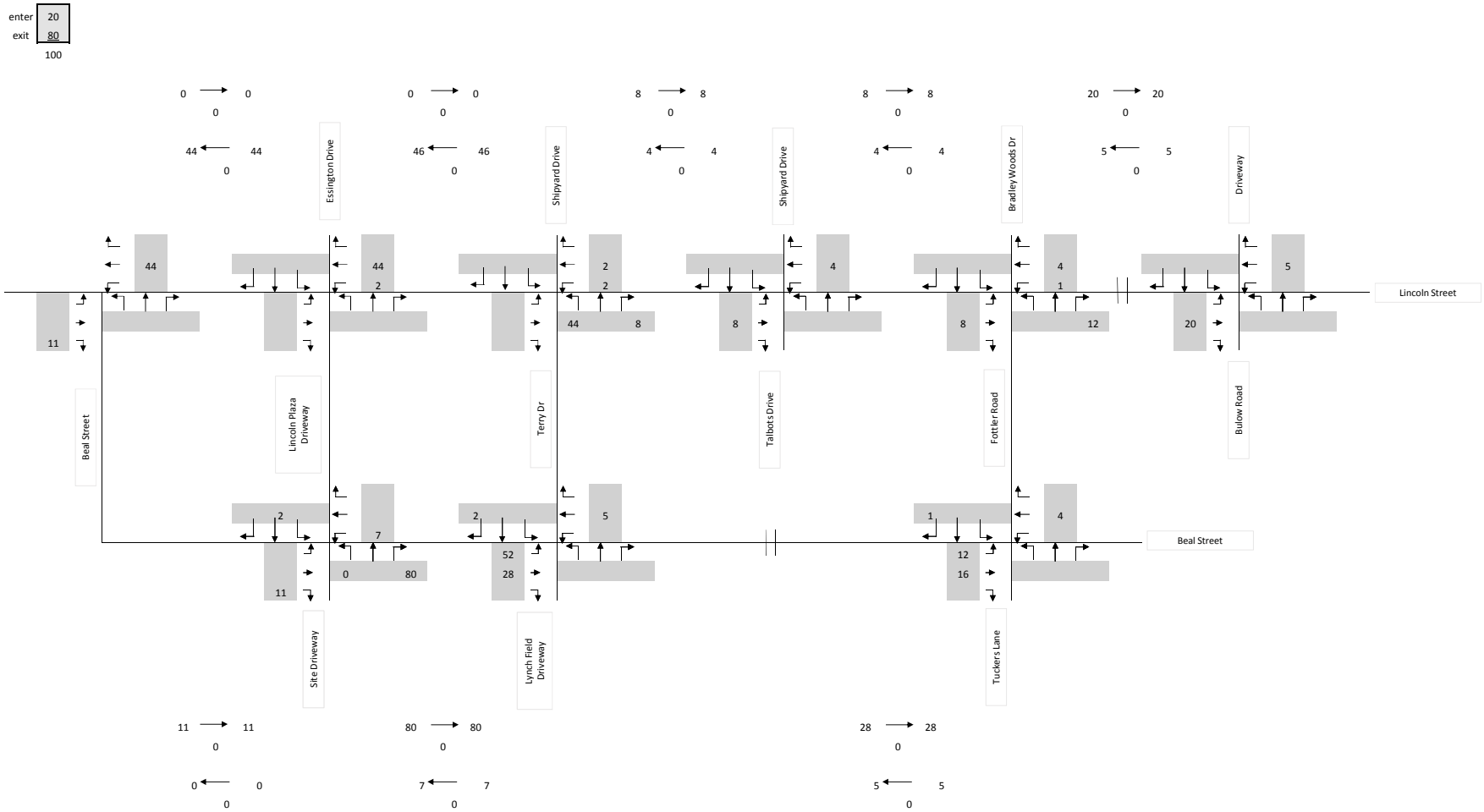
**CRASH RATE CALCULATION :** **0.15** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : 2009 - 2013 MassDOT Crash Data

Project Title & Date:

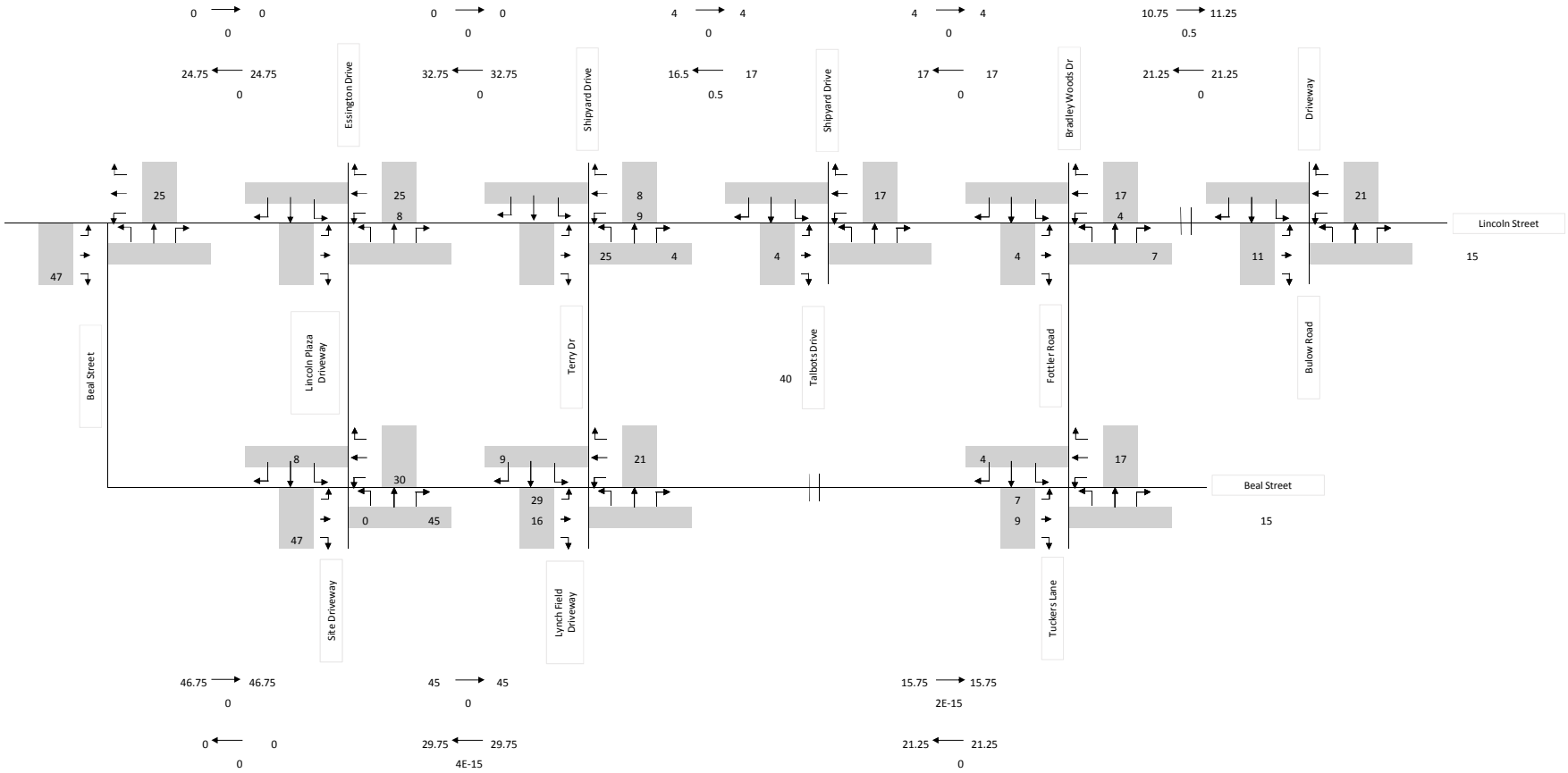
# SITE GENERATED TRIPS

**2022 Site Generated Trips**
**AM PEAK HOUR**



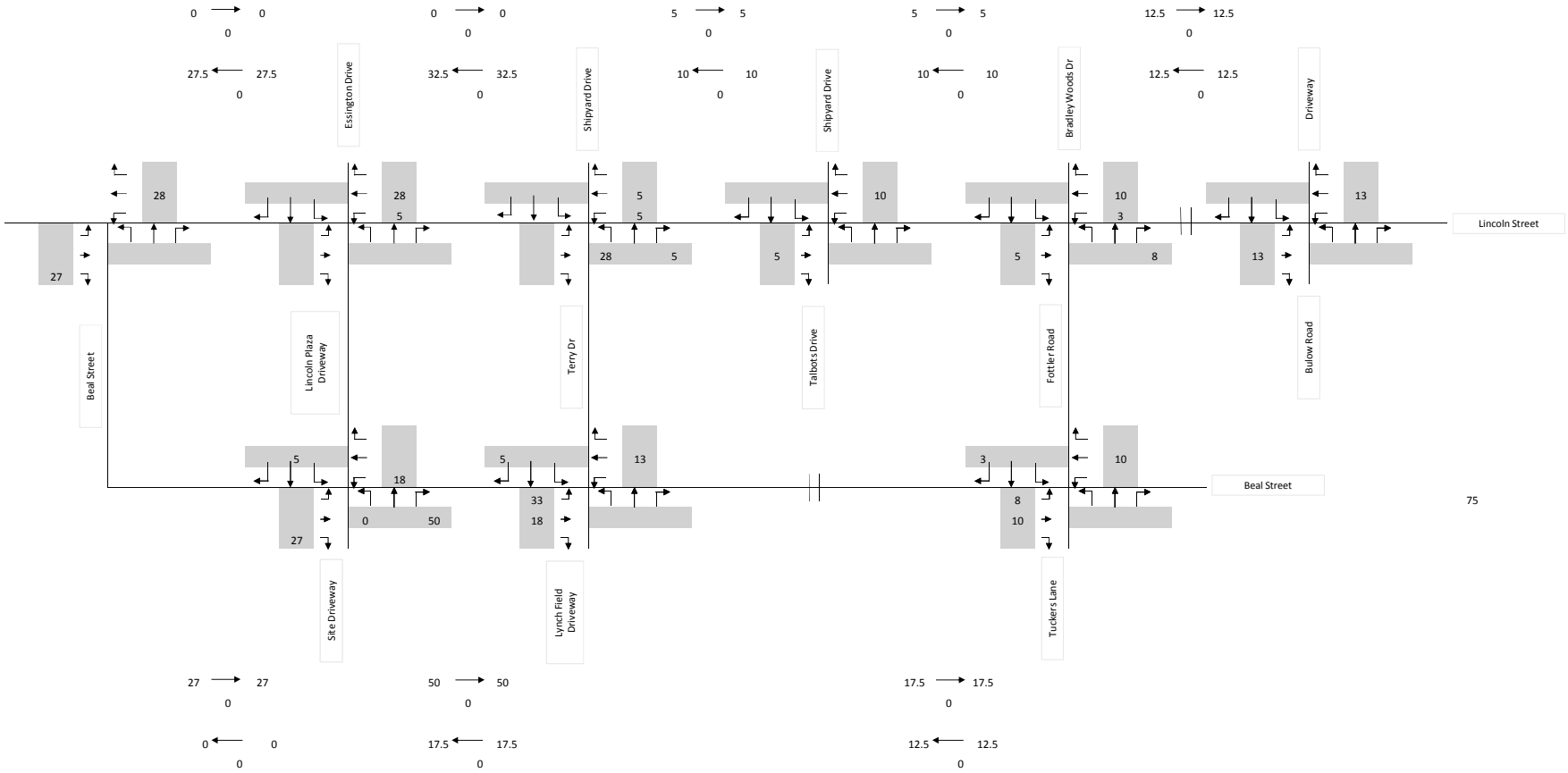
**2022 Site Generated Trips**
**PM PEAK HOUR**

| | |
|---|---|
| enter | 85 |
| exit | 45 |
| | 130 |



**2022 Site Generated Trips**
**SATURDAY MIDDAY**

| | |
|---|---|
| enter | 50 |
| exit | 50 |
| | 100 |



# INTERSECTION CAPACITY ANALYSES

2016 EXISTING CONDITION

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 710 | 215 | 0 | 1395 | 0 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 0 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 3350 | 0 | 0 | 3574 | 0 | 1096 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 3350 | 0 | 0 | 3574 | 0 | 1096 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 401 | | | 554 | 450 | |
| Travel Time (s) | 9.1 | | | 12.6 | 10.2 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.86 | 0.86 | 0.93 | 0.93 | 0.50 | 0.50 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 4% | 1% | 1% | 50% | 50% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 1076 | 0 | 0 | 1500 | 0 | 10 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 41.9% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 710 | 215 | 0 | 1395 | 0 | 5 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.86 | 0.86 | 0.93 | 0.93 | 0.50 | 0.50 |
| Hourly flow rate (vph) | 826 | 250 | 0 | 1500 | 0 | 10 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 554 | | |
| pX, platoon unblocked | | | | | 0.70 | |
| vC, conflicting volume | | | 826 | | 1701 | 538 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 826 | | 1156 | 538 |
| tC, single (s) | | | 4.1 | | 7.8 | 7.9 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 4.0 | 3.8 |
| p0 queue free % | | | 100 | | 100 | 97 |
| cM capacity (veh/h) | | | 807 | | 92 | 381 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 |
|---|---|---|---|---|---|
| Volume Total | 550 | 525 | 750 | 750 | 10 |
| Volume Left | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 250 | 0 | 0 | 10 |
| cSH | 1700 | 1700 | 1700 | 1700 | 381 |
| Volume to Capacity | 0.32 | 0.31 | 0.44 | 0.44 | 0.03 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 2 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 14.7 |
| Lane LOS | | | | | B |
| Approach Delay (s) | 0.0 | | 0.0 | | 14.7 |
| Approach LOS | | | | | B |

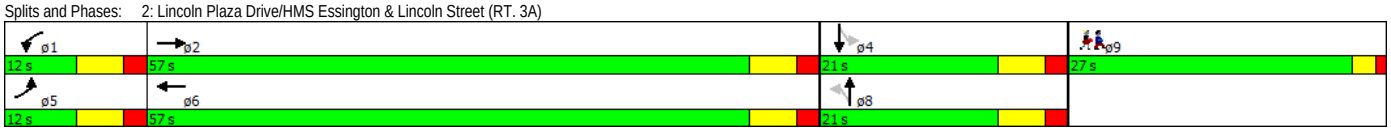
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.1 | | |
| Intersection Capacity Utilization | 41.9% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 50 | 650 | 15 | 20 | 1265 | 5 | 95 | 10 | 15 | 2 | 5 | 35 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 265 | | 0 | 220 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1662 | 3428 | 0 | 1770 | 3418 | 0 | 1787 | 1710 | 0 | 1770 | 1617 | 0 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.714 | | | 0.739 | | | |
| Satd. Flow (perm) | 1662 | 3428 | 0 | 1770 | 3418 | 0 | 1343 | 1710 | 0 | 1377 | 1617 | 0 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 2 | | | | | | 17 | | | 58 | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 554 | | | 804 | | | 144 | | | 222 | | |
| Travel Time (s) | | 8.4 | | | 12.2 | | | 3.9 | | | 6.1 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.92 | 0.92 | 0.92 | 0.90 | 0.90 | 0.90 | 0.60 | 0.60 | 0.60 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 5% | 5% | 5% | 2% | 2% | 2% | 1% | 1% | 1% | 2% | 2% | 2% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 56 | 747 | 0 | 22 | 1380 | 0 | 106 | 28 | 0 | 3 | 66 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 27.0 |
| Total Split (s) | 12.0 | 57.0 | | 12.0 | 57.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 27.0 |
| Total Split (%) | 10.3% | 48.7% | | 10.3% | 48.7% | | 17.9% | 17.9% | | 17.9% | 17.9% | | 23% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | | Yes | | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | 6.2 | 48.0 | | 6.2 | 43.0 | | 10.9 | 10.9 | | 10.9 | 10.9 | | |
| Actuated g/C Ratio | 0.08 | 0.64 | | 0.08 | 0.57 | | 0.14 | 0.14 | | 0.14 | 0.14 | | |
| v/c Ratio | 0.41 | 0.34 | | 0.15 | 0.71 | | 0.55 | 0.11 | | 0.02 | 0.23 | | |
| Control Delay | 47.6 | 8.1 | | 40.1 | 15.2 | | 43.8 | 20.1 | | 31.0 | 13.4 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Delay | 47.6 | 8.1 | | 40.1 | 15.2 | | 43.8 | 20.1 | | 31.0 | 13.4 | | |
| LOS | D | A | | D | B | | D | C | | C | B | | |
| Approach Delay | | 10.8 | | | 15.6 | | | 38.9 | | | 14.2 | | |
| Approach LOS | | B | | | B | | | D | | | B | | |
| Queue Length 50th (ft) | 26 | 60 | | 10 | 248 | | 48 | 5 | | 1 | 3 | | |
| Queue Length 95th (ft) | #76 | 151 | | 36 | 358 | | 107 | 29 | | 6 | 16 | | |
| Internal Link Dist (ft) | | 474 | | | 724 | | | 64 | | | 142 | | |
| Turn Bay Length (ft) | 265 | | | 220 | | | | | | | | | |
| Base Capacity (vph) | 136 | 2409 | | 145 | 2378 | | 274 | 363 | | 281 | 377 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.41 | 0.31 | | 0.15 | 0.58 | | 0.39 | 0.08 | | 0.01 | 0.18 | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 75.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 15.3 — Intersection LOS: B
Intersection Capacity Utilization 63.5% — ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Lincoln Plaza Drive/HMS Essington & Lincoln Street (RT. 3A)

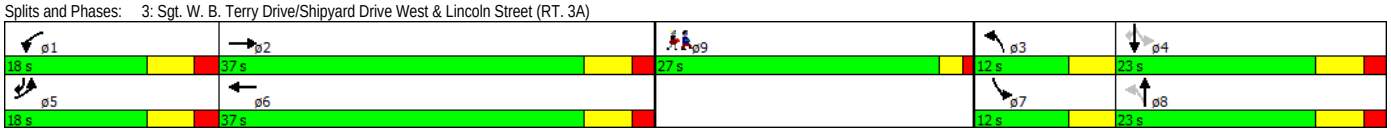


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 40 | 620 | 5 | 35 | 1175 | 15 | 90 | 125 | 15 | 25 | 25 | 25 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 330 | | 0 | 250 | | 0 | 265 | | 0 | 300 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1646 | 3402 | 0 | 1770 | 5075 | 0 | 1752 | 1815 | 0 | 1703 | 1792 | 1524 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.536 | | | 0.641 | | | |
| Satd. Flow (perm) | 1646 | 3402 | 0 | 1770 | 5075 | 0 | 989 | 1815 | 0 | 1149 | 1792 | 1524 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 2 | | | 4 | | | | 93 | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 804 | | | 622 | | | 166 | | | 156 | | |
| Travel Time (s) | | 12.2 | | | 9.4 | | | 4.5 | | | 4.3 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.96 | 0.96 | 0.96 | 0.76 | 0.76 | 0.76 | 0.71 | 0.71 | 0.71 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 6% | 6% | 6% | 2% | 2% | 2% | 3% | 3% | 3% | 6% | 6% | 6% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 43 | 679 | 0 | 36 | 1240 | 0 | 118 | 184 | 0 | 35 | 35 | 35 | |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | pm+pt | NA | pm+ov | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 10.0 | 12.0 | | 10.0 | 12.0 | 12.0 | 27.0 |
| Total Split (s) | 18.0 | 37.0 | | 18.0 | 37.0 | | 12.0 | 23.0 | | 12.0 | 23.0 | 18.0 | 27.0 |
| Total Split (%) | 15.4% | 31.6% | | 15.4% | 31.6% | | 10.3% | 19.7% | | 10.3% | 19.7% | 15.4% | 23% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None | None |
| Act Effct Green (s) | 7.5 | 29.6 | | 7.2 | 26.4 | | 18.3 | 12.1 | | 15.7 | 10.6 | 22.0 | |
| Actuated g/C Ratio | 0.11 | 0.44 | | 0.11 | 0.39 | | 0.27 | 0.18 | | 0.23 | 0.16 | 0.33 | |
| v/c Ratio | 0.23 | 0.45 | | 0.19 | 0.62 | | 0.32 | 0.56 | | 0.11 | 0.12 | 0.06 | |
| Control Delay | 37.4 | 17.2 | | 37.1 | 19.8 | | 22.0 | 35.7 | | 19.8 | 30.1 | 0.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Delay | 37.4 | 17.2 | | 37.1 | 19.8 | | 22.0 | 35.7 | | 19.8 | 30.1 | 0.2 | |
| LOS | D | B | | D | B | | C | D | | B | C | A | |
| Approach Delay | | 18.4 | | | 20.3 | | | 30.3 | | | 16.7 | | |
| Approach LOS | | B | | | C | | | C | | | B | | |
| Queue Length 50th (ft) | 20 | 125 | | 16 | 170 | | 40 | 80 | | 11 | 15 | 0 | |
| Queue Length 95th (ft) | 54 | 205 | | 48 | 256 | | 69 | 126 | | 25 | 32 | 0 | |
| Internal Link Dist (ft) | | 724 | | | 542 | | | 86 | | | 76 | | |
| Turn Bay Length (ft) | 330 | | | 250 | | | 265 | | | 300 | | | |
| Base Capacity (vph) | 331 | 1821 | | 356 | 2639 | | 382 | 520 | | 362 | 511 | 690 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.13 | 0.37 | | 0.10 | 0.47 | | 0.31 | 0.35 | | 0.10 | 0.07 | 0.05 | |

## Intersection Summary

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 66.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 20.8 — Intersection LOS: C
Intersection Capacity Utilization 58.9% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Sgt. W. B. Terry Drive/Shipyard Drive West & Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 15 | 570 | 75 | 10 | 1180 | 455 | 0 | 0 | 5 | 105 | 5 | 45 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 110 | | 0 | 750 | | 140 | 0 | | 0 | 260 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1736 | 3412 | 0 | 1728 | 3574 | 1599 | 0 | 1644 | 0 | 1681 | 1694 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | | | 0.950 | 0.957 | |
| Satd. Flow (perm) | 1736 | 3412 | 0 | 1728 | 3574 | 1599 | 0 | 1644 | 0 | 1681 | 1694 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 23 | | | | 513 | | 322 | | | | 109 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 568 | | | 1442 | | | 272 | | | 315 | |
| Travel Time (s) | | 8.6 | | | 21.8 | | | 7.4 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.84 | 0.84 | 0.84 | 0.50 | 0.50 | 0.50 | 0.88 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 4% | 4% | 1% | 1% | 1% | 0% | 0% | 0% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | 48% | | |
| Lane Group Flow (vph) | 16 | 708 | 0 | 12 | 1405 | 542 | 0 | 10 | 0 | 62 | 63 | 51 |
| Turn Type | Prot | NA | | Prot | NA | pt+ov | | NA | | Split | NA | pt+ov |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 6 | 4 | 4 | | 8 | 8 | 8 5 |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 6 | 4 | 4 | | 8 | 8 | 8 5 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 37.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Total Split (s) | 18.0 | 52.0 | | 12.0 | 46.0 | | 10.0 | 10.0 | | 16.0 | 16.0 | |
| Total Split (%) | 20.0% | 57.8% | | 13.3% | 51.1% | | 11.1% | 11.1% | | 17.8% | 17.8% | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lag | Lag | | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 6.6 | 39.4 | | 6.5 | 35.1 | 53.3 | | 4.3 | | 8.3 | 8.3 | 20.5 |
| Actuated g/C Ratio | 0.10 | 0.62 | | 0.10 | 0.55 | 0.83 | | 0.07 | | 0.13 | 0.13 | 0.32 |
| v/c Ratio | 0.09 | 0.34 | | 0.07 | 0.72 | 0.38 | | 0.02 | | 0.28 | 0.29 | 0.09 |
| Control Delay | 35.2 | 7.4 | | 35.3 | 15.3 | 1.4 | | 0.2 | | 34.3 | 34.2 | 0.4 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.2 | 7.4 | | 35.3 | 15.3 | 1.4 | | 0.2 | | 34.3 | 34.2 | 0.4 |
| LOS | D | A | | D | B | A | | A | | C | C | A |
| Approach Delay | | 8.0 | | | 11.6 | | | 0.2 | | | 24.5 | |
| Approach LOS | | A | | | B | | | A | | | C | |
| Queue Length 50th (ft) | 7 | 44 | | 5 | 220 | 2 | | 0 | | 27 | 27 | 0 |
| Queue Length 95th (ft) | 27 | 163 | | 21 | 373 | 27 | | 0 | | 69 | 70 | 1 |
| Internal Link Dist (ft) | | 488 | | | 1362 | | | 192 | | | 235 | |
| Turn Bay Length (ft) | 110 | | | 750 | | 140 | | | | 260 | | |
| Base Capacity (vph) | 351 | 2677 | | 175 | 2412 | 1408 | | 411 | | 283 | 286 | 680 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.26 | | 0.07 | 0.58 | 0.38 | | 0.02 | | 0.22 | 0.22 | 0.07 |

**Intersection Summary**

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 64
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 11.4 — Intersection LOS: B
Intersection Capacity Utilization 57.6% — ICU Level of Service B
Analysis Period (min) 15

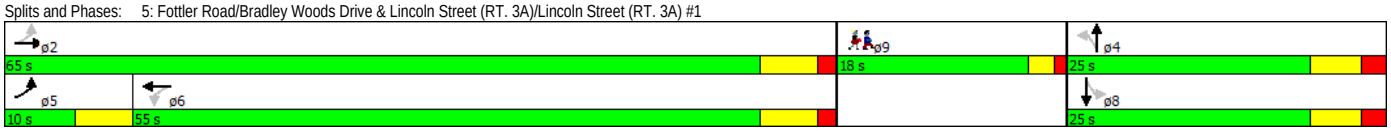
Splits and Phases: 4: Talbots Drive/Shipyard Drive East & Lincoln Street (RT. 3A)

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 5 | 635 | 40 | 60 | 1555 | 15 | 70 | 2 | 55 | 25 | 15 | 20 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 0 | | 100 | 0 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 3407 | 0 | 0 | 3564 | 0 | 1703 | 1533 | 0 | 0 | 1692 | 0 | |
| Flt Permitted | | 0.945 | | | 0.883 | | 0.833 | | | | 0.837 | | |
| Satd. Flow (perm) | 0 | 3220 | 0 | 0 | 3153 | 0 | 1493 | 1533 | 0 | 0 | 1445 | 0 | |
| Right Turn on Red | | | No | | | No | | | No | | | No | |
| Satd. Flow (RTOR) | | | | | | | | | | | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 1442 | | | 580 | | | 992 | | | 245 | | |
| Travel Time (s) | | 21.8 | | | 8.8 | | | 27.1 | | | 6.7 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 | 0.88 | 0.88 | 0.88 | 0.75 | 0.75 | 0.75 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 5% | 5% | 5% | 1% | 1% | 1% | 6% | 6% | 6% | 5% | 5% | 5% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 738 | 0 | 0 | 1873 | 0 | 80 | 64 | 0 | 0 | 80 | 0 | |
| Turn Type | pm+pt | NA | | Perm | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | | 6 | | | 4 | | | 8 | | 9 |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | | |
| Detector Phase | 2 5 | 2 5 | | 6 | 6 | | 4 | 4 | | 8 | 8 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 5.5 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 1.0 |
| Minimum Split (s) | 10.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 18.0 |
| Total Split (s) | 10.0 | 65.0 | | 55.0 | 55.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 18.0 |
| Total Split (%) | 9.3% | 60.2% | | 50.9% | 50.9% | | 23.1% | 23.1% | | 23.1% | 23.1% | | 17% |
| Yellow Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 0.0 | 1.5 | | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | |
| Lead/Lag | Lead | | | Lag | Lag | | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | Yes | | | | | | | | |
| Recall Mode | None | Min | | Min | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | | 62.1 | | | 52.1 | | 9.9 | 9.9 | | | 9.9 | | |
| Actuated g/C Ratio | | 0.77 | | | 0.64 | | 0.12 | 0.12 | | | 0.12 | | |
| v/c Ratio | | 0.30 | | | 0.93 | | 0.44 | 0.34 | | | 0.46 | | |
| Control Delay | | 4.0 | | | 24.8 | | 40.8 | 37.7 | | | 41.6 | | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Delay | | 4.0 | | | 24.8 | | 40.8 | 37.7 | | | 41.6 | | |
| LOS | | A | | | C | | D | D | | | D | | |
| Approach Delay | | 4.0 | | | 24.8 | | | 39.4 | | | 41.6 | | |
| Approach LOS | | A | | | C | | | D | | | D | | |
| Queue Length 50th (ft) | | 52 | | | 425 | | 38 | 30 | | | 38 | | |
| Queue Length 95th (ft) | | 91 | | | #659 | | 78 | 65 | | | 66 | | |
| Internal Link Dist (ft) | | 1362 | | | 500 | | | 912 | | | 165 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 2473 | | | 2023 | | 349 | 359 | | | 338 | | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Reduced v/c Ratio | | 0.30 | | | 0.93 | | 0.23 | 0.18 | | | 0.24 | | |

## Intersection Summary

Area Type: Other
Cycle Length: 108
Actuated Cycle Length: 81.1
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 20.6 — Intersection LOS: C
Intersection Capacity Utilization 89.2% — ICU Level of Service E
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Fottler Road/Bradley Woods Drive & Lincoln Street (RT. 3A)/Lincoln Street (RT. 3A) #1



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 0 | 705 | 2 | 10 | 1640 | 2 | 0 | 0 | 10 | 2 | 0 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 3438 | 0 | 0 | 3539 | 0 | 0 | 1644 | 0 | 0 | 1383 | 0 |
| Flt Permitted | | | | | | | | | | | 0.976 | |
| Satd. Flow (perm) | 0 | 3438 | 0 | 0 | 3539 | 0 | 0 | 1644 | 0 | 0 | 1383 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1334 | | | 458 | | | 528 | | | 77 | |
| Travel Time (s) | | 30.3 | | | 10.4 | | | 12.0 | | | 1.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.92 | 0.92 | 0.92 | 0.56 | 0.56 | 0.56 | 0.50 | 0.50 | 0.50 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 5% | 5% | 5% | 2% | 2% | 2% | 0% | 0% | 0% | 25% | 25% | 25% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 752 | 0 | 0 | 1796 | 0 | 0 | 18 | 0 | 0 | 8 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 62.4% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 705 | 2 | 10 | 1640 | 2 | 0 | 0 | 10 | 2 | 0 | 2 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.92 | 0.92 | 0.92 | 0.56 | 0.56 | 0.56 | 0.50 | 0.50 | 0.50 |
| Hourly flow rate (vph) | 0 | 750 | 2 | 11 | 1783 | 2 | 0 | 0 | 18 | 4 | 0 | 4 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1785 | | | 752 | | | 1668 | 2558 | 376 | 2198 | 2558 | 892 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1785 | | | 752 | | | 1668 | 2558 | 376 | 2198 | 2558 | 892 |
| tC, single (s) | 4.2 | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 8.0 | 7.0 | 7.4 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.8 | 4.2 | 3.5 |
| p0 queue free % | 100 | | | 99 | | | 100 | 100 | 97 | 78 | 100 | 98 |
| cM capacity (veh/h) | 331 | | | 853 | | | 63 | 26 | 627 | 18 | 18 | 244 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 375 | 377 | 902 | 893 | 18 | 8 |
| Volume Left | 0 | 0 | 11 | 0 | 0 | 4 |
| Volume Right | 0 | 2 | 0 | 2 | 18 | 4 |
| cSH | 331 | 1700 | 853 | 1700 | 627 | 33 |
| Volume to Capacity | 0.00 | 0.22 | 0.01 | 0.53 | 0.03 | 0.24 |
| Queue Length 95th (ft) | 0 | 0 | 1 | 0 | 2 | 19 |
| Control Delay (s) | 0.0 | 0.0 | 0.4 | 0.0 | 10.9 | 145.2 |
| Lane LOS | | | A | | B | F |
| Approach Delay (s) | 0.0 | | 0.2 | | 10.9 | 145.2 |
| Approach LOS | | | | | B | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 0.7 | | |
| Intersection Capacity Utilization | | 62.4% | ICU Level of Service | B |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 30 | 185 | 5 | 100 | 20 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 0 | | | 0 | 0 | 0 |
| Storage Lanes | 0 | | | 0 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Satd. Flow (prot) | 0 | 1868 | 1639 | 0 | 1802 | 0 |
| Flt Permitted | | 0.993 | | | 0.955 | |
| Satd. Flow (perm) | 0 | 1868 | 1639 | 0 | 1802 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 450 | 104 | | 285 | |
| Travel Time (s) | | 10.2 | 2.4 | | 6.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.73 | 0.73 | 0.80 | 0.80 | 0.55 | 0.55 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 294 | 131 | 0 | 38 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 28.1% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 30 | 185 | 5 | 100 | 20 | 1 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.73 | 0.73 | 0.80 | 0.80 | 0.55 | 0.55 |
| Hourly flow rate (vph) | 41 | 253 | 6 | 125 | 36 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | 770 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 131 | | | | 404 | 69 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 131 | | | | 404 | 69 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 97 | | | | 94 | 100 |
| cM capacity (veh/h) | 1460 | | | | 589 | 1000 |

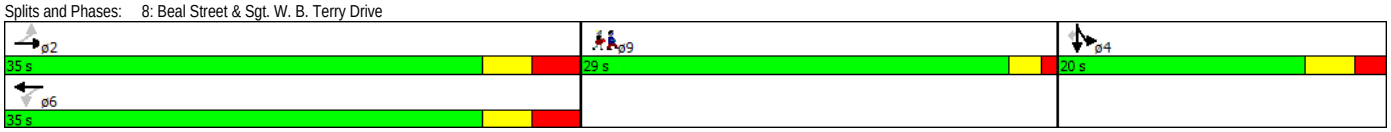
| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 295 | 131 | 38 |
| Volume Left | 41 | 0 | 36 |
| Volume Right | 0 | 125 | 2 |
| cSH | 1460 | 1700 | 601 |
| Volume to Capacity | 0.03 | 0.08 | 0.06 |
| Queue Length 95th (ft) | 2 | 0 | 5 |
| Control Delay (s) | 1.3 | 0.0 | 11.4 |
| Lane LOS | A | | B |
| Approach Delay (s) | 1.3 | 0.0 | 11.4 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 1.7 | |
| Intersection Capacity Utilization | | 28.1% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 35 | 180 | 0 | 5 | 115 | 275 | 0 | 0 | 0 | 40 | 1 | 5 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 10 | 12 | 12 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 50 | | 0 | 60 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 1866 | 0 | 0 | 1703 | 0 | 0 | 0 | 0 | 0 | 1631 | 1358 | |
| Flt Permitted | | 0.893 | | | 0.996 | | | | | | 0.953 | | |
| Satd. Flow (perm) | 0 | 1680 | 0 | 0 | 1698 | 0 | 0 | 0 | 0 | 0 | 1631 | 1358 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | | | | 150 | | | | | | | 78 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 666 | | | 1855 | | | 212 | | | 423 | | |
| Travel Time (s) | | 18.2 | | | 50.6 | | | 5.8 | | | 11.5 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.74 | 0.74 | 0.74 | 0.93 | 0.93 | 0.93 | 0.25 | 0.25 | 0.25 | 0.73 | 0.73 | 0.73 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 1% | 1% | 0% | 0% | 0% | 11% | 11% | 11% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 290 | 0 | 0 | 425 | 0 | 0 | 0 | 0 | 0 | 56 | 7 | |
| Turn Type | Perm | NA | | Perm | NA | | | | | Split | NA | Perm | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | | 9 |
| Permitted Phases | 2 | | | 6 | | | | | | | | 4 | |
| Detector Phase | 2 | 2 | | 6 | 6 | | | | | 4 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | | | | 6.0 | 6.0 | 6.0 | 5.0 |
| Minimum Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | | | | 11.0 | 11.0 | 11.0 | 29.0 |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | | | | 20.0 | 20.0 | 20.0 | 29.0 |
| Total Split (%) | 41.7% | 41.7% | | 41.7% | 41.7% | | | | | 23.8% | 23.8% | 23.8% | 35% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 2.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | | |
| Recall Mode | Min | Min | | Min | Min | | | | | None | None | None | None |
| Act Effct Green (s) | | 24.8 | | | 24.8 | | | | | | 6.6 | 6.6 | |
| Actuated g/C Ratio | | 0.71 | | | 0.71 | | | | | | 0.19 | 0.19 | |
| v/c Ratio | | 0.24 | | | 0.34 | | | | | | 0.18 | 0.02 | |
| Control Delay | | 5.3 | | | 4.2 | | | | | | 13.7 | 0.2 | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Delay | | 5.3 | | | 4.2 | | | | | | 13.7 | 0.2 | |
| LOS | | A | | | A | | | | | | B | A | |
| Approach Delay | | 5.3 | | | 4.2 | | | | | | 12.2 | | |
| Approach LOS | | A | | | A | | | | | | B | | |
| Queue Length 50th (ft) | | 27 | | | 25 | | | | | | 12 | 0 | |
| Queue Length 95th (ft) | | 48 | | | 67 | | | | | | 19 | 0 | |
| Internal Link Dist (ft) | | 586 | | | 1775 | | | 132 | | | 343 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 1415 | | | 1454 | | | | | | 710 | 635 | |
| 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 | | 0.20 | | | 0.29 | | | | | | 0.08 | 0.01 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 84 | |
| Actuated Cycle Length: 34.9 | |
| Natural Cycle: 60 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.34 | |
| Intersection Signal Delay: 5.3 | Intersection LOS: A |
| Intersection Capacity Utilization 46.2% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Beal Street & Sgt. W. B. Terry Drive



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 20 | 170 | 5 | 1 | 470 | 100 | 15 | 5 | 15 | 75 | 2 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 60 | 0 | | 0 | 0 | | 120 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 0 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 1793 | 0 | 0 | 1881 | 1599 | 0 | 1701 | 0 | 0 | 1724 | 1538 |
| Flt Permitted | | 0.995 | | | | | | 0.979 | | | 0.953 | |
| Satd. Flow (perm) | 0 | 1793 | 0 | 0 | 1881 | 1599 | 0 | 1701 | 0 | 0 | 1724 | 1538 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1855 | | | 729 | | | 197 | | | 1407 | |
| Travel Time (s) | | 42.2 | | | 16.6 | | | 4.5 | | | 32.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.96 | 0.96 | 0.96 | 0.85 | 0.85 | 0.85 | 0.80 | 0.80 | 0.80 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 5% | 5% | 5% | 1% | 1% | 1% | 3% | 3% | 3% | 5% | 5% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 222 | 0 | 0 | 491 | 104 | 0 | 42 | 0 | 0 | 96 | 31 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 41.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 20 | 170 | 5 | 1 | 470 | 100 | 15 | 5 | 15 | 75 | 2 | 25 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.96 | 0.96 | 0.96 | 0.85 | 0.85 | 0.85 | 0.80 | 0.80 | 0.80 |
| Hourly flow rate (vph) | 23 | 193 | 6 | 1 | 490 | 104 | 18 | 6 | 18 | 94 | 2 | 31 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 490 | | | 199 | | | 734 | 733 | 196 | 754 | 736 | 490 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 490 | | | 199 | | | 734 | 733 | 196 | 754 | 736 | 490 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 98 | | | 100 | | | 94 | 98 | 98 | 69 | 99 | 95 |
| cM capacity (veh/h) | 1058 | | | 1380 | | | 309 | 339 | 843 | 306 | 335 | 573 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | NE 1 | SW 1 |
|---|---|---|---|---|---|
| Volume Total | 222 | 491 | 104 | 41 | 128 |
| Volume Left | 23 | 1 | 0 | 18 | 94 |
| Volume Right | 6 | 0 | 104 | 18 | 31 |
| cSH | 1058 | 1380 | 1700 | 432 | 406 |
| Volume to Capacity | 0.02 | 0.00 | 0.06 | 0.10 | 0.31 |
| Queue Length 95th (ft) | 2 | 0 | 0 | 8 | 33 |
| Control Delay (s) | 1.1 | 0.0 | 0.0 | 14.2 | 19.5 |
| Lane LOS | A | A | | B | C |
| Approach Delay (s) | 1.1 | 0.0 | | 14.2 | 19.5 |
| Approach LOS | | | | B | C |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 3.4 | | |
| Intersection Capacity Utilization | | 41.5% | ICU Level of Service | A |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 200 | 5 | 15 | 105 | 0 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 1 | 0 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 1857 | 0 | 0 | 1852 | 1611 | 0 |
| Flt Permitted | | | | 0.994 | | |
| Satd. Flow (perm) | 1857 | 0 | 0 | 1852 | 1611 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 104 | | | 666 | 300 | |
| Travel Time (s) | 2.4 | | | 15.1 | 6.8 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 222 | 0 | 0 | 130 | 11 | 0 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 28.2% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 200 | 5 | 15 | 105 | 0 | 10 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 217 | 5 | 16 | 114 | 0 | 11 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 666 | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 223 | | 367 | 220 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 223 | | 367 | 220 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 99 | | 100 | 99 |
| cM capacity (veh/h) | | | 1346 | | 625 | 820 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 223 | 130 | 11 |
| Volume Left | 0 | 16 | 0 |
| Volume Right | 5 | 0 | 11 |
| cSH | 1700 | 1346 | 820 |
| Volume to Capacity | 0.13 | 0.01 | 0.01 |
| Queue Length 95th (ft) | 0 | 1 | 1 |
| Control Delay (s) | 0.0 | 1.1 | 9.5 |
| Lane LOS | | A | A |
| Approach Delay (s) | 0.0 | 1.1 | 9.5 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 0.7 | |
| Intersection Capacity Utilization | | 28.2% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Lane Group | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 1145 | 465 | 0 | 1270 | 0 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 0 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 3455 | 0 | 0 | 3539 | 0 | 1644 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 3455 | 0 | 0 | 3539 | 0 | 1644 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 401 | | | 554 | 450 | |
| Travel Time (s) | 9.1 | | | 12.6 | 10.2 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.96 | 0.96 | 0.65 | 0.65 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 2% | 2% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 1694 | 0 | 0 | 1323 | 0 | 23 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 56.5% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 1145 | 465 | 0 | 1270 | 0 | 15 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.96 | 0.96 | 0.65 | 0.65 |
| Hourly flow rate (vph) | 1205 | 489 | 0 | 1323 | 0 | 23 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 554 | | |
| pX, platoon unblocked | | | | | 0.74 | |
| vC, conflicting volume | | | 1205 | | 2111 | 847 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 1205 | | 1798 | 847 |
| tC, single (s) | | | 4.1 | | 6.8 | 6.9 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 93 |
| cM capacity (veh/h) | | | 575 | | 54 | 309 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NW 1 |
|---|---|---|---|---|---|
| Volume Total | 804 | 891 | 661 | 661 | 23 |
| Volume Left | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 489 | 0 | 0 | 23 |
| cSH | 1700 | 1700 | 1700 | 1700 | 309 |
| Volume to Capacity | 0.47 | 0.52 | 0.39 | 0.39 | 0.07 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 6 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 17.6 |
| Lane LOS | | | | | C |
| Approach Delay (s) | 0.0 | | 0.0 | | 17.6 |
| Approach LOS | | | | | C |

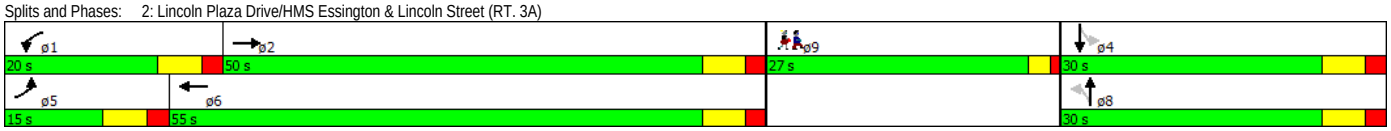
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.1 | | |
| Intersection Capacity Utilization | 56.5% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 110 | 1010 | 40 | 85 | 990 | 15 | 165 | 25 | 100 | 20 | 40 | 115 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 265 | | 0 | 220 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3553 | 0 | 1770 | 3414 | 0 | 1805 | 1672 | 0 | 1787 | 1672 | 0 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.597 | | | 0.674 | | | |
| Satd. Flow (perm) | 1728 | 3553 | 0 | 1770 | 3414 | 0 | 1134 | 1672 | 0 | 1268 | 1672 | 0 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 3 | | | 1 | | | 104 | | | 101 | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 554 | | | 804 | | | 144 | | | 222 | | |
| Travel Time (s) | | 8.4 | | | 12.2 | | | 3.9 | | | 6.1 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.96 | 0.96 | 0.96 | 0.83 | 0.83 | 0.83 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 1% | 1% | 1% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 120 | 1141 | 0 | 92 | 1092 | 0 | 172 | 130 | 0 | 24 | 187 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 22.0 | 22.0 | | 12.0 | 12.0 | | 27.0 |
| Total Split (s) | 15.0 | 50.0 | | 20.0 | 55.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | | 27.0 |
| Total Split (%) | 11.8% | 39.4% | | 15.7% | 43.3% | | 23.6% | 23.6% | | 23.6% | 23.6% | | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | | Yes | | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | 9.1 | 39.9 | | 9.3 | 37.3 | | 24.2 | 24.2 | | 24.2 | 24.2 | | |
| Actuated g/C Ratio | 0.10 | 0.45 | | 0.10 | 0.42 | | 0.27 | 0.27 | | 0.27 | 0.27 | | |
| v/c Ratio | 0.68 | 0.71 | | 0.50 | 0.76 | | 0.56 | 0.24 | | 0.07 | 0.35 | | |
| Control Delay | 61.7 | 23.8 | | 48.6 | 25.4 | | 38.2 | 10.4 | | 28.2 | 16.1 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Delay | 61.7 | 23.8 | | 48.6 | 25.4 | | 38.2 | 10.4 | | 28.2 | 16.1 | | |
| LOS | E | C | | D | C | | D | B | | C | B | | |
| Approach Delay | | 27.4 | | | 27.2 | | | 26.2 | | | 17.4 | | |
| Approach LOS | | C | | | C | | | C | | | B | | |
| Queue Length 50th (ft) | 67 | 278 | | 50 | 263 | | 84 | 11 | | 10 | 38 | | |
| Queue Length 95th (ft) | #169 | 380 | | 103 | 335 | | 172 | 59 | | 31 | 91 | | |
| Internal Link Dist (ft) | | 474 | | | 724 | | | 64 | | | 142 | | |
| Turn Bay Length (ft) | 265 | | | 220 | | | | | | | | | |
| Base Capacity (vph) | 176 | 1778 | | 281 | 1901 | | 309 | 531 | | 346 | 529 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.68 | 0.64 | | 0.33 | 0.57 | | 0.56 | 0.24 | | 0.07 | 0.35 | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 88.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 26.5 — Intersection LOS: C
Intersection Capacity Utilization 72.5% — ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Lincoln Plaza Drive/HMS Essington & Lincoln Street (RT. 3A)

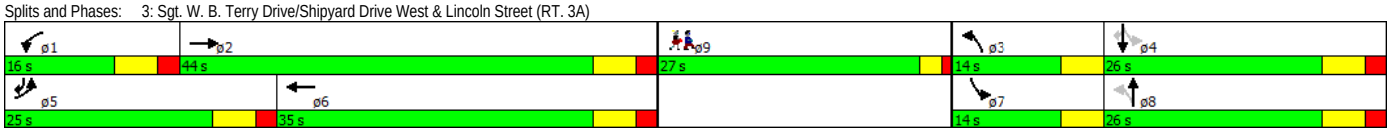


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 95 | 1020 | 15 | 55 | 795 | 50 | 155 | 110 | 40 | 105 | 150 | 140 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 330 | | 0 | 250 | | 0 | 265 | | 0 | 300 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3567 | 0 | 1770 | 5040 | 0 | 1787 | 1806 | 0 | 1805 | 1900 | 1615 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.438 | | | 0.554 | | | |
| Satd. Flow (perm) | 1728 | 3567 | 0 | 1770 | 5040 | 0 | 824 | 1806 | 0 | 1053 | 1900 | 1615 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 7 | | | 12 | | | | 194 | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 804 | | | 622 | | | 166 | | | 156 | | |
| Travel Time (s) | | 12.2 | | | 9.4 | | | 4.5 | | | 4.3 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 | 0.72 | 0.72 | 0.72 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 104 | 1137 | 0 | 64 | 982 | 0 | 187 | 181 | 0 | 146 | 208 | 194 | |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | pm+pt | NA | pm+ov | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 10.0 | 12.0 | | 10.0 | 12.0 | 12.0 | 27.0 |
| Total Split (s) | 25.0 | 44.0 | | 16.0 | 35.0 | | 14.0 | 26.0 | | 14.0 | 26.0 | 25.0 | 27.0 |
| Total Split (%) | 19.7% | 34.6% | | 12.6% | 27.6% | | 11.0% | 20.5% | | 11.0% | 20.5% | 19.7% | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None | None |
| Act Effct Green (s) | 9.9 | 38.6 | | 7.9 | 33.5 | | 26.3 | 14.8 | | 25.2 | 14.2 | 30.2 | |
| Actuated g/C Ratio | 0.11 | 0.43 | | 0.09 | 0.37 | | 0.29 | 0.17 | | 0.28 | 0.16 | 0.34 | |
| v/c Ratio | 0.55 | 0.74 | | 0.41 | 0.52 | | 0.54 | 0.59 | | 0.39 | 0.69 | 0.29 | |
| Control Delay | 50.7 | 26.9 | | 49.6 | 23.6 | | 29.7 | 41.6 | | 25.9 | 48.9 | 4.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Delay | 50.7 | 26.9 | | 49.6 | 23.6 | | 29.7 | 41.6 | | 25.9 | 48.9 | 4.2 | |
| LOS | D | C | | D | C | | C | D | | C | D | A | |
| Approach Delay | | 28.9 | | | 25.2 | | | 35.6 | | | 27.0 | | |
| Approach LOS | | C | | | C | | | D | | | C | | |
| Queue Length 50th (ft) | 59 | 295 | | 36 | 156 | | 81 | 93 | | 62 | 117 | 0 | |
| Queue Length 95th (ft) | 115 | 430 | | 77 | 215 | | 127 | 149 | | 86 | 149 | 17 | |
| Internal Link Dist (ft) | | 724 | | | 542 | | | 86 | | | 76 | | |
| Turn Bay Length (ft) | 330 | | | 250 | | | 265 | | | 300 | | | |
| Base Capacity (vph) | 372 | 1539 | | 201 | 1936 | | 357 | 419 | | 396 | 431 | 823 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.28 | 0.74 | | 0.32 | 0.51 | | 0.52 | 0.43 | | 0.37 | 0.48 | 0.24 | |

## Intersection Summary

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 89.5
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 28.1 — Intersection LOS: C
Intersection Capacity Utilization 68.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Sgt. W. B. Terry Drive/Shipyard Drive West & Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 25 | 1135 | 5 | 0 | 775 | 150 | 95 | 15 | 10 | 400 | 0 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 110 | | 0 | 750 | | 140 | 0 | | 0 | 260 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1787 | 3571 | 0 | 1801 | 3539 | 1583 | 0 | 1755 | 0 | 1715 | 1715 | 1615 |
| Flt Permitted | 0.950 | | | | | | | 0.962 | | 0.950 | 0.950 | |
| Satd. Flow (perm) | 1787 | 3571 | 0 | 1801 | 3539 | 1583 | 0 | 1755 | 0 | 1715 | 1715 | 1615 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | | 164 | | 4 | | | | 98 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 568 | | | 1442 | | | 272 | | | 315 | |
| Travel Time (s) | | 8.6 | | | 21.8 | | | 7.4 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.73 | 0.73 | 0.73 | 0.64 | 0.64 | 0.64 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 3% | 3% | 3% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | 50% | | |
| Lane Group Flow (vph) | 27 | 1225 | 0 | 0 | 833 | 161 | 0 | 165 | 0 | 312 | 313 | 47 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Split | NA | | Split | NA | pt+ov |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Permitted Phases | | | | | | 6 | | | | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | 6.0 | 4.0 | 4.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 37.0 | 12.0 | 10.0 | 10.0 | | 12.0 | 12.0 | |
| Total Split (s) | 18.0 | 54.0 | | 10.0 | 46.0 | 21.0 | 15.0 | 15.0 | | 21.0 | 21.0 | |
| Total Split (%) | 18.0% | 54.0% | | 10.0% | 46.0% | 21.0% | 15.0% | 15.0% | | 21.0% | 21.0% | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lead | Lag | Lag | | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | Min | | None | Min | None | None | None | | None | None | |
| Act Effct Green (s) | 6.5 | 36.2 | | | 26.5 | 47.7 | | 9.1 | | 15.1 | 15.1 | 21.6 |
| Actuated g/C Ratio | 0.08 | 0.46 | | | 0.34 | 0.61 | | 0.12 | | 0.19 | 0.19 | 0.27 |
| v/c Ratio | 0.18 | 0.74 | | | 0.70 | 0.16 | | 0.80 | | 0.95 | 0.95 | 0.09 |
| Control Delay | 39.4 | 20.2 | | | 26.7 | 1.6 | | 64.9 | | 73.5 | 74.1 | 0.6 |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.4 | 20.2 | | | 26.7 | 1.6 | | 64.9 | | 73.5 | 74.1 | 0.6 |
| LOS | D | C | | | C | A | | E | | E | E | A |
| Approach Delay | | 20.6 | | | 22.6 | | | 64.9 | | | 68.7 | |
| Approach LOS | | C | | | C | | | E | | | E | |
| Queue Length 50th (ft) | 13 | 245 | | | 191 | 0 | | 79 | | 161 | 162 | 0 |
| Queue Length 95th (ft) | 40 | 314 | | | 261 | 22 | | #150 | | #215 | #217 | 0 |
| Internal Link Dist (ft) | | 488 | | | 1362 | | | 192 | | | 235 | |
| Turn Bay Length (ft) | 110 | | | | | 140 | | | | 260 | | |
| Base Capacity (vph) | 275 | 2200 | | | 1817 | 1025 | | 206 | | 330 | 330 | 623 |
| Starvation Cap Reductn | 0 | 0 | | | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.10 | 0.56 | | | 0.46 | 0.16 | | 0.80 | | 0.95 | 0.95 | 0.08 |

**Intersection Summary**

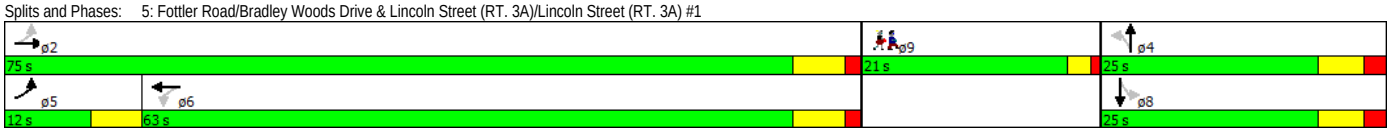
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 78.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 34.1 — Intersection LOS: C
Intersection Capacity Utilization 54.9% — ICU Level of Service A
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Talbots Drive/Shipyard Drive East & Lincoln Street (RT. 3A)

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 15 | 1465 | 65 | 45 | 875 | 25 | 40 | 25 | 60 | 15 | 10 | 10 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 0 | | 100 | 0 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 3553 | 0 | 0 | 3518 | 0 | 1805 | 1699 | 0 | 0 | 1788 | 0 | |
| Flt Permitted | | 0.943 | | | 0.774 | | 0.725 | | | | 0.820 | | |
| Satd. Flow (perm) | 0 | 3350 | 0 | 0 | 2728 | 0 | 1377 | 1699 | 0 | 0 | 1497 | 0 | |
| Right Turn on Red | | | No | | | No | | | No | | | No | |
| Satd. Flow (RTOR) | | | | | | | | | | | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 1442 | | | 580 | | | 992 | | | 245 | | |
| Travel Time (s) | | 21.8 | | | 8.8 | | | 27.1 | | | 6.7 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.90 | 0.90 | 0.90 | 0.95 | 0.95 | 0.95 | 0.73 | 0.73 | 0.73 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1626 | 0 | 0 | 1050 | 0 | 42 | 89 | 0 | 0 | 49 | 0 | |
| Turn Type | pm+pt | NA | | Perm | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | | 6 | | | 4 | | | 8 | | 9 |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | | |
| Detector Phase | 2 5 | 2 5 | | 6 | 6 | | 4 | 4 | | 8 | 8 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 5.5 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 1.0 |
| Minimum Split (s) | 10.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 21.0 |
| Total Split (s) | 12.0 | 75.0 | | 63.0 | 63.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 21.0 |
| Total Split (%) | 9.9% | 62.0% | | 52.1% | 52.1% | | 20.7% | 20.7% | | 20.7% | 20.7% | | 17% |
| Yellow Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 0.0 | 1.5 | | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | |
| Lead/Lag | Lead | | | Lag | Lag | | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | Yes | | | | | | | | |
| Recall Mode | None | Min | | Min | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | | 59.7 | | | 47.4 | | 9.7 | 9.7 | | | 9.7 | | |
| Actuated g/C Ratio | | 0.77 | | | 0.61 | | 0.12 | 0.12 | | | 0.12 | | |
| v/c Ratio | | 0.63 | | | 0.63 | | 0.25 | 0.42 | | | 0.26 | | |
| Control Delay | | 6.4 | | | 12.8 | | 38.1 | 41.4 | | | 38.2 | | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Delay | | 6.4 | | | 12.8 | | 38.1 | 41.4 | | | 38.2 | | |
| LOS | | A | | | B | | D | D | | | D | | |
| Approach Delay | | 6.4 | | | 12.8 | | | 40.3 | | | 38.2 | | |
| Approach LOS | | A | | | B | | | D | | | D | | |
| Queue Length 50th (ft) | | 166 | | | 169 | | 19 | 42 | | | 23 | | |
| Queue Length 95th (ft) | | 260 | | | 257 | | 54 | 97 | | | 49 | | |
| Internal Link Dist (ft) | | 1362 | | | 500 | | | 912 | | | 165 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 2941 | | | 2039 | | 342 | 423 | | | 373 | | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Reduced v/c Ratio | | 0.55 | | | 0.51 | | 0.12 | 0.21 | | | 0.13 | | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 121 | |
| Actuated Cycle Length: 78 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.63 | |
| Intersection Signal Delay: 10.9 | Intersection LOS: B |
| Intersection Capacity Utilization 77.1% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Fottler Road/Bradley Woods Drive & Lincoln Street (RT. 3A)/Lincoln Street (RT. 3A) #1



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 1 | 1640 | 5 | 10 | 950 | 5 | 0 | 0 | 10 | 1 | 0 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 3574 | 0 | 0 | 3567 | 0 | 0 | 1644 | 0 | 0 | 1728 | 0 |
| Flt Permitted | | | | | 0.999 | | | | | | 0.976 | |
| Satd. Flow (perm) | 0 | 3574 | 0 | 0 | 3567 | 0 | 0 | 1644 | 0 | 0 | 1728 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1334 | | | 458 | | | 528 | | | 77 | |
| Travel Time (s) | | 30.3 | | | 10.4 | | | 12.0 | | | 1.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.89 | 0.50 | 0.50 | 0.50 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 1% | 1% | 0% | 0% | 0% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1789 | 0 | 0 | 1084 | 0 | 0 | 20 | 0 | 0 | 2 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 56.2% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 1 | 1640 | 5 | 10 | 950 | 5 | 0 | 0 | 10 | 1 | 0 | 1 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.89 | 0.50 | 0.50 | 0.50 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 1 | 1783 | 5 | 11 | 1067 | 6 | 0 | 0 | 20 | 1 | 0 | 1 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1073 | | | 1788 | | | 2345 | 2883 | 894 | 2006 | 2883 | 537 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1073 | | | 1788 | | | 2345 | 2883 | 894 | 2006 | 2883 | 537 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 100 | | | 97 | | | 100 | 100 | 93 | 97 | 100 | 100 |
| cM capacity (veh/h) | 651 | | | 347 | | | 19 | 16 | 288 | 32 | 16 | 494 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 892 | 897 | 545 | 539 | 20 | 2 |
| Volume Left | 1 | 0 | 11 | 0 | 0 | 1 |
| Volume Right | 0 | 5 | 0 | 6 | 20 | 1 |
| cSH | 651 | 1700 | 347 | 1700 | 288 | 61 |
| Volume to Capacity | 0.00 | 0.53 | 0.03 | 0.32 | 0.07 | 0.04 |
| Queue Length 95th (ft) | 0 | 0 | 3 | 0 | 6 | 3 |
| Control Delay (s) | 0.0 | 0.0 | 1.1 | 0.0 | 18.4 | 66.3 |
| Lane LOS | A | | A | | C | F |
| Approach Delay (s) | 0.0 | | 0.5 | | 18.4 | 66.3 |
| Approach LOS | | | | | C | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 0.4 | | |
| Intersection Capacity Utilization | | 56.2% | ICU Level of Service | B |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 115 | 350 | 15 | 160 | 110 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 0 | | | 0 | 0 | 0 |
| Storage Lanes | 0 | | | 0 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Satd. Flow (prot) | 0 | 1877 | 1666 | 0 | 1787 | 0 |
| Flt Permitted | | 0.988 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1877 | 1666 | 0 | 1787 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 450 | 104 | | 285 | |
| Travel Time (s) | | 10.2 | 2.4 | | 6.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.80 | 0.80 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 1% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 494 | 219 | 0 | 125 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 51.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 115 | 350 | 15 | 160 | 110 | 0 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.80 | 0.80 | 0.88 | 0.88 |
| Hourly flow rate (vph) | 122 | 372 | 19 | 200 | 125 | 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) | | | 770 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 219 | | | | 736 | 119 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 219 | | | | 736 | 119 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 91 | | | | 65 | 100 |
| cM capacity (veh/h) | 1363 | | | | 353 | 936 |

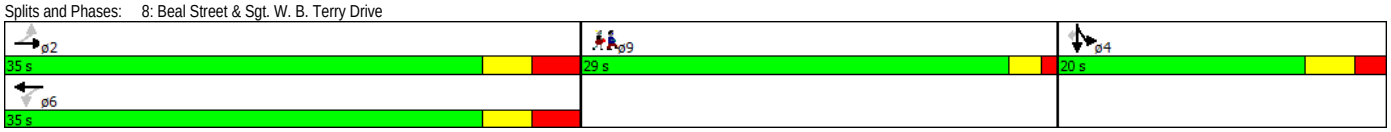
| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 495 | 219 | 125 |
| Volume Left | 122 | 0 | 125 |
| Volume Right | 0 | 200 | 0 |
| cSH | 1363 | 1700 | 353 |
| Volume to Capacity | 0.09 | 0.13 | 0.35 |
| Queue Length 95th (ft) | 7 | 0 | 39 |
| Control Delay (s) | 2.6 | 0.0 | 20.7 |
| Lane LOS | A | | C |
| Approach Delay (s) | 2.6 | 0.0 | 20.7 |
| Approach LOS | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 4.6 | |
| Intersection Capacity Utilization | | 51.5% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 25 | 435 | 10 | 20 | 180 | 230 | 0 | 0 | 0 | 210 | 2 | 25 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 10 | 12 | 12 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 50 | | 0 | 60 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 1889 | 0 | 0 | 1742 | 0 | 0 | 0 | 0 | 0 | 1793 | 1492 | |
| Flt Permitted | | 0.954 | | | 0.962 | | | | | | 0.953 | | |
| Satd. Flow (perm) | 0 | 1807 | 0 | 0 | 1679 | 0 | 0 | 0 | 0 | 0 | 1793 | 1492 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 75 | | | | | | | 78 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 666 | | | 1855 | | | 212 | | | 423 | | |
| Travel Time (s) | | 18.2 | | | 50.6 | | | 5.8 | | | 11.5 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.92 | 0.92 | 0.92 | 0.78 | 0.78 | 0.78 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 0% | 0% | 0% | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 522 | 0 | 0 | 518 | 0 | 0 | 0 | 0 | 0 | 272 | 32 | |
| Turn Type | Perm | NA | | Perm | NA | | | | | Split | NA | Perm | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | | 9 |
| Permitted Phases | 2 | | | 6 | | | | | | | | 4 | |
| Detector Phase | 2 | 2 | | 6 | 6 | | | | | 4 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | | | | 6.0 | 6.0 | 6.0 | 5.0 |
| Minimum Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | | | | 11.0 | 11.0 | 11.0 | 29.0 |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | | | | 20.0 | 20.0 | 20.0 | 29.0 |
| Total Split (%) | 41.7% | 41.7% | | 41.7% | 41.7% | | | | | 23.8% | 23.8% | 23.8% | 35% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 2.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | | |
| Recall Mode | Min | Min | | Min | Min | | | | | None | None | None | None |
| Act Effct Green (s) | | 18.0 | | | 18.0 | | | | | | 12.8 | 12.8 | |
| Actuated g/C Ratio | | 0.43 | | | 0.43 | | | | | | 0.30 | 0.30 | |
| v/c Ratio | | 0.68 | | | 0.68 | | | | | | 0.50 | 0.06 | |
| Control Delay | | 14.9 | | | 13.7 | | | | | | 16.7 | 1.2 | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Delay | | 14.9 | | | 13.7 | | | | | | 16.7 | 1.2 | |
| LOS | | B | | | B | | | | | | B | A | |
| Approach Delay | | 14.9 | | | 13.7 | | | | | | 15.1 | | |
| Approach LOS | | B | | | B | | | | | | B | | |
| Queue Length 50th (ft) | | 96 | | | 80 | | | | | | 51 | 0 | |
| Queue Length 95th (ft) | | 180 | | | 141 | | | | | | 102 | 2 | |
| Internal Link Dist (ft) | | 586 | | | 1775 | | | 132 | | | 343 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 1280 | | | 1211 | | | | | | 657 | 596 | |
| 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 | | 0.41 | | | 0.43 | | | | | | 0.41 | 0.05 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 84 | |
| Actuated Cycle Length: 42 | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.68 | |
| Intersection Signal Delay: 14.5 | Intersection LOS: B |
| Intersection Capacity Utilization 53.2% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Beal Street & Sgt. W. B. Terry Drive



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 40 | 650 | 20 | 5 | 365 | 60 | 5 | 5 | 5 | 115 | 5 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 60 | 0 | | 0 | 0 | | 120 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 0 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 1887 | 0 | 0 | 1879 | 1599 | 0 | 1684 | 0 | 0 | 1795 | 1599 |
| Flt Permitted | | 0.997 | | | 0.999 | | | 0.984 | | | 0.954 | |
| Satd. Flow (perm) | 0 | 1887 | 0 | 0 | 1879 | 1599 | 0 | 1684 | 0 | 0 | 1795 | 1599 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1855 | | | 729 | | | 197 | | | 1407 | |
| Travel Time (s) | | 42.2 | | | 16.6 | | | 4.5 | | | 32.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.84 | 0.84 | 0.84 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 1% | 1% | 1% | 6% | 6% | 6% | 1% | 1% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 732 | 0 | 0 | 441 | 71 | 0 | 18 | 0 | 0 | 150 | 25 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 80.4% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 40 | 650 | 20 | 5 | 365 | 60 | 5 | 5 | 5 | 115 | 5 | 20 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.84 | 0.84 | 0.84 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Hourly flow rate (vph) | 41 | 670 | 21 | 6 | 435 | 71 | 6 | 6 | 6 | 144 | 6 | 25 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 435 | | | 691 | | | 1212 | 1209 | 680 | 1219 | 1220 | 435 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 435 | | | 691 | | | 1212 | 1209 | 680 | 1219 | 1220 | 435 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.2 | 6.6 | 6.3 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.6 | 4.1 | 3.4 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 96 | | | 99 | | | 96 | 96 | 99 | 2 | 96 | 96 |
| cM capacity (veh/h) | 1136 | | | 909 | | | 141 | 172 | 444 | 147 | 173 | 624 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | NE 1 | SW 1 |
|---|---|---|---|---|---|
| Volume Total | 732 | 440 | 71 | 19 | 175 |
| Volume Left | 41 | 6 | 0 | 6 | 144 |
| Volume Right | 21 | 0 | 71 | 6 | 25 |
| cSH | 1136 | 909 | 1700 | 198 | 170 |
| Volume to Capacity | 0.04 | 0.01 | 0.04 | 0.09 | 1.03 |
| Queue Length 95th (ft) | 3 | 0 | 0 | 8 | 210 |
| Control Delay (s) | 0.9 | 0.2 | 0.0 | 25.1 | 131.4 |
| Lane LOS | A | A | | D | F |
| Approach Delay (s) | 0.9 | 0.2 | | 25.1 | 131.4 |
| Approach LOS | | | | D | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 16.9 | | |
| Intersection Capacity Utilization | | 80.4% | ICU Level of Service | D |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 455 | 5 | 35 | 170 | 5 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 1 | 0 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 1861 | 0 | 0 | 1848 | 1651 | 0 |
| Flt Permitted | | | | 0.992 | 0.988 | |
| Satd. Flow (perm) | 1861 | 0 | 0 | 1848 | 1651 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 104 | | | 666 | 328 | |
| Travel Time (s) | 2.4 | | | 15.1 | 7.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 500 | 0 | 0 | 223 | 21 | 0 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 48.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 455 | 5 | 35 | 170 | 5 | 15 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 495 | 5 | 38 | 185 | 5 | 16 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 666 | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 500 | | 758 | 497 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 500 | | 758 | 497 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 96 | | 98 | 97 |
| cM capacity (veh/h) | | | 1064 | | 361 | 573 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 500 | 223 | 22 |
| Volume Left | 0 | 38 | 5 |
| Volume Right | 5 | 0 | 16 |
| cSH | 1700 | 1064 | 500 |
| Volume to Capacity | 0.29 | 0.04 | 0.04 |
| Queue Length 95th (ft) | 0 | 3 | 3 |
| Control Delay (s) | 0.0 | 1.7 | 12.5 |
| Lane LOS | | A | B |
| Approach Delay (s) | 0.0 | 1.7 | 12.5 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 0.9 | |
| Intersection Capacity Utilization | | 48.5% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Lane Group | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 1290 | 380 | 0 | 1350 | 0 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 0 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 3453 | 0 | 0 | 3539 | 0 | 1565 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 3453 | 0 | 0 | 3539 | 0 | 1565 |
| Link Speed (mph) | 45 | | | 45 | 30 | |
| Link Distance (ft) | 228 | | | 502 | 404 | |
| Travel Time (s) | 3.5 | | | 7.6 | 9.2 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.91 | 0.91 | 0.58 | 0.58 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 2% | 2% | 5% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 1776 | 0 | 0 | 1484 | 0 | 34 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 57.8% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 1290 | 380 | 0 | 1350 | 0 | 20 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.91 | 0.91 | 0.58 | 0.58 |
| Hourly flow rate (vph) | 1372 | 404 | 0 | 1484 | 0 | 34 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 502 | | |
| pX, platoon unblocked | | | | | 0.73 | |
| vC, conflicting volume | | | 1777 | | 2316 | 888 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 1777 | | 2063 | 888 |
| tC, single (s) | | | 4.1 | | 6.9 | 7.0 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 88 |
| cM capacity (veh/h) | | | 346 | | 33 | 281 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NW 1 |
|---|---|---|---|---|---|
| Volume Total | 915 | 862 | 742 | 742 | 34 |
| Volume Left | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 404 | 0 | 0 | 34 |
| cSH | 1700 | 1700 | 1700 | 1700 | 281 |
| Volume to Capacity | 0.54 | 0.51 | 0.44 | 0.44 | 0.12 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 10 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 19.6 |
| Lane LOS | | | | | C |
| Approach Delay (s) | 0.0 | | 0.0 | | 19.6 |
| Approach LOS | | | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.2 | | |
| Intersection Capacity Utilization | 57.8% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 185 | 1065 | 60 | 105 | 1030 | 20 | 180 | 35 | 85 | 15 | 15 | 140 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 265 | | 0 | 220 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3546 | 0 | 1770 | 3411 | 0 | 1787 | 1682 | 0 | 1770 | 1611 | 0 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.565 | | | 0.663 | | | |
| Satd. Flow (perm) | 1728 | 3546 | 0 | 1770 | 3411 | 0 | 1063 | 1682 | 0 | 1235 | 1611 | 0 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 5 | | | 2 | | | 85 | | | 184 | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 502 | | | 804 | | | 187 | | | 222 | | |
| Travel Time (s) | | 7.6 | | | 12.2 | | | 5.1 | | | 6.1 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.95 | 0.95 | 0.95 | 0.81 | 0.81 | 0.81 | 0.76 | 0.76 | 0.76 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% | 2% | 2% | 2% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 191 | 1160 | 0 | 111 | 1105 | 0 | 222 | 148 | 0 | 20 | 204 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 27.0 |
| Total Split (s) | 15.0 | 50.0 | | 20.0 | 55.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | | 27.0 |
| Total Split (%) | 11.8% | 39.4% | | 15.7% | 43.3% | | 23.6% | 23.6% | | 23.6% | 23.6% | | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | | Yes | | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | 9.1 | 38.4 | | 10.2 | 39.4 | | 24.2 | 24.2 | | 24.2 | 24.2 | | |
| Actuated g/C Ratio | 0.10 | 0.42 | | 0.11 | 0.43 | | 0.27 | 0.27 | | 0.27 | 0.27 | | |
| v/c Ratio | 1.11 | 0.77 | | 0.56 | 0.75 | | 0.78 | 0.29 | | 0.06 | 0.36 | | |
| Control Delay | 142.9 | 26.7 | | 50.9 | 24.6 | | 54.4 | 15.5 | | 28.9 | 8.3 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Delay | 142.9 | 26.7 | | 50.9 | 24.6 | | 54.4 | 15.5 | | 28.9 | 8.3 | | |
| LOS | F | C | | D | C | | D | B | | C | A | | |
| Approach Delay | | 43.1 | | | 27.0 | | | 38.9 | | | 10.2 | | |
| Approach LOS | | D | | | C | | | D | | | B | | |
| Queue Length 50th (ft) | ~132 | 291 | | 63 | 268 | | 122 | 29 | | 9 | 9 | | |
| Queue Length 95th (ft) | #289 | 395 | | 121 | 340 | | #229 | 70 | | 25 | 40 | | |
| Internal Link Dist (ft) | | 422 | | | 724 | | | 107 | | | 142 | | |
| Turn Bay Length (ft) | 265 | | | 220 | | | | | | | | | |
| Base Capacity (vph) | 172 | 1734 | | 274 | 1855 | | 283 | 510 | | 329 | 564 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 1.11 | 0.67 | | 0.41 | 0.60 | | 0.78 | 0.29 | | 0.06 | 0.36 | | |

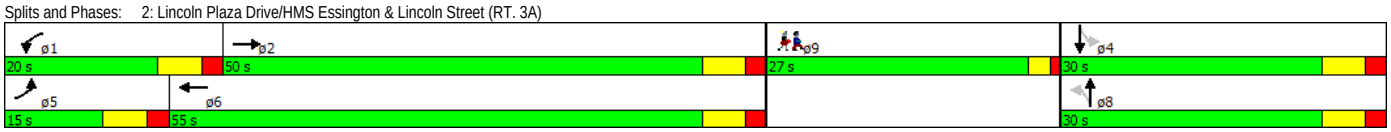
## Intersection Summary

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 90.9
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 34.1 — Intersection LOS: C
Intersection Capacity Utilization 78.8% — ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 2: Lincoln Plaza Drive/HMS Essington & Lincoln Street (RT. 3A)

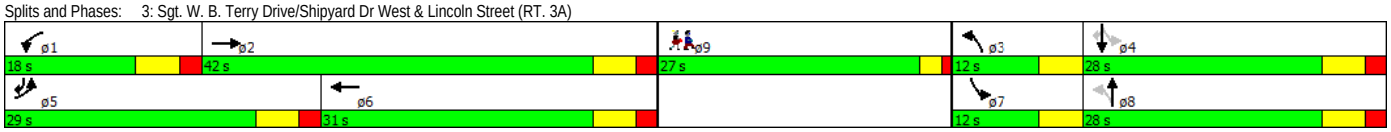


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 180 | 965 | 20 | 60 | 875 | 90 | 150 | 115 | 50 | 75 | 55 | 130 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 330 | | 0 | 250 | | 0 | 265 | | 0 | 300 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3564 | 0 | 1752 | 4965 | 0 | 1805 | 1814 | 0 | 1787 | 1881 | 1599 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.564 | | | 0.633 | | | |
| Satd. Flow (perm) | 1728 | 3564 | 0 | 1752 | 4965 | 0 | 1072 | 1814 | 0 | 1191 | 1881 | 1599 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 2 | | | 12 | | | 15 | | | | 140 | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 804 | | | 622 | | | 166 | | | 156 | | |
| Travel Time (s) | | 12.2 | | | 9.4 | | | 4.5 | | | 4.3 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.91 | 0.91 | 0.91 | 0.83 | 0.83 | 0.83 | 0.93 | 0.93 | 0.93 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 3% | 3% | 3% | 0% | 0% | 0% | 1% | 1% | 1% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 184 | 1005 | 0 | 66 | 1061 | 0 | 181 | 199 | 0 | 81 | 59 | 140 | |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | pm+pt | NA | pm+ov | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | 6.0 | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 10.0 | 12.0 | | 10.0 | 12.0 | 12.0 | 27.0 |
| Total Split (s) | 29.0 | 42.0 | | 18.0 | 31.0 | | 12.0 | 28.0 | | 12.0 | 28.0 | 29.0 | 27.0 |
| Total Split (%) | 22.8% | 33.1% | | 14.2% | 24.4% | | 9.4% | 22.0% | | 9.4% | 22.0% | 22.8% | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None | None |
| Act Effct Green (s) | 13.3 | 37.1 | | 8.1 | 28.5 | | 21.1 | 13.0 | | 19.2 | 12.3 | 28.4 | |
| Actuated g/C Ratio | 0.16 | 0.45 | | 0.10 | 0.35 | | 0.26 | 0.16 | | 0.23 | 0.15 | 0.35 | |
| v/c Ratio | 0.66 | 0.62 | | 0.38 | 0.61 | | 0.51 | 0.67 | | 0.25 | 0.21 | 0.22 | |
| Control Delay | 45.8 | 22.6 | | 45.0 | 25.9 | | 29.1 | 43.0 | | 23.7 | 34.1 | 3.7 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Delay | 45.8 | 22.6 | | 45.0 | 25.9 | | 29.1 | 43.0 | | 23.7 | 34.1 | 3.7 | |
| LOS | D | C | | D | C | | C | D | | C | C | A | |
| Approach Delay | | 26.2 | | | 27.0 | | | 36.4 | | | 15.9 | | |
| Approach LOS | | C | | | C | | | D | | | B | | |
| Queue Length 50th (ft) | 96 | 228 | | 35 | 171 | | 75 | 96 | | 32 | 29 | 0 | |
| Queue Length 95th (ft) | 170 | 356 | | 79 | 264 | | 122 | 156 | | 67 | 65 | 31 | |
| Internal Link Dist (ft) | | 724 | | | 542 | | | 86 | | | 76 | | |
| Turn Bay Length (ft) | 330 | | | 250 | | | 265 | | | 300 | | | |
| Base Capacity (vph) | 500 | 1647 | | 264 | 1732 | | 352 | 513 | | 355 | 520 | 830 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.37 | 0.61 | | 0.25 | 0.61 | | 0.51 | 0.39 | | 0.23 | 0.11 | 0.17 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 82.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 26.8 — Intersection LOS: C
Intersection Capacity Utilization 64.0% — ICU Level of Service B
Analysis Period (min) 15

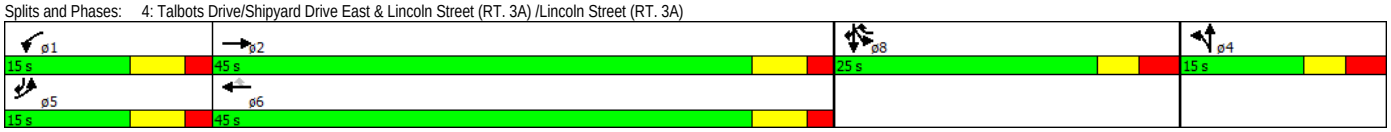
Splits and Phases: 3: Sgt. W. B. Terry Drive/Shipyard Dr West & Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 15 | 1070 | 5 | 1 | 980 | 180 | 2 | 0 | 0 | 180 | 5 | 45 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 110 | | 0 | 750 | | 140 | 0 | | 0 | 260 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1787 | 3571 | 0 | 1711 | 3539 | 1583 | 0 | 1805 | 0 | 1681 | 1690 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.950 | | 0.950 | 0.955 | |
| Satd. Flow (perm) | 1787 | 3571 | 0 | 1711 | 3539 | 1583 | 0 | 1805 | 0 | 1681 | 1690 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 198 | | | | | | 98 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 568 | | | 1442 | | | 272 | | | 315 | |
| Travel Time (s) | | 8.6 | | | 21.8 | | | 7.4 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.91 | 0.91 | 0.91 | 0.50 | 0.50 | 0.50 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | 49% | | |
| Lane Group Flow (vph) | 16 | 1143 | 0 | 1 | 1077 | 198 | 0 | 4 | 0 | 101 | 102 | 49 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Split | NA | | Split | NA | pt+ov |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Permitted Phases | | | | | | 6 | | | | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | 6.0 | 4.0 | 4.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 37.0 | 12.0 | 10.0 | 10.0 | | 12.0 | 12.0 | |
| Total Split (s) | 15.0 | 45.0 | | 15.0 | 45.0 | 25.0 | 15.0 | 15.0 | | 25.0 | 25.0 | |
| Total Split (%) | 15.0% | 45.0% | | 15.0% | 45.0% | 25.0% | 15.0% | 15.0% | | 25.0% | 25.0% | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | None | None | None | | None | None | |
| Act Effct Green (s) | 6.9 | 30.8 | | 6.8 | 26.2 | 46.5 | | 5.3 | | 9.7 | 9.7 | 22.7 |
| Actuated g/C Ratio | 0.12 | 0.54 | | 0.12 | 0.46 | 0.81 | | 0.09 | | 0.17 | 0.17 | 0.40 |
| v/c Ratio | 0.07 | 0.59 | | 0.00 | 0.66 | 0.15 | | 0.02 | | 0.35 | 0.36 | 0.07 |
| Control Delay | 33.5 | 11.9 | | 34.0 | 16.2 | 1.1 | | 34.5 | | 30.1 | 30.1 | 0.7 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 33.5 | 11.9 | | 34.0 | 16.2 | 1.1 | | 34.5 | | 30.1 | 30.1 | 0.7 |
| LOS | C | B | | C | B | A | | C | | C | C | A |
| Approach Delay | | 12.2 | | | 13.9 | | | 34.5 | | | 24.4 | |
| Approach LOS | | B | | | B | | | C | | | C | |
| Queue Length 50th (ft) | 5 | 88 | | 0 | 150 | 0 | | 1 | | 33 | 34 | 0 |
| Queue Length 95th (ft) | 28 | 355 | | 6 | 334 | 20 | | 7 | | 105 | 105 | 3 |
| Internal Link Dist (ft) | | 488 | | | 1362 | | | 192 | | | 235 | |
| Turn Bay Length (ft) | 110 | | | 750 | | 140 | | | | 260 | | |
| Base Capacity (vph) | 319 | 2651 | | 306 | 2599 | 1421 | | 323 | | 635 | 638 | 785 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.43 | | 0.00 | 0.41 | 0.14 | | 0.01 | | 0.16 | 0.16 | 0.06 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 100 | |
| Actuated Cycle Length: 57.1 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.66 | |
| Intersection Signal Delay: 14.2 | Intersection LOS: B |
| Intersection Capacity Utilization 50.4% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Talbots Drive/Shipyard Drive East & Lincoln Street (RT. 3A) /Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 15 | 1205 | 30 | 50 | 1115 | 20 | 35 | 15 | 55 | 20 | 5 | 10 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 0 | | 100 | 0 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 3556 | 0 | 0 | 3522 | 0 | 1752 | 1629 | 0 | 0 | 1775 | 0 | |
| Flt Permitted | | 0.933 | | | 0.813 | | 0.725 | | | | 0.780 | | |
| Satd. Flow (perm) | 0 | 3321 | 0 | 0 | 2869 | 0 | 1337 | 1629 | 0 | 0 | 1424 | 0 | |
| Right Turn on Red | | | No | | | No | | | No | | | No | |
| Satd. Flow (RTOR) | | | | | | | | | | | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 1442 | | | 580 | | | 992 | | | 245 | | |
| Travel Time (s) | | 21.8 | | | 8.8 | | | 27.1 | | | 6.7 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.87 | 0.87 | 0.87 | 0.90 | 0.90 | 0.90 | 0.71 | 0.71 | 0.71 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 3% | 3% | 3% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1288 | 0 | 0 | 1362 | 0 | 39 | 78 | 0 | 0 | 49 | 0 | |
| Turn Type | pm+pt | NA | | Perm | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | | 6 | | | 4 | | | 8 | | 9 |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | | |
| Detector Phase | 2 5 | 2 5 | | 6 | 6 | | 4 | 4 | | 8 | 8 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 5.5 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 1.0 |
| Minimum Split (s) | 10.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 18.0 |
| Total Split (s) | 10.0 | 72.0 | | 62.0 | 62.0 | | 28.0 | 28.0 | | 28.0 | 28.0 | | 18.0 |
| Total Split (%) | 8.5% | 61.0% | | 52.5% | 52.5% | | 23.7% | 23.7% | | 23.7% | 23.7% | | 15% |
| Yellow Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 0.0 | 1.5 | | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | |
| Lead/Lag | Lead | | | Lag | Lag | | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | Yes | | | | | | | | |
| Recall Mode | None | Min | | Min | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | | 69.0 | | | 59.0 | | 9.3 | 9.3 | | | 9.3 | | |
| Actuated g/C Ratio | | 0.79 | | | 0.67 | | 0.11 | 0.11 | | | 0.11 | | |
| v/c Ratio | | 0.49 | | | 0.70 | | 0.28 | 0.45 | | | 0.33 | | |
| Control Delay | | 4.6 | | | 12.6 | | 41.0 | 45.4 | | | 42.1 | | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Delay | | 4.6 | | | 12.6 | | 41.0 | 45.4 | | | 42.1 | | |
| LOS | | A | | | B | | D | D | | | D | | |
| Approach Delay | | 4.6 | | | 12.6 | | | 43.9 | | | 42.1 | | |
| Approach LOS | | A | | | B | | | D | | | D | | |
| Queue Length 50th (ft) | | 107 | | | 232 | | 20 | 41 | | | 25 | | |
| Queue Length 95th (ft) | | 170 | | | 331 | | 51 | 84 | | | 46 | | |
| Internal Link Dist (ft) | | 1362 | | | 500 | | | 912 | | | 165 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 2630 | | | 1935 | | 336 | 409 | | | 358 | | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Reduced v/c Ratio | | 0.49 | | | 0.70 | | 0.12 | 0.19 | | | 0.14 | | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 118 | |
| Actuated Cycle Length: 87.5 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.70 | |
| Intersection Signal Delay: 10.8 | Intersection LOS: B |
| Intersection Capacity Utilization 87.0% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Fottler Road/Bradley Woods Drive & Lincoln Street (RT. 3A)

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 0 | 1230 | 0 | 10 | 1160 | 0 | 0 | 1 | 10 | 0 | 0 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 3574 | 0 | 0 | 3539 | 0 | 0 | 1662 | 0 | 0 | 1644 | 0 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3574 | 0 | 0 | 3539 | 0 | 0 | 1662 | 0 | 0 | 1644 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1334 | | | 458 | | | 528 | | | 93 | |
| Travel Time (s) | | 30.3 | | | 10.4 | | | 12.0 | | | 2.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.87 | 0.87 | 0.87 | 0.81 | 0.81 | 0.81 | 0.25 | 0.25 | 0.25 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1295 | 0 | 0 | 1344 | 0 | 0 | 13 | 0 | 0 | 4 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 49.1% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 1230 | 0 | 10 | 1160 | 0 | 0 | 1 | 10 | 0 | 0 | 1 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.87 | 0.87 | 0.87 | 0.81 | 0.81 | 0.81 | 0.25 | 0.25 | 0.25 |
| Hourly flow rate (vph) | 0 | 1295 | 0 | 11 | 1333 | 0 | 0 | 1 | 12 | 0 | 0 | 4 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1333 | | | 1295 | | | 1988 | 2651 | 647 | 2017 | 2651 | 667 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1333 | | | 1295 | | | 1988 | 2651 | 647 | 2017 | 2651 | 667 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 100 | | | 98 | | | 100 | 95 | 97 | 100 | 100 | 99 |
| cM capacity (veh/h) | 519 | | | 531 | | | 36 | 23 | 418 | 32 | 23 | 406 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 647 | 647 | 678 | 667 | 14 | 4 |
| Volume Left | 0 | 0 | 11 | 0 | 0 | 0 |
| Volume Right | 0 | 0 | 0 | 0 | 12 | 4 |
| cSH | 519 | 1700 | 531 | 1700 | 162 | 406 |
| Volume to Capacity | 0.00 | 0.38 | 0.02 | 0.39 | 0.08 | 0.01 |
| Queue Length 95th (ft) | 0 | 0 | 2 | 0 | 7 | 1 |
| Control Delay (s) | 0.0 | 0.0 | 0.6 | 0.0 | 29.2 | 13.9 |
| Lane LOS | | | A | | D | B |
| Approach Delay (s) | 0.0 | | 0.3 | | 29.2 | 13.9 |
| Approach LOS | | | | | D | B |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 0.3 | | |
| Intersection Capacity Utilization | | 49.1% | ICU Level of Service | A |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 135 | 245 | 20 | 120 | 90 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 0 | | | 0 | 0 | 0 |
| Storage Lanes | 0 | | | 0 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Satd. Flow (prot) | 0 | 1849 | 1663 | 0 | 1805 | 0 |
| Flt Permitted | | 0.983 | | | 0.953 | |
| Satd. Flow (perm) | 0 | 1849 | 1663 | 0 | 1805 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 404 | 104 | | 172 | |
| Travel Time (s) | | 9.2 | 2.4 | | 3.9 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.88 | 0.88 | 0.95 | 0.95 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 431 | 147 | 0 | 102 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 43.9% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 135 | 245 | 20 | 120 | 90 | 2 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.88 | 0.88 | 0.95 | 0.95 | 0.90 | 0.90 |
| Hourly flow rate (vph) | 153 | 278 | 21 | 126 | 100 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | 770 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 147 | | | | 669 | 84 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 147 | | | | 669 | 84 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 89 | | | | 74 | 100 |
| cM capacity (veh/h) | 1441 | | | | 380 | 981 |

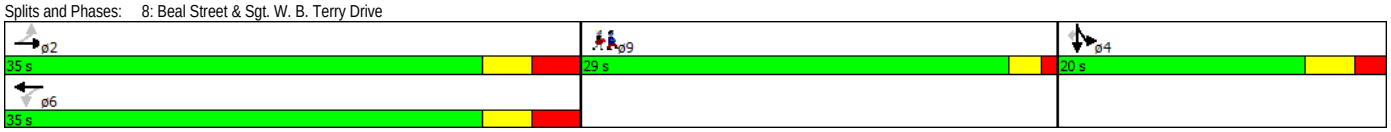
| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 432 | 147 | 102 |
| Volume Left | 153 | 0 | 100 |
| Volume Right | 0 | 126 | 2 |
| cSH | 1441 | 1700 | 385 |
| Volume to Capacity | 0.11 | 0.09 | 0.27 |
| Queue Length 95th (ft) | 9 | 0 | 26 |
| Control Delay (s) | 3.4 | 0.0 | 17.7 |
| Lane LOS | A | | C |
| Approach Delay (s) | 3.4 | 0.0 | 17.7 |
| Approach LOS | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 4.8 | |
| Intersection Capacity Utilization | | 43.9% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 10 | 315 | 10 | 5 | 140 | 255 | 0 | 0 | 0 | 85 | 1 | 5 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 10 | 12 | 12 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 50 | | 0 | 60 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 1889 | 0 | 0 | 1735 | 0 | 0 | 0 | 0 | 0 | 1811 | 1507 | |
| Flt Permitted | | 0.977 | | | 0.992 | | | | | | 0.953 | | |
| Satd. Flow (perm) | 0 | 1849 | 0 | 0 | 1723 | 0 | 0 | 0 | 0 | 0 | 1811 | 1507 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 2 | | | 115 | | | | | | | 78 | |
| Link Speed (mph) | | 30 | | | 30 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 666 | | | 1855 | | | 212 | | | 423 | | |
| Travel Time (s) | | 15.1 | | | 42.2 | | | 5.8 | | | 11.5 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.89 | 0.89 | 0.89 | 0.92 | 0.92 | 0.92 | 0.72 | 0.72 | 0.72 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 2% | 2% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 395 | 0 | 0 | 450 | 0 | 0 | 0 | 0 | 0 | 119 | 7 | |
| Turn Type | Perm | NA | | Perm | NA | | | | | Split | NA | Perm | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | | 9 |
| Permitted Phases | 2 | | | 6 | | | | | | | | 4 | |
| Detector Phase | 2 | 2 | | 6 | 6 | | | | | 4 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | | | | 6.0 | 6.0 | 6.0 | 5.0 |
| Minimum Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | | | | 11.0 | 11.0 | 11.0 | 29.0 |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | | | | 20.0 | 20.0 | 20.0 | 29.0 |
| Total Split (%) | 41.7% | 41.7% | | 41.7% | 41.7% | | | | | 23.8% | 23.8% | 23.8% | 35% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 2.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | | | | None | None | None | None |
| Act Effct Green (s) | | 14.9 | | | 14.9 | | | | | | 7.7 | 7.7 | |
| Actuated g/C Ratio | | 0.52 | | | 0.52 | | | | | | 0.27 | 0.27 | |
| v/c Ratio | | 0.41 | | | 0.47 | | | | | | 0.24 | 0.02 | |
| Control Delay | | 8.3 | | | 7.2 | | | | | | 11.8 | 0.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Delay | | 8.3 | | | 7.2 | | | | | | 11.8 | 0.0 | |
| LOS | | A | | | A | | | | | | B | A | |
| Approach Delay | | 8.3 | | | 7.2 | | | | | | 11.2 | | |
| Approach LOS | | A | | | A | | | | | | B | | |
| Queue Length 50th (ft) | | 41 | | | 34 | | | | | | 14 | 0 | |
| Queue Length 95th (ft) | | 93 | | | 94 | | | | | | 38 | 0 | |
| Internal Link Dist (ft) | | 586 | | | 1775 | | | 132 | | | 343 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 1719 | | | 1610 | | | | | | 1040 | 899 | |
| 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 | | 0.23 | | | 0.28 | | | | | | 0.11 | 0.01 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 84 | |
| Actuated Cycle Length: 28.5 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.47 | |
| Intersection Signal Delay: 8.2 | Intersection LOS: A |
| Intersection Capacity Utilization 39.5% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Beal Street & Sgt. W. B. Terry Drive



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 35 | 370 | 15 | 5 | 370 | 60 | 10 | 5 | 10 | 70 | 5 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 60 | 0 | | 0 | 0 | | 120 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 0 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 1883 | 0 | 0 | 1898 | 1615 | 0 | 1761 | 0 | 0 | 1779 | 1583 |
| Flt Permitted | | 0.996 | | | 0.999 | | | 0.980 | | | 0.955 | |
| Satd. Flow (perm) | 0 | 1883 | 0 | 0 | 1898 | 1615 | 0 | 1761 | 0 | 0 | 1779 | 1583 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1855 | | | 729 | | | 197 | | | 1407 | |
| Travel Time (s) | | 42.2 | | | 16.6 | | | 4.5 | | | 32.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.86 | 0.86 | 0.86 | 0.64 | 0.64 | 0.64 | 0.79 | 0.79 | 0.79 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 467 | 0 | 0 | 436 | 70 | 0 | 40 | 0 | 0 | 95 | 32 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 60.5% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 35 | 370 | 15 | 5 | 370 | 60 | 10 | 5 | 10 | 70 | 5 | 25 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.86 | 0.86 | 0.86 | 0.64 | 0.64 | 0.64 | 0.79 | 0.79 | 0.79 |
| Hourly flow rate (vph) | 39 | 411 | 17 | 6 | 430 | 70 | 16 | 8 | 16 | 89 | 6 | 32 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 430 | | | 428 | | | 942 | 939 | 419 | 959 | 947 | 430 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 430 | | | 428 | | | 942 | 939 | 419 | 959 | 947 | 430 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 97 | | | 99 | | | 93 | 97 | 98 | 60 | 97 | 95 |
| cM capacity (veh/h) | 1140 | | | 1142 | | | 221 | 256 | 638 | 219 | 251 | 625 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | NE 1 | SW 1 |
|---|---|---|---|---|---|
| Volume Total | 467 | 436 | 70 | 39 | 127 |
| Volume Left | 39 | 6 | 0 | 16 | 89 |
| Volume Right | 17 | 0 | 70 | 16 | 32 |
| cSH | 1140 | 1142 | 1700 | 311 | 295 |
| Volume to Capacity | 0.03 | 0.01 | 0.04 | 0.13 | 0.43 |
| Queue Length 95th (ft) | 3 | 0 | 0 | 11 | 51 |
| Control Delay (s) | 1.0 | 0.2 | 0.0 | 18.2 | 27.5 |
| Lane LOS | A | A | | C | D |
| Approach Delay (s) | 1.0 | 0.1 | | 18.2 | 27.5 |
| Approach LOS | | | | C | D |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 4.2 | | |
| Intersection Capacity Utilization | | 60.5% | ICU Level of Service | B |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 335 | 0 | 5 | 140 | 0 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 1 | 0 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 1863 | 0 | 0 | 1859 | 1611 | 0 |
| Flt Permitted | | | | 0.998 | | |
| Satd. Flow (perm) | 1863 | 0 | 0 | 1859 | 1611 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 104 | | | 666 | 328 | |
| Travel Time (s) | 2.4 | | | 15.1 | 7.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 364 | 0 | 0 | 157 | 1 | 0 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 27.6% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 335 | 0 | 5 | 140 | 0 | 1 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 364 | 0 | 5 | 152 | 0 | 1 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 666 | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 364 | | 527 | 364 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 364 | | 527 | 364 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 100 |
| cM capacity (veh/h) | | | 1194 | | 509 | 681 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 364 | 158 | 1 |
| Volume Left | 0 | 5 | 0 |
| Volume Right | 0 | 0 | 1 |
| cSH | 1700 | 1194 | 681 |
| Volume to Capacity | 0.21 | 0.00 | 0.00 |
| Queue Length 95th (ft) | 0 | 0 | 0 |
| Control Delay (s) | 0.0 | 0.3 | 10.3 |
| Lane LOS | | A | B |
| Approach Delay (s) | 0.0 | 0.3 | 10.3 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 0.1 | |
| Intersection Capacity Utilization | | 27.6% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

# 2023 NO-BUILD CONDITION

| Lane Group | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 800 | 230 | 0 | 1585 | 0 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 0 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 3357 | 0 | 0 | 3574 | 0 | 1096 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 3357 | 0 | 0 | 3574 | 0 | 1096 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 401 | | | 554 | 450 | |
| Travel Time (s) | 9.1 | | | 12.6 | 10.2 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.86 | 0.86 | 0.93 | 0.93 | 0.50 | 0.50 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 4% | 1% | 1% | 50% | 50% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 1197 | 0 | 0 | 1704 | 0 | 10 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 47.1% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 800 | 230 | 0 | 1585 | 0 | 5 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.86 | 0.86 | 0.93 | 0.93 | 0.50 | 0.50 |
| Hourly flow rate (vph) | 930 | 267 | 0 | 1704 | 0 | 10 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 554 | | |
| pX, platoon unblocked | | | | | 0.66 | |
| vC, conflicting volume | | | 930 | | 1916 | 599 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 930 | | 1356 | 599 |
| tC, single (s) | | | 4.1 | | 7.8 | 7.9 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 4.0 | 3.8 |
| p0 queue free % | | | 100 | | 100 | 97 |
| cM capacity (veh/h) | | | 737 | | 61 | 343 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NW 1 |
|---|---|---|---|---|---|
| Volume Total | 620 | 578 | 852 | 852 | 10 |
| Volume Left | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 267 | 0 | 0 | 10 |
| cSH | 1700 | 1700 | 1700 | 1700 | 343 |
| Volume to Capacity | 0.36 | 0.34 | 0.50 | 0.50 | 0.03 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 2 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 15.8 |
| Lane LOS | | | | | C |
| Approach Delay (s) | 0.0 | | 0.0 | | 15.8 |
| Approach LOS | | | | | C |

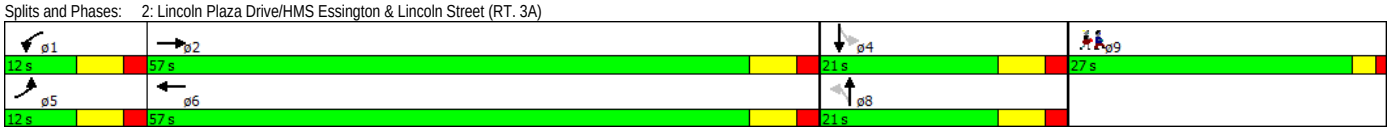
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.1 | | |
| Intersection Capacity Utilization | 47.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 50 | 735 | 15 | 20 | 1445 | 5 | 100 | 10 | 15 | 2 | 5 | 35 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 265 | | 0 | 220 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1662 | 3428 | 0 | 1770 | 3421 | 0 | 1787 | 1710 | 0 | 1770 | 1617 | 0 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.714 | | | 0.739 | | | |
| Satd. Flow (perm) | 1662 | 3428 | 0 | 1770 | 3421 | 0 | 1343 | 1710 | 0 | 1377 | 1617 | 0 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 2 | | | | | | 17 | | | 58 | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 554 | | | 804 | | | 144 | | | 222 | | |
| Travel Time (s) | | 8.4 | | | 12.2 | | | 3.9 | | | 6.1 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.92 | 0.92 | 0.92 | 0.90 | 0.90 | 0.90 | 0.60 | 0.60 | 0.60 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 5% | 5% | 5% | 2% | 2% | 2% | 1% | 1% | 1% | 2% | 2% | 2% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 56 | 843 | 0 | 22 | 1576 | 0 | 111 | 28 | 0 | 3 | 66 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 27.0 |
| Total Split (s) | 12.0 | 57.0 | | 12.0 | 57.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 27.0 |
| Total Split (%) | 10.3% | 48.7% | | 10.3% | 48.7% | | 17.9% | 17.9% | | 17.9% | 17.9% | | 23% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | | Yes | | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | 6.0 | 59.0 | | 6.0 | 54.1 | | 11.4 | 11.4 | | 11.4 | 11.4 | | |
| Actuated g/C Ratio | 0.07 | 0.68 | | 0.07 | 0.62 | | 0.13 | 0.13 | | 0.13 | 0.13 | | |
| v/c Ratio | 0.49 | 0.36 | | 0.18 | 0.74 | | 0.63 | 0.12 | | 0.02 | 0.25 | | |
| Control Delay | 55.3 | 7.9 | | 42.9 | 15.9 | | 51.8 | 20.6 | | 32.0 | 13.9 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Delay | 55.3 | 7.9 | | 42.9 | 15.9 | | 51.8 | 20.6 | | 32.0 | 13.9 | | |
| LOS | E | A | | D | B | | D | C | | C | B | | |
| Approach Delay | | 10.9 | | | 16.2 | | | 45.5 | | | 14.7 | | |
| Approach LOS | | B | | | B | | | D | | | B | | |
| Queue Length 50th (ft) | 30 | 72 | | 12 | 318 | | 58 | 5 | | 1 | 4 | | |
| Queue Length 95th (ft) | #76 | 174 | | 36 | 453 | | 112 | 29 | | 6 | 16 | | |
| Internal Link Dist (ft) | | 474 | | | 724 | | | 64 | | | 142 | | |
| Turn Bay Length (ft) | 265 | | | 220 | | | | | | | | | |
| Base Capacity (vph) | 114 | 2322 | | 122 | 2125 | | 231 | 308 | | 237 | 326 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.49 | 0.36 | | 0.18 | 0.74 | | 0.48 | 0.09 | | 0.01 | 0.20 | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 87.1
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 15.9 — Intersection LOS: B
Intersection Capacity Utilization 63.8% — ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Lincoln Plaza Drive/HMS Essington & Lincoln Street (RT. 3A)

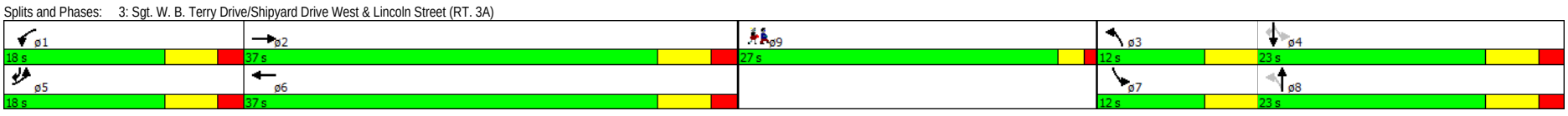


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 60 | 685 | 5 | 40 | 1315 | 30 | 95 | 125 | 15 | 40 | 45 | 60 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 330 | | 0 | 250 | | 0 | 265 | | 0 | 300 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1646 | 3402 | 0 | 1770 | 5070 | 0 | 1752 | 1815 | 0 | 1703 | 1792 | 1524 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.681 | | | 0.586 | | | |
| Satd. Flow (perm) | 1646 | 3402 | 0 | 1770 | 5070 | 0 | 1256 | 1815 | 0 | 1050 | 1792 | 1524 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 3 | | | 4 | | | | 93 | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 804 | | | 622 | | | 166 | | | 156 | | |
| Travel Time (s) | | 12.2 | | | 9.4 | | | 4.5 | | | 4.3 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.96 | 0.96 | 0.96 | 0.76 | 0.76 | 0.76 | 0.71 | 0.71 | 0.71 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 6% | 6% | 6% | 2% | 2% | 2% | 3% | 3% | 3% | 6% | 6% | 6% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 65 | 750 | 0 | 42 | 1401 | 0 | 125 | 184 | 0 | 56 | 63 | 85 | |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | pm+pt | NA | pm+ov | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 10.0 | 12.0 | | 10.0 | 12.0 | 12.0 | 27.0 |
| Total Split (s) | 18.0 | 37.0 | | 18.0 | 37.0 | | 12.0 | 23.0 | | 12.0 | 23.0 | 18.0 | 27.0 |
| Total Split (%) | 15.4% | 31.6% | | 15.4% | 31.6% | | 10.3% | 19.7% | | 10.3% | 19.7% | 15.4% | 23% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None | None |
| Act Effct Green (s) | 8.0 | 35.7 | | 7.1 | 32.3 | | 20.2 | 12.3 | | 18.9 | 11.7 | 25.9 | |
| Actuated g/C Ratio | 0.11 | 0.47 | | 0.09 | 0.43 | | 0.27 | 0.16 | | 0.25 | 0.15 | 0.34 | |
| v/c Ratio | 0.38 | 0.47 | | 0.26 | 0.65 | | 0.33 | 0.62 | | 0.17 | 0.23 | 0.15 | |
| Control Delay | 41.6 | 18.1 | | 40.2 | 22.0 | | 23.0 | 40.9 | | 21.1 | 32.8 | 4.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Delay | 41.6 | 18.1 | | 40.2 | 22.0 | | 23.0 | 40.9 | | 21.1 | 32.8 | 4.5 | |
| LOS | D | B | | D | C | | C | D | | C | C | A | |
| Approach Delay | | 20.0 | | | 22.5 | | | 33.7 | | | 17.8 | | |
| Approach LOS | | B | | | C | | | C | | | B | | |
| Queue Length 50th (ft) | 31 | 145 | | 20 | 210 | | 46 | 85 | | 20 | 29 | 0 | |
| Queue Length 95th (ft) | 73 | 233 | | 54 | 311 | | 74 | 129 | | 36 | 51 | 13 | |
| Internal Link Dist (ft) | | 724 | | | 542 | | | 86 | | | 76 | | |
| Turn Bay Length (ft) | 330 | | | 250 | | | 265 | | | 300 | | | |
| Base Capacity (vph) | 271 | 1599 | | 291 | 2158 | | 390 | 426 | | 343 | 417 | 666 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.24 | 0.47 | | 0.14 | 0.65 | | 0.32 | 0.43 | | 0.16 | 0.15 | 0.13 | |

## Intersection Summary

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 75.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 22.6 — Intersection LOS: C
Intersection Capacity Utilization 61.9% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Sgt. W. B. Terry Drive/Shipyard Drive West & Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 40 | 625 | 80 | 10 | 1320 | 480 | 2 | 1 | 5 | 155 | 5 | 65 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 110 | | 0 | 750 | | 140 | 0 | | 0 | 260 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1736 | 3412 | 0 | 1728 | 3574 | 1599 | 0 | 1720 | 0 | 1681 | 1690 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.988 | | 0.950 | 0.955 | |
| Satd. Flow (perm) | 1736 | 3412 | 0 | 1728 | 3574 | 1599 | 0 | 1720 | 0 | 1681 | 1690 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | | 483 | | 10 | | | | 109 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 568 | | | 1442 | | | 272 | | | 315 | |
| Travel Time (s) | | 8.6 | | | 21.8 | | | 7.4 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.84 | 0.84 | 0.84 | 0.50 | 0.50 | 0.50 | 0.88 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 4% | 4% | 1% | 1% | 1% | 0% | 0% | 0% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | 48% | | |
| Lane Group Flow (vph) | 44 | 775 | 0 | 12 | 1571 | 571 | 0 | 16 | 0 | 92 | 90 | 74 |
| Turn Type | Prot | NA | | Prot | NA | pt+ov | Split | NA | | Split | NA | pt+ov |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 6 | 4 | 4 | | 8 | 8 | 8 5 |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 6 | 4 | 4 | | 8 | 8 | 8 5 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 37.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Total Split (s) | 18.0 | 52.0 | | 12.0 | 46.0 | | 10.0 | 10.0 | | 16.0 | 16.0 | |
| Total Split (%) | 20.0% | 57.8% | | 13.3% | 51.1% | | 11.1% | 11.1% | | 17.8% | 17.8% | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lag | Lag | | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 7.1 | 47.8 | | 6.2 | 39.8 | 56.3 | | 4.1 | | 8.8 | 8.8 | 21.0 |
| Actuated g/C Ratio | 0.10 | 0.66 | | 0.09 | 0.55 | 0.78 | | 0.06 | | 0.12 | 0.12 | 0.29 |
| v/c Ratio | 0.26 | 0.34 | | 0.08 | 0.80 | 0.42 | | 0.15 | | 0.45 | 0.44 | 0.14 |
| Control Delay | 37.6 | 7.2 | | 36.7 | 19.8 | 2.0 | | 28.8 | | 40.3 | 39.9 | 2.2 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.6 | 7.2 | | 36.7 | 19.8 | 2.0 | | 28.8 | | 40.3 | 39.9 | 2.2 |
| LOS | D | A | | D | B | A | | C | | D | D | A |
| Approach Delay | | 8.9 | | | 15.2 | | | 28.8 | | | 29.2 | |
| Approach LOS | | A | | | B | | | C | | | C | |
| Queue Length 50th (ft) | 19 | 56 | | 5 | 291 | 8 | | 3 | | 41 | 41 | 0 |
| Queue Length 95th (ft) | 55 | 181 | | 22 | #493 | 42 | | 10 | | 98 | 96 | 12 |
| Internal Link Dist (ft) | | 488 | | | 1362 | | | 192 | | | 235 | |
| Turn Bay Length (ft) | 110 | | | 750 | | 140 | | | | 260 | | |
| Base Capacity (vph) | 294 | 2412 | | 146 | 2024 | 1342 | | 107 | | 238 | 239 | 615 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.32 | | 0.08 | 0.78 | 0.43 | | 0.15 | | 0.39 | 0.38 | 0.12 |

## Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 72.5
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 14.7 — Intersection LOS: B
Intersection Capacity Utilization 61.5% — ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Talbots Drive/Shipyard Drive East & Lincoln Street (RT. 3A)

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 5 | 730 | 60 | 65 | 1700 | 15 | 85 | 2 | 60 | 25 | 15 | 20 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 0 | | 100 | 0 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 3400 | 0 | 0 | 3564 | 0 | 1703 | 1531 | 0 | 0 | 1692 | 0 | |
| Flt Permitted | | 0.926 | | | 0.864 | | 0.806 | | | | 0.834 | | |
| Satd. Flow (perm) | 0 | 3149 | 0 | 0 | 3085 | 0 | 1445 | 1531 | 0 | 0 | 1440 | 0 | |
| Right Turn on Red | | | No | | | No | | | No | | | No | |
| Satd. Flow (RTOR) | | | | | | | | | | | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 1442 | | | 580 | | | 992 | | | 245 | | |
| Travel Time (s) | | 21.8 | | | 8.8 | | | 27.1 | | | 6.7 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 | 0.88 | 0.88 | 0.88 | 0.75 | 0.75 | 0.75 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 5% | 5% | 5% | 1% | 1% | 1% | 6% | 6% | 6% | 5% | 5% | 5% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 863 | 0 | 0 | 2046 | 0 | 97 | 70 | 0 | 0 | 80 | 0 | |
| Turn Type | pm+pt | NA | | Perm | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | | 6 | | | 4 | | | 8 | | 9 |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | | |
| Detector Phase | 2 5 | 2 5 | | 6 | 6 | | 4 | 4 | | 8 | 8 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 5.5 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 1.0 |
| Minimum Split (s) | 10.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 18.0 |
| Total Split (s) | 10.0 | 65.0 | | 55.0 | 55.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 18.0 |
| Total Split (%) | 9.3% | 60.2% | | 50.9% | 50.9% | | 23.1% | 23.1% | | 23.1% | 23.1% | | 17% |
| Yellow Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 0.0 | 1.5 | | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | |
| Lead/Lag | Lead | | | Lag | Lag | | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | Yes | | | | | | | | |
| Recall Mode | None | Min | | Min | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | | 61.9 | | | 51.9 | | 10.9 | 10.9 | | | 10.9 | | |
| Actuated g/C Ratio | | 0.73 | | | 0.61 | | 0.13 | 0.13 | | | 0.13 | | |
| v/c Ratio | | 0.37 | | | 1.08 | | 0.52 | 0.36 | | | 0.43 | | |
| Control Delay | | 5.0 | | | 67.2 | | 43.8 | 37.4 | | | 40.2 | | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Delay | | 5.0 | | | 67.2 | | 43.8 | 37.4 | | | 40.2 | | |
| LOS | | A | | | E | | D | D | | | D | | |
| Approach Delay | | 5.0 | | | 67.2 | | | 41.1 | | | 40.2 | | |
| Approach LOS | | A | | | E | | | D | | | D | | |
| Queue Length 50th (ft) | | 68 | | | ~631 | | 47 | 33 | | | 38 | | |
| Queue Length 95th (ft) | | 119 | | | #795 | | 92 | 70 | | | 65 | | |
| Internal Link Dist (ft) | | 1362 | | | 500 | | | 912 | | | 165 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 2309 | | | 1886 | | 324 | 344 | | | 323 | | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Reduced v/c Ratio | | 0.37 | | | 1.08 | | 0.30 | 0.20 | | | 0.25 | | |

## Intersection Summary

Area Type: Other
Cycle Length: 108
Actuated Cycle Length: 84.8
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 48.2 — Intersection LOS: D
Intersection Capacity Utilization 96.7% — ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Fottler Road/Bradley Woods Drive & Lincoln Street (RT. 3A)/Lincoln Street (RT. 3A) #1

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 0 | 805 | 2 | 10 | 1795 | 0 | 0 | 0 | 10 | 2 | 0 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 3438 | 0 | 0 | 3539 | 0 | 0 | 1644 | 0 | 0 | 1383 | 0 |
| Flt Permitted | | | | | | | | | | | 0.976 | |
| Satd. Flow (perm) | 0 | 3438 | 0 | 0 | 3539 | 0 | 0 | 1644 | 0 | 0 | 1383 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1334 | | | 458 | | | 528 | | | 77 | |
| Travel Time (s) | | 30.3 | | | 10.4 | | | 12.0 | | | 1.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.92 | 0.92 | 0.92 | 0.56 | 0.56 | 0.56 | 0.50 | 0.50 | 0.50 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 5% | 5% | 5% | 2% | 2% | 2% | 0% | 0% | 0% | 25% | 25% | 25% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 858 | 0 | 0 | 1962 | 0 | 0 | 18 | 0 | 0 | 8 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 66.6% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 805 | 2 | 10 | 1795 | 0 | 0 | 0 | 10 | 2 | 0 | 2 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.92 | 0.92 | 0.92 | 0.56 | 0.56 | 0.56 | 0.50 | 0.50 | 0.50 |
| Hourly flow rate (vph) | 0 | 856 | 2 | 11 | 1951 | 0 | 0 | 0 | 18 | 4 | 0 | 4 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1951 | | | 859 | | | 1859 | 2830 | 429 | 2419 | 2831 | 976 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1951 | | | 859 | | | 1859 | 2830 | 429 | 2419 | 2831 | 976 |
| tC, single (s) | 4.2 | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 8.0 | 7.0 | 7.4 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.8 | 4.2 | 3.5 |
| p0 queue free % | 100 | | | 99 | | | 100 | 100 | 97 | 66 | 100 | 98 |
| cM capacity (veh/h) | 284 | | | 778 | | | 45 | 18 | 580 | 12 | 12 | 213 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 428 | 430 | 986 | 976 | 18 | 8 |
| Volume Left | 0 | 0 | 11 | 0 | 0 | 4 |
| Volume Right | 0 | 2 | 0 | 0 | 18 | 4 |
| cSH | 284 | 1700 | 778 | 1700 | 580 | 22 |
| Volume to Capacity | 0.00 | 0.25 | 0.01 | 0.57 | 0.03 | 0.36 |
| Queue Length 95th (ft) | 0 | 0 | 1 | 0 | 2 | 27 |
| Control Delay (s) | 0.0 | 0.0 | 0.4 | 0.0 | 11.4 | 240.9 |
| Lane LOS | | | A | | B | F |
| Approach Delay (s) | 0.0 | | 0.2 | | 11.4 | 240.9 |
| Approach LOS | | | | | B | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 0.9 | | |
| Intersection Capacity Utilization | | 66.6% | ICU Level of Service | C |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 30 | 200 | 5 | 120 | 25 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 0 | | | 0 | 0 | 0 |
| Storage Lanes | 0 | | | 0 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Satd. Flow (prot) | 0 | 1870 | 1637 | 0 | 1700 | 0 |
| Flt Permitted | | 0.994 | | | 0.954 | |
| Satd. Flow (perm) | 0 | 1870 | 1637 | 0 | 1700 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 450 | 104 | | 285 | |
| Travel Time (s) | | 10.2 | 2.4 | | 6.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.73 | 0.73 | 0.80 | 0.80 | 0.55 | 0.55 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 6% | 6% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 315 | 156 | 0 | 47 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 33.2% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 30 | 200 | 5 | 120 | 25 | 1 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.73 | 0.73 | 0.80 | 0.80 | 0.55 | 0.55 |
| Hourly flow rate (vph) | 41 | 274 | 6 | 150 | 45 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | 770 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 156 | | | | 437 | 81 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 156 | | | | 437 | 81 |
| tC, single (s) | 4.1 | | | | 6.5 | 6.3 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.6 | 3.4 |
| p0 queue free % | 97 | | | | 92 | 100 |
| cM capacity (veh/h) | 1430 | | | | 553 | 968 |

| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 315 | 156 | 47 |
| Volume Left | 41 | 0 | 45 |
| Volume Right | 0 | 150 | 2 |
| cSH | 1430 | 1700 | 562 |
| Volume to Capacity | 0.03 | 0.09 | 0.08 |
| Queue Length 95th (ft) | 2 | 0 | 7 |
| Control Delay (s) | 1.2 | 0.0 | 12.0 |
| Lane LOS | A | | B |
| Approach Delay (s) | 1.2 | 0.0 | 12.0 |
| Approach LOS | | | B |

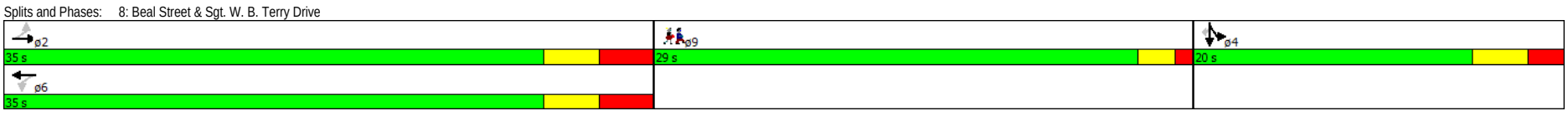
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.8 | | |
| Intersection Capacity Utilization | 33.2% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 30 | 200 | 0 | 5 | 135 | 310 | 0 | 0 | 0 | 65 | 1 | 5 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 10 | 12 | 12 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 50 | | 0 | 60 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 1799 | 0 | 0 | 1705 | 0 | 0 | 0 | 0 | 0 | 1724 | 1436 | |
| Flt Permitted | | 0.912 | | | 0.997 | | | | | | 0.953 | | |
| Satd. Flow (perm) | 0 | 1650 | 0 | 0 | 1701 | 0 | 0 | 0 | 0 | 0 | 1724 | 1436 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | | | | 145 | | | | | | | 78 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 666 | | | 1855 | | | 212 | | | 423 | | |
| Travel Time (s) | | 18.2 | | | 50.6 | | | 5.8 | | | 11.5 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.96 | 0.96 | 0.96 | 0.85 | 0.85 | 0.85 | 0.80 | 0.80 | 0.80 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 5% | 5% | 5% | 1% | 1% | 1% | 3% | 3% | 3% | 5% | 5% | 5% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 261 | 0 | 0 | 469 | 0 | 0 | 0 | 0 | 0 | 82 | 6 | |
| Turn Type | Perm | NA | | Perm | NA | | | | | Split | NA | Perm | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | | 9 |
| Permitted Phases | 2 | | | 6 | | | | | | | | 4 | |
| Detector Phase | 2 | 2 | | 6 | 6 | | | | | 4 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | | | | 6.0 | 6.0 | 6.0 | 5.0 |
| Minimum Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | | | | 11.0 | 11.0 | 11.0 | 29.0 |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | | | | 20.0 | 20.0 | 20.0 | 29.0 |
| Total Split (%) | 41.7% | 41.7% | | 41.7% | 41.7% | | | | | 23.8% | 23.8% | 23.8% | 35% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 2.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | | |
| Recall Mode | Min | Min | | Min | Min | | | | | None | None | None | None |
| Act Effct Green (s) | | 23.8 | | | 23.8 | | | | | | 6.9 | 6.9 | |
| Actuated g/C Ratio | | 0.69 | | | 0.69 | | | | | | 0.20 | 0.20 | |
| v/c Ratio | | 0.23 | | | 0.38 | | | | | | 0.24 | 0.02 | |
| Control Delay | | 5.6 | | | 5.0 | | | | | | 13.7 | 0.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Delay | | 5.6 | | | 5.0 | | | | | | 13.7 | 0.0 | |
| LOS | | A | | | A | | | | | | B | A | |
| Approach Delay | | 5.6 | | | 5.0 | | | | | | 12.7 | | |
| Approach LOS | | A | | | A | | | | | | B | | |
| Queue Length 50th (ft) | | 25 | | | 32 | | | | | | 15 | 0 | |
| Queue Length 95th (ft) | | 59 | | | 86 | | | | | | 31 | 0 | |
| Internal Link Dist (ft) | | 586 | | | 1775 | | | 132 | | | 343 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 1406 | | | 1471 | | | | | | 760 | 677 | |
| 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 | | 0.19 | | | 0.32 | | | | | | 0.11 | 0.01 | |

## Intersection Summary

Area Type: Other
Cycle Length: 84
Actuated Cycle Length: 34.3
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.38
Intersection Signal Delay: 6.0 — Intersection LOS: A
Intersection Capacity Utilization 44.3% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: Beal Street & Sgt. W. B. Terry Drive



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 20 | 205 | 5 | 1 | 530 | 115 | 15 | 5 | 15 | 95 | 2 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 60 | 0 | | 0 | 0 | | 120 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 0 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 1780 | 0 | 0 | 1900 | 1615 | 0 | 1701 | 0 | 0 | 1758 | 1568 |
| Flt Permitted | | 0.996 | | | | | | 0.979 | | | 0.953 | |
| Satd. Flow (perm) | 0 | 1780 | 0 | 0 | 1900 | 1615 | 0 | 1701 | 0 | 0 | 1758 | 1568 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1855 | | | 729 | | | 197 | | | 1407 | |
| Travel Time (s) | | 42.2 | | | 16.6 | | | 4.5 | | | 32.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.91 | 0.91 | 0.91 | 0.80 | 0.80 | 0.80 | 0.70 | 0.70 | 0.70 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 6% | 6% | 6% | 0% | 0% | 0% | 3% | 3% | 3% | 3% | 3% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 250 | 0 | 0 | 583 | 126 | 0 | 44 | 0 | 0 | 139 | 36 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 45.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 20 | 205 | 5 | 1 | 530 | 115 | 15 | 5 | 15 | 95 | 2 | 25 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.91 | 0.91 | 0.91 | 0.80 | 0.80 | 0.80 | 0.70 | 0.70 | 0.70 |
| Hourly flow rate (vph) | 22 | 223 | 5 | 1 | 582 | 126 | 19 | 6 | 19 | 136 | 3 | 36 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 582 | | | 228 | | | 855 | 854 | 226 | 876 | 856 | 582 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 582 | | | 228 | | | 855 | 854 | 226 | 876 | 856 | 582 |
| tC, single (s) | 4.2 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.3 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 98 | | | 100 | | | 93 | 98 | 98 | 46 | 99 | 93 |
| cM capacity (veh/h) | 972 | | | 1352 | | | 251 | 288 | 811 | 253 | 287 | 511 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | NE 1 | SW 1 |
|---|---|---|---|---|---|
| Volume Total | 250 | 584 | 126 | 44 | 174 |
| Volume Left | 22 | 1 | 0 | 19 | 136 |
| Volume Right | 5 | 0 | 126 | 19 | 36 |
| cSH | 972 | 1352 | 1700 | 366 | 320 |
| Volume to Capacity | 0.02 | 0.00 | 0.07 | 0.12 | 0.55 |
| Queue Length 95th (ft) | 2 | 0 | 0 | 10 | 77 |
| Control Delay (s) | 1.0 | 0.0 | 0.0 | 16.2 | 30.4 |
| Lane LOS | A | A | | C | D |
| Approach Delay (s) | 1.0 | 0.0 | | 16.2 | 30.4 |
| Approach LOS | | | | C | D |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 5.3 | | |
| Intersection Capacity Utilization | | 45.5% | ICU Level of Service | A |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 220 | 5 | 15 | 125 | 0 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 1 | 0 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 1857 | 0 | 0 | 1853 | 1611 | 0 |
| Flt Permitted | | | | 0.995 | | |
| Satd. Flow (perm) | 1857 | 0 | 0 | 1853 | 1611 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 104 | | | 666 | 328 | |
| Travel Time (s) | 2.4 | | | 15.1 | 7.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 244 | 0 | 0 | 152 | 11 | 0 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 29.1% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 220 | 5 | 15 | 125 | 0 | 10 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 239 | 5 | 16 | 136 | 0 | 11 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 666 | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 245 | | 410 | 242 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 245 | | 410 | 242 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 99 | | 100 | 99 |
| cM capacity (veh/h) | | | 1322 | | 590 | 797 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 245 | 152 | 11 |
| Volume Left | 0 | 16 | 0 |
| Volume Right | 5 | 0 | 11 |
| cSH | 1700 | 1322 | 797 |
| Volume to Capacity | 0.14 | 0.01 | 0.01 |
| Queue Length 95th (ft) | 0 | 1 | 1 |
| Control Delay (s) | 0.0 | 0.9 | 9.6 |
| Lane LOS | | A | A |
| Approach Delay (s) | 0.0 | 0.9 | 9.6 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 0.6 | |
| Intersection Capacity Utilization | | 29.1% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Lane Group | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 1320 | 500 | 0 | 1425 | 0 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 0 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 3462 | 0 | 0 | 3539 | 0 | 1644 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 3462 | 0 | 0 | 3539 | 0 | 1644 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 401 | | | 554 | 450 | |
| Travel Time (s) | 9.1 | | | 12.6 | 10.2 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.96 | 0.96 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 2% | 2% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 1915 | 0 | 0 | 1484 | 0 | 15 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 62.5% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 1320 | 500 | 0 | 1425 | 0 | 15 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.96 | 0.96 | 0.98 | 0.98 |
| Hourly flow rate (vph) | 1389 | 526 | 0 | 1484 | 0 | 15 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 554 | | |
| pX, platoon unblocked | | | | | 0.70 | |
| vC, conflicting volume | | | 1389 | | 2395 | 958 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 1389 | | 2135 | 958 |
| tC, single (s) | | | 4.1 | | 6.8 | 6.9 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 94 |
| cM capacity (veh/h) | | | 488 | | 30 | 261 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NW 1 |
|---|---|---|---|---|---|
| Volume Total | 926 | 989 | 742 | 742 | 15 |
| Volume Left | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 526 | 0 | 0 | 15 |
| cSH | 1700 | 1700 | 1700 | 1700 | 261 |
| Volume to Capacity | 0.54 | 0.58 | 0.44 | 0.44 | 0.06 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 5 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 19.6 |
| Lane LOS | | | | | C |
| Approach Delay (s) | 0.0 | | 0.0 | | 19.6 |
| Approach LOS | | | | | C |

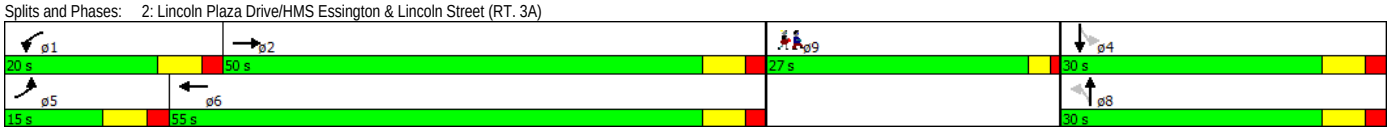
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.1 | | |
| Intersection Capacity Utilization | 62.5% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 110 | 1175 | 45 | 90 | 1125 | 15 | 175 | 25 | 105 | 20 | 40 | 115 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 265 | | 0 | 220 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3553 | 0 | 1770 | 3414 | 0 | 1805 | 1670 | 0 | 1787 | 1672 | 0 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.577 | | | 0.671 | | | |
| Satd. Flow (perm) | 1728 | 3553 | 0 | 1770 | 3414 | 0 | 1096 | 1670 | 0 | 1262 | 1672 | 0 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 3 | | | 1 | | | 109 | | | 101 | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 554 | | | 804 | | | 144 | | | 222 | | |
| Travel Time (s) | | 8.4 | | | 12.2 | | | 3.9 | | | 6.1 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.96 | 0.96 | 0.96 | 0.83 | 0.83 | 0.83 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 1% | 1% | 1% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 120 | 1326 | 0 | 98 | 1239 | 0 | 182 | 135 | 0 | 24 | 187 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 22.0 | 22.0 | | 12.0 | 12.0 | | 27.0 |
| Total Split (s) | 15.0 | 50.0 | | 20.0 | 55.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | | 27.0 |
| Total Split (%) | 11.8% | 39.4% | | 15.7% | 43.3% | | 23.6% | 23.6% | | 23.6% | 23.6% | | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | | Yes | | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | 9.0 | 44.5 | | 9.7 | 45.2 | | 24.0 | 24.0 | | 24.0 | 24.0 | | |
| Actuated g/C Ratio | 0.09 | 0.46 | | 0.10 | 0.47 | | 0.25 | 0.25 | | 0.25 | 0.25 | | |
| v/c Ratio | 0.75 | 0.81 | | 0.55 | 0.77 | | 0.67 | 0.27 | | 0.08 | 0.38 | | |
| Control Delay | 71.3 | 27.3 | | 53.0 | 25.1 | | 47.0 | 10.5 | | 29.8 | 17.1 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Delay | 71.3 | 27.3 | | 53.0 | 25.1 | | 47.0 | 10.5 | | 29.8 | 17.1 | | |
| LOS | E | C | | D | C | | D | B | | C | B | | |
| Approach Delay | | 31.0 | | | 27.2 | | | 31.5 | | | 18.6 | | |
| Approach LOS | | C | | | C | | | C | | | B | | |
| Queue Length 50th (ft) | 72 | 353 | | 58 | 320 | | 100 | 12 | | 11 | 41 | | |
| Queue Length 95th (ft) | #170 | 479 | | 109 | 403 | | #203 | 61 | | 31 | 91 | | |
| Internal Link Dist (ft) | | 474 | | | 724 | | | 64 | | | 142 | | |
| Turn Bay Length (ft) | 265 | | | 220 | | | | | | | | | |
| Base Capacity (vph) | 161 | 1644 | | 257 | 1739 | | 273 | 498 | | 315 | 492 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.75 | 0.81 | | 0.38 | 0.71 | | 0.67 | 0.27 | | 0.08 | 0.38 | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 96.3
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 28.7 — Intersection LOS: C
Intersection Capacity Utilization 77.8% — ICU Level of Service D
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Lincoln Plaza Drive/HMS Essington & Lincoln Street (RT. 3A)

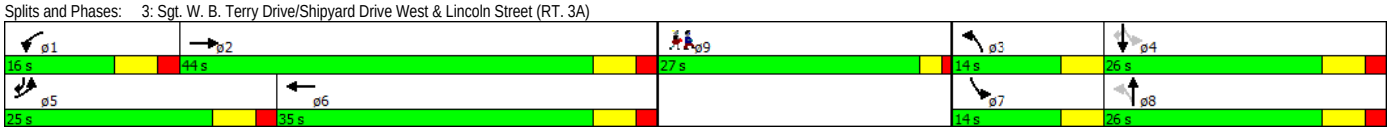


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 125 | 1160 | 15 | 60 | 890 | 70 | 165 | 130 | 45 | 125 | 170 | 165 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 330 | | 0 | 250 | | 0 | 265 | | 0 | 300 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3567 | 0 | 1770 | 5029 | 0 | 1787 | 1810 | 0 | 1805 | 1900 | 1615 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.389 | | | 0.480 | | | |
| Satd. Flow (perm) | 1728 | 3567 | 0 | 1770 | 5029 | 0 | 732 | 1810 | 0 | 912 | 1900 | 1615 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 9 | | | 12 | | | | 229 | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 804 | | | 622 | | | 166 | | | 156 | | |
| Travel Time (s) | | 12.2 | | | 9.4 | | | 4.5 | | | 4.3 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 | 0.72 | 0.72 | 0.72 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 137 | 1291 | 0 | 70 | 1116 | 0 | 199 | 211 | 0 | 174 | 236 | 229 | |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | pm+pt | NA | pm+ov | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 10.0 | 12.0 | | 10.0 | 12.0 | 12.0 | 27.0 |
| Total Split (s) | 25.0 | 44.0 | | 16.0 | 35.0 | | 14.0 | 26.0 | | 14.0 | 26.0 | 25.0 | 27.0 |
| Total Split (%) | 19.7% | 34.6% | | 12.6% | 27.6% | | 11.0% | 20.5% | | 11.0% | 20.5% | 19.7% | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None | None |
| Act Effct Green (s) | 11.6 | 38.5 | | 8.1 | 31.9 | | 28.3 | 16.5 | | 27.4 | 16.0 | 33.7 | |
| Actuated g/C Ratio | 0.13 | 0.42 | | 0.09 | 0.35 | | 0.31 | 0.18 | | 0.30 | 0.17 | 0.37 | |
| v/c Ratio | 0.63 | 0.86 | | 0.45 | 0.64 | | 0.59 | 0.63 | | 0.48 | 0.71 | 0.31 | |
| Control Delay | 52.3 | 33.6 | | 51.5 | 27.6 | | 31.1 | 43.0 | | 27.5 | 49.2 | 3.8 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Delay | 52.3 | 33.6 | | 51.5 | 27.6 | | 31.1 | 43.0 | | 27.5 | 49.2 | 3.8 | |
| LOS | D | C | | D | C | | C | D | | C | D | A | |
| Approach Delay | | 35.4 | | | 29.0 | | | 37.2 | | | 27.0 | | |
| Approach LOS | | D | | | C | | | D | | | C | | |
| Queue Length 50th (ft) | 80 | 378 | | 41 | 198 | | 88 | 113 | | 75 | 135 | 0 | |
| Queue Length 95th (ft) | 142 | #565 | | 83 | 260 | | 134 | 172 | | 101 | 168 | 16 | |
| Internal Link Dist (ft) | | 724 | | | 542 | | | 86 | | | 76 | | |
| Turn Bay Length (ft) | 330 | | | 250 | | | 265 | | | 300 | | | |
| Base Capacity (vph) | 362 | 1497 | | 195 | 1812 | | 345 | 409 | | 378 | 419 | 853 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.38 | 0.86 | | 0.36 | 0.62 | | 0.58 | 0.52 | | 0.46 | 0.56 | 0.27 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 91.7
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 32.0 — Intersection LOS: C
Intersection Capacity Utilization 74.0% — ICU Level of Service D
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Sgt. W. B. Terry Drive/Shipyard Drive West & Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 100 | 1230 | 5 | 1 | 865 | 190 | 95 | 15 | 10 | 460 | 0 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 110 | | 0 | 750 | | 140 | 0 | | 0 | 260 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1787 | 3571 | 0 | 1711 | 3539 | 1583 | 0 | 1755 | 0 | 1715 | 1715 | 1615 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.962 | | 0.950 | 0.950 | |
| Satd. Flow (perm) | 1787 | 3571 | 0 | 1711 | 3539 | 1583 | 0 | 1755 | 0 | 1715 | 1715 | 1615 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 204 | | 4 | | | | 98 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 568 | | | 1442 | | | 272 | | | 315 | |
| Travel Time (s) | | 8.6 | | | 21.8 | | | 7.4 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.73 | 0.73 | 0.73 | 0.64 | 0.64 | 0.64 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 3% | 3% | 3% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | 50% | | |
| Lane Group Flow (vph) | 108 | 1328 | 0 | 1 | 930 | 204 | 0 | 165 | 0 | 359 | 360 | 94 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Split | NA | | Split | NA | pt+ov |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Permitted Phases | | | | | | 6 | | | | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | 6.0 | 4.0 | 4.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 37.0 | 12.0 | 10.0 | 10.0 | | 12.0 | 12.0 | |
| Total Split (s) | 18.0 | 54.0 | | 10.0 | 46.0 | 21.0 | 15.0 | 15.0 | | 21.0 | 21.0 | |
| Total Split (%) | 18.0% | 54.0% | | 10.0% | 46.0% | 21.0% | 15.0% | 15.0% | | 21.0% | 21.0% | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lead | Lag | Lag | | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | Min | | None | Min | None | None | None | | None | None | |
| Act Effct Green (s) | 9.3 | 43.2 | | 4.0 | 29.6 | 50.8 | | 9.1 | | 15.2 | 15.2 | 24.5 |
| Actuated g/C Ratio | 0.11 | 0.49 | | 0.05 | 0.34 | 0.58 | | 0.10 | | 0.17 | 0.17 | 0.28 |
| v/c Ratio | 0.57 | 0.75 | | 0.01 | 0.78 | 0.20 | | 0.89 | | 1.21 | 1.21 | 0.18 |
| Control Delay | 51.1 | 21.2 | | 45.0 | 30.8 | 1.7 | | 84.3 | | 156.1 | 157.3 | 4.2 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.1 | 21.2 | | 45.0 | 30.8 | 1.7 | | 84.3 | | 156.1 | 157.3 | 4.2 |
| LOS | D | C | | D | C | A | | F | | F | F | A |
| Approach Delay | | 23.4 | | | 25.6 | | | 84.3 | | | 139.0 | |
| Approach LOS | | C | | | C | | | F | | | F | |
| Queue Length 50th (ft) | 58 | 278 | | 1 | 238 | 0 | | 90 | | ~261 | ~262 | 0 |
| Queue Length 95th (ft) | 121 | 444 | | 6 | 318 | 26 | | #175 | | #309 | #310 | 8 |
| Internal Link Dist (ft) | | 488 | | | 1362 | | | 192 | | | 235 | |
| Turn Bay Length (ft) | 110 | | | 750 | | 140 | | | | 260 | | |
| Base Capacity (vph) | 247 | 2009 | | 79 | 1636 | 1005 | | 186 | | 297 | 297 | 571 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.44 | 0.66 | | 0.01 | 0.57 | 0.20 | | 0.89 | | 1.21 | 1.21 | 0.16 |

**Intersection Summary**

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 87.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.21
Intersection Signal Delay: 53.4 — Intersection LOS: D
Intersection Capacity Utilization 69.0% — ICU Level of Service C
Analysis Period (min) 15

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

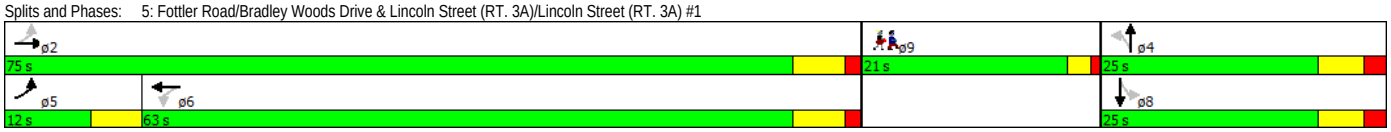
Splits and Phases: 4: Talbots Drive/Shipyard Drive East & Lincoln Street (RT. 3A)

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 15 | 1625 | 85 | 50 | 1000 | 25 | 65 | 25 | 65 | 15 | 10 | 10 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 0 | | 100 | 0 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 3549 | 0 | 0 | 3518 | 0 | 1805 | 1693 | 0 | 0 | 1788 | 0 | |
| Flt Permitted | | 0.941 | | | 0.729 | | 0.725 | | | | 0.818 | | |
| Satd. Flow (perm) | 0 | 3340 | 0 | 0 | 2570 | 0 | 1377 | 1693 | 0 | 0 | 1494 | 0 | |
| Right Turn on Red | | | No | | | No | | | No | | | No | |
| Satd. Flow (RTOR) | | | | | | | | | | | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 1442 | | | 580 | | | 992 | | | 245 | | |
| Travel Time (s) | | 21.8 | | | 8.8 | | | 27.1 | | | 6.7 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.90 | 0.90 | 0.90 | 0.95 | 0.95 | 0.95 | 0.73 | 0.73 | 0.73 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1816 | 0 | 0 | 1195 | 0 | 68 | 94 | 0 | 0 | 49 | 0 | |
| Turn Type | pm+pt | NA | | Perm | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | | 6 | | | 4 | | | 8 | | 9 |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | | |
| Detector Phase | 2 5 | 2 5 | | 6 | 6 | | 4 | 4 | | 8 | 8 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 5.5 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 1.0 |
| Minimum Split (s) | 10.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 21.0 |
| Total Split (s) | 12.0 | 75.0 | | 63.0 | 63.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 21.0 |
| Total Split (%) | 9.9% | 62.0% | | 52.1% | 52.1% | | 20.7% | 20.7% | | 20.7% | 20.7% | | 17% |
| Yellow Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 0.0 | 1.5 | | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | |
| Lead/Lag | Lead | | | Lag | Lag | | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | Yes | | | | | | | | |
| Recall Mode | None | Min | | Min | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | | 71.9 | | | 59.9 | | 10.0 | 10.0 | | | 10.0 | | |
| Actuated g/C Ratio | | 0.77 | | | 0.64 | | 0.11 | 0.11 | | | 0.11 | | |
| v/c Ratio | | 0.71 | | | 0.73 | | 0.47 | 0.53 | | | 0.31 | | |
| Control Delay | | 7.7 | | | 15.4 | | 48.8 | 49.4 | | | 42.5 | | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Delay | | 7.7 | | | 15.4 | | 48.8 | 49.4 | | | 42.5 | | |
| LOS | | A | | | B | | D | D | | | D | | |
| Approach Delay | | 7.7 | | | 15.4 | | | 49.1 | | | 42.5 | | |
| Approach LOS | | A | | | B | | | D | | | D | | |
| Queue Length 50th (ft) | | 209 | | | 223 | | 37 | 52 | | | 26 | | |
| Queue Length 95th (ft) | | 332 | | | 347 | | 79 | 101 | | | 49 | | |
| Internal Link Dist (ft) | | 1362 | | | 500 | | | 912 | | | 165 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 2571 | | | 1638 | | 279 | 343 | | | 303 | | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Reduced v/c Ratio | | 0.71 | | | 0.73 | | 0.24 | 0.27 | | | 0.16 | | |

## Intersection Summary

Area Type: Other
Cycle Length: 121
Actuated Cycle Length: 93.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 13.2 — Intersection LOS: B
Intersection Capacity Utilization 84.2% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: Fottler Road/Bradley Woods Drive & Lincoln Street (RT. 3A)/Lincoln Street (RT. 3A) #1



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 1 | 1810 | 5 | 10 | 1085 | 5 | 0 | 0 | 10 | 1 | 0 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 3574 | 0 | 0 | 3571 | 0 | 0 | 1644 | 0 | 0 | 1728 | 0 |
| Flt Permitted | | | | | | | | | | | 0.976 | |
| Satd. Flow (perm) | 0 | 3574 | 0 | 0 | 3571 | 0 | 0 | 1644 | 0 | 0 | 1728 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1334 | | | 458 | | | 528 | | | 77 | |
| Travel Time (s) | | 30.3 | | | 10.4 | | | 12.0 | | | 1.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.89 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 1% | 1% | 0% | 0% | 0% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1973 | 0 | 0 | 1236 | 0 | 0 | 20 | 0 | 0 | 4 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 60.9% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 1 | 1810 | 5 | 10 | 1085 | 5 | 0 | 0 | 10 | 1 | 0 | 1 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.89 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Hourly flow rate (vph) | 1 | 1967 | 5 | 11 | 1219 | 6 | 0 | 0 | 20 | 2 | 0 | 2 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1225 | | | 1973 | | | 2606 | 3219 | 986 | 2250 | 3219 | 612 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1225 | | | 1973 | | | 2606 | 3219 | 986 | 2250 | 3219 | 612 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 100 | | | 96 | | | 100 | 100 | 92 | 90 | 100 | 100 |
| cM capacity (veh/h) | 571 | | | 294 | | | 12 | 10 | 250 | 21 | 10 | 441 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 985 | 989 | 621 | 615 | 20 | 4 |
| Volume Left | 1 | 0 | 11 | 0 | 0 | 2 |
| Volume Right | 0 | 5 | 0 | 6 | 20 | 2 |
| cSH | 571 | 1700 | 294 | 1700 | 250 | 40 |
| Volume to Capacity | 0.00 | 0.58 | 0.04 | 0.36 | 0.08 | 0.10 |
| Queue Length 95th (ft) | 0 | 0 | 3 | 0 | 6 | 8 |
| Control Delay (s) | 0.1 | 0.0 | 1.4 | 0.0 | 20.6 | 105.5 |
| Lane LOS | A | | A | | C | F |
| Approach Delay (s) | 0.0 | | 0.7 | | 20.6 | 105.5 |
| Approach LOS | | | | | C | F |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.5 | | |
| Intersection Capacity Utilization | 60.9% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 125 | 375 | 15 | 175 | 130 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 0 | | | 0 | 0 | 0 |
| Storage Lanes | 0 | | | 0 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Satd. Flow (prot) | 0 | 1877 | 1664 | 0 | 1787 | 0 |
| Flt Permitted | | 0.988 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1877 | 1664 | 0 | 1787 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 450 | 104 | | 285 | |
| Travel Time (s) | | 10.2 | 2.4 | | 6.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.80 | 0.80 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 1% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 532 | 238 | 0 | 148 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 55.5% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 125 | 375 | 15 | 175 | 130 | 0 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.80 | 0.80 | 0.88 | 0.88 |
| Hourly flow rate (vph) | 133 | 399 | 19 | 219 | 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) | | | 770 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 238 | | | | 793 | 128 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 238 | | | | 793 | 128 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 90 | | | | 54 | 100 |
| cM capacity (veh/h) | 1341 | | | | 323 | 925 |

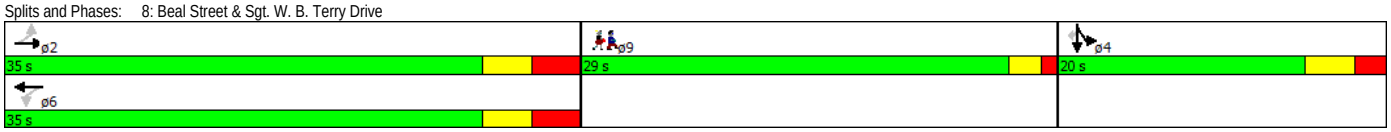
| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 532 | 238 | 148 |
| Volume Left | 133 | 0 | 148 |
| Volume Right | 0 | 219 | 0 |
| cSH | 1341 | 1700 | 323 |
| Volume to Capacity | 0.10 | 0.14 | 0.46 |
| Queue Length 95th (ft) | 8 | 0 | 57 |
| Control Delay (s) | 2.8 | 0.0 | 25.2 |
| Lane LOS | A | | D |
| Approach Delay (s) | 2.8 | 0.0 | 25.2 |
| Approach LOS | | | D |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 5.7 | | |
| Intersection Capacity Utilization | 55.5% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 25 | 480 | 10 | 20 | 205 | 265 | 0 | 0 | 0 | 240 | 2 | 25 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 10 | 12 | 12 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 50 | | 0 | 60 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 1891 | 0 | 0 | 1740 | 0 | 0 | 0 | 0 | 0 | 1793 | 1492 | |
| Flt Permitted | | 0.956 | | | 0.966 | | | | | | 0.953 | | |
| Satd. Flow (perm) | 0 | 1811 | 0 | 0 | 1685 | 0 | 0 | 0 | 0 | 0 | 1793 | 1492 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 77 | | | | | | | 78 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 666 | | | 1855 | | | 212 | | | 423 | | |
| Travel Time (s) | | 18.2 | | | 50.6 | | | 5.8 | | | 11.5 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.92 | 0.92 | 0.92 | 0.78 | 0.78 | 0.78 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 0% | 0% | 0% | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 572 | 0 | 0 | 590 | 0 | 0 | 0 | 0 | 0 | 311 | 32 | |
| Turn Type | Perm | NA | | Perm | NA | | | | | Split | NA | Perm | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | | 9 |
| Permitted Phases | 2 | | | 6 | | | | | | | | 4 | |
| Detector Phase | 2 | 2 | | 6 | 6 | | | | | 4 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | | | | 6.0 | 6.0 | 6.0 | 5.0 |
| Minimum Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | | | | 11.0 | 11.0 | 11.0 | 29.0 |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | | | | 20.0 | 20.0 | 20.0 | 29.0 |
| Total Split (%) | 41.7% | 41.7% | | 41.7% | 41.7% | | | | | 23.8% | 23.8% | 23.8% | 35% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 2.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | | |
| Recall Mode | Min | Min | | Min | Min | | | | | None | None | None | None |
| Act Effct Green (s) | | 23.5 | | | 23.5 | | | | | | 14.9 | 14.9 | |
| Actuated g/C Ratio | | 0.47 | | | 0.47 | | | | | | 0.30 | 0.30 | |
| v/c Ratio | | 0.67 | | | 0.70 | | | | | | 0.58 | 0.06 | |
| Control Delay | | 14.2 | | | 13.9 | | | | | | 21.0 | 1.3 | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Delay | | 14.2 | | | 13.9 | | | | | | 21.0 | 1.3 | |
| LOS | | B | | | B | | | | | | C | A | |
| Approach Delay | | 14.2 | | | 13.9 | | | | | | 19.2 | | |
| Approach LOS | | B | | | B | | | | | | B | | |
| Queue Length 50th (ft) | | 116 | | | 105 | | | | | | 77 | 0 | |
| Queue Length 95th (ft) | | 199 | | | 166 | | | | | | 132 | 1 | |
| Internal Link Dist (ft) | | 586 | | | 1775 | | | 132 | | | 343 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 1071 | | | 1027 | | | | | | 548 | 510 | |
| 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 | | 0.53 | | | 0.57 | | | | | | 0.57 | 0.06 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 84 | |
| Actuated Cycle Length: 49.5 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.70 | |
| Intersection Signal Delay: 15.2 | Intersection LOS: B |
| Intersection Capacity Utilization 57.9% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Beal Street & Sgt. W. B. Terry Drive



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 45 | 725 | 20 | 5 | 415 | 85 | 5 | 5 | 5 | 140 | 5 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 60 | 0 | | 0 | 0 | | 120 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 0 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 1870 | 0 | 0 | 1879 | 1599 | 0 | 1684 | 0 | 0 | 1795 | 1599 |
| Flt Permitted | | 0.997 | | | 0.999 | | | 0.984 | | | 0.954 | |
| Satd. Flow (perm) | 0 | 1870 | 0 | 0 | 1879 | 1599 | 0 | 1684 | 0 | 0 | 1795 | 1599 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1855 | | | 729 | | | 197 | | | 1407 | |
| Travel Time (s) | | 42.2 | | | 16.6 | | | 4.5 | | | 32.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.84 | 0.84 | 0.84 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 1% | 1% | 6% | 6% | 6% | 1% | 1% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 814 | 0 | 0 | 500 | 101 | 0 | 18 | 0 | 0 | 181 | 25 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 88.7% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 45 | 725 | 20 | 5 | 415 | 85 | 5 | 5 | 5 | 140 | 5 | 20 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.84 | 0.84 | 0.84 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Hourly flow rate (vph) | 46 | 747 | 21 | 6 | 494 | 101 | 6 | 6 | 6 | 175 | 6 | 25 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 494 | | | 768 | | | 1360 | 1356 | 758 | 1366 | 1367 | 494 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 494 | | | 768 | | | 1360 | 1356 | 758 | 1366 | 1367 | 494 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.2 | 6.6 | 6.3 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.6 | 4.1 | 3.4 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 96 | | | 99 | | | 94 | 96 | 98 | 0 | 96 | 96 |
| cM capacity (veh/h) | 1075 | | | 850 | | | 110 | 139 | 401 | 114 | 140 | 577 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | NE 1 | SW 1 |
|---|---|---|---|---|---|
| Volume Total | 814 | 500 | 101 | 19 | 206 |
| Volume Left | 46 | 6 | 0 | 6 | 175 |
| Volume Right | 21 | 0 | 101 | 6 | 25 |
| cSH | 1075 | 850 | 1700 | 159 | 128 |
| Volume to Capacity | 0.04 | 0.01 | 0.06 | 0.12 | 1.61 |
| Queue Length 95th (ft) | 3 | 1 | 0 | 10 | 373 |
| Control Delay (s) | 1.1 | 0.2 | 0.0 | 30.6 | 366.3 |
| Lane LOS | A | A | | D | F |
| Approach Delay (s) | 1.1 | 0.2 | | 30.6 | 366.3 |
| Approach LOS | | | | D | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 47.0 | | |
| Intersection Capacity Utilization | | 88.7% | ICU Level of Service | E |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 500 | 5 | 40 | 190 | 5 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 1 | 0 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 1861 | 0 | 0 | 1846 | 1651 | 0 |
| Flt Permitted | | | | 0.991 | 0.988 | |
| Satd. Flow (perm) | 1861 | 0 | 0 | 1846 | 1651 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 104 | | | 666 | 328 | |
| Travel Time (s) | 2.4 | | | 15.1 | 7.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 548 | 0 | 0 | 250 | 21 | 0 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 52.2% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 500 | 5 | 40 | 190 | 5 | 15 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 543 | 5 | 43 | 207 | 5 | 16 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 666 | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 549 | | 840 | 546 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 549 | | 840 | 546 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 96 | | 98 | 97 |
| cM capacity (veh/h) | | | 1021 | | 321 | 537 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 549 | 250 | 22 |
| Volume Left | 0 | 43 | 5 |
| Volume Right | 5 | 0 | 16 |
| cSH | 1700 | 1021 | 460 |
| Volume to Capacity | 0.32 | 0.04 | 0.05 |
| Queue Length 95th (ft) | 0 | 3 | 4 |
| Control Delay (s) | 0.0 | 1.9 | 13.2 |
| Lane LOS | | A | B |
| Approach Delay (s) | 0.0 | 1.9 | 13.2 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 0.9 | |
| Intersection Capacity Utilization | | 52.2% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Lane Group | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 1475 | 410 | 0 | 1545 | 0 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 0 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 3456 | 0 | 0 | 3539 | 0 | 1565 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 3456 | 0 | 0 | 3539 | 0 | 1565 |
| Link Speed (mph) | 45 | | | 45 | 30 | |
| Link Distance (ft) | 228 | | | 502 | 404 | |
| Travel Time (s) | 3.5 | | | 7.6 | 9.2 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.91 | 0.91 | 0.58 | 0.58 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 2% | 2% | 5% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 2005 | 0 | 0 | 1698 | 0 | 34 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 63.9% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 1475 | 410 | 0 | 1545 | 0 | 20 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.91 | 0.91 | 0.58 | 0.58 |
| Hourly flow rate (vph) | 1569 | 436 | 0 | 1698 | 0 | 34 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 502 | | |
| pX, platoon unblocked | | | | | 0.69 | |
| vC, conflicting volume | | | 2005 | | 2636 | 1003 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 2005 | | 2472 | 1003 |
| tC, single (s) | | | 4.1 | | 6.9 | 7.0 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 85 |
| cM capacity (veh/h) | | | 282 | | 16 | 235 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NW 1 |
|---|---|---|---|---|---|
| Volume Total | 1046 | 959 | 849 | 849 | 34 |
| Volume Left | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 436 | 0 | 0 | 34 |
| cSH | 1700 | 1700 | 1700 | 1700 | 235 |
| Volume to Capacity | 0.62 | 0.56 | 0.50 | 0.50 | 0.15 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 13 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 22.9 |
| Lane LOS | | | | | C |
| Approach Delay (s) | 0.0 | | 0.0 | | 22.9 |
| Approach LOS | | | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.2 | | |
| Intersection Capacity Utilization | 63.9% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 185 | 1230 | 65 | 115 | 1180 | 20 | 195 | 35 | 90 | 15 | 15 | 140 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 265 | | 0 | 220 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3546 | 0 | 1770 | 3414 | 0 | 1787 | 1678 | 0 | 1770 | 1611 | 0 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.542 | | | 0.636 | | | |
| Satd. Flow (perm) | 1728 | 3546 | 0 | 1770 | 3414 | 0 | 1020 | 1678 | 0 | 1185 | 1611 | 0 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 5 | | | 2 | | | 90 | | | 184 | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 502 | | | 804 | | | 187 | | | 222 | | |
| Travel Time (s) | | 7.6 | | | 12.2 | | | 5.1 | | | 6.1 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.95 | 0.95 | 0.95 | 0.81 | 0.81 | 0.81 | 0.76 | 0.76 | 0.76 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% | 2% | 2% | 2% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 191 | 1335 | 0 | 121 | 1263 | 0 | 241 | 154 | 0 | 20 | 204 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 27.0 |
| Total Split (s) | 15.0 | 50.0 | | 20.0 | 55.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | | 27.0 |
| Total Split (%) | 11.8% | 39.4% | | 15.7% | 43.3% | | 23.6% | 23.6% | | 23.6% | 23.6% | | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | | Yes | | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | 9.0 | 44.4 | | 10.8 | 46.1 | | 24.0 | 24.0 | | 24.0 | 24.0 | | |
| Actuated g/C Ratio | 0.09 | 0.46 | | 0.11 | 0.47 | | 0.25 | 0.25 | | 0.25 | 0.25 | | |
| v/c Ratio | 1.19 | 0.82 | | 0.62 | 0.78 | | 0.96 | 0.32 | | 0.07 | 0.38 | | |
| Control Delay | 173.6 | 28.7 | | 55.2 | 25.3 | | 85.7 | 15.8 | | 30.0 | 8.6 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Delay | 173.6 | 28.7 | | 55.2 | 25.3 | | 85.7 | 15.8 | | 30.0 | 8.6 | | |
| LOS | F | C | | E | C | | F | B | | C | A | | |
| Approach Delay | | 46.8 | | | 27.9 | | | 58.5 | | | 10.5 | | |
| Approach LOS | | D | | | C | | | E | | | B | | |
| Queue Length 50th (ft) | ~144 | 366 | | 73 | 328 | | 148 | 31 | | 10 | 10 | | |
| Queue Length 95th (ft) | #289 | 487 | | 130 | 415 | | #262 | 71 | | 25 | 40 | | |
| Internal Link Dist (ft) | | 422 | | | 724 | | | 107 | | | 142 | | |
| Turn Bay Length (ft) | 265 | | | 220 | | | | | | | | | |
| Base Capacity (vph) | 160 | 1621 | | 255 | 1723 | | 252 | 482 | | 292 | 536 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 1.19 | 0.82 | | 0.47 | 0.73 | | 0.96 | 0.32 | | 0.07 | 0.38 | | |

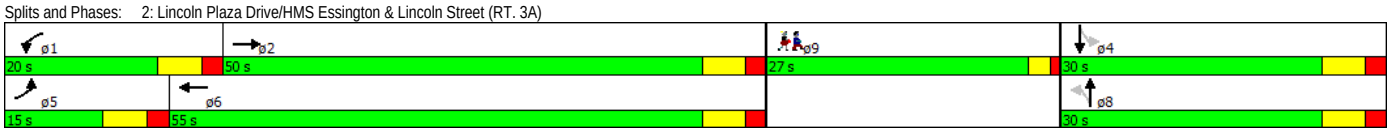
**Intersection Summary**

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 97.2
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 38.4 — Intersection LOS: D
Intersection Capacity Utilization 83.7% — ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 2: Lincoln Plaza Drive/HMS Essington & Lincoln Street (RT. 3A)

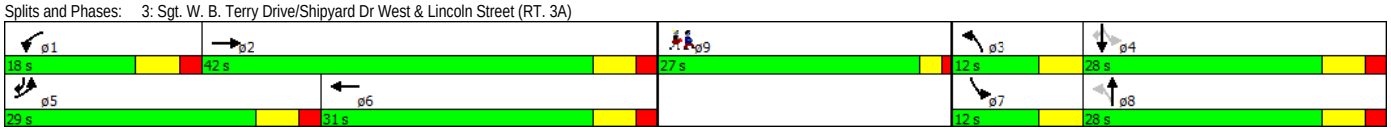


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 210 | 1090 | 20 | 60 | 990 | 115 | 160 | 135 | 55 | 95 | 75 | 155 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 330 | | 0 | 250 | | 0 | 265 | | 0 | 300 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3564 | 0 | 1752 | 4955 | 0 | 1805 | 1818 | 0 | 1787 | 1881 | 1599 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.559 | | | 0.546 | | | |
| Satd. Flow (perm) | 1728 | 3564 | 0 | 1752 | 4955 | 0 | 1062 | 1818 | 0 | 1027 | 1881 | 1599 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 14 | | | 14 | | | | 167 | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 804 | | | 622 | | | 166 | | | 156 | | |
| Travel Time (s) | | 12.2 | | | 9.4 | | | 4.5 | | | 4.3 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.91 | 0.91 | 0.91 | 0.83 | 0.83 | 0.83 | 0.93 | 0.93 | 0.93 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 3% | 3% | 3% | 0% | 0% | 0% | 1% | 1% | 1% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 214 | 1132 | 0 | 66 | 1214 | 0 | 193 | 229 | 0 | 102 | 81 | 167 | |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | pm+pt | NA | pm+ov | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | 6.0 | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 10.0 | 12.0 | | 10.0 | 12.0 | 12.0 | 27.0 |
| Total Split (s) | 29.0 | 42.0 | | 18.0 | 31.0 | | 12.0 | 28.0 | | 12.0 | 28.0 | 29.0 | 27.0 |
| Total Split (%) | 22.8% | 33.1% | | 14.2% | 24.4% | | 9.4% | 22.0% | | 9.4% | 22.0% | 22.8% | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None | None |
| Act Effct Green (s) | 15.3 | 38.2 | | 8.2 | 27.8 | | 23.0 | 15.0 | | 21.3 | 14.0 | 32.1 | |
| Actuated g/C Ratio | 0.18 | 0.45 | | 0.10 | 0.33 | | 0.27 | 0.18 | | 0.25 | 0.16 | 0.38 | |
| v/c Ratio | 0.69 | 0.71 | | 0.40 | 0.75 | | 0.53 | 0.69 | | 0.32 | 0.26 | 0.24 | |
| Control Delay | 46.7 | 25.9 | | 46.9 | 31.5 | | 29.3 | 44.1 | | 24.5 | 34.5 | 3.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Delay | 46.7 | 25.9 | | 46.9 | 31.5 | | 29.3 | 44.1 | | 24.5 | 34.5 | 3.2 | |
| LOS | D | C | | D | C | | C | D | | C | C | A | |
| Approach Delay | | 29.2 | | | 32.3 | | | 37.3 | | | 16.6 | | |
| Approach LOS | | C | | | C | | | D | | | B | | |
| Queue Length 50th (ft) | 115 | 285 | | 36 | 220 | | 81 | 115 | | 41 | 40 | 0 | |
| Queue Length 95th (ft) | 195 | #447 | | 81 | #370 | | 129 | 179 | | 80 | 82 | 32 | |
| Internal Link Dist (ft) | | 724 | | | 542 | | | 86 | | | 76 | | |
| Turn Bay Length (ft) | 330 | | | 250 | | | 265 | | | 300 | | | |
| Base Capacity (vph) | 478 | 1595 | | 253 | 1620 | | 365 | 492 | | 338 | 498 | 846 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.45 | 0.71 | | 0.26 | 0.75 | | 0.53 | 0.47 | | 0.30 | 0.16 | 0.20 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 85.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 30.1 — Intersection LOS: C
Intersection Capacity Utilization 69.8% — ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

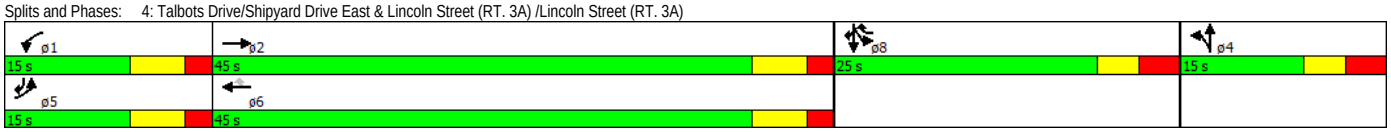
Splits and Phases: 3: Sgt. W. B. Terry Drive/Shipyard Dr West & Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 80 | 1155 | 5 | 1 | 1090 | 225 | 2 | 0 | 0 | 250 | 5 | 75 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 110 | | 0 | 750 | | 140 | 0 | | 0 | 260 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1787 | 3571 | 0 | 1711 | 3539 | 1583 | 0 | 1805 | 0 | 1681 | 1688 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.950 | | 0.950 | 0.954 | |
| Satd. Flow (perm) | 1787 | 3571 | 0 | 1711 | 3539 | 1583 | 0 | 1805 | 0 | 1681 | 1688 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 247 | | | | | | 98 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 568 | | | 1442 | | | 272 | | | 315 | |
| Travel Time (s) | | 8.6 | | | 21.8 | | | 7.4 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.91 | 0.91 | 0.91 | 0.50 | 0.50 | 0.50 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | 49% | | |
| Lane Group Flow (vph) | 85 | 1234 | 0 | 1 | 1198 | 247 | 0 | 4 | 0 | 140 | 140 | 82 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Split | NA | | Split | NA | pt+ov |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Permitted Phases | | | | | | 6 | | | | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | 6.0 | 4.0 | 4.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 37.0 | 12.0 | 10.0 | 10.0 | | 12.0 | 12.0 | |
| Total Split (s) | 15.0 | 45.0 | | 15.0 | 45.0 | 25.0 | 15.0 | 15.0 | | 25.0 | 25.0 | |
| Total Split (%) | 15.0% | 45.0% | | 15.0% | 45.0% | 25.0% | 15.0% | 15.0% | | 25.0% | 25.0% | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | None | None | None | | None | None | |
| Act Effct Green (s) | 8.2 | 40.2 | | 6.7 | 31.6 | 52.4 | | 5.3 | | 11.8 | 11.8 | 25.9 |
| Actuated g/C Ratio | 0.12 | 0.58 | | 0.10 | 0.46 | 0.76 | | 0.08 | | 0.17 | 0.17 | 0.38 |
| v/c Ratio | 0.40 | 0.59 | | 0.01 | 0.74 | 0.20 | | 0.03 | | 0.49 | 0.48 | 0.12 |
| Control Delay | 41.0 | 12.5 | | 39.0 | 20.6 | 1.1 | | 40.0 | | 36.5 | 36.4 | 3.2 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.0 | 12.5 | | 39.0 | 20.6 | 1.1 | | 40.0 | | 36.5 | 36.4 | 3.2 |
| LOS | D | B | | D | C | A | | D | | D | D | A |
| Approach Delay | | 14.3 | | | 17.3 | | | 40.0 | | | 28.9 | |
| Approach LOS | | B | | | B | | | D | | | C | |
| Queue Length 50th (ft) | 35 | 122 | | 0 | 211 | 0 | | 2 | | 58 | 58 | 0 |
| Queue Length 95th (ft) | 99 | 421 | | 6 | 431 | 23 | | 7 | | 141 | 141 | 19 |
| Internal Link Dist (ft) | | 488 | | | 1362 | | | 192 | | | 235 | |
| Turn Bay Length (ft) | 110 | | | 750 | | 140 | | | | 260 | | |
| Base Capacity (vph) | 262 | 2449 | | 251 | 2181 | 1352 | | 264 | | 520 | 523 | 691 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | 0.50 | | 0.00 | 0.55 | 0.18 | | 0.02 | | 0.27 | 0.27 | 0.12 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 100 | |
| Actuated Cycle Length: 68.8 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.74 | |
| Intersection Signal Delay: 17.4 | Intersection LOS: B |
| Intersection Capacity Utilization 58.7% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Talbots Drive/Shipyard Drive East & Lincoln Street (RT. 3A) /Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 15 | 1350 | 50 | 55 | 1260 | 20 | 60 | 15 | 60 | 20 | 5 | 10 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 0 | | 100 | 0 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 3553 | 0 | 0 | 3525 | 0 | 1752 | 1623 | 0 | 0 | 1775 | 0 | |
| Flt Permitted | | 0.931 | | | 0.781 | | 0.725 | | | | 0.776 | | |
| Satd. Flow (perm) | 0 | 3311 | 0 | 0 | 2759 | 0 | 1337 | 1623 | 0 | 0 | 1417 | 0 | |
| Right Turn on Red | | | No | | | No | | | No | | | No | |
| Satd. Flow (RTOR) | | | | | | | | | | | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 1442 | | | 580 | | | 992 | | | 245 | | |
| Travel Time (s) | | 21.8 | | | 8.8 | | | 27.1 | | | 6.7 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.87 | 0.87 | 0.87 | 0.90 | 0.90 | 0.90 | 0.71 | 0.71 | 0.71 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 3% | 3% | 3% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1459 | 0 | 0 | 1534 | 0 | 67 | 84 | 0 | 0 | 49 | 0 | |
| Turn Type | pm+pt | NA | | Perm | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | | 6 | | | 4 | | | 8 | | 9 |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | | |
| Detector Phase | 2 5 | 2 5 | | 6 | 6 | | 4 | 4 | | 8 | 8 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 5.5 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 1.0 |
| Minimum Split (s) | 10.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 18.0 |
| Total Split (s) | 10.0 | 72.0 | | 62.0 | 62.0 | | 28.0 | 28.0 | | 28.0 | 28.0 | | 18.0 |
| Total Split (%) | 8.5% | 61.0% | | 52.5% | 52.5% | | 23.7% | 23.7% | | 23.7% | 23.7% | | 15% |
| Yellow Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 0.0 | 1.5 | | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | |
| Lead/Lag | Lead | | | Lag | Lag | | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | Yes | | | | | | | | |
| Recall Mode | None | Min | | Min | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | | 68.9 | | | 58.9 | | 9.6 | 9.6 | | | 9.6 | | |
| Actuated g/C Ratio | | 0.76 | | | 0.65 | | 0.11 | 0.11 | | | 0.11 | | |
| v/c Ratio | | 0.58 | | | 0.86 | | 0.47 | 0.49 | | | 0.33 | | |
| Control Delay | | 5.9 | | | 19.4 | | 47.9 | 46.8 | | | 41.9 | | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Delay | | 5.9 | | | 19.4 | | 47.9 | 46.8 | | | 41.9 | | |
| LOS | | A | | | B | | D | D | | | D | | |
| Approach Delay | | 5.9 | | | 19.4 | | | 47.3 | | | 41.9 | | |
| Approach LOS | | A | | | B | | | D | | | D | | |
| Queue Length 50th (ft) | | 134 | | | 313 | | 35 | 44 | | | 25 | | |
| Queue Length 95th (ft) | | 216 | | | 458 | | 76 | 89 | | | 46 | | |
| Internal Link Dist (ft) | | 1362 | | | 500 | | | 912 | | | 165 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 2529 | | | 1793 | | 325 | 395 | | | 345 | | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Reduced v/c Ratio | | 0.58 | | | 0.86 | | 0.21 | 0.21 | | | 0.14 | | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 118 | |
| Actuated Cycle Length: 90.6 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.86 | |
| Intersection Signal Delay: 14.9 | Intersection LOS: B |
| Intersection Capacity Utilization 94.6% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Fottler Road/Bradley Woods Drive & Lincoln Street (RT. 3A)

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 0 | 1380 | 0 | 10 | 1310 | 1 | 0 | 1 | 10 | 0 | 0 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 3574 | 0 | 0 | 3539 | 0 | 0 | 1662 | 0 | 0 | 1644 | 0 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3574 | 0 | 0 | 3539 | 0 | 0 | 1662 | 0 | 0 | 1644 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1334 | | | 458 | | | 528 | | | 93 | |
| Travel Time (s) | | 30.3 | | | 10.4 | | | 12.0 | | | 2.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.87 | 0.87 | 0.87 | 0.81 | 0.81 | 0.81 | 0.25 | 0.25 | 0.25 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1453 | 0 | 0 | 1518 | 0 | 0 | 13 | 0 | 0 | 4 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 53.2% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 1380 | 0 | 10 | 1310 | 1 | 0 | 1 | 10 | 0 | 0 | 1 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.87 | 0.87 | 0.87 | 0.81 | 0.81 | 0.81 | 0.25 | 0.25 | 0.25 |
| Hourly flow rate (vph) | 0 | 1453 | 0 | 11 | 1506 | 1 | 0 | 1 | 12 | 0 | 0 | 4 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1507 | | | 1453 | | | 2232 | 2983 | 726 | 2269 | 2982 | 753 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1507 | | | 1453 | | | 2232 | 2983 | 726 | 2269 | 2982 | 753 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 100 | | | 98 | | | 100 | 91 | 97 | 100 | 100 | 99 |
| cM capacity (veh/h) | 445 | | | 462 | | | 23 | 14 | 371 | 20 | 14 | 356 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 726 | 726 | 764 | 754 | 14 | 4 |
| Volume Left | 0 | 0 | 11 | 0 | 0 | 0 |
| Volume Right | 0 | 0 | 0 | 1 | 12 | 4 |
| cSH | 445 | 1700 | 462 | 1700 | 111 | 356 |
| Volume to Capacity | 0.00 | 0.43 | 0.02 | 0.44 | 0.12 | 0.01 |
| Queue Length 95th (ft) | 0 | 0 | 2 | 0 | 10 | 1 |
| Control Delay (s) | 0.0 | 0.0 | 0.8 | 0.0 | 41.9 | 15.2 |
| Lane LOS | | | A | | E | C |
| Approach Delay (s) | 0.0 | | 0.4 | | 41.9 | 15.2 |
| Approach LOS | | | | | E | C |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 0.4 | | | |
| Intersection Capacity Utilization | 53.2% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 145 | 265 | 20 | 135 | 105 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 0 | | | 0 | 0 | 0 |
| Storage Lanes | 0 | | | 0 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Satd. Flow (prot) | 0 | 1849 | 1659 | 0 | 1807 | 0 |
| Flt Permitted | | 0.983 | | | 0.953 | |
| Satd. Flow (perm) | 0 | 1849 | 1659 | 0 | 1807 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 404 | 104 | | 172 | |
| Travel Time (s) | | 9.2 | 2.4 | | 3.9 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.88 | 0.88 | 0.95 | 0.95 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 466 | 163 | 0 | 119 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 47.3% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 145 | 265 | 20 | 135 | 105 | 2 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.88 | 0.88 | 0.95 | 0.95 | 0.90 | 0.90 |
| Hourly flow rate (vph) | 165 | 301 | 21 | 142 | 117 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | 770 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 163 | | | | 723 | 92 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 163 | | | | 723 | 92 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 88 | | | | 67 | 100 |
| cM capacity (veh/h) | 1422 | | | | 350 | 971 |

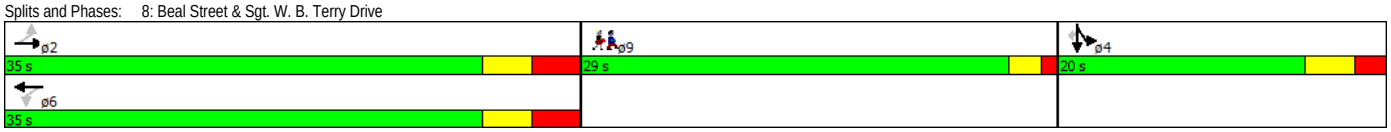
| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 466 | 163 | 119 |
| Volume Left | 165 | 0 | 117 |
| Volume Right | 0 | 142 | 2 |
| cSH | 1422 | 1700 | 354 |
| Volume to Capacity | 0.12 | 0.10 | 0.34 |
| Queue Length 95th (ft) | 10 | 0 | 36 |
| Control Delay (s) | 3.5 | 0.0 | 20.2 |
| Lane LOS | A | | C |
| Approach Delay (s) | 3.5 | 0.0 | 20.2 |
| Approach LOS | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 5.4 | | |
| Intersection Capacity Utilization | 47.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 10 | 350 | 10 | 5 | 155 | 290 | 0 | 0 | 0 | 105 | 1 | 5 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 10 | 12 | 12 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 50 | | 0 | 60 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 1891 | 0 | 0 | 1733 | 0 | 0 | 0 | 0 | 0 | 1811 | 1507 | |
| Flt Permitted | | 0.979 | | | 0.993 | | | | | | 0.953 | | |
| Satd. Flow (perm) | 0 | 1853 | 0 | 0 | 1723 | 0 | 0 | 0 | 0 | 0 | 1811 | 1507 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 2 | | | 119 | | | | | | | 78 | |
| Link Speed (mph) | | 30 | | | 30 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 666 | | | 1855 | | | 212 | | | 423 | | |
| Travel Time (s) | | 15.1 | | | 42.2 | | | 5.8 | | | 11.5 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.89 | 0.89 | 0.89 | 0.92 | 0.92 | 0.92 | 0.72 | 0.72 | 0.72 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 2% | 2% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 436 | 0 | 0 | 506 | 0 | 0 | 0 | 0 | 0 | 147 | 7 | |
| Turn Type | Perm | NA | | Perm | NA | | | | | Split | NA | Perm | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | | 9 |
| Permitted Phases | 2 | | | 6 | | | | | | | | 4 | |
| Detector Phase | 2 | 2 | | 6 | 6 | | | | | 4 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | | | | 6.0 | 6.0 | 6.0 | 5.0 |
| Minimum Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | | | | 11.0 | 11.0 | 11.0 | 29.0 |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | | | | 20.0 | 20.0 | 20.0 | 29.0 |
| Total Split (%) | 41.7% | 41.7% | | 41.7% | 41.7% | | | | | 23.8% | 23.8% | 23.8% | 35% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 2.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | | | | None | None | None | None |
| Act Effct Green (s) | | 16.9 | | | 16.9 | | | | | | 8.5 | 8.5 | |
| Actuated g/C Ratio | | 0.54 | | | 0.54 | | | | | | 0.27 | 0.27 | |
| v/c Ratio | | 0.43 | | | 0.51 | | | | | | 0.30 | 0.01 | |
| Control Delay | | 8.6 | | | 7.8 | | | | | | 13.5 | 0.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Delay | | 8.6 | | | 7.8 | | | | | | 13.5 | 0.0 | |
| LOS | | A | | | A | | | | | | B | A | |
| Approach Delay | | 8.6 | | | 7.8 | | | | | | 12.8 | | |
| Approach LOS | | A | | | A | | | | | | B | | |
| Queue Length 50th (ft) | | 50 | | | 44 | | | | | | 20 | 0 | |
| Queue Length 95th (ft) | | 109 | | | 117 | | | | | | 50 | 0 | |
| Internal Link Dist (ft) | | 586 | | | 1775 | | | 132 | | | 343 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 1621 | | | 1522 | | | | | | 981 | 852 | |
| 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 | | | 0.33 | | | | | | 0.15 | 0.01 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 84 | |
| Actuated Cycle Length: 31.1 | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.51 | |
| Intersection Signal Delay: 8.8 | Intersection LOS: A |
| Intersection Capacity Utilization 43.4% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Beal Street & Sgt. W. B. Terry Drive



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 40 | 420 | 15 | 5 | 420 | 85 | 10 | 5 | 10 | 95 | 5 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 60 | 0 | | 0 | 0 | | 120 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 0 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 1885 | 0 | 0 | 1898 | 1615 | 0 | 1761 | 0 | 0 | 1779 | 1583 |
| Flt Permitted | | 0.996 | | | 0.999 | | | 0.980 | | | 0.955 | |
| Satd. Flow (perm) | 0 | 1885 | 0 | 0 | 1898 | 1615 | 0 | 1761 | 0 | 0 | 1779 | 1583 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1855 | | | 729 | | | 197 | | | 1407 | |
| Travel Time (s) | | 42.2 | | | 16.6 | | | 4.5 | | | 32.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.86 | 0.86 | 0.86 | 0.64 | 0.64 | 0.64 | 0.79 | 0.79 | 0.79 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 528 | 0 | 0 | 494 | 99 | 0 | 40 | 0 | 0 | 126 | 32 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 69.1% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 40 | 420 | 15 | 5 | 420 | 85 | 10 | 5 | 10 | 95 | 5 | 25 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.86 | 0.86 | 0.86 | 0.64 | 0.64 | 0.64 | 0.79 | 0.79 | 0.79 |
| Hourly flow rate (vph) | 44 | 467 | 17 | 6 | 488 | 99 | 16 | 8 | 16 | 120 | 6 | 32 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 488 | | | 483 | | | 1067 | 1064 | 475 | 1083 | 1072 | 488 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 488 | | | 483 | | | 1067 | 1064 | 475 | 1083 | 1072 | 488 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 96 | | | 99 | | | 91 | 96 | 97 | 32 | 97 | 95 |
| cM capacity (veh/h) | 1085 | | | 1090 | | | 180 | 214 | 594 | 178 | 210 | 579 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | NE 1 | SW 1 |
|---|---|---|---|---|---|
| Volume Total | 528 | 494 | 99 | 39 | 158 |
| Volume Left | 44 | 6 | 0 | 16 | 120 |
| Volume Right | 17 | 0 | 99 | 16 | 32 |
| cSH | 1085 | 1090 | 1700 | 261 | 224 |
| Volume to Capacity | 0.04 | 0.01 | 0.06 | 0.15 | 0.71 |
| Queue Length 95th (ft) | 3 | 0 | 0 | 13 | 115 |
| Control Delay (s) | 1.2 | 0.2 | 0.0 | 21.2 | 52.3 |
| Lane LOS | A | A | | C | F |
| Approach Delay (s) | 1.2 | 0.1 | | 21.2 | 52.3 |
| Approach LOS | | | | C | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 7.4 | | |
| Intersection Capacity Utilization | | 69.1% | ICU Level of Service | C |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 370 | 0 | 5 | 155 | 0 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 1 | 0 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 1863 | 0 | 0 | 1861 | 1611 | 0 |
| Flt Permitted | | | | 0.999 | | |
| Satd. Flow (perm) | 1863 | 0 | 0 | 1861 | 1611 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 104 | | | 666 | 328 | |
| Travel Time (s) | 2.4 | | | 15.1 | 7.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 402 | 0 | 0 | 173 | 1 | 0 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 29.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 370 | 0 | 5 | 155 | 0 | 1 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 402 | 0 | 5 | 168 | 0 | 1 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 666 | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 402 | | 582 | 402 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 402 | | 582 | 402 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 100 |
| cM capacity (veh/h) | | | 1156 | | 473 | 648 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 402 | 174 | 1 |
| Volume Left | 0 | 5 | 0 |
| Volume Right | 0 | 0 | 1 |
| cSH | 1700 | 1156 | 648 |
| Volume to Capacity | 0.24 | 0.00 | 0.00 |
| Queue Length 95th (ft) | 0 | 0 | 0 |
| Control Delay (s) | 0.0 | 0.3 | 10.6 |
| Lane LOS | | A | B |
| Approach Delay (s) | 0.0 | 0.3 | 10.6 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 0.1 | |
| Intersection Capacity Utilization | | 29.5% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

2023 BUILD CONDITION

| Lane Group | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 800 | 240 | 0 | 1630 | 0 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 0 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 3350 | 0 | 0 | 3574 | 0 | 1096 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 3350 | 0 | 0 | 3574 | 0 | 1096 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 401 | | | 554 | 450 | |
| Travel Time (s) | 9.1 | | | 12.6 | 10.2 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.86 | 0.86 | 0.93 | 0.93 | 0.50 | 0.50 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 4% | 1% | 1% | 50% | 50% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 1209 | 0 | 0 | 1753 | 0 | 10 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 48.4% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 800 | 240 | 0 | 1630 | 0 | 5 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.86 | 0.86 | 0.93 | 0.93 | 0.50 | 0.50 |
| Hourly flow rate (vph) | 930 | 279 | 0 | 1753 | 0 | 10 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 554 | | |
| pX, platoon unblocked | | | | | 0.64 | |
| vC, conflicting volume | | | 930 | | 1946 | 605 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 930 | | 1345 | 605 |
| tC, single (s) | | | 4.1 | | 7.8 | 7.9 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 4.0 | 3.8 |
| p0 queue free % | | | 100 | | 100 | 97 |
| cM capacity (veh/h) | | | 737 | | 60 | 340 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NW 1 |
|---|---|---|---|---|---|
| Volume Total | 620 | 589 | 876 | 876 | 10 |
| Volume Left | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 279 | 0 | 0 | 10 |
| cSH | 1700 | 1700 | 1700 | 1700 | 340 |
| Volume to Capacity | 0.36 | 0.35 | 0.52 | 0.52 | 0.03 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 2 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 15.9 |
| Lane LOS | | | | | C |
| Approach Delay (s) | 0.0 | | 0.0 | | 15.9 |
| Approach LOS | | | | | C |

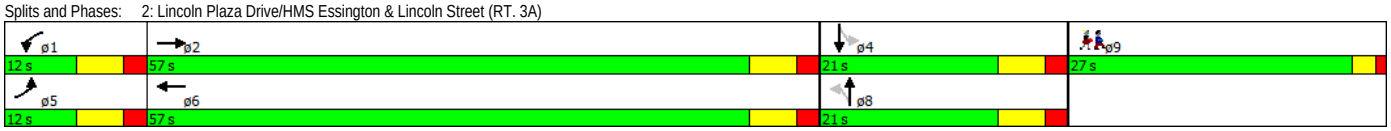
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.1 | | |
| Intersection Capacity Utilization | 48.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 50 | 735 | 15 | 20 | 1490 | 5 | 100 | 10 | 15 | 2 | 5 | 35 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 265 | | 0 | 220 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1662 | 3428 | 0 | 1770 | 3421 | 0 | 1787 | 1710 | 0 | 1770 | 1617 | 0 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.714 | | | 0.739 | | | |
| Satd. Flow (perm) | 1662 | 3428 | 0 | 1770 | 3421 | 0 | 1343 | 1710 | 0 | 1377 | 1617 | 0 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 2 | | | | | | 17 | | | 58 | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 554 | | | 804 | | | 144 | | | 222 | | |
| Travel Time (s) | | 8.4 | | | 12.2 | | | 3.9 | | | 6.1 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.92 | 0.92 | 0.92 | 0.90 | 0.90 | 0.90 | 0.60 | 0.60 | 0.60 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 5% | 5% | 5% | 2% | 2% | 2% | 1% | 1% | 1% | 2% | 2% | 2% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 56 | 843 | 0 | 22 | 1625 | 0 | 111 | 28 | 0 | 3 | 66 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 27.0 |
| Total Split (s) | 12.0 | 57.0 | | 12.0 | 57.0 | | 21.0 | 21.0 | | 21.0 | 21.0 | | 27.0 |
| Total Split (%) | 10.3% | 48.7% | | 10.3% | 48.7% | | 17.9% | 17.9% | | 17.9% | 17.9% | | 23% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | | Yes | | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | 6.0 | 59.0 | | 6.0 | 54.1 | | 11.4 | 11.4 | | 11.4 | 11.4 | | |
| Actuated g/C Ratio | 0.07 | 0.68 | | 0.07 | 0.62 | | 0.13 | 0.13 | | 0.13 | 0.13 | | |
| v/c Ratio | 0.49 | 0.36 | | 0.18 | 0.76 | | 0.63 | 0.12 | | 0.02 | 0.25 | | |
| Control Delay | 55.3 | 7.9 | | 42.9 | 16.6 | | 51.8 | 20.6 | | 32.0 | 13.9 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Delay | 55.3 | 7.9 | | 42.9 | 16.6 | | 51.8 | 20.6 | | 32.0 | 13.9 | | |
| LOS | E | A | | D | B | | D | C | | C | B | | |
| Approach Delay | | 10.9 | | | 16.9 | | | 45.5 | | | 14.7 | | |
| Approach LOS | | B | | | B | | | D | | | B | | |
| Queue Length 50th (ft) | 30 | 72 | | 12 | 336 | | 58 | 5 | | 1 | 4 | | |
| Queue Length 95th (ft) | #76 | 174 | | 36 | 480 | | 112 | 29 | | 6 | 16 | | |
| Internal Link Dist (ft) | | 474 | | | 724 | | | 64 | | | 142 | | |
| Turn Bay Length (ft) | 265 | | | 220 | | | | | | | | | |
| Base Capacity (vph) | 114 | 2322 | | 122 | 2125 | | 231 | 308 | | 237 | 326 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.49 | 0.36 | | 0.18 | 0.76 | | 0.48 | 0.09 | | 0.01 | 0.20 | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 87.1
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 16.4 — Intersection LOS: B
Intersection Capacity Utilization 63.8% — ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Lincoln Plaza Drive/HMS Essington & Lincoln Street (RT. 3A)

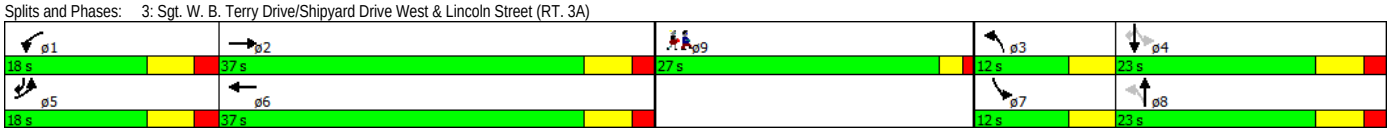


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 60 | 685 | 5 | 45 | 1315 | 30 | 140 | 125 | 20 | 40 | 45 | 60 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 330 | | 0 | 250 | | 0 | 265 | | 0 | 300 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1646 | 3402 | 0 | 1770 | 5070 | 0 | 1752 | 1806 | 0 | 1703 | 1792 | 1524 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.519 | | | 0.638 | | | |
| Satd. Flow (perm) | 1646 | 3402 | 0 | 1770 | 5070 | 0 | 957 | 1806 | 0 | 1144 | 1792 | 1524 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 3 | | | 6 | | | | 93 | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 804 | | | 622 | | | 166 | | | 156 | | |
| Travel Time (s) | | 12.2 | | | 9.4 | | | 4.5 | | | 4.3 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.96 | 0.96 | 0.96 | 0.76 | 0.76 | 0.76 | 0.71 | 0.71 | 0.71 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 6% | 6% | 6% | 2% | 2% | 2% | 3% | 3% | 3% | 6% | 6% | 6% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 65 | 750 | 0 | 47 | 1401 | 0 | 184 | 190 | 0 | 56 | 63 | 85 | |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | pm+pt | NA | pm+ov | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 10.0 | 12.0 | | 10.0 | 12.0 | 12.0 | 27.0 |
| Total Split (s) | 18.0 | 37.0 | | 18.0 | 37.0 | | 12.0 | 23.0 | | 12.0 | 23.0 | 18.0 | 27.0 |
| Total Split (%) | 15.4% | 31.6% | | 15.4% | 31.6% | | 10.3% | 19.7% | | 10.3% | 19.7% | 15.4% | 23% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None | None |
| Act Effct Green (s) | 8.0 | 35.5 | | 7.2 | 32.3 | | 20.6 | 12.6 | | 18.0 | 11.3 | 22.0 | |
| Actuated g/C Ratio | 0.10 | 0.47 | | 0.09 | 0.42 | | 0.27 | 0.17 | | 0.24 | 0.15 | 0.29 | |
| v/c Ratio | 0.38 | 0.47 | | 0.28 | 0.65 | | 0.53 | 0.63 | | 0.17 | 0.24 | 0.17 | |
| Control Delay | 41.8 | 18.4 | | 40.6 | 22.1 | | 27.5 | 40.7 | | 21.0 | 32.9 | 4.7 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Delay | 41.8 | 18.4 | | 40.6 | 22.1 | | 27.5 | 40.7 | | 21.0 | 32.9 | 4.7 | |
| LOS | D | B | | D | C | | C | D | | C | C | A | |
| Approach Delay | | 20.3 | | | 22.7 | | | 34.2 | | | 17.9 | | |
| Approach LOS | | C | | | C | | | C | | | B | | |
| Queue Length 50th (ft) | 31 | 147 | | 23 | 212 | | 70 | 87 | | 20 | 29 | 0 | |
| Queue Length 95th (ft) | 73 | 235 | | 58 | 311 | | 104 | 132 | | 36 | 51 | 13 | |
| Internal Link Dist (ft) | | 724 | | | 542 | | | 86 | | | 76 | | |
| Turn Bay Length (ft) | 330 | | | 250 | | | 265 | | | 300 | | | |
| Base Capacity (vph) | 270 | 1586 | | 290 | 2150 | | 350 | 424 | | 351 | 416 | 590 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.24 | 0.47 | | 0.16 | 0.65 | | 0.53 | 0.45 | | 0.16 | 0.15 | 0.14 | |

## Intersection Summary

Area Type: Other
Cycle Length: 117
Actuated Cycle Length: 76.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 23.2 — Intersection LOS: C
Intersection Capacity Utilization 62.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Sgt. W. B. Terry Drive/Shipyard Drive West & Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 40 | 630 | 80 | 10 | 1325 | 480 | 2 | 1 | 5 | 155 | 5 | 65 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 110 | | 0 | 750 | | 140 | 0 | | 0 | 260 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1736 | 3412 | 0 | 1728 | 3574 | 1599 | 0 | 1720 | 0 | 1681 | 1690 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.988 | | 0.950 | 0.955 | |
| Satd. Flow (perm) | 1736 | 3412 | 0 | 1728 | 3574 | 1599 | 0 | 1720 | 0 | 1681 | 1690 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | | 481 | | 10 | | | | 109 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 568 | | | 1442 | | | 272 | | | 315 | |
| Travel Time (s) | | 8.6 | | | 21.8 | | | 7.4 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.84 | 0.84 | 0.84 | 0.50 | 0.50 | 0.50 | 0.88 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 4% | 4% | 1% | 1% | 1% | 0% | 0% | 0% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | 48% | | |
| Lane Group Flow (vph) | 44 | 780 | 0 | 12 | 1577 | 571 | 0 | 16 | 0 | 92 | 90 | 74 |
| Turn Type | Prot | NA | | Prot | NA | pt+ov | Split | NA | | Split | NA | pt+ov |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 6 | 4 | 4 | | 8 | 8 | 8 5 |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 6 | 4 | 4 | | 8 | 8 | 8 5 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 37.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| Total Split (s) | 18.0 | 52.0 | | 12.0 | 46.0 | | 10.0 | 10.0 | | 16.0 | 16.0 | |
| Total Split (%) | 20.0% | 57.8% | | 13.3% | 51.1% | | 11.1% | 11.1% | | 17.8% | 17.8% | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lag | Lag | | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 7.1 | 48.2 | | 6.1 | 40.2 | 56.7 | | 4.1 | | 8.7 | 8.7 | 20.9 |
| Actuated g/C Ratio | 0.10 | 0.66 | | 0.08 | 0.55 | 0.78 | | 0.06 | | 0.12 | 0.12 | 0.29 |
| v/c Ratio | 0.26 | 0.34 | | 0.08 | 0.80 | 0.42 | | 0.15 | | 0.46 | 0.45 | 0.14 |
| Control Delay | 37.7 | 7.2 | | 36.7 | 19.8 | 2.0 | | 28.8 | | 40.4 | 40.0 | 2.3 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.7 | 7.2 | | 36.7 | 19.8 | 2.0 | | 28.8 | | 40.4 | 40.0 | 2.3 |
| LOS | D | A | | D | B | A | | C | | D | D | A |
| Approach Delay | | 8.8 | | | 15.2 | | | 28.8 | | | 29.3 | |
| Approach LOS | | A | | | B | | | C | | | C | |
| Queue Length 50th (ft) | 19 | 56 | | 5 | 292 | 8 | | 3 | | 41 | 41 | 0 |
| Queue Length 95th (ft) | 55 | 183 | | 22 | #523 | 43 | | 10 | | 98 | 96 | 12 |
| Internal Link Dist (ft) | | 488 | | | 1362 | | | 192 | | | 235 | |
| Turn Bay Length (ft) | 110 | | | 750 | | 140 | | | | 260 | | |
| Base Capacity (vph) | 292 | 2391 | | 145 | 2005 | 1334 | | 106 | | 235 | 237 | 611 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.33 | | 0.08 | 0.79 | 0.43 | | 0.15 | | 0.39 | 0.38 | 0.12 |

**Intersection Summary**

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 72.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 14.7 — Intersection LOS: B
Intersection Capacity Utilization 61.6% — ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Talbots Drive/Shipyard Drive East & Lincoln Street (RT. 3A)

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 5 | 735 | 60 | 65 | 1705 | 15 | 85 | 2 | 75 | 25 | 15 | 20 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 0 | | 100 | 0 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 3400 | 0 | 0 | 3564 | 0 | 1703 | 1529 | 0 | 0 | 1692 | 0 | |
| Flt Permitted | | 0.923 | | | 0.863 | | 0.806 | | | | 0.826 | | |
| Satd. Flow (perm) | 0 | 3138 | 0 | 0 | 3081 | 0 | 1445 | 1529 | 0 | 0 | 1426 | 0 | |
| Right Turn on Red | | | No | | | No | | | No | | | No | |
| Satd. Flow (RTOR) | | | | | | | | | | | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 1442 | | | 580 | | | 992 | | | 245 | | |
| Travel Time (s) | | 21.8 | | | 8.8 | | | 27.1 | | | 6.7 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 | 0.88 | 0.88 | 0.88 | 0.75 | 0.75 | 0.75 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 5% | 5% | 5% | 1% | 1% | 1% | 6% | 6% | 6% | 5% | 5% | 5% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 869 | 0 | 0 | 2052 | 0 | 97 | 87 | 0 | 0 | 80 | 0 | |
| Turn Type | pm+pt | NA | | Perm | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | | 6 | | | 4 | | | 8 | | 9 |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | | |
| Detector Phase | 2 5 | 2 5 | | 6 | 6 | | 4 | 4 | | 8 | 8 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 5.5 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 1.0 |
| Minimum Split (s) | 10.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 18.0 |
| Total Split (s) | 10.0 | 65.0 | | 55.0 | 55.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 18.0 |
| Total Split (%) | 9.3% | 60.2% | | 50.9% | 50.9% | | 23.1% | 23.1% | | 23.1% | 23.1% | | 17% |
| Yellow Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 0.0 | 1.5 | | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | |
| Lead/Lag | Lead | | | Lag | Lag | | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | Yes | | | | | | | | |
| Recall Mode | None | Min | | Min | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | | 61.9 | | | 51.9 | | 10.9 | 10.9 | | | 10.9 | | |
| Actuated g/C Ratio | | 0.73 | | | 0.61 | | 0.13 | 0.13 | | | 0.13 | | |
| v/c Ratio | | 0.38 | | | 1.09 | | 0.52 | 0.44 | | | 0.44 | | |
| Control Delay | | 5.1 | | | 69.0 | | 43.8 | 40.1 | | | 40.4 | | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Delay | | 5.1 | | | 69.0 | | 43.8 | 40.1 | | | 40.4 | | |
| LOS | | A | | | E | | D | D | | | D | | |
| Approach Delay | | 5.1 | | | 69.0 | | | 42.1 | | | 40.4 | | |
| Approach LOS | | A | | | E | | | D | | | D | | |
| Queue Length 50th (ft) | | 70 | | | ~635 | | 47 | 42 | | | 38 | | |
| Queue Length 95th (ft) | | 120 | | | #800 | | 92 | 83 | | | 65 | | |
| Internal Link Dist (ft) | | 1362 | | | 500 | | | 912 | | | 165 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 2302 | | | 1883 | | 324 | 343 | | | 320 | | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Reduced v/c Ratio | | 0.38 | | | 1.09 | | 0.30 | 0.25 | | | 0.25 | | |

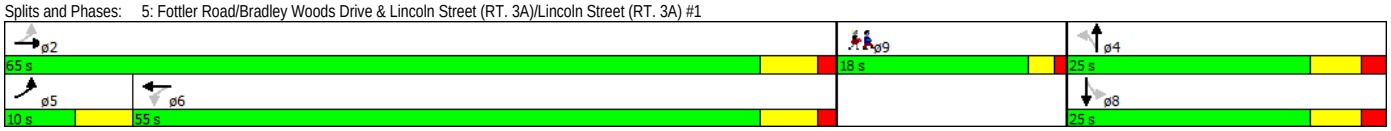
## Intersection Summary

Area Type: Other
Cycle Length: 108
Actuated Cycle Length: 84.8
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 49.3 — Intersection LOS: D
Intersection Capacity Utilization 96.9% — ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 5: Fottler Road/Bradley Woods Drive & Lincoln Street (RT. 3A)/Lincoln Street (RT. 3A) #1



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 0 | 825 | 2 | 10 | 1800 | 2 | 0 | 0 | 10 | 2 | 0 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 3438 | 0 | 0 | 3539 | 0 | 0 | 1644 | 0 | 0 | 1383 | 0 |
| Flt Permitted | | | | | | | | | | | 0.976 | |
| Satd. Flow (perm) | 0 | 3438 | 0 | 0 | 3539 | 0 | 0 | 1644 | 0 | 0 | 1383 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1334 | | | 458 | | | 528 | | | 77 | |
| Travel Time (s) | | 30.3 | | | 10.4 | | | 12.0 | | | 1.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.92 | 0.92 | 0.92 | 0.56 | 0.56 | 0.56 | 0.50 | 0.50 | 0.50 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 5% | 5% | 5% | 2% | 2% | 2% | 0% | 0% | 0% | 25% | 25% | 25% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 880 | 0 | 0 | 1970 | 0 | 0 | 18 | 0 | 0 | 8 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | |
|---|---|---|
| Area Type: | Other | |
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 66.8% | | ICU Level of Service C |
| Analysis Period (min) 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 825 | 2 | 10 | 1800 | 2 | 0 | 0 | 10 | 2 | 0 | 2 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.92 | 0.92 | 0.92 | 0.56 | 0.56 | 0.56 | 0.50 | 0.50 | 0.50 |
| Hourly flow rate (vph) | 0 | 878 | 2 | 11 | 1957 | 2 | 0 | 0 | 18 | 4 | 0 | 4 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1959 | | | 880 | | | 1883 | 2859 | 440 | 2436 | 2859 | 979 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1959 | | | 880 | | | 1883 | 2859 | 440 | 2436 | 2859 | 979 |
| tC, single (s) | 4.2 | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 8.0 | 7.0 | 7.4 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.8 | 4.2 | 3.5 |
| p0 queue free % | 100 | | | 99 | | | 100 | 100 | 97 | 65 | 100 | 98 |
| cM capacity (veh/h) | 282 | | | 764 | | | 43 | 17 | 570 | 11 | 11 | 211 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 439 | 441 | 989 | 980 | 18 | 8 |
| Volume Left | 0 | 0 | 11 | 0 | 0 | 4 |
| Volume Right | 0 | 2 | 0 | 2 | 18 | 4 |
| cSH | 282 | 1700 | 764 | 1700 | 570 | 21 |
| Volume to Capacity | 0.00 | 0.26 | 0.01 | 0.58 | 0.03 | 0.37 |
| Queue Length 95th (ft) | 0 | 0 | 1 | 0 | 2 | 27 |
| Control Delay (s) | 0.0 | 0.0 | 0.4 | 0.0 | 11.5 | 251.1 |
| Lane LOS | | | A | | B | F |
| Approach Delay (s) | 0.0 | | 0.2 | | 11.5 | 251.1 |
| Approach LOS | | | | | B | F |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.9 | | |
| Intersection Capacity Utilization | 66.8% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 30 | 210 | 5 | 120 | 25 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 0 | | | 0 | 0 | 0 |
| Storage Lanes | 0 | | | 0 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Satd. Flow (prot) | 0 | 1870 | 1637 | 0 | 1802 | 0 |
| Flt Permitted | | 0.994 | | | 0.954 | |
| Satd. Flow (perm) | 0 | 1870 | 1637 | 0 | 1802 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 450 | 104 | | 285 | |
| Travel Time (s) | | 10.2 | 2.4 | | 6.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.73 | 0.73 | 0.80 | 0.80 | 0.55 | 0.55 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 329 | 156 | 0 | 47 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 33.7% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 30 | 210 | 5 | 120 | 25 | 1 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.73 | 0.73 | 0.80 | 0.80 | 0.55 | 0.55 |
| Hourly flow rate (vph) | 41 | 288 | 6 | 150 | 45 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | 770 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 156 | | | | 451 | 81 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 156 | | | | 451 | 81 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 97 | | | | 92 | 100 |
| cM capacity (veh/h) | 1430 | | | | 553 | 984 |

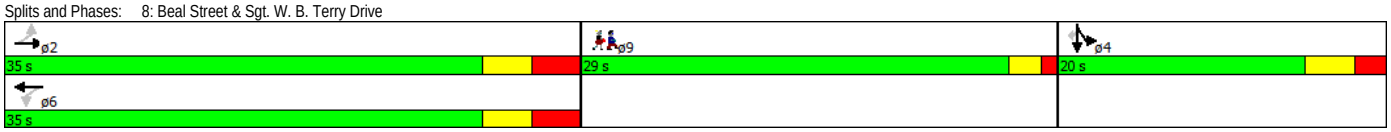
| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 329 | 156 | 47 |
| Volume Left | 41 | 0 | 45 |
| Volume Right | 0 | 150 | 2 |
| cSH | 1430 | 1700 | 563 |
| Volume to Capacity | 0.03 | 0.09 | 0.08 |
| Queue Length 95th (ft) | 2 | 0 | 7 |
| Control Delay (s) | 1.2 | 0.0 | 12.0 |
| Lane LOS | A | | B |
| Approach Delay (s) | 1.2 | 0.0 | 12.0 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 1.8 | |
| Intersection Capacity Utilization | | 33.7% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 80 | 230 | 0 | 5 | 140 | 310 | 0 | 0 | 0 | 65 | 1 | 10 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 10 | 12 | 12 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 50 | | 0 | 60 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 1786 | 0 | 0 | 1706 | 0 | 0 | 0 | 0 | 0 | 1724 | 1436 | |
| Flt Permitted | | 0.800 | | | 0.996 | | | | | | 0.953 | | |
| Satd. Flow (perm) | 0 | 1448 | 0 | 0 | 1701 | 0 | 0 | 0 | 0 | 0 | 1724 | 1436 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | | | | 140 | | | | | | | 78 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 666 | | | 1855 | | | 212 | | | 423 | | |
| Travel Time (s) | | 18.2 | | | 50.6 | | | 5.8 | | | 11.5 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.96 | 0.96 | 0.96 | 0.85 | 0.85 | 0.85 | 0.80 | 0.80 | 0.80 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 5% | 5% | 5% | 1% | 1% | 1% | 3% | 3% | 3% | 5% | 5% | 5% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 352 | 0 | 0 | 474 | 0 | 0 | 0 | 0 | 0 | 82 | 12 | |
| Turn Type | Perm | NA | | Perm | NA | | | | | Split | NA | Perm | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | | 9 |
| Permitted Phases | 2 | | | 6 | | | | | | | | 4 | |
| Detector Phase | 2 | 2 | | 6 | 6 | | | | | 4 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | | | | 6.0 | 6.0 | 6.0 | 5.0 |
| Minimum Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | | | | 11.0 | 11.0 | 11.0 | 29.0 |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | | | | 20.0 | 20.0 | 20.0 | 29.0 |
| Total Split (%) | 41.7% | 41.7% | | 41.7% | 41.7% | | | | | 23.8% | 23.8% | 23.8% | 35% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 2.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | | |
| Recall Mode | Min | Min | | Min | Min | | | | | None | None | None | None |
| Act Effct Green (s) | | 28.3 | | | 28.3 | | | | | | 7.2 | 7.2 | |
| Actuated g/C Ratio | | 0.67 | | | 0.67 | | | | | | 0.17 | 0.17 | |
| v/c Ratio | | 0.36 | | | 0.40 | | | | | | 0.28 | 0.04 | |
| Control Delay | | 6.4 | | | 4.8 | | | | | | 18.5 | 0.2 | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Delay | | 6.4 | | | 4.8 | | | | | | 18.5 | 0.2 | |
| LOS | | A | | | A | | | | | | B | A | |
| Approach Delay | | 6.4 | | | 4.8 | | | | | | 16.1 | | |
| Approach LOS | | A | | | A | | | | | | B | | |
| Queue Length 50th (ft) | | 39 | | | 35 | | | | | | 20 | 0 | |
| Queue Length 95th (ft) | | 86 | | | 85 | | | | | | 40 | 0 | |
| Internal Link Dist (ft) | | 586 | | | 1775 | | | 132 | | | 343 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 1030 | | | 1250 | | | | | | 626 | 571 | |
| 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 | | 0.34 | | | 0.38 | | | | | | 0.13 | 0.02 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 84 | |
| Actuated Cycle Length: 42.2 | |
| Natural Cycle: 70 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.40 | |
| Intersection Signal Delay: 6.6 | Intersection LOS: A |
| Intersection Capacity Utilization 62.4% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Beal Street & Sgt. W. B. Terry Drive



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 35 | 220 | 5 | 1 | 535 | 115 | 15 | 5 | 15 | 95 | 2 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 60 | 0 | | 0 | 0 | | 120 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 0 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 1776 | 0 | 0 | 1900 | 1615 | 0 | 1701 | 0 | 0 | 1758 | 1568 |
| Flt Permitted | | 0.993 | | | | | | 0.979 | | | 0.953 | |
| Satd. Flow (perm) | 0 | 1776 | 0 | 0 | 1900 | 1615 | 0 | 1701 | 0 | 0 | 1758 | 1568 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1855 | | | 729 | | | 197 | | | 1407 | |
| Travel Time (s) | | 42.2 | | | 16.6 | | | 4.5 | | | 32.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.91 | 0.91 | 0.91 | 0.80 | 0.80 | 0.80 | 0.70 | 0.70 | 0.70 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 6% | 6% | 6% | 0% | 0% | 0% | 3% | 3% | 3% | 3% | 3% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 282 | 0 | 0 | 589 | 126 | 0 | 44 | 0 | 0 | 139 | 36 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 58.9% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 35 | 220 | 5 | 1 | 535 | 115 | 15 | 5 | 15 | 95 | 2 | 25 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.91 | 0.91 | 0.91 | 0.80 | 0.80 | 0.80 | 0.70 | 0.70 | 0.70 |
| Hourly flow rate (vph) | 38 | 239 | 5 | 1 | 588 | 126 | 19 | 6 | 19 | 136 | 3 | 36 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 588 | | | 245 | | | 909 | 908 | 242 | 930 | 911 | 588 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 588 | | | 245 | | | 909 | 908 | 242 | 930 | 911 | 588 |
| tC, single (s) | 4.2 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.3 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 96 | | | 100 | | | 92 | 98 | 98 | 41 | 99 | 93 |
| cM capacity (veh/h) | 968 | | | 1333 | | | 228 | 263 | 795 | 229 | 262 | 507 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | NE 1 | SW 1 |
|---|---|---|---|---|---|
| Volume Total | 283 | 589 | 126 | 44 | 174 |
| Volume Left | 38 | 1 | 0 | 19 | 136 |
| Volume Right | 5 | 0 | 126 | 19 | 36 |
| cSH | 968 | 1333 | 1700 | 337 | 289 |
| Volume to Capacity | 0.04 | 0.00 | 0.07 | 0.13 | 0.60 |
| Queue Length 95th (ft) | 3 | 0 | 0 | 11 | 91 |
| Control Delay (s) | 1.5 | 0.0 | 0.0 | 17.3 | 35.9 |
| Lane LOS | A | A | | C | E |
| Approach Delay (s) | 1.5 | 0.0 | | 17.3 | 35.9 |
| Approach LOS | | | | C | E |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 6.1 | | |
| Intersection Capacity Utilization | | 58.9% | ICU Level of Service | B |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 220 | 15 | 25 | 125 | 0 | 90 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 1 | 0 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 1848 | 0 | 0 | 1848 | 1611 | 0 |
| Flt Permitted | | | | 0.992 | | |
| Satd. Flow (perm) | 1848 | 0 | 0 | 1848 | 1611 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 104 | | | 666 | 328 | |
| Travel Time (s) | 2.4 | | | 15.1 | 7.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 255 | 0 | 0 | 163 | 98 | 0 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 36.0% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 220 | 15 | 25 | 125 | 0 | 90 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 239 | 16 | 27 | 136 | 0 | 98 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 666 | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 255 | | 438 | 247 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 255 | | 438 | 247 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 98 | | 100 | 88 |
| cM capacity (veh/h) | | | 1310 | | 564 | 791 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 255 | 163 | 98 |
| Volume Left | 0 | 27 | 0 |
| Volume Right | 16 | 0 | 98 |
| cSH | 1700 | 1310 | 791 |
| Volume to Capacity | 0.15 | 0.02 | 0.12 |
| Queue Length 95th (ft) | 0 | 2 | 11 |
| Control Delay (s) | 0.0 | 1.4 | 10.2 |
| Lane LOS | | A | B |
| Approach Delay (s) | 0.0 | 1.4 | 10.2 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 2.4 | |
| Intersection Capacity Utilization | | 36.0% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Lane Group | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 1320 | 545 | 0 | 1450 | 0 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 0 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 3451 | 0 | 0 | 3539 | 0 | 1644 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 3451 | 0 | 0 | 3539 | 0 | 1644 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 401 | | | 554 | 450 | |
| Travel Time (s) | 9.1 | | | 12.6 | 10.2 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.96 | 0.96 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 2% | 2% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 1963 | 0 | 0 | 1510 | 0 | 15 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 63.9% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 1320 | 545 | 0 | 1450 | 0 | 15 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.96 | 0.96 | 0.98 | 0.98 |
| Hourly flow rate (vph) | 1389 | 574 | 0 | 1510 | 0 | 15 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 554 | | |
| pX, platoon unblocked | | | | | 0.69 | |
| vC, conflicting volume | | | 1389 | | 2432 | 982 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 1389 | | 2175 | 982 |
| tC, single (s) | | | 4.1 | | 6.8 | 6.9 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 94 |
| cM capacity (veh/h) | | | 488 | | 28 | 252 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NW 1 |
|---|---|---|---|---|---|
| Volume Total | 926 | 1037 | 755 | 755 | 15 |
| Volume Left | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 574 | 0 | 0 | 15 |
| cSH | 1700 | 1700 | 1700 | 1700 | 252 |
| Volume to Capacity | 0.54 | 0.61 | 0.44 | 0.44 | 0.06 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 5 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 20.2 |
| Lane LOS | | | | | C |
| Approach Delay (s) | 0.0 | | 0.0 | | 20.2 |
| Approach LOS | | | | | C |

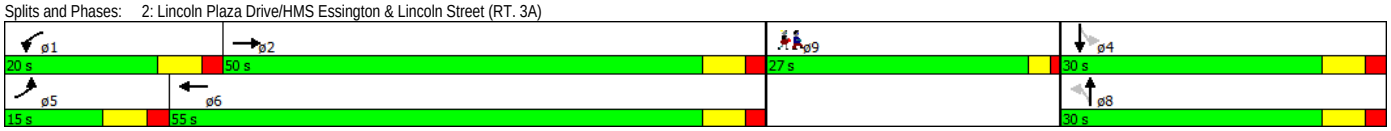
| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.1 | | |
| Intersection Capacity Utilization | 63.9% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 110 | 1175 | 45 | 100 | 1155 | 15 | 170 | 25 | 105 | 20 | 40 | 115 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 265 | | 0 | 220 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3553 | 0 | 1770 | 3414 | 0 | 1805 | 1670 | 0 | 1787 | 1672 | 0 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.574 | | | 0.671 | | | |
| Satd. Flow (perm) | 1728 | 3553 | 0 | 1770 | 3414 | 0 | 1091 | 1670 | 0 | 1262 | 1672 | 0 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 3 | | | 1 | | | 109 | | | 101 | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 554 | | | 804 | | | 144 | | | 222 | | |
| Travel Time (s) | | 8.4 | | | 12.2 | | | 3.9 | | | 6.1 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.96 | 0.96 | 0.96 | 0.83 | 0.83 | 0.83 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 1% | 1% | 1% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 120 | 1326 | 0 | 109 | 1271 | 0 | 177 | 135 | 0 | 24 | 187 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 22.0 | 22.0 | | 12.0 | 12.0 | | 27.0 |
| Total Split (s) | 15.0 | 50.0 | | 20.0 | 55.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | | 27.0 |
| Total Split (%) | 11.8% | 39.4% | | 15.7% | 43.3% | | 23.6% | 23.6% | | 23.6% | 23.6% | | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | | Yes | | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | 9.0 | 44.8 | | 10.3 | 46.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | |
| Actuated g/C Ratio | 0.09 | 0.46 | | 0.11 | 0.47 | | 0.25 | 0.25 | | 0.25 | 0.25 | | |
| v/c Ratio | 0.75 | 0.81 | | 0.59 | 0.79 | | 0.66 | 0.27 | | 0.08 | 0.38 | | |
| Control Delay | 72.4 | 27.7 | | 54.2 | 25.5 | | 46.8 | 10.6 | | 30.1 | 17.3 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Delay | 72.4 | 27.7 | | 54.2 | 25.5 | | 46.8 | 10.6 | | 30.1 | 17.3 | | |
| LOS | E | C | | D | C | | D | B | | C | B | | |
| Approach Delay | | 31.4 | | | 27.8 | | | 31.2 | | | 18.8 | | |
| Approach LOS | | C | | | C | | | C | | | B | | |
| Queue Length 50th (ft) | 74 | 358 | | 66 | 333 | | 100 | 12 | | 12 | 43 | | |
| Queue Length 95th (ft) | #170 | 483 | | 119 | 420 | | #195 | 61 | | 31 | 91 | | |
| Internal Link Dist (ft) | | 474 | | | 724 | | | 64 | | | 142 | | |
| Turn Bay Length (ft) | 265 | | | 220 | | | | | | | | | |
| Base Capacity (vph) | 160 | 1640 | | 255 | 1725 | | 269 | 495 | | 312 | 489 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.75 | 0.81 | | 0.43 | 0.74 | | 0.66 | 0.27 | | 0.08 | 0.38 | | |

## Intersection Summary

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 97.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 29.1 — Intersection LOS: C
Intersection Capacity Utilization 78.0% — ICU Level of Service D
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Lincoln Plaza Drive/HMS Essington & Lincoln Street (RT. 3A)

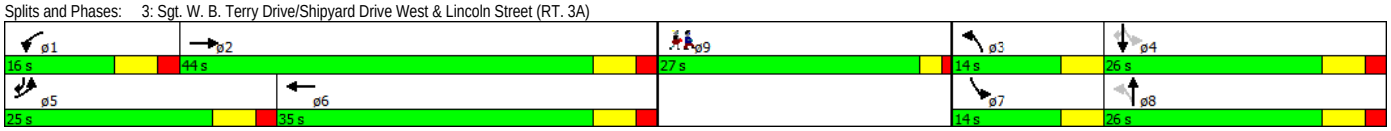


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 125 | 1160 | 15 | 70 | 900 | 70 | 195 | 130 | 50 | 125 | 170 | 165 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 330 | | 0 | 250 | | 0 | 265 | | 0 | 300 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3567 | 0 | 1770 | 5029 | 0 | 1787 | 1804 | 0 | 1805 | 1900 | 1615 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.383 | | | 0.471 | | | |
| Satd. Flow (perm) | 1728 | 3567 | 0 | 1770 | 5029 | 0 | 720 | 1804 | 0 | 895 | 1900 | 1615 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 9 | | | 13 | | | | 229 | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 804 | | | 622 | | | 166 | | | 156 | | |
| Travel Time (s) | | 12.2 | | | 9.4 | | | 4.5 | | | 4.3 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 | 0.72 | 0.72 | 0.72 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 137 | 1291 | 0 | 81 | 1128 | 0 | 235 | 217 | 0 | 174 | 236 | 229 | |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | pm+pt | NA | pm+ov | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 10.0 | 12.0 | | 10.0 | 12.0 | 12.0 | 27.0 |
| Total Split (s) | 25.0 | 44.0 | | 16.0 | 35.0 | | 14.0 | 26.0 | | 14.0 | 26.0 | 25.0 | 27.0 |
| Total Split (%) | 19.7% | 34.6% | | 12.6% | 27.6% | | 11.0% | 20.5% | | 11.0% | 20.5% | 19.7% | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None | None |
| Act Effct Green (s) | 11.7 | 38.4 | | 8.4 | 32.2 | | 28.9 | 16.7 | | 27.5 | 16.1 | 33.8 | |
| Actuated g/C Ratio | 0.13 | 0.42 | | 0.09 | 0.35 | | 0.31 | 0.18 | | 0.30 | 0.17 | 0.37 | |
| v/c Ratio | 0.63 | 0.87 | | 0.51 | 0.64 | | 0.69 | 0.64 | | 0.48 | 0.71 | 0.31 | |
| Control Delay | 52.5 | 34.3 | | 53.6 | 27.7 | | 36.1 | 43.5 | | 27.7 | 49.5 | 3.8 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Delay | 52.5 | 34.3 | | 53.6 | 27.7 | | 36.1 | 43.5 | | 27.7 | 49.5 | 3.8 | |
| LOS | D | C | | D | C | | D | D | | C | D | A | |
| Approach Delay | | 36.0 | | | 29.5 | | | 39.6 | | | 27.2 | | |
| Approach LOS | | D | | | C | | | D | | | C | | |
| Queue Length 50th (ft) | 80 | 383 | | 48 | 202 | | 107 | 117 | | 76 | 136 | 0 | |
| Queue Length 95th (ft) | 142 | #565 | | 93 | 263 | | 157 | 176 | | 101 | 168 | 16 | |
| Internal Link Dist (ft) | | 724 | | | 542 | | | 86 | | | 76 | | |
| Turn Bay Length (ft) | 330 | | | 250 | | | 265 | | | 300 | | | |
| Base Capacity (vph) | 359 | 1486 | | 193 | 1813 | | 342 | 405 | | 373 | 416 | 850 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.38 | 0.87 | | 0.42 | 0.62 | | 0.69 | 0.54 | | 0.47 | 0.57 | 0.27 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 92.3
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 32.8 — Intersection LOS: C
Intersection Capacity Utilization 75.6% — ICU Level of Service D
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Sgt. W. B. Terry Drive/Shipyard Drive West & Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 100 | 1235 | 5 | 1 | 885 | 190 | 95 | 15 | 10 | 460 | 0 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 110 | | 0 | 750 | | 140 | 0 | | 0 | 260 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1787 | 3571 | 0 | 1711 | 3539 | 1583 | 0 | 1755 | 0 | 1715 | 1715 | 1615 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.962 | | 0.950 | 0.950 | |
| Satd. Flow (perm) | 1787 | 3571 | 0 | 1711 | 3539 | 1583 | 0 | 1755 | 0 | 1715 | 1715 | 1615 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 204 | | 4 | | | | 98 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 568 | | | 1442 | | | 272 | | | 315 | |
| Travel Time (s) | | 8.6 | | | 21.8 | | | 7.4 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.73 | 0.73 | 0.73 | 0.64 | 0.64 | 0.64 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 3% | 3% | 3% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | 50% | | |
| Lane Group Flow (vph) | 108 | 1333 | 0 | 1 | 952 | 204 | 0 | 165 | 0 | 359 | 360 | 94 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Split | NA | | Split | NA | pt+ov |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Permitted Phases | | | | | | 6 | | | | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | 6.0 | 4.0 | 4.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 37.0 | 12.0 | 10.0 | 10.0 | | 12.0 | 12.0 | |
| Total Split (s) | 18.0 | 54.0 | | 10.0 | 46.0 | 21.0 | 15.0 | 15.0 | | 21.0 | 21.0 | |
| Total Split (%) | 18.0% | 54.0% | | 10.0% | 46.0% | 21.0% | 15.0% | 15.0% | | 21.0% | 21.0% | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lead | Lag | Lag | | Lead | Lead | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | Min | | None | Min | None | None | None | | None | None | |
| Act Effct Green (s) | 9.3 | 43.8 | | 4.0 | 30.2 | 51.4 | | 9.1 | | 15.2 | 15.2 | 24.5 |
| Actuated g/C Ratio | 0.11 | 0.50 | | 0.05 | 0.34 | 0.58 | | 0.10 | | 0.17 | 0.17 | 0.28 |
| v/c Ratio | 0.57 | 0.75 | | 0.01 | 0.79 | 0.20 | | 0.90 | | 1.22 | 1.22 | 0.18 |
| Control Delay | 51.5 | 21.1 | | 45.0 | 31.1 | 1.7 | | 86.0 | | 159.7 | 160.9 | 4.2 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.5 | 21.1 | | 45.0 | 31.1 | 1.7 | | 86.0 | | 159.7 | 160.9 | 4.2 |
| LOS | D | C | | D | C | A | | F | | F | F | A |
| Approach Delay | | 23.4 | | | 25.9 | | | 86.0 | | | 142.3 | |
| Approach LOS | | C | | | C | | | F | | | F | |
| Queue Length 50th (ft) | 58 | 280 | | 1 | 246 | 0 | | 91 | | ~264 | ~265 | 0 |
| Queue Length 95th (ft) | 121 | 447 | | 6 | 327 | 26 | | #175 | | #309 | #310 | 8 |
| Internal Link Dist (ft) | | 488 | | | 1362 | | | 192 | | | 235 | |
| Turn Bay Length (ft) | 110 | | | 750 | | 140 | | | | 260 | | |
| Base Capacity (vph) | 246 | 2003 | | 78 | 1625 | 1009 | | 184 | | 295 | 295 | 568 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.44 | 0.67 | | 0.01 | 0.59 | 0.20 | | 0.90 | | 1.22 | 1.22 | 0.17 |

## Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 88
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.22
Intersection Signal Delay: 54.1 — Intersection LOS: D
Intersection Capacity Utilization 69.1% — ICU Level of Service C
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

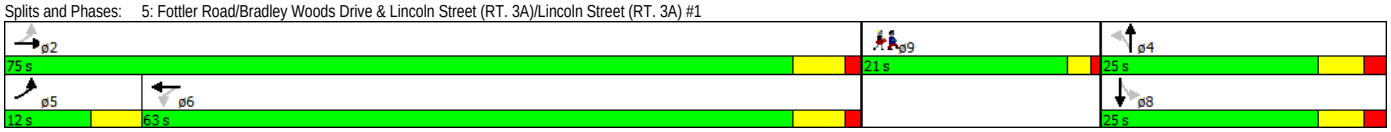
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Talbots Drive/Shipyard Drive East & Lincoln Street (RT. 3A)

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 15 | 1630 | 85 | 55 | 1020 | 25 | 65 | 25 | 70 | 15 | 10 | 10 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 0 | | 100 | 0 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 3549 | 0 | 0 | 3522 | 0 | 1805 | 1689 | 0 | 0 | 1788 | 0 | |
| Flt Permitted | | 0.940 | | | 0.712 | | 0.725 | | | | 0.815 | | |
| Satd. Flow (perm) | 0 | 3336 | 0 | 0 | 2512 | 0 | 1377 | 1689 | 0 | 0 | 1488 | 0 | |
| Right Turn on Red | | | No | | | No | | | No | | | No | |
| Satd. Flow (RTOR) | | | | | | | | | | | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 1442 | | | 580 | | | 992 | | | 245 | | |
| Travel Time (s) | | 21.8 | | | 8.8 | | | 27.1 | | | 6.7 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.90 | 0.90 | 0.90 | 0.95 | 0.95 | 0.95 | 0.73 | 0.73 | 0.73 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1821 | 0 | 0 | 1222 | 0 | 68 | 100 | 0 | 0 | 49 | 0 | |
| Turn Type | pm+pt | NA | | Perm | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | | 6 | | | 4 | | | 8 | | 9 |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | | |
| Detector Phase | 2 5 | 2 5 | | 6 | 6 | | 4 | 4 | | 8 | 8 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 5.5 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 1.0 |
| Minimum Split (s) | 10.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 21.0 |
| Total Split (s) | 12.0 | 75.0 | | 63.0 | 63.0 | | 25.0 | 25.0 | | 25.0 | 25.0 | | 21.0 |
| Total Split (%) | 9.9% | 62.0% | | 52.1% | 52.1% | | 20.7% | 20.7% | | 20.7% | 20.7% | | 17% |
| Yellow Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 0.0 | 1.5 | | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | |
| Lead/Lag | Lead | | | Lag | Lag | | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | Yes | | | | | | | | |
| Recall Mode | None | Min | | Min | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | | 71.9 | | | 59.9 | | 10.2 | 10.2 | | | 10.2 | | |
| Actuated g/C Ratio | | 0.76 | | | 0.64 | | 0.11 | 0.11 | | | 0.11 | | |
| v/c Ratio | | 0.71 | | | 0.77 | | 0.46 | 0.55 | | | 0.30 | | |
| Control Delay | | 8.0 | | | 16.8 | | 48.0 | 50.1 | | | 42.1 | | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Delay | | 8.0 | | | 16.8 | | 48.0 | 50.1 | | | 42.1 | | |
| LOS | | A | | | B | | D | D | | | D | | |
| Approach Delay | | 8.0 | | | 16.8 | | | 49.2 | | | 42.1 | | |
| Approach LOS | | A | | | B | | | D | | | D | | |
| Queue Length 50th (ft) | | 215 | | | 241 | | 37 | 55 | | | 26 | | |
| Queue Length 95th (ft) | | 343 | | | 378 | | 79 | 106 | | | 49 | | |
| Internal Link Dist (ft) | | 1362 | | | 500 | | | 912 | | | 165 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 2560 | | | 1597 | | 278 | 341 | | | 300 | | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Reduced v/c Ratio | | 0.71 | | | 0.77 | | 0.24 | 0.29 | | | 0.16 | | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 121 | |
| Actuated Cycle Length: 94.2 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.77 | |
| Intersection Signal Delay: 13.9 | Intersection LOS: B |
| Intersection Capacity Utilization 88.6% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Fottler Road/Bradley Woods Drive & Lincoln Street (RT. 3A)/Lincoln Street (RT. 3A) #1



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 1 | 1820 | 5 | 10 | 1110 | 5 | 0 | 0 | 10 | 1 | 0 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 3574 | 0 | 0 | 3571 | 0 | 0 | 1644 | 0 | 0 | 1728 | 0 |
| Flt Permitted | | | | | | | | | | | 0.976 | |
| Satd. Flow (perm) | 0 | 3574 | 0 | 0 | 3571 | 0 | 0 | 1644 | 0 | 0 | 1728 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1334 | | | 458 | | | 528 | | | 77 | |
| Travel Time (s) | | 30.3 | | | 10.4 | | | 12.0 | | | 1.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.89 | 0.50 | 0.50 | 0.50 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 1% | 1% | 0% | 0% | 0% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1984 | 0 | 0 | 1264 | 0 | 0 | 20 | 0 | 0 | 2 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 61.2% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 1 | 1820 | 5 | 10 | 1110 | 5 | 0 | 0 | 10 | 1 | 0 | 1 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.89 | 0.50 | 0.50 | 0.50 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 1 | 1978 | 5 | 11 | 1247 | 6 | 0 | 0 | 20 | 1 | 0 | 1 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1253 | | | 1984 | | | 2630 | 3258 | 992 | 2284 | 3258 | 626 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1253 | | | 1984 | | | 2630 | 3258 | 992 | 2284 | 3258 | 626 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 100 | | | 96 | | | 100 | 100 | 92 | 94 | 100 | 100 |
| cM capacity (veh/h) | 557 | | | 291 | | | 11 | 9 | 248 | 20 | 9 | 432 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 990 | 995 | 635 | 629 | 20 | 2 |
| Volume Left | 1 | 0 | 11 | 0 | 0 | 1 |
| Volume Right | 0 | 5 | 0 | 6 | 20 | 1 |
| cSH | 557 | 1700 | 291 | 1700 | 248 | 37 |
| Volume to Capacity | 0.00 | 0.59 | 0.04 | 0.37 | 0.08 | 0.06 |
| Queue Length 95th (ft) | 0 | 0 | 3 | 0 | 7 | 4 |
| Control Delay (s) | 0.1 | 0.0 | 1.4 | 0.0 | 20.8 | 106.9 |
| Lane LOS | A | | A | | C | F |
| Approach Delay (s) | 0.0 | | 0.7 | | 20.8 | 106.9 |
| Approach LOS | | | | | C | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 0.5 | | |
| Intersection Capacity Utilization | | 61.2% | ICU Level of Service | B |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 125 | 420 | 15 | 175 | 140 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 0 | | | 0 | 0 | 0 |
| Storage Lanes | 0 | | | 0 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Satd. Flow (prot) | 0 | 1879 | 1664 | 0 | 1787 | 0 |
| Flt Permitted | | 0.989 | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1879 | 1664 | 0 | 1787 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 450 | 104 | | 285 | |
| Travel Time (s) | | 10.2 | 2.4 | | 6.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.80 | 0.80 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 1% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 580 | 238 | 0 | 159 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 58.4% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 125 | 420 | 15 | 175 | 140 | 0 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.80 | 0.80 | 0.88 | 0.88 |
| Hourly flow rate (vph) | 133 | 447 | 19 | 219 | 159 | 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) | | | 770 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 238 | | | | 841 | 128 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 238 | | | | 841 | 128 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 90 | | | | 47 | 100 |
| cM capacity (veh/h) | 1341 | | | | 303 | 925 |

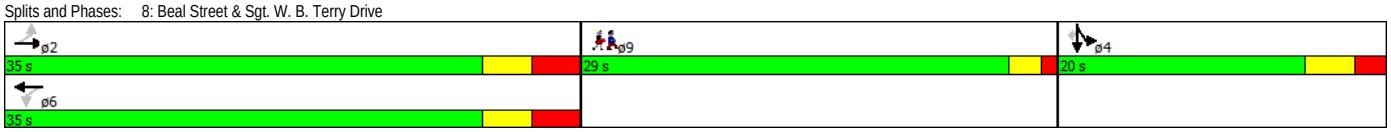
| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 580 | 238 | 159 |
| Volume Left | 133 | 0 | 159 |
| Volume Right | 0 | 219 | 0 |
| cSH | 1341 | 1700 | 303 |
| Volume to Capacity | 0.10 | 0.14 | 0.53 |
| Queue Length 95th (ft) | 8 | 0 | 72 |
| Control Delay (s) | 2.7 | 0.0 | 29.3 |
| Lane LOS | A | | D |
| Approach Delay (s) | 2.7 | 0.0 | 29.3 |
| Approach LOS | | | D |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 6.4 | | |
| Intersection Capacity Utilization | 58.4% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 60 | 495 | 10 | 20 | 225 | 265 | 0 | 0 | 0 | 240 | 2 | 35 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 10 | 12 | 12 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 50 | | 0 | 60 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 1887 | 0 | 0 | 1746 | 0 | 0 | 0 | 0 | 0 | 1793 | 1507 | |
| Flt Permitted | | 0.888 | | | 0.966 | | | | | | 0.953 | | |
| Satd. Flow (perm) | 0 | 1684 | 0 | 0 | 1690 | 0 | 0 | 0 | 0 | 0 | 1793 | 1507 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 71 | | | | | | | 78 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 666 | | | 1855 | | | 999 | | | 423 | | |
| Travel Time (s) | | 18.2 | | | 50.6 | | | 27.2 | | | 11.5 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.92 | 0.92 | 0.92 | 0.78 | 0.78 | 0.78 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 0% | 0% | 0% | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 628 | 0 | 0 | 614 | 0 | 0 | 0 | 0 | 0 | 311 | 45 | |
| Turn Type | Perm | NA | | Perm | NA | | | | | Split | NA | Perm | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | | 9 |
| Permitted Phases | 2 | | | 6 | | | | | | | | 4 | |
| Detector Phase | 2 | 2 | | 6 | 6 | | | | | 4 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | | | | 6.0 | 6.0 | 6.0 | 5.0 |
| Minimum Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | | | | 11.0 | 11.0 | 11.0 | 29.0 |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | | | | 20.0 | 20.0 | 20.0 | 29.0 |
| Total Split (%) | 41.7% | 41.7% | | 41.7% | 41.7% | | | | | 23.8% | 23.8% | 23.8% | 35% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 2.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | | |
| Recall Mode | Min | Min | | Min | Min | | | | | None | None | None | None |
| Act Effct Green (s) | | 29.0 | | | 29.0 | | | | | | 14.9 | 14.9 | |
| Actuated g/C Ratio | | 0.53 | | | 0.53 | | | | | | 0.27 | 0.27 | |
| v/c Ratio | | 0.71 | | | 0.66 | | | | | | 0.64 | 0.10 | |
| Control Delay | | 15.2 | | | 12.6 | | | | | | 24.7 | 2.6 | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Delay | | 15.2 | | | 12.6 | | | | | | 24.7 | 2.6 | |
| LOS | | B | | | B | | | | | | C | A | |
| Approach Delay | | 15.2 | | | 12.6 | | | | | | 21.9 | | |
| Approach LOS | | B | | | B | | | | | | C | | |
| Queue Length 50th (ft) | | 139 | | | 114 | | | | | | 89 | 0 | |
| Queue Length 95th (ft) | | 247 | | | 180 | | | | | | 132 | 7 | |
| Internal Link Dist (ft) | | 586 | | | 1775 | | | 919 | | | 343 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 890 | | | 926 | | | | | | 490 | 468 | |
| 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 | | 0.71 | | | 0.66 | | | | | | 0.63 | 0.10 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 84 | |
| Actuated Cycle Length: 54.9 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.71 | |
| Intersection Signal Delay: 15.7 | Intersection LOS: B |
| Intersection Capacity Utilization 73.7% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Beal Street & Sgt. W. B. Terry Drive



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 50 | 735 | 20 | 5 | 430 | 85 | 5 | 5 | 5 | 140 | 5 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 60 | 0 | | 0 | 0 | | 120 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 0 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 1870 | 0 | 0 | 1879 | 1599 | 0 | 1684 | 0 | 0 | 1795 | 1599 |
| Flt Permitted | | 0.997 | | | 0.999 | | | 0.984 | | | 0.954 | |
| Satd. Flow (perm) | 0 | 1870 | 0 | 0 | 1879 | 1599 | 0 | 1684 | 0 | 0 | 1795 | 1599 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1855 | | | 729 | | | 197 | | | 1407 | |
| Travel Time (s) | | 42.2 | | | 16.6 | | | 4.5 | | | 32.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.84 | 0.84 | 0.84 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 1% | 1% | 6% | 6% | 6% | 1% | 1% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 831 | 0 | 0 | 518 | 101 | 0 | 18 | 0 | 0 | 181 | 31 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 90.3% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 50 | 735 | 20 | 5 | 430 | 85 | 5 | 5 | 5 | 140 | 5 | 25 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.84 | 0.84 | 0.84 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Hourly flow rate (vph) | 52 | 758 | 21 | 6 | 512 | 101 | 6 | 6 | 6 | 175 | 6 | 31 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 512 | | | 778 | | | 1398 | 1395 | 768 | 1404 | 1405 | 512 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 512 | | | 778 | | | 1398 | 1395 | 768 | 1404 | 1405 | 512 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.2 | 6.6 | 6.3 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.6 | 4.1 | 3.4 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 95 | | | 99 | | | 94 | 95 | 98 | 0 | 95 | 94 |
| cM capacity (veh/h) | 1059 | | | 843 | | | 101 | 131 | 395 | 107 | 132 | 564 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | NE 1 | SW 1 |
|---|---|---|---|---|---|
| Volume Total | 830 | 518 | 101 | 19 | 212 |
| Volume Left | 52 | 6 | 0 | 6 | 175 |
| Volume Right | 21 | 0 | 101 | 6 | 31 |
| cSH | 1059 | 843 | 1700 | 150 | 123 |
| Volume to Capacity | 0.05 | 0.01 | 0.06 | 0.13 | 1.73 |
| Queue Length 95th (ft) | 4 | 1 | 0 | 10 | 403 |
| Control Delay (s) | 1.3 | 0.2 | 0.0 | 32.5 | 420.3 |
| Lane LOS | A | A | | D | F |
| Approach Delay (s) | 1.3 | 0.2 | | 32.5 | 420.3 |
| Approach LOS | | | | D | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 54.2 | | |
| Intersection Capacity Utilization | | 90.3% | ICU Level of Service | E |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 500 | 60 | 70 | 190 | 0 | 65 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 1 | 0 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 1837 | 0 | 0 | 1839 | 1611 | 0 |
| Flt Permitted | | | | 0.987 | | |
| Satd. Flow (perm) | 1837 | 0 | 0 | 1839 | 1611 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 104 | | | 666 | 328 | |
| Travel Time (s) | 2.4 | | | 15.1 | 7.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 608 | 0 | 0 | 283 | 71 | 0 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 57.9% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 500 | 60 | 70 | 190 | 0 | 65 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 543 | 65 | 76 | 207 | 0 | 71 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 666 | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 609 | | 935 | 576 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 609 | | 935 | 576 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 92 | | 100 | 86 |
| cM capacity (veh/h) | | | 970 | | 272 | 517 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 609 | 283 | 71 |
| Volume Left | 0 | 76 | 0 |
| Volume Right | 65 | 0 | 71 |
| cSH | 1700 | 970 | 517 |
| Volume to Capacity | 0.36 | 0.08 | 0.14 |
| Queue Length 95th (ft) | 0 | 6 | 12 |
| Control Delay (s) | 0.0 | 3.0 | 13.1 |
| Lane LOS | | A | B |
| Approach Delay (s) | 0.0 | 3.0 | 13.1 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 1.8 | |
| Intersection Capacity Utilization | | 57.9% | ICU Level of Service B |
| Analysis Period (min) | | 15 | |

| Lane Group | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 1470 | 435 | 0 | 1550 | 0 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 0 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 3453 | 0 | 0 | 3539 | 0 | 1565 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 3453 | 0 | 0 | 3539 | 0 | 1565 |
| Link Speed (mph) | 45 | | | 45 | 30 | |
| Link Distance (ft) | 228 | | | 502 | 404 | |
| Travel Time (s) | 3.5 | | | 7.6 | 9.2 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.91 | 0.91 | 0.58 | 0.58 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 2% | 2% | 5% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 2027 | 0 | 0 | 1703 | 0 | 34 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 64.5% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 1470 | 435 | 0 | 1550 | 0 | 20 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.94 | 0.94 | 0.91 | 0.91 | 0.58 | 0.58 |
| Hourly flow rate (vph) | 1564 | 463 | 0 | 1703 | 0 | 34 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 502 | | |
| pX, platoon unblocked | | | | | 0.68 | |
| vC, conflicting volume | | | 2027 | | 2647 | 1013 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 2027 | | 2480 | 1013 |
| tC, single (s) | | | 4.1 | | 6.9 | 7.0 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 100 | | 100 | 85 |
| cM capacity (veh/h) | | | 276 | | 16 | 231 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NW 1 |
|---|---|---|---|---|---|
| Volume Total | 1043 | 984 | 852 | 852 | 34 |
| Volume Left | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 463 | 0 | 0 | 34 |
| cSH | 1700 | 1700 | 1700 | 1700 | 231 |
| Volume to Capacity | 0.61 | 0.58 | 0.50 | 0.50 | 0.15 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 13 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 23.3 |
| Lane LOS | | | | | C |
| Approach Delay (s) | 0.0 | | 0.0 | | 23.3 |
| Approach LOS | | | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.2 | | |
| Intersection Capacity Utilization | 64.5% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 185 | 1230 | 65 | 120 | 1210 | 20 | 195 | 35 | 90 | 15 | 15 | 140 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 265 | | 0 | 220 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3546 | 0 | 1770 | 3414 | 0 | 1787 | 1678 | 0 | 1770 | 1611 | 0 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.538 | | | 0.633 | | | |
| Satd. Flow (perm) | 1728 | 3546 | 0 | 1770 | 3414 | 0 | 1012 | 1678 | 0 | 1179 | 1611 | 0 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 5 | | | 1 | | | 90 | | | 184 | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 502 | | | 804 | | | 187 | | | 222 | | |
| Travel Time (s) | | 7.6 | | | 12.2 | | | 5.1 | | | 6.1 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.95 | 0.95 | 0.95 | 0.81 | 0.81 | 0.81 | 0.76 | 0.76 | 0.76 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% | 2% | 2% | 2% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 191 | 1335 | 0 | 126 | 1295 | 0 | 241 | 154 | 0 | 20 | 204 | 0 | |
| Turn Type | Prot | NA | | Prot | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 27.0 |
| Total Split (s) | 15.0 | 50.0 | | 20.0 | 55.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | | 27.0 |
| Total Split (%) | 11.8% | 39.4% | | 15.7% | 43.3% | | 23.6% | 23.6% | | 23.6% | 23.6% | | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | | Yes | | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | 9.0 | 45.2 | | 11.1 | 47.3 | | 24.0 | 24.0 | | 24.0 | 24.0 | | |
| Actuated g/C Ratio | 0.09 | 0.46 | | 0.11 | 0.48 | | 0.24 | 0.24 | | 0.24 | 0.24 | | |
| v/c Ratio | 1.21 | 0.82 | | 0.63 | 0.79 | | 0.98 | 0.32 | | 0.07 | 0.38 | | |
| Control Delay | 179.6 | 28.5 | | 56.1 | 25.6 | | 91.3 | 16.0 | | 30.3 | 8.7 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Delay | 179.6 | 28.5 | | 56.1 | 25.6 | | 91.3 | 16.0 | | 30.3 | 8.7 | | |
| LOS | F | C | | E | C | | F | B | | C | A | | |
| Approach Delay | | 47.4 | | | 28.3 | | | 62.0 | | | 10.6 | | |
| Approach LOS | | D | | | C | | | E | | | B | | |
| Queue Length 50th (ft) | ~151 | 369 | | 78 | 343 | | 154 | 32 | | 10 | 10 | | |
| Queue Length 95th (ft) | #289 | 487 | | 135 | 432 | | #264 | 71 | | 25 | 40 | | |
| Internal Link Dist (ft) | | 422 | | | 724 | | | 107 | | | 142 | | |
| Turn Bay Length (ft) | 265 | | | 220 | | | | | | | | | |
| Base Capacity (vph) | 158 | 1632 | | 252 | 1703 | | 247 | 478 | | 287 | 532 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 1.21 | 0.82 | | 0.50 | 0.76 | | 0.98 | 0.32 | | 0.07 | 0.38 | | |

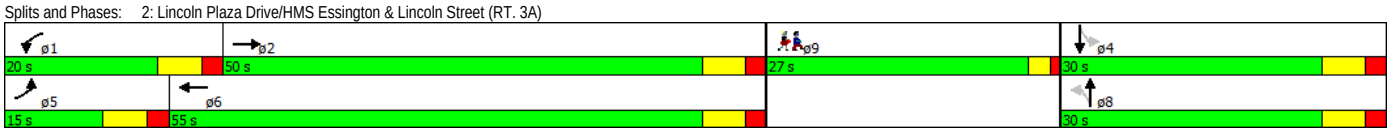
## Intersection Summary

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 98.3
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.21
Intersection Signal Delay: 39.1 — Intersection LOS: D
Intersection Capacity Utilization 84.6% — ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 2: Lincoln Plaza Drive/HMS Essington & Lincoln Street (RT. 3A)

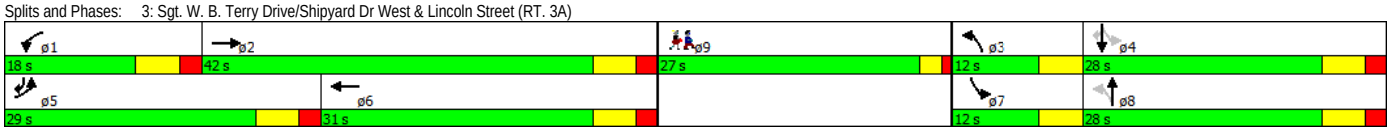


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 210 | 1090 | 20 | 65 | 995 | 115 | 190 | 135 | 60 | 95 | 75 | 155 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 330 | | 0 | 250 | | 0 | 265 | | 0 | 300 | | 0 | |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 1728 | 3564 | 0 | 1752 | 4955 | 0 | 1805 | 1813 | 0 | 1787 | 1881 | 1599 | |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.559 | | | 0.534 | | | |
| Satd. Flow (perm) | 1728 | 3564 | 0 | 1752 | 4955 | 0 | 1062 | 1813 | 0 | 1005 | 1881 | 1599 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 1 | | | 14 | | | 15 | | | | 167 | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 804 | | | 622 | | | 166 | | | 156 | | |
| Travel Time (s) | | 12.2 | | | 9.4 | | | 4.5 | | | 4.3 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.91 | 0.91 | 0.91 | 0.83 | 0.83 | 0.83 | 0.93 | 0.93 | 0.93 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 3% | 3% | 3% | 0% | 0% | 0% | 1% | 1% | 1% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 214 | 1132 | 0 | 71 | 1219 | 0 | 229 | 235 | 0 | 102 | 81 | 167 | |
| Turn Type | Prot | NA | | Prot | NA | | pm+pt | NA | | pm+pt | NA | pm+ov | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | 9 |
| Permitted Phases | | | | | | | 8 | | | 4 | | 4 | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | 6.0 | 1.0 |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 18.0 | | 10.0 | 12.0 | | 10.0 | 12.0 | 12.0 | 27.0 |
| Total Split (s) | 29.0 | 42.0 | | 18.0 | 31.0 | | 12.0 | 28.0 | | 12.0 | 28.0 | 29.0 | 27.0 |
| Total Split (%) | 22.8% | 33.1% | | 14.2% | 24.4% | | 9.4% | 22.0% | | 9.4% | 22.0% | 22.8% | 21% |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 2.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None | None |
| Act Effct Green (s) | 15.3 | 38.2 | | 8.4 | 27.9 | | 23.4 | 15.4 | | 21.6 | 14.3 | 32.5 | |
| Actuated g/C Ratio | 0.18 | 0.44 | | 0.10 | 0.32 | | 0.27 | 0.18 | | 0.25 | 0.17 | 0.38 | |
| v/c Ratio | 0.70 | 0.72 | | 0.42 | 0.75 | | 0.62 | 0.70 | | 0.32 | 0.26 | 0.24 | |
| Control Delay | 47.3 | 26.4 | | 47.6 | 31.8 | | 32.8 | 44.1 | | 24.6 | 34.4 | 3.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | |
| Total Delay | 47.3 | 26.4 | | 47.6 | 31.8 | | 32.8 | 44.1 | | 24.6 | 34.4 | 3.2 | |
| LOS | D | C | | D | C | | C | D | | C | C | A | |
| Approach Delay | | 29.7 | | | 32.6 | | | 38.5 | | | 16.7 | | |
| Approach LOS | | C | | | C | | | D | | | B | | |
| Queue Length 50th (ft) | 116 | 290 | | 39 | 224 | | 99 | 119 | | 41 | 40 | 0 | |
| Queue Length 95th (ft) | 197 | #472 | | 86 | #372 | | 153 | 184 | | 81 | 83 | 32 | |
| Internal Link Dist (ft) | | 724 | | | 542 | | | 86 | | | 76 | | |
| Turn Bay Length (ft) | 330 | | | 250 | | | 265 | | | 300 | | | |
| Base Capacity (vph) | 475 | 1583 | | 251 | 1619 | | 368 | 488 | | 336 | 494 | 846 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.45 | 0.72 | | 0.28 | 0.75 | | 0.62 | 0.48 | | 0.30 | 0.16 | 0.20 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 127
Actuated Cycle Length: 86
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 30.7 — Intersection LOS: C
Intersection Capacity Utilization 70.1% — ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

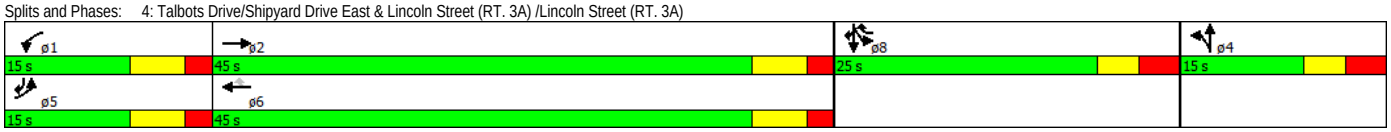
Splits and Phases: 3: Sgt. W. B. Terry Drive/Shipyard Dr West & Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 80 | 1160 | 5 | 1 | 1100 | 225 | 2 | 0 | 0 | 250 | 5 | 75 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 110 | | 0 | 750 | | 140 | 0 | | 0 | 260 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 0 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 1787 | 3571 | 0 | 1711 | 3539 | 1583 | 0 | 1805 | 0 | 1681 | 1688 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.950 | | 0.950 | 0.954 | |
| Satd. Flow (perm) | 1787 | 3571 | 0 | 1711 | 3539 | 1583 | 0 | 1805 | 0 | 1681 | 1688 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 247 | | | | | | 98 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 568 | | | 1442 | | | 272 | | | 315 | |
| Travel Time (s) | | 8.6 | | | 21.8 | | | 7.4 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.91 | 0.91 | 0.91 | 0.50 | 0.50 | 0.50 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | 49% | | |
| Lane Group Flow (vph) | 85 | 1239 | 0 | 1 | 1209 | 247 | 0 | 4 | 0 | 140 | 140 | 82 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Split | NA | | Split | NA | pt+ov |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Permitted Phases | | | | | | 6 | | | | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 8 | 4 | 4 | | 8 | 8 | 8 5 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | | 6.0 | 12.0 | 6.0 | 4.0 | 4.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 12.0 | 18.0 | | 12.0 | 37.0 | 12.0 | 10.0 | 10.0 | | 12.0 | 12.0 | |
| Total Split (s) | 15.0 | 45.0 | | 15.0 | 45.0 | 25.0 | 15.0 | 15.0 | | 25.0 | 25.0 | |
| Total Split (%) | 15.0% | 45.0% | | 15.0% | 45.0% | 25.0% | 15.0% | 15.0% | | 25.0% | 25.0% | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | None | None | None | | None | None | |
| Act Effct Green (s) | 8.2 | 40.4 | | 6.7 | 31.8 | 52.6 | | 5.3 | | 11.8 | 11.8 | 25.9 |
| Actuated g/C Ratio | 0.12 | 0.59 | | 0.10 | 0.46 | 0.76 | | 0.08 | | 0.17 | 0.17 | 0.38 |
| v/c Ratio | 0.40 | 0.59 | | 0.01 | 0.74 | 0.20 | | 0.03 | | 0.49 | 0.49 | 0.13 |
| Control Delay | 41.1 | 12.5 | | 39.0 | 20.8 | 1.1 | | 40.0 | | 36.6 | 36.5 | 3.2 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.1 | 12.5 | | 39.0 | 20.8 | 1.1 | | 40.0 | | 36.6 | 36.5 | 3.2 |
| LOS | D | B | | D | C | A | | D | | D | D | A |
| Approach Delay | | 14.3 | | | 17.4 | | | 40.0 | | | 29.0 | |
| Approach LOS | | B | | | B | | | D | | | C | |
| Queue Length 50th (ft) | 35 | 123 | | 0 | 213 | 0 | | 2 | | 60 | 60 | 0 |
| Queue Length 95th (ft) | 99 | 424 | | 6 | 437 | 23 | | 7 | | 141 | 141 | 19 |
| Internal Link Dist (ft) | | 488 | | | 1362 | | | 192 | | | 235 | |
| Turn Bay Length (ft) | 110 | | | 750 | | 140 | | | | 260 | | |
| Base Capacity (vph) | 261 | 2452 | | 250 | 2176 | 1353 | | 264 | | 519 | 521 | 689 |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.33 | 0.51 | | 0.00 | 0.56 | 0.18 | | 0.02 | | 0.27 | 0.27 | 0.12 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 100 | |
| Actuated Cycle Length: 69 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.74 | |
| Intersection Signal Delay: 17.5 | Intersection LOS: B |
| Intersection Capacity Utilization 58.8% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Talbots Drive/Shipyard Drive East & Lincoln Street (RT. 3A) /Lincoln Street (RT. 3A)



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 15 | 1355 | 50 | 60 | 1270 | 20 | 60 | 15 | 65 | 20 | 5 | 10 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 0 | | 100 | 0 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 0 | | 0 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 3553 | 0 | 0 | 3525 | 0 | 1752 | 1621 | 0 | 0 | 1775 | 0 | |
| Flt Permitted | | 0.931 | | | 0.763 | | 0.725 | | | | 0.774 | | |
| Satd. Flow (perm) | 0 | 3311 | 0 | 0 | 2695 | 0 | 1337 | 1621 | 0 | 0 | 1413 | 0 | |
| Right Turn on Red | | | No | | | No | | | No | | | No | |
| Satd. Flow (RTOR) | | | | | | | | | | | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 1442 | | | 580 | | | 992 | | | 245 | | |
| Travel Time (s) | | 21.8 | | | 8.8 | | | 27.1 | | | 6.7 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.87 | 0.87 | 0.87 | 0.90 | 0.90 | 0.90 | 0.71 | 0.71 | 0.71 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 3% | 3% | 3% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1464 | 0 | 0 | 1552 | 0 | 67 | 89 | 0 | 0 | 49 | 0 | |
| Turn Type | pm+pt | NA | | Perm | NA | | Perm | NA | | Perm | NA | | |
| Protected Phases | 5 | 2 | | | 6 | | | 4 | | | 8 | | 9 |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | | |
| Detector Phase | 2 5 | 2 5 | | 6 | 6 | | 4 | 4 | | 8 | 8 | | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 5.5 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | | 1.0 |
| Minimum Split (s) | 10.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 14.0 | 14.0 | | 18.0 |
| Total Split (s) | 10.0 | 72.0 | | 62.0 | 62.0 | | 28.0 | 28.0 | | 28.0 | 28.0 | | 18.0 |
| Total Split (%) | 8.5% | 61.0% | | 52.5% | 52.5% | | 23.7% | 23.7% | | 23.7% | 23.7% | | 15% |
| Yellow Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 2.0 |
| All-Red Time (s) | 0.0 | 1.5 | | 1.5 | 1.5 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | | | 6.0 | | |
| Lead/Lag | Lead | | | Lag | Lag | | | | | | | | |
| Lead-Lag Optimize? | Yes | | | Yes | Yes | | | | | | | | |
| Recall Mode | None | Min | | Min | Min | | None | None | | None | None | | None |
| Act Effct Green (s) | | 68.9 | | | 58.9 | | 9.8 | 9.8 | | | 9.8 | | |
| Actuated g/C Ratio | | 0.76 | | | 0.65 | | 0.11 | 0.11 | | | 0.11 | | |
| v/c Ratio | | 0.58 | | | 0.89 | | 0.47 | 0.51 | | | 0.32 | | |
| Control Delay | | 6.0 | | | 22.0 | | 47.4 | 47.5 | | | 41.6 | | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | |
| Total Delay | | 6.0 | | | 22.0 | | 47.4 | 47.5 | | | 41.6 | | |
| LOS | | A | | | C | | D | D | | | D | | |
| Approach Delay | | 6.0 | | | 22.0 | | | 47.4 | | | 41.6 | | |
| Approach LOS | | A | | | C | | | D | | | D | | |
| Queue Length 50th (ft) | | 137 | | | 336 | | 35 | 47 | | | 25 | | |
| Queue Length 95th (ft) | | 220 | | | #557 | | 76 | 94 | | | 46 | | |
| Internal Link Dist (ft) | | 1362 | | | 500 | | | 912 | | | 165 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 2524 | | | 1748 | | 325 | 394 | | | 343 | | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | | 0 | | |
| Reduced v/c Ratio | | 0.58 | | | 0.89 | | 0.21 | 0.23 | | | 0.14 | | |

## Intersection Summary

Area Type: Other
Cycle Length: 118
Actuated Cycle Length: 90.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 16.2 — Intersection LOS: B
Intersection Capacity Utilization 98.7% — ICU Level of Service F
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Fottler Road/Bradley Woods Drive & Lincoln Street (RT. 3A)

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 0 | 1390 | 0 | 10 | 1325 | 1 | 0 | 1 | 10 | 0 | 0 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 3574 | 0 | 0 | 3539 | 0 | 0 | 1662 | 0 | 0 | 1644 | 0 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3574 | 0 | 0 | 3539 | 0 | 0 | 1662 | 0 | 0 | 1644 | 0 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1334 | | | 458 | | | 528 | | | 93 | |
| Travel Time (s) | | 30.3 | | | 10.4 | | | 12.0 | | | 2.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.87 | 0.87 | 0.87 | 0.81 | 0.81 | 0.81 | 0.25 | 0.25 | 0.25 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 2% | 2% | 2% | 0% | 0% | 0% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1463 | 0 | 0 | 1535 | 0 | 0 | 13 | 0 | 0 | 4 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 53.7% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 1390 | 0 | 10 | 1325 | 1 | 0 | 1 | 10 | 0 | 0 | 1 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.87 | 0.87 | 0.87 | 0.81 | 0.81 | 0.81 | 0.25 | 0.25 | 0.25 |
| Hourly flow rate (vph) | 0 | 1463 | 0 | 11 | 1523 | 1 | 0 | 1 | 12 | 0 | 0 | 4 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 1524 | | | 1463 | | | 2252 | 3010 | 732 | 2291 | 3010 | 762 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 1524 | | | 1463 | | | 2252 | 3010 | 732 | 2291 | 3010 | 762 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 100 | | | 97 | | | 100 | 91 | 97 | 100 | 100 | 99 |
| cM capacity (veh/h) | 438 | | | 458 | | | 23 | 13 | 368 | 19 | 13 | 352 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|
| Volume Total | 732 | 732 | 773 | 763 | 14 | 4 |
| Volume Left | 0 | 0 | 11 | 0 | 0 | 0 |
| Volume Right | 0 | 0 | 0 | 1 | 12 | 4 |
| cSH | 438 | 1700 | 458 | 1700 | 107 | 352 |
| Volume to Capacity | 0.00 | 0.43 | 0.03 | 0.45 | 0.13 | 0.01 |
| Queue Length 95th (ft) | 0 | 0 | 2 | 0 | 10 | 1 |
| Control Delay (s) | 0.0 | 0.0 | 0.8 | 0.0 | 43.4 | 15.3 |
| Lane LOS | | | A | | E | C |
| Approach Delay (s) | 0.0 | | 0.4 | | 43.4 | 15.3 |
| Approach LOS | | | | | E | C |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 0.4 | | |
| Intersection Capacity Utilization | | 53.7% | ICU Level of Service | A |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 145 | 290 | 20 | 135 | 105 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 0 | | | 0 | 0 | 0 |
| Storage Lanes | 0 | | | 0 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Satd. Flow (prot) | 0 | 1851 | 1659 | 0 | 1807 | 0 |
| Flt Permitted | | 0.984 | | | 0.953 | |
| Satd. Flow (perm) | 0 | 1851 | 1659 | 0 | 1807 | 0 |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 404 | 86 | | 172 | |
| Travel Time (s) | | 9.2 | 2.0 | | 3.9 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.88 | 0.88 | 0.95 | 0.95 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 495 | 163 | 0 | 119 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 48.6% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 145 | 290 | 20 | 135 | 105 | 2 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.88 | 0.88 | 0.95 | 0.95 | 0.90 | 0.90 |
| Hourly flow rate (vph) | 165 | 330 | 21 | 142 | 117 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | 770 | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 163 | | | | 751 | 92 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 163 | | | | 751 | 92 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 88 | | | | 65 | 100 |
| cM capacity (veh/h) | 1422 | | | | 337 | 971 |

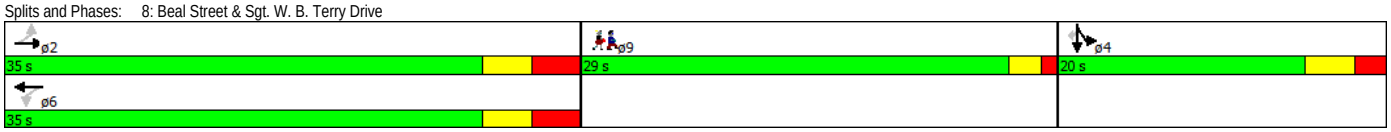
| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 494 | 163 | 119 |
| Volume Left | 165 | 0 | 117 |
| Volume Right | 0 | 142 | 2 |
| cSH | 1422 | 1700 | 341 |
| Volume to Capacity | 0.12 | 0.10 | 0.35 |
| Queue Length 95th (ft) | 10 | 0 | 38 |
| Control Delay (s) | 3.4 | 0.0 | 21.1 |
| Lane LOS | A | | C |
| Approach Delay (s) | 3.4 | 0.0 | 21.1 |
| Approach LOS | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 5.4 | | |
| Intersection Capacity Utilization | 48.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | ø9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | | |
| Volume (vph) | 45 | 365 | 10 | 5 | 170 | 290 | 0 | 0 | 0 | 105 | 1 | 10 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Width (ft) | 10 | 12 | 12 | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 10 | |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Storage Length (ft) | 50 | | 0 | 60 | | 0 | 0 | | 0 | 0 | | 0 | |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 1 | |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | | |
| Satd. Flow (prot) | 0 | 1885 | 0 | 0 | 1739 | 0 | 0 | 0 | 0 | 0 | 1811 | 1507 | |
| Flt Permitted | | 0.906 | | | 0.994 | | | | | | 0.953 | | |
| Satd. Flow (perm) | 0 | 1716 | 0 | 0 | 1730 | 0 | 0 | 0 | 0 | 0 | 1811 | 1507 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | 2 | | | 108 | | | | | | | 78 | |
| Link Speed (mph) | | 30 | | | 30 | | | 25 | | | 25 | | |
| Link Distance (ft) | | 684 | | | 1855 | | | 212 | | | 423 | | |
| Travel Time (s) | | 15.5 | | | 42.2 | | | 5.8 | | | 11.5 | | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | | |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.89 | 0.89 | 0.89 | 0.92 | 0.92 | 0.92 | 0.72 | 0.72 | 0.72 | |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 2% | 2% | 0% | 0% | 0% | |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Parking (#/hr) | | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 494 | 0 | 0 | 523 | 0 | 0 | 0 | 0 | 0 | 147 | 14 | |
| Turn Type | Perm | NA | | Perm | NA | | | | | Split | NA | Perm | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | | 9 |
| Permitted Phases | 2 | | | 6 | | | | | | | | 4 | |
| Detector Phase | 2 | 2 | | 6 | 6 | | | | | 4 | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | | | | 6.0 | 6.0 | 6.0 | 5.0 |
| Minimum Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | | | | 11.0 | 11.0 | 11.0 | 29.0 |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | | | | 20.0 | 20.0 | 20.0 | 29.0 |
| Total Split (%) | 41.7% | 41.7% | | 41.7% | 41.7% | | | | | 23.8% | 23.8% | 23.8% | 35% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 2.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | | | | 2.0 | 2.0 | 2.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | | | | None | None | None | None |
| Act Effct Green (s) | | 22.6 | | | 22.6 | | | | | | 8.7 | 8.7 | |
| Actuated g/C Ratio | | 0.61 | | | 0.61 | | | | | | 0.24 | 0.24 | |
| v/c Ratio | | 0.47 | | | 0.48 | | | | | | 0.35 | 0.03 | |
| Control Delay | | 8.3 | | | 6.8 | | | | | | 17.2 | 0.2 | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | 0.0 | 0.0 | |
| Total Delay | | 8.3 | | | 6.8 | | | | | | 17.2 | 0.2 | |
| LOS | | A | | | A | | | | | | B | A | |
| Approach Delay | | 8.3 | | | 6.8 | | | | | | 15.7 | | |
| Approach LOS | | A | | | A | | | | | | B | | |
| Queue Length 50th (ft) | | 63 | | | 50 | | | | | | 28 | 0 | |
| Queue Length 95th (ft) | | 128 | | | 120 | | | | | | 58 | 0 | |
| Internal Link Dist (ft) | | 604 | | | 1775 | | | 132 | | | 343 | | |
| Turn Bay Length (ft) | | | | | | | | | | | | | |
| Base Capacity (vph) | | 1321 | | | 1357 | | | | | | 819 | 725 | |
| 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 | | 0.37 | | | 0.39 | | | | | | 0.18 | 0.02 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 84 | | | |
| Actuated Cycle Length: 36.9 | | | |
| Natural Cycle: 70 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 0.48 | | | |
| Intersection Signal Delay: 8.6 | | Intersection LOS: A | |
| Intersection Capacity Utilization 64.1% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 8: Beal Street & Sgt. W. B. Terry Drive



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (vph) | 45 | 430 | 15 | 5 | 430 | 85 | 10 | 5 | 10 | 95 | 5 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 0 | | 60 | 0 | | 0 | 0 | | 120 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 0 | 0 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Satd. Flow (prot) | 0 | 1883 | 0 | 0 | 1898 | 1615 | 0 | 1761 | 0 | 0 | 1779 | 1583 |
| Flt Permitted | | 0.995 | | | 0.999 | | | 0.980 | | | 0.955 | |
| Satd. Flow (perm) | 0 | 1883 | 0 | 0 | 1898 | 1615 | 0 | 1761 | 0 | 0 | 1779 | 1583 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 1855 | | | 729 | | | 197 | | | 1407 | |
| Travel Time (s) | | 42.2 | | | 16.6 | | | 4.5 | | | 32.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.86 | 0.86 | 0.86 | 0.64 | 0.64 | 0.64 | 0.79 | 0.79 | 0.79 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | 0 | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 545 | 0 | 0 | 506 | 99 | 0 | 40 | 0 | 0 | 126 | 38 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 70.4% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 45 | 430 | 15 | 5 | 430 | 85 | 10 | 5 | 10 | 95 | 5 | 30 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.86 | 0.86 | 0.86 | 0.64 | 0.64 | 0.64 | 0.79 | 0.79 | 0.79 |
| Hourly flow rate (vph) | 50 | 478 | 17 | 6 | 500 | 99 | 16 | 8 | 16 | 120 | 6 | 38 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | 5 |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 500 | | | 494 | | | 1101 | 1098 | 486 | 1117 | 1106 | 500 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 500 | | | 494 | | | 1101 | 1098 | 486 | 1117 | 1106 | 500 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 95 | | | 99 | | | 91 | 96 | 97 | 28 | 97 | 93 |
| cM capacity (veh/h) | 1075 | | | 1080 | | | 167 | 204 | 585 | 168 | 200 | 571 |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | NE 1 | SW 1 |
|---|---|---|---|---|---|
| Volume Total | 544 | 506 | 99 | 39 | 165 |
| Volume Left | 50 | 6 | 0 | 16 | 120 |
| Volume Right | 17 | 0 | 99 | 16 | 38 |
| cSH | 1075 | 1080 | 1700 | 246 | 220 |
| Volume to Capacity | 0.05 | 0.01 | 0.06 | 0.16 | 0.75 |
| Queue Length 95th (ft) | 4 | 0 | 0 | 14 | 128 |
| Control Delay (s) | 1.3 | 0.2 | 0.0 | 22.3 | 57.8 |
| Lane LOS | A | A | | C | F |
| Approach Delay (s) | 1.3 | 0.1 | | 22.3 | 57.8 |
| Approach LOS | | | | C | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | | 8.2 | | |
| Intersection Capacity Utilization | | 70.4% | ICU Level of Service | C |
| Analysis Period (min) | | 15 | | |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (vph) | 370 | 25 | 25 | 155 | 0 | 50 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | | 0 | 0 | | 0 | 0 |
| Storage Lanes | | 0 | 0 | | 1 | 0 |
| Taper Length (ft) | | | 25 | | 25 | |
| Satd. Flow (prot) | 1848 | 0 | 0 | 1850 | 1611 | 0 |
| Flt Permitted | | | | 0.993 | | |
| Satd. Flow (perm) | 1848 | 0 | 0 | 1850 | 1611 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 86 | | | 684 | 284 | |
| Travel Time (s) | 2.0 | | | 15.5 | 6.5 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 429 | 0 | 0 | 195 | 54 | 0 |
| Sign Control | Free | | | Free | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 39.3% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Volume (veh/h) | 370 | 25 | 25 | 155 | 0 | 50 |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 402 | 27 | 27 | 168 | 0 | 54 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | None | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | 684 | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 429 | | 639 | 416 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 429 | | 639 | 416 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 98 | | 100 | 91 |
| cM capacity (veh/h) | | | 1130 | | 430 | 637 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 429 | 196 | 54 |
| Volume Left | 0 | 27 | 0 |
| Volume Right | 27 | 0 | 54 |
| cSH | 1700 | 1130 | 637 |
| Volume to Capacity | 0.25 | 0.02 | 0.09 |
| Queue Length 95th (ft) | 0 | 2 | 7 |
| Control Delay (s) | 0.0 | 1.3 | 11.2 |
| Lane LOS | | A | B |
| Approach Delay (s) | 0.0 | 1.3 | 11.2 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 1.3 | |
| Intersection Capacity Utilization | | 39.3% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |