

# DEVENS TRAFFIC MONITORING PROGRAM

## 2008 Biennial Traffic Report

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## 1.0 INTRODUCTION

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### 1.1 Overview

In the Devens Final Environmental Impact Report (FEIR), the Massachusetts Government Land Bank (now MassDevelopment) made a commitment to conduct a traffic monitoring program for study area roadways. The purpose of the monitoring program is to establish a consistent baseline of area wide traffic volumes which can subsequently be monitored to indicate the magnitude and directional distribution of traffic growth associated with the future redevelopment of Devens. The timing of off-site mitigation identified in the FEIR is tied to certain levels of traffic, and the data obtained through the monitoring program will determine when those traffic volumes are being approached.

This document is the seventh in a series of monitoring reports. Traffic data collected for this report is compared with data obtained for the previous 2006 Monitoring Report and other studies conducted in 2004, 2002, 2000, 1998, 1996 and 1990.

## 2.0 EXECUTIVE SUMMARY

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### 2.1 Introduction

This document is the seventh in a series of traffic monitoring reports conducted for Devens. The purpose of this study is to collect current traffic data in and around the Devens area and make comparisons with previous results to assess the impact of Devens development on surrounding communities. The study area includes the communities of Ayer, Boxborough, Groton, Harvard, Lancaster, Littleton, Lunenburg, and Shirley.

A traffic count program was implemented in the Spring (April) of 2008, and the data was evaluated and summarized to compare to the results of previous reports. The traffic monitoring program consisted of the following elements:

- Intersection Vehicle Turning Movement Counts were performed at 14 locations for the hours 7:00 AM – 9:00 AM, and 4:00 PM – 6:00 PM on typical weekdays. The peak traffic volumes occurring in one hour (peak hour) was identified for each intersection for the AM and PM periods. The peak hour traffic volumes were used to perform intersection Level of Service capacity analysis.
- Automatic Traffic Recorder Counts were performed at 14 roadway locations for 48 consecutive hours on typical weekdays. The results are used to determine Average Weekday Traffic Volumes on study roadways.
- Automatic Traffic Recorder Counts were performed at six locations for seven consecutive days. The results are used to determine Average Weekday and Weekend Traffic Volumes on study roadways.
- Vehicle Classification Counts were performed at six locations for a minimum of 48 consecutive hours on typical weekdays. The results are used to identify the number and proportion of trucks on study roadways.
- Trip generation estimates were made based on industry standard data applied to Devens' current development land use. The trip estimates are compared with actual traffic count data to assess the level of Devens' trip making on surrounding roadways compared to typical development levels.

The traffic data was compiled and summarized in various table and charts, and capacity analyses were conducted for the 14 intersection locations where turning movement counts were performed. Details of the traffic data and analysis results are provided in the following sections.



It is noted that major construction activity has been occurring recently within Devens including a \$7 million construction project for Bristol-Myers Squibb and a \$4 million project for Evergreen Solar, Inc. This recent construction activity has generated an atypically high number of construction-related truck and vehicle trips within and around Devens. The traffic volumes collected for this study are therefore skewed (higher) as a result of the short-term construction activity now occurring at Devens.

## 2.2 Findings

To evaluate the 2008 information, the traffic volume data and capacity analysis results were compared to the previous count results, including the previous year 2006 results. Traffic volume counts at Devens' gates were compared with previous site generation and with build-out projections. The traffic volume and trip generation findings are summarized below:

- The occupied development on Devens has increased from 3,561,634 square feet in 2006 to 3,965,578 square feet in 2008, an increase of 403,944 square feet.
- Between 2006 and 2008, study intersection traffic volumes (outside of Devens) increased by approximately 4% on average for the AM peak hour and 2% on average for the PM peak hour. Three study intersections (of 14 compared) experienced decreases in traffic volumes during the AM peak hour and six intersections experienced decreased traffic volumes during the PM peak hour. The overall traffic growth reflects 1) an increase in background traffic from surrounding communities generated by increased residential and employment development, and 2) increased construction activity within Devens. *These levels of traffic growth are considered reasonable for this area.* The Metropolitan Regional Planning Commission (MRPC) uses an annual growth factor of 1.77% per year.
- Traffic volumes on roadways in surrounding towns have been generally uniform over time between 1996 and 2008. While individual roadways have experienced either increases or decreases in volume, as a group, local roadways have experienced a traffic growth rate of about 0.3% per year over the last 12 years. As a point of comparison, annual traffic growth rates used by the MRPC are 1.77% per year. *This indicates that Devens-generated traffic is not significantly affecting traffic volume on local roadways.*
- Traffic volumes on Route 2 generally increased steadily each monitoring period between 1996 and 2004. However, Route 2 traffic volumes have decreased since 2004, and daily traffic volumes on Route 2 stabilized between 2006 and 2008 (-1%). Peak hour traffic volumes on Route 2 were nearly identical between 2006 and 2008. This stabilization in regional traffic may be attributed to several

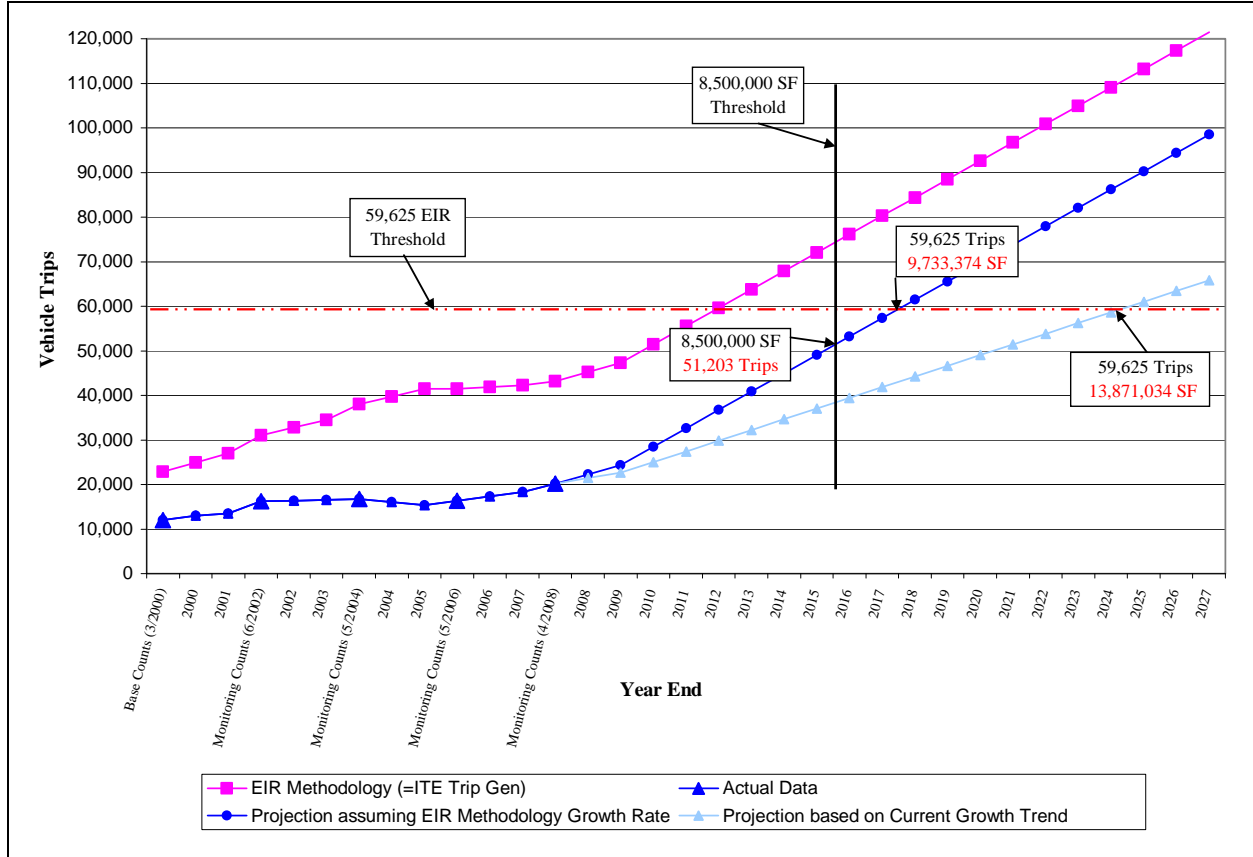
factors. Some of the traffic on Route 2 may be shifting to Route 190. Increased congestion, fuel costs, and unemployment may also be contributing to decreased vehicle miles traveled. In addition, additional employment opportunities in Devens and in the communities surrounding Devens such as Littleton, Harvard, Ayer, and Shirley and communities west of Devens along Route 2 (Fitchburg, Leominster, etc.) over the last few years may be contributing to lighter traffic volumes along Route 2 because area residents can commute shorter distances. These trends in transportation are illustrative of Smart Growth planning initiatives that strive to provide a better balance of housing and jobs in the region. The results of such policies include fewer vehicle trips and fewer vehicle-miles traveled on area roadways. *The continued development of housing and employment within Devens is consistent with Smart Growth planning which reduces traffic impacts.*

- Daily vehicle trips generated by the current Devens development were estimated using national industry trip rates (Institute of Transportation Engineers). The current 3.9 million square feet of development is estimated to generate approximately 43,169 daily vehicle trips. This figure is approximately 22,900 daily vehicle trips more than was recorded through the Devens' gates in 2008. *Therefore, Devens development is generating significantly fewer daily vehicle trips than a comparable development.*
  
- In 2008, Devens development generated approximately 20,200 daily vehicle trips compared to 16,400 trips in 2006.<sup>1</sup> This is largely a result of increases in construction activity. Daily and PM peak hour Devens-related traffic volumes at Devens' gates increased by approximately 24% between 2006 and 2008. AM peak hour gate volumes increased by 34% between 2006 and 2008. The increase in daily and peak hour gate volumes is generally reflected in increases to both intersections and local roadways in surrounding towns. The increase in peak hour gate volumes can be attributed to background growth and development in surrounding communities, increased cut-through traffic, additional construction activity, and an increase in Devens' occupied development. *Increased cut-through traffic (through Devens) improves traffic conditions in surrounding areas by taking traffic off of local roadways.*
  
- Between 2006 and 2008, off-site traffic generated by Devens increased by approximately 2,400 trips per year. *If this current traffic growth trend continues (not including atypical construction traffic), the EIR trip threshold of 59,625 trips would not be reached until approximately 2024.* Figure ES-1 below shows this information.

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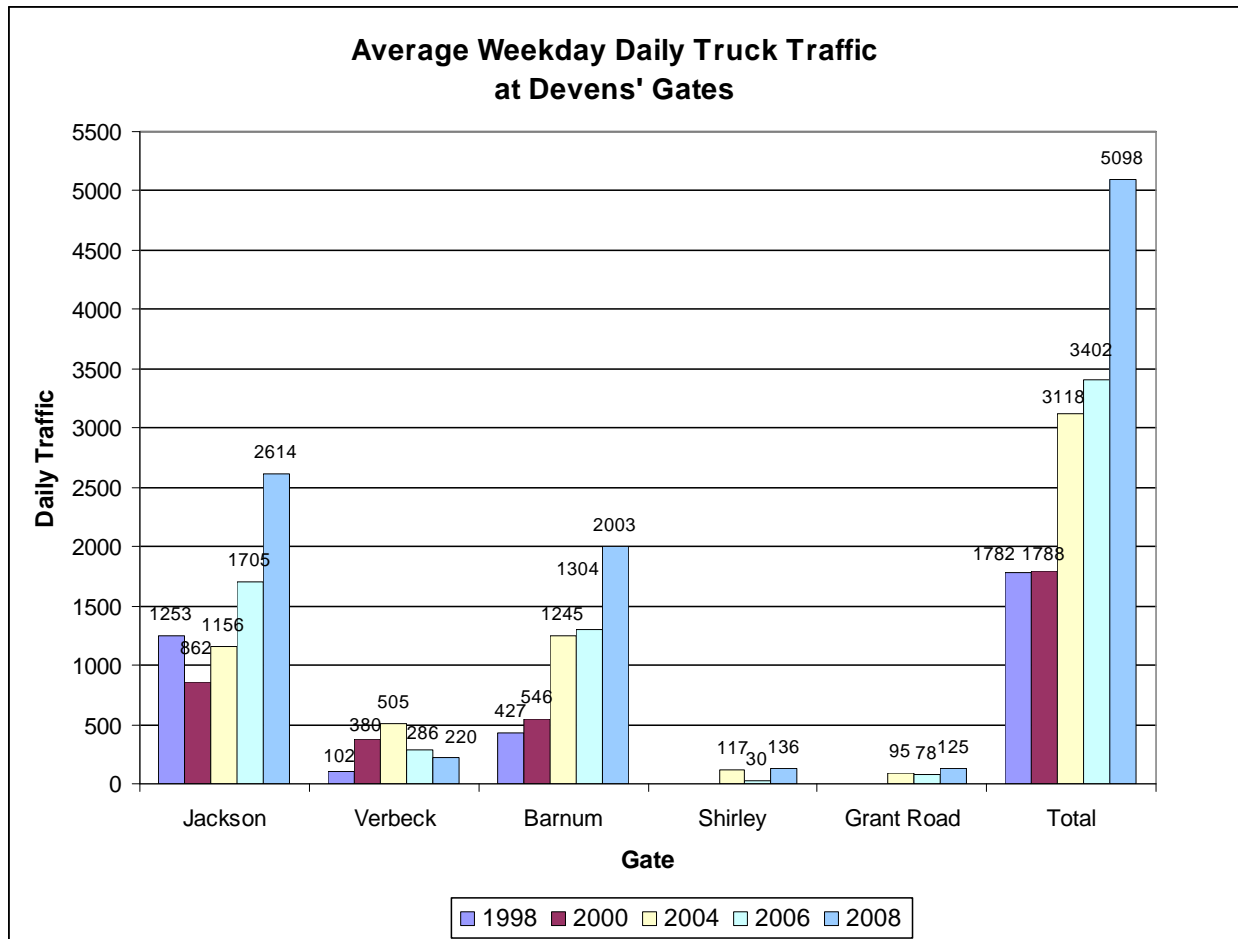
<sup>1</sup> Numbers represent daily gate counts including adjustment for cut-through traffic.

**Figure ES-1: Trip Generation Summary**



- Daily truck and bus traffic through Devens’ gates has increased by approximately 50% from 2006 to 2008. The increase in truck traffic can be attributed to recent construction activity on-site. The largest increase in truck traffic occurred at the Jackson Gate, with a 53% increase between 2006 (1,705 truck trips) and 2008 (2,614 truck trips). The next largest increase in truck traffic occurred at the Barnum Gate, with a 54% increase between 2006 (1,304 truck trips) and 2008 2,003 truck trips). Figure ES-2 shows truck traffic trends.

**Figure ES-2: Average Weekday Daily Truck Traffic at Devens' Gates**



- Intersection capacity analysis results revealed that one of the previously 14 analyzed intersections, Verbeck Gate/MacPherson/West Main, experienced an improved Level of Service (LOS) during the AM peak hour from 2006 to 2008. Eleven of the study intersections experienced no change in LOS in the AM and PM peak hours. Five study intersections deteriorated in LOS between 2006 and 2008. Only at Park Street/Fitchburg Road/Groton School Road, Ayer (AM peak hour) and Route 110-111 (Ayer Road)/Still River (PM peak hour) did movements deteriorate to LOS E/F conditions. Side street traffic at these locations operate at LOS E or F during peak hours, which is not uncommon for unsignalized intersections. Changes in intersection LOS reflect minor shifts in traffic volumes and the relatively stabilized traffic volume levels over the last two years. *Devens-generated traffic has not significantly affected intersection operations.*

## 2.3 Conclusions

Overall traffic growth in the vicinity of Devens ranges from 1-2% per year. This range of traffic growth is considered reasonable for the area based on the current MRPC regional growth rate of 1.77% per year. Traffic growth in this area reflects 1) an increase in background traffic from surrounding communities generated by increased residential and employment development, 2) increased cut-through traffic through Devens, and 3) increased construction activity within Devens. Increased cut-through traffic improves traffic conditions in surrounding areas by taking traffic off of local roadways. Increased housing and employment in and around Devens is contributing to Smart Growth policies, which result in fewer vehicle trips and fewer vehicle-miles traveled on area roadways, reducing overall traffic impacts in the area.

Traffic counts indicate that Devens is generating significantly fewer daily vehicle trips than a comparable development assuming industry standard trip rates. Devens-generated traffic is not significantly affecting traffic volume on local roadways and has not significantly affected intersection traffic operations. If current traffic growth trends continue, the EIR trip threshold of 59,625 trips will not be reached until approximately year 2024.

### 3.0 BUILD OUT ANALYSIS/TRIP GENERATION

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#### 3.1 Overview

There has been substantial development at Devens over the past several years including research and development, light industrial, office, commercial, and residential. A build-out analysis was updated for the 2005 Five-Year Traffic Report. This information has been updated for the Year 2008 Traffic Monitoring Program.

Table 3-1 provides an update, as of December 2008, of the existing and planned development at Devens. The levels of existing and potential development have increased by 1,826,966 square feet (sf) (34%) since the completion of the *Devens Traffic Monitoring Program 2005 Five Year Traffic Report* (March 2006).

**Table 3-1: Devens Building Expansion Summary – As of December, 2008**

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CATEGORY	AREA (Bldg. SF)
Existing Buildings Currently in Reuse	709,773
New Construction (occupied)	3,255,805
<b>Total Actual Build-out to Date</b>	<b>3,965,578<sup>1</sup></b>
New Construction (unoccupied)	1,008,680
Potential Expansions	2,070,062
Current Prospects	200,000
<b>Total Potential Additional Build-out</b>	<b>3,278,742</b>
<b>Total Actual &amp; Planned Build-out</b>	<b>7,244,320<sup>1</sup></b>
<i>Total Build-out Permitted Under Devens By-Laws</i>	<i>8,500,000</i>
<b>Potential Uncommitted Build-out (equivalent to approximately)</b>	<b>1,255,680 (6,404 daily trips)</b>

Notes:

1. Includes 135 units of housing.

Table 3-1 shows that more than 3.9 million square feet of development have been built out to date. This represents an increase of 403,944 square feet of occupied development since the completion of the Year 2006 *Traffic Monitoring Program Biennial Traffic Report*. Another 3,278,742 square feet of development is planned. Since the total build-out permitted under Devens By-Laws is 8.5 million square feet, a net balance of 1,255,680 square feet of uncommitted build-out remains. This is equivalent to approximately 6,404 daily trips based on current trip generation rates at Devens.

## 3.2 Trip Generation

Vehicle trip generation estimates were made for existing and proposed development land uses at Devens. Estimates were based on land use type and size information provided by MassDevelopment. Trip generation estimates were based on current Year 2008 traffic count information and rates provided in the Institute of Transportation Engineer's (ITE), *Trip Generation*, 7<sup>th</sup> Edition, 2003. No counts were performed at development driveways as part of the year 2008 Traffic Monitoring Report.

Table 3-2 summarizes Year 2006 and 2008 trip generation estimates based on traffic counts at the Devens' Gates and using ITE trip rates. The Year 2008 total average weekday daily traffic (AWDT) of all five Devens' gates is 26,984 vehicle trips. As surveyed in the *2005 Five Year Traffic Report*, 25 percent of the total traffic volume is cut-through traffic, that is, not generated by Devens development. The AWDT generated by Devens adjusted for cut-through increased by 23.7% to 20,238 vehicle trips in 2008 compared to AWDT figure estimated in the Year 2006 Traffic Monitoring Program: 16,360 vehicle trips.

**Table 3-2: Trip Generation Summary**

	<b>YEAR 2006</b>	<b>YEAR 2008</b>	<b>DIFFERENCE</b>
Occupied Development	3,561,634 SF	3,965,578 SF	+ 403,944
Total Daily Traffic Counts at Devens' Gates	21,813 vehicle trips	26,984 vehicle trips	+ 5,171 vehicle trips
Daily Gate Counts Adjusted for cut-through Traffic <sup>1</sup>	16,360 vehicle trips	20,238 vehicle trips	+ 3,878 vehicle trips
Daily Vehicle Trips per 1,000 SF Development	4.59 trips/KSF	5.10 trips/KSF	+ 0.51 trips/KSF
ITE <sup>2</sup> estimated Daily Trips	41,435 vehicle trips	43,169 vehicle trips	+ 1,734 vehicle trips
ITE estimated Daily Vehicle Trips per 1,000 SF Development <sup>2</sup>	11.63 trips/KSF	10.89 trips/KSF	- 0.74 trips/KSF

*Notes:*

1. 25% cut-through traffic in 2006 and 2008.
2. Institute of Transportation Engineers, Trip Generation Manual, 7<sup>th</sup> Edition, 2003.

The ITE trip rates published in *Trip Generation* were applied to the currently occupied Devens development for each land use to develop daily vehicle trips. Using ITE rates, it is estimated that the current Devens development would generate approximately 43,169 daily vehicle trips. The daily vehicle traffic counted at the gates (minus cut-through traffic of 25%) is 20,238 trips attributed to Devens. This indicates that the current Devens development is generating off-site traffic at a rate of approximately 47% of what a comparable development would generate. The final row of Table 3-2 shows that trip generation rates (daily vehicle trips per 1,000 square feet of development) for Devens based on ITE rates are more than double trip rates based on actual traffic counts at Devens' gates.



Figure 3-1 below is similar to the graph shown in the previous year 2006 Report. The top line represents the trip generation based on the EIR methodology. The line labeled “Actual Data” shows the vehicle trips to year 2008 (20,238 trips) then assumes a straight-line projection for future years. Based on this method, the EIR full build-out threshold of 8,500,000 sf would be reached by 2015, and the EIR full build-out threshold of 59,625 would not be reached until 2017. The bottom line Figure 3-1 shows the straight-line projection of actual data assuming Transportation Demand Management (TDM) measures that result in a 7.5% reduction in daily trips. With a TDM program, the 58,625-trip threshold would not be reached until 2018.

**Figure 3-1: Trip Generation Summary**

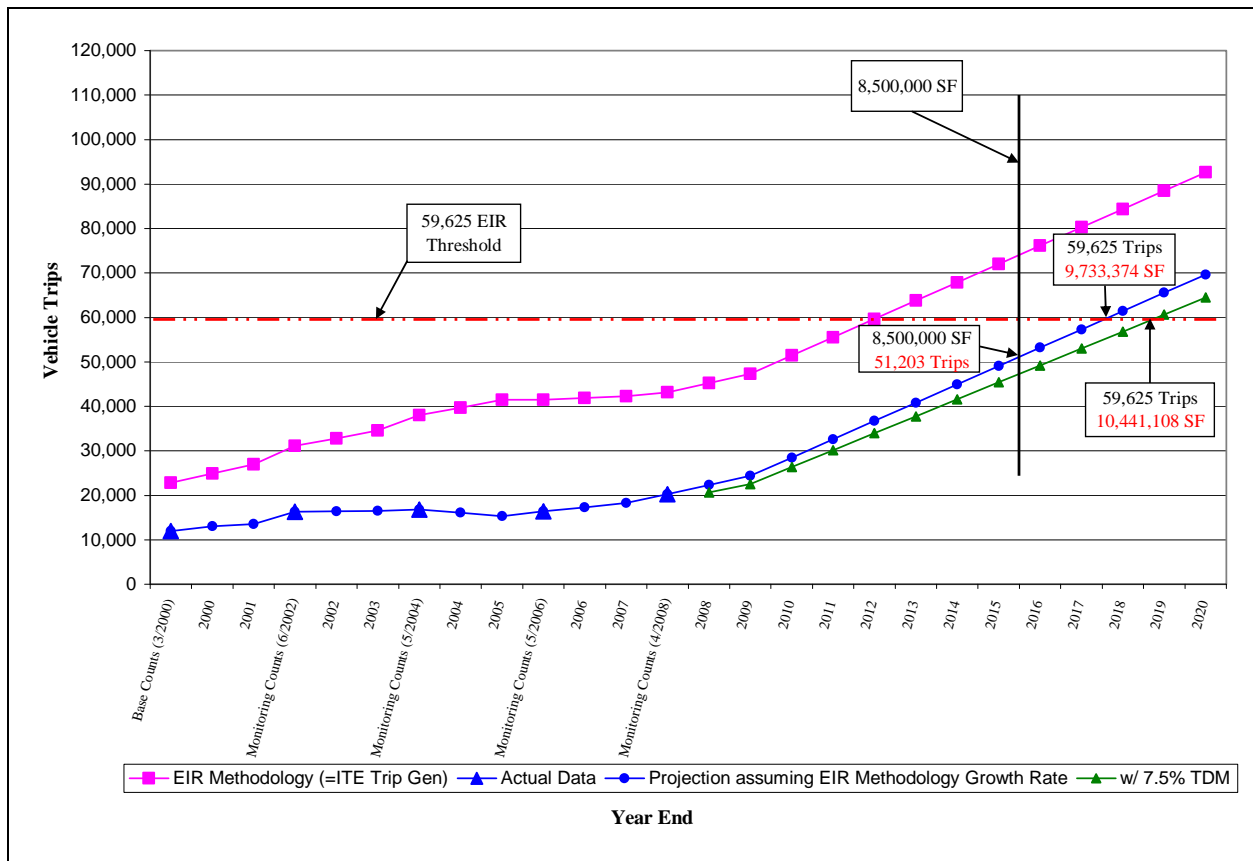
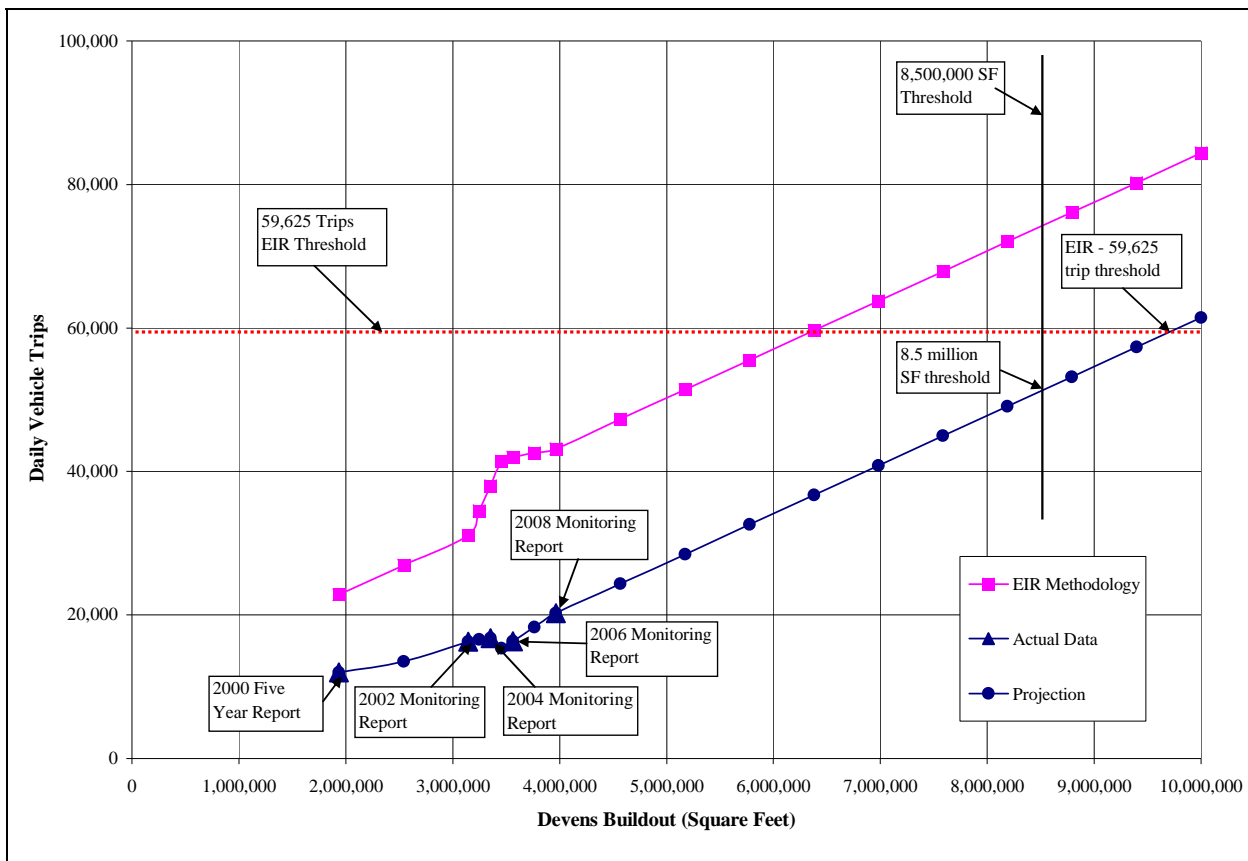


Figure 3-2 below represents the relationship between build-out square footage and vehicle trips. As previously mentioned, more than 3.9 million square feet of building space is currently being used, which results in 20,238 vehicle trips. The top line represents build-out based on the EIR methodology. The bottom line represents vehicle trips versus build-out up to year 2008, then assumes the same slope as the EIR. The steeper slope beyond 4 million square feet assumes that some of the current development will be replaced (“re-used”) by development with higher vehicle generating characteristics. If this occurs as projected, the 8.5 million square feet EIR threshold would be reached at approximately 51,200 trips. If the current trip generation trend continues, the 59,625 trip generation threshold would not be reached until well beyond the 8.5 million square feet of development threshold (9.7 million square feet).

**Figure 3-2: Build-Out Summary**



## 4.0 INTERSECTION TURNING MOVEMENT COUNTS AND TRAFFIC OPERATIONS

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The monitoring program identified twelve locations where peak hour intersection turning movement counts should be conducted. Two new intersections (#13 and #14 below) were added for the 2004 Biennial Traffic Report). Turning movement traffic counts were completed on Tuesday, April 8<sup>th</sup> and Wednesday, April 9<sup>th</sup>, 2008 between 7:00 AM – 9:00 AM and 4:00 PM – 6:00 PM at the following locations:

<u>Intersection</u>	<u>Town</u>	<u>Date</u>
1. Front Street/Lancaster Street/ Leominster Road/Center Road	Shirley	4/09/08
2. Park Street/Fitchburg Road/Groton School Road	Ayer	4/08/08
3. Park Street/Main Street/West Main Street	Ayer	4/08/08
4. Groton-Harvard Road/Central Avenue	Ayer	4/08/08
5. Route 2A-110/I-495 Exit 30 NB Ramps	Littleton	4/08/08
6. Route 2A-110/I-495 Exit 30 SB Ramps	Littleton	4/08/08
7. Route 110-111 (Ayer Road)/Route 110 (Still River Road)/Route 111	Harvard	4/09/08
8. Route 70/117 (Seven Bridge Road)	Lancaster	4/09/08
9. Route 70/117 (Lunenburg Road)	Lancaster	4/09/08
10. Route 110 (King Street)/Route 119/Route 2A (Great Road)	Littleton Common	4/08/08
11. Route 2A-110 (King Street)/Goldsmith Street	Littleton Common	4/08/08
12. Verbeck Gate/MacPherson Road	Ayer	4/09/08
13. Grant Rd/West Main St (New Location in 2004)	Ayer	4/09/08
14. Hospital Rd/Front St (New Location in 2004)	Shirley	4/09/08

All traffic data was collected prior to school ending for the summer in 2008. Figure 5-1 in the following section provides a graphical depiction of all turning movement counts (TMC's) as well as all automatic traffic recorder (ATR) counts conducted for this monitoring report. These counts are discussed in the following sections.

A description of traffic volume and operational data at each location listed above is provided in the following pages. The operational characteristics of each intersection were determined utilizing the methodology in the 2000 Highway Capacity Manual (HCM). As was done in previous reports, descriptions of intersections analyzed originally as part of the EIR study area include a table which compares the 2008 traffic volumes to past information (1990, 1996, 1998, 2002, 2004) and 2006 volumes reported in the 2006 Traffic Monitoring Report, and 2004/2005 volumes contained in the Devens Five Year Traffic Report dated March 2006. As suggested in

the 1996 Earth Tech Report, the 1996 traffic data serves as a baseline for comparison of operational changes (Level of Service) at intersections included within the monitoring program.

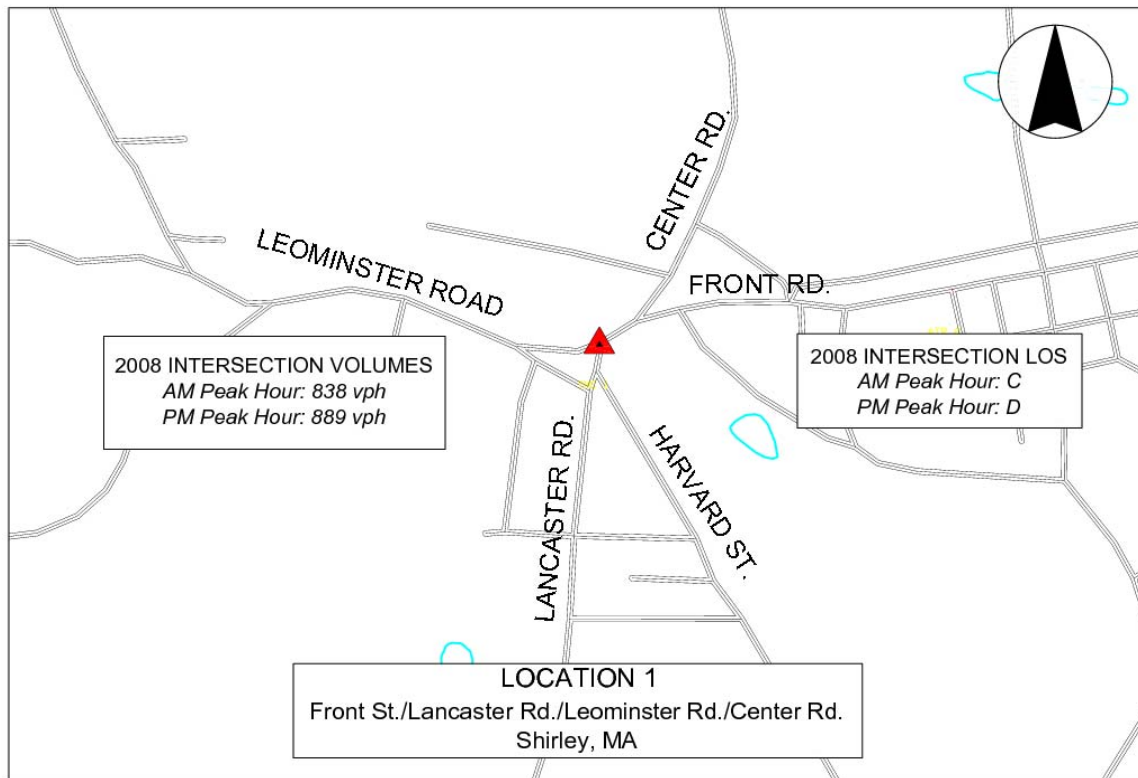
#### 4.1 Location 1 – Front Street/Lancaster Street/Leominster Road/Center Road

This intersection was included as a monitoring location as a result of the public participation element. Figure 4-1 below depicts the intersection location and current traffic conditions. Monitoring at this location will indicate the extent to which residents of Shirley are attracted to Devens since other route options exist for out-of-town commuters. Development in the Verbeck and Shirley Gate areas of Devens will have the greatest effect on traffic volumes and operating conditions at this location.

**Table 4-1: Traffic Volume Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008
AM Peak Hour	n/a	802 vph	861 vph	803 vph	738 vph	761 vph	815 vph	<b>838 vph</b>
PM Peak Hour	n/a	953 vph	779 vph	847 vph	782 vph	850 vph	776 vph	<b>889 vph</b>

**Figure 4-1: Existing Conditions Summary**



Traffic volumes and intersection Levels of Service (LOS) for the AM and PM peak hours are summarized in the above figure. Traffic volumes in the AM peak hour have increased by about 3% over 2006 conditions. Traffic volumes for the PM peak have increased by approximately 15% compared to 2006 peak hour volumes. This location operates at LOS C during the AM peak hour and LOS D during the PM peak hour. Afternoon peak hour conditions have worsened compared to 2006 conditions.

#### 4.2 Location 2 – Park Street/Fitchburg Road/Groton School Road

Traffic volumes at this location increased between 1990 and 1998, but this trend ended by year 2000. Peak hour volumes at this location remained relatively constant between 2000 and 2006. The 2008 AM peak hour volumes increased by 42 vehicles (4%) compared to 2006 volumes, and the PM 2008 volumes decreased by 36 vehicles (2%) compared to 2006 volumes. A full comparison of all conditions is provided in the following table.

**Table 4-2: Traffic Volume Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008 <sup>1</sup>
AM Peak Hour	1009 vph	1210 vph	1241 vph	1157 vph	1239 vph	1146 vph	1196 vph	<b>1238 vph</b>
PM Peak Hour	1210 vph	1353 vph	1523 vph	1447 vph	1487 vph	1482 vph	1450 vph	<b>1414 vph</b>

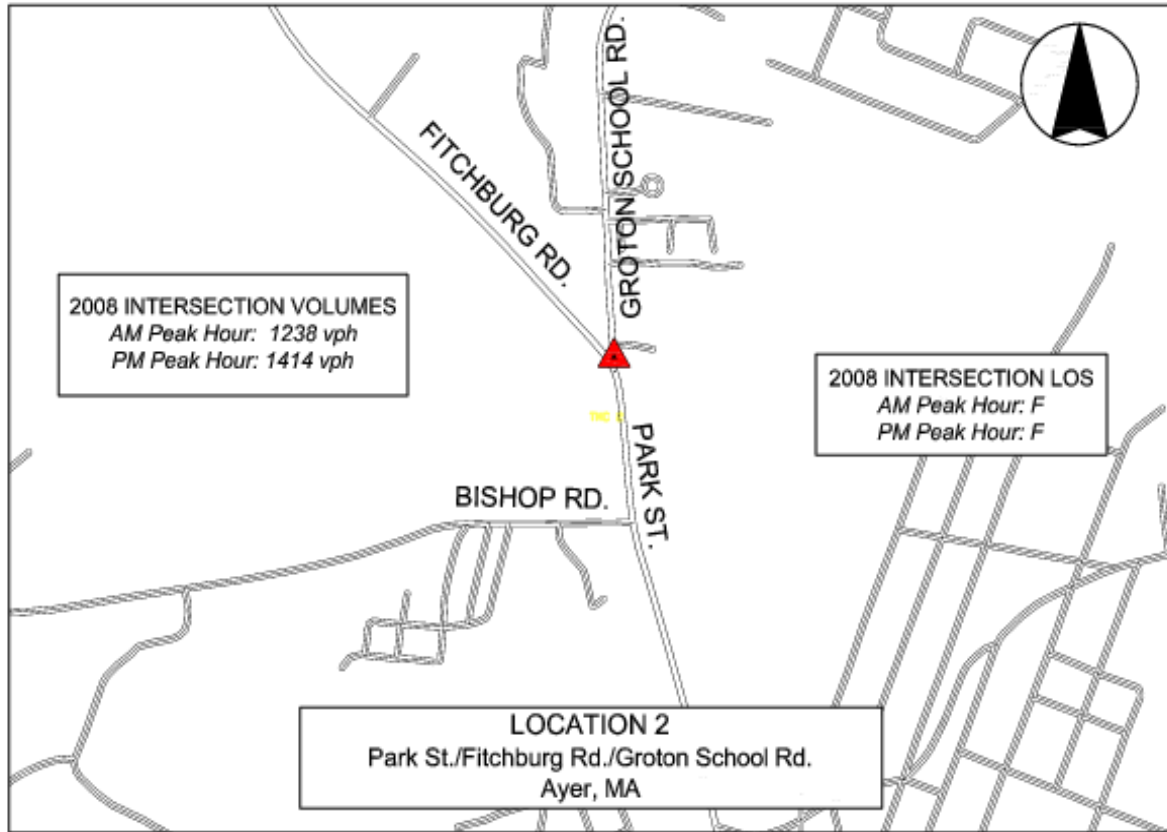
*Note:*

1. Due to a count errors on the NB Park Street approach, 2006 counts were assumed for this intersection approach.

Intersection capacity analyses were conducted for both the AM and PM peak hours using the 2008 volumes for this location. The results of these analyses indicate LOS F for both AM and PM peak hour for the southbound Groton School Road approach. This represents a worsening of AM peak hour operations compared to 2006 conditions (LOS C for this approach).

The Final EIR indicated that the signalization of this intersection was an existing (immediate) need due to the failure conditions identified for vehicles attempting to enter Route 2A (Park Street) from Route 111 (Groton School Road). This need was based upon 1990 peak hour traffic volumes.

**Figure 4-2: Existing Conditions Summary**



**4.3 Location 3 – Park Street/Main Street/West Main Street**

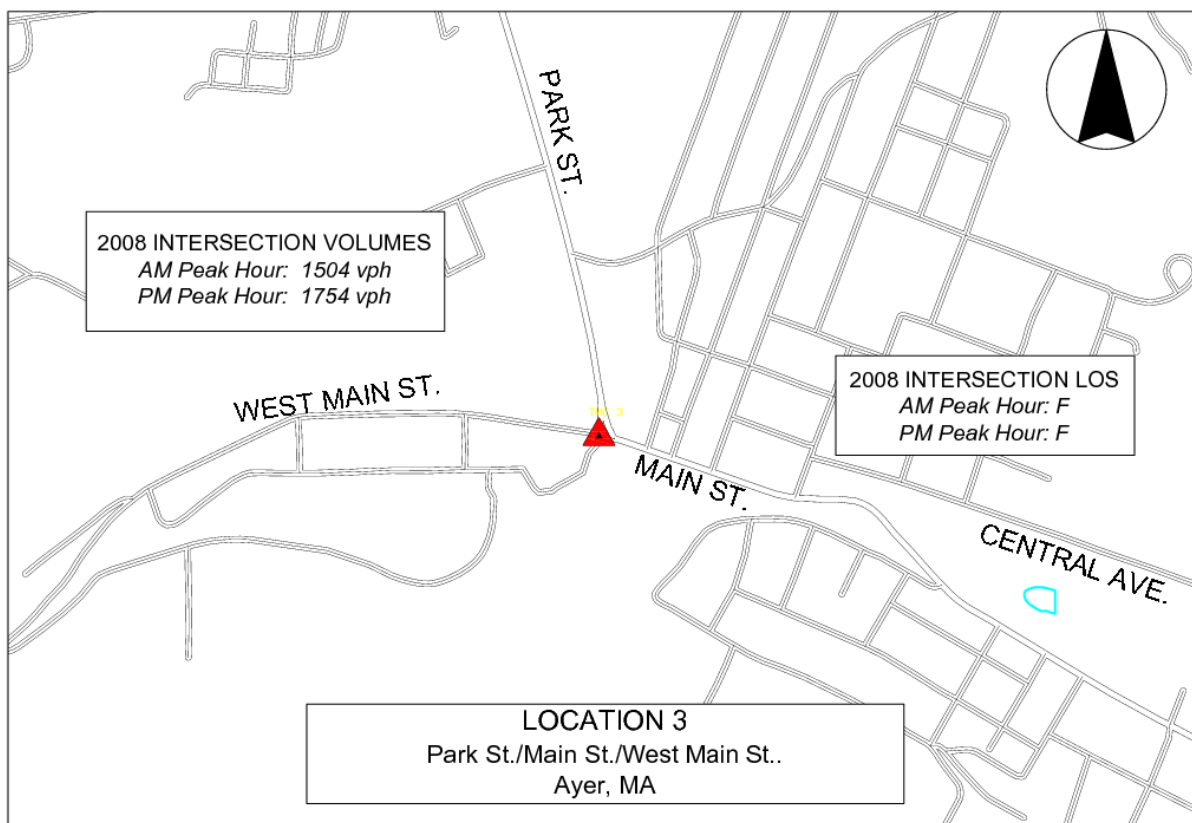
Intersection turning movement counts were performed at this location during both the AM and PM peak hours. Figure 4-3 depicts the intersection location and current traffic conditions. As shown in the table below, both the AM and PM peak hour volumes remained relatively constant at this location between 2000 and 2004. AM and PM peak hour volumes in 2006 increased by 15% and 6%, respectively, over 2004 volumes. In 2008, traffic volumes are similar and slightly lower (within 5%) compared to 2006 volumes.

**Table 4-3: Traffic Volumes Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008
AM Peak Hour	1431 vph	1492 vph	1556 vph	1367 vph	1442 vph	1372 vph	1578 vph	<b>1504 vph</b>
PM Peak Hour	1602 vph	1721 vph	1547 vph	1698 vph	1646 vph	1699 vph	1804 vph	<b>1754 vph</b>

This location was also identified as exhibiting existing deficiencies and requiring signalization based upon the 1990 peak hour traffic volumes. The 1996 intersection capacity analyses reported failure conditions for vehicles on the Park Street approach and indicated that signalization should be investigated as an immediate or short-term improvement at this location. As under 2006 conditions, intersection capacity analyses using the 2008 volumes show an overall LOS F for both the AM and PM peak hours.

**Figure 4-3: Existing Conditions Summary**



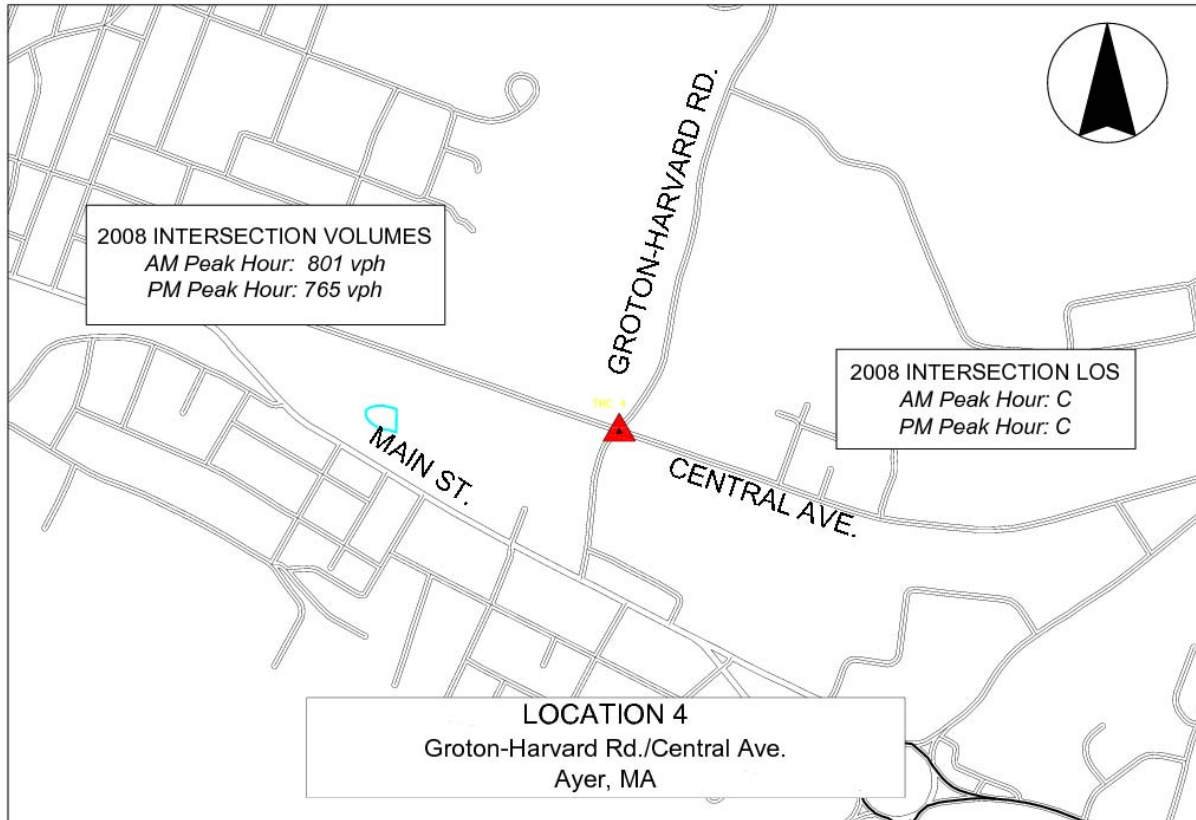
#### 4.4 Location 4 – Groton-Harvard Road/Central Avenue

This location was not originally added as part of the EIR effort but was added as a result of the public participation element of the project. Traffic at this location peaked in year 2002, but declined again in 2004 with peak hour volumes nearly equal to those in 1996. Peak hour traffic volumes decreased by 7-10% from 2004 to 2006, and have remained relatively constant since. Figure 4-4 below depicts the intersection location and current traffic conditions. The capacity analyses indicate that the intersection operates at LOS C during both the AM and PM peak hours, which is similar to year 2006 conditions.

**Table 4-4: Traffic Volume Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008
AM Peak Hour	n/a	864 vph	941 vph	880 vph	990 vph	869 vph	782 vph	<b>801 vph</b>
PM Peak Hour	n/a	841 vph	956 vph	904 vph	960 vph	854 vph	796 vph	<b>765 vph</b>

**Figure 4-4: Existing Conditions Summary**



**4.5 Location 5 – Route 2A-110/I-495 Exit 30 Northbound Ramps, Littleton**

**Location 6 – Route 2A-110/I-495 Exit 30 Southbound Ramps, Littleton**

Traffic volumes were collected for the AM and PM peak hours at both ramp intersections with Route 2A-110 (King Street). Figure 4-5 below depicts the intersection location and current traffic conditions. A comparison of previous traffic volumes indicate a steady increase in the northbound ramp AM volumes and the southbound ramp PM volumes up to 2002, but both volumes decrease noticeably in 2004. The 2004 northbound PM ramp and southbound AM ramp volumes were also approximately 10% lower than the 2002 volumes. The NB AM ramp volumes have remained the same between 2004 and 2008. However, the other three ramp locations

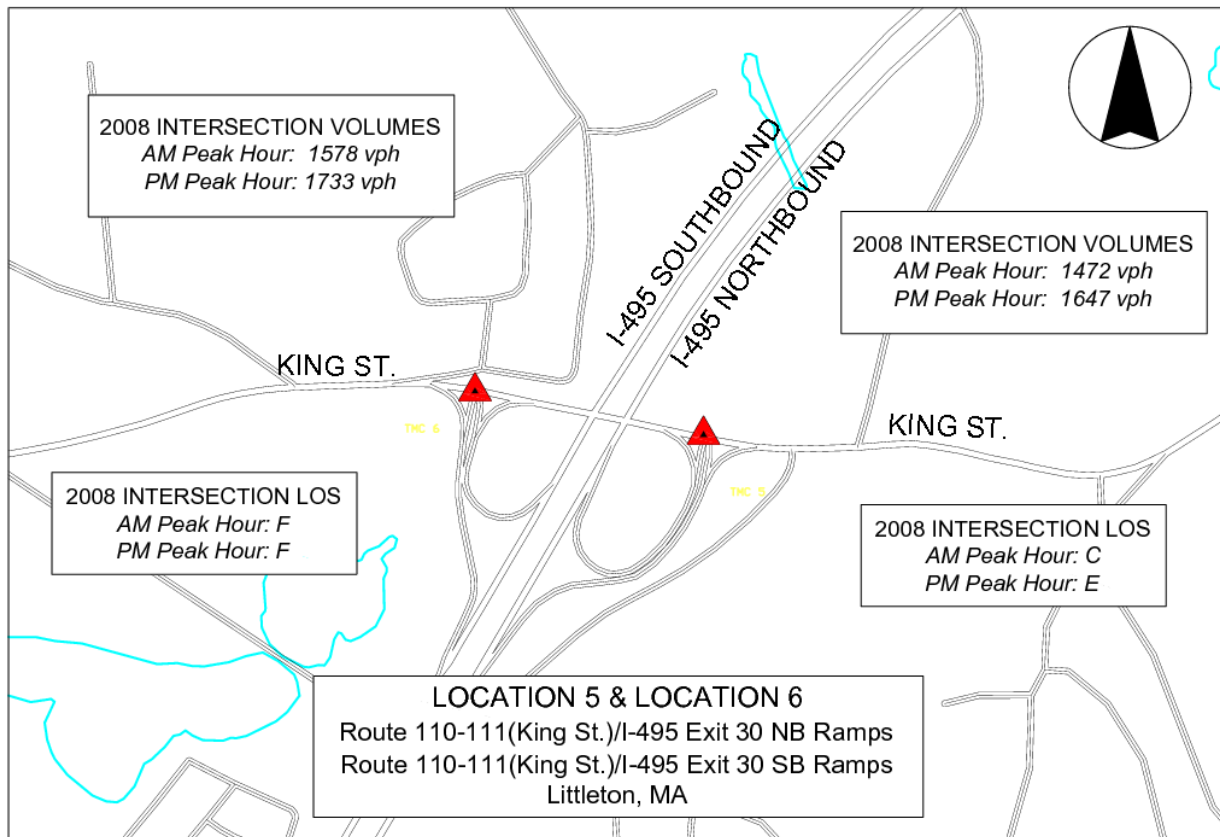


experienced 5-9% traffic volume increases between 2004 and 2006, then 5-13% traffic volume decreases (between 79 and 246 vph) between 2006 and 2008.

**Table 4-5: Traffic Volume Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008
Route 2A-110/NB Ramps								
AM Peak Hour	1494 vph	1555 vph	1703 vph	1833 vph	1941 vph	1482 vph	1462 vph	<b>1472 vph</b>
PM Peak Hour	1317 vph	1675 vph	1711 vph	1656 vph	1927 vph	1737 vph	1893 vph	<b>1647 vph</b>
Route 2A-110/SB Ramps								
AM Peak Hour	1372 vph	1539 vph	1714 vph	1830 vph	1782 vph	1583 vph	1657 vph	<b>1578 vph</b>
PM Peak Hour	1538 vph	1844 vph	1705 vph	1814 vph	1981 vph	1853 vph	1959 vph	<b>1733 vph</b>

**Figure 4-5: Existing Conditions Summary**



Previous intersection capacity analyses performed as part of the EIR indicated a mid to long range need to signalize the southbound ramp intersection with Route 2A-110 at a minimum, with a potential need to also require signalization at the northbound ramp intersection. Vehicles on the northbound ramp experience LOS C during the AM peak hour and LOS E during the PM peak hour. The PM peak hour conditions at this ramp are improved over 2006 conditions (previously LOS F). As under 2006 conditions, vehicles on the southbound off-ramp approach continue to experience LOS F during both the AM and PM peak hours.

#### 4.6 Location 7 – Route 110-111 (Ayer Road)/Route 110 (Still River Road)/Route 111, Harvard

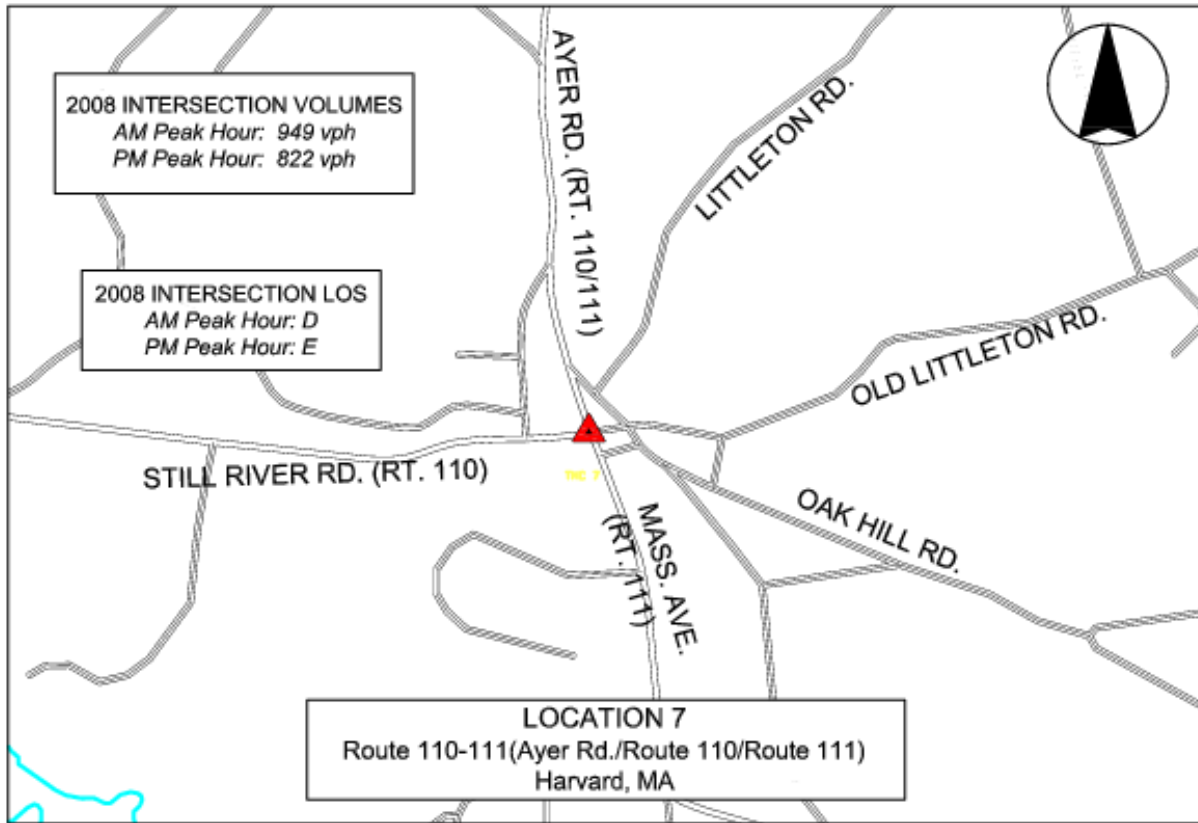
Figure 4-6 below depicts the intersection location and current traffic conditions. AM peak hour volumes remained relatively constant between year 2000 and 2006, and increased by 7% (58 vehicles) to 949 vph in 2008 (similar to 1998 levels). PM peak hour volumes decreased by 14% between 2004 and 2006, but then increased by 35% (213 vehicles) in 2008 (similar to 1996 levels). A comparison of traffic volumes to previous recorded volumes is provided below.

**Table 4-6: Traffic Volume Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008
AM Peak Hour	551 vph	818 vph	952 vph	833 vph	823 vph	875 vph	891 vph	<b>949 vph</b>
PM Peak Hour	467 vph	869 vph	1135 vph	668 vph	642 vph	710 vph	609 vph	<b>822 vph</b>

Previous intersection capacity analyses performed as part of the EIR indicated that acceptable conditions would prevail through the 2015 condition. Intersection capacity analyses performed using the 2008 volumes indicate that the intersection will operate at LOS D during the AM peak hour (same as 2006 conditions) and LOS E during the PM peak hour (worse than 2006 conditions).

**Figure 4-6: Existing Conditions Summary**



**4.7 Location 8 – Route 70/Route 117 (Seven Bridge Road), Lancaster**

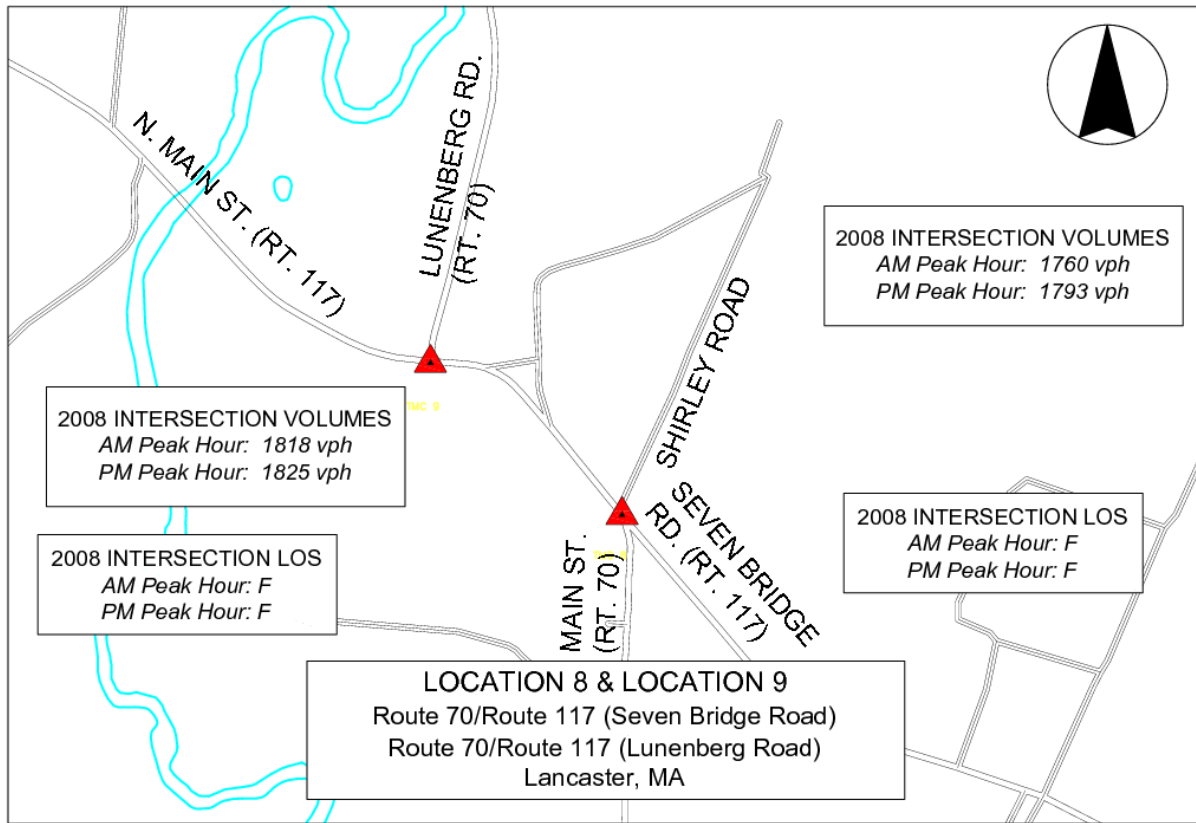
**Location 9 – Route 70/Route 117 (Lunenburg Road), Lancaster**

These two locations were not originally studied as part of the EIR effort but were added as a result of the public participation element of the project. Figure 4-7 below depicts the intersection locations and current traffic conditions.

**Table 4-7: Traffic Volume Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008
Route 70/Route 117 (Seven Bridge Road)								
AM Peak Hour	n/a	1452 vph	1582 vph	1616 vph	1597 vph	1564 vph	1621 vph	<b>1760 vph</b>
PM Peak Hour	n/a	1614 vph	1685 vph	1657 vph	1570 vph	1636 vph	1677 vph	<b>1793 vph</b>
Route 70/Route 117 (Lunenburg Road)								
AM Peak Hour	n/a	1471 vph	1581 vph	1652 vph	1649 vph	1608 vph	1664 vph	<b>1818 vph</b>
PM Peak Hour	n/a	1578 vph	1800 vph	1679 vph	1600 vph	1650 vph	1720 vph	<b>1825 vph</b>

**Figure 4-7: Existing Conditions Summary**



From 2004 to 2006, traffic volumes at these two intersections increased between 2 and 4% (41-70 vph). Year 2006 traffic volumes were comparable to year 2000 volumes. Between 2006 and 2008, traffic volumes at these two intersections increased between 6 and 9% (105-154 vph). During critical peak hours, the intersection of Route 70 (Lunenburg Road)/Route 117 operates at LOS F for vehicles exiting left and right from Route 70. LOS F conditions also occur for peak hour vehicles exiting left from northbound Route 70 at the intersection of Route 70 (Main Street)/Route 117/Seven Bridge Road). LOS results are the same as under 2006 conditions.

**4.8 Location 10 – Route 110 (King Street)/Route 119/Route 2A (Great Road), Littleton Common**

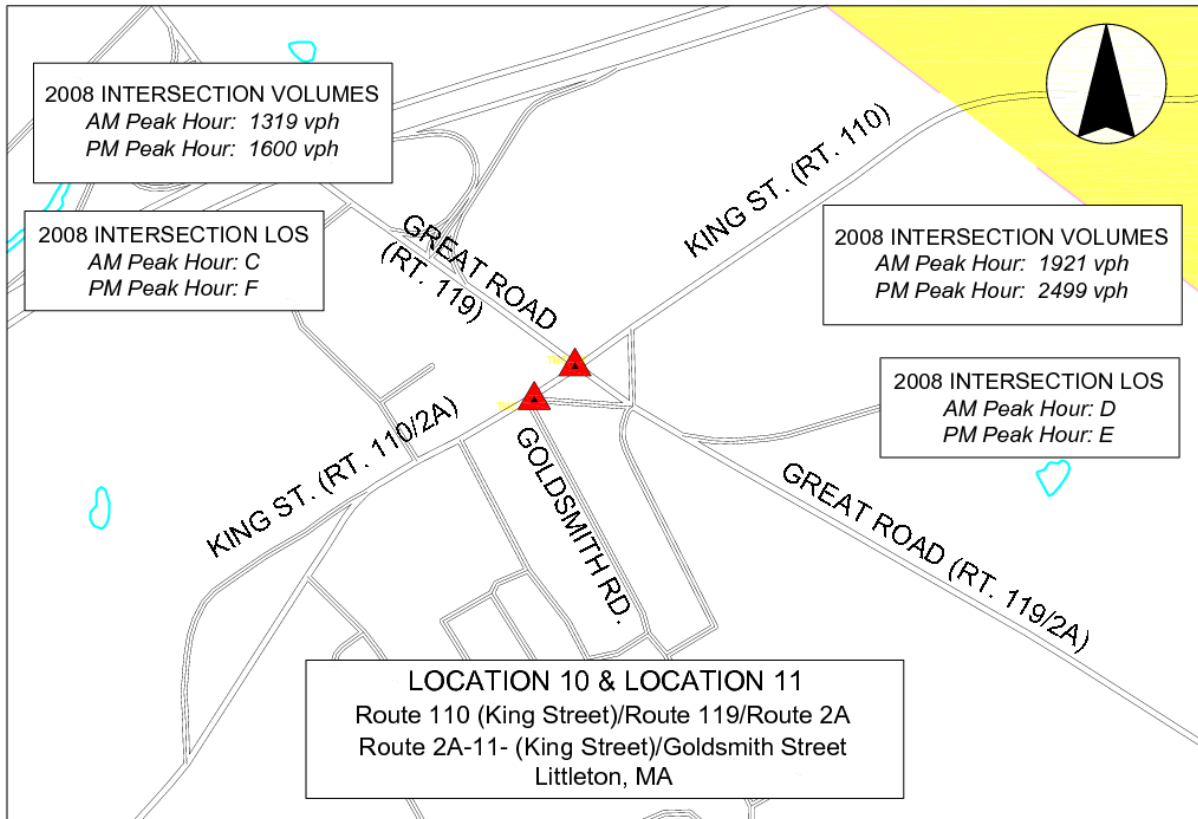
**Location 11 – Route 2A-110 (King Street)/Goldsmith Street, Littleton Common**

These two locations were not originally studied as part of the EIR effort but were included based on the public participation effort of the project. Figure 4-8 below depicts the intersection location and current traffic conditions.

**Table 4-8: Traffic Volume Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008
Route 110/Route 119/Route 2A (Great Road)								
AM Peak Hour	n/a	2085 vph	2196 vph	2225 vph	2382 vph	2180 vph	1873 vph	<b>1921 vph</b>
PM Peak Hour	n/a	2809 vph	2880 vph	2574 vph	2871 vph	2717 vph	2450 vph	<b>2499 vph</b>
Route 2A-110/Goldsmith Street								
AM Peak Hour	n/a	1469 vph	1667 vph	1734 vph	1638 vph	1449 vph	1213 vph	<b>1319 vph</b>
PM Peak Hour	n/a	1758 vph	1724 vph	1588 vph	1840 vph	1683 vph	1521 vph	<b>1600 vph</b>

**Figure 4-8: Existing Conditions Summary**



Traffic volumes at these two intersections decreased steadily from 2002 to 2006. In 2008, the AM and PM traffic volumes for Route 110/Route 119/Route 2A increased slightly by 2–3 percent compared to 2006 volumes. Similarly, the 2008 AM and PM volumes for Route 110/2A/GoldSmith Road increased by 5–9 percent compared to 2006 volumes. In 2008, PM peak hour levels at both locations are similar to year 2000 traffic volumes.

The signalized intersection of Route 110 (King Street)/Route 119/Route 2A exhibits existing LOS D (overall) during the AM peak hour, which represents a decline over the 2006 conditions due to increased traffic volumes at this location. This intersection operates at LOS E (overall) during the PM peak hour. Similar to 2006 conditions, the intersection of Route 2A-110 (King Street)/Goldsmith Street exhibits LOS C during the AM peak hour and LOS F during the PM peak hour for the left and right movements exiting Goldsmith Street.

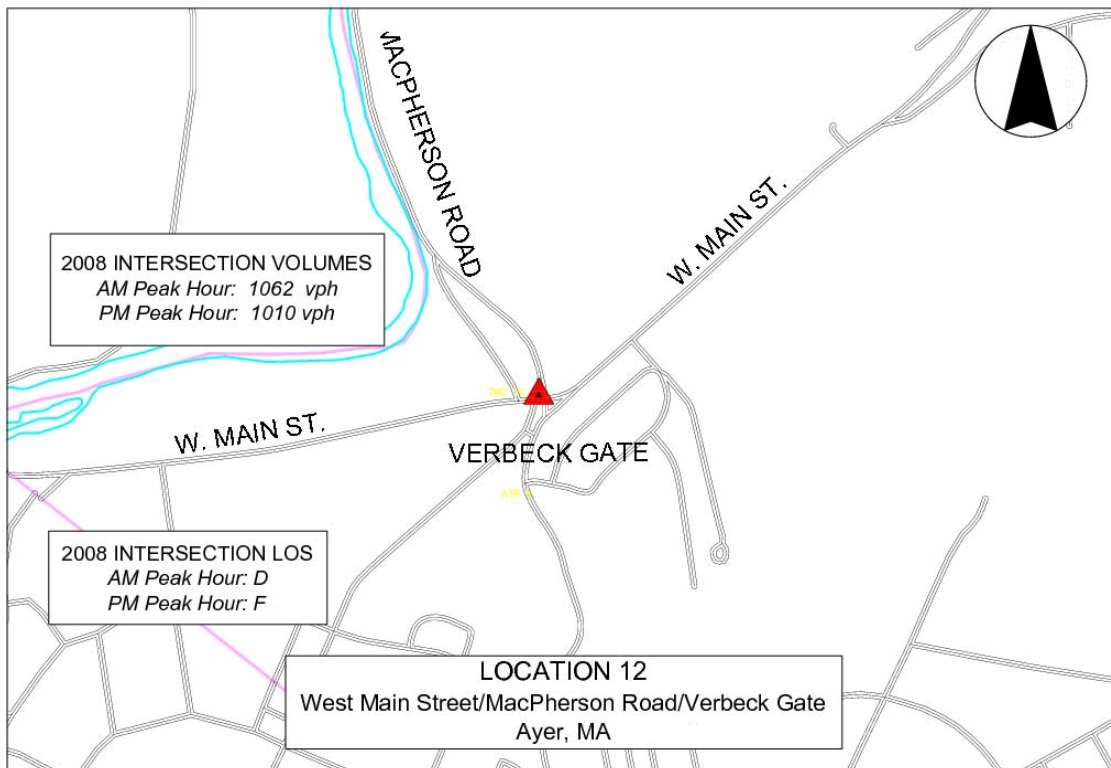
#### 4.9 Location 12 – Verbeck Gate/MacPherson Road/West Main Street, Ayer

Figure 4-9 below depicts the intersection location and current traffic conditions. A comparison of these traffic volumes to previous recorded volumes is provided below.

**Table 4-9: Traffic Volume Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008
AM Peak Hour	936 vph	774 vph	710 vph	888 vph	1014 vph	916 vph	1094 vph	<b>1062 vph</b>
PM Peak Hour	1246 vph	726 vph	669 vph	926 vph	959 vph	936 vph	1093 vph	<b>1010 vph</b>

**Figure 4-9: Existing Conditions Summary**



Peak hour traffic volumes increased by 17-19% between 2004 and 2006. In 2008, peak hour traffic volumes decreased slightly compared to 2006 volumes. From 2006 to 2008, the AM peak hour volumes decreased by 32 vehicles (3%), and the PM peak hour volumes decreased by 83 vehicles (8%). Previous intersection capacity analyses indicated the need for signalization as a mid-range to long-range improvement as the build-out of Devens approaches. Intersection capacity analyses conducted for 2008 peak hour conditions indicate LOS D conditions for the AM peak period, which is improved over 2006 conditions (LOS E). As under 2006 conditions, the intersection continues to operate at LOS F for the PM peak hour.

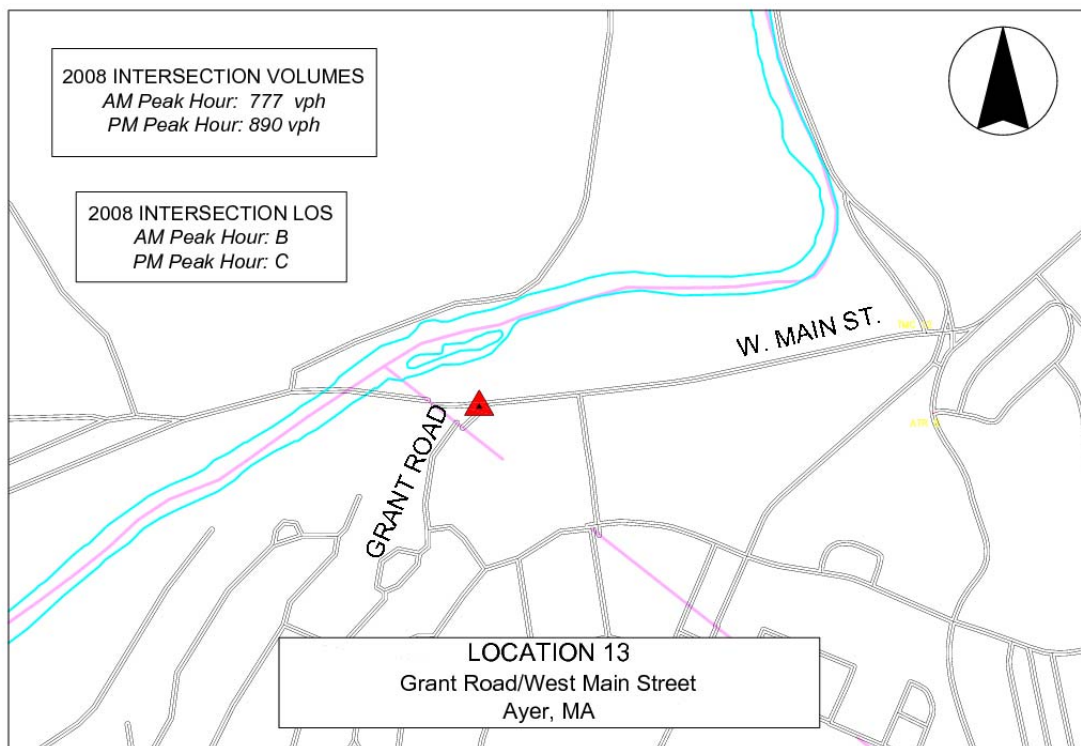
#### 4.10 Location 13 – Grant Road /West Main Street, Ayer

This was a new location included for evaluation of the year 2004 conditions. Figure 4-10 below depicts the intersection location and current traffic conditions.

**Table 4-10: Traffic Volume Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008
AM Peak Hour	n/a	n/a	n/a	n/a	n/a	637 vph	625 vph	<b>777 vph</b>
PM Peak Hour	n/a	n/a	n/a	n/a	n/a	662 vph	617 vph	<b>890 vph</b>

**Figure 4-10: Existing Conditions Summary**



Between 2004 and 2006, volumes at this intersection decreased by 2% for the AM peak hour and 7% for the PM peak hour. Between 2006 and 2008, volumes increased by 24% for the AM peak hour and 44% for the PM peak hour. Intersection capacity analyses using the 2008 volumes indicate that this intersection operates at LOS B during the AM peak hour (same as 2006 conditions) and at LOS C (worse than 2006 conditions) during the PM peak hour.

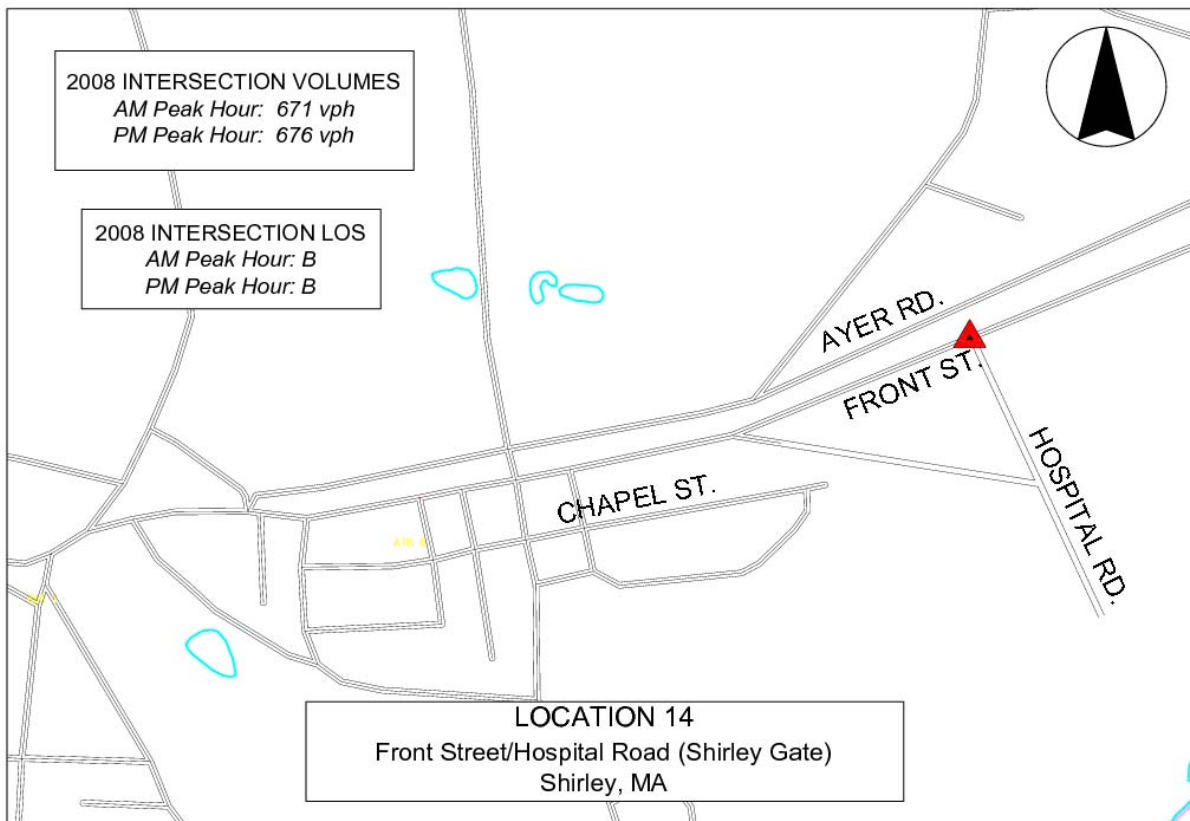
#### 4.11 Location 14 – Hospital Road/Front Street, Shirley

This was a new location included for evaluation of the year 2004 conditions. Figure 4-11 below depicts the intersection location and current traffic conditions.

**Table 4-11: Traffic Volume Comparison**

Total Intersection Volume	1990 Composite	1996 Baseline	1998	2000	2002	2004	2006	2008
AM Peak Hour	n/a	n/a	n/a	n/a	n/a	668 vph	553 vph	<b>671 vph</b>
PM Peak Hour	n/a	n/a	n/a	n/a	n/a	604 vph	591 vph	<b>676 vph</b>

**Figure 4-11: Existing Conditions Summary**





In 2004, over 600 vehicles were observed at this intersection during the AM and PM peak hours. The AM traffic volumes decreased by approximately 17% between 2004 and 2006. The 2006 PM peak hour traffic volumes were comparable to 2004 volumes. In 2008, over 670 vehicles were observed at this intersection during the AM and PM peak hours. This represents a 21% increase in the AM volumes and a 14% increase in the PM volumes compared to 2006 volumes. The 2008 AM peak hour volume is comparable to the 2004 volume. As under 2006 conditions, this intersection operates at LOS B during both the AM and PM peak hours.

## 5.0 INTERSECTION VOLUME AND CAPACITY SUMMARY

A summary of all intersection volumes (with comparisons where available) and a summary of all intersection capacity analysis results are provided in Tables 5-1 and 5-2, respectively. Figure 5-1 shows intersection and roadway count locations. Figures 5-2 and 5-3 illustrate the 2008 AM and PM peak hour traffic volumes, respectively. Daily volumes are presented in Section 6.

**Table 5-1a: Total Intersection Volumes – AM Peak Hour**

Devens Traffic Monitoring Program										
Total Intersection Volume Summary										
AM Peak Hour										
Intersection	1996 AM Baseline Pk. Hr. (vph)	1998 AM Pk. Hr. (vph)	2000 AM Pk. Hr. (vph)	2002 AM Pk. Hr. (vph)	2004 AM Pk. Hr. (vph)	2006 AM Pk. Hr. (vph)	<b>2008 AM Pk. Hr. (vph)</b>	1990 AM Composite Pk. Hr. (vph)	2015 AM No Build FEIR Pk. Hr. (vph)	2015 AM Full Build FEIR Pk. Hr. (vph)
1. Front St./Lancaster St./Leominster Rd./Center Rd., Shirley	802	861	803	738	761	815	<b>838</b>	n/a	n/a	n/a
2. Park St./Fitchburg Rd./Groton School Rd., Ayer	1210	1241	1157	1239	1146	1196	<b>1238</b>	1009	1242	2199
3. Park St./Main St./West Main St., Ayer	1492	1556	1361	1442	1372	1578	<b>1504</b>	1431	1297	2255
4. Groton-Harvard Rd./Central Ave., Ayer	864	941	880	990	869	782	<b>801</b>	n/a	n/a	n/a
5. Route 2A-110 (King St.)/I-495 Exit 30 NB Ramps, Littleton	1555	1703	1833	1941	1482	1462	<b>1472</b>	1494	1450	1626
6. Route 2A-110 (King St.)/I-495 Exit 30 SB Ramps, Littleton	1539	1714	1830	1782	1583	1657	<b>1578</b>	1272	1327	2146
7. Route 110-111 (Ayer Rd.)/Route 110/Route 111, Harvard	818	952	833	823	875	891	<b>949</b>	551	551	731
8. Route 70/Route 117 (Seven Bridge Rd.), Lancaster	1452	1582	1616	1597	1564	1621	<b>1760</b>	n/a	n/a	n/a
9. Route 70/Route 117 (Lunenburg Rd.), Lancaster	1471	1581	1652	1649	1608	1664	<b>1818</b>	n/a	n/a	n/a
10. Route 110 (King St.)/Route 119/Route 2A, Littleton Common	2085	2196	2225	2382	2180	1873	<b>1921</b>	n/a	n/a	n/a
11. Route 2A-110 (King St.)/Goldsmith St., Littleton Common	1469	1667	1674	1638	1449	1213	<b>1319</b>	n/a	n/a	n/a
12. Verbeck Gate/MacPherson Rd., Ayer	774	710	888	1014	916	1094	<b>1062</b>	936	936	1292
13. Grant Rd./West Main St., Ayer	n/a	n/a	n/a	n/a	637	625	<b>777</b>	n/a	n/a	n/a
14. Hospital Rd./Front St., Shirley	n/a	n/a	n/a	n/a	668	553	<b>671</b>	n/a	n/a	n/a

**Table 5-1b: Total Intersection Volumes – PM Peak Hour**

Devens Traffic Monitoring Program										
Total Intersection Volume Summary										
PM Peak Hour										
Intersection	1996 PM Baseline Pk. Hr. (vph)	1998 PM Pk. Hr. (vph)	2000 PM Pk. Hr. (vph)	2002 PM Pk. Hr. (vph)	2004 PM Pk. Hr. (vph)	2006 PM Pk. Hr. (vph)	<b>2008 PM Pk. Hr. (vph)</b>	1990 PM Composite Pk. Hr. (vph)	2015 PM No Build FEIR Pk. Hr. (vph)	2015 PM Full Build FEIR Pk. Hr. (vph)
1. Front St./Lancaster St./Leominster Rd./Center Rd., Shirley	953	779	847	782	850	776	<b>889</b>	n/a	n/a	n/a
2. Park St./Fitchburg Rd./Groton School Rd., Ayer	1353	1523	1447	1487	1482	1450	<b>1414</b>	1210	1526	2460
3. Park St./Main St./West Main St., Ayer	1721	1547	1698	1646	1699	1804	<b>1754</b>	1602	1398	2334
4. Groton-Harvard Rd./Central Ave., Ayer	841	956	904	960	854	796	<b>765</b>	n/a	n/a	n/a
5. Route 2A-110 (King St.)/I-495 Exit 30 NB Ramps, Littleton	1675	1711	1656	1927	1737	1893	<b>1647</b>	1317	1292	1806
6. Route 2A-110 (King St.)/I-495 Exit 30 SB Ramps, Littleton	1844	1705	1814	1981	1853	1959	<b>1733</b>	1538	1547	2336
7. Route 110-111 (Ayer Rd.)/Route 110/Route 111, Harvard	869	1135	668	642	710	609	<b>822</b>	467	534	633
8. Route 70/Route 117 (Seven Bridge Rd.), Lancaster	1614	1685	1657	1570	1636	1677	<b>1793</b>	n/a	n/a	n/a
9. Route 70/Route 117 (Lunenburg Rd.), Lancaster	1578	1800	1679	1600	1650	1720	<b>1825</b>	n/a	n/a	n/a
10. Route 110 (King St.)/Route 119/Route 2A, Littleton Common	2809	2880	2574	2871	2717	2450	<b>2499</b>	n/a	n/a	n/a
11. Route 2A-110 (King St.)/Goldsmith St., Littleton Common	1758	1724	1588	1840	1683	1521	<b>1600</b>	n/a	n/a	n/a
12. Verbeck Gate/MacPherson Rd., Ayer	726	669	926	959	936	1093	<b>1010</b>	1246	631	1498
13. Grant Rd./West Main St., Ayer	n/a	n/a	n/a	n/a	662	617	<b>890</b>	n/a	n/a	n/a
14. Hospital Rd./Front St., Shirley	n/a	n/a	n/a	n/a	604	591	<b>676</b>	n/a	n/a	n/a

**Table 5-2a: Intersection Capacity Analysis Level Of Service Summary AM Peak Hour**

Unsignalized Intersections	1996 AM Peak		1998 AM Peak		2000 AM Peak		2002 AM Peak		2004 AM Peak		2006 AM Peak		2008 AM Peak	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
<b>Location 1 - Front/Lancaster/Leominster/Center</b>														
All movements from Lancaster Northbound	B	6	B	8	D	26	C	15	B	12	B	13	B	14
All movements from Center Southbound	B	10	C	20	E	48	D	29	C	19	C	23	C	24
Left turn from Leominster Eastbound	A	2	A	2	A	8	A	7	A	7	A	7	A	7
Left turn from Front Street Westbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
<b>Location 2 - Park/Fitchburg/Groton School</b>														
Left/Right from Groton School Southbound (stop control)	F	>120	F	>120	F	102	E	44	C	20	C	20	F	79
Left turn from Fitchburg Road Eastbound	A	3	A	3	A	8	A	8	A	9	A	9	A	8
<b>Location 3 - Park/Main/West Main</b>														
All movements from Park (Mill) Street Northbound	B	9	B	8	n/a	n/a	C	16	B	14	C	15	C	18
All movements from Park Street Southbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
Left turn from West Main Street Eastbound	A	4	A	5	A	9	A	9	A	9	A	9	A	9
Left turn from Main Street Westbound	A	3	A	3	n/a	n/a	A	8	A	8	A	8	A	8
<b>Location 4 - Groton-Harvard/Central</b>														
All movements from Groton-Harvard Northbound	B	8	C	12	C	18	C	18	B	14	B	13	C	21
All movements from Groton-Harvard Southbound	C	12	F	>120	F	80	F	118	D	26	C	20	B	13
Left turn from Central Eastbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
Left turn from Central Westbound	A	3	A	3	A	8	A	8	A	8	A	8	A	7
<b>Location 5 - Route 2A-110/I-495 Northbound Ramps</b>														
Left turn from Ramps Northbound	C	16	C	19	E	106	E	36	C	23	C	22	C	20
Right turn from Ramps Northbound	C	15	C	17	F	n/a	F	106	C	23	B	13	C	15
Left turn from Route 2A-110 Westbound	B	5	B	6	B	11	B	10	A	9	A	9	A	9
<b>Location 6 - Route 2A-110/I-495 Southbound Ramps</b>														
Left turn from Ramps Northbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
Right turn from Ramps Northbound	B	6	B	8	C	21	C	18	B	13	B	14	B	14
All movements from Murray St(HartwellAve) Southbound	E	35	F	>120	F	>120	F	>120	F	88	F	76	F	60
Left turn from Route 2A-110 Eastbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
Left turn from Route 2A-110 Westbound	B	6	B	10	B	12	B	12	A	10	B	10	B	10
<b>Location 7 - Route 110-111(Ayer Road)/Still River</b>														
All movements from Still River Road Eastbound	C	11	C	19	E	47	D	28	C	22	C	20	D	30
All movements from Still River Road Westbound	C	12	E	30	F	>120	D	31	D	27	D	27	C	23
Left turn from Ayer Road Northbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
Left turn from Ayer Road Southbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
<b>Location 8 - Route 70/Route 117 (Seven Bridge Rd)</b>														
All movements from Seven Bridge Rd (Rt.117) Eastbound	F	88	A	3	A	< 8	n/a	n/a	n/a	n/a	n/a	n/a	A	8
All movements from Seven Bridge Road Westbound	B	10	B	8	B	11	B	11	B	11	B	11	B	12
All movements from Route 70 Northbound	B	7	F	>120	F	>120	F	>120	F	76	F	>120	F	>120
All movements from Route 70 Southbound	n/a	n/a	C	17	E	43	n/a	n/a	n/a	n/a	D	26	D	30

**Table 5-2a (Continued)**

Unsignalized Intersections	1996 AM Peak		1998 AM Peak		2000 AM Peak		2002 AM Peak		2004 AM Peak		2006 AM Peak		2008 AM Peak	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
<b>Location 9 - Route 70 (Lunenburg Road)/Route 117</b>														
All movements from Lunenburg Road Southbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
Left turn from Route 117 Eastbound	A	4	A	4	A	9	A	9	A	8	A	8	A	9
<b>Location 11 - Route 2A-110/Goldsmith</b>														
All movements from Goldsmith Northbound	F	>120	F	489	F	117	F	69	D	30	C	20	C	22
Left turn from Route 2A-110 Westbound	B	9	B	10	B	12	B	12	B	10	A	10	A	10
<b>Location 12 - Verbeck Gate/MacPherson/West Main</b>														
All movements from MacPherson Northbound	B	7	B	6	C	20	F	>120	C	19	E	36	D	27
All movements from MacPherson Southbound	B	6	B	9	A	< 5	F	62	C	20	D	35	D	33
All movements from West Main Eastbound			A	2	A	< 5	A	8	A	8	A	8	A	8
All movements from West Main Westbound	A	4	A	4	A	9	A	9	A	9	A	9	A	9
<b>Location 13 - Grant/West Main</b>														
All movements from Grant Road Northbound									B	12	B	12	B	14
Left turn from Front Street (West Main St) Westbound									A	8	A	8	A	9
<b>Location 14 - Hospital/Front</b>														
All movements from Hospital Road Northbound									B	13	B	12	B	13
Left turn from Front Street Westbound									A	8	A	8	A	8
Signalized Intersections	1996 AM Peak		1998 AM Peak		2000 AM Peak		2002 AM Peak		2004 AM Peak		2006 AM Peak		2008 AM Peak	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
<b>Location 10 - Littleton Road/Great Road * (overall)</b>														
Left turn from Littleton Road Eastbound	F	66	F	>120	F	>120	F	>120	F	>120	B	17	B	16
Through/Right from Littleton Road Eastbound	C	17	D	37			F	>120	F	>120	B	16	B	16
Left turn from Littleton Road Westbound	D	38	F	>120			E	77	D	48	B	14	B	14
Through/Right from Littleton Road Westbound	B	13	C	19			C	24	E	62	B	15	B	15
Left turn from Great Road Northbound	B	6	B	7			A	6	B	10	A	6	A	8
Through/Right from Great Road Northbound	B	7	B	8			C	20	C	29	C	28	C	28
Left turn from Great Road Southbound	A	4	A	4			A	10	B	12	A	8	A	7
Through/Right from Great Road Southbound	B	14	C	17			B	12	F	>120	E	75	F	>120

Note: (\*) Location 10 is a signalized intersection in 2006 and 2008.

**Table 5-2b: Intersection Capacity Analysis Level of Service Summary PM Peak Hour**

Unsignalized Intersections	1996 PM Peak		1998 PM Peak		2000 PM Peak		2002 PM Peak		2004 PM Peak		2006 PM Peak		2008 PM Peak	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
<b>Location 1 - Front/Lancaster/Leominster/Center</b>														
All movements from Lancaster Northbound	B	9	B	7	C	23	C	17	C	18	C	16	C	18
All movements from Center Southbound	C	12	B	10	C	24	C	22	D	25	C	23	D	27
Left turn from Leominster Eastbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
Left turn from Front Street Westbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
<b>Location 2 - Park/Fitchburg/Groton School</b>														
Left/Right from Groton School Southbound (stop control)	F	>120	F	>120	F	>120	F	>120	F	>120	F	54	F	101
Left turn from Fitchburg Road Eastbound	B	6	B	8	B	11	B	10	B	11	A	10	B	10
<b>Location 3 - Park/Main/West Main</b>														
All movements from Park (Mill) Street Northbound	C	10	D	21			D	26	D	31	D	33	E	38
All movements from Park Street Southbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
Left turn from West Main Street Eastbound	B	8	C	11	B	10	B	11	B	12	B	13	B	13
Left turn from Main Street Westbound	A	3	A	3			A	8	A	8	A	8	A	8
<b>Location 4 - Groton-Harvard/Central</b>														
All movements from Groton-Harvard Northbound	C	10	D	24	D	34	F	64	D	33	C	23	C	22
All movements from Groton-Harvard Southbound	B	10	D	25	D	34	F	67	C	21	C	24	C	21
Left turn from Central Eastbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
Left turn from Central Westbound	A	2	A	3	A	8	A	8	A	8	A	8	A	8
<b>Location 5 - Route 2A-110/I-495 Northbound Ramps</b>														
Left turn from Ramps Northbound	F	73	F	>120	F	94	F	>120	F	162	F	>120	F	77
Right turn from Ramps Northbound	B	6	B	7	C	16	C	16	C	18	C	20	C	21
Left turn from Route 2A-110 Westbound	A	4	A	4	A	9	A	9	A	9	A	9	A	9
<b>Location 6 - Route 2A-110/I-495 Southbound Ramps</b>														
Left turn from Ramps Northbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
Right turn from Ramps Northbound	B	5	B	6	B	14	B	14	B	14	B	13	B	14
All movements from Murray St. (Hartwell )Southbound	F	49	E	41	F	78	F	85	F	93	F	>120	F	88
Left turn from Route 2A-110 Eastbound	A	5	A	5	A	9	A	10	A	10	A	10	A	9
Left turn from Route 2A-110 Westbound	B	5	B	6	A	9	B	10	B	10	A	10	B	10
<b>Location 7 - Route 110-111(Ayer Road)/Still River</b>														
All movements from Still River Road Eastbound	C	11	C	11	C	18	C	15	C	21	C	16	D	32
All movements from Still River Road Westbound	B	9	B	10	C	23	C	18	C	24	C	19	E	35
Left turn from Ayer Road Northbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
Left turn from Ayer Road Southbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
<b>Location 8 - Route 70/Route 117 (Seven Bridge Rd)</b>														
All movements from Seven Bridge Road Eastbound	F	>120	B	6	A	10	n/a	n/a	n/a	n/a	A	10	B	10
All movements from Seven Bridge Road Westbound	C	14	A	4	A	9	C	22	A	9	A	9	A	9
All movements from Route 70 Northbound	A	4	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
All movements from Route 70 Southbound	B	5	D	22	E	36	n/a	n/a	n/a	n/a	E	37	E	41

**Table 5-2b (Continued)**

Unsignalized Intersections	1996 PM Peak		1998 PM Peak		2000 PM Peak		2002 PM Peak		2004 PM Peak		2006 PM Peak		2008 PM Peak	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
<b>Location 9 - Route 70 (Lunenberg Road)/Route 117</b>														
All movements from Lunenberg Road Southbound	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120	F	>120
Left turn from Route 117 Eastbound	B	7	B	9	B	11	B	11	B	11	B	11	B	12
<b>Location 11 - Route 2A-110/Goldsmith</b>														
All movements from Goldsmith Northbound	F	>120	F	>120	F	58	F	>120	F	156	F	88	F	>120
Left turn from Route 2A-110 Westbound	B	7	B	7	A	9	B	11	B	10	A	10	B	10
<b>Location 12 - Verbeck Gate/MacPherson/West Main</b>														
All movements from MacPherson Northbound	B	7	B	8	E	44	F	54	F	56	F	>120	F	>120
All movements from MacPherson Southbound	B	7	C	12	C	16	C	16	C	20	D	33	C	23
All movements from West Main Eastbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
All movements from West Main Westbound	A	3	A	3	A	8	A	8	A	8	A	8	A	8
<b>Location 13 - Grant/West Main</b>														
All movements from Grant Road Northbound									B	13	B	12	C	20
Left turn from Front Street Westbound									A	8	A	8	A	8
<b>Location 14 - Hospital/Front</b>														
All movements from Hospital Road Northbound									B	13	B	13	B	12
Left turn from Front Street Westbound									A	8	A	8	A	8
Signalized Intersections	1996 PM Peak		1998 PM Peak		2000 PM Peak		2002 PM Peak		2004 PM Peak		2006 PM Peak		2008 PM Peak	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
<b>Location 10 - Littleton Road/Great Road * (overall)</b>														
Left turn from Littleton Road Eastbound	F	>120	F	>120	F	>120	F	95	F	136	F	>120	F	107
Through/Right from Littleton Road Eastbound	B	7	B	9			B	15	B	16	B	16	C	19
Left turn from Littleton Road Westbound	B	11	C	17			F	86	B	19	B	15	C	19
Through/Right from Littleton Road Westbound	B	15	C	17			C	27	D	48	C	33	C	25
Left turn from Great Road Northbound	E	60	E	59			F	15	A	10	A	9	A	9
Through/Right from Great Road Northbound	D	39	D	37			F	15	F	>120	F	>120	F	>120
Left turn from Great Road Southbound	E	55	F	>120			C	24	A	8	A	7	A	8
Through/Right from Great Road Southbound	E	13	D	32			F	>120	E	59	D	39	E	45

Note: (\*) Location 10 is a signalized intersection in 2006 and 2008.

**Figure 5-1: External Count Locations – April 2008**

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INSERT 11x17 figure



**Figure 5-2: AM Peak Hour Traffic Volumes – 2008 Conditions**

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Insert the 11x17 figure

**Figure 5-3: PM Peak Hour Traffic Volumes – 2008 Conditions**

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Insert the 11x17 figure

## 6.0 AUTOMATIC TRAFFIC RECORDER COUNTS

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### 6.1 48 – Hour Counts

A series of 48-hour automatic traffic recorder (ATR) counts were included as part of the traffic monitoring program to conduct a comparison of daily and hourly directional traffic on critical study area roadways. Counts were taken at the locations listed below during the noted dates.

<u>Location</u>	<u>Dates</u>
1. Route 111 at Boxborough/Harvard Town Line	4/08/08-4/09/08
2. Route 2A at Ayer/Shirley Town Line	4/08/08-4/09/08
3. Route 111 at Ayer/Groton Town Line	4/08/08-4/09/08
4. Sandy Pond Road East of Central Avenue, Ayer	4/08/08-4/09/08
5. Groton-Harvard Road at Ayer/Groton Town Line	4/08/08-4/09/08
6. Front Street West of Ayer Street, Shirley	4/08/08-4/10/08
7. Jackson Gate	4/08/08-4/09/08
8. Verbeck Gate	4/08/08-4/09/08
9. Shirley Gate	4/08/08-4/09/08
10. Barnum Gate	4/08/08-4/09/08
11. Grant Road Gate (New Location)	4/08/08-4/09/08
12. Poor Farm Road East of Route 110-111, Harvard	4/08/08-4/09/08
13. Carleton Rotary (all approaches and exits)	4/08/08-4/09/08
14. Route 110-111 South of Route 2, Harvard	4/08/08-4/09/08

All of the data was collected prior to school ending for the summer in 2008.

A summary of the average weekday (24-hour total) traffic, as well as AM and PM peak hour volumes, is provided in the following tables (6-1a – 6-1c). The average weekday volumes are also illustrated in Figure 6-1.

As shown in Table 6-1a, all the Devens' gates (Jackson Road, Verbeck, Shirley, Barnum, and Grant Road) experienced increased average weekday traffic volumes between 2006 and 2008. The most dramatic increase in volume was observed at Grant Road Gate with 2,233 vehicles in 2008, an increase of 139%, followed by Jackson Road Gate with an increase of 30% compared to 2006 volumes. Average weekday daily traffic in Barnum Gate was 5,624 vehicles, an increase of 18% compared to the 2006 volumes. The 2008 average weekday daily volumes of Verbeck Gate and Shirley Gate increased by 5% and 7%, respectively, and are comparable to the 2006 volumes.

**Figure 6-1: Average Weekday Daily Traffic – 2008 Conditions**

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Insert 11 X 17 figure

**Table 6-1a: Automatic Traffic Recorder (ATR) Summary – Average Weekday Daily Traffic**

Location	1996 AWDT (vpd)	1998 AWDT (vpd)	2000 AWDT (vpd)	2002 AWDT (vpd)	2004 AWDT (vpd)	2006 AWDT (vpd)	2008 AWDT (vpd)
1. Route 111 at Boxborough/Harvard Town Line	4,480	n/a	4,859	5,508	6,847	5,298	<b>4,899</b>
2. Route 2A at Ayer/Shirley Town Line	9,316	8,643	7,667	8,537	8,465	7,845	<b>7,109</b>
3. Route 111 at Ayer/Groton Town Line	6,482	5,497	5,120	5,764	5,609	6,102	<b>5,553</b>
4. Sandy Pond Road east of Central Ave., Ayer	5,529	n/a	5,907	5,939	5,921	5,855	<b>5,869</b>
5. Groton-Harvard Road at Ayer/Groton Town Line	4,922	n/a	4,705	5,602	6,064	5,376	<b>4,788</b>
6. Front St. west of Ayer St., Shirley	5,651	5,790	5,509	5,872	5,677	5,716	<b>6,398</b>
7. Jackson Road Gate	3,578	4,854	6,398	7,405	8,508	9,552	<b>12,394</b>
<i>From Rt.2 WB Off Ramp to Jackson Rd. NB</i>							<b>2,024</b>
<i>From Rt.2 EB Off Ramp – Jackson Rd. NB</i>							<b>4,296</b>
<i>To Rt. 2 WB On-Ramp from Jackson Rd. SB</i>							<b>4,285</b>
<i>To Rt.2 EB On-Ramp from Jackson Rd. SB</i>							<b>1,784</b>
8. Verbeck Gate	2,354	3,363	4,655	6,134	4,798	5,229	<b>5,327</b>
9. Shirley Gate	n/a	533	1,104	731	1,927	1,317	<b>1,406</b>
10. Barnum Gate	2,172	2,766	3,418	5,966	4,587	4,779	<b>5,624</b>
11. Grant Road Gate	n/a	n/a	n/a	n/a	638	936	<b>2,233</b>
12. Poor Farm Rd. east of Route 110/111, Harvard	1,351	1,442	1,255	1,709	1,659	1,520	<b>1,421</b>
13. Carlton Rotary							
Route 2A/110 east of rotary	14,472	15,229	14,131	17,677	16,258	16,722	<b>15,338</b>
Sandy Pond Road north of rotary	4,701	6,505	3,798	4,301	5,030	5,178	<b>5,022</b>
Route 2A/111 west of rotary (WB)	10,355	10,650	9,629	10,352	10,806	10,080	<b>9,583</b>
Route 2A/111 west of rotary (EB)	9,951	10,394	9,483	9,796	10,101	9,370	<b>9,152</b>
Barnum Road south of rotary	3,186	2,694	3,418	5,966	5,326	5,920	<b>7,749</b>
Route 110/111 south of rotary	13,837	14,533	13,475	15,677	16,127	10,715	<b>14,417</b>
14. Route 110/111 south of Route 2, Harvard	7,440	8,140	7,279	8,302	8,591	8,186	<b>7,735</b>

Table 6-1b shows that AM peak hour volumes for Jackson, Shirley, Barnum and Grant Road Gates increased in 2008 compared to 2006 conditions. The 2008 AM peak hour volume at Verbeck Gate decreased by 8% compared to the 2006 volumes. Table 6-1c shows that the 2008 PM peak hour volumes increased for all gates. The PM peak hour volumes at Grant Road Gate and Jackson Road Gate increased by 187% and 28%, respectively compared to the 2006 volumes. The 2008 PM peak hour volumes of Verbeck, Shirley and Barnum gates are comparable to the 2006 volumes.

**Table 6-1b: Automatic Traffic Recorder (ATR) Summary – AM Peak Hour**

Location	1996 AM Pk. Hr. (vph)	1998 AM Pk. Hr. (vph)	2000 AM Pk. Hr. (vph)	2002 AM Pk. Hr. (vph)	2004 AM Pk. Hr. (vph)	2006 AM Pk. Hr. (vph)	2008 AM Pk. Hr. (vph)
1. Route 111 at Boxborough/Harvard Town Line	448	n/a	540	552	715	516	<b>550</b>
2. Route 2A at Ayer/Shirley Town Line	852	740	723	743	816	728	<b>697</b>
3. Route 111 at Ayer/Groton Town Line	596	540	426	469	580	496	<b>500</b>
4. Sandy Pond Road east of Central Ave., Ayer	445	n/a	502	498	471	481	<b>519</b>
5. Groton-Harvard Road at Ayer/Groton Town Line	473	n/a	546	549	500	552	<b>482</b>
6. Front St. west of Ayer St., Shirley	412	403	429	495	441	456	<b>541</b>
7. Jackson Road Gate	324	462	812	770	836	951	<b>1,236</b>
<i>From Rt.2 WB Off Ramp to Jackson Rd. NB</i>							<b>236</b>
<i>From Rt.2 EB Off Ramp – Jackson Rd. NB</i>							<b>689</b>
<i>To Rt. 2 WB On-Ramp from Jackson Rd. SB</i>							<b>203</b>
<i>To Rt.2 EB On-Ramp from Jackson Rd. SB</i>							<b>120</b>
8. Verbeck Gate	217	264	470	492	441	454	<b>417</b>
9. Shirley Gate	n/a	48	70	53	232	132	<b>245</b>
10. Barnum Gate	159	193	260	384	418	366	<b>529</b>
11. Grant Road Gate	n/a	n/a	n/a	n/a	67	97	<b>249</b>
12. Poor Farm Rd. east of Route 110/111, Harvard	129	162	132	180	168	154	<b>146</b>
13. Carlton Rotary							
Route 2A/110 east of rotary	1,023	978	1,071	1,215	1,158	1,097	<b>1,052</b>
Sandy Pond Road north of rotary	307	441	325	403	433	433	<b>423</b>
Route 2A/111 west of rotary (WB)	537	459	519	488	622	546	<b>513</b>
Route 2A/111 west of rotary (EB)	1,056	1,054	1,034	1,040	940	890	<b>852</b>
Barnum Road south of rotary	220	181	260	384	401	403	<b>575</b>
Route 110/111 south of rotary	1,075	1,148	1,121	1,202	1,346	796	<b>1,254</b>
14. Route 110/111 south of Route 2, Harvard	658	678	672	695	783	738	<b>738</b>

**Table 6-1c: Automatic Traffic Recorder (ATR) Summary – PM Peak Hour**

Location	1996 PM Pk. Hr. (vph)	1998 PM Pk. Hr. (vph)	2000 PM Pk. Hr. (vph)	2002 PM Pk. Hr. (vph)	2004 PM Pk. Hr. (vph)	2006 PM Pk. Hr. (vph)	2008 PM Pk. Hr. (vph)
1. Route 111 at Boxborough/Harvard Town Line	538	n/a	530	549	714	603	<b>534</b>
2. Route 2A at Ayer/Shirley Town Line	905	787	704	805	789	762	<b>698</b>
3. Route 111 at Ayer/Groton Town Line	554	541	406	483	554	529	<b>490</b>
4. Sandy Pond Road east of Central Ave., Ayer	538	n/a	575	550	551	563	<b>588</b>
5. Groton-Harvard Road at Ayer/Groton Town Line	438	n/a	453	493	536	483	<b>448</b>
6. Front St. west of Ayer St., Shirley	492	458	471	482	506	495	<b>550</b>
7. Jackson Road Gate	369	434	579	631	853	926	<b>1,188</b>
From Rt.2 WB Off Ramp to Jackson Rd. NB							<b>220</b>
From Rt.2 EB Off Ramp – Jackson Rd. NB							<b>184</b>
To Rt. 2 WB On-Ramp from Jackson Rd. SB							<b>668</b>
To Rt.2 EB On-Ramp from Jackson Rd. SB							<b>206</b>
8. Verbeck Gate	206	252	380	506	421	488	<b>512</b>
9. Shirley Gate	n/a	53	122	36	179	138	<b>150</b>
10. Barnum Gate	172	224	367	430	454	462	<b>470</b>
11. Grant Road Gate	n/a	n/a	n/a	n/a	72	92	<b>264</b>
12. Poor Farm Rd. east of Route 110/111, Harvard	147	152	124	164	152	140	<b>148</b>
13. Carlton Rotary							
Route 2A/110 east of rotary	1,248	1,257	1,133	1,326	1,324	1,414	<b>1,281</b>
Sandy Pond Road north of rotary	456	558	320	363	449	494	<b>440</b>
Route 2A/111 west of rotary (WB)	1,232	1,182	1,043	1,137	1,142	1,086	<b>1,072</b>
Route 2A/111 west of rotary (EB)	611	555	581	507	636	604	<b>572</b>
Barnum Road south of rotary	261	170	367	430	532	598	<b>709</b>
Route 110/111 south of rotary	1,222	1,269	1,098	1,210	1,338	944	<b>1,260</b>
14. Route 110/111 south of Route 2, Harvard	760	766	600	640	736	764	<b>735</b>

## 6.2 Week Long Counts

Week long counts were conducted at six locations from April 7<sup>th</sup> through April 13<sup>th</sup>, 2008. Due to disruptions, two locations were recounted. In a few cases, the counts were combined with days from different weeks to develop the average weekday daily traffic. All of the data was collected prior to school ending for the summer in 2008. The following is a list of the week-long count locations and the dates that they were counted.

<b>Location</b>	<b>Dates (2008)</b>
1. Route 110-111 North of Route 2, Harvard	Mon. April 7 <sup>th</sup> – Fri. April 11 <sup>th</sup> Sat. May 31 <sup>st</sup> – Sun. June 1 <sup>st</sup>
2. Route 2A-110 at Ayer/Littleton Town Line	Mon. April 7 <sup>th</sup> – Sun. April 13 <sup>th</sup>
3. Route 2 East of I-495, Littleton	Mon. April 7 <sup>th</sup> – Sun. April 13 <sup>th</sup>
4. Route 2 West of I-495, Littleton	Mon. April 7 <sup>th</sup> – Sun. April 13 <sup>th</sup>
5. Route 2 West of Route 70, Lancaster	Tues. April 8 <sup>th</sup> – Sat. April 12 <sup>th</sup> Sun. April 27 <sup>th</sup> – Tues. April 29 <sup>th</sup>
6. Route 2 West of I-90, Leominster	Mon. April 7 <sup>th</sup> – Sun. April 13 <sup>th</sup>

A summary of traffic volume characteristics associated with each of these roadways is provided in Table 6-2.

As shown in Table 6-2, the 2008 average 7-day counts decreased at all the six locations compared to the 2006 volumes. Location 4 (Route 2 West of I-495, Littleton) experienced the largest decrease in average daily traffic (8%) and the average weekday traffic (5%). The 2008 AM and PM peak hour volumes at most of the locations are comparable to the 2006 volumes. Location 1 (Route 110-111 North of Route 2 in Harvard) experienced a 7% increase for both the AM and PM peak hours, and Location 5 (Route 2 West of Route 70 in Lancaster) experienced a 6% decrease in PM peak hour traffic volumes.

Table 6-2 shows that the 2008 Saturday and Sunday traffic volumes decreased at all the locations compared to the 2006 volumes. The following locations experienced the largest decreases in Saturday volumes from 2006 to 2008:

- Route 2 West of I-495, Littleton (-15%)
- Route 110-111 North of Route 2, Harvard (-10%)
- Route 2 East of I-495, Littleton (-9%)
- Route 2A-110 at Ayer/Littleton Town Line (-9%)

The following locations experienced the largest decreases in Sunday volumes from 2006 to 2008:

- Route 2A-110 at Ayer/Littleton Town Line (-14%)
- Route 2 East of I-495, Littleton (-10%)
- Route 2 West of I-495, Littleton (-9%)

Day of week variations in traffic volumes on these roadways are illustrated in Figure 6-2 below.



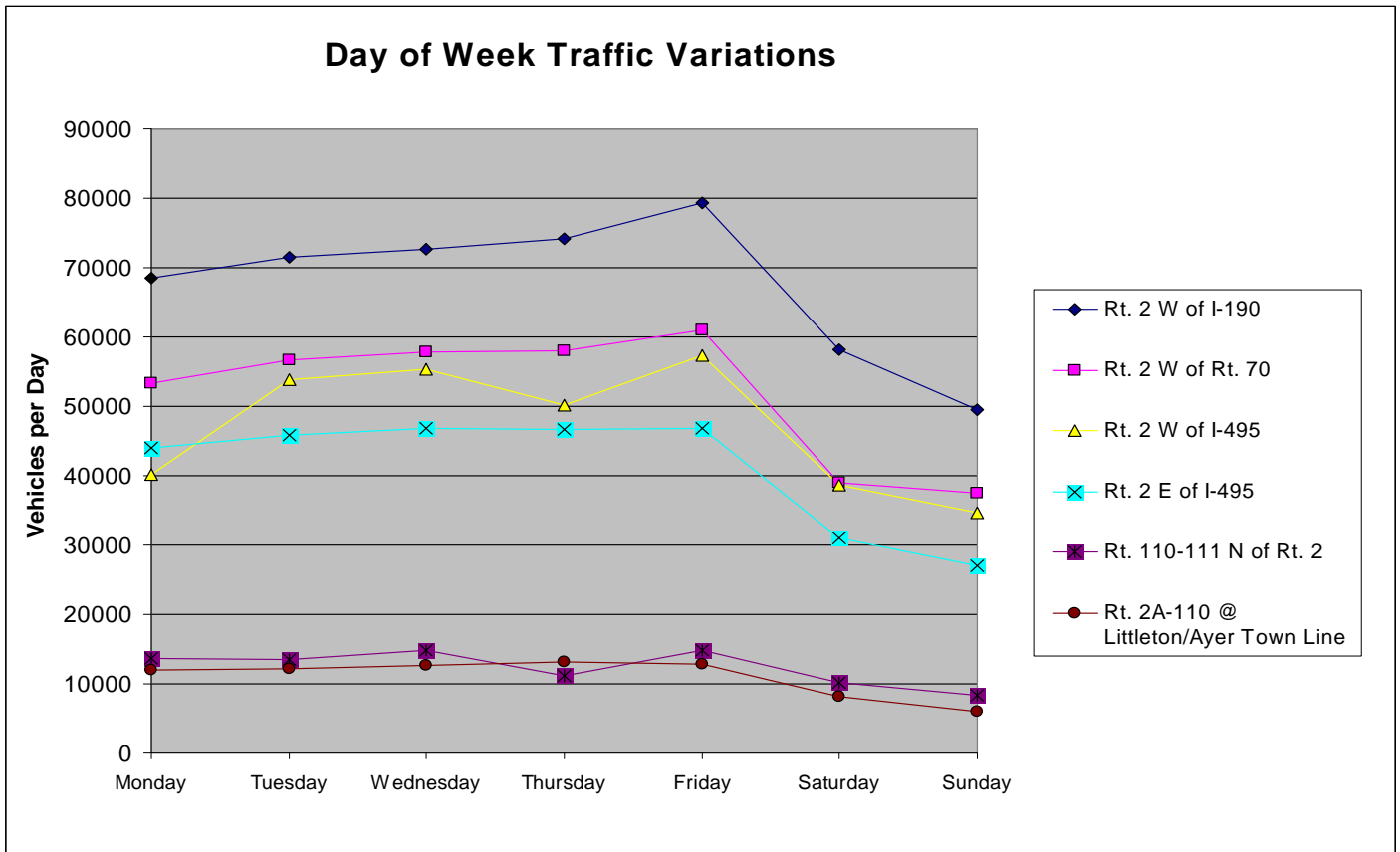
**Table 6-2: Automatic Traffic Recorder (ATR) Summary – 7 Day Counts**

Location	1996 ADT (vpd)	1998 ADT (vpd)	2000 ADT (vpd)	2002 ADT (vpd)	2004 ADT (vpd)	2006 ADT (vpd)	2008 ADT (vpd)	1996 AWDT (vpd)	1998 AWDT (vpd)	2000 AWDT (vpd)	2002 AWDT (vpd)	2004 AWDT (vpd)	2006 AWDT (vpd)	2008 AWDT (vpd)
1. Route 110-111 North of Route 2, Harvard	11,912	11,524	13,258	13,471	13,378	12,758	12,574 <sup>5</sup>	13,185	12,813	14,748	14,986	14,961	13,907	14,203 <sup>5</sup>
2. Route 2A-110 at Littleton/Ayer Town Line <sup>1</sup>	8,567	10,681	12,039	12,126	11,721	11,376	10,987	9,598	11,958	12,039	13,470	13,084	13,101	12,548
3. Route 2 East of I-495, Littleton	36,141	38,979	43,851	42,076	52,876	41,970	41,136	40,233	43,328	50,195	46,033	59,095	45,982	45,992
4. Route 2 West of I-495, Littleton <sup>2</sup>	40,510	44,620	42,485	51,083	60,066	52,484	48,340	44,720	49,076	46,707	58,944	67,145	57,240	54,148
5. Route 2 West of Route 70, Lancaster	41,441	41,981	NA	NA	51,628	53,198	51,902	43,940	45,581	43,870	NA	57,989	57,464	57,367
6. Route 2 West of I-190, Leominster <sup>3</sup>	51,857	55,982	58,650	64,339	70,414	69,094	67,698	55,588	60,966	64,482	71,263	75,706	73,935	73,237
Location	1996 AM Peak Hr. (vph)	1998 AM Peak Hr. (vph)	2000 AM Peak Hr. (vph)	2002 AM Peak Hr. (vph)	2004 AM Peak Hr. (vph)	2006 AM Peak Hr. (vph)	2008 AM Peak Hr. (vph)	1996 PM Peak Hr. (vph)	1998 PM Peak Hr. (vph)	2000 PM Peak Hr. (vph)	2002 PM Peak Hr. (vph)	2004 PM Peak Hr. (vph)	2006 PM Peak Hr. (vph)	2008 PM Peak Hr. (vph)
1. Route 110-111 North of Route 2, Harvard	1,083	969	1,201	1,252	1,156	1,150	1,227	1,169	1,092	1,237	1,222	1,230	1,185	1,268 <sup>6</sup>
2. Route 2A-110 at Littleton/Ayer Town Line <sup>1</sup>	799	890	1,030	1,054	1,004	958	947	725	911	940	1,003	1,111	1,060	1,017
3. Route 2 East of I-495, Littleton	3,886	3,896	4,374	4,064	5,430	4,217	4,230	3,872	3,964	5,133	3,962	4,860	4,025	4,055
4. Route 2 West of I-495, Littleton <sup>2</sup>	4,096	4,666	4,486	4,931	6,120	5,008	5,127	4,008	4,080	4,052	5,028	5,787	4,914	4,762
5. Route 2 West of Route 70, Lancaster	4,143	4,610	4	4	6,040	4,830	5,029	3,858	3,868	4	NA	4,443	4,966	4,693
6. Route 2 West of I-190, Leominster <sup>3</sup>	4,701	5,417	5,556	5,567	6,150	5,998	6,050	4,625	5,082	5,313	5,766	6,135	6,058	5,935
Location	1996 Sat. (vpd)	1998 Sat. (vpd)	2000 Sat. (vpd)	2002 Sat. (vpd)	2004 Sat. (vpd)	2006 Sat. (vpd)	2008 Sat. (vpd)	1996 Sat. Peak Hr. (vph)	1998 Sat. Peak Hr. (vph)	2000 Sat. Peak Hr. (vph)	2002 Sat. Peak Hr. (vph)	2004 Sat. Peak Hr. (vph)	2006 Sat. Peak Hr. (vph)	2008 Sat. Peak Hr. (vph)
1. Route 110-111 North of Route 2, Harvard	10,175	9,209	10,641	11,167	10,916	11,307	10,234	880	764	875	933	958	1,000	896
2. Route 2A-110 at Littleton/Ayer Town Line <sup>1</sup>	6,597	8,270	NA	10,033	9,659	9,003	8,235	553	653	NA	814	776	704	681
3. Route 2 East of I-495, Littleton	27,235	30,428	28,399	34,232	44,822	34,039	31,001	2,047	2,240	2,227	2,454	3,294	2,595	2,396
4. Route 2 West of I-495, Littleton <sup>2</sup>	30,194	37,623	33,015	38,747	40,606	42,099	38,749	2,383	2,972	2,341	2,954	3,011	3,134	2,992
5. Route 2 West of Route 70, Lancaster	35,527	35,321	4	4	30,552	45,817	39,025	2,553	2,732	4	4	2,237	3,341	2,855
6. Route 2 West of I-190, Leominster <sup>3</sup>	43,925	4	46,368	53,238	62,260	62,440	58,145	3,174	4	3,592	4,198	4,695	4,680	4,490
Location	1996 Sunday (vpd)	1998 Sunday (vpd)	2000 Sunday (vpd)	2002 Sunday (vpd)	2004 Sunday (vpd)	2006 Sunday (vpd)	2008 Sunday (vpd)	1996 Sunday Peak Hr. (vph)	1998 Sunday Peak Hr. (vph)	2000 Sunday Peak Hr. (vph)	2002 Sunday Peak Hr. (vph)	2004 Sunday Peak Hr. (vph)	2006 Sunday Peak Hr. (vph)	2008 Sunday Peak Hr. (vph)
1. Route 110-111 North of Route 2, Harvard	7,282	7,403	8,442	11,167	7,926	8,464	8,398	628	587	828	933	815	800	769
2. Route 2A-110 at Littleton/Ayer Town Line <sup>1</sup>	5,380	6,722	NA	10,033	6,969	6,906	5,918	491	532	NA	814	625	652	532
3. Route 2 East of I-495, Littleton	24,582	25,805	27,591	34,232	29,835	29,845	26,984	1,989	2,149	2,436	2,454	2,583	2,758	2,320
4. Route 2 West of I-495, Littleton <sup>2</sup>	29,775	29,340	30,834	38,747	44,132	38,089	34,701	2,499	2,307	2,616	2,954	3,708	3,363	3,139
5. Route 2 West of Route 70, Lancaster	32,387	30,644	4	4	40,889	39,248	37,459	2,642	2,735	4	4	3,429	3,289	3,058
6. Route 2 West of I-190, Leominster <sup>3</sup>	41,133	40,936	30,834	53,238	52,103	51,540	49,557	3,310	3,391	3,592	4,198	4,227	4,454	4,428

Notes:

1. 2 day count in 2000
2. 5 day count in 2002
3. 6 day count in 2002
4. Data not available from MHD permanent count locations
5. 6 day count in 2008
6. 4 day count in 2008

**Figure 6-2: Day of Week Traffic Variations**



As was shown in previous reports, it can be seen that despite the differences in traffic volume, these roadways tend to follow an expected pattern of increasing traffic from Monday to Friday, with decreased Saturday and Sunday volumes. These characteristics are less apparent but still evident on the local roadways such as Route 2A-110, where the component of local traffic represents a higher percentage of overall daily volumes.

### 6.3 Vehicle Classification

A series of vehicle classification counts were conducted to monitor heavy vehicle volumes. The two-directional vehicle classification counts were conducted at the following locations during the specified dates:

<u>Location</u>	<u>Dates</u>
1. Barnum Gate	4/08/08-4/09/08
2. Verbeck Gate	4/08/08-4/09/08
3. Jackson Gate	4/08/08-4/09/08
4. Grant Road Gate (New Location)	4/08/08-4/09/08
5. Shirley Gate	4/08/08-4/09/08
6. Route 110/111 North of Route 2, Harvard	4/08/08-4/09/08

These vehicle classification counts were conducted for a minimum 48-hour period and were programmed to identify the 13 different Federal Highway Administration vehicle classifications. For simplicity in reporting, these results have been summarized into four categories: motorcycles, passenger vehicles, single unit trucks and buses, and tractor-trailers. The full vehicle classifications printouts are provided in the Appendix.

The charts provided on the following pages depict the hourly distribution of two-way truck traffic at each location where vehicle classification counts were conducted. Most gates experience a spike in truck traffic between the hours of 6:00 and 8:00 AM. Verbeck and Grant gates have additional truck traffic peaks during the afternoon hours between 1:00 and 3:00 PM.

**Figure 6-3: Truck Traffic Distribution, Route 110-111, Harvard**

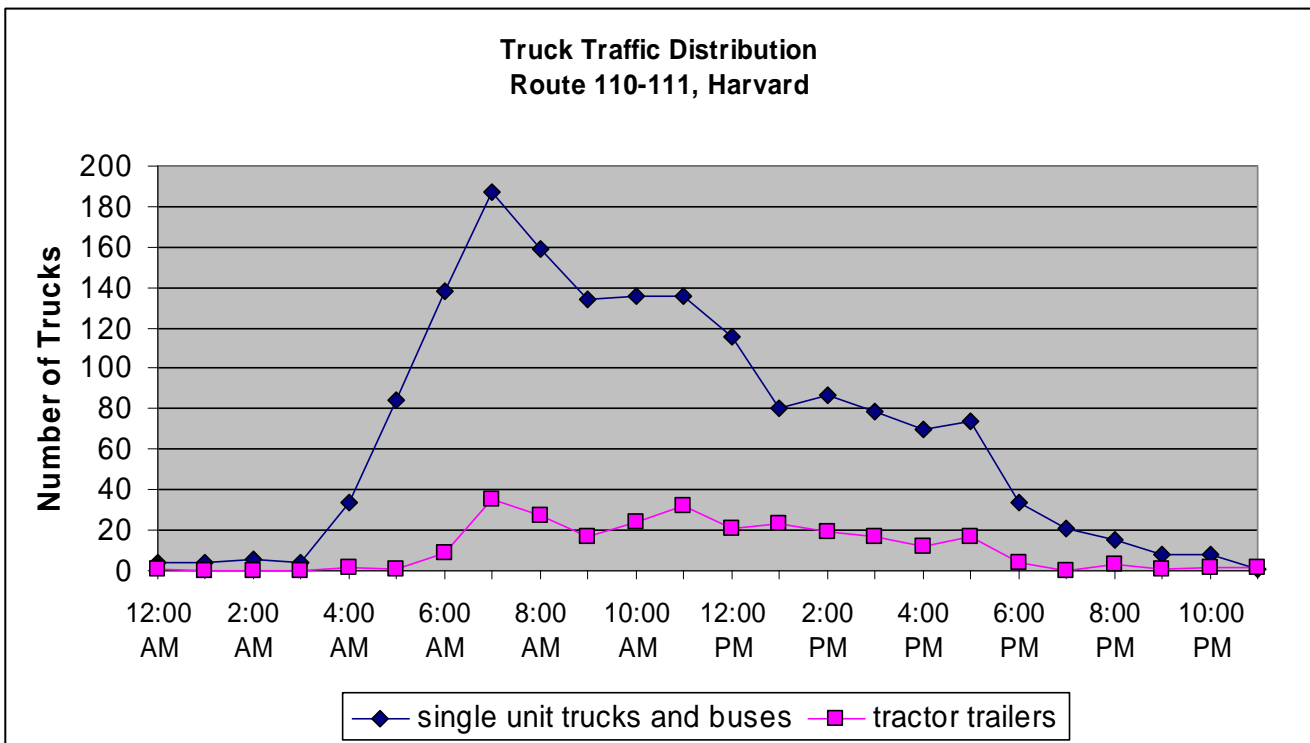
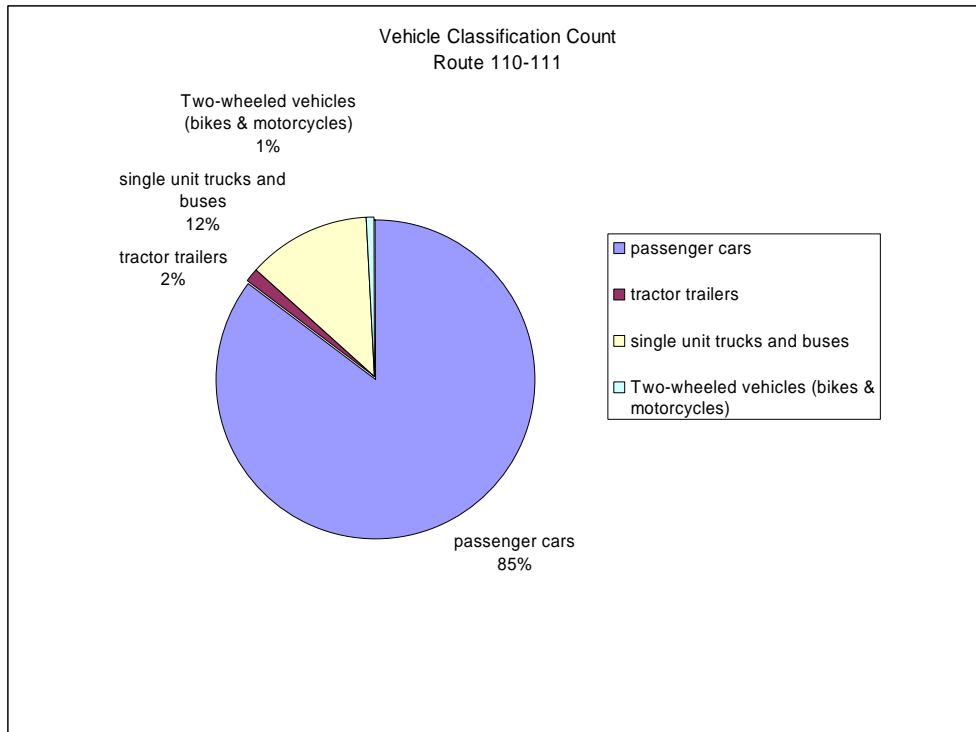
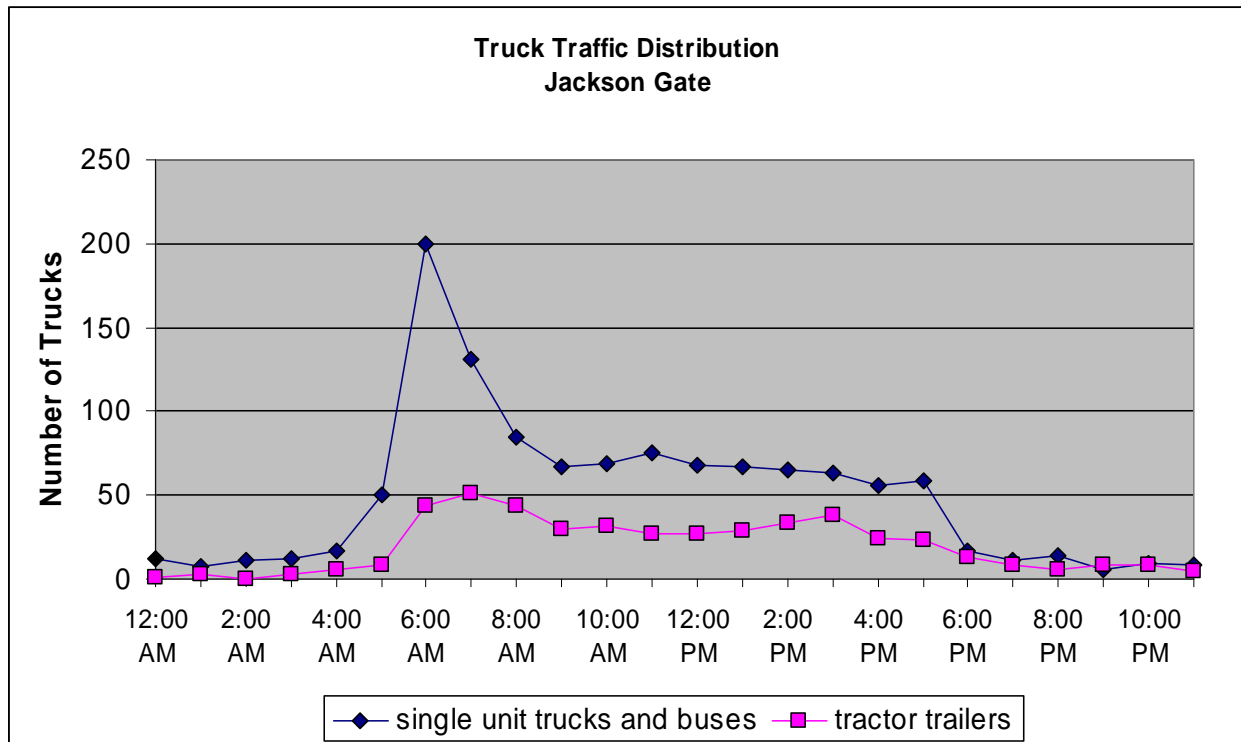


Figure 6-4 shows vehicle classification distribution at Route 110-111 in Harvard, and Figure 6-11 shows vehicle classification at all gates.

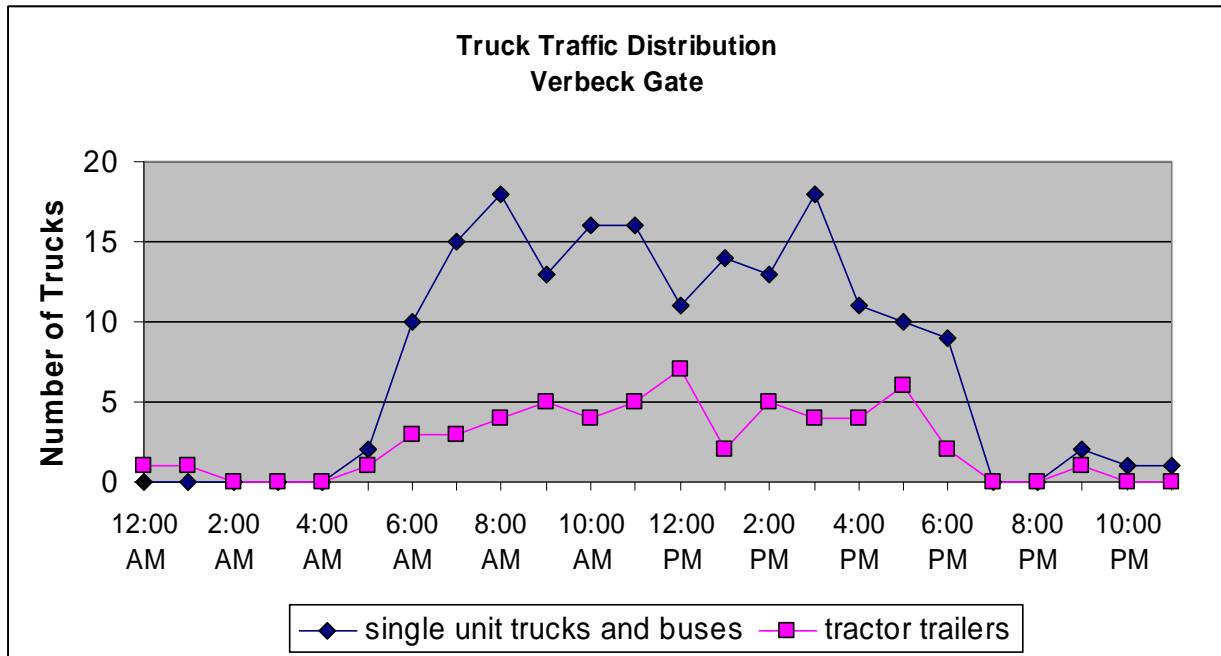
**Figure 6-4: Vehicle Classification Count, Route 110-111/Harvard**



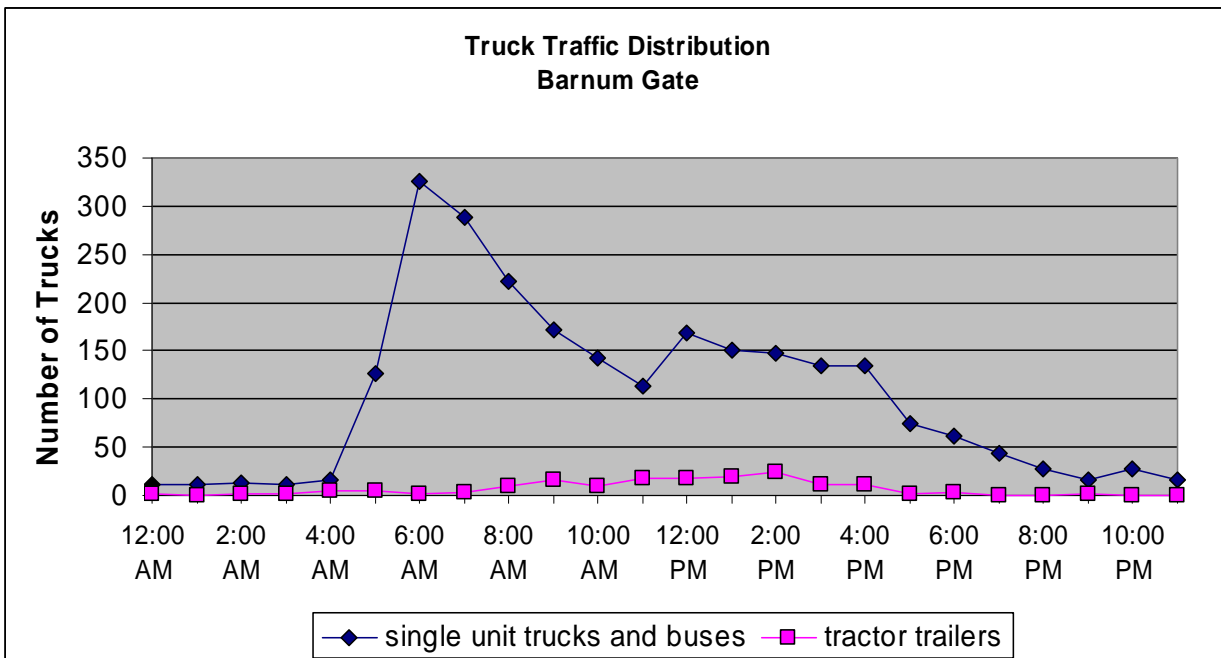
**Figure 6-5: Truck Traffic Distribution, Jackson Gate**



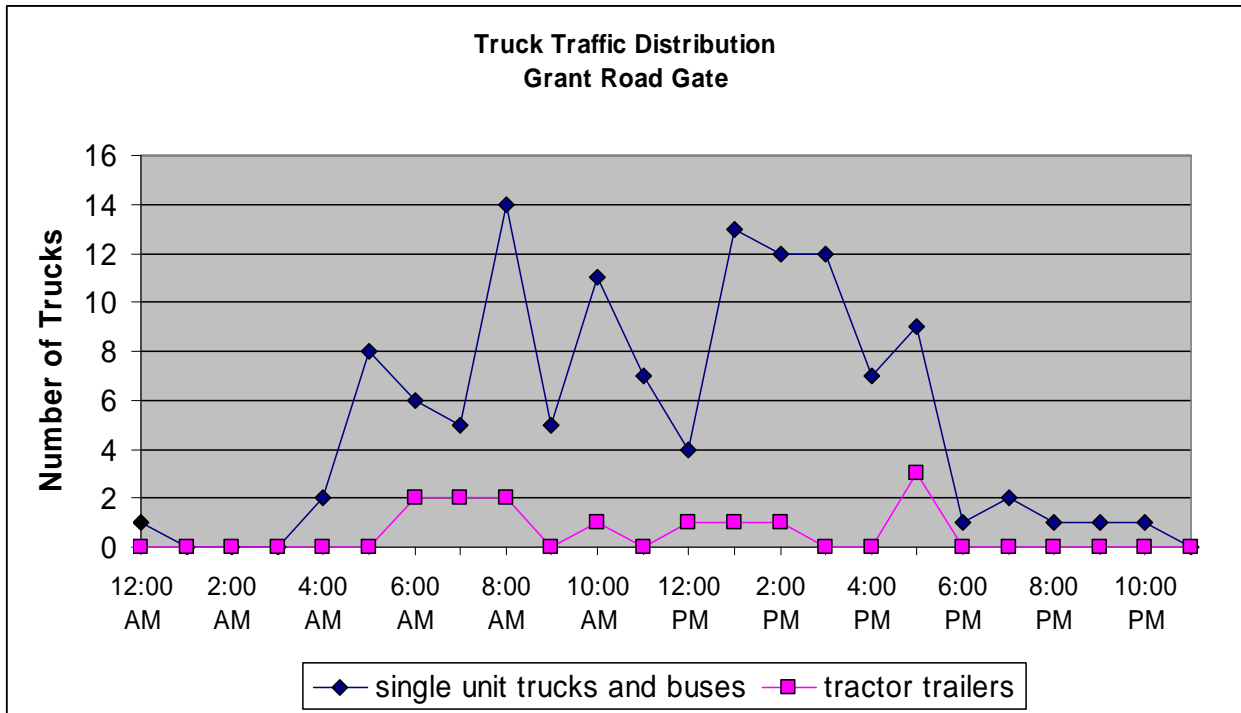
**Figure 6-6: Truck Traffic Distribution, Verbeck Gate**



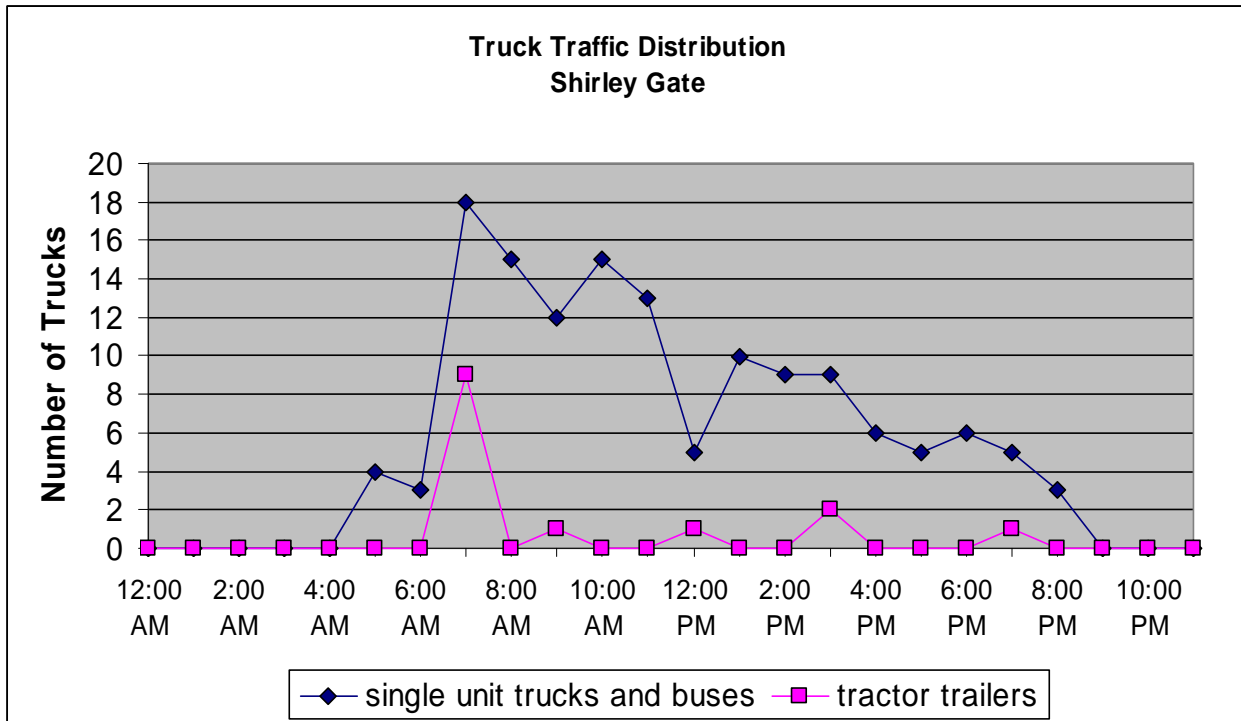
**Figure 6-7: Truck Traffic Distribution, Barnum Gate**



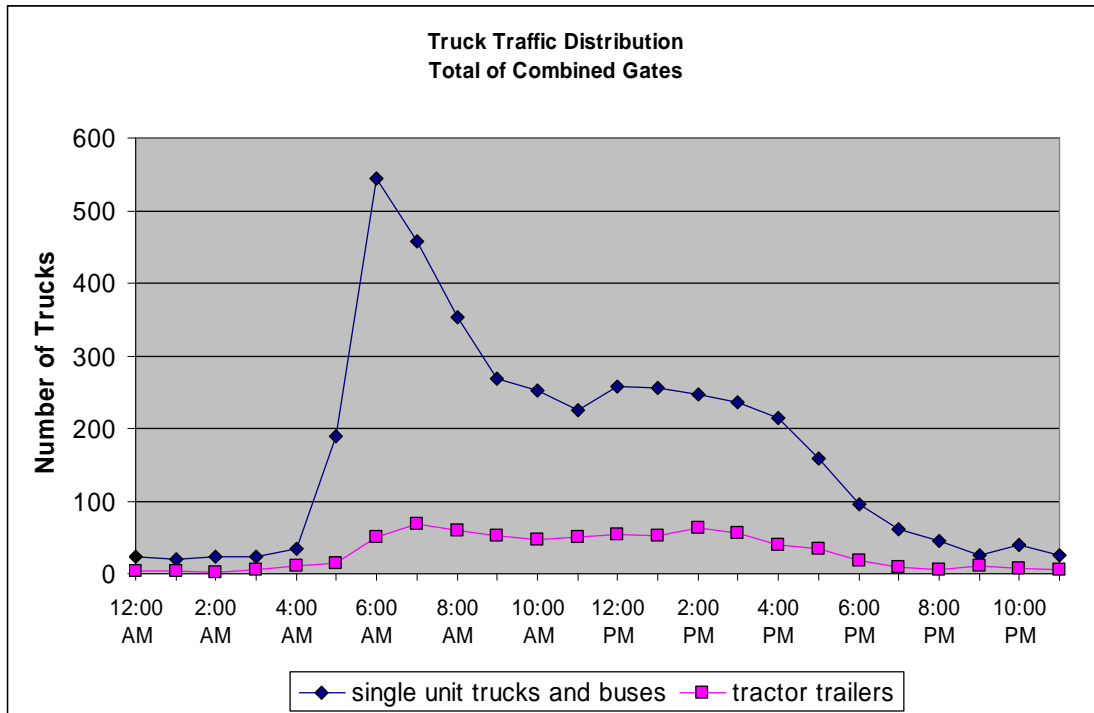
**Figure 6-8: Truck Traffic Distribution, Grant Road Gate**



**Figure 6-9: Truck Traffic Distribution, Shirley Gate**



**Figure 6-10: Truck Traffic Distribution, Total of Combined Gates**



**Figure 6-11: Vehicle Classification Summary, All Gates**

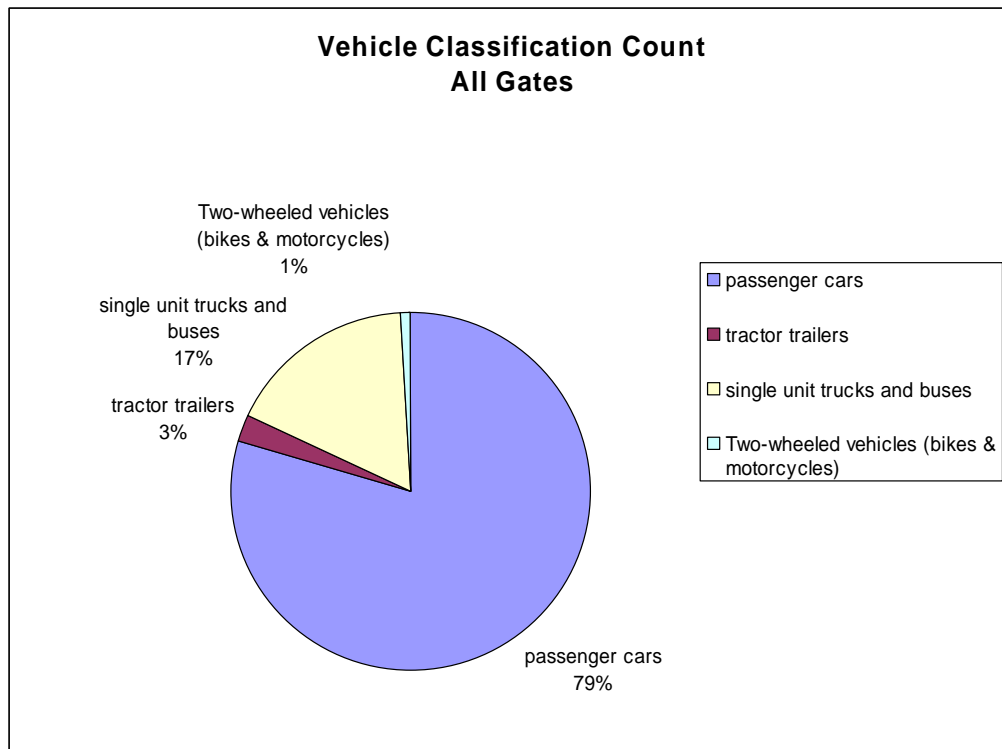
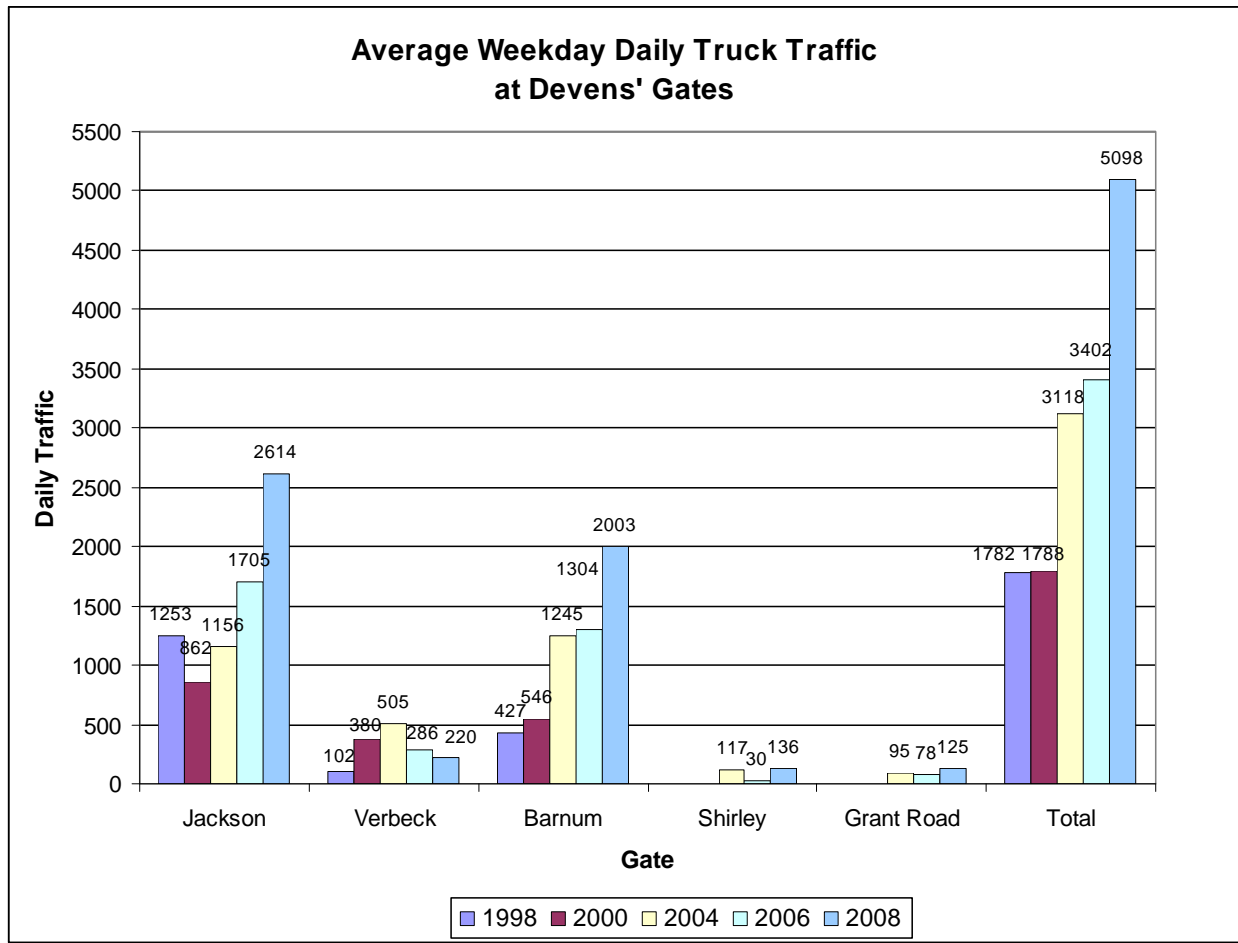


Figure 6-12 shows the average weekday daily truck volumes at Devens' gates for the years 1998, 2000, 2004, 2006, and 2008. The total daily truck traffic through all gates was about equal for 1998 and 2000 (approximately 1,800 truck trips). The number of daily truck trips (3,118) increased significantly (+74%) between 2000 and 2004. The most dramatic difference occurred at the Barum Gate where truck traffic increased from 546 trips in 2000 to 1,245 trips in 2004, more than double. Daily truck trips in 2006 were 9% higher than in 2004.

Daily truck trips in 2008 are almost 50% higher than in 2006. The number of daily truck trips in 2008 increased more than 50 percent at all the gates, excluding Verbeck Gate where the truck traffic decreased by 23% from 286 trips in 2006 to 220 trips in 2008. The general overall increase in truck traffic is related to the increased development that has occurred at Devens between 2000 and 2008 and roadway construction. It is noted that no truck traffic used the Shirley and Grant Road gates in 1998 and 2000.

**Figure 6-12: Average Weekday Daily Truck Traffic at Devens' Gates**





## 7.0 CARLTON ROTARY/TRAFFIC VOLUMES AND TRIP DISTRIBUTION REVIEW

Traffic counts were performed at the Carlton Rotary on Tuesday, April 8<sup>th</sup> and Wednesday, April 9<sup>th</sup>, 2008, for a 48-hour period on all approaches and exits. The daily unadjusted volumes recorded at each leg of the rotary have already been summarized in previous tables. However, due to the physical configuration of the rotary approaches and the logistical requirements of ATR placement, these volumes must be adjusted to report equivalent traffic volumes entering and exiting the rotary. These balanced weekday volumes are summarized in the following table.

**Table 7-1: Carlton Rotary – Weekday Volumes – Entering/Exiting (balanced)**

	1996 Entering (vpd)	1998 Entering (vpd)	2000 Entering (vpd)	2002 Entering (vpd)	2004 Entering (vpd)	2006 Entering (vpd)	2008 Entering (vpd)
Route 2A-110, East of Rotary	7,200	7,500	6,994	8,844	8,512	8,248	<b>8,070</b>
Route 110-111, South of Rotary	7,400	7,200	6,775	7,920	8,571	6,194	<b>7,775</b>
Barnum Road	1,650	1,200	1,704	3,048	2,740	3,105	<b>3,955</b>
Route 2A-111 EB, West of Rotary	10,350	10,200	9,489	9,751	10,645	9,300	<b>9,428</b>
Route 2A-111 WB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	<b>n/a</b>
Sandy Pond Road	2,650	3,900	2,003	2,337	2,190	2,082	<b>2,203</b>
<b>Total</b>	<b>29,250</b>	<b>30,000</b>	<b>26,965</b>	<b>31,900</b>	<b>32,659</b>	<b>28,930</b>	<b>31,431</b>
	1996 Exiting (vpd)	1998 Exiting (vpd)	2000 Exiting (vpd)	2002 Exiting (vpd)	2004 Exiting (vpd)	2006 Exiting (vph)	2008 Exiting (vph)
Route 2A-110, East of Rotary	7,600	7,500	7,140	8,842	8,181	8,235	<b>7,812</b>
Route 110-111, South of Rotary	6,750	7,200	6,693	7,764	7,994	4,605	<b>6,865</b>
Barnum Road	1,550	1,500	1,713	2,921	2,726	2,693	<b>4,100</b>
Route 2A-111 EB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	<b>n/a</b>
Route 2A-111 WB, West of Rotary	10,350	11,100	9,625	10,409	10,806	10,318	<b>9,737</b>
Sandy Pond Road	3,000	2,700	1,794	1,964	2,952	3,079	<b>2,917</b>
<b>Total</b>	<b>29,250</b>	<b>30,000</b>	<b>26,965</b>	<b>31,900</b>	<b>32,659</b>	<b>28,930</b>	<b>31,431</b>
	1996 Total (vpd)	1998 Total (vpd)	2000 Total (vpd)	2002 Total (vpd)	2004 Total (vpd)	2006 Total (vpd)	2008 Total (vpd)
Route 2A-110, East of Rotary	14,800	15,000	14,134	17,686	16,693	16,483	<b>15,882</b>
Route 110-111, South of Rotary	14,150	14,400	13,468	15,684	16,565	10,799	<b>14,640</b>
Barnum Road	3,200	2,700	3,417	5,969	5,466	5,798	<b>8,055</b>
Route 2A-111 EB, West of Rotary	10,350	10,200	9,489	9,751	10,645	10,101	<b>9,428</b>
Route 2A-111 WB, West of Rotary	10,350	11,100	9,625	10,409	10,806	10,806	<b>9,737</b>
Sandy Pond Road	5,650	6,600	3,797	4,301	5,142	5,161	<b>5,120</b>
<b>Total</b>	<b>58,500</b>	<b>60,000</b>	<b>53,930</b>	<b>63,800</b>	<b>65,318</b>	<b>57,860</b>	<b>62,862</b>

The AM and PM peak hour entering and exiting volumes were also balanced and are summarized in the following tables.

**Table 7-2: Carlton Rotary – AM Peak Hour Volumes – Entering/Exiting (balanced)**

	1996 AM Peak Entering (vph)	1998 AM Peak Entering (vph)	2000 AM Peak Entering (vph)	2002 AM Peak Entering (vph)	2004 AM Peak Entering (vph)	2006 AM Peak Entering (vph)	2008 AM Peak Entering (vph)
Route 2A-110, East of Rotary	332	328	658	469	520	436	<b>454</b>
Route 110-111, South of Rotary	441	455	586	440	558	357	<b>549</b>
Barnum Road	86	85	252	170	205	197	<b>304</b>
Route 2A-111 EB, West of Rotary	1,143	1,122	518	999	997	842	<b>862</b>
Route 2A-111 WB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sandy Pond Road	150	141	186	288	243	229	<b>258</b>
<b>Total</b>	<b>2,152</b>	<b>2,131</b>	<b>2,200</b>	<b>2,366</b>	<b>2,522</b>	<b>2,061</b>	<b>2,427</b>
	1996 AM Peak Exiting (vph)	1998 AM Peak Exiting (vph)	2000 AM Peak Exiting (vph)	2002 AM Peak Exiting (vph)	2004 AM Peak Exiting (vph)	2006 AM Peak Exiting (vph)	2008 AM Peak Exiting (vph)
Route 2A-110, East of Rotary	716	639	413	758	668	643	<b>611</b>
Route 110-111, South of Rotary	651	661	515	775	820	426	<b>720</b>
Barnum Road	141	107	118	216	208	210	<b>354</b>
Route 2A-111 EB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Route 2A-111 WB, West of Rotary	476	426	1,019	509	622	568	<b>538</b>
Sandy Pond Road	168	298	135	108	204	214	<b>204</b>
<b>Total</b>	<b>2,152</b>	<b>2,131</b>	<b>2,200</b>	<b>2,366</b>	<b>2,522</b>	<b>2,061</b>	<b>2,427</b>
	1996 AM Peak Total (vph)	1998 AM Peak Total (vph)	2000 AM Peak Total (vph)	2002 AM Peak Total (vph)	2004 AM Peak Total (vph)	2006 AM Peak Total (vph)	2008 AM Peak Total (vph)
Route 2A-110, East of Rotary	1,048	967	1,071	1,227	1,188	1,079	<b>1,065</b>
Route 110-111, South of Rotary	1,092	1,116	1,101	1,215	1,378	783	<b>1,269</b>
Barnum Road	227	192	370	386	413	407	<b>658</b>
Route 2A-111 EB, West of Rotary	1,143	1,122	518	999	997	940	<b>862</b>
Route 2A-111 WB, West of Rotary	476	426	1,019	509	622	622	<b>538</b>
Sandy Pond Road	318	439	321	396	676	443	<b>462</b>
<b>Total</b>	<b>4,304</b>	<b>4,262</b>	<b>4,400</b>	<b>4,732</b>	<b>5,044</b>	<b>4,122</b>	<b>4,854</b>

**Table 7-3: Carlton Rotary – PM Peak Hour Volumes – Entering/Exiting (balanced)**

	<b>1996 PM Peak Entering (vph)</b>	<b>1998 PM Peak Entering (vph)</b>	<b>2000 PM Peak Entering (vph)</b>	<b>2002 PM Peak Entering (vph)</b>	<b>2004 PM Peak Entering (vph)</b>	<b>2006 PM Peak Entering (vph)</b>	<b>2008 PM Peak Entering (vph)</b>
Route 2A-110, East of Rotary	820	817	359	762	778	828	<b>797</b>
Route 110-111, South of Rotary	809	789	438	776	874	632	<b>822</b>
Barnum Road	110	110	45	282	312	326	<b>391</b>
Route 2A-111 EB, West of Rotary	579	601	1,063	502	713	659	<b>634</b>
Route 2A-111 WB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	<b>n/a</b>
Sandy Pond Road	169	177	228	175	188	204	<b>218</b>
<b>Total</b>	<b>2,487</b>	<b>2,494</b>	<b>2,133</b>	<b>2,497</b>	<b>2,865</b>	<b>2,649</b>	<b>2,862</b>
	<b>1996 PM Peak Exiting (vph)</b>	<b>1998 PM Peak Exiting (vph)</b>	<b>2000 PM Peak Exiting (vph)</b>	<b>2002 PM Peak Exiting (vph)</b>	<b>2004 PM Peak Exiting (vph)</b>	<b>2006 PM Peak Exiting (vph)</b>	<b>2008 PM Peak Exiting (vph)</b>
Route 2A-110, East of Rotary	458	449	703	563	630	609	<b>572</b>
Route 110-111, South of Rotary	443	499	678	452	558	346	<b>486</b>
Barnum Road	61	75	210	146	254	302	<b>414</b>
Route 2A-111 EB, West of Rotary	n/a	n/a	n/a	n/a	n/a	n/a	<b>n/a</b>
Route 2A-111 WB, West of Rotary	1,232	1,222	443	1,148	1,142	1,099	<b>1,085</b>
Sandy Pond Road	293	249	99	188	281	293	<b>305</b>
<b>Total</b>	<b>2,487</b>	<b>2,494</b>	<b>2,133</b>	<b>2,497</b>	<b>2,865</b>	<b>2,649</b>	<b>2,862</b>
	<b>1996 PM Peak Total (vph)</b>	<b>1998 PM Peak Total (vph)</b>	<b>2000 PM Peak Total (vph)</b>	<b>2002 PM Peak Total (vph)</b>	<b>2004 PM Peak Total (vph)</b>	<b>2006 PM Peak Total (vph)</b>	<b>2008 PM Peak Total (vph)</b>
Route 2A-110, East of Rotary	1,278	1,266	1,062	1,325	1,408	1,437	<b>1,369</b>
Route 110-111, South of Rotary	1,252	1,288	1,116	1,228	1,432	978	<b>1,307</b>
Barnum Road	171	185	255	428	566	628	<b>805</b>
Route 2A-111 EB, West of Rotary	579	601	1,063	502	713	659	<b>634</b>
Route 2A-111 WB, West of Rotary	1,232	1,222	443	1,148	1,142	1,099	<b>1,085</b>
Sandy Pond Road	462	426	327	363	469	497	<b>523</b>
<b>Total</b>	<b>4,974</b>	<b>4,988</b>	<b>4,266</b>	<b>4,994</b>	<b>5,730</b>	<b>5,298</b>	<b>5,724</b>

Both weekday and peak hour traffic volumes decreased between 2004 and 2006, resulting in volumes similar to 1996 conditions for 2006. Both weekday and peak hour traffic volumes increased between 2006 and 2008. Weekday daily and AM peak hour 2008 volumes at the rotary are similar to 2002 daily volumes and are 9% and 18% higher than 2006 volumes, respectively. Afternoon peak hour volumes for 2008 are similar to 2004 volumes and are 8% higher than 2006 volumes.

# DEVENS TRAFFIC MONITORING PROGRAM

## 2008 Biennial Traffic Report Appendices

**Prepared for:**



**Prepared by:**

AECOM Technical Services, Inc.  
300 Baker Avenue, Suite 290  
Concord, Massachusetts 01742

*February, 2009*

## **APPENDICES**

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**APPENDIX A      TURNING MOVEMENT COUNTS**

**APPENDIX B      LEVEL OF SERVICE ANALYSIS**

**APPENDIX C      48 HOUR AUTOMATIC TRAFFIC RECORDER COUNTS**

**APPENDIX D      7 DAY AUTOMATIC TRAFFIC RECORDER COUNTS**

**APPENDIX E      VEHICLE CLASSIFICATION COUNTS**

**APPENDIX F      CARLETON ROTARY ENTERING/EXITING COUNTS**

# **APPENDIX A**

## **TURNING MOVEMENT COUNTS**

N/S Street : Center Rd / Lancaster St  
 E/W Street: Front St / Leominster Rd  
 City/State : Shirley, MA  
 Weather : Clear

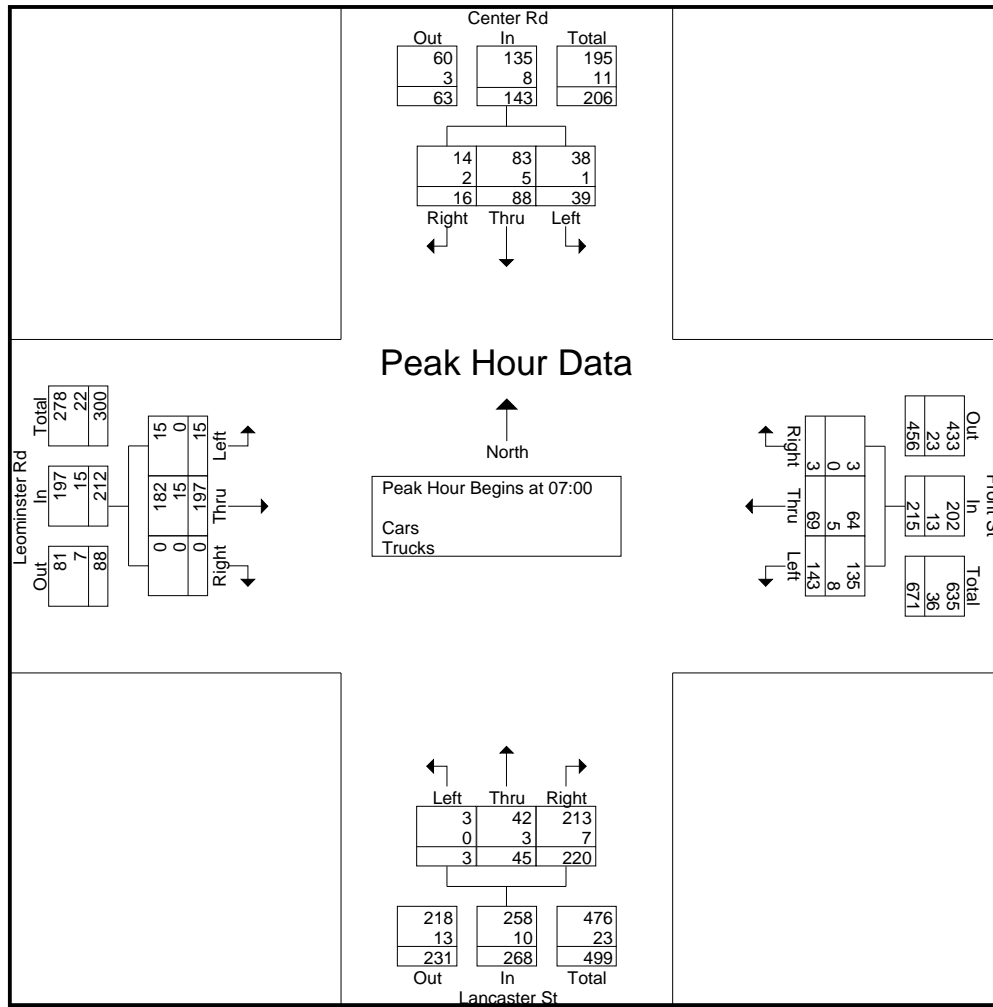
Accurate Counts  
 978-664-2565

File Name : 86525001  
 Site Code : 86525001  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	12	14	3	0	30	15	1	2	1	17	53	0	1	50	0	0	2	197	199
07:15	5	28	4	0	34	15	0	0	0	10	41	1	6	49	0	1	2	192	194
07:30	8	19	3	0	41	15	2	0	1	11	65	0	4	41	0	0	0	210	210
07:45	14	27	6	1	38	24	0	0	1	7	61	0	4	57	0	0	1	239	240
Total	39	88	16	1	143	69	3	2	3	45	220	1	15	197	0	1	5	838	843
08:00	6	20	7	3	33	25	2	0	2	11	55	0	1	30	0	0	3	192	195
08:15	1	14	5	0	39	16	0	0	1	8	38	0	2	47	1	0	0	172	172
08:30	4	24	3	1	63	19	0	2	1	9	57	0	5	24	1	0	3	210	213
08:45	1	7	4	0	42	17	0	0	1	10	53	3	6	27	0	3	6	168	174
Total	12	65	19	4	177	77	2	2	5	38	203	3	14	128	2	3	12	742	754
Grand Total	51	153	35	5	320	146	5	4	8	83	423	4	29	325	2	4	17	1580	1597
Apprch %	21.3	64	14.6		67.9	31	1.1		1.6	16.1	82.3		8.1	91.3	0.6				
Total %	3.2	9.7	2.2		20.3	9.2	0.3		0.5	5.3	26.8		1.8	20.6	0.1		1.1	98.9	
Cars	50	145	30		298	133	5		6	76	399		27	297	1		0	0	1484
% Cars	98	94.8	85.7	100	93.1	91.1	100	100	75	91.6	94.3	100	93.1	91.4	50	100	0	0	92.9
Trucks	1	8	5		22	13	0		2	7	24		2	28	1		0	0	113
% Trucks	2	5.2	14.3	0	6.9	8.9	0	0	25	8.4	5.7	0	6.9	8.6	50	0	0	0	7.1

Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00																	
07:00	12	14	3	29	30	15	1	46	1	17	53	71	1	50	0	51	197
07:15	5	28	4	37	34	15	0	49	0	10	41	51	6	49	0	55	192
07:30	8	19	3	30	41	15	2	58	1	11	65	77	4	41	0	45	210
07:45	14	27	6	47	38	24	0	62	1	7	61	69	4	57	0	61	239
Total Volume	39	88	16	143	143	69	3	215	3	45	220	268	15	197	0	212	838
% App. Total	27.3	61.5	11.2		66.5	32.1	1.4		1.1	16.8	82.1		7.1	92.9	0		
PHF	.696	.786	.667	.761	.872	.719	.375	.867	.750	.662	.846	.870	.625	.864	.000	.869	.877
Cars	38	83	14	135	135	64	3	202	3	42	213	258	15	182	0	197	792
% Cars	97.4	94.3	87.5	94.4	94.4	92.8	100	94.0	100	93.3	96.8	96.3	100	92.4	0	92.9	94.5
Trucks	1	5	2	8	8	5	0	13	0	3	7	10	0	15	0	15	46
% Trucks	2.6	5.7	12.5	5.6	5.6	7.2	0	6.0	0	6.7	3.2	3.7	0	7.6	0	7.1	5.5

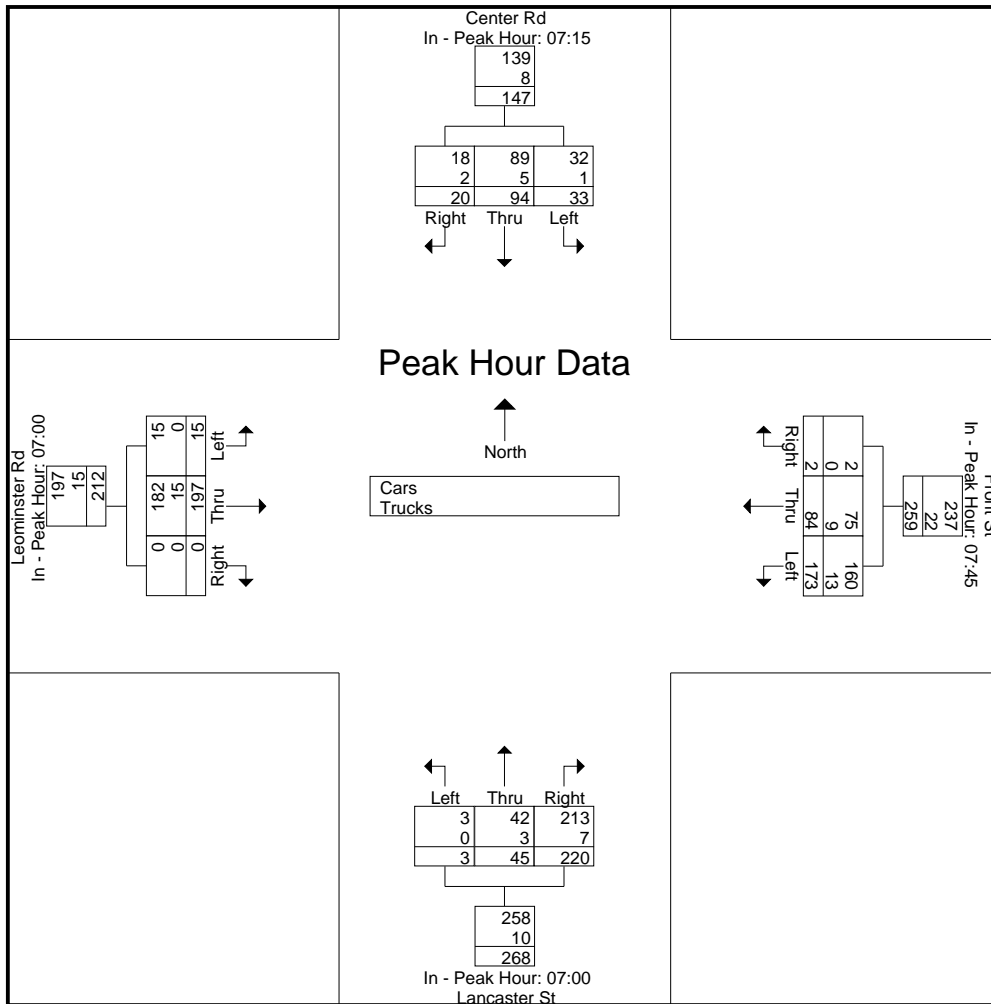


Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15				07:45				07:00				07:00			
+0 mins.	5	28	4	37	38	24	0	62	1	17	53	71	1	50	0	51
+15 mins.	8	19	3	30	33	25	2	60	0	10	41	51	6	49	0	55
+30 mins.	14	27	6	47	39	16	0	55	1	11	65	77	4	41	0	45
+45 mins.	6	20	7	33	63	19	0	82	1	7	61	69	4	57	0	61
Total Volume	33	94	20	147	173	84	2	259	3	45	220	268	15	197	0	212
% App. Total	22.4	63.9	13.6		66.8	32.4	0.8		1.1	16.8	82.1		7.1	92.9	0	
PHF	.589	.839	.714	.782	.687	.840	.250	.790	.750	.662	.846	.870	.625	.864	.000	.869
Cars	32	89	18	139	160	75	2	237	3	42	213	258	15	182	0	197
% Cars	97	94.7	90	94.6	92.5	89.3	100	91.5	100	93.3	96.8	96.3	100	92.4	0	92.9
Trucks	1	5	2	8	13	9	0	22	0	3	7	10	0	15	0	15
% Trucks	3	5.3	10	5.4	7.5	10.7	0	8.5	0	6.7	3.2	3.7	0	7.6	0	7.1





N/S Street : Center Rd / Lancaster St  
 E/W Street: Front St / Leominster Rd  
 City/State : Shirley, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

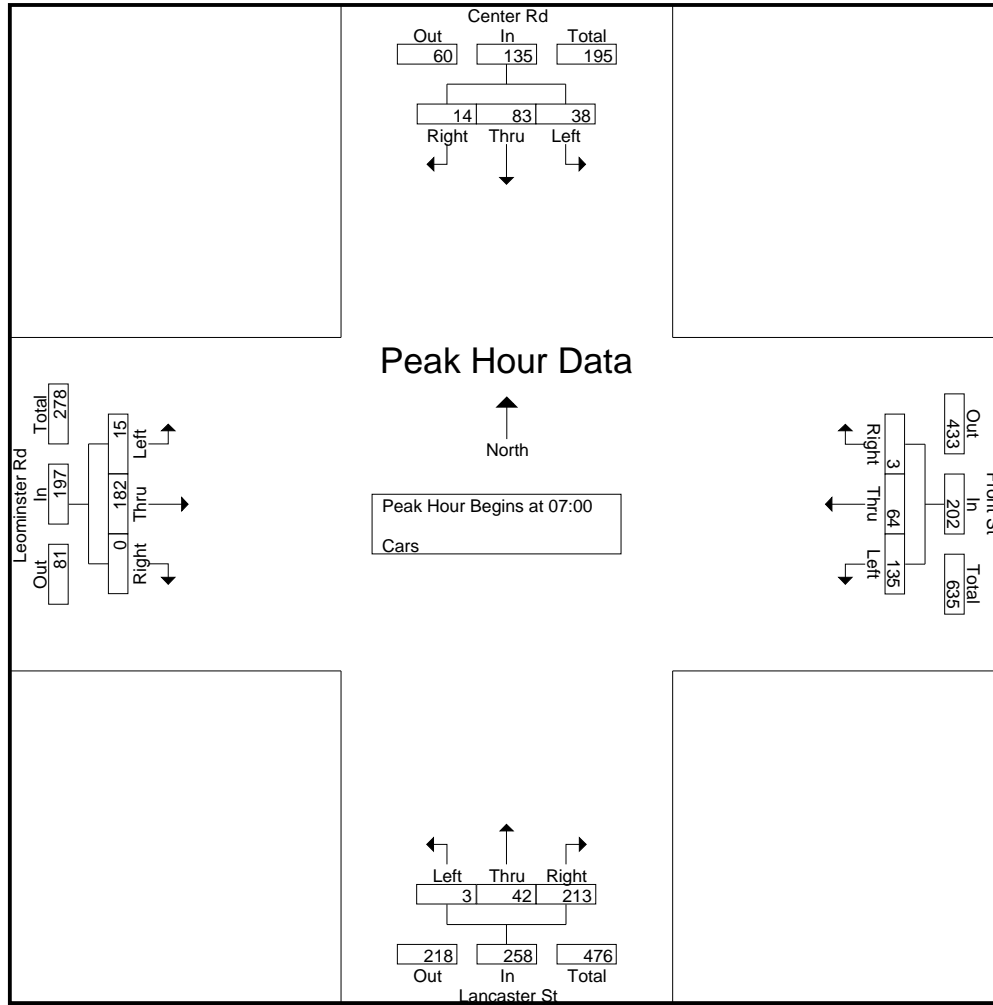
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 Site Code : 86525001  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	12	13	2	0	27	13	1	2	1	15	50	0	1	45	0	0	2	180	182
07:15	5	26	4	0	33	14	0	0	0	10	39	1	6	46	0	1	2	183	185
07:30	7	18	3	0	39	14	2	0	1	11	64	0	4	38	0	0	0	201	201
07:45	14	26	5	1	36	23	0	0	1	6	60	0	4	53	0	0	1	228	229
Total	38	83	14	1	135	64	3	2	3	42	213	1	15	182	0	1	5	792	797
08:00	6	19	6	3	29	22	2	0	1	8	52	0	1	28	0	0	3	174	177
08:15	1	13	3	0	36	13	0	0	1	7	34	0	1	42	0	0	0	151	151
08:30	4	23	3	1	59	17	0	2	1	9	52	0	4	21	1	0	3	194	197
08:45	1	7	4	0	39	17	0	0	0	10	48	3	6	24	0	3	6	156	162
Total	12	62	16	4	163	69	2	2	3	34	186	3	12	115	1	3	12	675	687
Grand Total	50	145	30	5	298	133	5	4	6	76	399	4	27	297	1	4	17	1467	1484
Apprch %	22.2	64.4	13.3		68.3	30.5	1.1		1.2	15.8	83		8.3	91.4	0.3				
Total %	3.4	9.9	2		20.3	9.1	0.3		0.4	5.2	27.2		1.8	20.2	0.1		1.1	98.9	

Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00	12	13	2	27	27	13	1	41	1	15	50	66	1	45	0	46	180
07:15	5	26	4	35	33	14	0	47	0	10	39	49	6	46	0	52	183
07:30	7	18	3	28	39	14	2	55	1	11	64	76	4	38	0	42	201
07:45	14	26	5	45	36	23	0	59	1	6	60	67	4	53	0	57	228
Total Volume	38	83	14	135	135	64	3	202	3	42	213	258	15	182	0	197	792
% App. Total	28.1	61.5	10.4		66.8	31.7	1.5		1.2	16.3	82.6		7.6	92.4	0		
PHF	.679	.798	.700	.750	.865	.696	.375	.856	.750	.700	.832	.849	.625	.858	.000	.864	.868

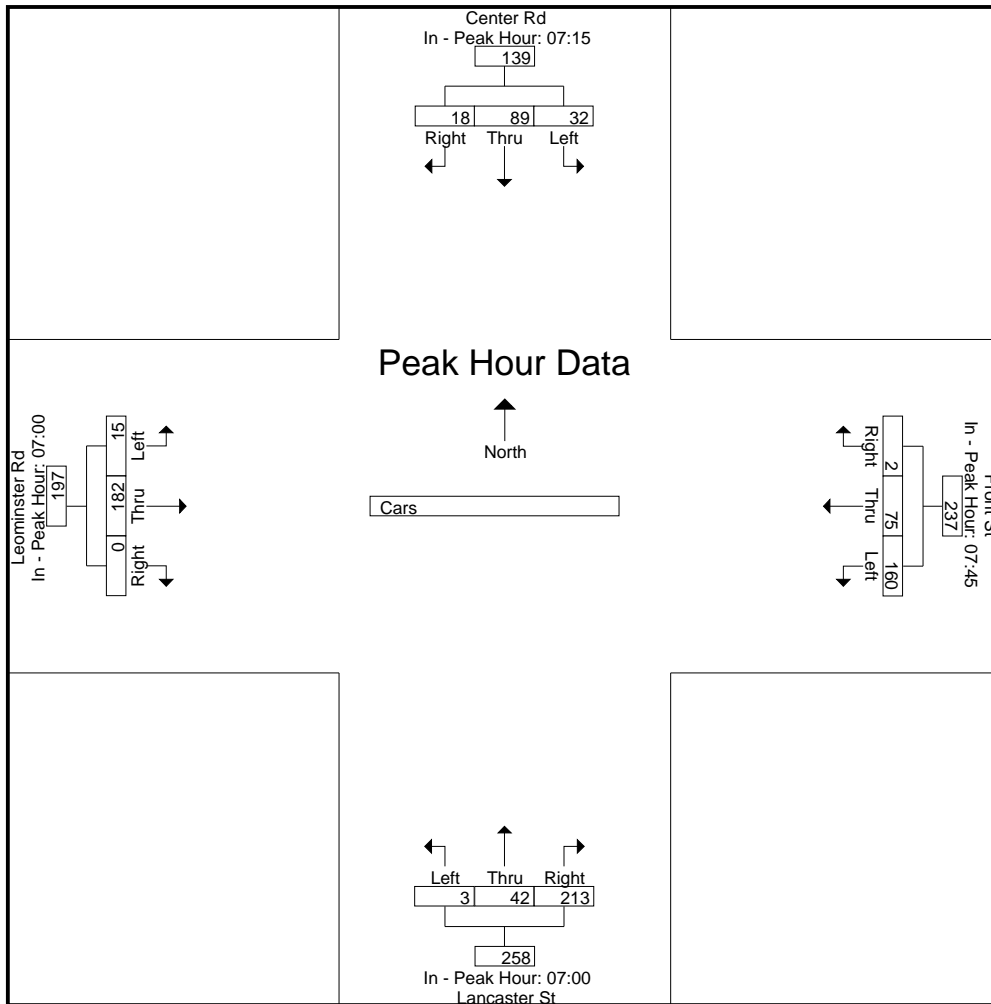
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:00



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15				07:45				07:00				07:00			
+0 mins.	5	26	4	35	36	23	0	59	1	15	50	66	1	45	0	46
+15 mins.	7	18	3	28	29	22	2	53	0	10	39	49	6	46	0	52
+30 mins.	14	26	5	45	36	13	0	49	1	11	64	76	4	38	0	42
+45 mins.	6	19	6	31	59	17	0	76	1	6	60	67	4	53	0	57
Total Volume	32	89	18	139	160	75	2	237	3	42	213	258	15	182	0	197
% App. Total	23	64	12.9		67.5	31.6	0.8		1.2	16.3	82.6		7.6	92.4	0	
PHF	.571	.856	.750	.772	.678	.815	.250	.780	.750	.700	.832	.849	.625	.858	.000	.864



N/S Street : Center Rd / Lancaster St  
 E/W Street: Front St / Leominster Rd  
 City/State : Shirley, MA  
 Weather : Clear

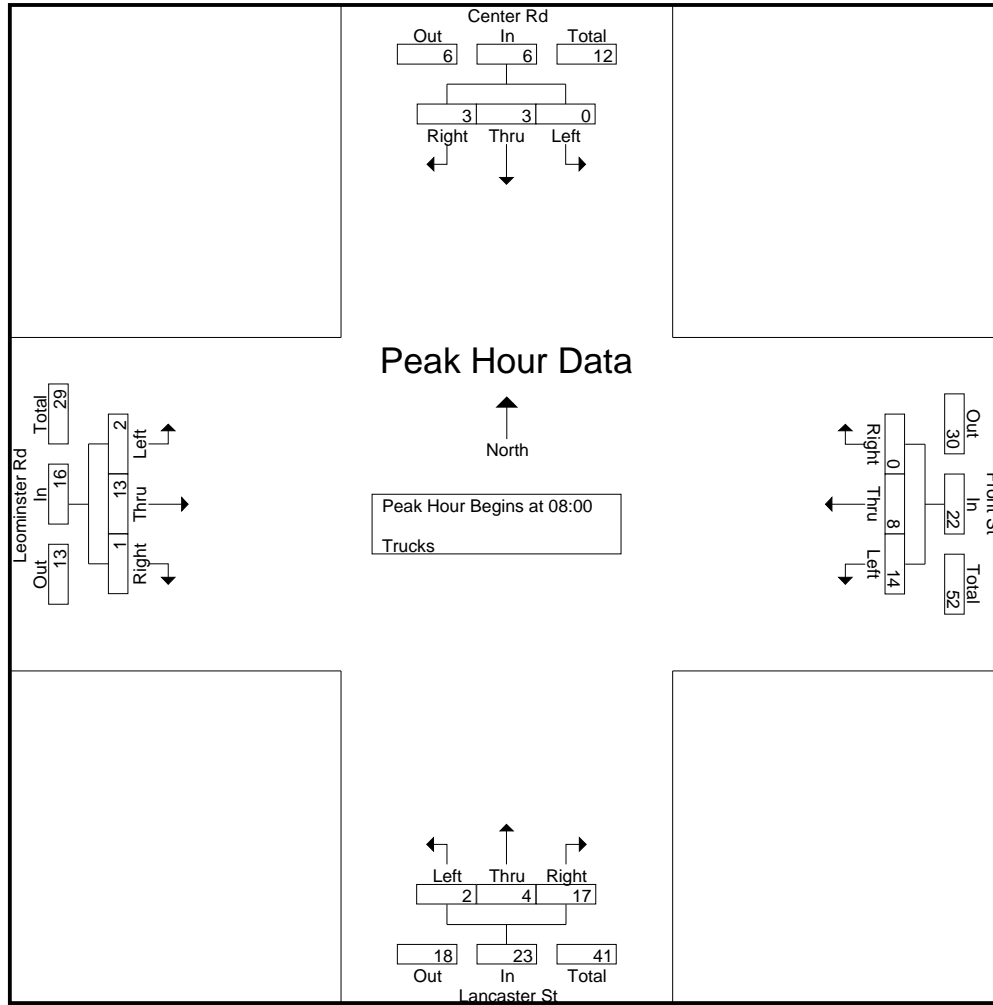
Accurate Counts  
 978-664-2565

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 Site Code : 86525001  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	0	1	1	0	3	2	0	0	0	2	3	0	0	5	0	0	0	17	17
07:15	0	2	0	0	1	1	0	0	0	0	2	0	0	3	0	0	0	9	9
07:30	1	1	0	0	2	1	0	0	0	0	1	0	0	3	0	0	0	9	9
07:45	0	1	1	0	2	1	0	0	0	1	1	0	0	4	0	0	0	11	11
Total	1	5	2	0	8	5	0	0	0	3	7	0	0	15	0	0	0	46	46
08:00	0	1	1	0	4	3	0	0	1	3	3	0	0	2	0	0	0	18	18
08:15	0	1	2	0	3	3	0	0	0	1	4	0	1	5	1	0	0	21	21
08:30	0	1	0	0	4	2	0	0	0	0	5	0	1	3	0	0	0	16	16
08:45	0	0	0	0	3	0	0	0	1	0	5	0	0	3	0	0	0	12	12
Total	0	3	3	0	14	8	0	0	2	4	17	0	2	13	1	0	0	67	67
Grand Total	1	8	5	0	22	13	0	0	2	7	24	0	2	28	1	0	0	113	113
Apprch %	7.1	57.1	35.7		62.9	37.1	0		6.1	21.2	72.7		6.5	90.3	3.2				
Total %	0.9	7.1	4.4		19.5	11.5	0		1.8	6.2	21.2		1.8	24.8	0.9		0	100	

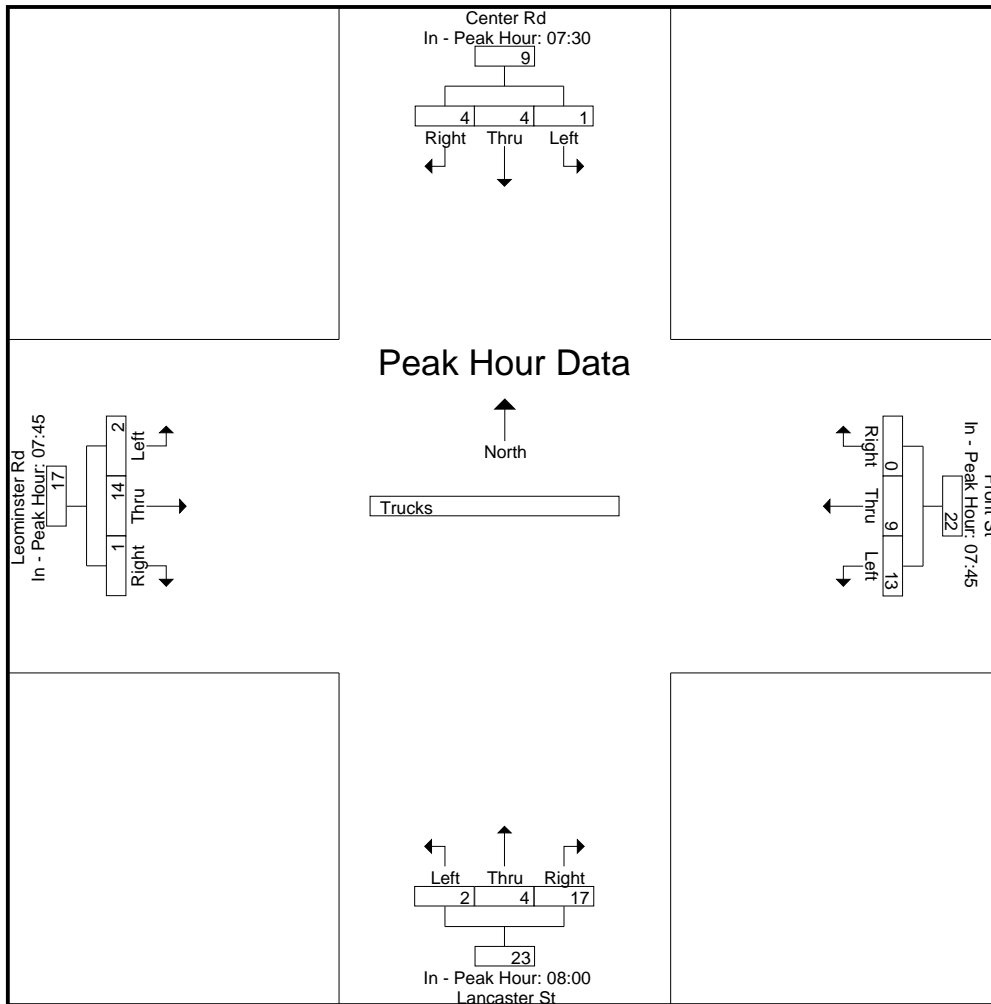
Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00																	
08:00	0	1	1	2	4	3	0	7	1	3	3	7	0	2	0	2	18
08:15	0	1	2	3	3	3	0	6	0	1	4	5	1	5	1	7	21
08:30	0	1	0	1	4	2	0	6	0	0	5	5	1	3	0	4	16
08:45	0	0	0	0	3	0	0	3	1	0	5	6	0	3	0	3	12
Total Volume	0	3	3	6	14	8	0	22	2	4	17	23	2	13	1	16	67
% App. Total	0	50	50		63.6	36.4	0		8.7	17.4	73.9		12.5	81.2	6.2		
PHF	.000	.750	.375	.500	.875	.667	.000	.786	.500	.333	.850	.821	.500	.650	.250	.571	.798



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30				07:45				08:00				07:45			
+0 mins.	1	1	0	2	2	1	0	3	1	3	3	7	0	4	0	4
+15 mins.	0	1	1	2	4	3	0	7	0	1	4	5	0	2	0	2
+30 mins.	0	1	1	2	3	3	0	6	0	0	5	5	1	5	1	7
+45 mins.	0	1	2	3	4	2	0	6	1	0	5	6	1	3	0	4
Total Volume	1	4	4	9	13	9	0	22	2	4	17	23	2	14	1	17
% App. Total	11.1	44.4	44.4		59.1	40.9	0		8.7	17.4	73.9		11.8	82.4	5.9	
PHF	.250	1.000	.500	.750	.813	.750	.000	.786	.500	.333	.850	.821	.500	.700	.250	.607



N/S Street : Center Rd / Lancaster St  
 E/W Street: Front St / Leominster Rd  
 City/State : Shirley, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

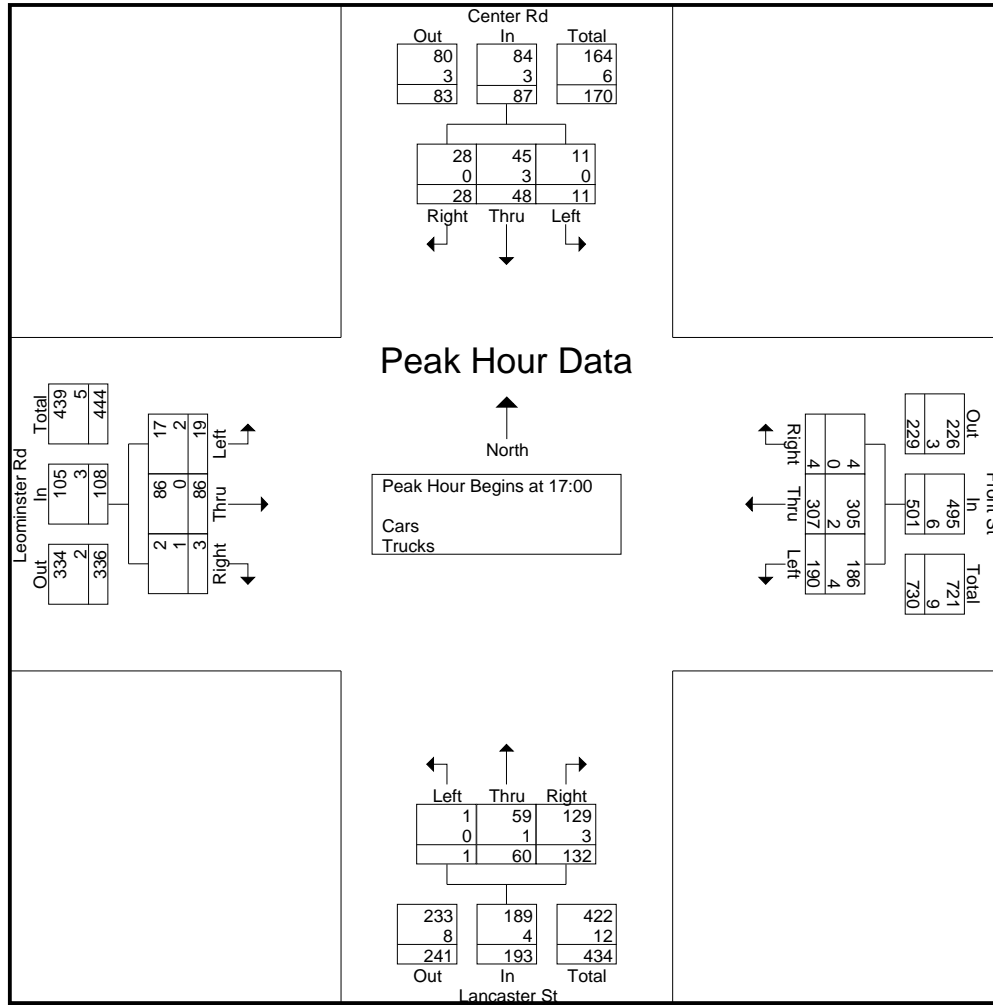
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 Site Code : 86525001  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	6	13	7	2	45	35	2	1	0	14	37	2	1	15	0	2	7	175	182
16:15	4	2	5	2	58	37	4	2	1	20	50	1	2	25	2	1	6	210	216
16:30	1	6	2	1	49	56	1	1	1	20	22	6	6	29	0	6	14	193	207
16:45	1	18	7	0	44	58	2	0	0	13	39	2	1	20	1	2	4	204	208
Total	12	39	21	5	196	186	9	4	2	67	148	11	10	89	3	11	31	782	813
17:00	4	14	8	0	42	81	1	0	0	15	31	0	5	26	0	0	0	227	227
17:15	1	16	8	0	60	76	0	0	1	19	40	2	6	22	1	2	4	250	254
17:30	2	7	5	1	42	68	3	1	0	15	38	2	4	18	2	0	4	204	208
17:45	4	11	7	0	46	82	0	0	0	11	23	1	4	20	0	1	2	208	210
Total	11	48	28	1	190	307	4	1	1	60	132	5	19	86	3	3	10	889	899
Grand Total	23	87	49	6	386	493	13	5	3	127	280	16	29	175	6	14	41	1671	1712
Apprch %	14.5	54.7	30.8		43.3	55.3	1.5		0.7	31	68.3		13.8	83.3	2.9				
Total %	1.4	5.2	2.9		23.1	29.5	0.8		0.2	7.6	16.8		1.7	10.5	0.4		2.4	97.6	
Cars	22	82	49		380	482	13		3	126	276		27	172	5		0	0	1678
% Cars	95.7	94.3	100	100	98.4	97.8	100	100	100	99.2	98.6	100	93.1	98.3	83.3	100	0	0	98
Trucks	1	5	0		6	11	0		0	1	4		2	3	1		0	0	34
% Trucks	4.3	5.7	0	0	1.6	2.2	0	0	0	0.8	1.4	0	6.9	1.7	16.7	0	0	0	2

Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 17:00																	
17:00	4	14	8	26	42	81	1	124	0	15	31	46	5	26	0	31	227
17:15	1	16	8	25	60	76	0	136	1	19	40	60	6	22	1	29	250
17:30	2	7	5	14	42	68	3	113	0	15	38	53	4	18	2	24	204
17:45	4	11	7	22	46	82	0	128	0	11	23	34	4	20	0	24	208
Total Volume	11	48	28	87	190	307	4	501	1	60	132	193	19	86	3	108	889
% App. Total	12.6	55.2	32.2		37.9	61.3	0.8		0.5	31.1	68.4		17.6	79.6	2.8		
PHF	.688	.750	.875	.837	.792	.936	.333	.921	.250	.789	.825	.804	.792	.827	.375	.871	.889
Cars	11	45	28	84	186	305	4	495	1	59	129	189	17	86	2	105	873
% Cars	100	93.8	100	96.6	97.9	99.3	100	98.8	100	98.3	97.7	97.9	89.5	100	66.7	97.2	98.2
Trucks	0	3	0	3	4	2	0	6	0	1	3	4	2	0	1	3	16
% Trucks	0	6.3	0	3.4	2.1	0.7	0	1.2	0	1.7	2.3	2.1	10.5	0	33.3	2.8	1.8

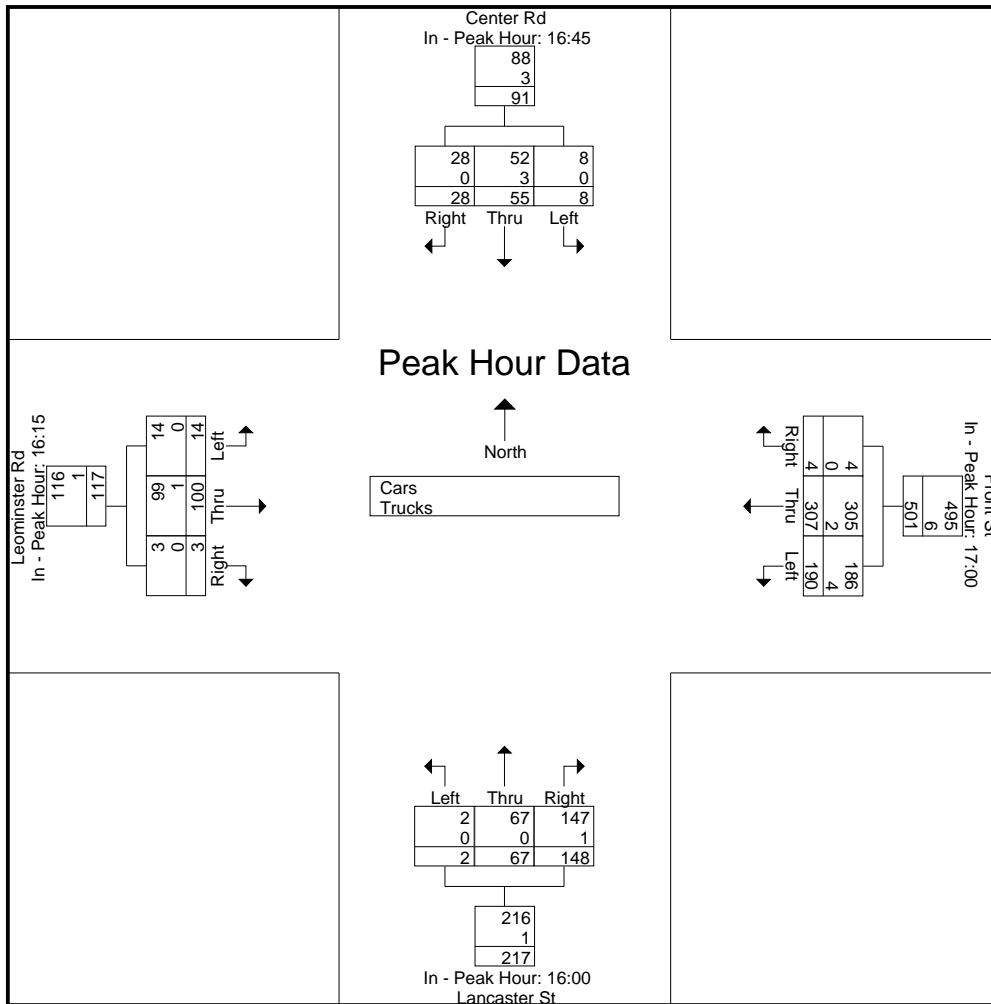




Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:45				17:00				16:00				16:15			
+0 mins.	1	18	7	26	42	81	1	124	0	14	37	51	2	25	2	29
+15 mins.	4	14	8	26	60	76	0	136	1	20	50	71	6	29	0	35
+30 mins.	1	16	8	25	42	68	3	113	1	20	22	43	1	20	1	22
+45 mins.	2	7	5	14	46	82	0	128	0	13	39	52	5	26	0	31
Total Volume	8	55	28	91	190	307	4	501	2	67	148	217	14	100	3	117
% App. Total	8.8	60.4	30.8		37.9	61.3	0.8		0.9	30.9	68.2		12	85.5	2.6	
PHF	.500	.764	.875	.875	.792	.936	.333	.921	.500	.838	.740	.764	.583	.862	.375	.836
Cars	8	52	28	88	186	305	4	495	2	67	147	216	14	99	3	116
% Cars	100	94.5	100	96.7	97.9	99.3	100	98.8	100	100	99.3	99.5	100	99	100	99.1
Trucks	0	3	0	3	4	2	0	6	0	0	1	1	0	1	0	1
% Trucks	0	5.5	0	3.3	2.1	0.7	0	1.2	0	0	0.7	0.5	0	1	0	0.9



N/S Street : Center Rd / Lancaster St  
 E/W Street: Front St / Leominster Rd  
 City/State : Shirley, MA  
 Weather : Clear

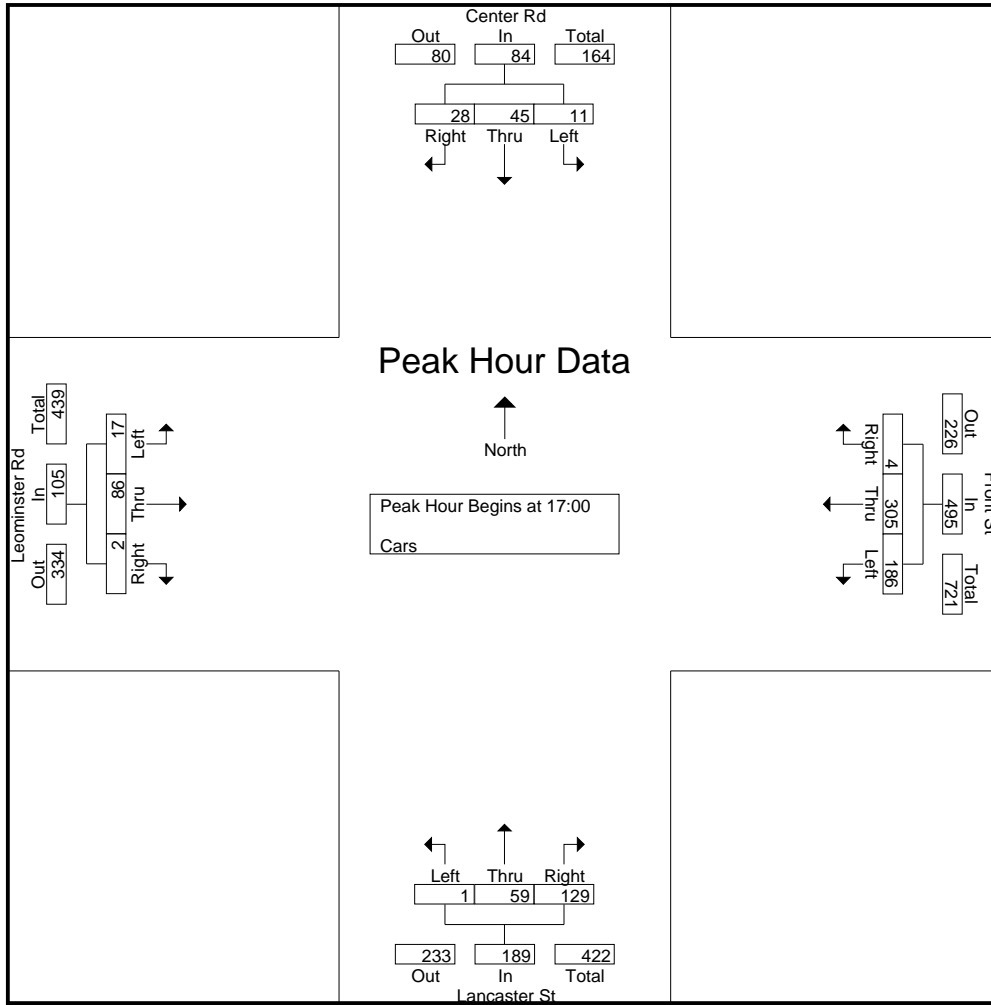
Accurate Counts  
 978-664-2565

File Name : 86525001  
 Site Code : 86525001  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	6	12	7	2	44	33	2	1	0	14	37	2	1	13	0	2	7	169	176
16:15	4	2	5	2	58	37	4	2	1	20	50	1	2	25	2	1	6	210	216
16:30	0	6	2	1	49	52	1	1	1	20	21	6	6	29	0	6	14	187	201
16:45	1	17	7	0	43	55	2	0	0	13	39	2	1	19	1	2	4	198	202
Total	11	37	21	5	194	177	9	4	2	67	147	11	10	86	3	11	31	764	795
17:00	4	14	8	0	42	81	1	0	0	15	31	0	5	26	0	0	0	227	227
17:15	1	14	8	0	59	75	0	0	1	19	40	2	5	22	1	2	4	245	249
17:30	2	7	5	1	40	68	3	1	0	14	38	2	3	18	1	0	4	199	203
17:45	4	10	7	0	45	81	0	0	0	11	20	1	4	20	0	1	2	202	204
Total	11	45	28	1	186	305	4	1	1	59	129	5	17	86	2	3	10	873	883
Grand Total	22	82	49	6	380	482	13	5	3	126	276	16	27	172	5	14	41	1637	1678
Apprch %	14.4	53.6	32		43.4	55.1	1.5		0.7	31.1	68.1		13.2	84.3	2.5				
Total %	1.3	5	3		23.2	29.4	0.8		0.2	7.7	16.9		1.6	10.5	0.3		2.4	97.6	

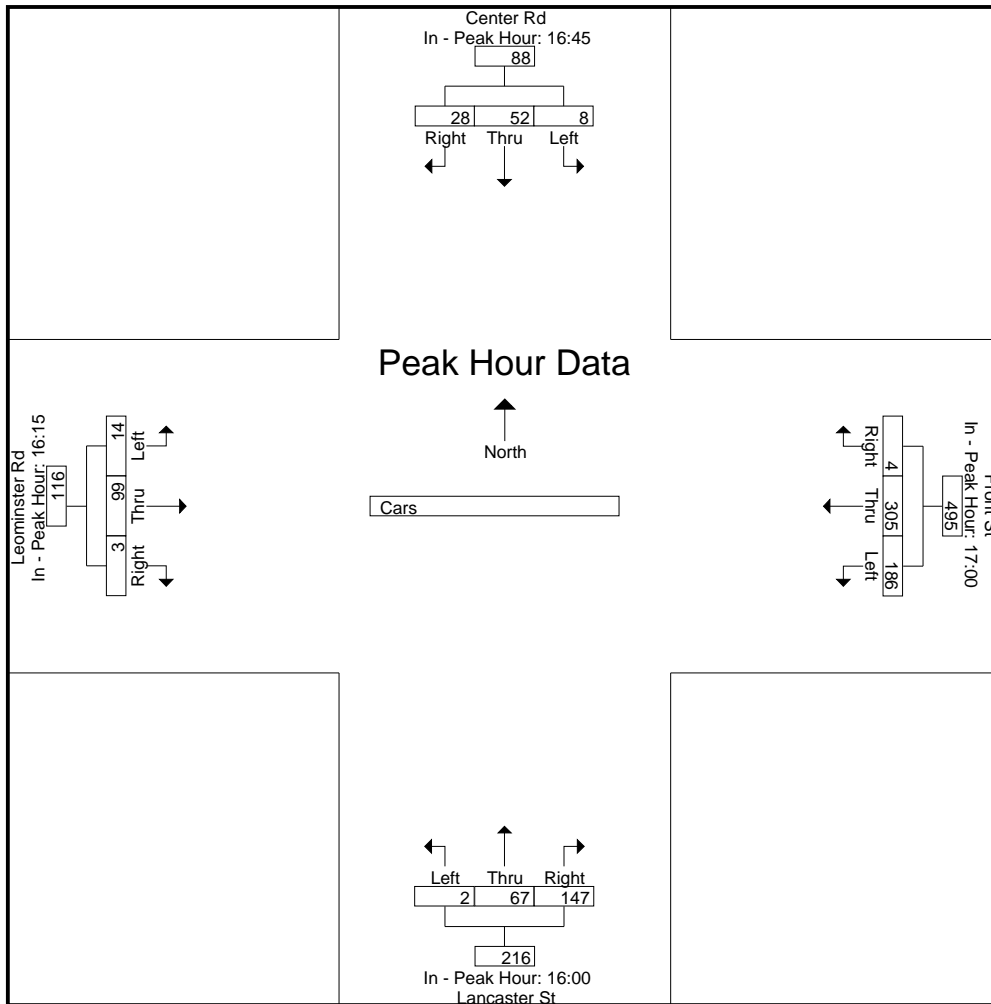
Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 17:00																	
17:00	4	14	8	26	42	81	1	124	0	15	31	46	5	26	0	31	227
17:15	1	14	8	23	59	75	0	134	1	19	40	60	5	22	1	28	245
17:30	2	7	5	14	40	68	3	111	0	14	38	52	3	18	1	22	199
17:45	4	10	7	21	45	81	0	126	0	11	20	31	4	20	0	24	202
Total Volume	11	45	28	84	186	305	4	495	1	59	129	189	17	86	2	105	873
% App. Total	13.1	53.6	33.3		37.6	61.6	0.8		0.5	31.2	68.3		16.2	81.9	1.9		
PHF	.688	.804	.875	.808	.788	.941	.333	.924	.250	.776	.806	.788	.850	.827	.500	.847	.891



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:45				17:00				16:00				16:15			
+0 mins.	1	17	7	25	42	81	1	124	0	14	37	51	2	25	2	29
+15 mins.	4	14	8	26	59	75	0	134	1	20	50	71	6	29	0	35
+30 mins.	1	14	8	23	40	68	3	111	1	20	21	42	1	19	1	21
+45 mins.	2	7	5	14	45	81	0	126	0	13	39	52	5	26	0	31
Total Volume	8	52	28	88	186	305	4	495	2	67	147	216	14	99	3	116
% App. Total	9.1	59.1	31.8		37.6	61.6	0.8		0.9	31	68.1		12.1	85.3	2.6	
PHF	.500	.765	.875	.846	.788	.941	.333	.924	.500	.838	.735	.761	.583	.853	.375	.829



N/S Street : Center Rd / Lancaster St  
 E/W Street: Front St / Leominster Rd  
 City/State : Shirley, MA  
 Weather : Clear

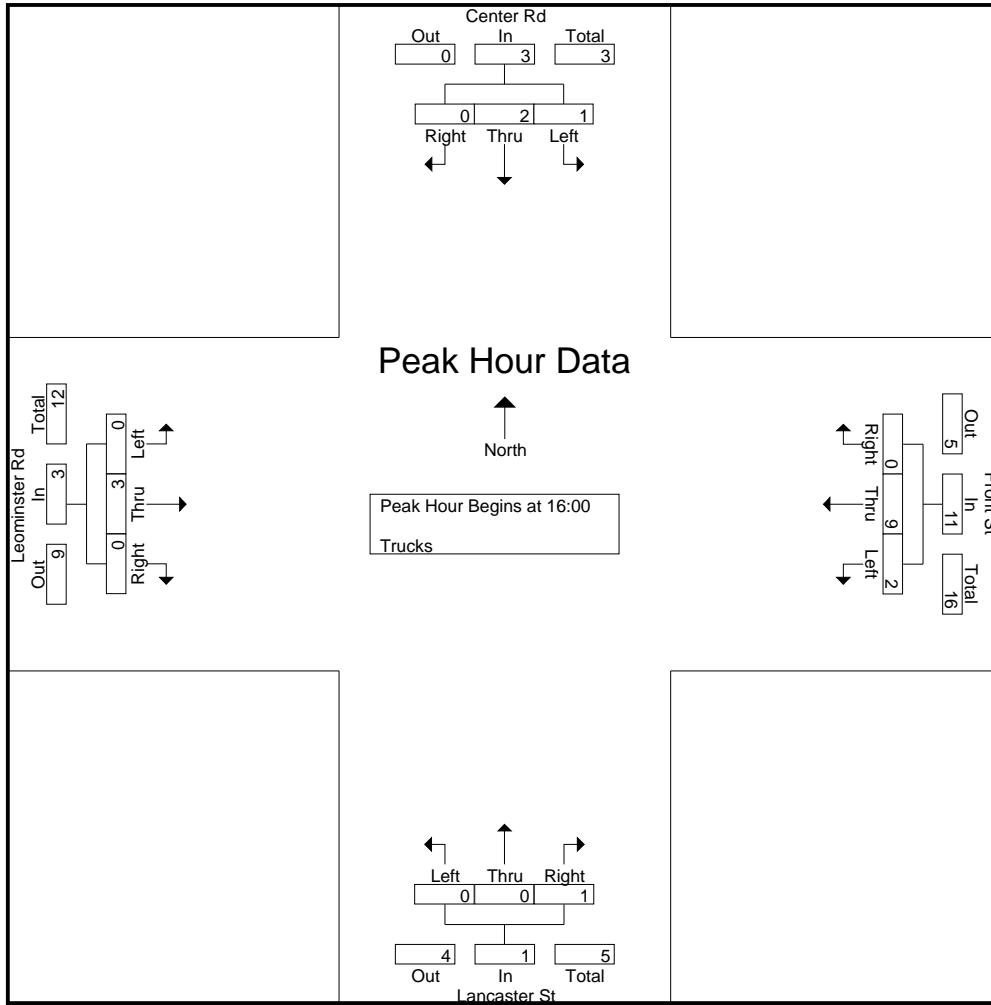
Accurate Counts  
 978-664-2565

File Name : 86525001  
 Site Code : 86525001  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Exclu. Total	Inclu. Total	Int. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
16:00	0	1	0	0	1	2	0	0	0	0	0	0	0	2	0	0	0	0	6	6
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	1	0	0	0	0	4	0	0	0	0	1	0	0	0	0	0	0	0	6	6
16:45	0	1	0	0	1	3	0	0	0	0	0	0	0	1	0	0	0	0	6	6
Total	1	2	0	0	2	9	0	0	0	0	1	0	0	3	0	0	0	0	18	18
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	2	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	5	5
17:30	0	0	0	0	2	0	0	0	0	1	0	0	1	0	1	0	0	0	5	5
17:45	0	1	0	0	1	1	0	0	0	0	3	0	0	0	0	0	0	0	6	6
Total	0	3	0	0	4	2	0	0	0	1	3	0	2	0	1	0	0	0	16	16
Grand Total	1	5	0	0	6	11	0	0	0	1	4	0	2	3	1	0	0	0	34	34
Apprch %	16.7	83.3	0		35.3	64.7	0		0	20	80		33.3	50	16.7		0	0		
Total %	2.9	14.7	0		17.6	32.4	0		0	2.9	11.8		5.9	8.8	2.9		0	0		100

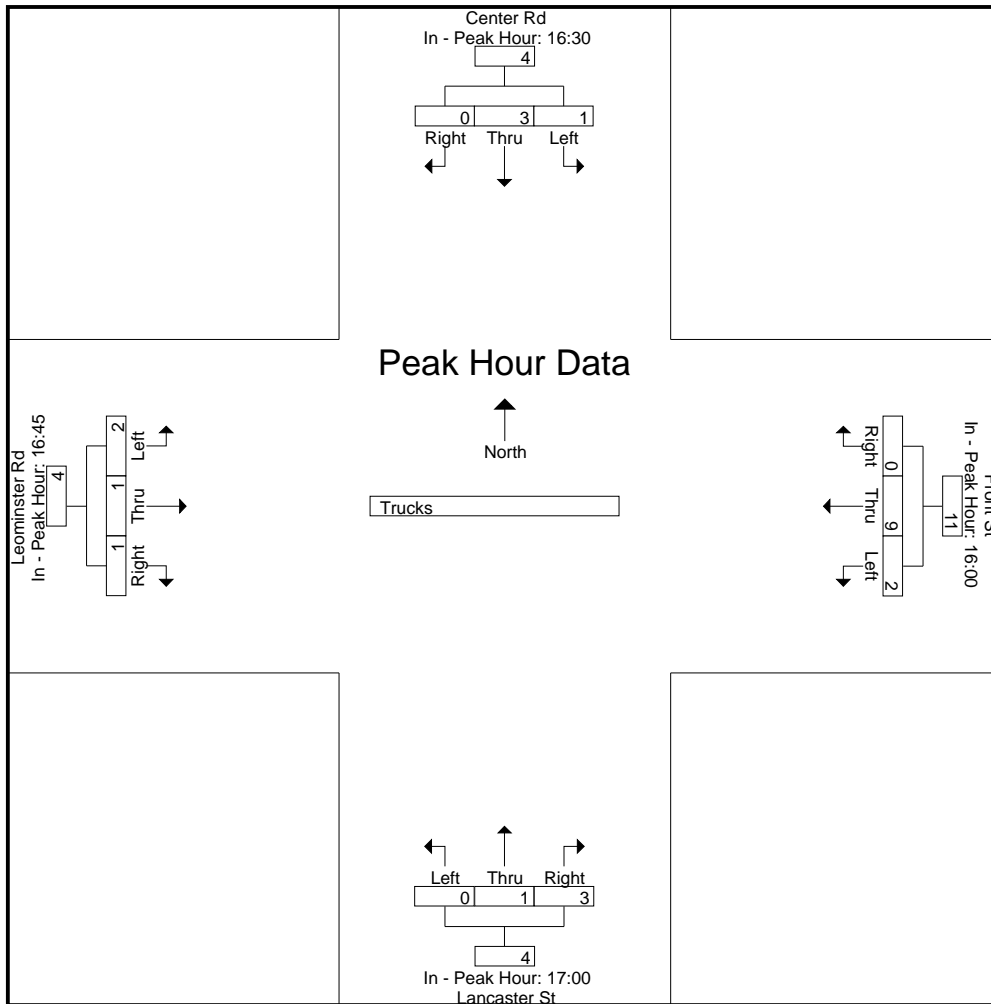
Start Time	Center Rd From North				Front St From East				Lancaster St From South				Leominster Rd From West				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 16:00																		
16:00	0	1	0	1	1	2	0	3	0	0	0	0	0	2	0	0	2	6
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	1	0	0	1	0	4	0	4	0	0	1	1	0	0	0	0	0	6
16:45	0	1	0	1	1	3	0	4	0	0	0	0	0	1	0	0	1	6
Total Volume	1	2	0	3	2	9	0	11	0	0	1	1	0	3	0	0	3	18
% App. Total	33.3	66.7	0		18.2	81.8	0		0	0	100		0	100	0			
PHF	.250	.500	.000	.750	.500	.563	.000	.688	.000	.000	.250	.250	.000	.375	.000	.375	.750	



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:30				16:00				17:00				16:45			
+0 mins.	1	0	0	1	1	2	0	3	0	0	0	0	0	1	0	1
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	4	0	4	0	1	0	1	1	0	0	1
+45 mins.	0	2	0	2	1	3	0	4	0	0	3	3	1	0	1	2
Total Volume	1	3	0	4	2	9	0	11	0	1	3	4	2	1	1	4
% App. Total	25	75	0		18.2	81.8	0		0	25	75		50	25	25	
PHF	.250	.375	.000	.500	.500	.563	.000	.688	.000	.250	.250	.333	.500	.250	.250	.500





N/S Street : Fitchburg Rd / Park St  
 E/W Street: Groton School Road  
 City/State : Ayer, MA  
 Weather : Clear

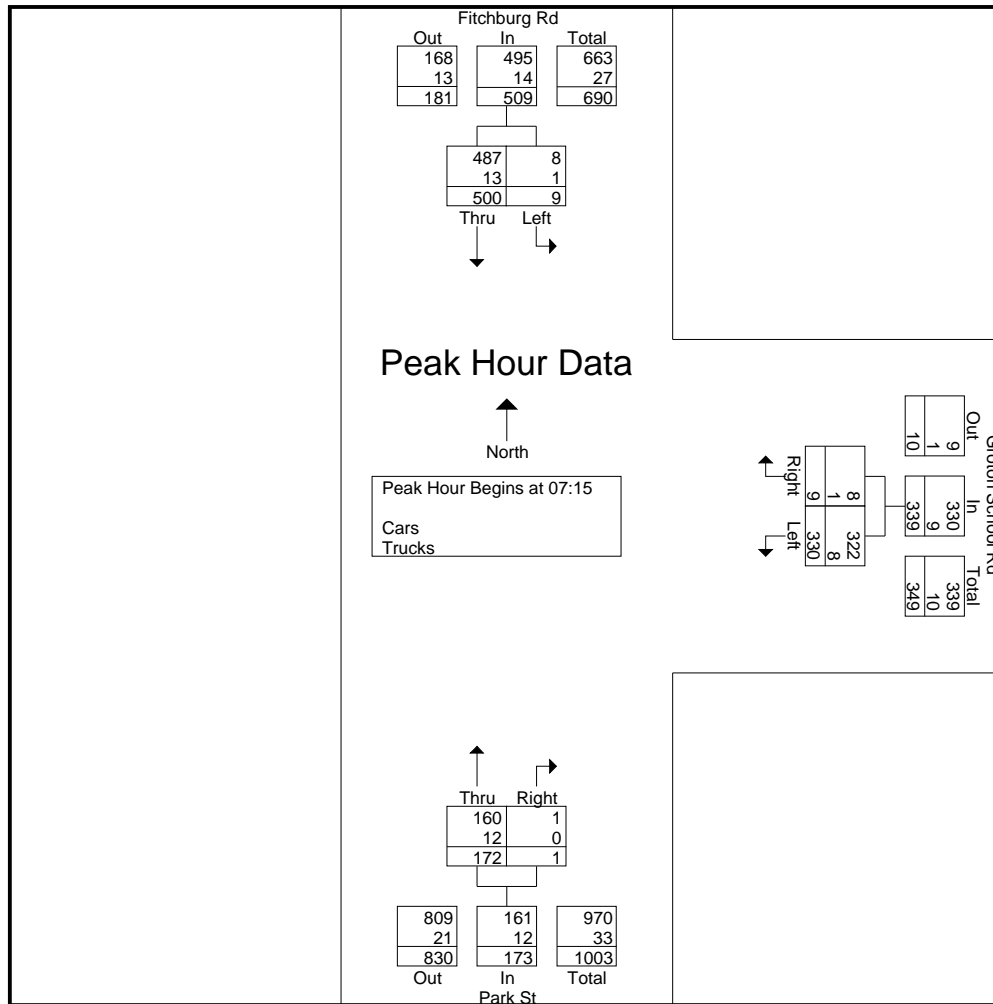
Accurate Counts  
 978-664-2565

File Name : 86525002  
 Site Code : 86525002  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	1	105	0	85	4	0	41	0	0	0	236	236
07:15	0	117	1	76	4	0	45	0	0	1	242	243
07:30	2	129	0	91	2	0	44	0	0	0	268	268
07:45	1	144	1	81	2	0	44	0	0	1	272	273
Total	4	495	2	333	12	0	174	0	0	2	1018	1020
08:00	6	110	0	82	1	0	39	1	0	0	239	239
08:15	0	97	0	85	3	0	43	5	0	0	233	233
08:30	2	95	0	58	2	0	37	7	0	0	201	201
08:45	1	83	0	63	3	0	50	0	0	0	200	200
Total	9	385	0	288	9	0	169	13	0	0	873	873
Grand Total	13	880	2	621	21	0	343	13	0	2	1891	1893
Apprch %	1.5	98.5		96.7	3.3		96.3	3.7				
Total %	0.7	46.5		32.8	1.1		18.1	0.7		0.1	99.9	
Cars	11	848		606	18		324	13		0	0	1822
% Cars	84.6	96.4	100	97.6	85.7	0	94.5	100	0	0	0	96.2
Trucks	2	32		15	3		19	0		0	0	71
% Trucks	15.4	3.6	0	2.4	14.3	0	5.5	0	0	0	0	3.8

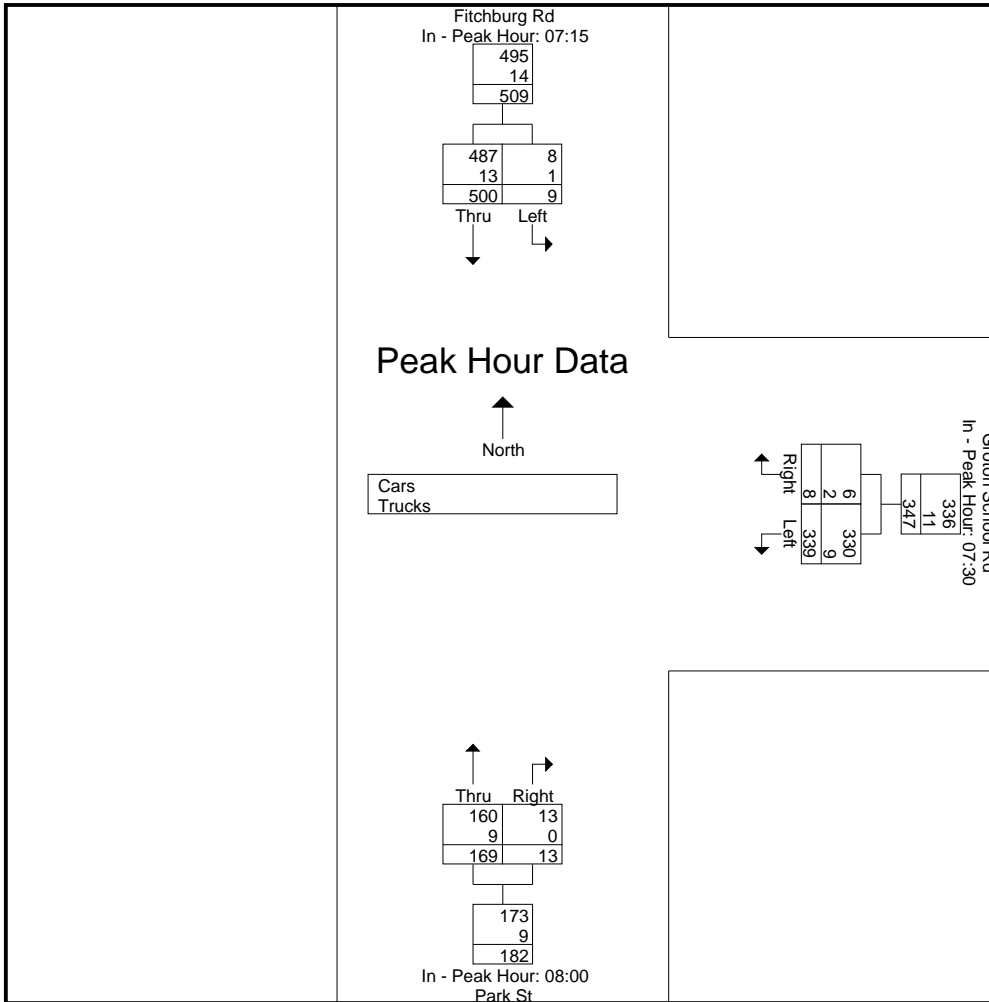
Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15										
07:15	0	117	117	76	4	80	45	0	45	242
07:30	2	129	131	91	2	93	44	0	44	268
07:45	1	144	145	81	2	83	44	0	44	272
08:00	6	110	116	82	1	83	39	1	40	239
Total Volume	9	500	509	330	9	339	172	1	173	1021
% App. Total	1.8	98.2		97.3	2.7		99.4	0.6		
PHF	.375	.868	.878	.907	.563	.911	.956	.250	.961	.938
Cars	8	487	495	322	8	330	160	1	161	986
% Cars	88.9	97.4	97.2	97.6	88.9	97.3	93.0	100	93.1	96.6
Trucks	1	13	14	8	1	9	12	0	12	35
% Trucks	11.1	2.6	2.8	2.4	11.1	2.7	7.0	0	6.9	3.4



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15			07:30			08:00		
+0 mins.	0	117	117	91	2	93	39	1	40
+15 mins.	2	129	131	81	2	83	43	5	48
+30 mins.	1	144	145	82	1	83	37	7	44
+45 mins.	6	110	116	85	3	88	50	0	50
Total Volume	9	500	509	339	8	347	169	13	182
% App. Total	1.8	98.2		97.7	2.3		92.9	7.1	
PHF	.375	.868	.878	.931	.667	.933	.845	.464	.910
Cars	8	487	495	330	6	336	160	13	173
% Cars	88.9	97.4	97.2	97.3	75	96.8	94.7	100	95.1
Trucks	1	13	14	9	2	11	9	0	9
% Trucks	11.1	2.6	2.8	2.7	25	3.2	5.3	0	4.9



N/S Street : Fitchburg Rd / Park St  
 E/W Street: Groton School Road  
 City/State : Ayer, MA  
 Weather : Clear

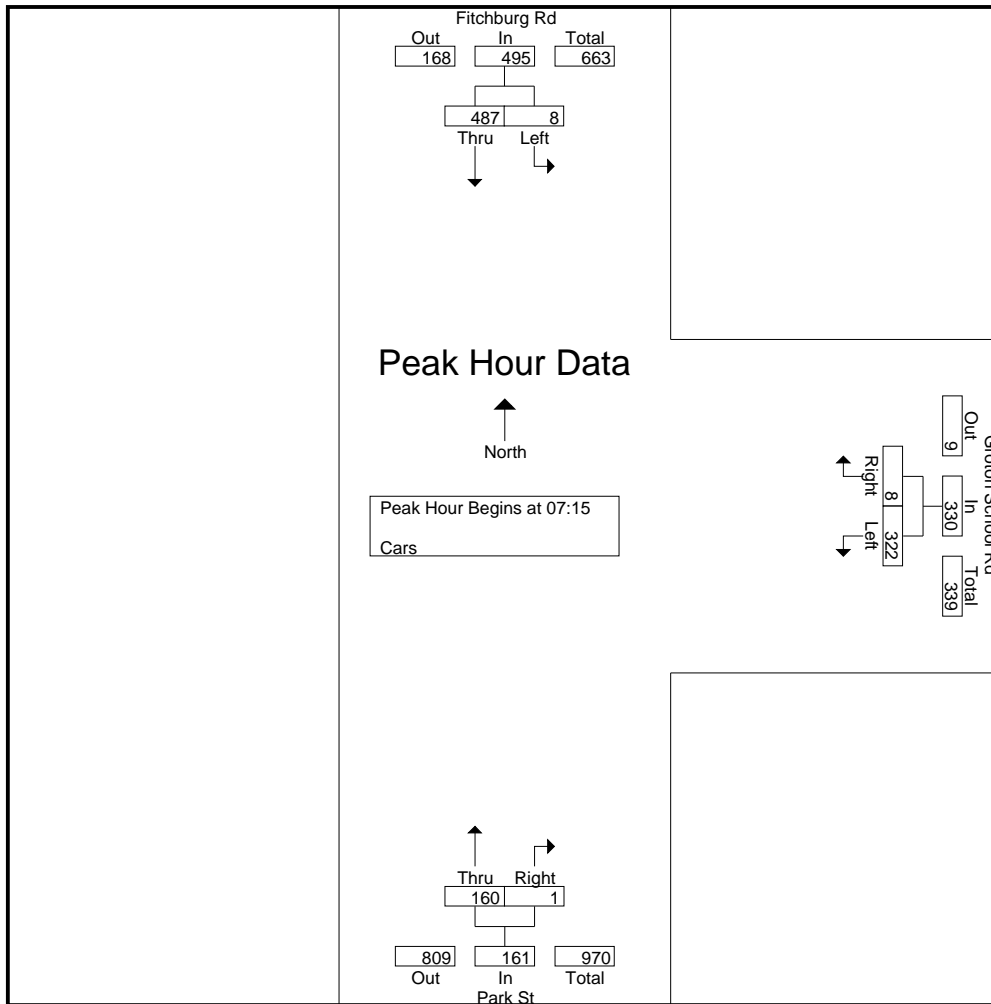
Accurate Counts  
 978-664-2565

File Name : 86525002  
 Site Code : 86525002  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	0	98	0	81	3	0	39	0	0	0	221	221
07:15	0	116	1	76	4	0	45	0	0	1	241	242
07:30	2	128	0	88	2	0	41	0	0	0	261	261
07:45	1	138	1	80	2	0	39	0	0	1	260	261
Total	3	480	2	325	11	0	164	0	0	2	983	985
08:00	5	105	0	78	0	0	35	1	0	0	224	224
08:15	0	92	0	84	2	0	43	5	0	0	226	226
08:30	2	91	0	57	2	0	36	7	0	0	195	195
08:45	1	80	0	62	3	0	46	0	0	0	192	192
Total	8	368	0	281	7	0	160	13	0	0	837	837
Grand Total	11	848	2	606	18	0	324	13	0	2	1820	1822
Apprch %	1.3	98.7		97.1	2.9		96.1	3.9				
Total %	0.6	46.6		33.3	1		17.8	0.7		0.1	99.9	

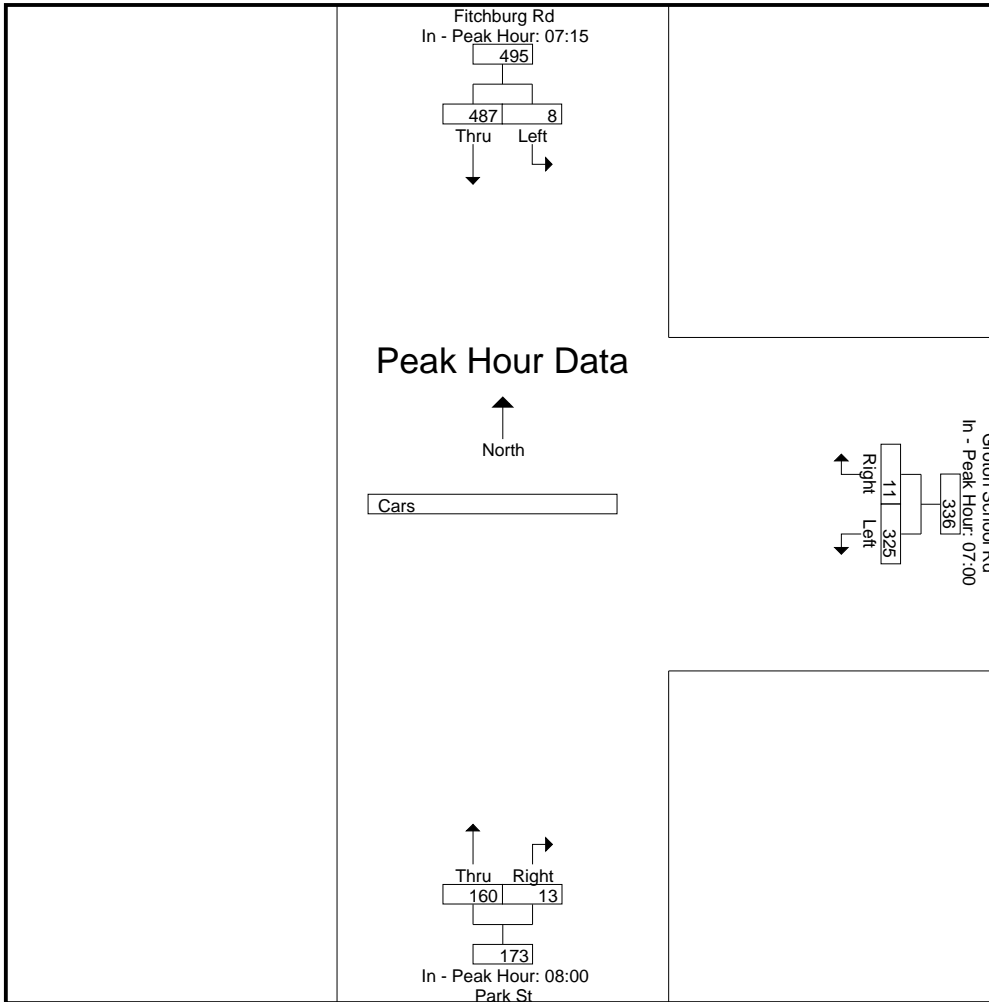
Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15										
07:15	0	116	116	76	4	80	45	0	45	241
07:30	2	128	130	88	2	90	41	0	41	261
07:45	1	138	139	80	2	82	39	0	39	260
08:00	5	105	110	78	0	78	35	1	36	224
Total Volume	8	487	495	322	8	330	160	1	161	986
% App. Total	1.6	98.4		97.6	2.4		99.4	0.6		
PHF	.400	.882	.890	.915	.500	.917	.889	.250	.894	.944



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15			07:00			08:00		
+0 mins.	0	116	116	81	3	84	35	1	36
+15 mins.	2	128	130	76	4	80	43	5	48
+30 mins.	1	138	139	88	2	90	36	7	43
+45 mins.	5	105	110	80	2	82	46	0	46
Total Volume	8	487	495	325	11	336	160	13	173
% App. Total	1.6	98.4		96.7	3.3		92.5	7.5	
PHF	.400	.882	.890	.923	.688	.933	.870	.464	.901



N/S Street : Fitchburg Rd / Park St  
 E/W Street: Groton School Road  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

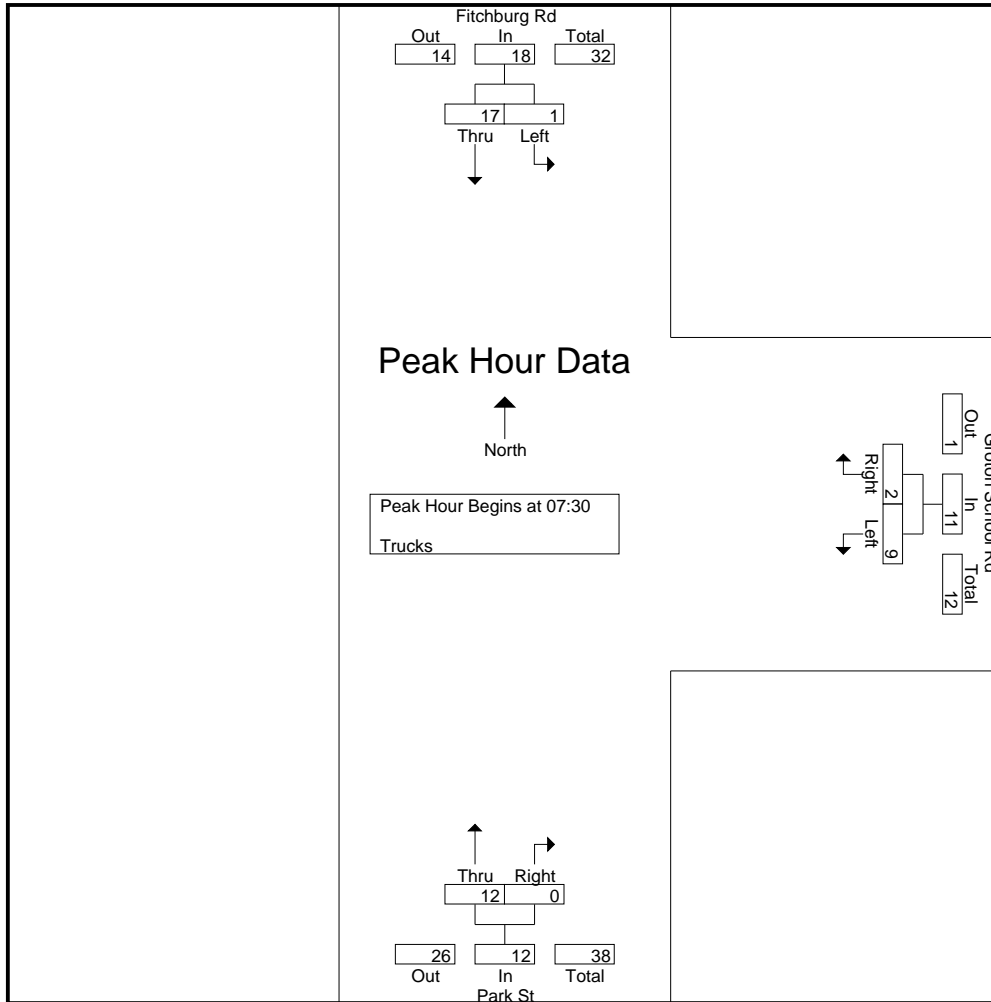
File Name : 86525002  
 Site Code : 86525002  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	1	7	0	4	1	0	2	0	0	0	15	15
07:15	0	1	0	0	0	0	0	0	0	0	1	1
07:30	0	1	0	3	0	0	3	0	0	0	7	7
07:45	0	6	0	1	0	0	5	0	0	0	12	12
Total	1	15	0	8	1	0	10	0	0	0	35	35
08:00	1	5	0	4	1	0	4	0	0	0	15	15
08:15	0	5	0	1	1	0	0	0	0	0	7	7
08:30	0	4	0	1	0	0	1	0	0	0	6	6
08:45	0	3	0	1	0	0	4	0	0	0	8	8
Total	1	17	0	7	2	0	9	0	0	0	36	36
Grand Total	2	32	0	15	3	0	19	0	0	0	71	71
Apprch %	5.9	94.1		83.3	16.7		100	0				
Total %	2.8	45.1		21.1	4.2		26.8	0		0	100	

Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:30	0	1	1	3	0	3	3	0	3	7
07:45	0	6	6	1	0	1	5	0	5	12
08:00	1	5	6	4	1	5	4	0	4	15
08:15	0	5	5	1	1	2	0	0	0	7
Total Volume	1	17	18	9	2	11	12	0	12	41
% App. Total	5.6	94.4		81.8	18.2		100	0		
PHF	.250	.708	.750	.563	.500	.550	.600	.000	.600	.683

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:30

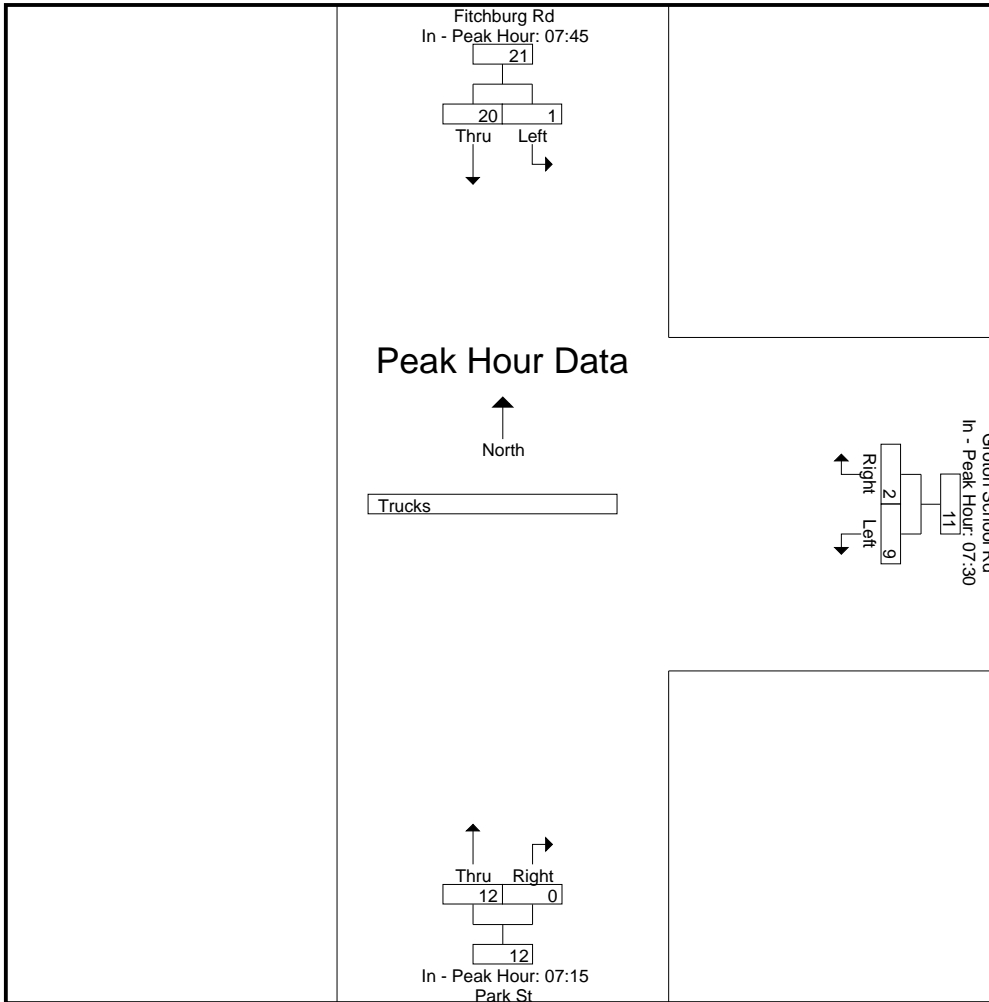


Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45			07:30			07:15		
+0 mins.	0	6	6	3	0	3	0	0	0
+15 mins.	1	5	6	1	0	1	3	0	3
+30 mins.	0	5	5	4	1	5	5	0	5
+45 mins.	0	4	4	1	1	2	4	0	4
Total Volume	1	20	21	9	2	11	12	0	12
% App. Total	4.8	95.2		81.8	18.2		100	0	
PHF	.250	.833	.875	.563	.500	.550	.600	.000	.600





N/S Street : Fitchburg Rd / Park St  
 E/W Street: Groton School Road  
 City/State : Ayer, MA  
 Weather : Clear

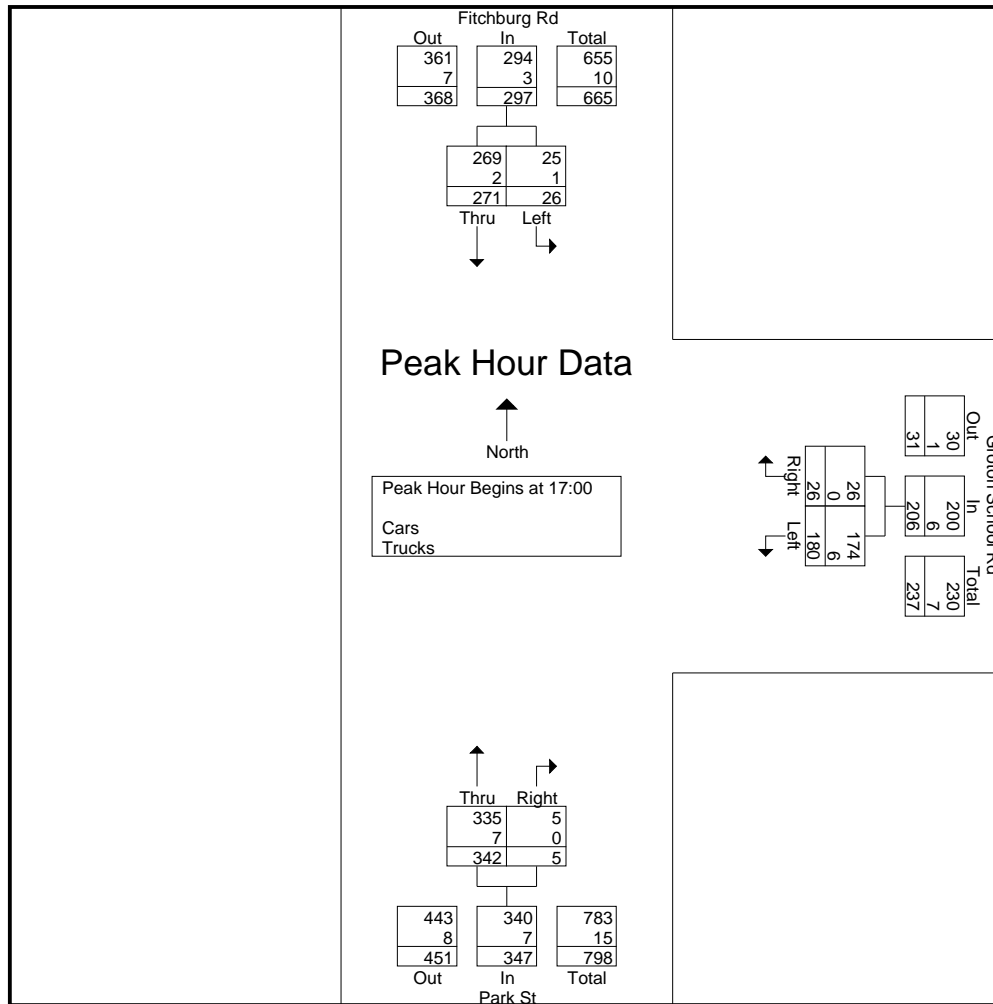
Accurate Counts  
 978-664-2565

File Name : 86525002  
 Site Code : 86525002  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	7	59	0	59	3	0	89	0	0	0	217	217
16:15	1	60	0	39	6	0	68	0	0	0	174	174
16:30	6	69	1	53	3	1	96	1	0	2	228	230
16:45	5	68	0	45	5	0	61	2	0	0	186	186
Total	19	256	1	196	17	1	314	3	0	2	805	807
17:00	8	76	0	40	7	0	87	0	0	0	218	218
17:15	4	63	2	38	7	0	85	2	0	2	199	201
17:30	8	62	1	40	7	0	87	3	0	1	207	208
17:45	6	70	1	62	5	0	83	0	0	1	226	227
Total	26	271	4	180	26	0	342	5	0	4	850	854
Grand Total	45	527	5	376	43	1	656	8	0	6	1655	1661
Apprch %	7.9	92.1		89.7	10.3		98.8	1.2				
Total %	2.7	31.8		22.7	2.6		39.6	0.5		0.4	99.6	
Cars	43	516		366	42		644	8		0	0	1625
% Cars	95.6	97.9	100	97.3	97.7	100	98.2	100	0	0	0	97.8
Trucks	2	11		10	1		12	0		0	0	36
% Trucks	4.4	2.1	0	2.7	2.3	0	1.8	0	0	0	0	2.2

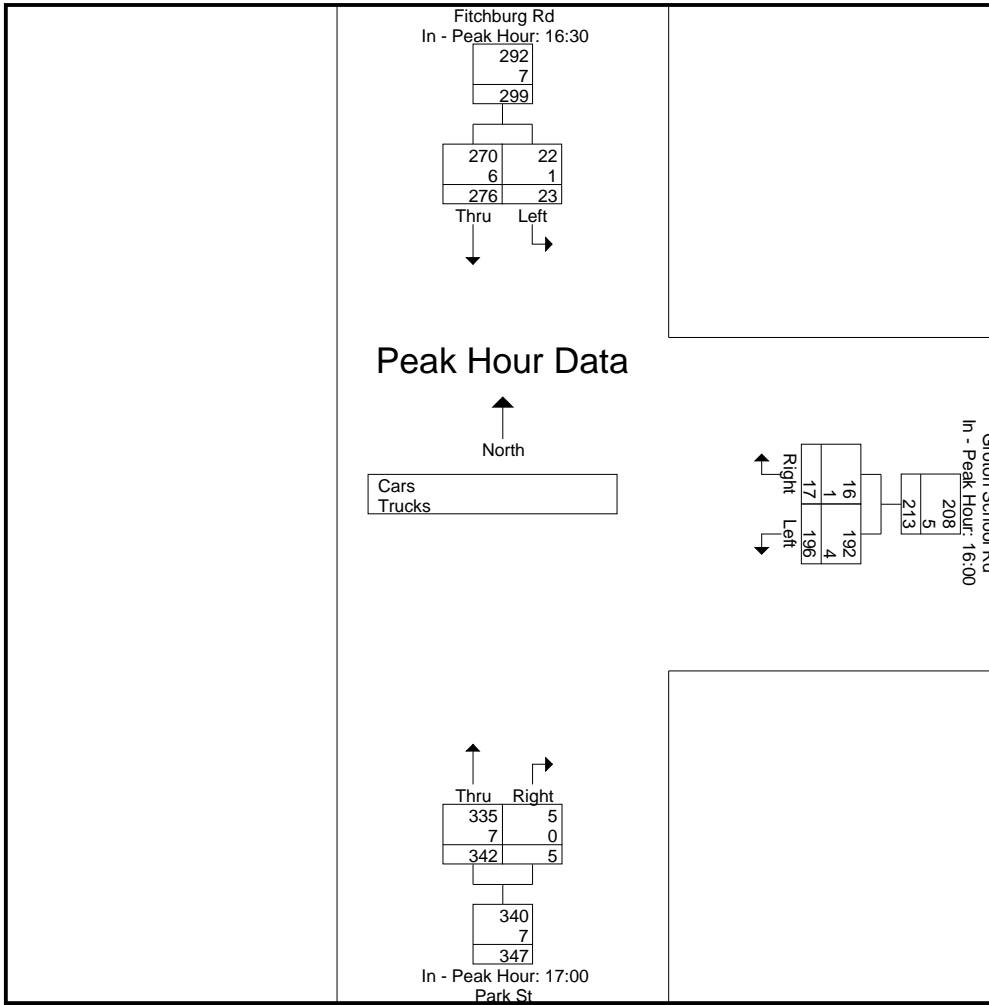
Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 17:00										
17:00	8	76	84	40	7	47	87	0	87	218
17:15	4	63	67	38	7	45	85	2	87	199
17:30	8	62	70	40	7	47	87	3	90	207
17:45	6	70	76	62	5	67	83	0	83	226
Total Volume	26	271	297	180	26	206	342	5	347	850
% App. Total	8.8	91.2		87.4	12.6		98.6	1.4		
PHF	.813	.891	.884	.726	.929	.769	.983	.417	.964	.940
Cars	25	269	294	174	26	200	335	5	340	834
% Cars	96.2	99.3	99.0	96.7	100	97.1	98.0	100	98.0	98.1
Trucks	1	2	3	6	0	6	7	0	7	16
% Trucks	3.8	0.7	1.0	3.3	0	2.9	2.0	0	2.0	1.9



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:30			16:00			17:00		
+0 mins.	6	69	75	59	3	62	87	0	87
+15 mins.	5	68	73	39	6	45	85	2	87
+30 mins.	8	76	84	53	3	56	87	3	90
+45 mins.	4	63	67	45	5	50	83	0	83
Total Volume	23	276	299	196	17	213	342	5	347
% App. Total	7.7	92.3		92	8		98.6	1.4	
PHF	.719	.908	.890	.831	.708	.859	.983	.417	.964
Cars	22	270	292	192	16	208	335	5	340
% Cars	95.7	97.8	97.7	98	94.1	97.7	98	100	98
Trucks	1	6	7	4	1	5	7	0	7
% Trucks	4.3	2.2	2.3	2	5.9	2.3	2	0	2



N/S Street : Fitchburg Rd / Park St  
 E/W Street: Groton School Road  
 City/State : Ayer, MA  
 Weather : Clear

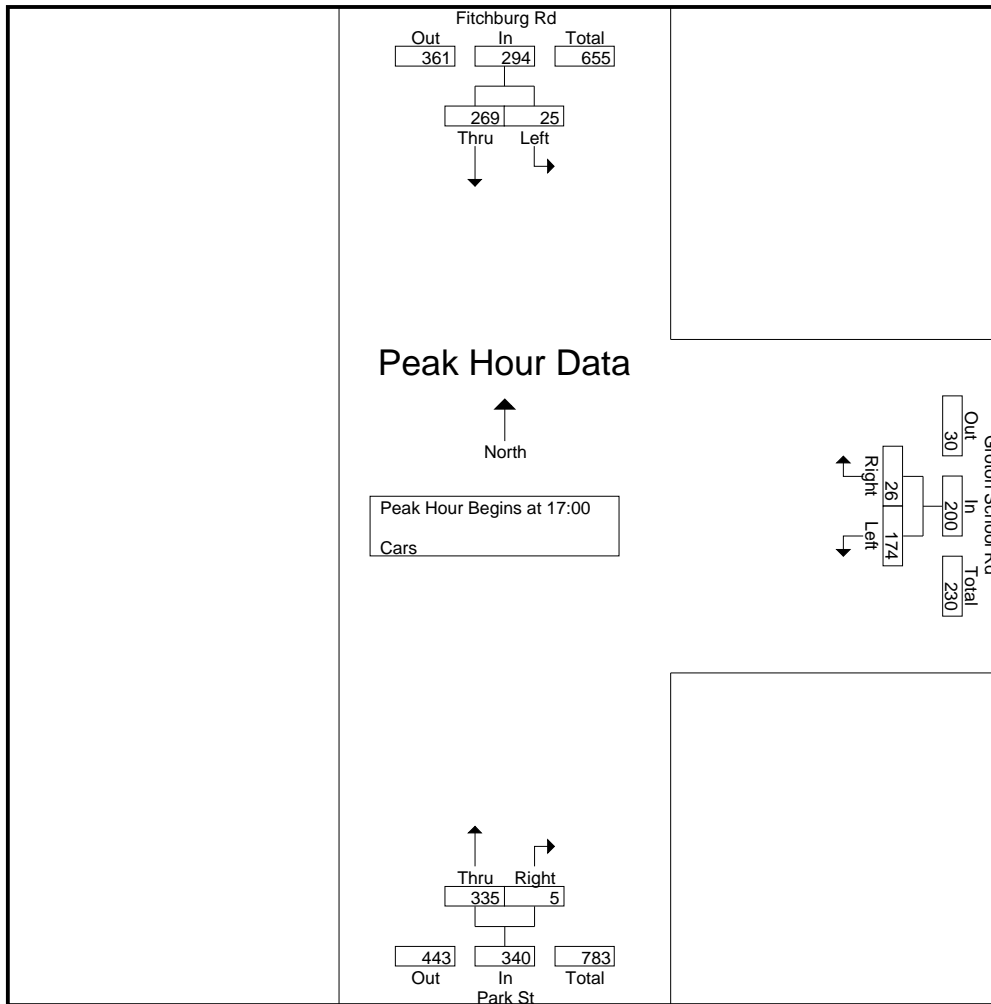
Accurate Counts  
 978-664-2565

File Name : 86525002  
 Site Code : 86525002  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	6	58	0	57	2	0	86	0	0	0	209	209
16:15	1	58	0	38	6	0	67	0	0	0	170	170
16:30	6	67	1	52	3	1	95	1	0	2	224	226
16:45	5	64	0	45	5	0	61	2	0	0	182	182
Total	18	247	1	192	16	1	309	3	0	2	785	787
17:00	7	76	0	40	7	0	83	0	0	0	213	213
17:15	4	63	2	37	7	0	85	2	0	2	198	200
17:30	8	60	1	38	7	0	86	3	0	1	202	203
17:45	6	70	1	59	5	0	81	0	0	1	221	222
Total	25	269	4	174	26	0	335	5	0	4	834	838
Grand Total	43	516	5	366	42	1	644	8	0	6	1619	1625
Apprch %	7.7	92.3		89.7	10.3		98.8	1.2				
Total %	2.7	31.9		22.6	2.6		39.8	0.5		0.4	99.6	

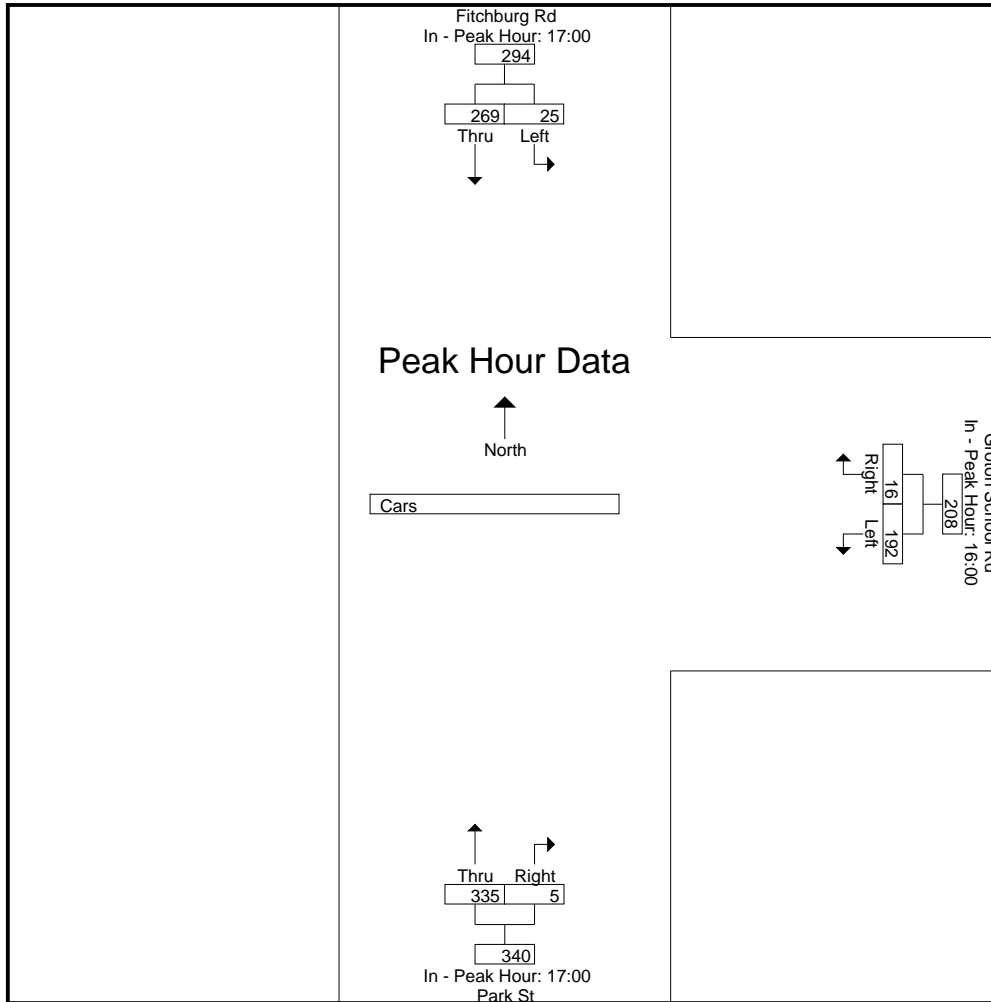
Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 17:00										
17:00	7	76	83	40	7	47	83	0	83	213
17:15	4	63	67	37	7	44	85	2	87	198
17:30	8	60	68	38	7	45	86	3	89	202
17:45	6	70	76	59	5	64	81	0	81	221
Total Volume	25	269	294	174	26	200	335	5	340	834
% App. Total	8.5	91.5		87	13		98.5	1.5		
PHF	.781	.885	.886	.737	.929	.781	.974	.417	.955	.943



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00			16:00			17:00		
+0 mins.	7	76	83	57	2	59	83	0	83
+15 mins.	4	63	67	38	6	44	85	2	87
+30 mins.	8	60	68	52	3	55	86	3	89
+45 mins.	6	70	76	45	5	50	81	0	81
Total Volume	25	269	294	192	16	208	335	5	340
% App. Total	8.5	91.5		92.3	7.7		98.5	1.5	
PHF	.781	.885	.886	.842	.667	.881	.974	.417	.955



N/S Street : Fitchburg Rd / Park St  
 E/W Street: Groton School Road  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

File Name : 86525002  
 Site Code : 86525002  
 Start Date : 4/8/2008  
 Page No : 1

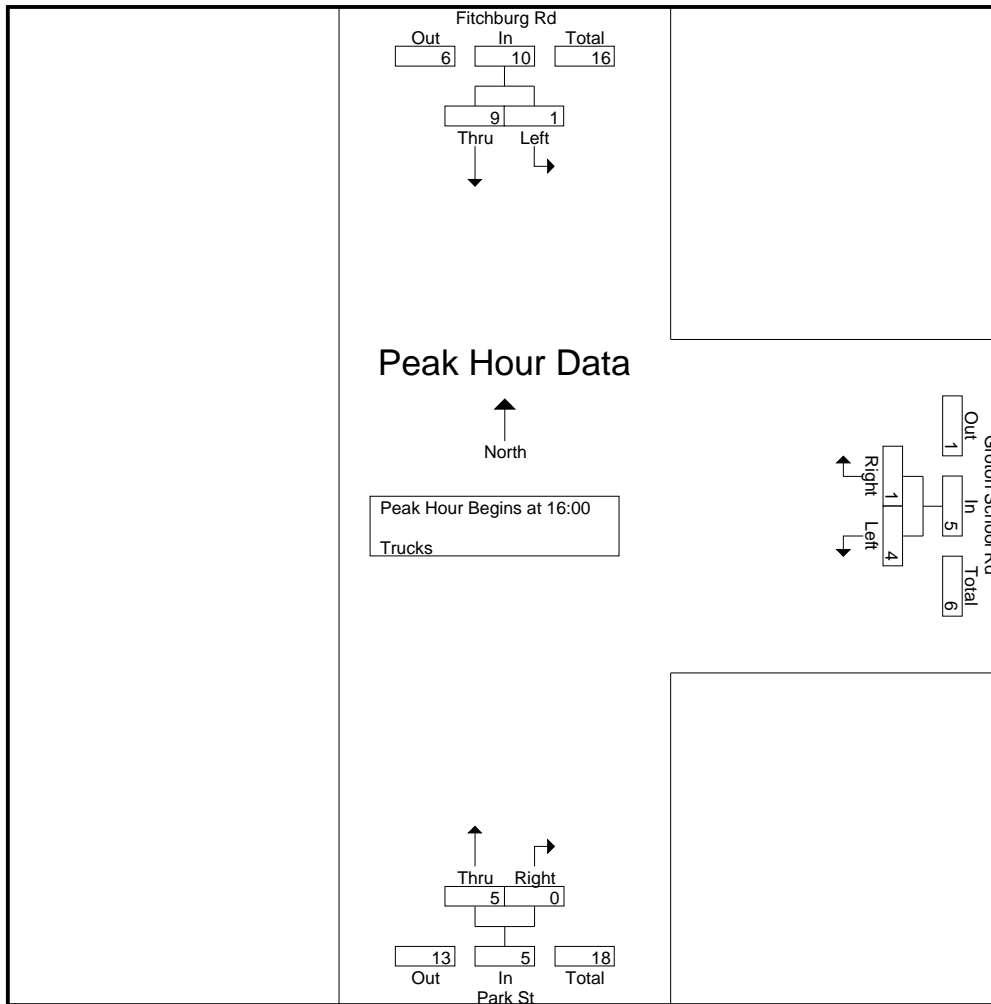
Groups Printed- Trucks

Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	1	1	0	2	1	0	3	0	0	0	8	8
16:15	0	2	0	1	0	0	1	0	0	0	4	4
16:30	0	2	0	1	0	0	1	0	0	0	4	4
16:45	0	4	0	0	0	0	0	0	0	0	4	4
Total	1	9	0	4	1	0	5	0	0	0	20	20
17:00	1	0	0	0	0	0	4	0	0	0	5	5
17:15	0	0	0	1	0	0	0	0	0	0	1	1
17:30	0	2	0	2	0	0	1	0	0	0	5	5
17:45	0	0	0	3	0	0	2	0	0	0	5	5
Total	1	2	0	6	0	0	7	0	0	0	16	16
Grand Total	2	11	0	10	1	0	12	0	0	0	36	36
Apprch %	15.4	84.6		90.9	9.1		100	0				
Total %	5.6	30.6		27.8	2.8		33.3	0		0	100	

Start Time	Fitchburg Rd From North			Groton School Rd From East			Park St From South			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
16:00	1	1	2	2	1	3	3	0	3	8
16:15	0	2	2	1	0	1	1	0	1	4
16:30	0	2	2	1	0	1	1	0	1	4
16:45	0	4	4	0	0	0	0	0	0	4
Total Volume	1	9	10	4	1	5	5	0	5	20
% App. Total	10	90		80	20		100	0		
PHF	.250	.563	.625	.500	.250	.417	.417	.000	.417	.625

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00

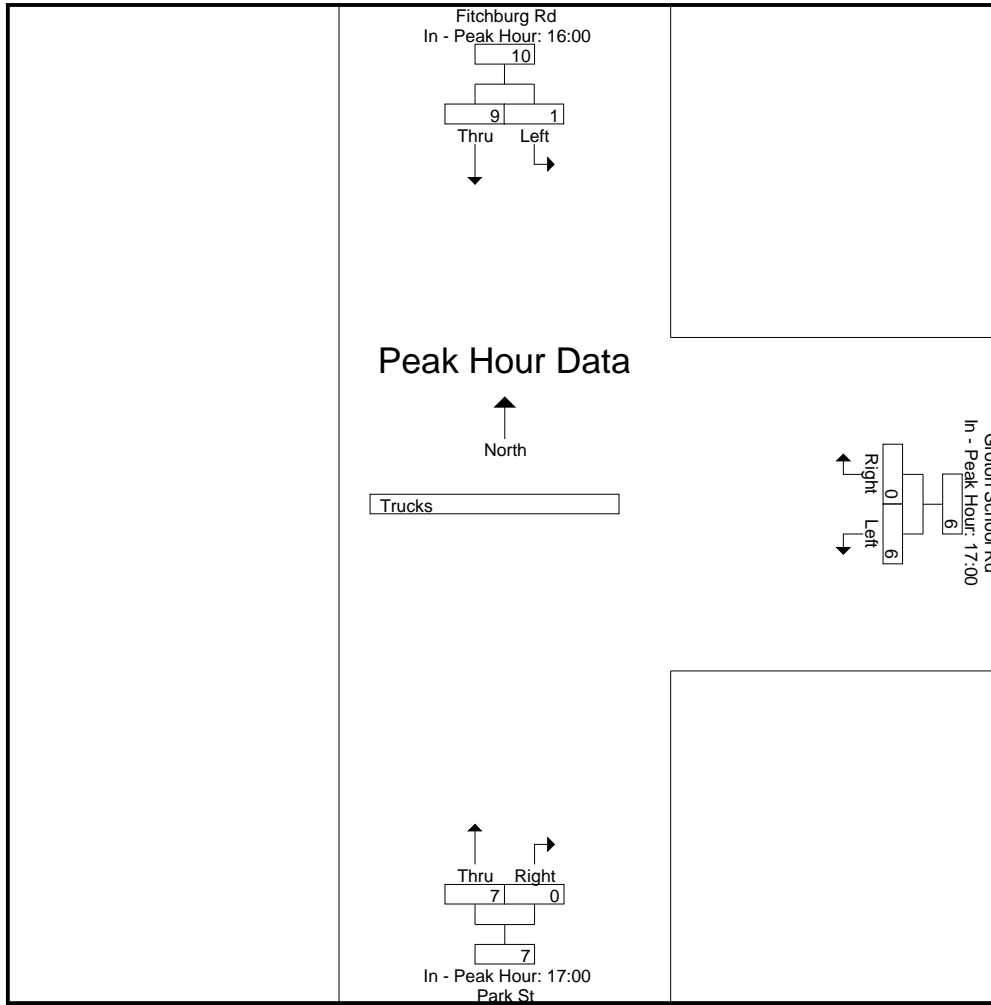




Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00			17:00			17:00		
+0 mins.	1	1	2	0	0	0	4	0	4
+15 mins.	0	2	2	1	0	1	0	0	0
+30 mins.	0	2	2	2	0	2	1	0	1
+45 mins.	0	4	4	3	0	3	2	0	2
Total Volume	1	9	10	6	0	6	7	0	7
% App. Total	10	90		100	0		100	0	
PHF	.250	.563	.625	.500	.000	.500	.438	.000	.438



N/S Street : Park St / Mill St  
 E/W Street: Main St / West Main St  
 City/State : Ayer, MA  
 Weather : Clear

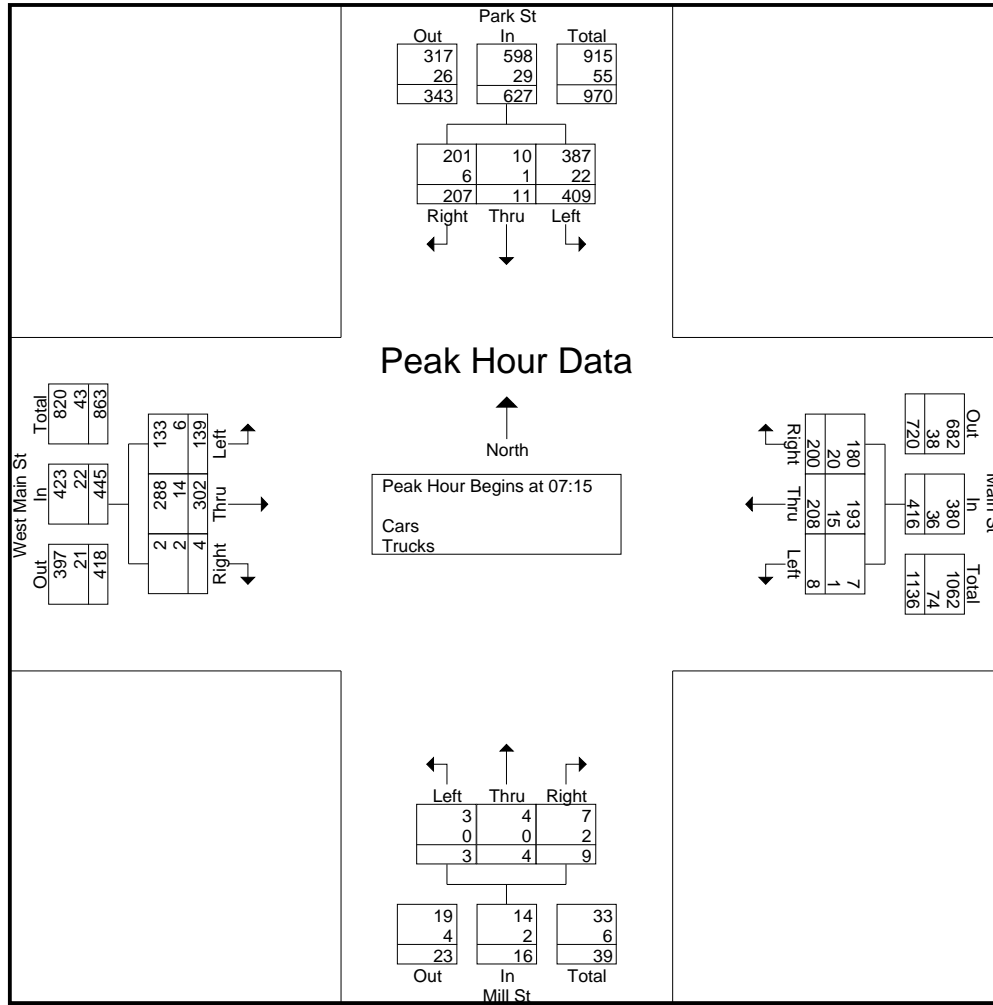
Accurate Counts  
 978-664-2565

File Name : 86525003  
 Site Code : 86525003  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	77	2	35	1	3	35	39	2	1	0	4	5	41	118	1	5	13	356	369
07:15	90	4	48	0	0	57	45	0	1	2	1	1	34	97	1	1	2	380	382
07:30	112	2	49	0	2	50	50	0	1	0	4	4	31	61	1	2	6	363	369
07:45	105	4	54	0	3	49	50	0	0	1	1	1	40	71	1	1	2	379	381
Total	384	12	186	1	8	191	184	2	3	3	10	11	146	347	4	9	23	1478	1501
08:00	102	1	56	0	3	52	55	0	1	1	3	0	34	73	1	1	1	382	383
08:15	90	2	73	0	4	50	36	0	2	0	2	0	38	75	2	0	0	374	374
08:30	89	3	33	0	2	46	64	0	0	2	2	0	41	63	0	0	0	345	345
08:45	97	1	36	0	3	36	58	0	1	3	3	0	36	74	2	0	0	350	350
Total	378	7	198	0	12	184	213	0	4	6	10	0	149	285	5	1	1	1451	1452
Grand Total	762	19	384	1	20	375	397	2	7	9	20	11	295	632	9	10	24	2929	2953
Apprch %	65.4	1.6	33		2.5	47.3	50.1		19.4	25	55.6		31.5	67.5	1				
Total %	26	0.6	13.1		0.7	12.8	13.6		0.2	0.3	0.7		10.1	21.6	0.3		0.8	99.2	
Cars	715	18	376		17	349	368		6	9	16		285	597	5		0	0	2785
% Cars	93.8	94.7	97.9	100	85	93.1	92.7	100	85.7	100	80	100	96.6	94.5	55.6	100	0	0	94.3
Trucks	47	1	8		3	26	29		1	0	4		10	35	4		0	0	168
% Trucks	6.2	5.3	2.1	0	15	6.9	7.3	0	14.3	0	20	0	3.4	5.5	44.4	0	0	0	5.7

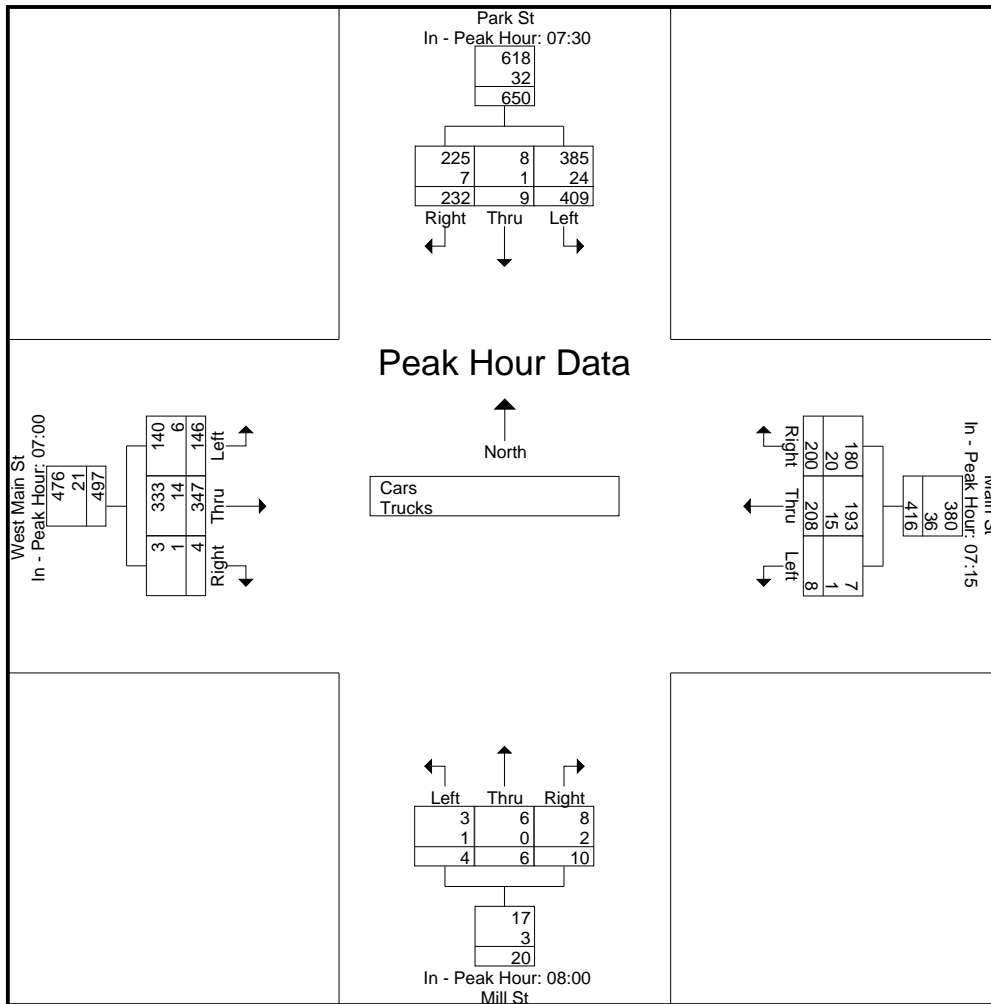
Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	90	4	48	142	0	57	45	102	1	2	1	4	34	97	1	132	380
07:30	112	2	49	163	2	50	50	102	1	0	4	5	31	61	1	93	363
07:45	105	4	54	163	3	49	50	102	0	1	1	2	40	71	1	112	379
08:00	102	1	56	159	3	52	55	110	1	1	3	5	34	73	1	108	382
Total Volume	409	11	207	627	8	208	200	416	3	4	9	16	139	302	4	445	1504
% App. Total	65.2	1.8	33		1.9	50	48.1		18.8	25	56.2		31.2	67.9	0.9		
PHF	.913	.688	.924	.962	.667	.912	.909	.945	.750	.500	.563	.800	.869	.778	1.000	.843	.984
Cars	387	10	201	598	7	193	180	380	3	4	7	14	133	288	2	423	1415
% Cars	94.6	90.9	97.1	95.4	87.5	92.8	90.0	91.3	100	100	77.8	87.5	95.7	95.4	50.0	95.1	94.1
Trucks	22	1	6	29	1	15	20	36	0	0	2	2	6	14	2	22	89
% Trucks	5.4	9.1	2.9	4.6	12.5	7.2	10.0	8.7	0	0	22.2	12.5	4.3	4.6	50.0	4.9	5.9



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30				07:15				08:00				07:00			
+0 mins.	112	2	49	163	0	57	45	102	1	1	3	5	41	118	1	160
+15 mins.	105	4	54	163	2	50	50	102	2	0	2	4	34	97	1	132
+30 mins.	102	1	56	159	3	49	50	102	0	2	2	4	31	61	1	93
+45 mins.	90	2	73	165	3	52	55	110	1	3	3	7	40	71	1	112
Total Volume	409	9	232	650	8	208	200	416	4	6	10	20	146	347	4	497
% App. Total	62.9	1.4	35.7		1.9	50	48.1		20	30	50		29.4	69.8	0.8	
PHF	.913	.563	.795	.985	.667	.912	.909	.945	.500	.500	.833	.714	.890	.735	1.000	.777
Cars	385	8	225	618	7	193	180	380	3	6	8	17	140	333	3	476
% Cars	94.1	88.9	97	95.1	87.5	92.8	90	91.3	75	100	80	85	95.9	96	75	95.8
Trucks	24	1	7	32	1	15	20	36	1	0	2	3	6	14	1	21
% Trucks	5.9	11.1	3	4.9	12.5	7.2	10	8.7	25	0	20	15	4.1	4	25	4.2



N/S Street : Park St / Mill St  
 E/W Street: Main St / West Main St  
 City/State : Ayer, MA  
 Weather : Clear

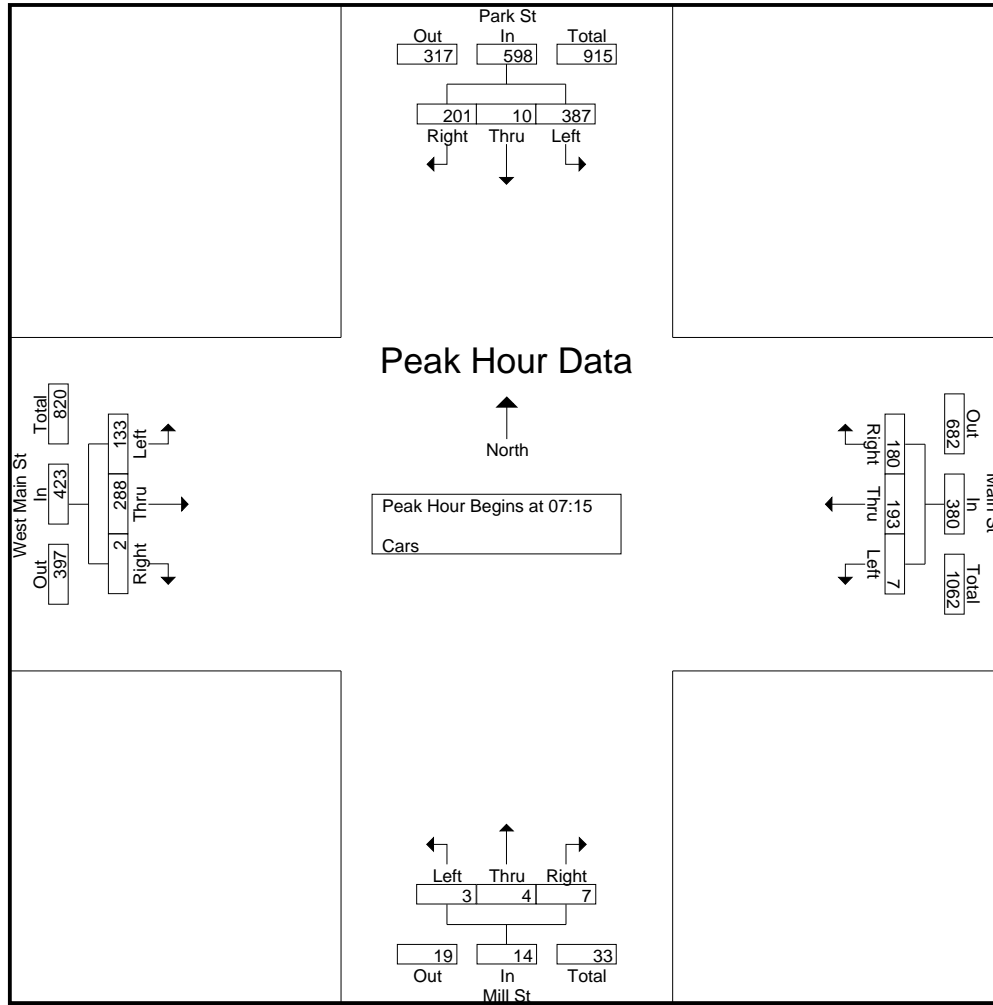
Accurate Counts  
 978-664-2565

File Name : 86525003  
 Site Code : 86525003  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	68	2	35	1	2	33	37	2	1	0	4	5	40	115	1	5	13	338	351
07:15	87	4	47	0	0	54	42	0	1	2	1	1	33	95	1	1	2	367	369
07:30	109	2	48	0	1	48	45	0	1	0	3	4	29	57	0	2	6	343	349
07:45	99	4	53	0	3	44	45	0	0	1	0	1	38	66	1	1	2	354	356
Total	363	12	183	1	6	179	169	2	3	3	8	11	140	333	3	9	23	1402	1425
08:00	92	0	53	0	3	47	48	0	1	1	3	0	33	70	0	1	1	351	352
08:15	85	2	71	0	4	47	33	0	1	0	2	0	38	71	1	0	0	355	355
08:30	84	3	33	0	2	43	61	0	0	2	1	0	40	58	0	0	0	327	327
08:45	91	1	36	0	2	33	57	0	1	3	2	0	34	65	1	0	0	326	326
Total	352	6	193	0	11	170	199	0	3	6	8	0	145	264	2	1	1	1359	1360
Grand Total	715	18	376	1	17	349	368	2	6	9	16	11	285	597	5	10	24	2761	2785
Apprch %	64.5	1.6	33.9		2.3	47.5	50.1		19.4	29	51.6		32.1	67.3	0.6				
Total %	25.9	0.7	13.6		0.6	12.6	13.3		0.2	0.3	0.6		10.3	21.6	0.2		0.9	99.1	

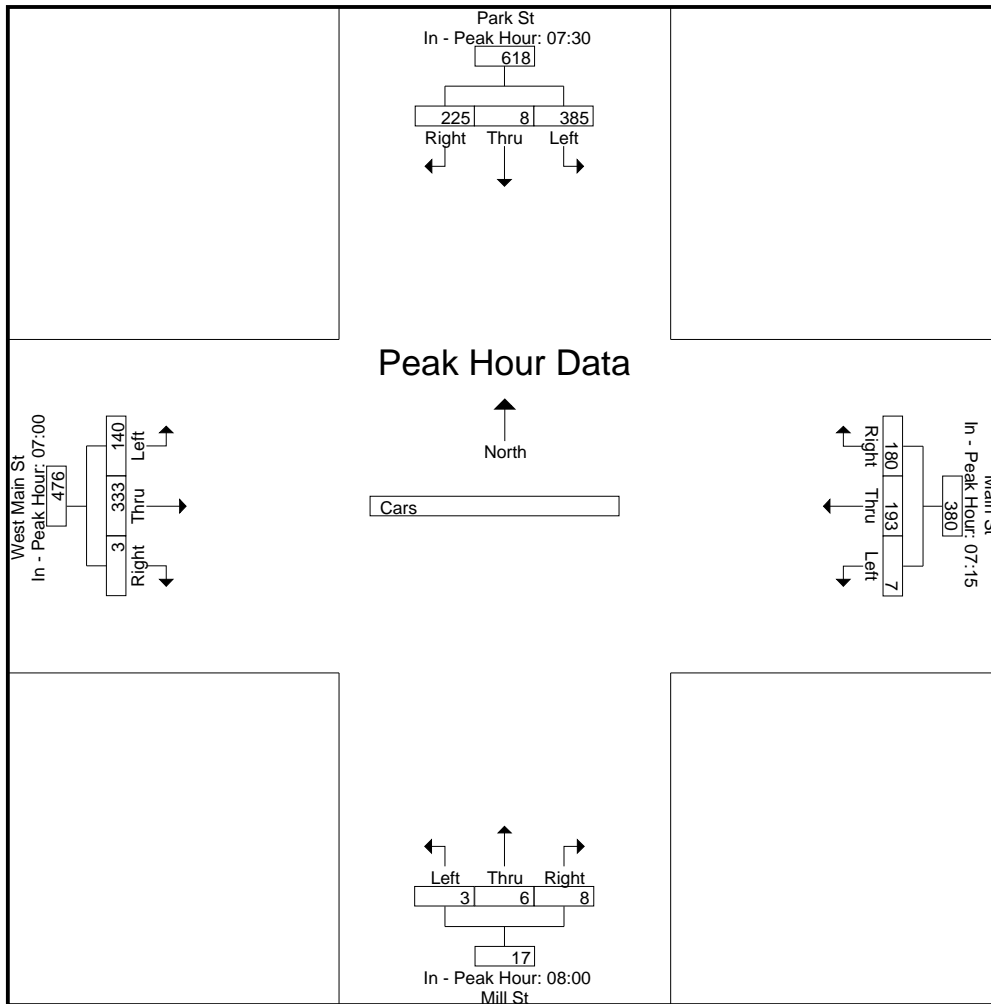
Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	87	4	47	138	0	54	42	96	1	2	1	4	33	95	1	129	367
07:30	109	2	48	159	1	48	45	94	1	0	3	4	29	57	0	86	343
07:45	99	4	53	156	3	44	45	92	0	1	0	1	38	66	1	105	354
08:00	92	0	53	145	3	47	48	98	1	1	3	5	33	70	0	103	351
Total Volume	387	10	201	598	7	193	180	380	3	4	7	14	133	288	2	423	1415
% App. Total	64.7	1.7	33.6		1.8	50.8	47.4		21.4	28.6	50		31.4	68.1	0.5		
PHF	.888	.625	.948	.940	.583	.894	.938	.969	.750	.500	.583	.700	.875	.758	.500	.820	.964



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30				07:15				08:00				07:00			
+0 mins.	109	2	48	159	0	54	42	96	1	1	3	5	40	115	1	156
+15 mins.	99	4	53	156	1	48	45	94	1	0	2	3	33	95	1	129
+30 mins.	92	0	53	145	3	44	45	92	0	2	1	3	29	57	0	86
+45 mins.	85	2	71	158	3	47	48	98	1	3	2	6	38	66	1	105
Total Volume	385	8	225	618	7	193	180	380	3	6	8	17	140	333	3	476
% App. Total	62.3	1.3	36.4		1.8	50.8	47.4		17.6	35.3	47.1		29.4	70	0.6	
PHF	.883	.500	.792	.972	.583	.894	.938	.969	.750	.500	.667	.708	.875	.724	.750	.763





N/S Street : Park St / Mill St  
 E/W Street: Main St / West Main St  
 City/State : Ayer, MA  
 Weather : Clear

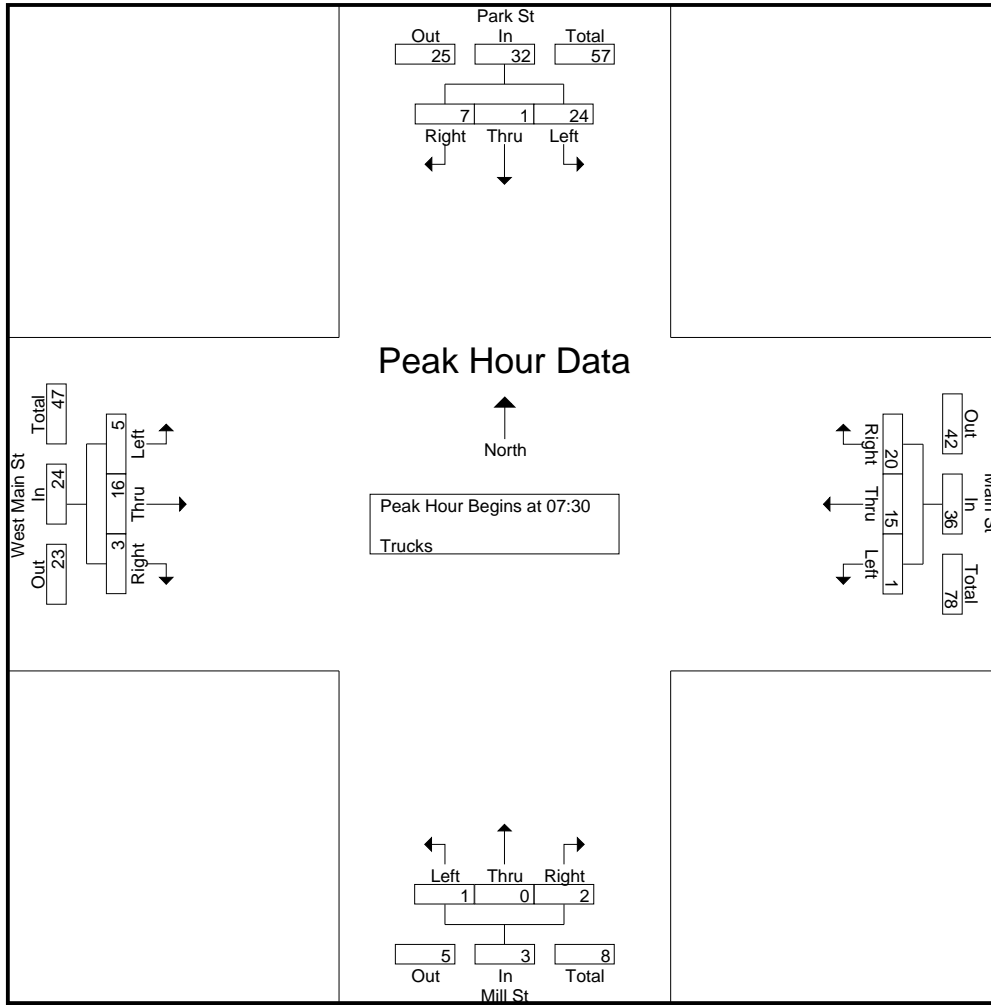
Accurate Counts  
 978-664-2565

File Name : 86525003  
 Site Code : 86525003  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	9	0	0	0	1	2	2	0	0	0	0	0	1	3	0	0	0	18	18
07:15	3	0	1	0	0	3	3	0	0	0	0	0	1	2	0	0	0	13	13
07:30	3	0	1	0	1	2	5	0	0	0	1	0	2	4	1	0	0	20	20
07:45	6	0	1	0	0	5	5	0	0	0	1	0	2	5	0	0	0	25	25
Total	21	0	3	0	2	12	15	0	0	0	2	0	6	14	1	0	0	76	76
08:00	10	1	3	0	0	5	7	0	0	0	0	0	1	3	1	0	0	31	31
08:15	5	0	2	0	0	3	3	0	1	0	0	0	0	4	1	0	0	19	19
08:30	5	0	0	0	0	3	3	0	0	0	1	0	1	5	0	0	0	18	18
08:45	6	0	0	0	1	3	1	0	0	0	1	0	2	9	1	0	0	24	24
Total	26	1	5	0	1	14	14	0	1	0	2	0	4	21	3	0	0	92	92
Grand Total	47	1	8	0	3	26	29	0	1	0	4	0	10	35	4	0	0	168	168
Apprch %	83.9	1.8	14.3		5.2	44.8	50		20	0	80		20.4	71.4	8.2				
Total %	28	0.6	4.8		1.8	15.5	17.3		0.6	0	2.4		6	20.8	2.4		0	100	

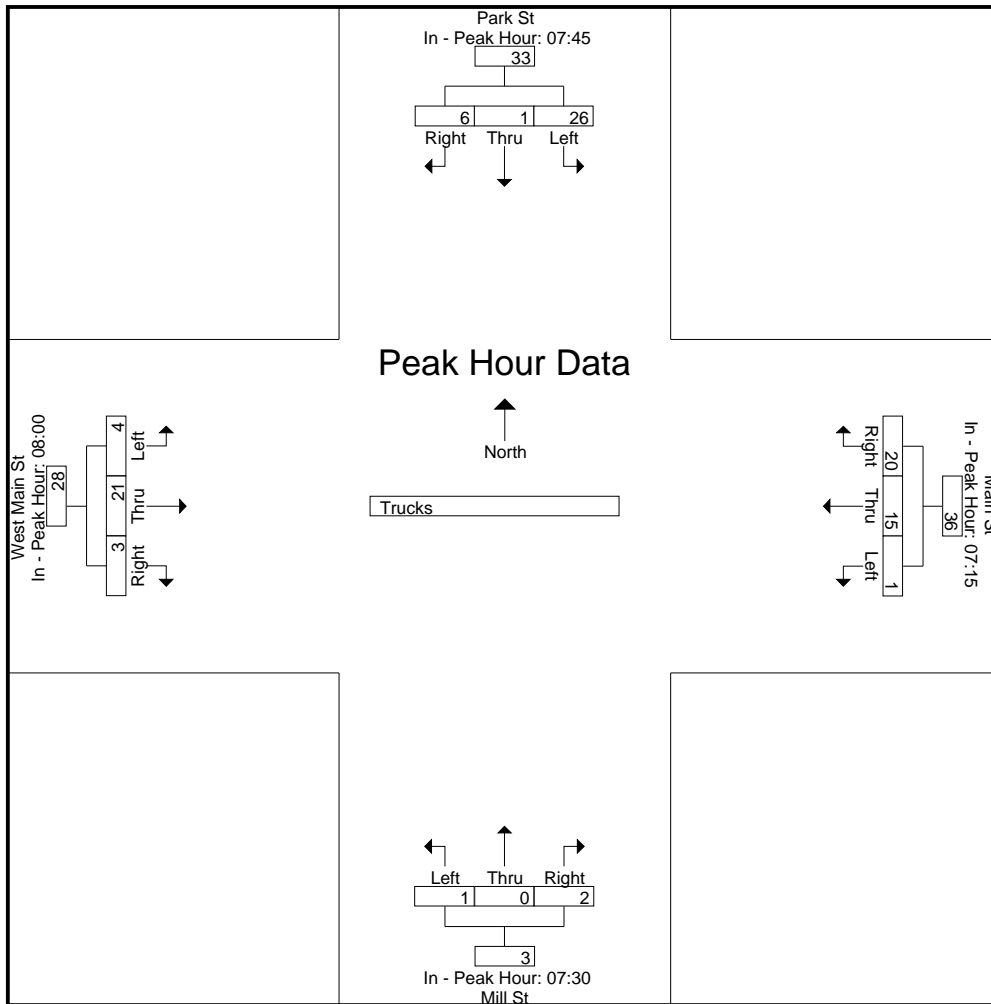
Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30																	
07:30	3	0	1	4	1	2	5	8	0	0	1	1	2	4	1	7	20
07:45	6	0	1	7	0	5	5	10	0	0	1	1	2	5	0	7	25
08:00	10	1	3	14	0	5	7	12	0	0	0	0	1	3	1	5	31
08:15	5	0	2	7	0	3	3	6	1	0	0	1	0	4	1	5	19
Total Volume	24	1	7	32	1	15	20	36	1	0	2	3	5	16	3	24	95
% App. Total	75	3.1	21.9		2.8	41.7	55.6		33.3	0	66.7		20.8	66.7	12.5		
PHF	.600	.250	.583	.571	.250	.750	.714	.750	.250	.000	.500	.750	.625	.800	.750	.857	.766



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45				07:15				07:30				08:00			
+0 mins.	6	0	1	7	0	3	3	6	0	0	1	1	1	3	1	5
+15 mins.	10	1	3	14	1	2	5	8	0	0	1	1	0	4	1	5
+30 mins.	5	0	2	7	0	5	5	10	0	0	0	0	1	5	0	6
+45 mins.	5	0	0	5	0	5	7	12	1	0	0	1	2	9	1	12
Total Volume	26	1	6	33	1	15	20	36	1	0	2	3	4	21	3	28
% App. Total	78.8	3	18.2		2.8	41.7	55.6		33.3	0	66.7		14.3	75	10.7	
PHF	.650	.250	.500	.589	.250	.750	.714	.750	.250	.000	.500	.750	.500	.583	.750	.583



N/S Street : Park St / Mill St  
 E/W Street: Main St / West Main St  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

File Name : 86525003  
 Site Code : 86525003  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

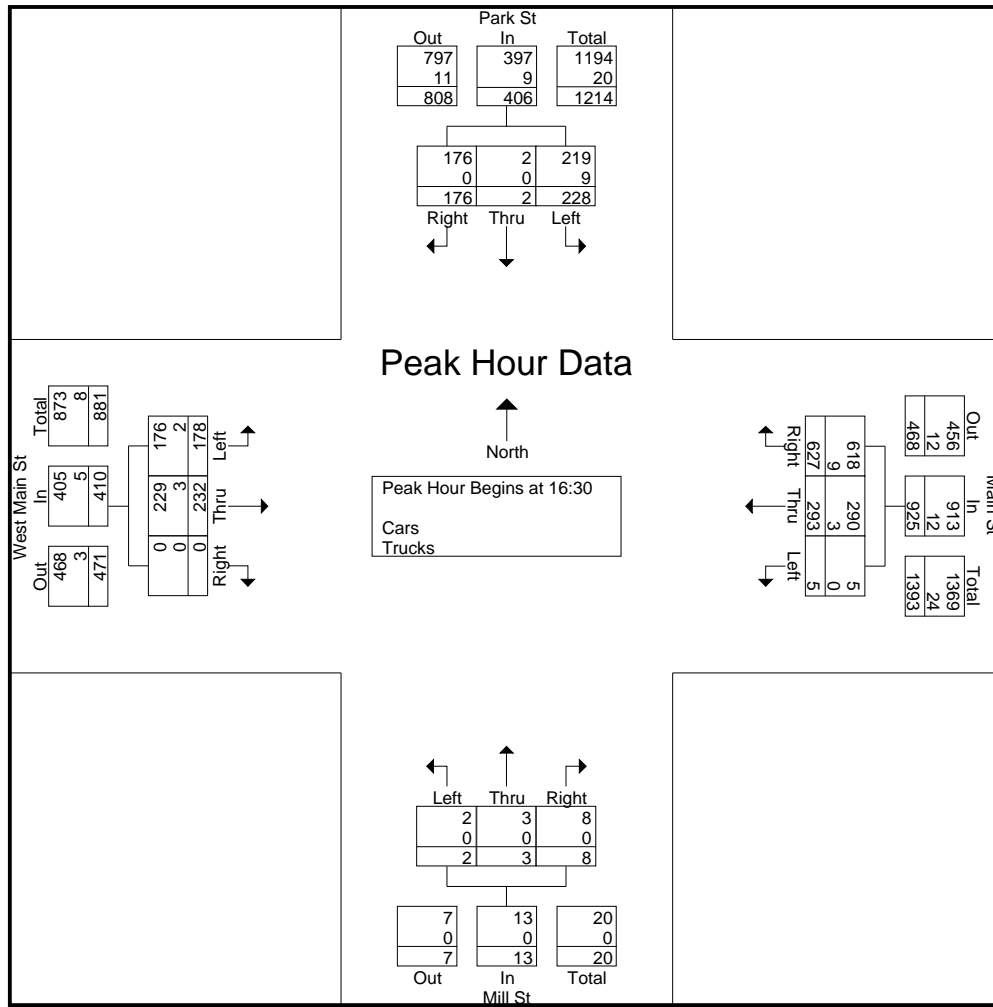
Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	48	1	42	2	0	73	119	1	2	1	0	10	57	58	1	0	13	402	415
16:15	56	0	45	0	2	72	109	1	1	0	1	1	41	51	2	0	2	380	382
16:30	49	1	39	2	1	70	162	4	1	0	1	0	34	46	0	1	7	404	411
16:45	55	0	45	2	2	71	146	0	0	1	2	2	41	53	0	3	7	416	423
Total	208	2	171	6	5	286	536	6	4	2	4	13	173	208	3	4	29	1602	1631
17:00	58	1	52	1	1	79	156	0	1	1	3	2	52	68	0	0	3	472	475
17:15	66	0	40	4	1	73	163	0	0	1	2	1	51	65	0	0	5	462	467
17:30	71	1	26	2	0	66	123	1	0	0	1	4	38	62	0	1	8	388	396
17:45	71	1	48	4	2	64	133	1	1	0	3	3	45	61	0	3	11	429	440
Total	266	3	166	11	4	282	575	2	2	2	9	10	186	256	0	4	27	1751	1778
Grand Total	474	5	337	17	9	568	1111	8	6	4	13	23	359	464	3	8	56	3353	3409
Apprch %	58.1	0.6	41.3		0.5	33.6	65.8		26.1	17.4	56.5		43.5	56.2	0.4				
Total %	14.1	0.1	10.1		0.3	16.9	33.1		0.2	0.1	0.4		10.7	13.8	0.1		1.6	98.4	
Cars	457	5	332		9	558	1089		6	4	13		355	454	3		0	0	3341
% Cars	96.4	100	98.5	100	100	98.2	98	100	100	100	100	100	98.9	97.8	100	100	0	0	98
Trucks	17	0	5		0	10	22		0	0	0		4	10	0		0	0	68
% Trucks	3.6	0	1.5	0	0	1.8	2	0	0	0	0	0	1.1	2.2	0	0	0	0	2

Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 16:30

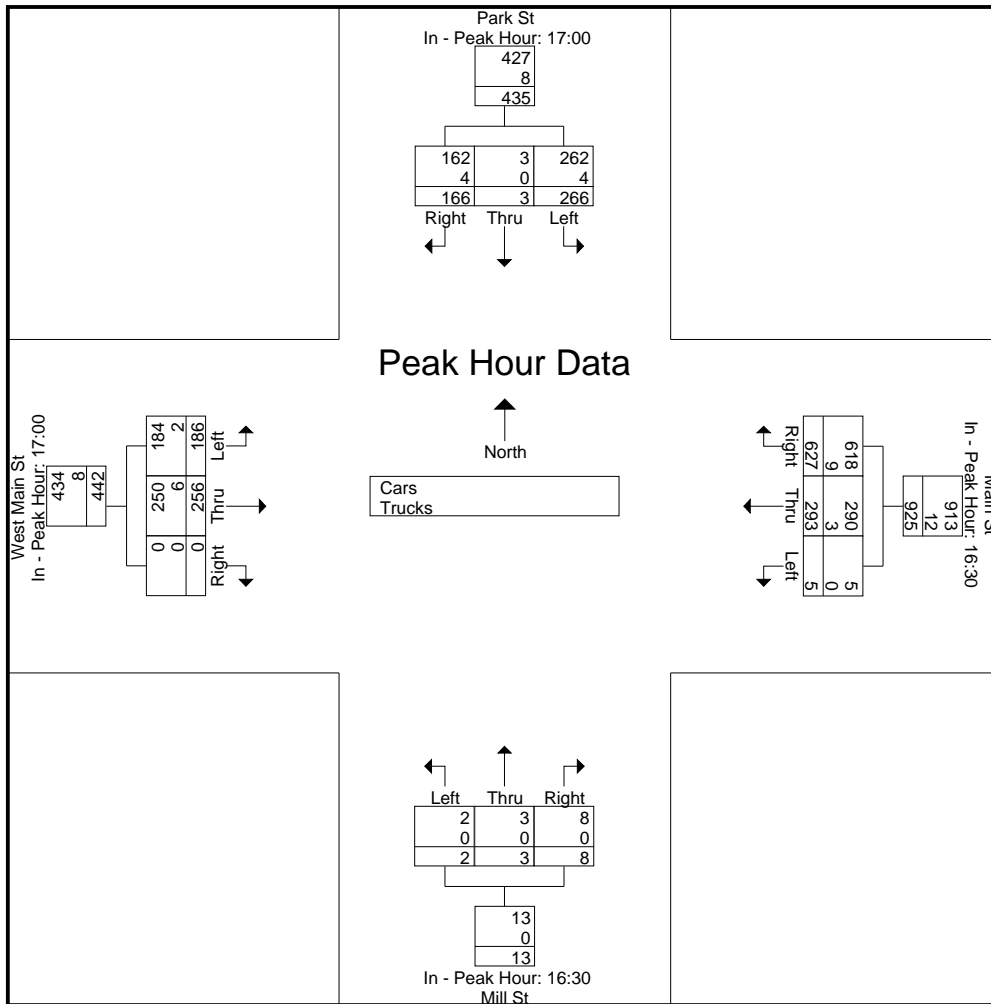
16:30	49	1	39	89	1	70	162	233	1	0	1	2	34	46	0	80	404
16:45	55	0	45	100	2	71	146	219	0	1	2	3	41	53	0	94	416
17:00	58	1	52	111	1	79	156	236	1	1	3	5	52	68	0	120	472
17:15	66	0	40	106	1	73	163	237	0	1	2	3	51	65	0	116	462
Total Volume	228	2	176	406	5	293	627	925	2	3	8	13	178	232	0	410	1754
% App. Total	56.2	0.5	43.3		0.5	31.7	67.8		15.4	23.1	61.5		43.4	56.6	0		
PHF	.864	.500	.846	.914	.625	.927	.962	.976	.500	.750	.667	.650	.856	.853	.000	.854	.929
Cars	219	2	176	397	5	290	618	913	2	3	8	13	176	229	0	405	1728
% Cars	96.1	100	100	97.8	100	99.0	98.6	98.7	100	100	100	100	98.9	98.7	0	98.8	98.5
Trucks	9	0	0	9	0	3	9	12	0	0	0	0	2	3	0	5	26
% Trucks	3.9	0	0	2.2	0	1.0	1.4	1.3	0	0	0	0	1.1	1.3	0	1.2	1.5



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00				16:30				16:30				17:00			
+0 mins.	58	1	52	111	1	70	162	233	1	0	1	2	52	68	0	120
+15 mins.	66	0	40	106	2	71	146	219	0	1	2	3	51	65	0	116
+30 mins.	71	1	26	98	1	79	156	236	1	1	3	5	38	62	0	100
+45 mins.	71	1	48	120	1	73	163	237	0	1	2	3	45	61	0	106
Total Volume	266	3	166	435	5	293	627	925	2	3	8	13	186	256	0	442
% App. Total	61.1	0.7	38.2		0.5	31.7	67.8		15.4	23.1	61.5		42.1	57.9	0	
PHF	.937	.750	.798	.906	.625	.927	.962	.976	.500	.750	.667	.650	.894	.941	.000	.921
Cars	262	3	162	427	5	290	618	913	2	3	8	13	184	250	0	434
% Cars	98.5	100	97.6	98.2	100	99	98.6	98.7	100	100	100	100	98.9	97.7	0	98.2
Trucks	4	0	4	8	0	3	9	12	0	0	0	0	2	6	0	8
% Trucks	1.5	0	2.4	1.8	0	1	1.4	1.3	0	0	0	0	1.1	2.3	0	1.8



N/S Street : Park St / Mill St  
 E/W Street: Main St / West Main St  
 City/State : Ayer, MA  
 Weather : Clear

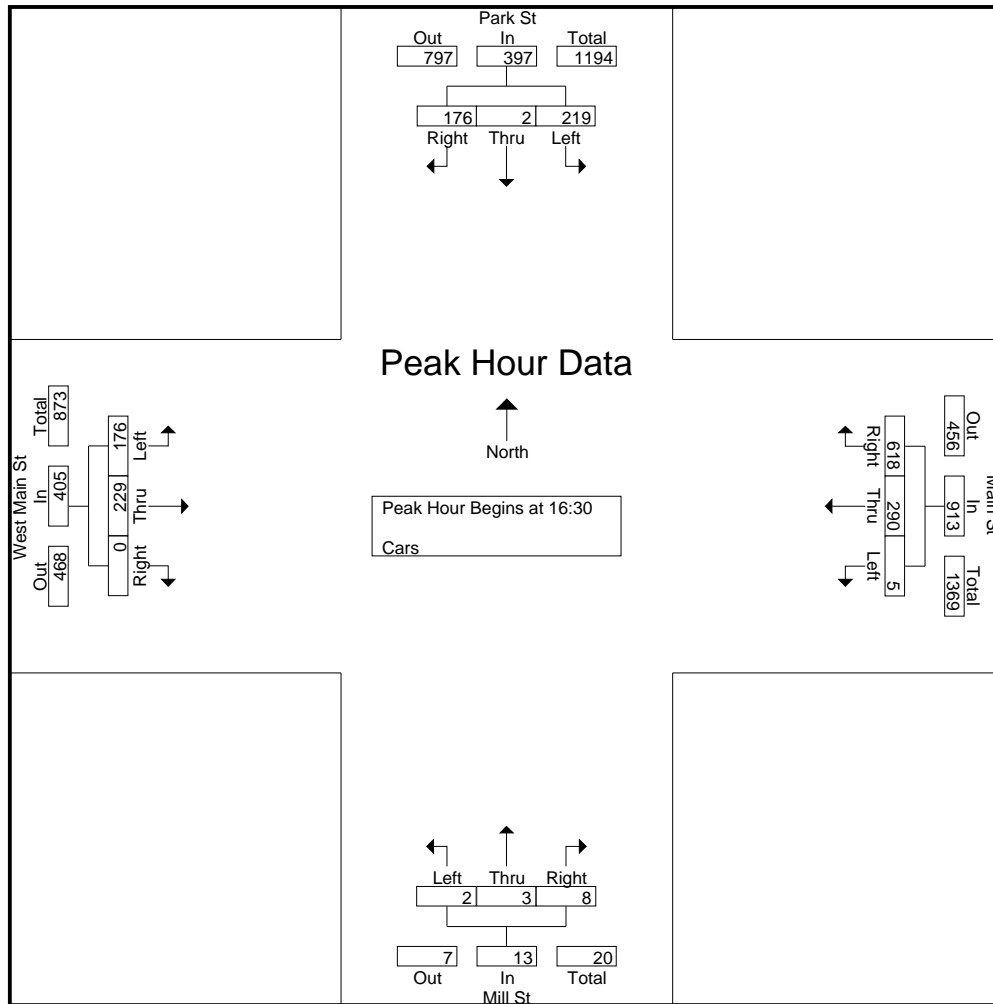
Accurate Counts  
 978-664-2565

File Name : 86525003  
 Site Code : 86525003  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	45	1	42	2	0	71	115	1	2	1	0	10	56	56	1	0	13	390	403
16:15	54	0	44	0	2	69	107	1	1	0	1	1	41	50	2	0	2	371	373
16:30	47	1	39	2	1	69	161	4	1	0	1	0	33	46	0	1	7	399	406
16:45	49	0	45	2	2	70	144	0	0	1	2	2	41	52	0	3	7	406	413
Total	195	2	170	6	5	279	527	6	4	2	4	13	171	204	3	4	29	1566	1595
17:00	58	1	52	1	1	78	152	0	1	1	3	2	51	67	0	0	3	465	468
17:15	65	0	40	4	1	73	161	0	0	1	2	1	51	64	0	0	5	458	463
17:30	68	1	26	2	0	64	121	1	0	0	1	4	37	59	0	1	8	377	385
17:45	71	1	44	4	2	64	128	1	1	0	3	3	45	60	0	3	11	419	430
Total	262	3	162	11	4	279	562	2	2	2	9	10	184	250	0	4	27	1719	1746
Grand Total	457	5	332	17	9	558	1089	8	6	4	13	23	355	454	3	8	56	3285	3341
Apprch %	57.6	0.6	41.8		0.5	33.7	65.8		26.1	17.4	56.5		43.7	55.9	0.4				
Total %	13.9	0.2	10.1		0.3	17	33.2		0.2	0.1	0.4		10.8	13.8	0.1		1.7	98.3	

Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	47	1	39	87	1	69	161	231	1	0	1	2	33	46	0	79	399
16:45	49	0	45	94	2	70	144	216	0	1	2	3	41	52	0	93	406
17:00	58	1	52	111	1	78	152	231	1	1	3	5	51	67	0	118	465
17:15	65	0	40	105	1	73	161	235	0	1	2	3	51	64	0	115	458
Total Volume	219	2	176	397	5	290	618	913	2	3	8	13	176	229	0	405	1728
% App. Total	55.2	0.5	44.3		0.5	31.8	67.7		15.4	23.1	61.5		43.5	56.5	0		
PHF	.842	.500	.846	.894	.625	.929	.960	.971	.500	.750	.667	.650	.863	.854	.000	.858	.929

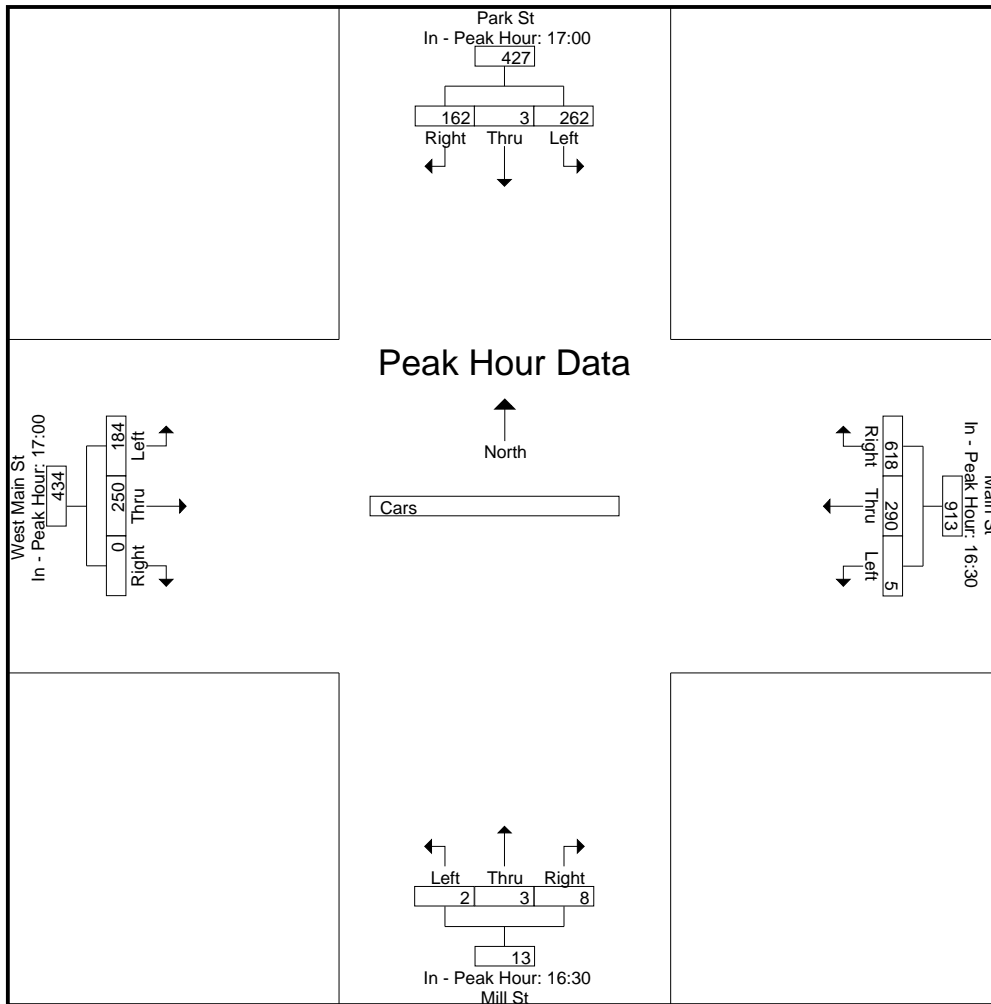


Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00				16:30				16:30				17:00			
+0 mins.	58	1	52	111	1	69	161	231	1	0	1	2	51	67	0	118
+15 mins.	65	0	40	105	2	70	144	216	0	1	2	3	51	64	0	115
+30 mins.	68	1	26	95	1	78	152	231	1	1	3	5	37	59	0	96
+45 mins.	71	1	44	116	1	73	161	235	0	1	2	3	45	60	0	105
Total Volume	262	3	162	427	5	290	618	913	2	3	8	13	184	250	0	434
% App. Total	61.4	0.7	37.9		0.5	31.8	67.7		15.4	23.1	61.5		42.4	57.6	0	
PHF	.923	.750	.779	.920	.625	.929	.960	.971	.500	.750	.667	.650	.902	.933	.000	.919





N/S Street : Park St / Mill St  
 E/W Street: Main St / West Main St  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

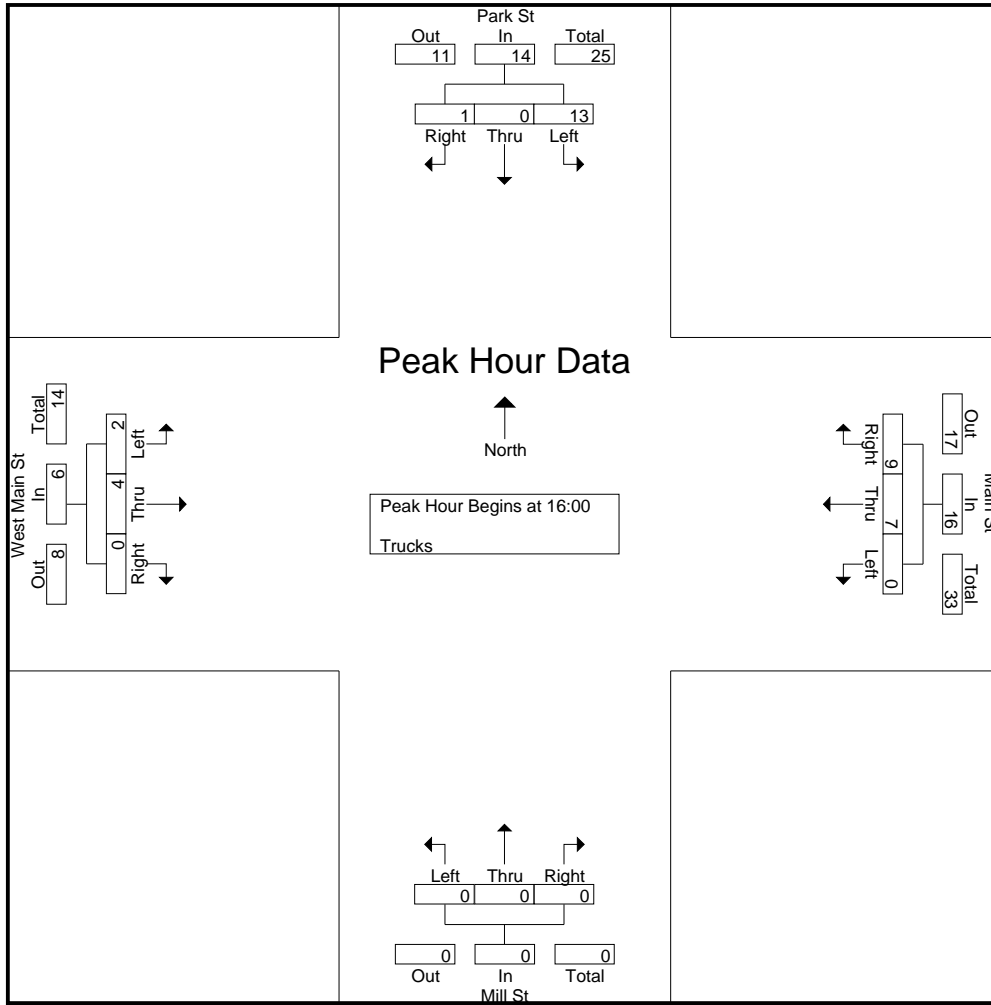
File Name : 86525003  
 Site Code : 86525003  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	3	0	0	0	0	2	4	0	0	0	0	0	1	2	0	0	0	12	12
16:15	2	0	1	0	0	3	2	0	0	0	0	0	0	1	0	0	0	9	9
16:30	2	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	5	5
16:45	6	0	0	0	0	1	2	0	0	0	0	0	0	1	0	0	0	10	10
Total	13	0	1	0	0	7	9	0	0	0	0	0	2	4	0	0	0	36	36
17:00	0	0	0	0	0	1	4	0	0	0	0	0	1	1	0	0	0	7	7
17:15	1	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	4	4
17:30	3	0	0	0	0	2	2	0	0	0	0	0	1	3	0	0	0	11	11
17:45	0	0	4	0	0	0	5	0	0	0	0	0	0	1	0	0	0	10	10
Total	4	0	4	0	0	3	13	0	0	0	0	0	2	6	0	0	0	32	32
Grand Total	17	0	5	0	0	10	22	0	0	0	0	0	4	10	0	0	0	68	68
Apprch %	77.3	0	22.7		0	31.2	68.8		0	0	0		28.6	71.4	0				
Total %	25	0	7.4		0	14.7	32.4		0	0	0		5.9	14.7	0			100	

Start Time	Park St From North				Main St From East				Mill St From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
16:00	3	0	0	3	0	2	4	6	0	0	0	0	1	2	0	3	12
16:15	2	0	1	3	0	3	2	5	0	0	0	0	0	1	0	1	9
16:30	2	0	0	2	0	1	1	2	0	0	0	0	1	0	0	1	5
16:45	6	0	0	6	0	1	2	3	0	0	0	0	0	1	0	1	10
Total Volume	13	0	1	14	0	7	9	16	0	0	0	0	2	4	0	6	36
% App. Total	92.9	0	7.1		0	43.8	56.2		0	0	0		33.3	66.7	0		
PHF	.542	.000	.250	.583	.000	.583	.563	.667	.000	.000	.000	.000	.500	.500	.000	.500	.750

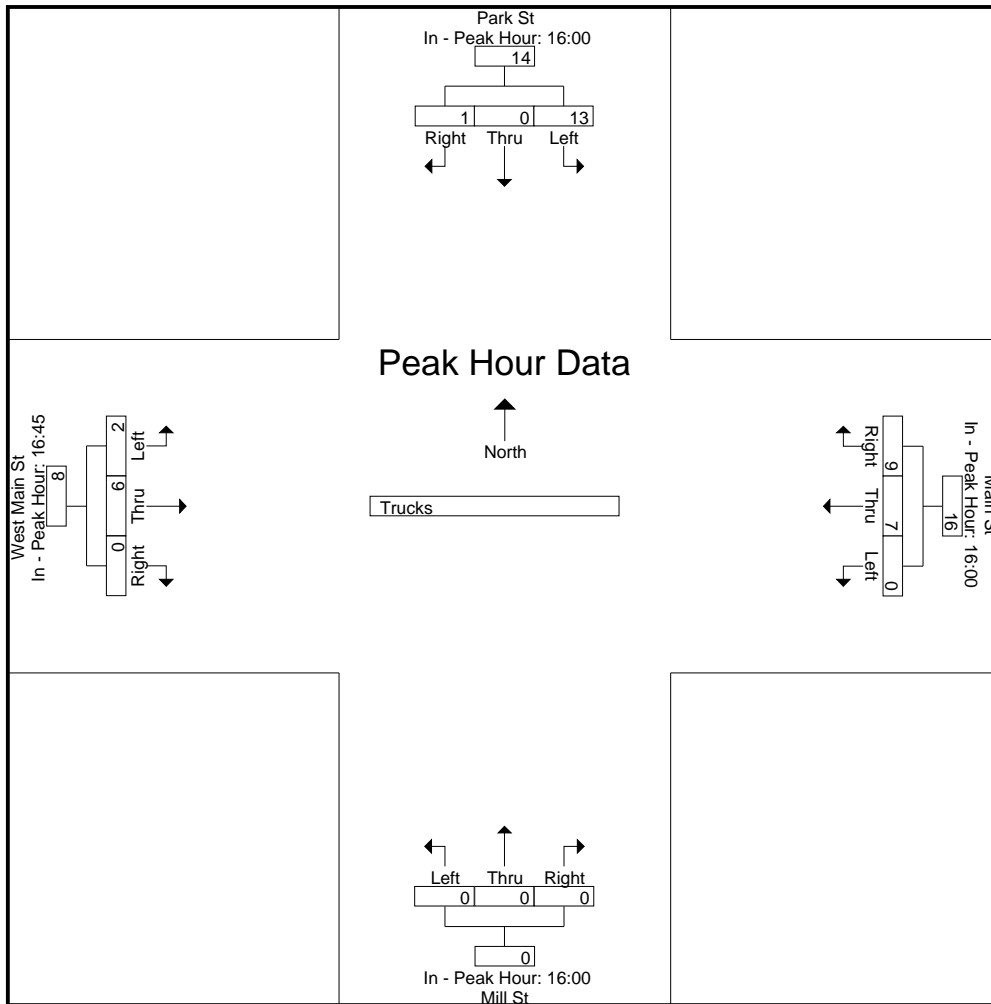
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:00				16:00				16:45			
+0 mins.	3	0	0	3	0	2	4	6	0	0	0	0	0	1	0	1
+15 mins.	2	0	1	3	0	3	2	5	0	0	0	0	1	1	0	2
+30 mins.	2	0	0	2	0	1	1	2	0	0	0	0	0	1	0	1
+45 mins.	6	0	0	6	0	1	2	3	0	0	0	0	1	3	0	4
Total Volume	13	0	1	14	0	7	9	16	0	0	0	0	2	6	0	8
% App. Total	92.9	0	7.1		0	43.8	56.2		0	0	0		25	75	0	
PHF	.542	.000	.250	.583	.000	.583	.563	.667	.000	.000	.000	.000	.500	.500	.000	.500



N/S Street : Groton Harvard Road  
 E/W Street: Central Avenue  
 City/State : Ayer, MA  
 Weather : Clear

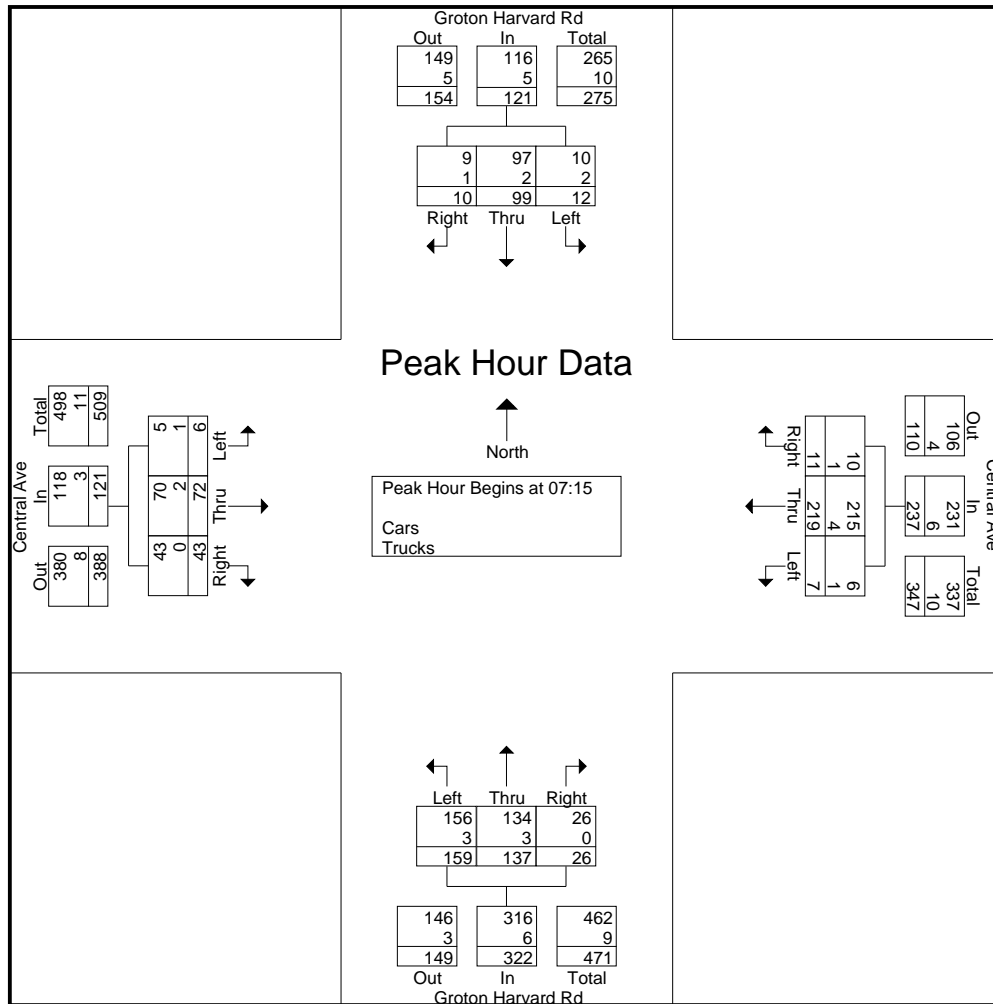
Accurate Counts  
 978-664-2565

File Name : 86525004  
 Site Code : 86525004  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	2	26	2	0	3	35	4	0	33	29	10	0	0	22	19	0	0	185	185
07:15	0	26	3	0	2	67	5	0	34	41	4	0	1	12	6	0	0	201	201
07:30	3	25	1	0	1	50	2	0	35	30	7	1	0	16	12	0	1	182	183
07:45	5	26	2	0	2	63	2	0	52	33	5	0	1	22	12	0	0	225	225
Total	10	103	8	0	8	215	13	0	154	133	26	1	2	72	49	0	1	793	794
08:00	4	22	4	0	2	39	2	0	38	33	10	0	4	22	13	0	0	193	193
08:15	1	24	6	0	2	37	5	0	25	28	3	0	0	24	10	0	0	165	165
08:30	4	30	1	0	1	33	3	0	15	28	5	1	1	18	11	0	1	150	151
08:45	5	25	1	0	9	23	6	0	13	24	5	1	3	20	6	0	1	140	141
Total	14	101	12	0	14	132	16	0	91	113	23	2	8	84	40	0	2	648	650
Grand Total	24	204	20	0	22	347	29	0	245	246	49	3	10	156	89	0	3	1441	1444
Apprch %	9.7	82.3	8.1		5.5	87.2	7.3		45.4	45.6	9.1		3.9	61.2	34.9				
Total %	1.7	14.2	1.4		1.5	24.1	2		17	17.1	3.4		0.7	10.8	6.2		0.2	99.8	
Cars	21	199	19		20	340	28		242	241	49		9	153	89		0	0	1413
% Cars	87.5	97.5	95	0	90.9	98	96.6	0	98.8	98	100	100	90	98.1	100	0	0	0	97.9
Trucks	3	5	1		2	7	1		3	5	0		1	3	0		0	0	31
% Trucks	12.5	2.5	5	0	9.1	2	3.4	0	1.2	2	0	0	10	1.9	0	0	0	0	2.1

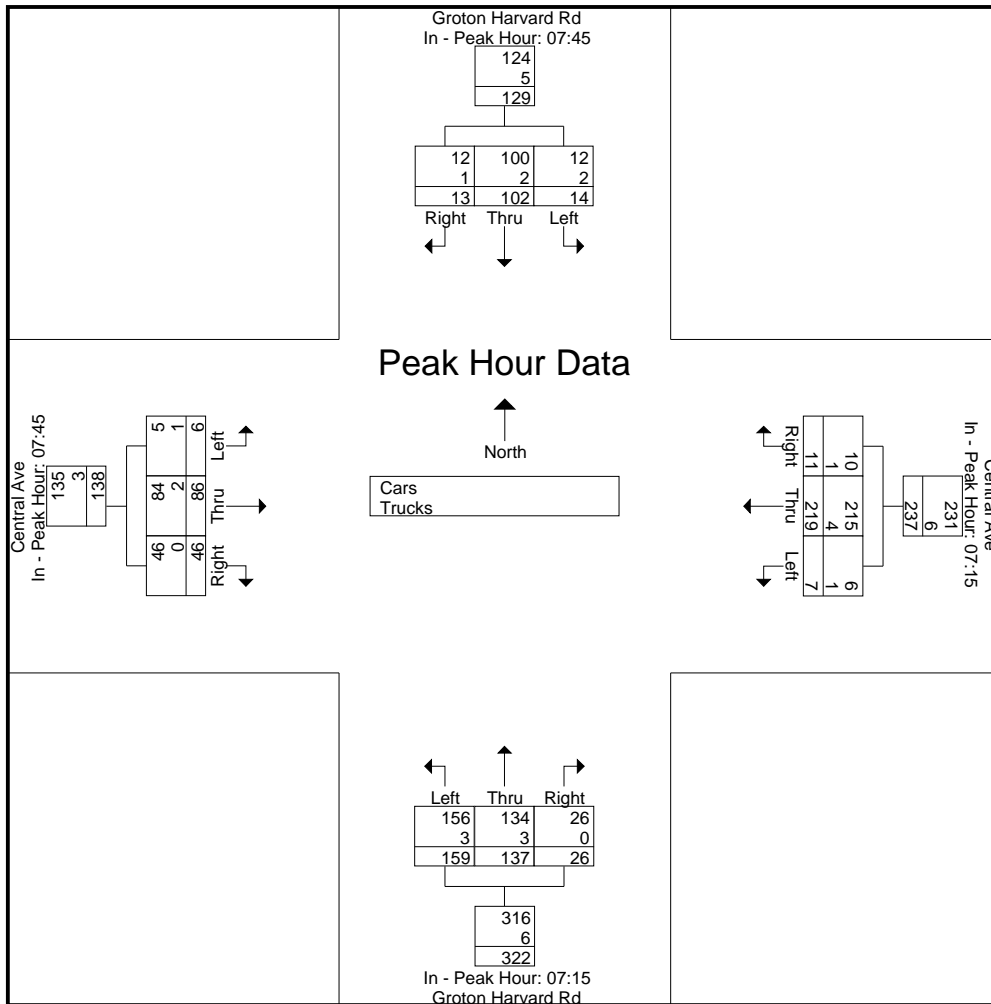
Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	0	26	3	29	2	67	5	74	34	41	4	79	1	12	6	19	201
07:30	3	25	1	29	1	50	2	53	35	30	7	72	0	16	12	28	182
07:45	5	26	2	33	2	63	2	67	52	33	5	90	1	22	12	35	225
08:00	4	22	4	30	2	39	2	43	38	33	10	81	4	22	13	39	193
Total Volume	12	99	10	121	7	219	11	237	159	137	26	322	6	72	43	121	801
% App. Total	9.9	81.8	8.3		3	92.4	4.6		49.4	42.5	8.1		5	59.5	35.5		
PHF	.600	.952	.625	.917	.875	.817	.550	.801	.764	.835	.650	.894	.375	.818	.827	.776	.890
Cars	10	97	9	116	6	215	10	231	156	134	26	316	5	70	43	118	781
% Cars	83.3	98.0	90.0	95.9	85.7	98.2	90.9	97.5	98.1	97.8	100	98.1	83.3	97.2	100	97.5	97.5
Trucks	2	2	1	5	1	4	1	6	3	3	0	6	1	2	0	3	20
% Trucks	16.7	2.0	10.0	4.1	14.3	1.8	9.1	2.5	1.9	2.2	0	1.9	16.7	2.8	0	2.5	2.5



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45				07:15				07:15				07:45			
+0 mins.	5	26	2	33	2	67	5	74	34	41	4	79	1	22	12	35
+15 mins.	4	22	4	30	1	50	2	53	35	30	7	72	4	22	13	39
+30 mins.	1	24	6	31	2	63	2	67	52	33	5	90	0	24	10	34
+45 mins.	4	30	1	35	2	39	2	43	38	33	10	81	1	18	11	30
Total Volume	14	102	13	129	7	219	11	237	159	137	26	322	6	86	46	138
% App. Total	10.9	79.1	10.1		3	92.4	4.6		49.4	42.5	8.1		4.3	62.3	33.3	
PHF	.700	.850	.542	.921	.875	.817	.550	.801	.764	.835	.650	.894	.375	.896	.885	.885
Cars	12	100	12	124	6	215	10	231	156	134	26	316	5	84	46	135
% Cars	85.7	98	92.3	96.1	85.7	98.2	90.9	97.5	98.1	97.8	100	98.1	83.3	97.7	100	97.8
Trucks	2	2	1	5	1	4	1	6	3	3	0	6	1	2	0	3
% Trucks	14.3	2	7.7	3.9	14.3	1.8	9.1	2.5	1.9	2.2	0	1.9	16.7	2.3	0	2.2



N/S Street : Groton Harvard Road  
 E/W Street: Central Avenue  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

File Name : 86525004  
 Site Code : 86525004  
 Start Date : 4/8/2008  
 Page No : 1

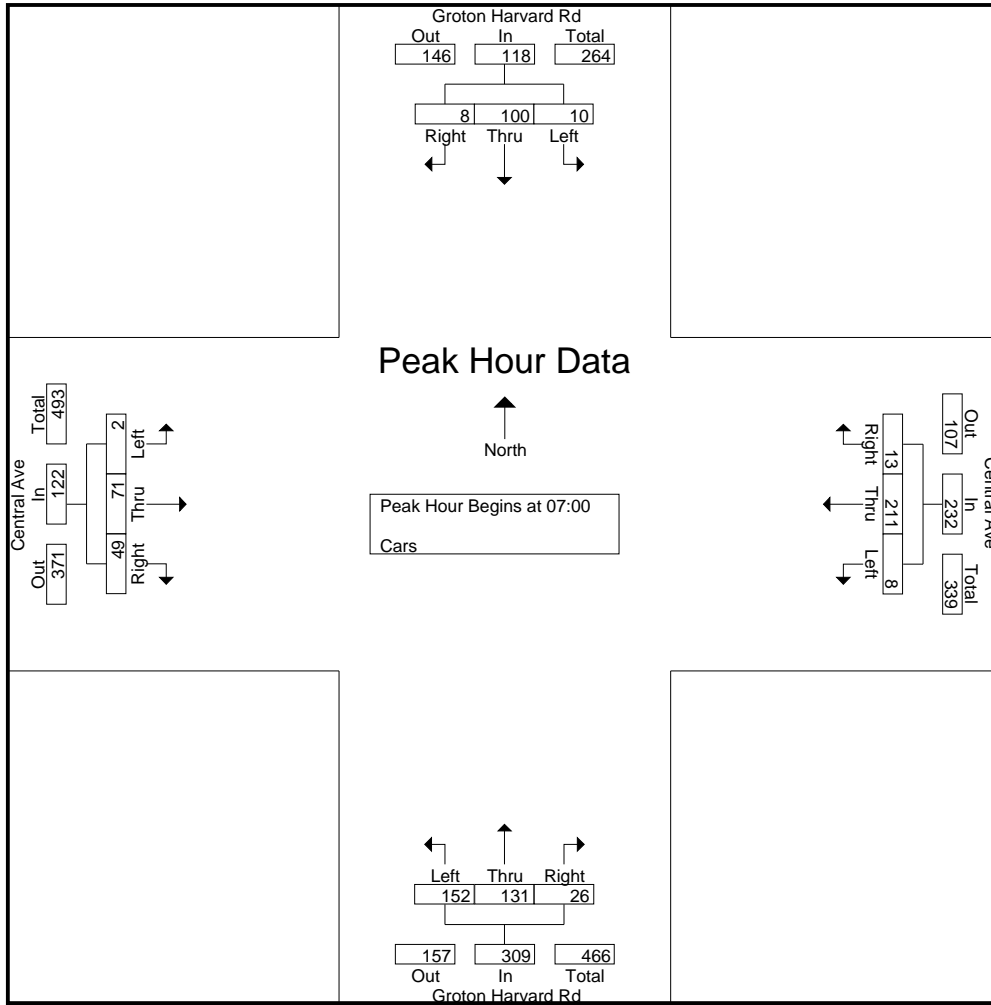
Groups Printed- Cars

Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	2	25	2	0	3	34	4	0	33	29	10	0	0	22	19	0	0	183	183
07:15	0	26	3	0	2	66	5	0	32	40	4	0	1	11	6	0	0	196	196
07:30	3	24	1	0	1	48	2	0	35	30	7	1	0	16	12	0	1	179	180
07:45	5	25	2	0	2	63	2	0	52	32	5	0	1	22	12	0	0	223	223
Total	10	100	8	0	8	211	13	0	152	131	26	1	2	71	49	0	1	781	782
08:00	2	22	3	0	1	38	1	0	37	32	10	0	3	21	13	0	0	183	183
08:15	1	23	6	0	2	35	5	0	25	26	3	0	0	23	10	0	0	159	159
08:30	4	30	1	0	0	33	3	0	15	28	5	1	1	18	11	0	1	149	150
08:45	4	24	1	0	9	23	6	0	13	24	5	1	3	20	6	0	1	138	139
Total	11	99	11	0	12	129	15	0	90	110	23	2	7	82	40	0	2	629	631
Grand Total	21	199	19	0	20	340	28	0	242	241	49	3	9	153	89	0	3	1410	1413
Apprch %	8.8	83.3	7.9		5.2	87.6	7.2		45.5	45.3	9.2		3.6	61	35.5				
Total %	1.5	14.1	1.3		1.4	24.1	2		17.2	17.1	3.5		0.6	10.9	6.3		0.2	99.8	

Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00	2	25	2	29	3	34	4	41	33	29	10	72	0	22	19	41	183
07:15	0	26	3	29	2	66	5	73	32	40	4	76	1	11	6	18	196
07:30	3	24	1	28	1	48	2	51	35	30	7	72	0	16	12	28	179
07:45	5	25	2	32	2	63	2	67	52	32	5	89	1	22	12	35	223
Total Volume	10	100	8	118	8	211	13	232	152	131	26	309	2	71	49	122	781
% App. Total	8.5	84.7	6.8		3.4	90.9	5.6		49.2	42.4	8.4		1.6	58.2	40.2		
PHF	.500	.962	.667	.922	.667	.799	.650	.795	.731	.819	.650	.868	.500	.807	.645	.744	.876

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:00

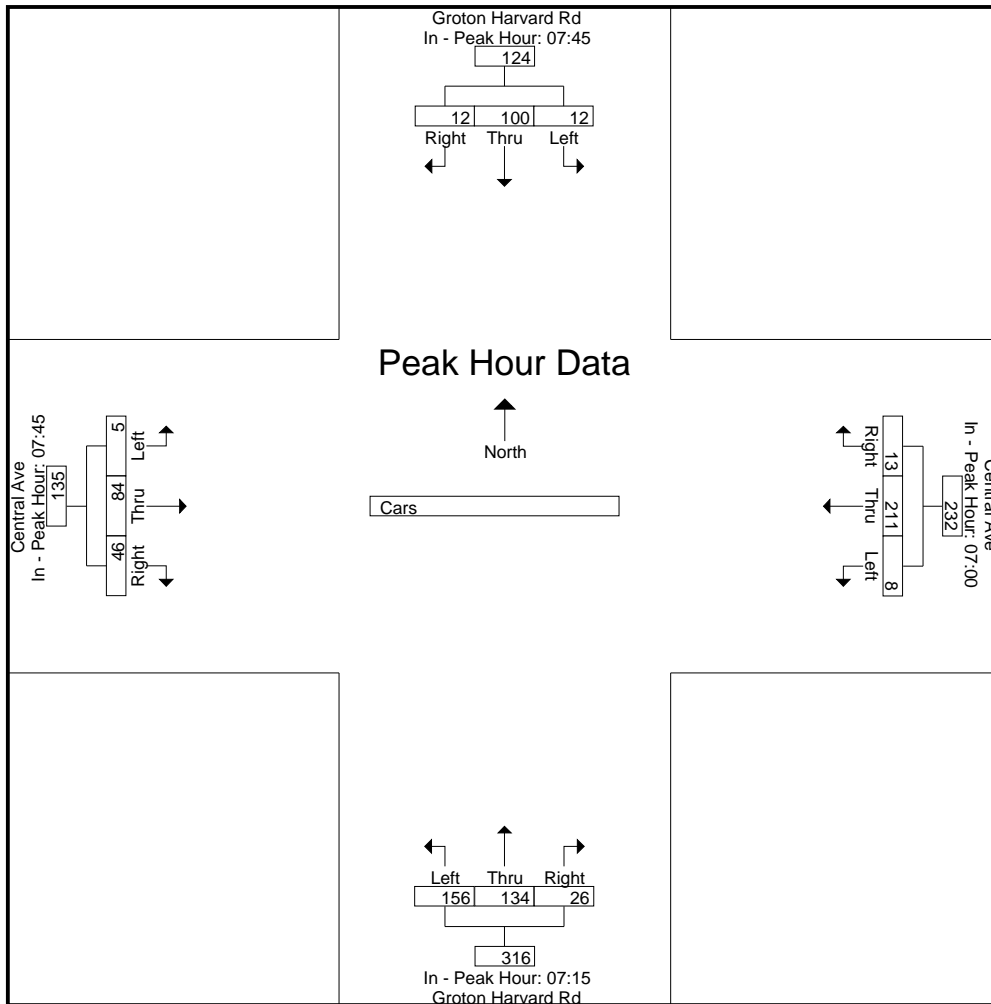




Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45				07:00				07:15				07:45			
+0 mins.	5	25	2	32	3	34	4	41	32	40	4	76	1	22	12	35
+15 mins.	2	22	3	27	2	66	5	73	35	30	7	72	3	21	13	37
+30 mins.	1	23	6	30	1	48	2	51	52	32	5	89	0	23	10	33
+45 mins.	4	30	1	35	2	63	2	67	37	32	10	79	1	18	11	30
Total Volume	12	100	12	124	8	211	13	232	156	134	26	316	5	84	46	135
% App. Total	9.7	80.6	9.7		3.4	90.9	5.6		49.4	42.4	8.2		3.7	62.2	34.1	
PHF	.600	.833	.500	.886	.667	.799	.650	.795	.750	.838	.650	.888	.417	.913	.885	.912



N/S Street : Groton Harvard Road  
 E/W Street: Central Avenue  
 City/State : Ayer, MA  
 Weather : Clear

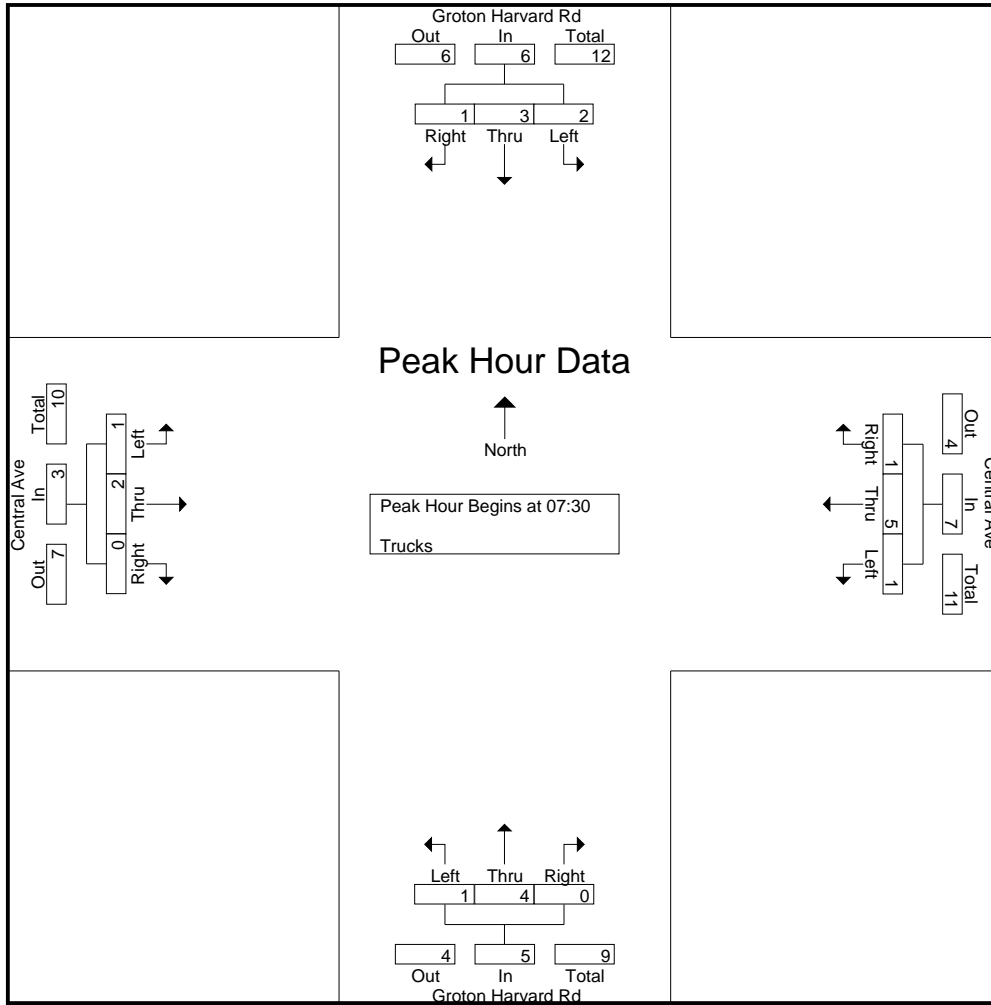
Accurate Counts  
 978-664-2565

File Name : 86525004  
 Site Code : 86525004  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Exclu. Total	Inclu. Total	Int. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
07:00	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2
07:15	0	0	0	0	0	1	0	0	2	1	0	0	0	1	0	0	0	0	5	5
07:30	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	3
07:45	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	2
Total	0	3	0	0	0	4	0	0	2	2	0	0	0	1	0	0	0	0	12	12
08:00	2	0	1	0	1	1	1	0	1	1	0	0	1	1	0	0	0	0	10	10
08:15	0	1	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0	0	6	6
08:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:45	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	3	2	1	0	2	3	1	0	1	3	0	0	1	2	0	0	0	0	19	19
Grand Total	3	5	1	0	2	7	1	0	3	5	0	0	1	3	0	0	0	0	31	31
Apprch %	33.3	55.6	11.1		20	70	10		37.5	62.5	0		25	75	0					
Total %	9.7	16.1	3.2		6.5	22.6	3.2		9.7	16.1	0		3.2	9.7	0				100	

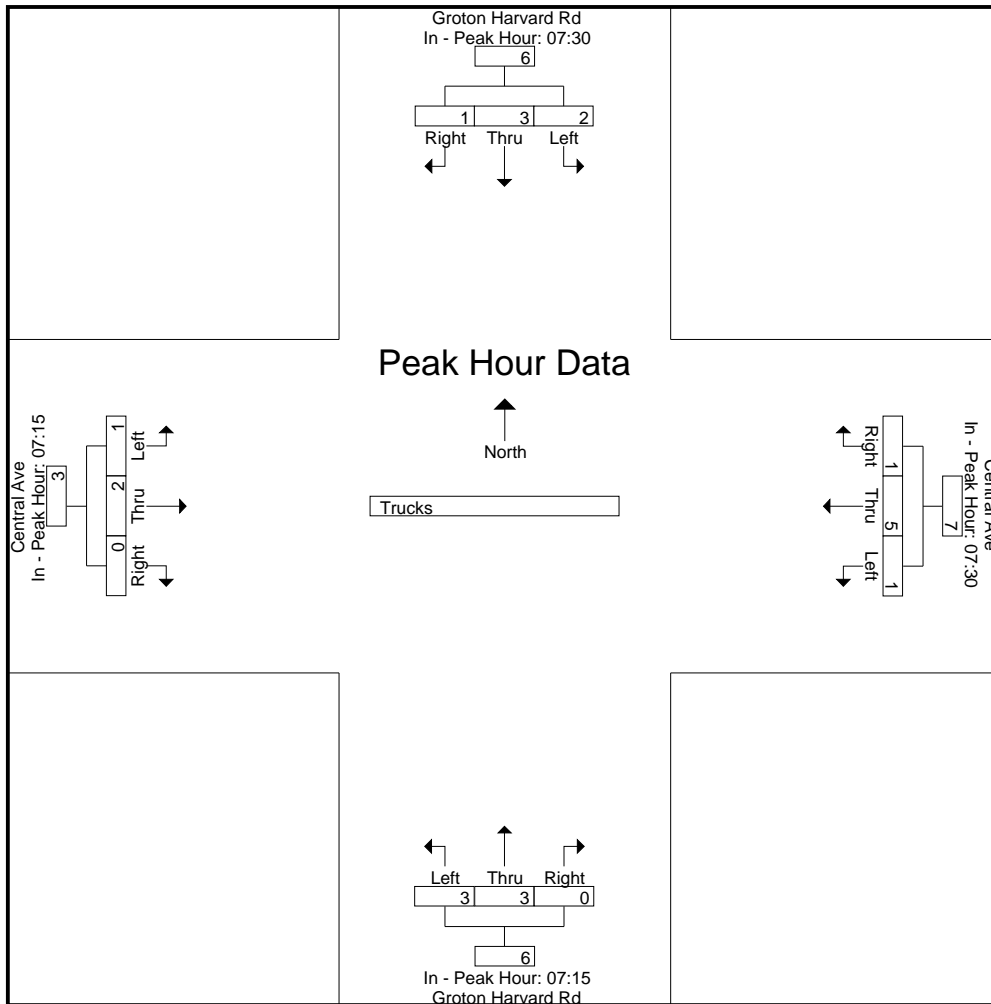
Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30																		
07:30	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	0	3
07:45	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	2
08:00	2	0	1	3	1	1	1	3	1	1	0	2	1	1	0	2	2	10
08:15	0	1	0	1	0	2	0	2	0	2	0	2	0	1	0	1	1	6
Total Volume	2	3	1	6	1	5	1	7	1	4	0	5	1	2	0	3	3	21
% App. Total	33.3	50	16.7		14.3	71.4	14.3		20	80	0		33.3	66.7	0			
PHF	.250	.750	.250	.500	.250	.625	.250	.583	.250	.500	.000	.625	.250	.500	.000	.375	.525	



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30				07:30				07:15				07:15			
+0 mins.	0	1	0	1	0	2	0	2	2	1	0	3	0	1	0	1
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	2	0	1	3	1	1	1	3	0	1	0	1	0	0	0	0
+45 mins.	0	1	0	1	0	2	0	2	1	1	0	2	1	1	0	2
Total Volume	2	3	1	6	1	5	1	7	3	3	0	6	1	2	0	3
% App. Total	33.3	50	16.7		14.3	71.4	14.3		50	50	0		33.3	66.7	0	
PHF	.250	.750	.250	.500	.250	.625	.250	.583	.375	.750	.000	.500	.250	.500	.000	.375



N/S Street : Groton Harvard Road  
 E/W Street: Central Avenue  
 City/State : Ayer, MA  
 Weather : Clear

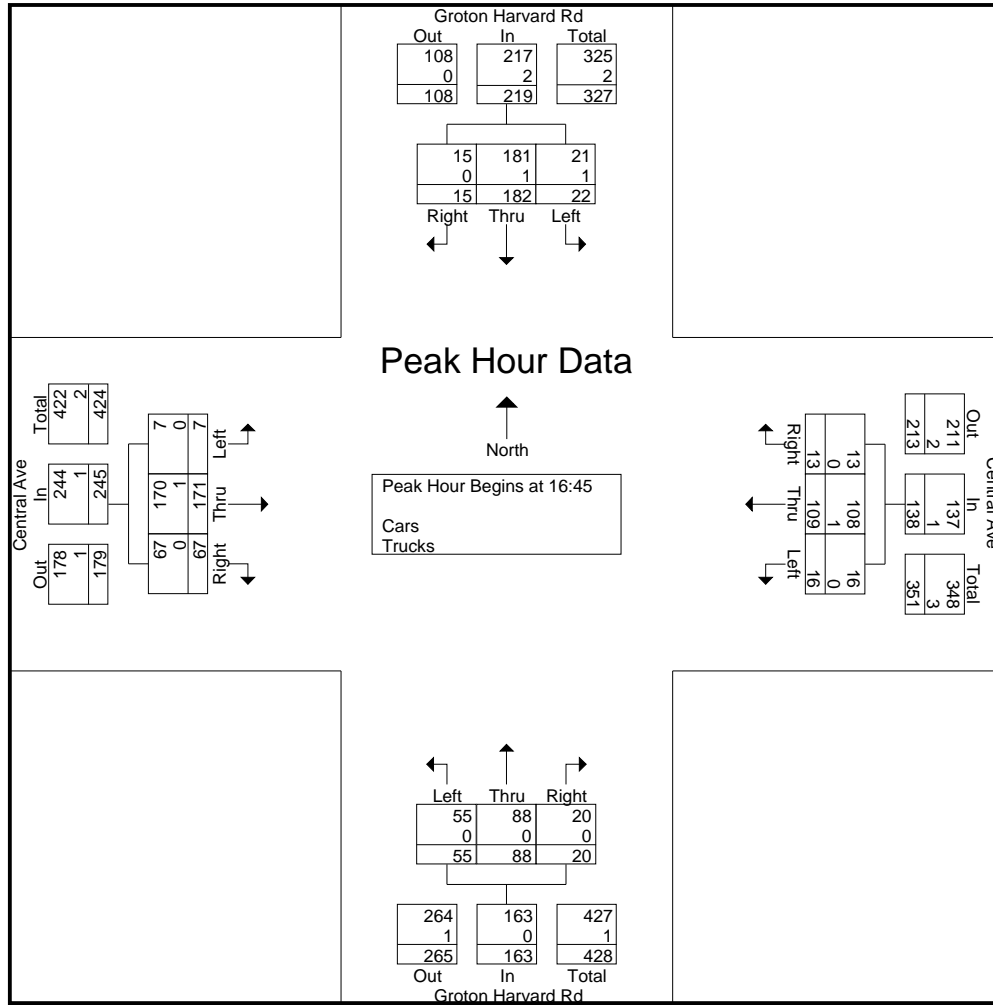
Accurate Counts  
 978-664-2565

File Name : 86525004  
 Site Code : 86525004  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	10	22	5	0	5	23	6	0	20	26	5	0	3	51	16	0	0	192	192
16:15	7	25	3	0	8	22	9	0	10	24	2	0	4	35	13	0	0	162	162
16:30	2	33	2	0	6	32	1	0	12	26	4	0	1	29	9	0	0	157	157
16:45	5	44	5	0	0	18	3	0	10	16	1	0	3	41	18	0	0	164	164
Total	24	124	15	0	19	95	19	0	52	92	12	0	11	156	56	0	0	675	675
17:00	3	49	3	0	8	33	4	0	14	23	5	0	0	53	16	0	0	211	211
17:15	10	50	4	0	4	30	2	0	17	23	8	0	2	44	21	0	0	215	215
17:30	4	39	3	0	4	28	4	0	14	26	6	0	2	33	12	0	0	175	175
17:45	5	47	1	0	2	25	4	0	6	19	9	3	1	27	15	0	3	161	164
Total	22	185	11	0	18	116	14	0	51	91	28	3	5	157	64	0	3	762	765
Grand Total	46	309	26	0	37	211	33	0	103	183	40	3	16	313	120	0	3	1437	1440
Apprch %	12.1	81.1	6.8		13.2	75.1	11.7		31.6	56.1	12.3		3.6	69.7	26.7				
Total %	3.2	21.5	1.8		2.6	14.7	2.3		7.2	12.7	2.8		1.1	21.8	8.4		0.2	99.8	
Cars	43	308	26		37	209	32		101	183	39		16	311	117		0	0	1425
% Cars	93.5	99.7	100	0	100	99.1	97	0	98.1	100	97.5	100	100	99.4	97.5	0	0	0	99
Trucks	3	1	0		0	2	1		2	0	1		0	2	3		0	0	15
% Trucks	6.5	0.3	0	0	0	0.9	3	0	1.9	0	2.5	0	0	0.6	2.5	0	0	0	1

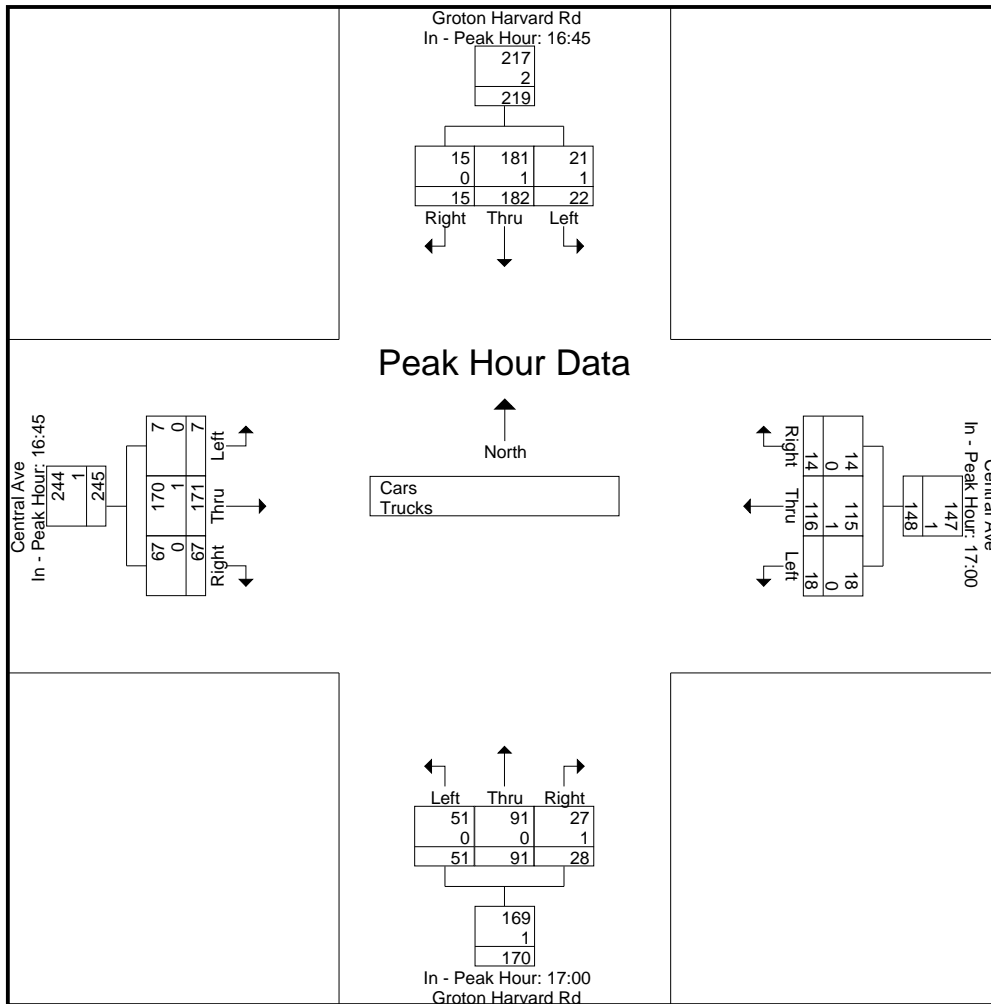
Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:45																	
16:45	5	44	5	54	0	18	3	21	10	16	1	27	3	41	18	62	164
17:00	3	49	3	55	8	33	4	45	14	23	5	42	0	53	16	69	211
17:15	10	50	4	64	4	30	2	36	17	23	8	48	2	44	21	67	215
17:30	4	39	3	46	4	28	4	36	14	26	6	46	2	33	12	47	175
Total Volume	22	182	15	219	16	109	13	138	55	88	20	163	7	171	67	245	765
% App. Total	10	83.1	6.8		11.6	79	9.4		33.7	54	12.3		2.9	69.8	27.3		
PHF	.550	.910	.750	.855	.500	.826	.813	.767	.809	.846	.625	.849	.583	.807	.798	.888	.890
Cars	21	181	15	217	16	108	13	137	55	88	20	163	7	170	67	244	761
% Cars	95.5	99.5	100	99.1	100	99.1	100	99.3	100	100	100	100	100	99.4	100	99.6	99.5
Trucks	1	1	0	2	0	1	0	1	0	0	0	0	0	1	0	1	4
% Trucks	4.5	0.5	0	0.9	0	0.9	0	0.7	0	0	0	0	0	0.6	0	0.4	0.5



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:45				17:00				17:00				16:45			
+0 mins.	5	44	5	54	8	33	4	45	14	23	5	42	3	41	18	62
+15 mins.	3	49	3	55	4	30	2	36	17	23	8	48	0	53	16	69
+30 mins.	10	50	4	64	4	28	4	36	14	26	6	46	2	44	21	67
+45 mins.	4	39	3	46	2	25	4	31	6	19	9	34	2	33	12	47
Total Volume	22	182	15	219	18	116	14	148	51	91	28	170	7	171	67	245
% App. Total	10	83.1	6.8		12.2	78.4	9.5		30	53.5	16.5		2.9	69.8	27.3	
PHF	.550	.910	.750	.855	.563	.879	.875	.822	.750	.875	.778	.885	.583	.807	.798	.888
Cars	21	181	15	217	18	115	14	147	51	91	27	169	7	170	67	244
% Cars	95.5	99.5	100	99.1	100	99.1	100	99.3	100	100	96.4	99.4	100	99.4	100	99.6
Trucks	1	1	0	2	0	1	0	1	0	0	1	1	0	1	0	1
% Trucks	4.5	0.5	0	0.9	0	0.9	0	0.7	0	0	3.6	0.6	0	0.6	0	0.4





N/S Street : Groton Harvard Road  
 E/W Street: Central Avenue  
 City/State : Ayer, MA  
 Weather : Clear

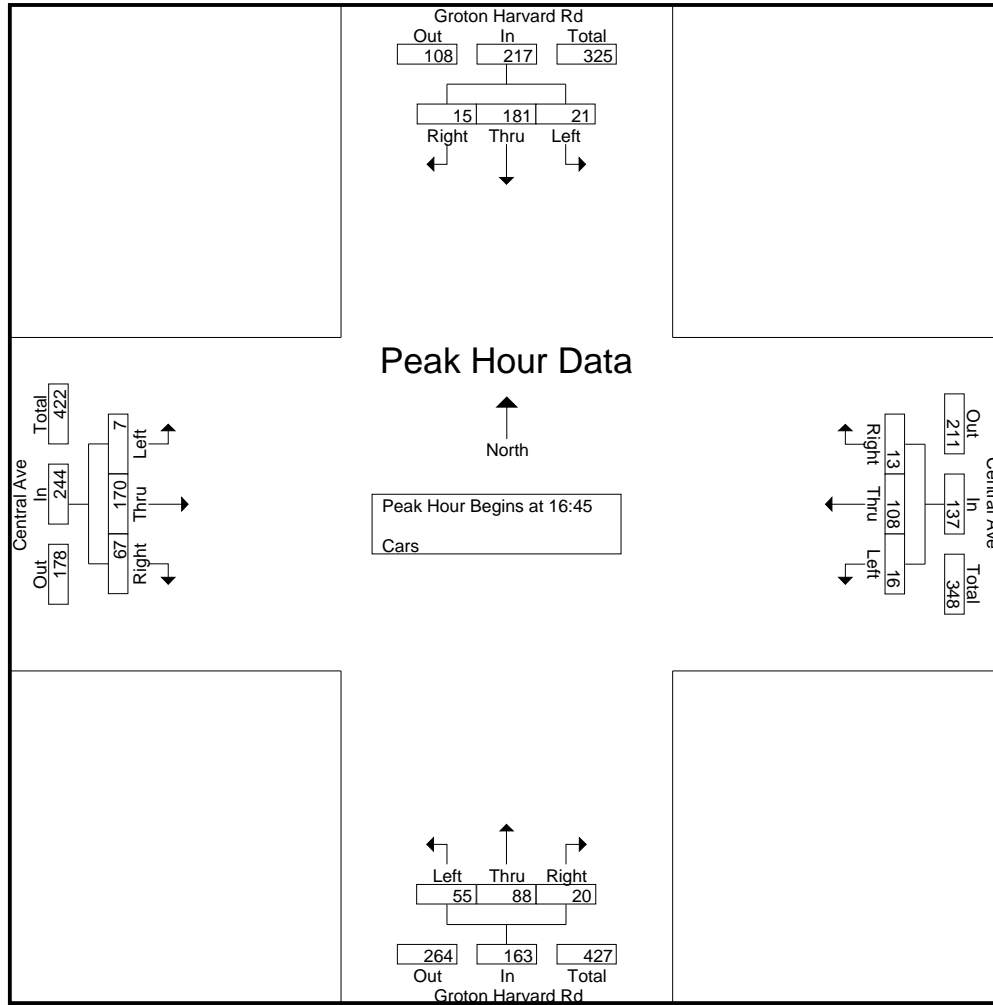
Accurate Counts  
 978-664-2565

File Name : 86525004  
 Site Code : 86525004  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	10	22	5	0	5	23	5	0	19	26	5	0	3	50	15	0	0	188	188
16:15	5	25	3	0	8	21	9	0	10	24	2	0	4	35	12	0	0	158	158
16:30	2	33	2	0	6	32	1	0	11	26	4	0	1	29	8	0	0	155	155
16:45	5	44	5	0	0	18	3	0	10	16	1	0	3	40	18	0	0	163	163
Total	22	124	15	0	19	94	18	0	50	92	12	0	11	154	53	0	0	664	664
17:00	3	49	3	0	8	32	4	0	14	23	5	0	0	53	16	0	0	210	210
17:15	9	50	4	0	4	30	2	0	17	23	8	0	2	44	21	0	0	214	214
17:30	4	38	3	0	4	28	4	0	14	26	6	0	2	33	12	0	0	174	174
17:45	5	47	1	0	2	25	4	0	6	19	8	3	1	27	15	0	3	160	163
Total	21	184	11	0	18	115	14	0	51	91	27	3	5	157	64	0	3	758	761
Grand Total	43	308	26	0	37	209	32	0	101	183	39	3	16	311	117	0	3	1422	1425
Apprch %	11.4	81.7	6.9		13.3	75.2	11.5		31.3	56.7	12.1		3.6	70	26.4				
Total %	3	21.7	1.8		2.6	14.7	2.3		7.1	12.9	2.7		1.1	21.9	8.2		0.2	99.8	

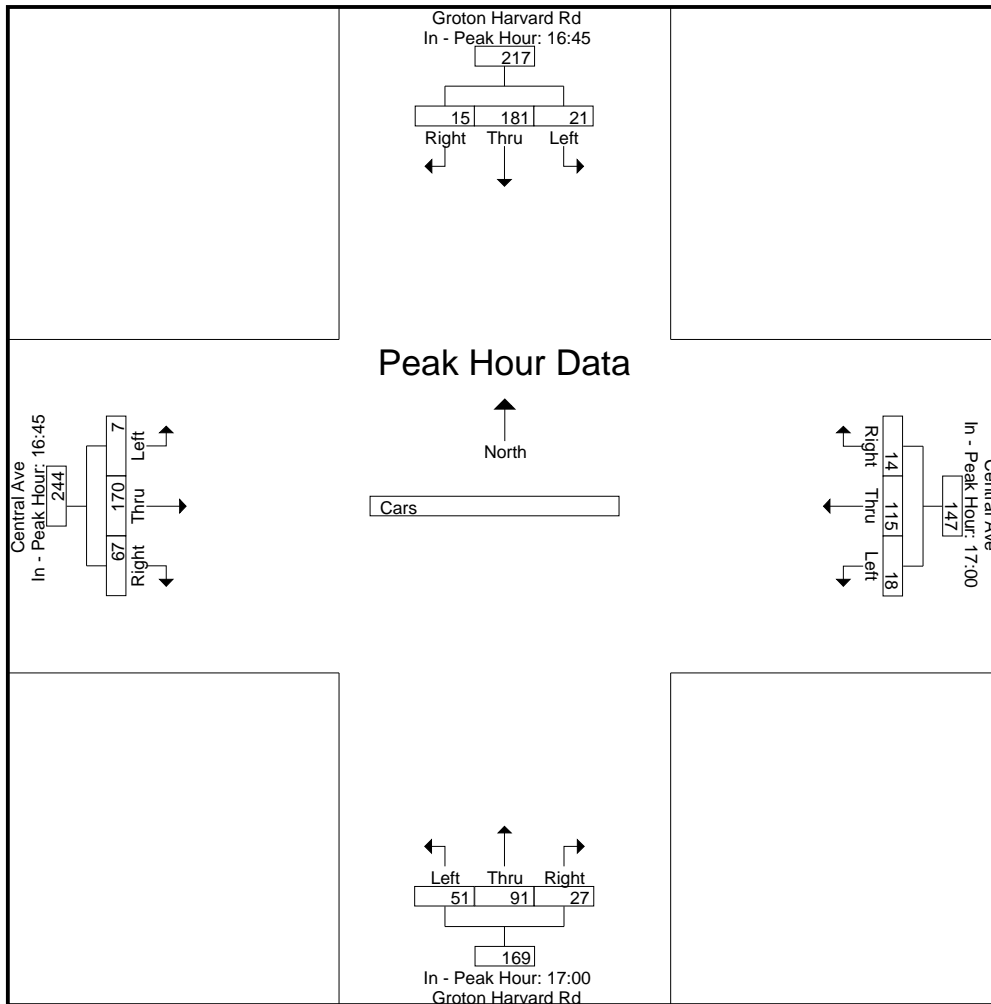
Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:45																	
16:45	5	44	5	54	0	18	3	21	10	16	1	27	3	40	18	61	163
17:00	3	49	3	55	8	32	4	44	14	23	5	42	0	53	16	69	210
17:15	9	50	4	63	4	30	2	36	17	23	8	48	2	44	21	67	214
17:30	4	38	3	45	4	28	4	36	14	26	6	46	2	33	12	47	174
Total Volume	21	181	15	217	16	108	13	137	55	88	20	163	7	170	67	244	761
% App. Total	9.7	83.4	6.9		11.7	78.8	9.5		33.7	54	12.3		2.9	69.7	27.5		
PHF	.583	.905	.750	.861	.500	.844	.813	.778	.809	.846	.625	.849	.583	.802	.798	.884	.889



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:45				17:00				17:00				16:45			
+0 mins.	5	44	5	54	8	32	4	44	14	23	5	42	3	40	18	61
+15 mins.	3	49	3	55	4	30	2	36	17	23	8	48	0	53	16	69
+30 mins.	9	50	4	63	4	28	4	36	14	26	6	46	2	44	21	67
+45 mins.	4	38	3	45	2	25	4	31	6	19	8	33	2	33	12	47
Total Volume	21	181	15	217	18	115	14	147	51	91	27	169	7	170	67	244
% App. Total	9.7	83.4	6.9		12.2	78.2	9.5		30.2	53.8	16		2.9	69.7	27.5	
PHF	.583	.905	.750	.861	.563	.898	.875	.835	.750	.875	.844	.880	.583	.802	.798	.884



N/S Street : Groton Harvard Road  
 E/W Street: Central Avenue  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

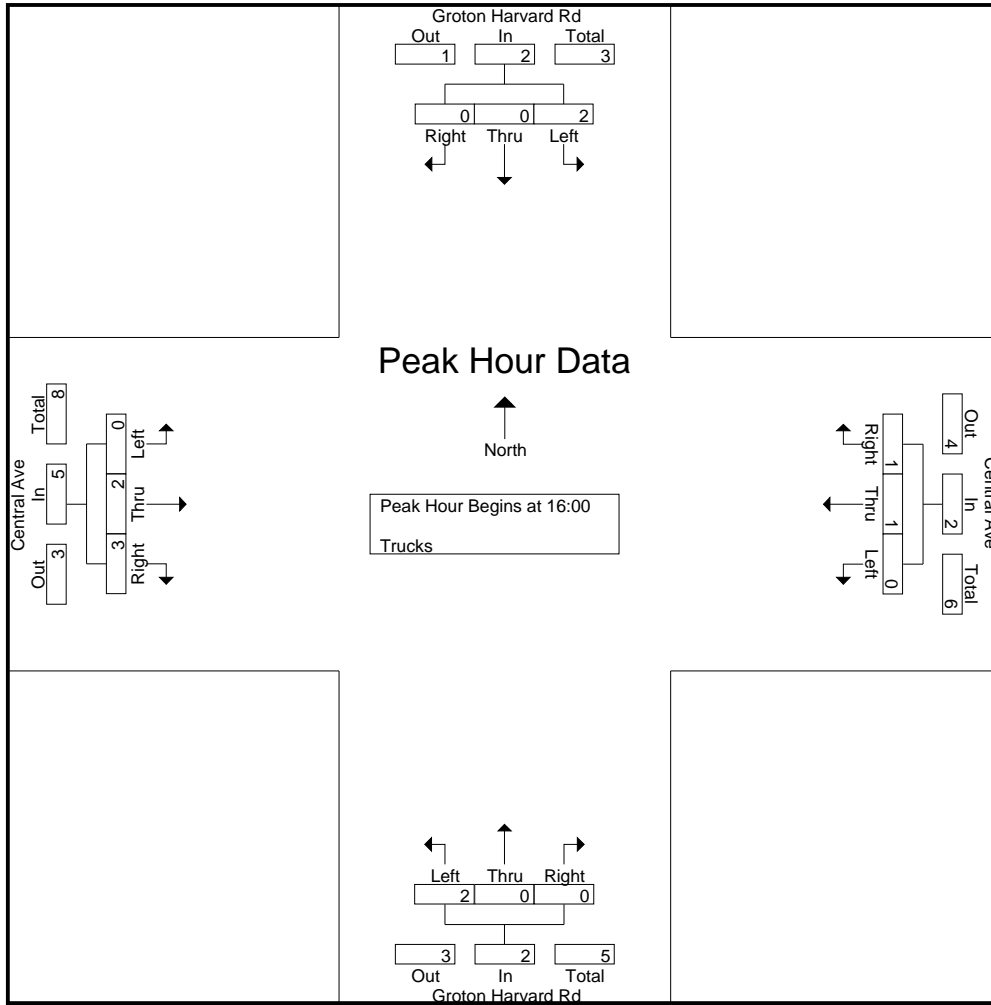
File Name : 86525004  
 Site Code : 86525004  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	0	4	4
16:15	2	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	4	4
16:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	2
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	2	0	0	0	0	1	1	0	2	0	0	0	0	2	3	0	0	11	11
17:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
17:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
17:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
17:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1
Total	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	4	4
Grand Total	3	1	0	0	0	2	1	0	2	0	1	0	0	2	3	0	0	15	15
Apprch %	75	25	0		0	66.7	33.3		66.7	0	33.3		0	40	60				
Total %	20	6.7	0		0	13.3	6.7		13.3	0	6.7		0	13.3	20		0	100	

Start Time	Groton Harvard Rd From North				Central Ave From East				Groton Harvard Rd From South				Central Ave From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
16:00	0	0	0	0	0	0	1	1	1	0	0	1	0	1	1	2	4
16:15	2	0	0	2	0	1	0	1	0	0	0	0	0	0	1	1	4
16:30	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	2	0	0	2	0	1	1	2	2	0	0	2	0	2	3	5	11
% App. Total	100	0	0		0	50	50		100	0	0		0	40	60		
PHF	.250	.000	.000	.250	.000	.250	.250	.500	.500	.000	.000	.500	.000	.500	.750	.625	.688

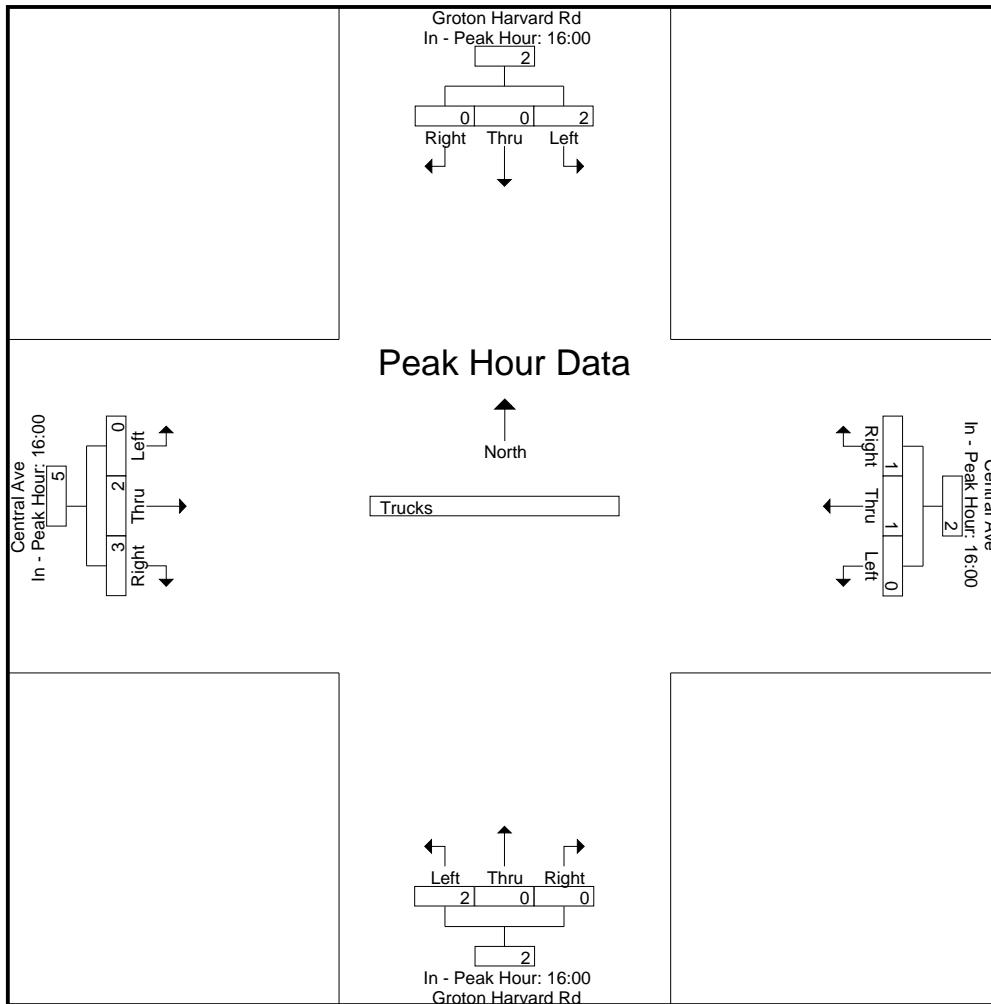
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:00				16:00				16:00			
+0 mins.	0	0	0	0	0	0	1	1	1	0	0	1	0	1	1	2
+15 mins.	2	0	0	2	0	1	0	1	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	2	0	0	2	0	1	1	2	2	0	0	2	0	2	3	5
% App. Total	100	0	0		0	50	50		100	0	0		0	40	60	
PHF	.250	.000	.000	.250	.000	.250	.250	.500	.500	.000	.000	.500	.000	.500	.750	.625



N/S Street : Route 495 NB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

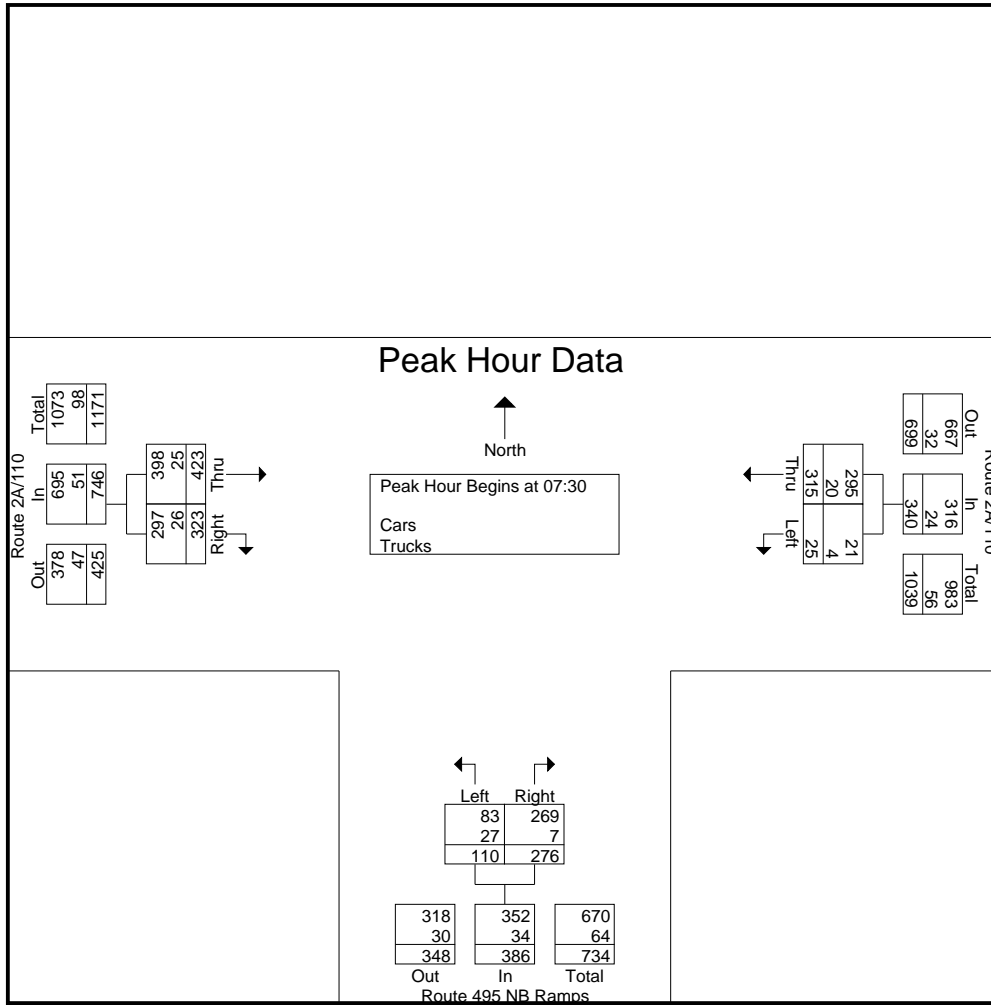
Accurate Counts  
 978-664-2565

File Name : 86525005  
 Site Code : 86525005  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	9	101	0	19	45	0	104	63	0	0	341	341
07:15	5	98	0	21	50	0	96	66	0	0	336	336
07:30	8	84	0	27	60	0	104	90	0	0	373	373
07:45	10	78	0	32	80	0	114	82	0	0	396	396
Total	32	361	0	99	235	0	418	301	0	0	1446	1446
08:00	3	81	0	25	57	0	97	76	0	0	339	339
08:15	4	72	0	26	79	0	108	75	0	0	364	364
08:30	0	58	0	18	81	0	125	77	0	0	359	359
08:45	3	59	0	25	47	0	104	57	0	0	295	295
Total	10	270	0	94	264	0	434	285	0	0	1357	1357
Grand Total	42	631	0	193	499	0	852	586	0	0	2803	2803
Apprch %	6.2	93.8		27.9	72.1		59.2	40.8				
Total %	1.5	22.5		6.9	17.8		30.4	20.9		0	100	
Cars	38	591		148	480		798	534		0	0	2589
% Cars	90.5	93.7	0	76.7	96.2	0	93.7	91.1	0	0	0	92.4
Trucks	4	40		45	19		54	52		0	0	214
% Trucks	9.5	6.3	0	23.3	3.8	0	6.3	8.9	0	0	0	7.6

Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30										
07:30	8	84	92	27	60	87	104	90	194	373
07:45	10	78	88	32	80	112	114	82	196	396
08:00	3	81	84	25	57	82	97	76	173	339
08:15	4	72	76	26	79	105	108	75	183	364
Total Volume	25	315	340	110	276	386	423	323	746	1472
% App. Total	7.4	92.6		28.5	71.5		56.7	43.3		
PHF	.625	.938	.924	.859	.863	.862	.928	.897	.952	.929
Cars	21	295	316	83	269	352	398	297	695	1363
% Cars	84.0	93.7	92.9	75.5	97.5	91.2	94.1	92.0	93.2	92.6
Trucks	4	20	24	27	7	34	25	26	51	109
% Trucks	16.0	6.3	7.1	24.5	2.5	8.8	5.9	8.0	6.8	7.4

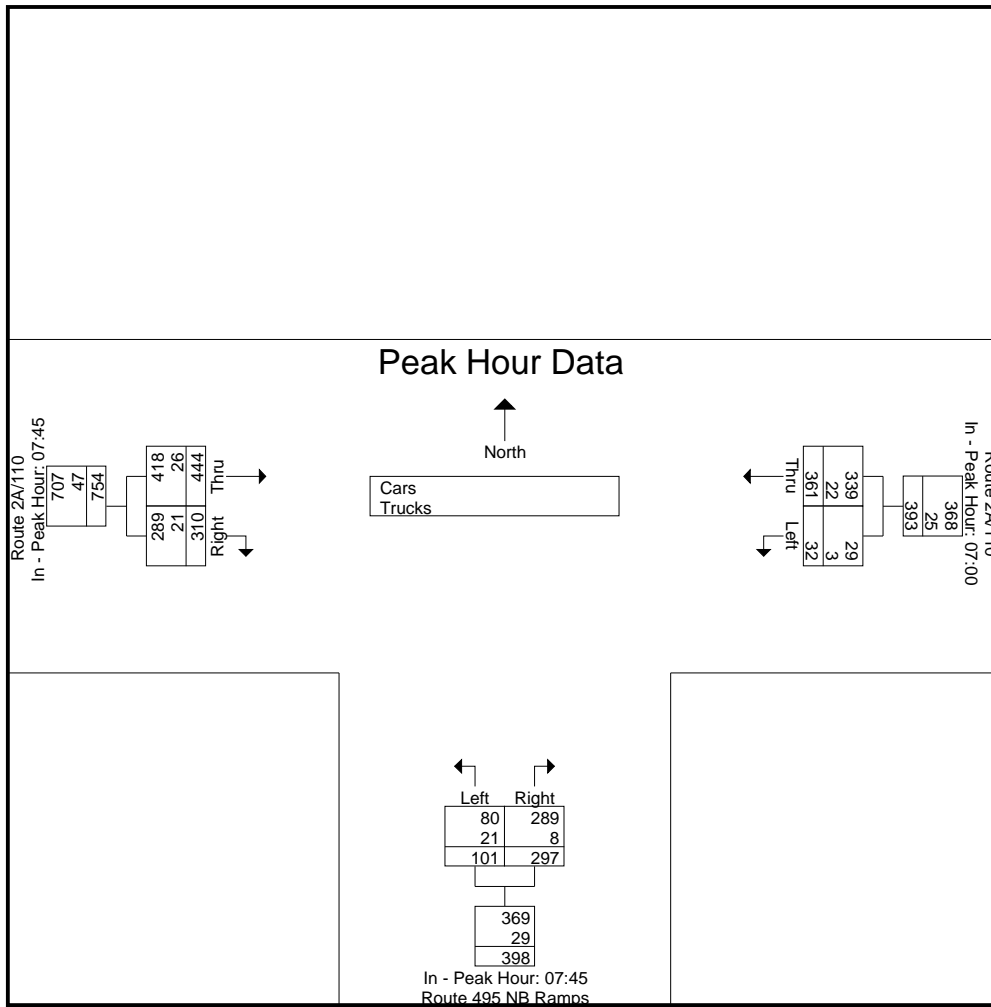


Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00			07:45			07:45		
+0 mins.	9	101	110	32	80	112	114	82	196
+15 mins.	5	98	103	25	57	82	97	76	173
+30 mins.	8	84	92	26	79	105	108	75	183
+45 mins.	10	78	88	18	81	99	125	77	202
Total Volume	32	361	393	101	297	398	444	310	754
% App. Total	8.1	91.9		25.4	74.6		58.9	41.1	
PHF	.800	.894	.893	.789	.917	.888	.888	.945	.933
Cars	29	339	368	80	289	369	418	289	707
% Cars	90.6	93.9	93.6	79.2	97.3	92.7	94.1	93.2	93.8
Trucks	3	22	25	21	8	29	26	21	47
% Trucks	9.4	6.1	6.4	20.8	2.7	7.3	5.9	6.8	6.2





N/S Street : Route 495 NB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

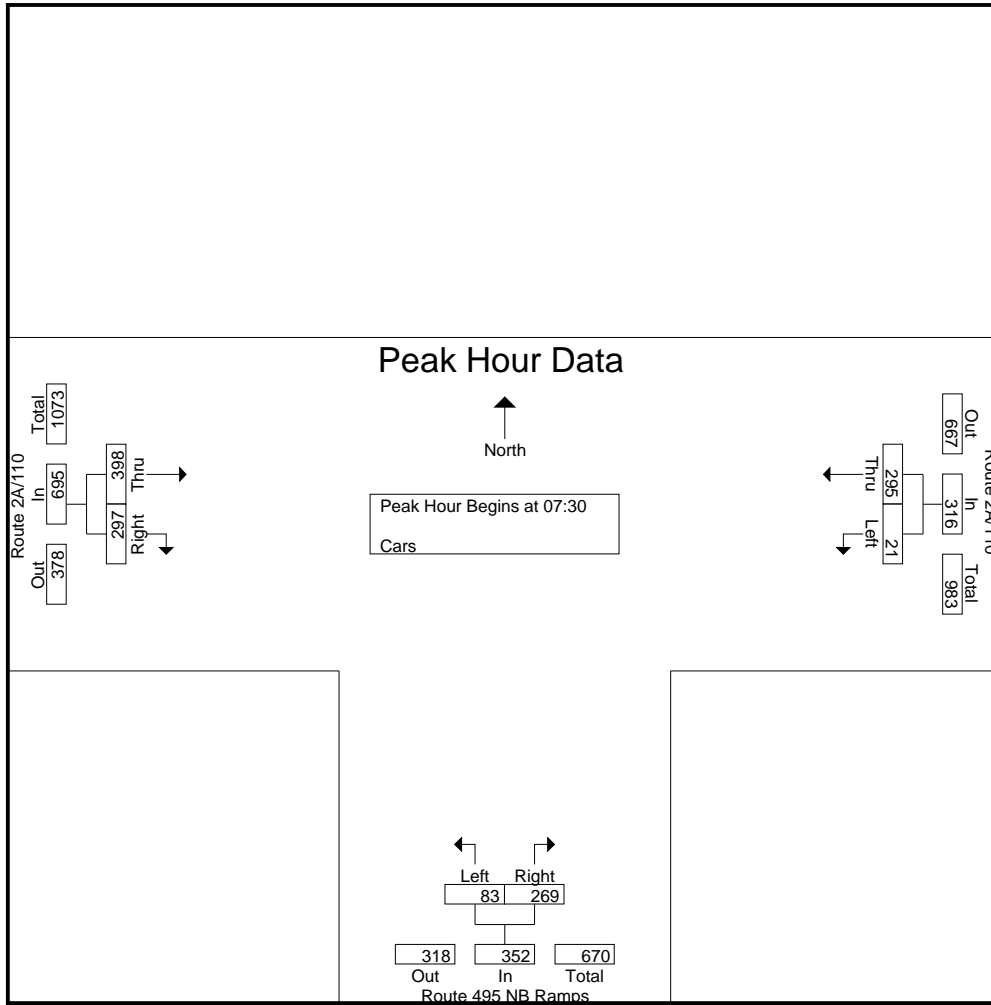
File Name : 86525005  
 Site Code : 86525005  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	9	96	0	19	43	0	97	58	0	0	322	322
07:15	5	91	0	16	46	0	86	58	0	0	302	302
07:30	6	79	0	17	57	0	98	81	0	0	338	338
07:45	9	73	0	25	79	0	107	79	0	0	372	372
Total	29	339	0	77	225	0	388	276	0	0	1334	1334
08:00	2	77	0	17	57	0	92	69	0	0	314	314
08:15	4	66	0	24	76	0	101	68	0	0	339	339
08:30	0	56	0	14	77	0	118	73	0	0	338	338
08:45	3	53	0	16	45	0	99	48	0	0	264	264
Total	9	252	0	71	255	0	410	258	0	0	1255	1255
Grand Total	38	591	0	148	480	0	798	534	0	0	2589	2589
Apprch %	6	94		23.6	76.4		59.9	40.1				
Total %	1.5	22.8		5.7	18.5		30.8	20.6		0	100	

Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:30	6	79	85	17	57	74	98	81	179	338
07:45	9	73	82	25	79	104	107	79	186	372
08:00	2	77	79	17	57	74	92	69	161	314
08:15	4	66	70	24	76	100	101	68	169	339
Total Volume	21	295	316	83	269	352	398	297	695	1363
% App. Total	6.6	93.4		23.6	76.4		57.3	42.7		
PHF	.583	.934	.929	.830	.851	.846	.930	.917	.934	.916

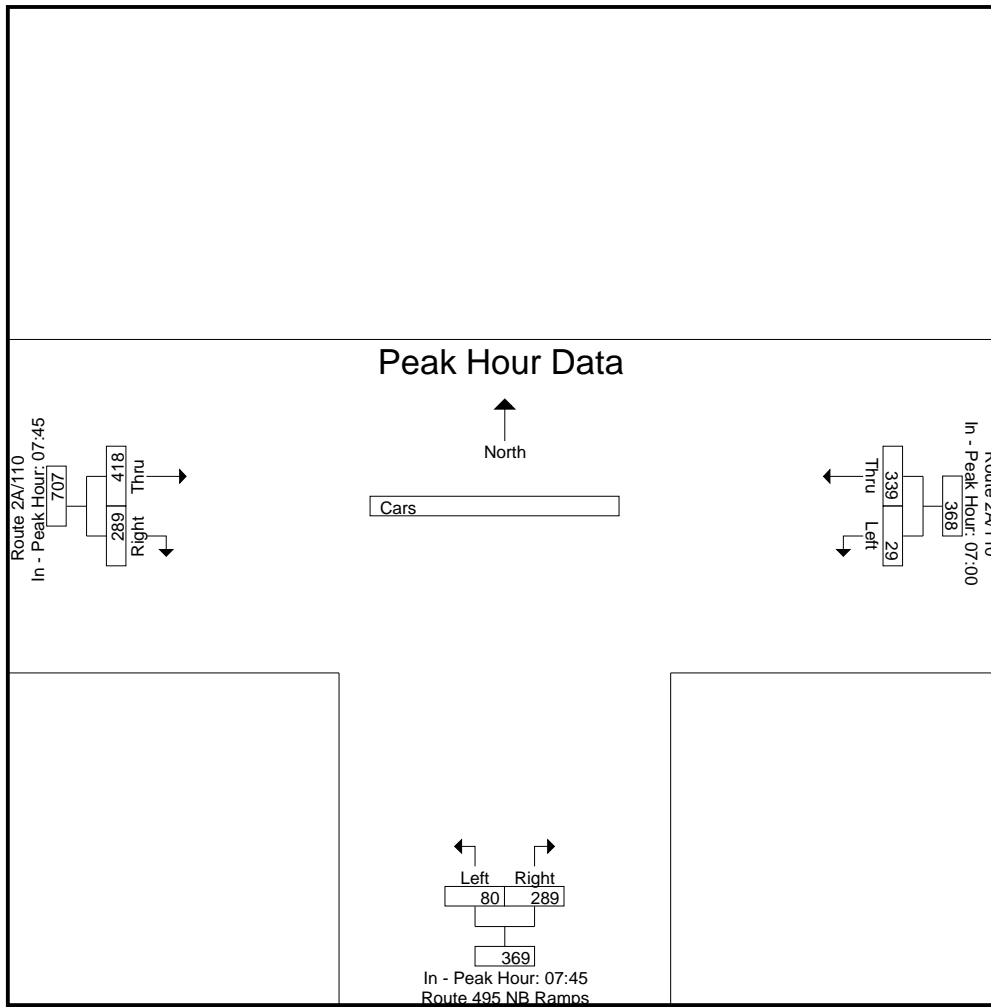
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:30



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00			07:45			07:45		
+0 mins.	9	96	105	25	79	104	107	79	186
+15 mins.	5	91	96	17	57	74	92	69	161
+30 mins.	6	79	85	24	76	100	101	68	169
+45 mins.	9	73	82	14	77	91	118	73	191
Total Volume	29	339	368	80	289	369	418	289	707
% App. Total	7.9	92.1		21.7	78.3		59.1	40.9	
PHF	.806	.883	.876	.800	.915	.887	.886	.915	.925



N/S Street : Route 495 NB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

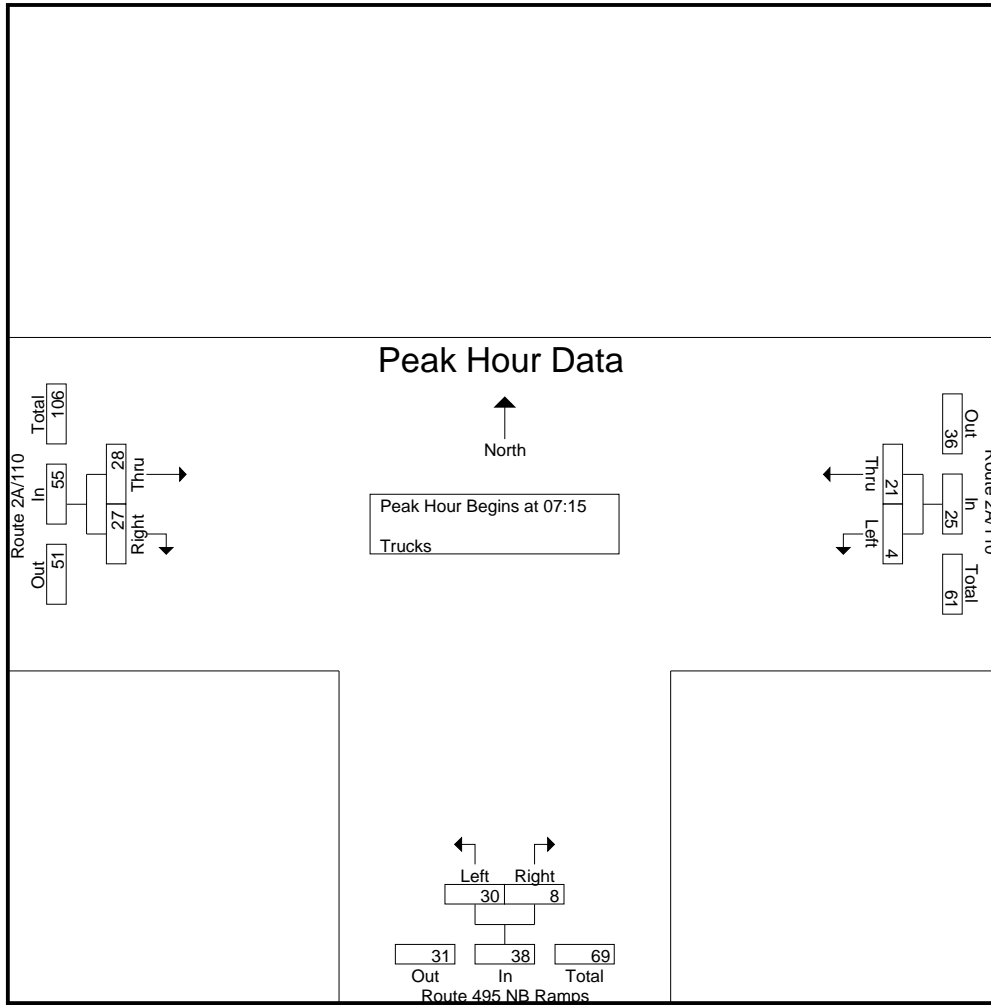
Accurate Counts  
 978-664-2565

File Name : 86525005  
 Site Code : 86525005  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	0	5	0	0	2	0	7	5	0	0	19	19
07:15	0	7	0	5	4	0	10	8	0	0	34	34
07:30	2	5	0	10	3	0	6	9	0	0	35	35
07:45	1	5	0	7	1	0	7	3	0	0	24	24
Total	3	22	0	22	10	0	30	25	0	0	112	112
08:00	1	4	0	8	0	0	5	7	0	0	25	25
08:15	0	6	0	2	3	0	7	7	0	0	25	25
08:30	0	2	0	4	4	0	7	4	0	0	21	21
08:45	0	6	0	9	2	0	5	9	0	0	31	31
Total	1	18	0	23	9	0	24	27	0	0	102	102
Grand Total	4	40	0	45	19	0	54	52	0	0	214	214
Apprch %	9.1	90.9		70.3	29.7		50.9	49.1				
Total %	1.9	18.7		21	8.9		25.2	24.3		0	100	

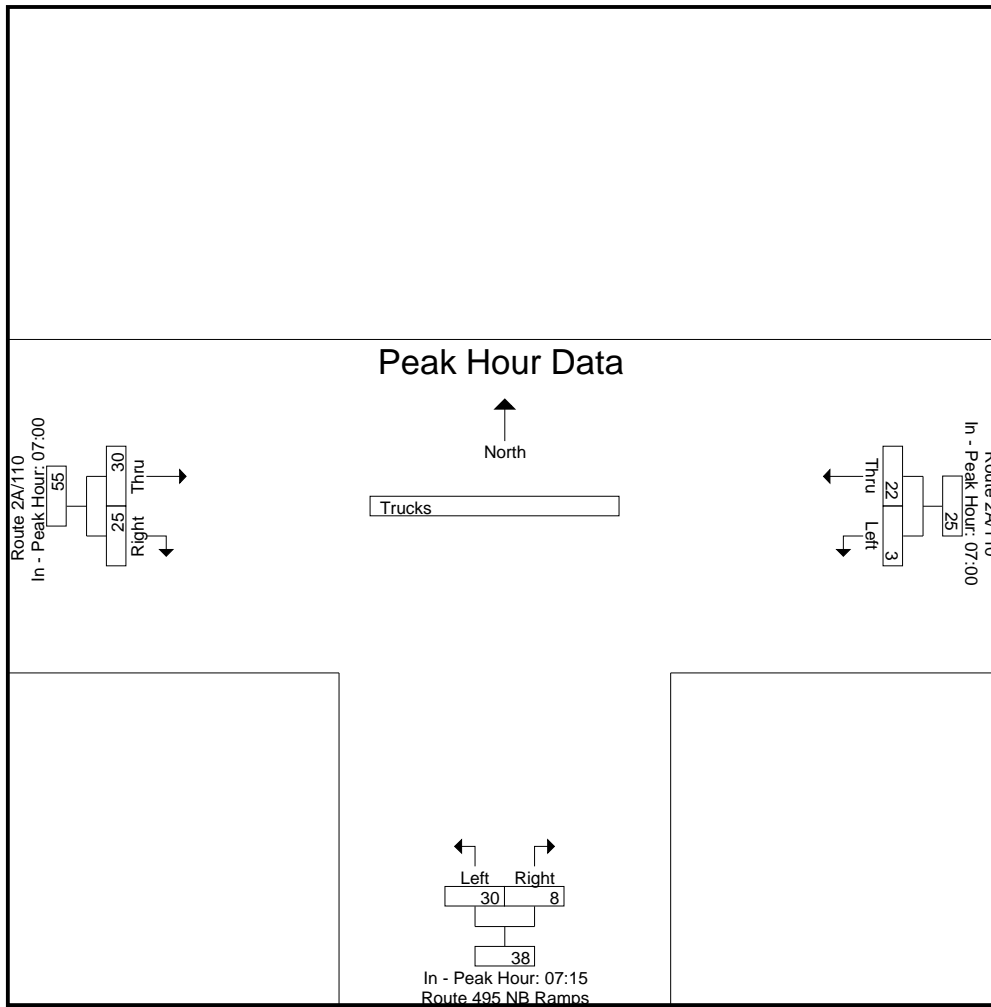
Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15										
07:15	0	7	7	5	4	9	10	8	18	34
07:30	2	5	7	10	3	13	6	9	15	35
07:45	1	5	6	7	1	8	7	3	10	24
08:00	1	4	5	8	0	8	5	7	12	25
Total Volume	4	21	25	30	8	38	28	27	55	118
% App. Total	16	84		78.9	21.1		50.9	49.1		
PHF	.500	.750	.893	.750	.500	.731	.700	.750	.764	.843



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00			07:15			07:00		
+0 mins.	0	5	5	5	4	9	7	5	12
+15 mins.	0	7	7	10	3	13	10	8	18
+30 mins.	2	5	7	7	1	8	6	9	15
+45 mins.	1	5	6	8	0	8	7	3	10
Total Volume	3	22	25	30	8	38	30	25	55
% App. Total	12	88		78.9	21.1		54.5	45.5	
PHF	.375	.786	.893	.750	.500	.731	.750	.694	.764



N/S Street : Route 495 NB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

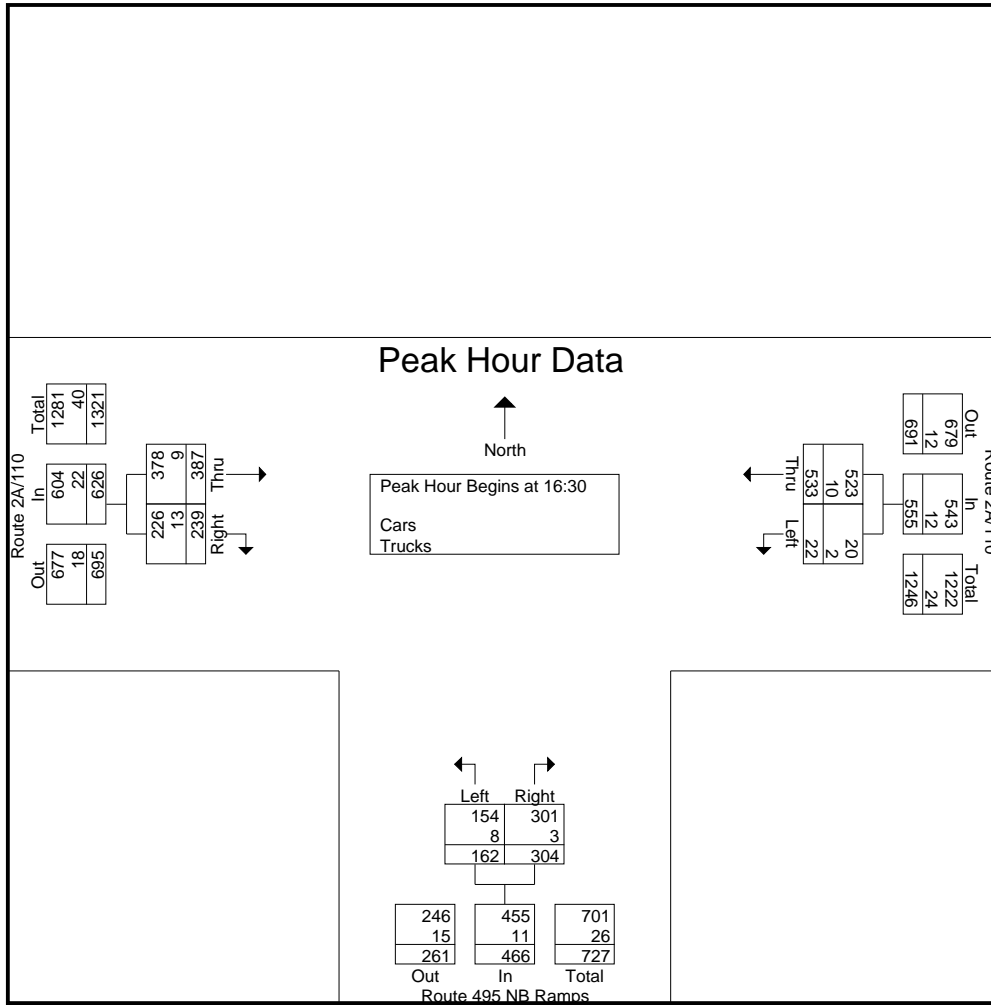
File Name : 86525005  
 Site Code : 86525005  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	5	128	0	27	37	0	63	62	0	0	322	322
16:15	2	128	0	42	46	0	87	50	0	0	355	355
16:30	5	123	0	52	121	0	117	30	0	0	448	448
16:45	3	121	0	34	71	0	97	62	0	0	388	388
Total	15	500	0	155	275	0	364	204	0	0	1513	1513
17:00	10	147	0	37	49	0	83	77	0	0	403	403
17:15	4	142	0	39	63	0	90	70	0	0	408	408
17:30	7	147	0	42	58	0	100	50	0	0	404	404
17:45	3	128	0	34	54	0	99	27	0	0	345	345
Total	24	564	0	152	224	0	372	224	0	0	1560	1560
Grand Total	39	1064	0	307	499	0	736	428	0	0	3073	3073
Apprch %	3.5	96.5		38.1	61.9		63.2	36.8				
Total %	1.3	34.6		10	16.2		24	13.9		0	100	
Cars	35	1046		291	491		718	398		0	0	2979
% Cars	89.7	98.3	0	94.8	98.4	0	97.6	93	0	0	0	96.9
Trucks	4	18		16	8		18	30		0	0	94
% Trucks	10.3	1.7	0	5.2	1.6	0	2.4	7	0	0	0	3.1

Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:30										
16:30	5	123	128	52	121	173	117	30	147	448
16:45	3	121	124	34	71	105	97	62	159	388
17:00	10	147	157	37	49	86	83	77	160	403
17:15	4	142	146	39	63	102	90	70	160	408
Total Volume	22	533	555	162	304	466	387	239	626	1647
% App. Total	4	96		34.8	65.2		61.8	38.2		
PHF	.550	.906	.884	.779	.628	.673	.827	.776	.978	.919
Cars	20	523	543	154	301	455	378	226	604	1602
% Cars	90.9	98.1	97.8	95.1	99.0	97.6	97.7	94.6	96.5	97.3
Trucks	2	10	12	8	3	11	9	13	22	45
% Trucks	9.1	1.9	2.2	4.9	1.0	2.4	2.3	5.4	3.5	2.7

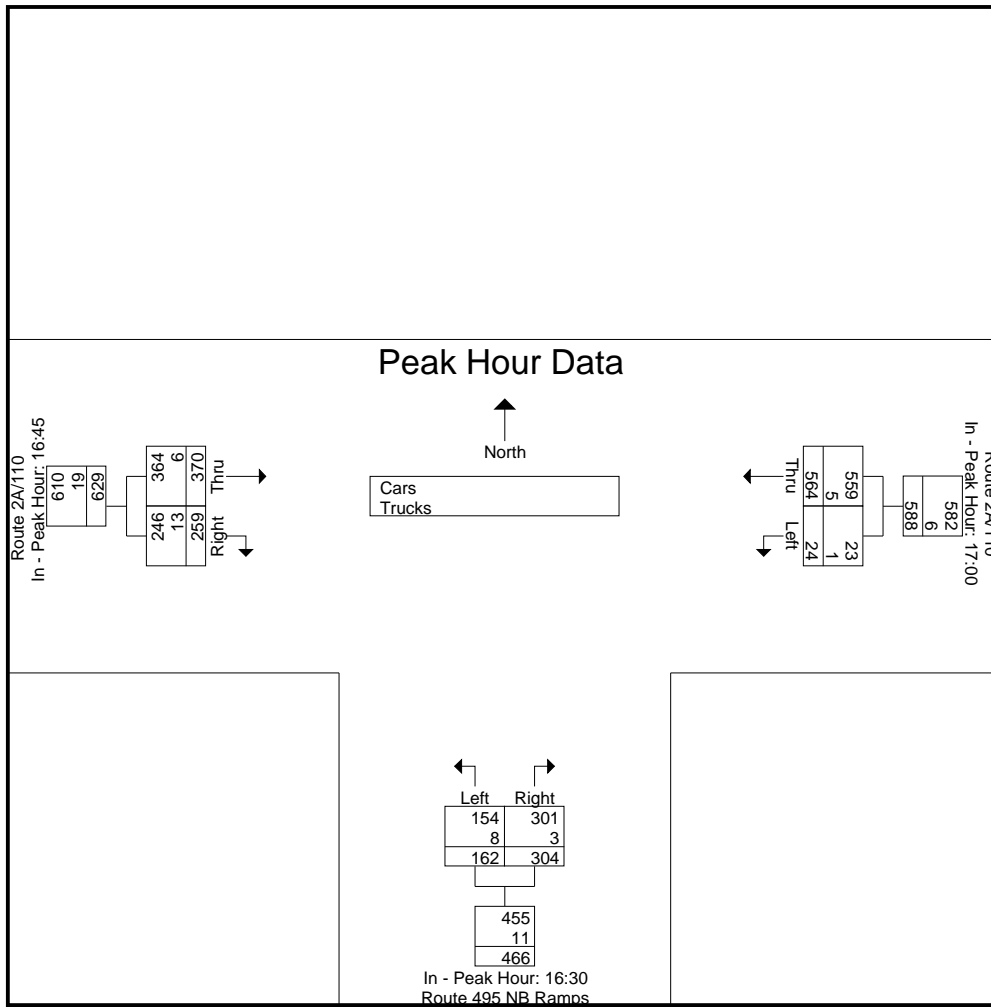




Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00			16:30			16:45		
+0 mins.	10	147	157	52	121	173	97	62	159
+15 mins.	4	142	146	34	71	105	83	77	160
+30 mins.	7	147	154	37	49	86	90	70	160
+45 mins.	3	128	131	39	63	102	100	50	150
Total Volume	24	564	588	162	304	466	370	259	629
% App. Total	4.1	95.9		34.8	65.2		58.8	41.2	
PHF	.600	.959	.936	.779	.628	.673	.925	.841	.983
Cars	23	559	582	154	301	455	364	246	610
% Cars	95.8	99.1	99	95.1	99	97.6	98.4	95	97
Trucks	1	5	6	8	3	11	6	13	19
% Trucks	4.2	0.9	1	4.9	1	2.4	1.6	5	3



N/S Street : Route 495 NB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

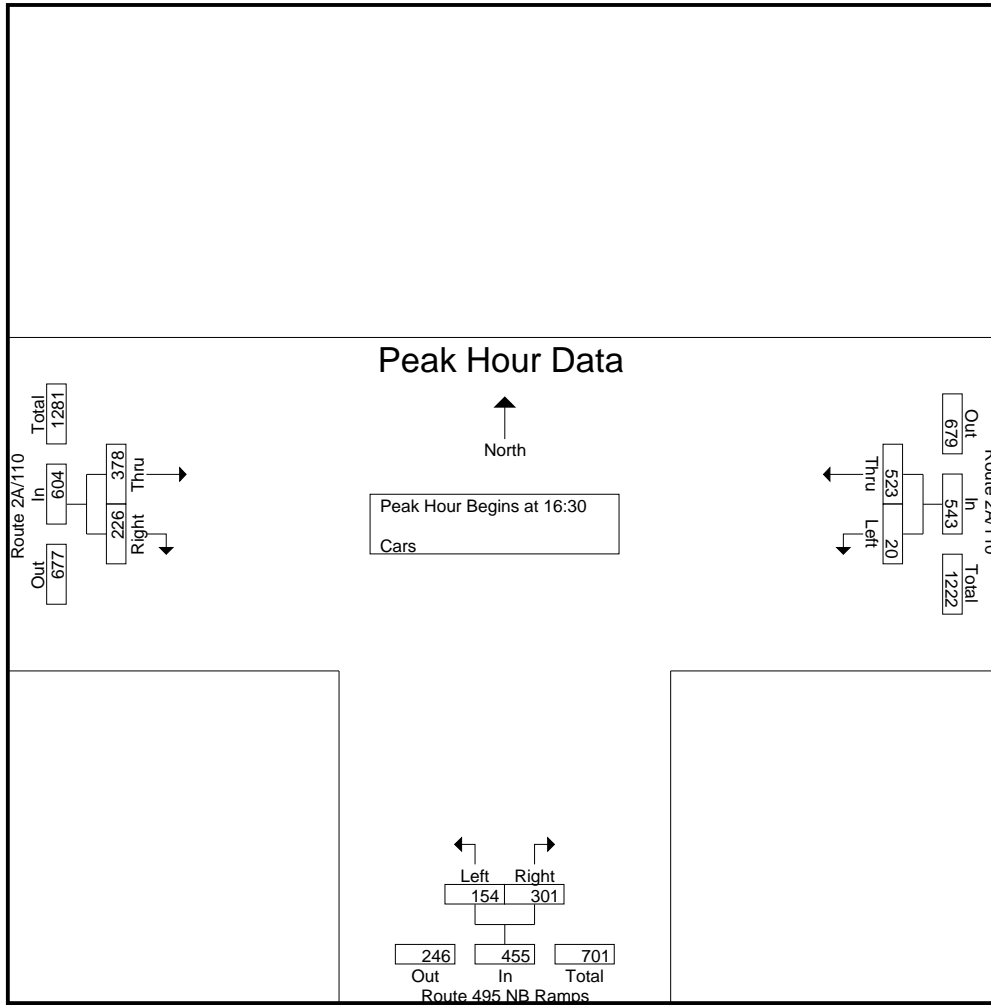
Accurate Counts  
 978-664-2565

File Name : 86525005  
 Site Code : 86525005  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	4	123	0	25	35	0	60	57	0	0	304	304
16:15	2	126	0	39	44	0	83	43	0	0	337	337
16:30	3	119	0	49	120	0	114	27	0	0	432	432
16:45	3	119	0	32	71	0	95	61	0	0	381	381
Total	12	487	0	145	270	0	352	188	0	0	1454	1454
17:00	10	146	0	36	49	0	81	73	0	0	395	395
17:15	4	139	0	37	61	0	88	65	0	0	394	394
17:30	7	147	0	40	57	0	100	47	0	0	398	398
17:45	2	127	0	33	54	0	97	25	0	0	338	338
Total	23	559	0	146	221	0	366	210	0	0	1525	1525
Grand Total	35	1046	0	291	491	0	718	398	0	0	2979	2979
Apprch %	3.2	96.8		37.2	62.8		64.3	35.7				
Total %	1.2	35.1		9.8	16.5		24.1	13.4		0	100	

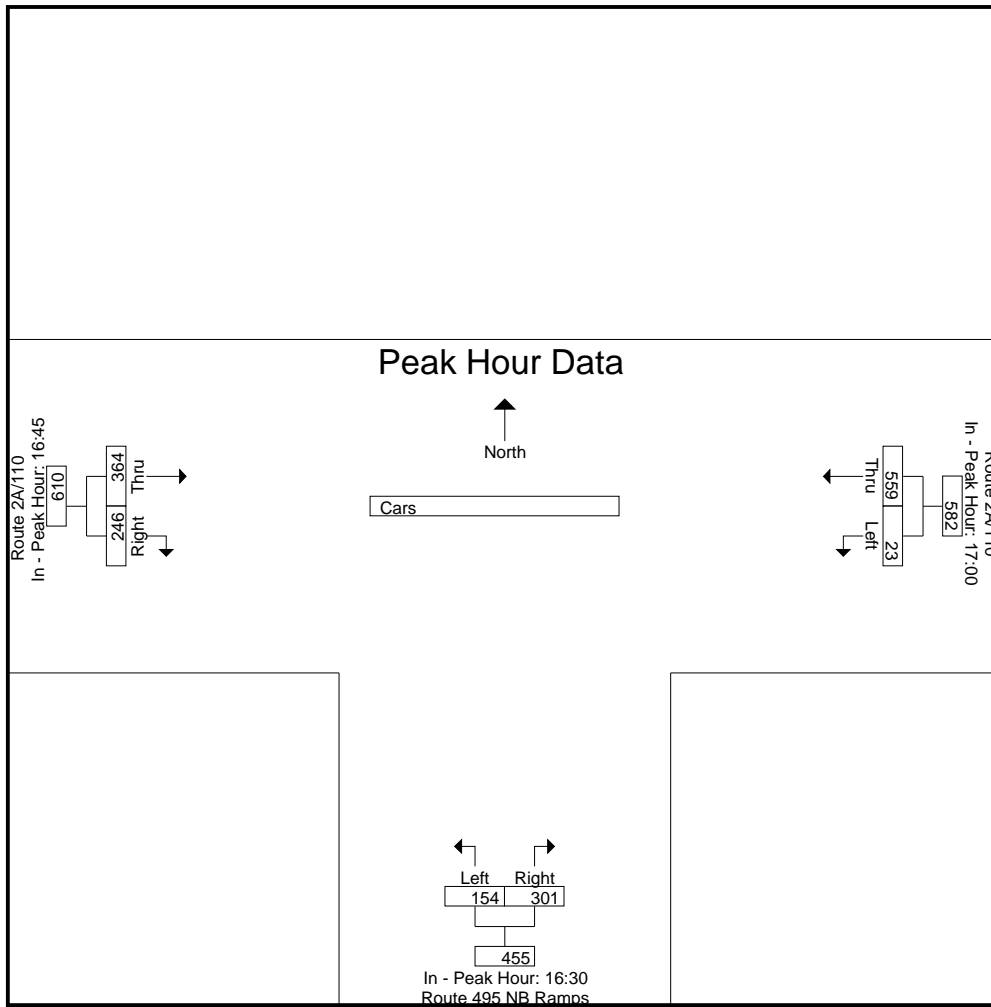
Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:30										
16:30	3	119	122	49	120	169	114	27	141	432
16:45	3	119	122	32	71	103	95	61	156	381
17:00	10	146	156	36	49	85	81	73	154	395
17:15	4	139	143	37	61	98	88	65	153	394
Total Volume	20	523	543	154	301	455	378	226	604	1602
% App. Total	3.7	96.3		33.8	66.2		62.6	37.4		
PHF	.500	.896	.870	.786	.627	.673	.829	.774	.968	.927



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00			16:30			16:45		
+0 mins.	10	146	156	49	120	169	95	61	156
+15 mins.	4	139	143	32	71	103	81	73	154
+30 mins.	7	147	154	36	49	85	88	65	153
+45 mins.	2	127	129	37	61	98	100	47	147
Total Volume	23	559	582	154	301	455	364	246	610
% App. Total	4	96		33.8	66.2		59.7	40.3	
PHF	.575	.951	.933	.786	.627	.673	.910	.842	.978



N/S Street : Route 495 NB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

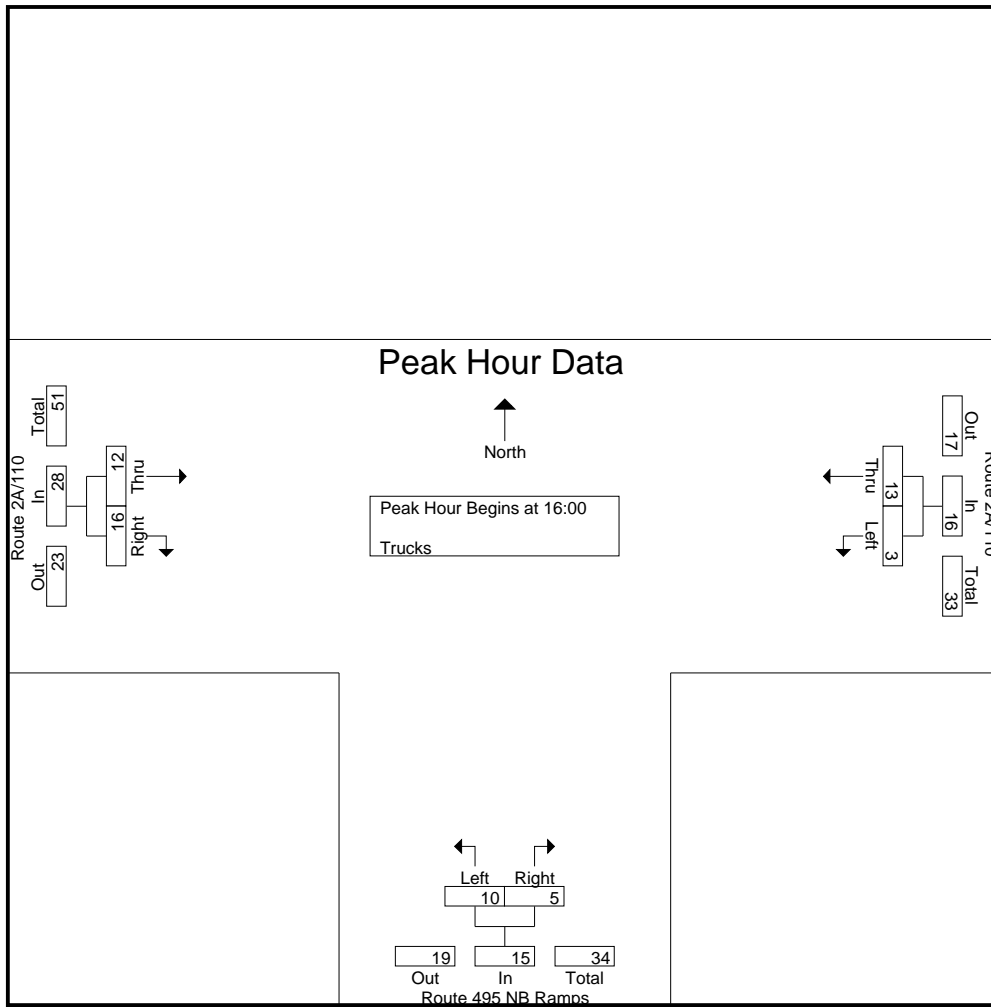
File Name : 86525005  
 Site Code : 86525005  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	1	5	0	2	2	0	3	5	0	0	18	18
16:15	0	2	0	3	2	0	4	7	0	0	18	18
16:30	2	4	0	3	1	0	3	3	0	0	16	16
16:45	0	2	0	2	0	0	2	1	0	0	7	7
Total	3	13	0	10	5	0	12	16	0	0	59	59
17:00	0	1	0	1	0	0	2	4	0	0	8	8
17:15	0	3	0	2	2	0	2	5	0	0	14	14
17:30	0	0	0	2	1	0	0	3	0	0	6	6
17:45	1	1	0	1	0	0	2	2	0	0	7	7
Total	1	5	0	6	3	0	6	14	0	0	35	35
Grand Total	4	18	0	16	8	0	18	30	0	0	94	94
Apprch %	18.2	81.8		66.7	33.3		37.5	62.5				
Total %	4.3	19.1		17	8.5		19.1	31.9		0	100	

Start Time	Route 2A/110 From East			Route 495 NB Ramps From South			Route 2A/110 From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
16:00	1	5	6	2	2	4	3	5	8	18
16:15	0	2	2	3	2	5	4	7	11	18
16:30	2	4	6	3	1	4	3	3	6	16
16:45	0	2	2	2	0	2	2	1	3	7
Total Volume	3	13	16	10	5	15	12	16	28	59
% App. Total	18.8	81.2		66.7	33.3		42.9	57.1		
PHF	.375	.650	.667	.833	.625	.750	.750	.571	.636	.819

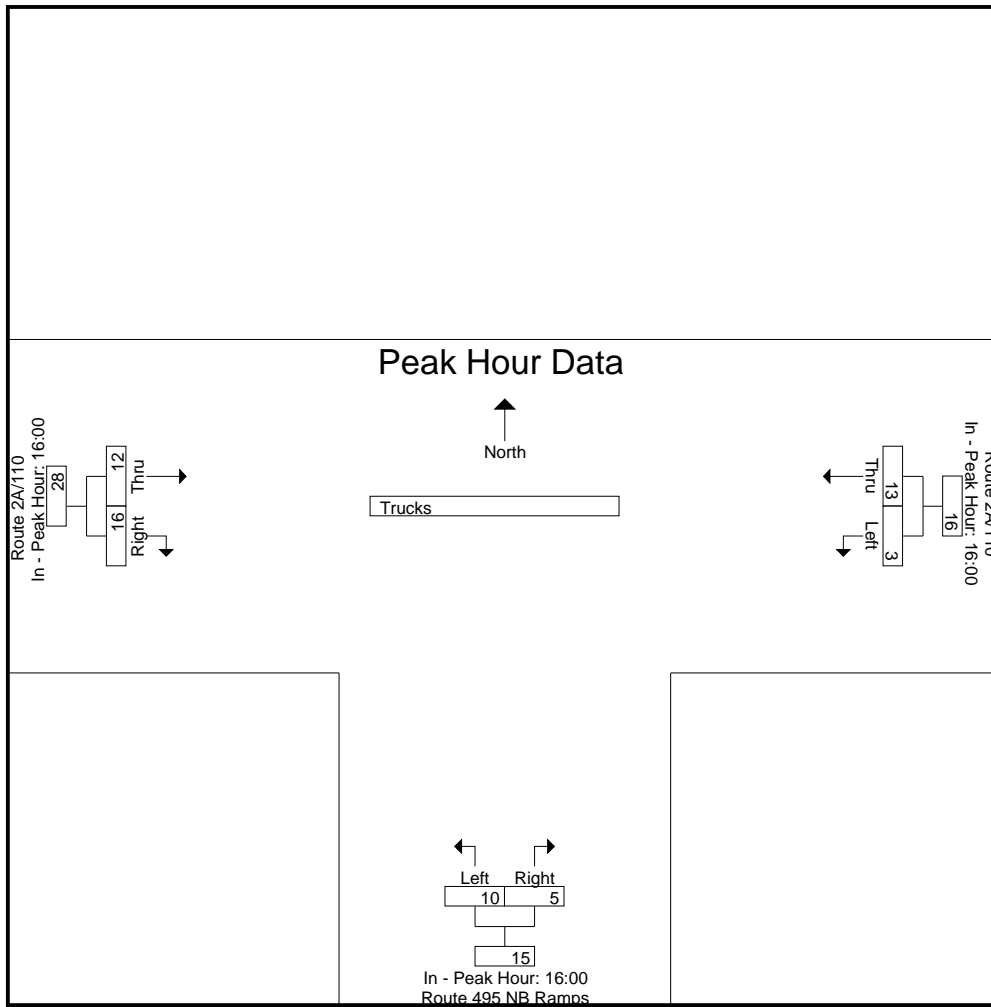
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00			16:00			16:00		
+0 mins.	1	5	6	2	2	4	3	5	8
+15 mins.	0	2	2	3	2	5	4	7	11
+30 mins.	2	4	6	3	1	4	3	3	6
+45 mins.	0	2	2	2	0	2	2	1	3
Total Volume	3	13	16	10	5	15	12	16	28
% App. Total	18.8	81.2		66.7	33.3		42.9	57.1	
PHF	.375	.650	.667	.833	.625	.750	.750	.571	.636





N/S Street : Route 495 SB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

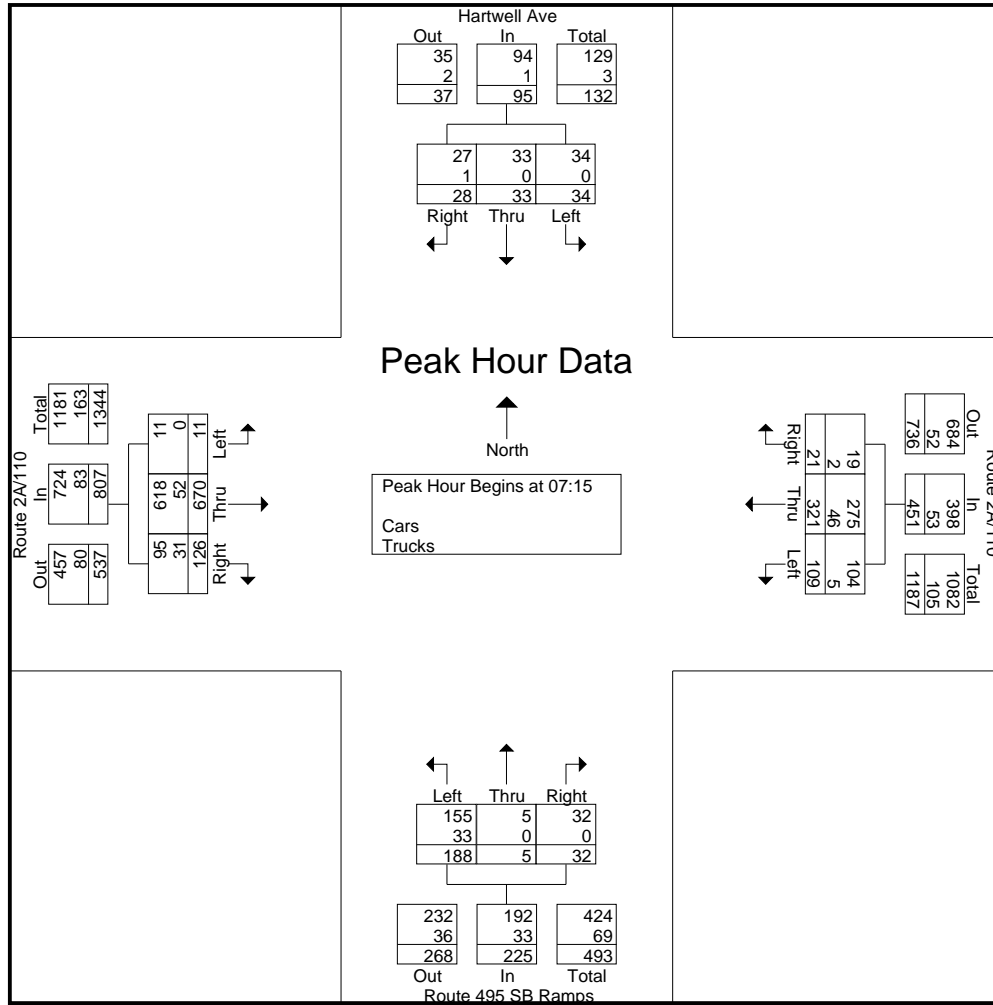
Accurate Counts  
 978-664-2565

File Name : 86525006  
 Site Code : 86525006  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	14	7	15	0	23	94	6	0	43	2	5	1	3	147	26	0	1	385	386
07:15	9	16	13	0	23	91	7	0	27	3	7	0	4	148	26	0	0	374	374
07:30	10	6	5	0	36	72	2	0	42	0	6	0	2	183	37	0	0	401	401
07:45	9	5	6	0	26	80	4	0	63	2	6	0	2	181	31	0	0	415	415
Total	42	34	39	0	108	337	19	0	175	7	24	1	11	659	120	0	1	1575	1576
08:00	6	6	4	0	24	78	8	0	56	0	13	0	3	158	32	0	0	388	388
08:15	7	5	1	0	14	82	2	0	44	0	9	0	3	167	32	0	0	366	366
08:30	13	5	1	0	17	58	4	0	38	0	5	0	3	190	26	0	0	360	360
08:45	5	2	8	0	18	65	3	0	42	0	5	0	3	148	31	0	0	330	330
Total	31	18	14	0	73	283	17	0	180	0	32	0	12	663	121	0	0	1444	1444
Grand Total	73	52	53	0	181	620	36	0	355	7	56	1	23	1322	241	0	1	3019	3020
Apprch %	41	29.2	29.8		21.6	74.1	4.3		84.9	1.7	13.4		1.5	83.4	15.2				
Total %	2.4	1.7	1.8		6	20.5	1.2		11.8	0.2	1.9		0.8	43.8	8		0	100	
Cars	72	51	52		172	539	34		299	7	53		23	1220	187		0	0	2710
% Cars	98.6	98.1	98.1	0	95	86.9	94.4	0	84.2	100	94.6	100	100	92.3	77.6	0	0	0	89.7
Trucks	1	1	1		9	81	2		56	0	3		0	102	54		0	0	310
% Trucks	1.4	1.9	1.9	0	5	13.1	5.6	0	15.8	0	5.4	0	0	7.7	22.4	0	0	0	10.3

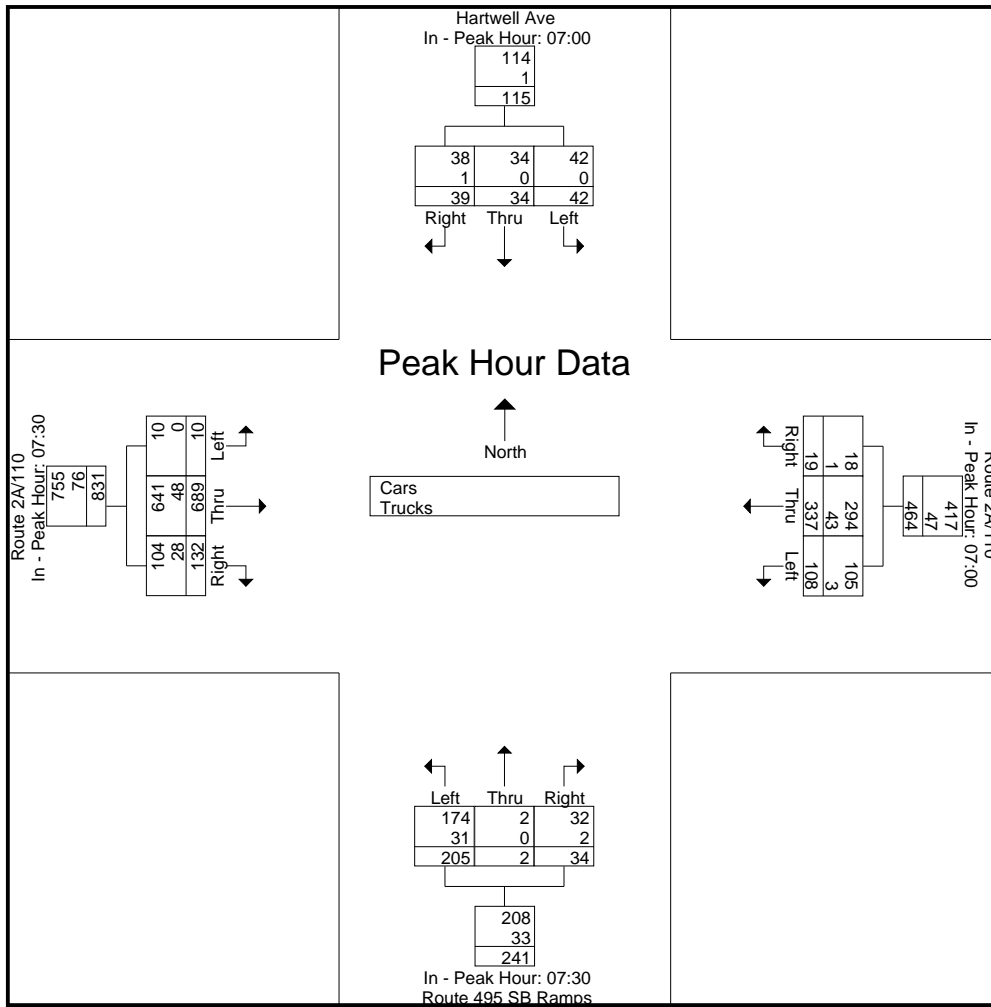
Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	9	16	13	38	23	91	7	121	27	3	7	37	4	148	26	178	374
07:30	10	6	5	21	36	72	2	110	42	0	6	48	2	183	37	222	401
07:45	9	5	6	20	26	80	4	110	63	2	6	71	2	181	31	214	415
08:00	6	6	4	16	24	78	8	110	56	0	13	69	3	158	32	193	388
Total Volume	34	33	28	95	109	321	21	451	188	5	32	225	11	670	126	807	1578
% App. Total	35.8	34.7	29.5		24.2	71.2	4.7		83.6	2.2	14.2		1.4	83	15.6		
PHF	.850	.516	.538	.625	.757	.882	.656	.932	.746	.417	.615	.792	.688	.915	.851	.909	.951
Cars	34	33	27	94	104	275	19	398	155	5	32	192	11	618	95	724	1408
% Cars	100	100	96.4	98.9	95.4	85.7	90.5	88.2	82.4	100	100	85.3	100	92.2	75.4	89.7	89.2
Trucks	0	0	1	1	5	46	2	53	33	0	0	33	0	52	31	83	170
% Trucks	0	0	3.6	1.1	4.6	14.3	9.5	11.8	17.6	0	0	14.7	0	7.8	24.6	10.3	10.8



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00				07:30				07:30							
+0 mins.	14	7	15	36	23	94	6	123	42	0	6	48	2	183	37	222
+15 mins.	9	16	13	38	23	91	7	121	63	2	6	71	2	181	31	214
+30 mins.	10	6	5	21	36	72	2	110	56	0	13	69	3	158	32	193
+45 mins.	9	5	6	20	26	80	4	110	44	0	9	53	3	167	32	202
Total Volume	42	34	39	115	108	337	19	464	205	2	34	241	10	689	132	831
% App. Total	36.5	29.6	33.9		23.3	72.6	4.1		85.1	0.8	14.1		1.2	82.9	15.9	
PHF	.750	.531	.650	.757	.750	.896	.679	.943	.813	.250	.654	.849	.833	.941	.892	.936
Cars	42	34	38	114	105	294	18	417	174	2	32	208	10	641	104	755
% Cars	100	100	97.4	99.1	97.2	87.2	94.7	89.9	84.9	100	94.1	86.3	100	93	78.8	90.9
Trucks	0	0	1	1	3	43	1	47	31	0	2	33	0	48	28	76
% Trucks	0	0	2.6	0.9	2.8	12.8	5.3	10.1	15.1	0	5.9	13.7	0	7	21.2	9.1



N/S Street : Route 495 SB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

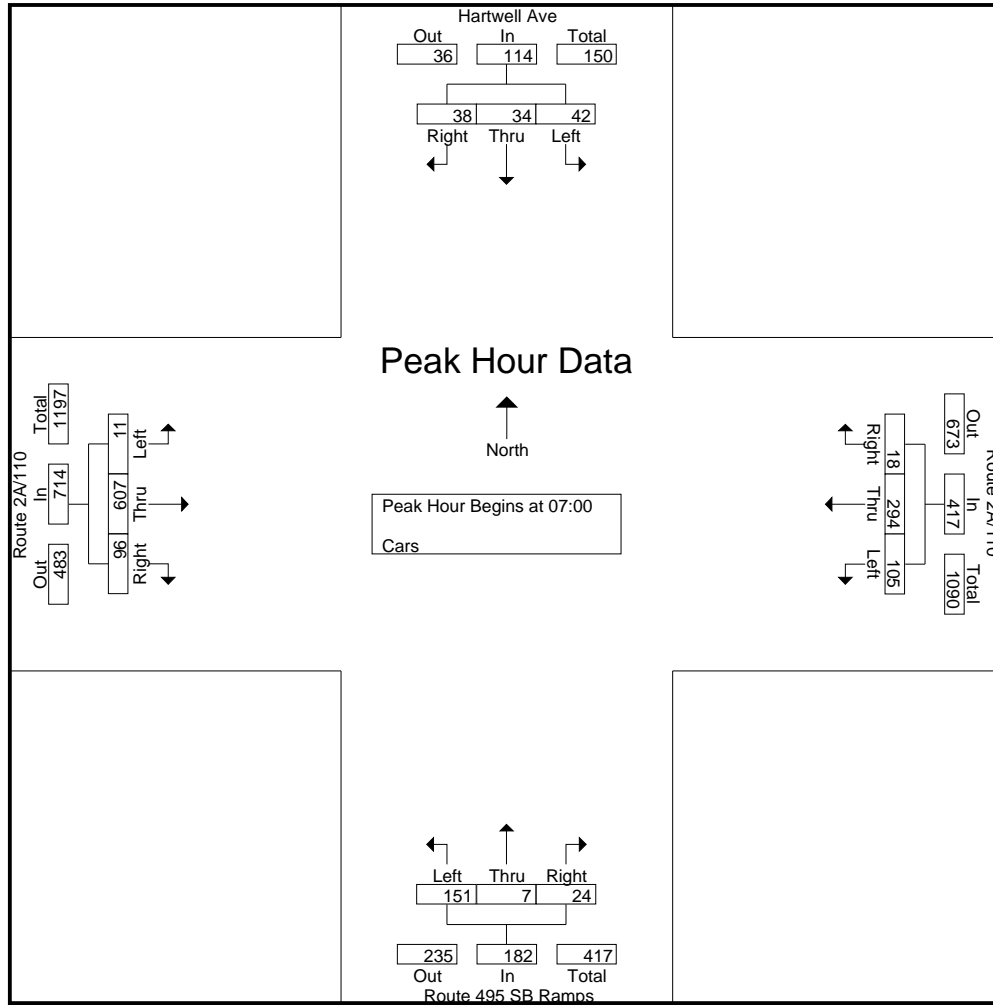
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 Site Code : 86525006  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	14	7	15	0	23	86	6	0	38	2	5	1	3	134	25	0	1	358	359
07:15	9	16	13	0	22	81	6	0	21	3	7	0	4	131	18	0	0	331	331
07:30	10	6	5	0	35	57	2	0	37	0	6	0	2	168	32	0	0	360	360
07:45	9	5	5	0	25	70	4	0	55	2	6	0	2	174	21	0	0	378	378
Total	42	34	38	0	105	294	18	0	151	7	24	1	11	607	96	0	1	1427	1428
08:00	6	6	4	0	22	67	7	0	42	0	13	0	3	145	24	0	0	339	339
08:15	6	4	1	0	12	76	2	0	40	0	7	0	3	154	27	0	0	332	332
08:30	13	5	1	0	17	50	4	0	32	0	5	0	3	179	19	0	0	328	328
08:45	5	2	8	0	16	52	3	0	34	0	4	0	3	135	21	0	0	283	283
Total	30	17	14	0	67	245	16	0	148	0	29	0	12	613	91	0	0	1282	1282
Grand Total	72	51	52	0	172	539	34	0	299	7	53	1	23	1220	187	0	1	2709	2710
Apprch %	41.1	29.1	29.7		23.1	72.3	4.6		83.3	1.9	14.8		1.6	85.3	13.1				
Total %	2.7	1.9	1.9		6.3	19.9	1.3		11	0.3	2		0.8	45	6.9		0	100	

Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00	14	7	15	36	23	86	6	115	38	2	5	45	3	134	25	162	358
07:15	9	16	13	38	22	81	6	109	21	3	7	31	4	131	18	153	331
07:30	10	6	5	21	35	57	2	94	37	0	6	43	2	168	32	202	360
07:45	9	5	5	19	25	70	4	99	55	2	6	63	2	174	21	197	378
Total Volume	42	34	38	114	105	294	18	417	151	7	24	182	11	607	96	714	1427
% App. Total	36.8	29.8	33.3		25.2	70.5	4.3		83	3.8	13.2		1.5	85	13.4		
PHF	.750	.531	.633	.750	.750	.855	.750	.907	.686	.583	.857	.722	.688	.872	.750	.884	.944

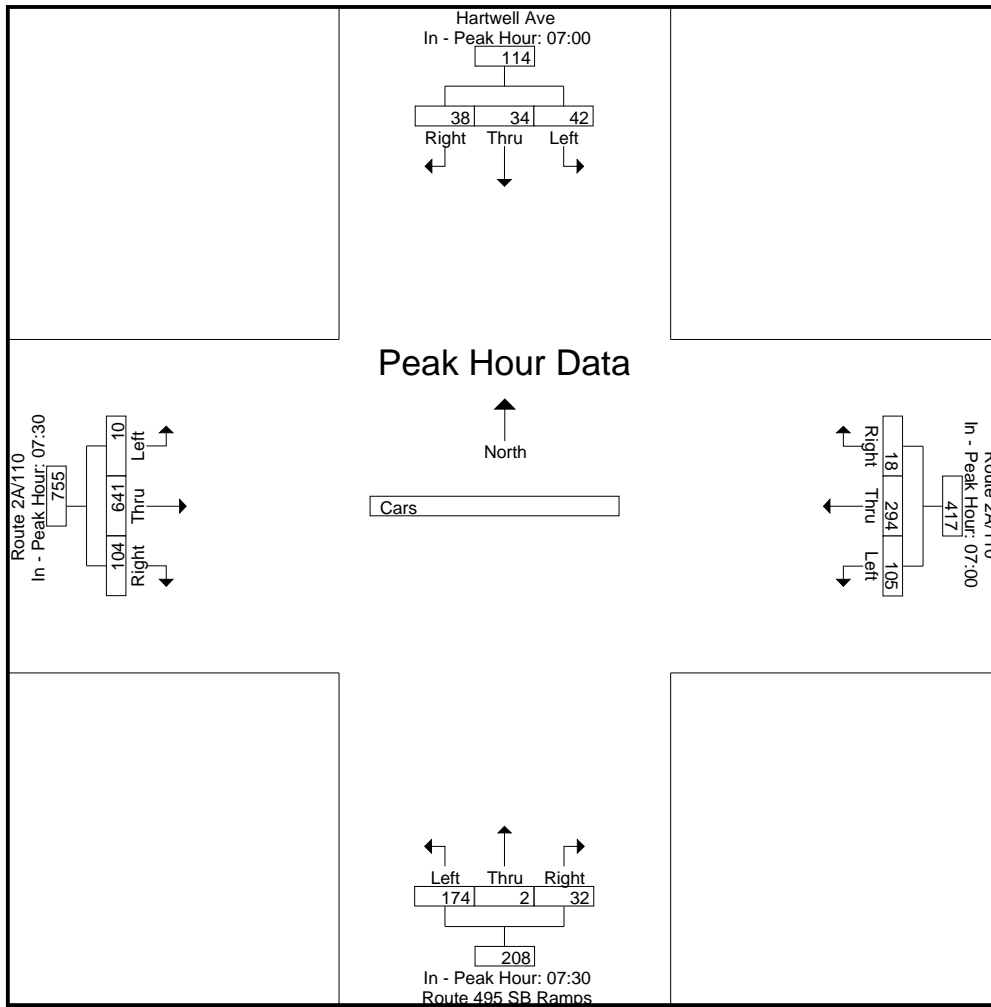
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:00



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00				07:30				07:30							
+0 mins.	14	7	15	36	23	86	6	115	37	0	6	43	2	168	32	202
+15 mins.	9	16	13	38	22	81	6	109	55	2	6	63	2	174	21	197
+30 mins.	10	6	5	21	35	57	2	94	42	0	13	55	3	145	24	172
+45 mins.	9	5	5	19	25	70	4	99	40	0	7	47	3	154	27	184
Total Volume	42	34	38	114	105	294	18	417	174	2	32	208	10	641	104	755
% App. Total	36.8	29.8	33.3	.750	25.2	70.5	4.3	.907	83.7	1	15.4	.825	1.3	84.9	13.8	.934
PHF	.750	.531	.633	.750	.750	.855	.750	.907	.791	.250	.615	.825	.833	.921	.813	.934



N/S Street : Route 495 SB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

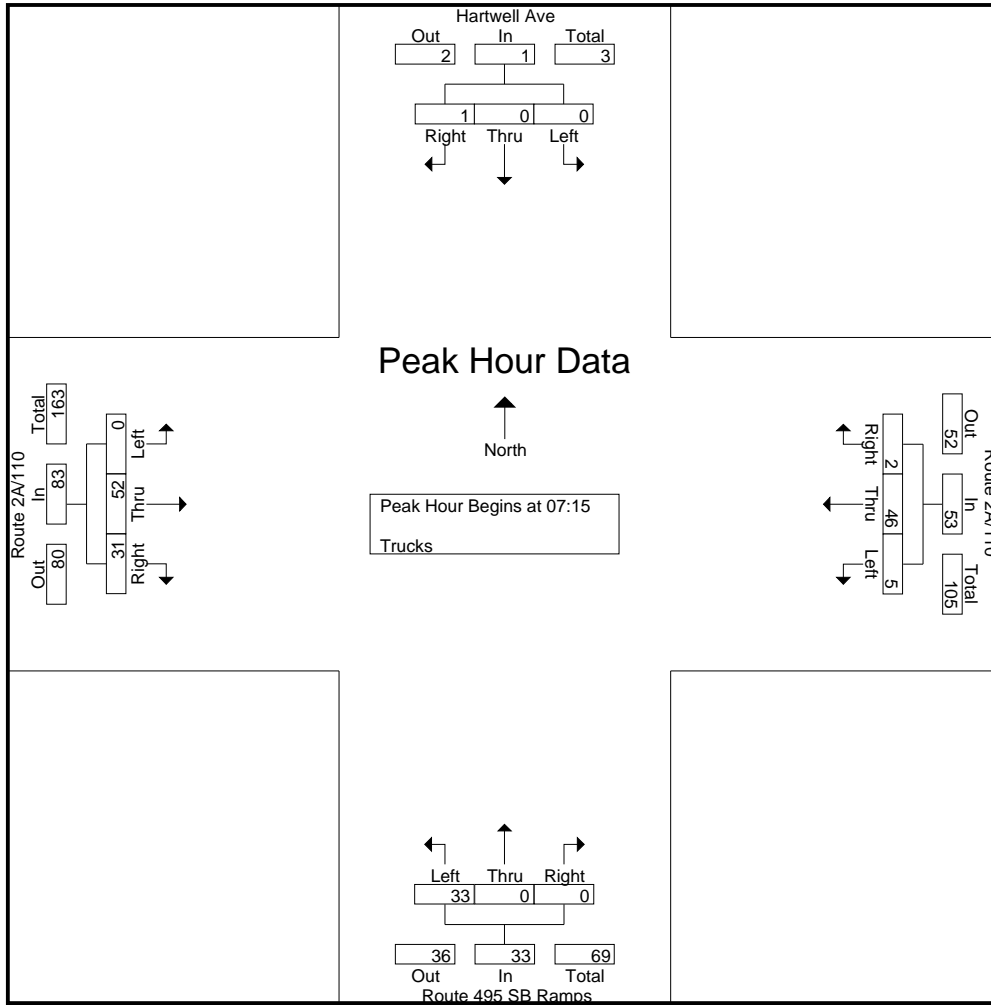
File Name : 86525006  
 Site Code : 86525006  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	0	0	0	0	0	8	0	0	5	0	0	0	0	13	1	0	0	27	27
07:15	0	0	0	0	1	10	1	0	6	0	0	0	0	17	8	0	0	43	43
07:30	0	0	0	0	1	15	0	0	5	0	0	0	0	15	5	0	0	41	41
07:45	0	0	1	0	1	10	0	0	8	0	0	0	0	7	10	0	0	37	37
Total	0	0	1	0	3	43	1	0	24	0	0	0	0	52	24	0	0	148	148
08:00	0	0	0	0	2	11	1	0	14	0	0	0	0	13	8	0	0	49	49
08:15	1	1	0	0	2	6	0	0	4	0	2	0	0	13	5	0	0	34	34
08:30	0	0	0	0	0	8	0	0	6	0	0	0	0	11	7	0	0	32	32
08:45	0	0	0	0	2	13	0	0	8	0	1	0	0	13	10	0	0	47	47
Total	1	1	0	0	6	38	1	0	32	0	3	0	0	50	30	0	0	162	162
Grand Total	1	1	1	0	9	81	2	0	56	0	3	0	0	102	54	0	0	310	310
Apprch %	33.3	33.3	33.3		9.8	88	2.2		94.9	0	5.1		0	65.4	34.6				
Total %	0.3	0.3	0.3		2.9	26.1	0.6		18.1	0	1		0	32.9	17.4		0	100	

Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:15	0	0	0	0	1	10	1	12	6	0	0	6	0	17	8	25	43
07:30	0	0	0	0	1	15	0	16	5	0	0	5	0	15	5	20	41
07:45	0	0	1	1	1	10	0	11	8	0	0	8	0	7	10	17	37
08:00	0	0	0	0	2	11	1	14	14	0	0	14	0	13	8	21	49
Total Volume	0	0	1	1	5	46	2	53	33	0	0	33	0	52	31	83	170
% App. Total	0	0	100		9.4	86.8	3.8		100	0	0		0	62.7	37.3		
PHF	.000	.000	.250	.250	.625	.767	.500	.828	.589	.000	.000	.589	.000	.765	.775	.830	.867

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15

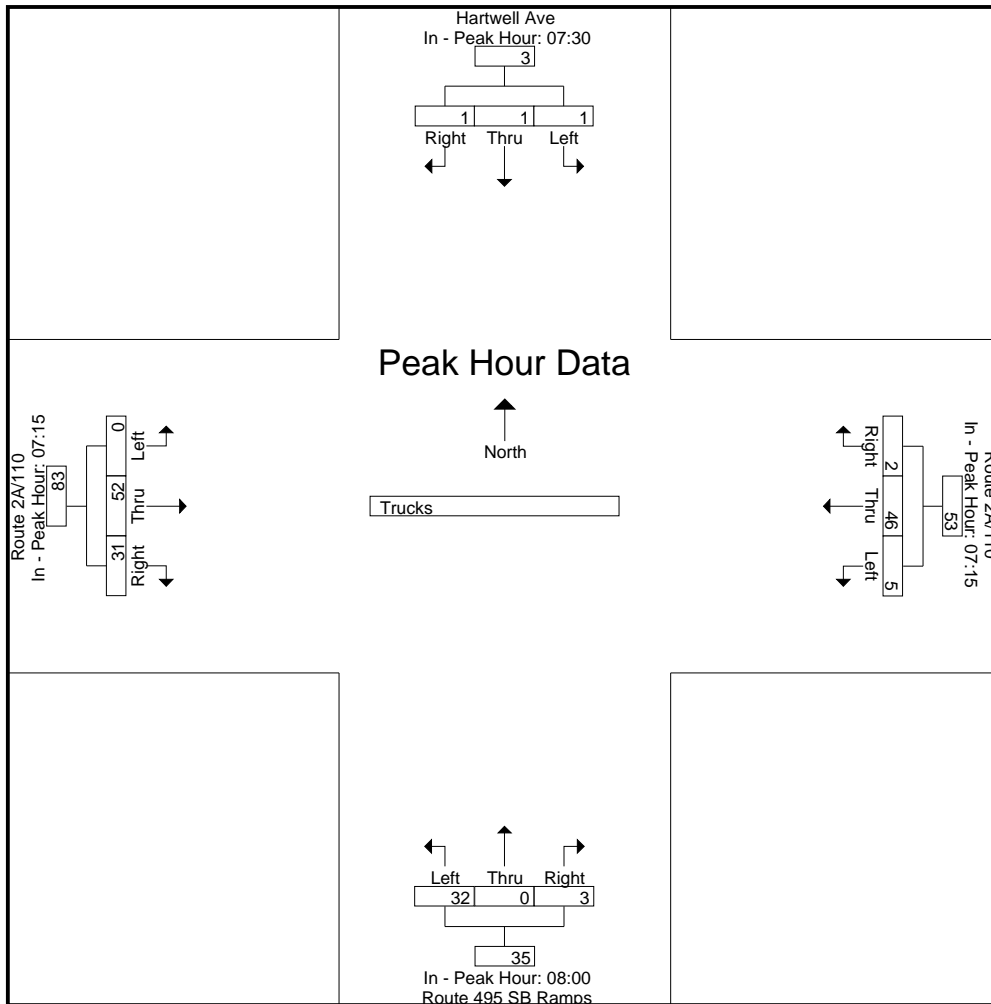


Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30				07:15				08:00				07:15			
+0 mins.	0	0	0	0	1	10	1	12	14	0	0	14	0	17	8	25
+15 mins.	0	0	1	1	1	15	0	16	4	0	2	6	0	15	5	20
+30 mins.	0	0	0	0	1	10	0	11	6	0	0	6	0	7	10	17
+45 mins.	1	1	0	2	2	11	1	14	8	0	1	9	0	13	8	21
Total Volume	1	1	1	3	5	46	2	53	32	0	3	35	0	52	31	83
% App. Total	33.3	33.3	33.3		9.4	86.8	3.8		91.4	0	8.6		0	62.7	37.3	
PHF	.250	.250	.250	.375	.625	.767	.500	.828	.571	.000	.375	.625	.000	.765	.775	.830





N/S Street : Route 495 SB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

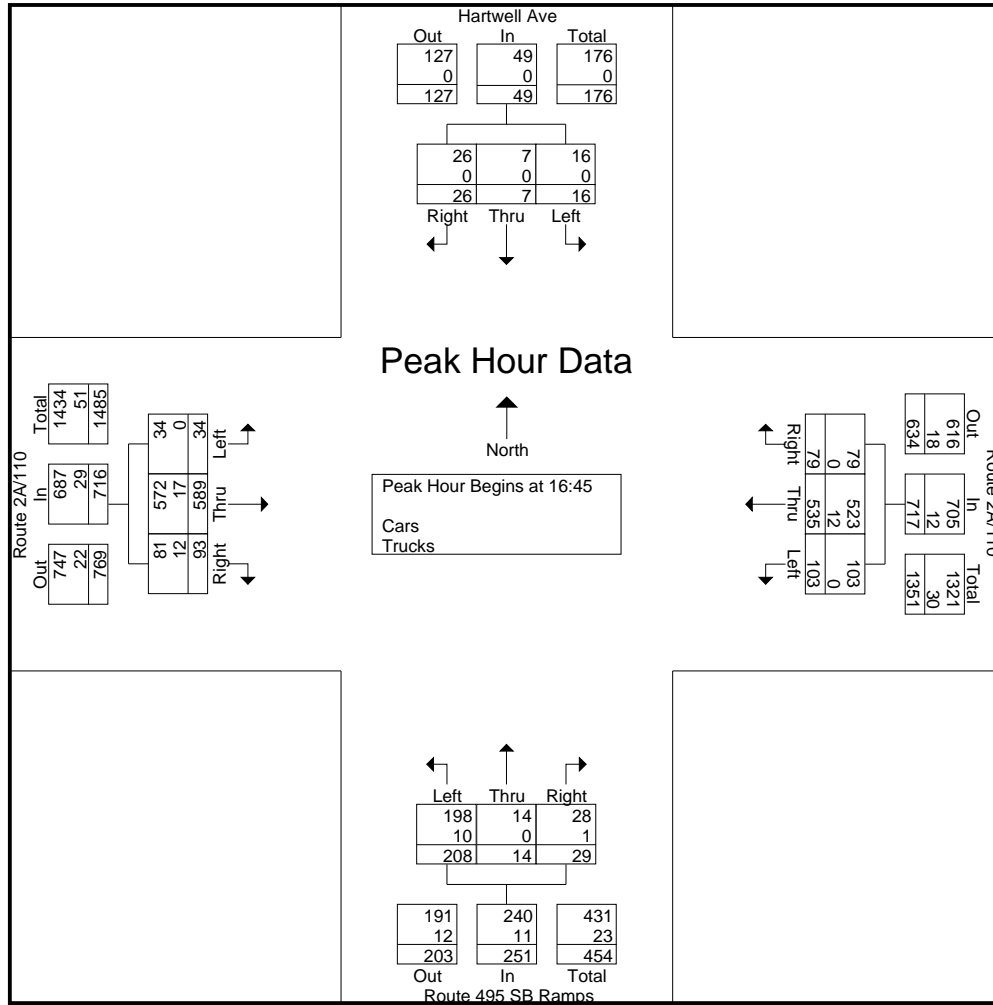
Accurate Counts  
 978-664-2565

File Name : 86525006  
 Site Code : 86525006  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	6	2	6	0	20	124	10	0	44	0	3	0	4	121	24	0	0	364	364
16:15	1	3	9	0	23	141	7	0	60	1	4	0	3	135	26	0	0	413	413
16:30	4	2	6	0	18	148	10	0	57	2	6	0	10	136	18	0	0	417	417
16:45	5	2	5	0	16	128	9	0	59	2	6	0	9	148	33	0	0	422	422
Total	16	9	26	0	77	541	36	0	220	5	19	0	26	540	101	0	0	1616	1616
17:00	6	2	6	1	32	128	25	0	46	4	5	0	10	151	20	0	1	435	436
17:15	1	3	8	0	28	140	16	0	49	3	10	0	4	153	21	0	0	436	436
17:30	4	0	7	1	27	139	29	0	54	5	8	0	11	137	19	0	1	440	441
17:45	4	0	10	0	17	137	11	0	68	2	9	0	9	114	18	0	0	399	399
Total	15	5	31	2	104	544	81	0	217	14	32	0	34	555	78	0	2	1710	1712
Grand Total	31	14	57	2	181	1085	117	0	437	19	51	0	60	1095	179	0	2	3326	3328
Apprch %	30.4	13.7	55.9		13.1	78.5	8.5		86.2	3.7	10.1		4.5	82.1	13.4				
Total %	0.9	0.4	1.7		5.4	32.6	3.5		13.1	0.6	1.5		1.8	32.9	5.4		0.1	99.9	
Cars	31	14	57		178	1053	117		411	19	50		60	1053	158		0	0	3203
% Cars	100	100	100	100	98.3	97.1	100	0	94.1	100	98	0	100	96.2	88.3	0	0	0	96.2
Trucks	0	0	0		3	32	0		26	0	1		0	42	21		0	0	125
% Trucks	0	0	0	0	1.7	2.9	0	0	5.9	0	2	0	0	3.8	11.7	0	0	0	3.8

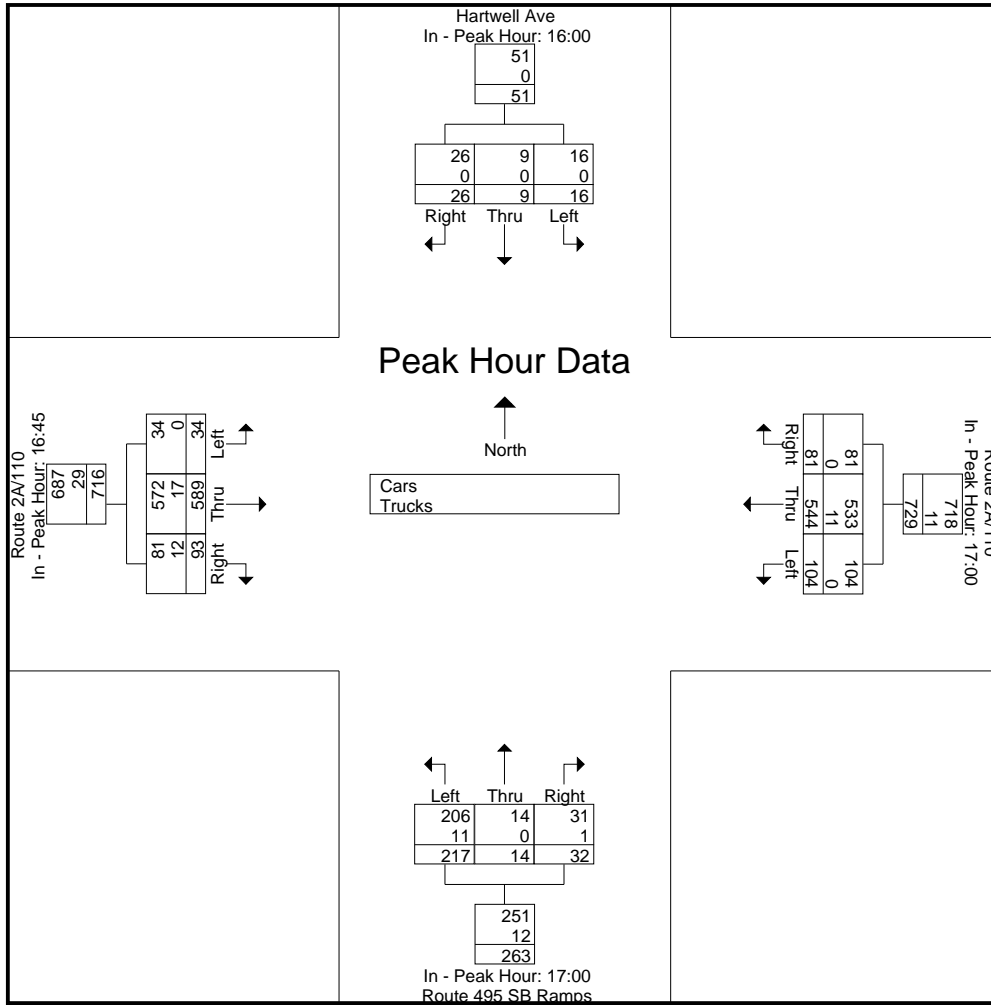
Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:45																	
16:45	5	2	5	12	16	128	9	153	59	2	6	67	9	148	33	190	422
17:00	6	2	6	14	32	128	25	185	46	4	5	55	10	151	20	181	435
17:15	1	3	8	12	28	140	16	184	49	3	10	62	4	153	21	178	436
17:30	4	0	7	11	27	139	29	195	54	5	8	67	11	137	19	167	440
Total Volume	16	7	26	49	103	535	79	717	208	14	29	251	34	589	93	716	1733
% App. Total	32.7	14.3	53.1		14.4	74.6	11		82.9	5.6	11.6		4.7	82.3	13		
PHF	.667	.583	.813	.875	.805	.955	.681	.919	.881	.700	.725	.937	.773	.962	.705	.942	.985
Cars	16	7	26	49	103	523	79	705	198	14	28	240	34	572	81	687	1681
% Cars	100	100	100	100	100	97.8	100	98.3	95.2	100	96.6	95.6	100	97.1	87.1	95.9	97.0
Trucks	0	0	0	0	0	12	0	12	10	0	1	11	0	17	12	29	52
% Trucks	0	0	0	0	0	2.2	0	1.7	4.8	0	3.4	4.4	0	2.9	12.9	4.1	3.0



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				17:00				17:00				16:45			
+0 mins.	6	2	6	14	32	128	25	185	46	4	5	55	9	148	33	190
+15 mins.	1	3	9	13	28	140	16	184	49	3	10	62	10	151	20	181
+30 mins.	4	2	6	12	27	139	29	195	54	5	8	67	4	153	21	178
+45 mins.	5	2	5	12	17	137	11	165	68	2	9	79	11	137	19	167
Total Volume	16	9	26	51	104	544	81	729	217	14	32	263	34	589	93	716
% App. Total	31.4	17.6	51		14.3	74.6	11.1		82.5	5.3	12.2		4.7	82.3	13	
PHF	.667	.750	.722	.911	.813	.971	.698	.935	.798	.700	.800	.832	.773	.962	.705	.942
Cars	16	9	26	51	104	533	81	718	206	14	31	251	34	572	81	687
% Cars	100	100	100	100	100	98	100	98.5	94.9	100	96.9	95.4	100	97.1	87.1	95.9
Trucks	0	0	0	0	0	11	0	11	11	0	1	12	0	17	12	29
% Trucks	0	0	0	0	0	2	0	1.5	5.1	0	3.1	4.6	0	2.9	12.9	4.1



N/S Street : Route 495 SB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

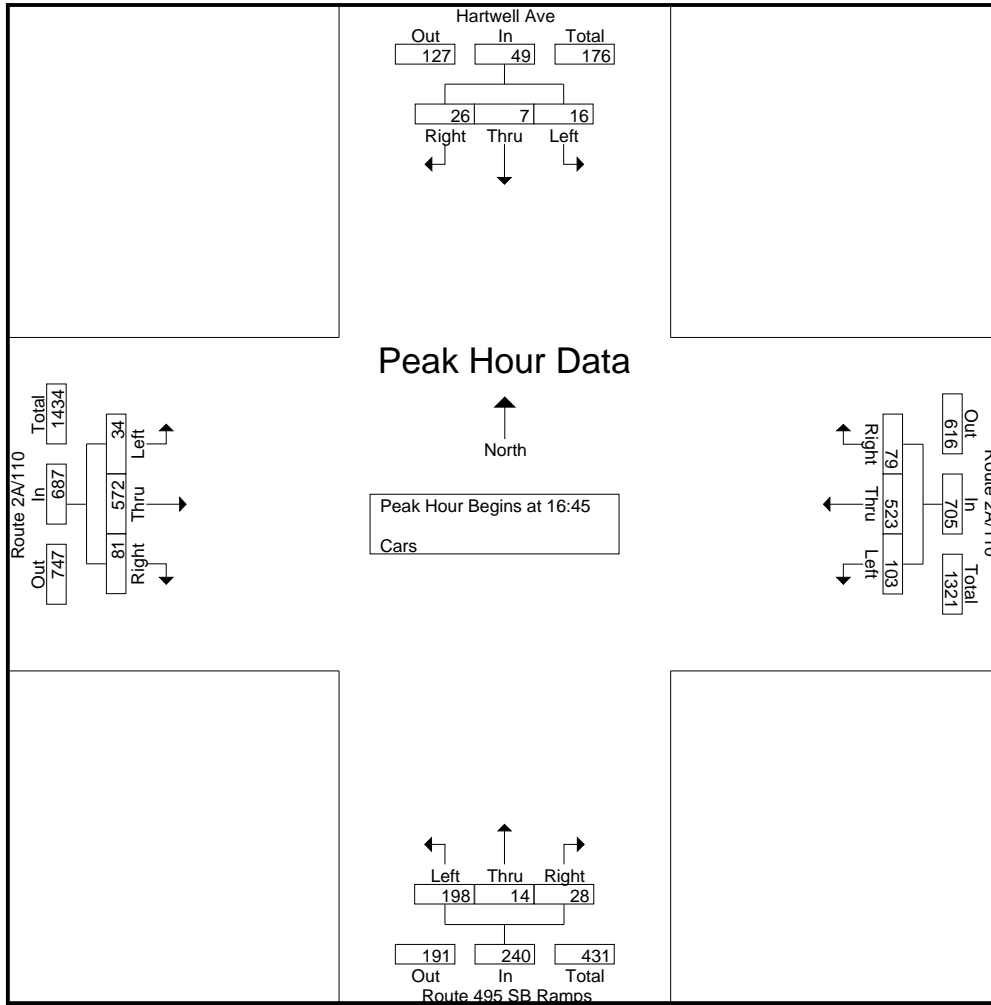
Accurate Counts  
 978-664-2565

File Name : 86525006  
 Site Code : 86525006  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	6	2	6	0	19	119	10	0	40	0	3	0	4	114	20	0	0	343	343
16:15	1	3	9	0	23	133	7	0	55	1	4	0	3	124	23	0	0	386	386
16:30	4	2	6	0	16	142	10	0	53	2	6	0	10	132	18	0	0	401	401
16:45	5	2	5	0	16	126	9	0	57	2	6	0	9	145	28	0	0	410	410
Total	16	9	26	0	74	520	36	0	205	5	19	0	26	515	89	0	0	1540	1540
17:00	6	2	6	1	32	126	25	0	42	4	5	0	10	145	17	0	1	420	421
17:15	1	3	8	0	28	134	16	0	48	3	9	0	4	148	21	0	0	423	423
17:30	4	0	7	1	27	137	29	0	51	5	8	0	11	134	15	0	1	428	429
17:45	4	0	10	0	17	136	11	0	65	2	9	0	9	111	16	0	0	390	390
Total	15	5	31	2	104	533	81	0	206	14	31	0	34	538	69	0	2	1661	1663
Grand Total	31	14	57	2	178	1053	117	0	411	19	50	0	60	1053	158	0	2	3201	3203
Apprch %	30.4	13.7	55.9		13.2	78.1	8.7		85.6	4	10.4		4.7	82.8	12.4				
Total %	1	0.4	1.8		5.6	32.9	3.7		12.8	0.6	1.6		1.9	32.9	4.9		0.1	99.9	

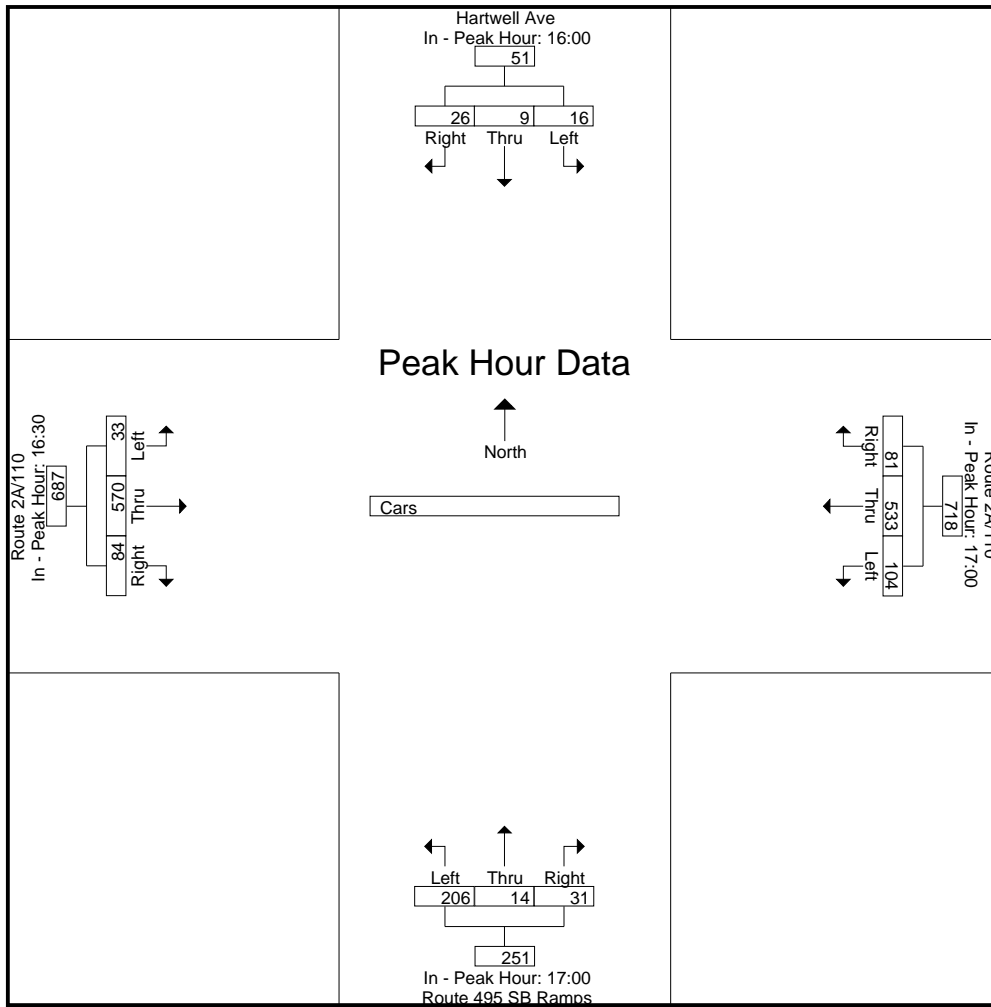
Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:45																	
16:45	5	2	5	12	16	126	9	151	57	2	6	65	9	145	28	182	410
17:00	6	2	6	14	32	126	25	183	42	4	5	51	10	145	17	172	420
17:15	1	3	8	12	28	134	16	178	48	3	9	60	4	148	21	173	423
17:30	4	0	7	11	27	137	29	193	51	5	8	64	11	134	15	160	428
Total Volume	16	7	26	49	103	523	79	705	198	14	28	240	34	572	81	687	1681
% App. Total	32.7	14.3	53.1		14.6	74.2	11.2		82.5	5.8	11.7		4.9	83.3	11.8		
PHF	.667	.583	.813	.875	.805	.954	.681	.913	.868	.700	.778	.923	.773	.966	.723	.944	.982



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				17:00				17:00				16:30			
+0 mins.	6	2	6	14	32	126	25	183	42	4	5	51	10	132	18	160
+15 mins.	1	3	9	13	28	134	16	178	48	3	9	60	9	145	28	182
+30 mins.	4	2	6	12	27	137	29	193	51	5	8	64	10	145	17	172
+45 mins.	5	2	5	12	17	136	11	164	65	2	9	76	4	148	21	173
Total Volume	16	9	26	51	104	533	81	718	206	14	31	251	33	570	84	687
% App. Total	31.4	17.6	51		14.5	74.2	11.3		82.1	5.6	12.4		4.8	83	12.2	
PHF	.667	.750	.722	.911	.813	.973	.698	.930	.792	.700	.861	.826	.825	.963	.750	.944



N/S Street : Route 495 SB Ramps  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

File Name : 86525006  
 Site Code : 86525006  
 Start Date : 4/8/2008  
 Page No : 1

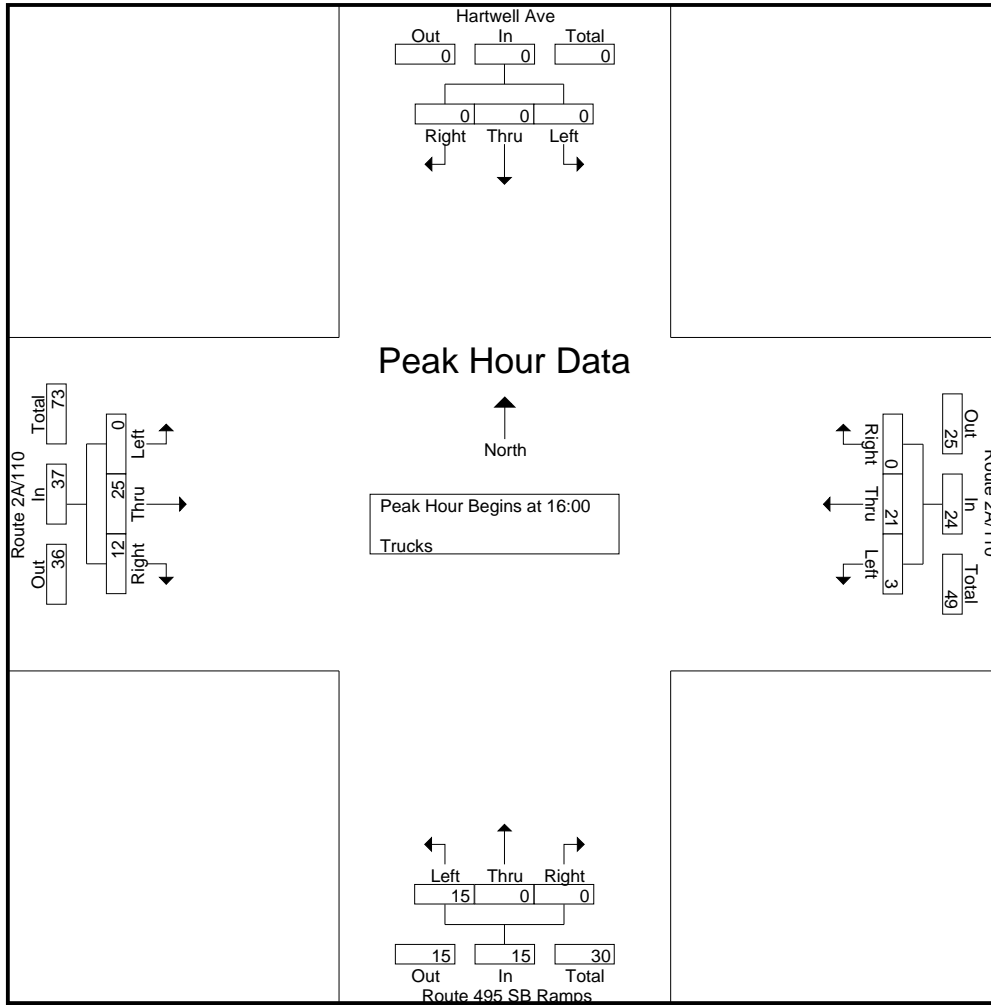
Groups Printed- Trucks

Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	0	0	0	0	1	5	0	0	4	0	0	0	0	7	4	0	0	21	21
16:15	0	0	0	0	0	8	0	0	5	0	0	0	0	11	3	0	0	27	27
16:30	0	0	0	0	2	6	0	0	4	0	0	0	0	4	0	0	0	16	16
16:45	0	0	0	0	0	2	0	0	2	0	0	0	0	3	5	0	0	12	12
Total	0	0	0	0	3	21	0	0	15	0	0	0	0	25	12	0	0	76	76
17:00	0	0	0	0	0	2	0	0	4	0	0	0	0	6	3	0	0	15	15
17:15	0	0	0	0	0	6	0	0	1	0	1	0	0	5	0	0	0	13	13
17:30	0	0	0	0	0	2	0	0	3	0	0	0	0	3	4	0	0	12	12
17:45	0	0	0	0	0	1	0	0	3	0	0	0	0	3	2	0	0	9	9
Total	0	0	0	0	0	11	0	0	11	0	1	0	0	17	9	0	0	49	49
Grand Total	0	0	0	0	3	32	0	0	26	0	1	0	0	42	21	0	0	125	125
Apprch %	0	0	0		8.6	91.4	0		96.3	0	3.7		0	66.7	33.3				
Total %	0	0	0		2.4	25.6	0		20.8	0	0.8		0	33.6	16.8		0	100	

Start Time	Hartwell Ave From North				Route 2A/110 From East				Route 495 SB Ramps From South				Route 2A/110 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
16:00	0	0	0	0	1	5	0	6	4	0	0	4	0	7	4	11	21
16:15	0	0	0	0	0	8	0	8	5	0	0	5	0	11	3	14	27
16:30	0	0	0	0	2	6	0	8	4	0	0	4	0	4	0	4	16
16:45	0	0	0	0	0	2	0	2	2	0	0	2	0	3	5	8	12
Total Volume	0	0	0	0	3	21	0	24	15	0	0	15	0	25	12	37	76
% App. Total	0	0	0		12.5	87.5	0		100	0	0		0	67.6	32.4		
PHF	.000	.000	.000	.000	.375	.656	.000	.750	.750	.000	.000	.750	.000	.568	.600	.661	.704

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00

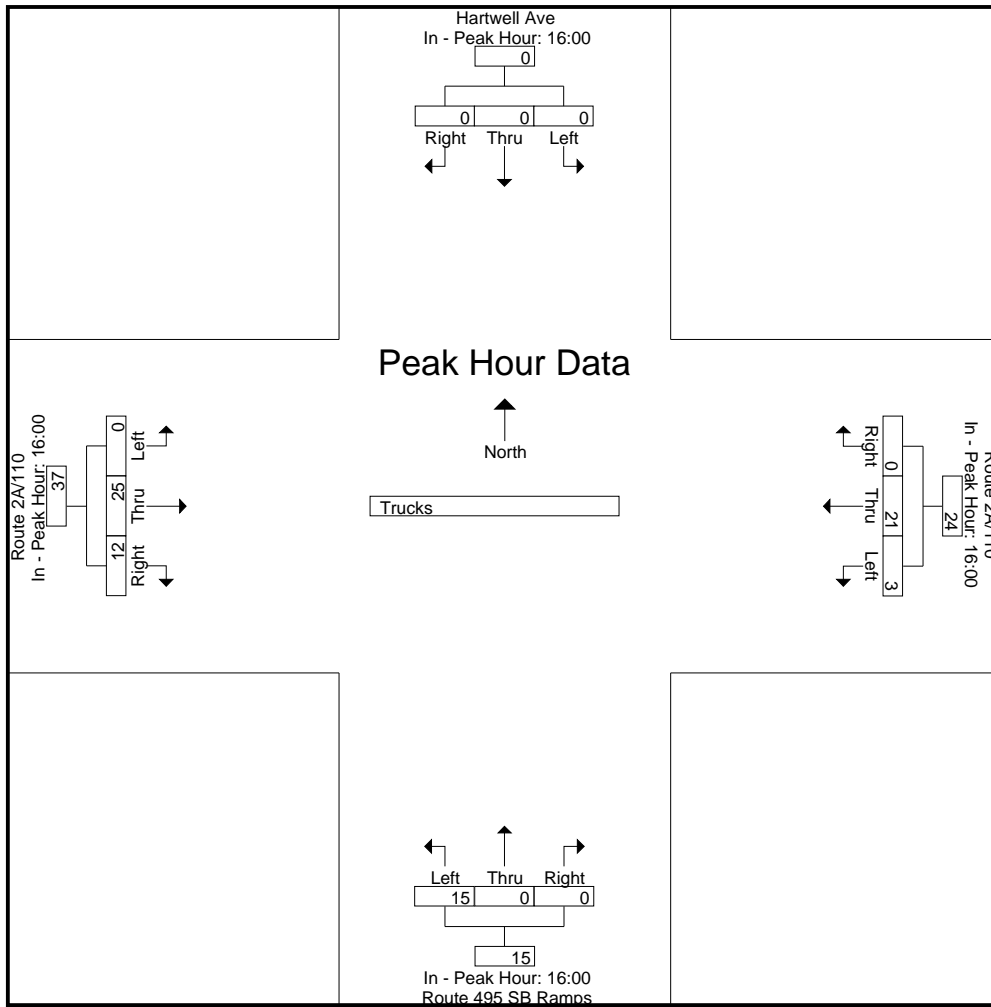




Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:00				16:00							
+0 mins.	0	0	0	0	1	5	0	6	4	0	0	4	0	7	4	11
+15 mins.	0	0	0	0	0	8	0	8	5	0	0	5	0	11	3	14
+30 mins.	0	0	0	0	2	6	0	8	4	0	0	4	0	4	0	4
+45 mins.	0	0	0	0	0	2	0	2	2	0	0	2	0	3	5	8
Total Volume	0	0	0	0	3	21	0	24	15	0	0	15	0	25	12	37
% App. Total	0	0	0	0	12.5	87.5	0		100	0	0		0	67.6	32.4	
PHF	.000	.000	.000	.000	.375	.656	.000	.750	.750	.000	.000	.750	.000	.568	.600	.661



N/S Street : Ayer Road  
 E/W Street: Old Littleton/Still River  
 City/State : Harvard, MA  
 Weather : Clear

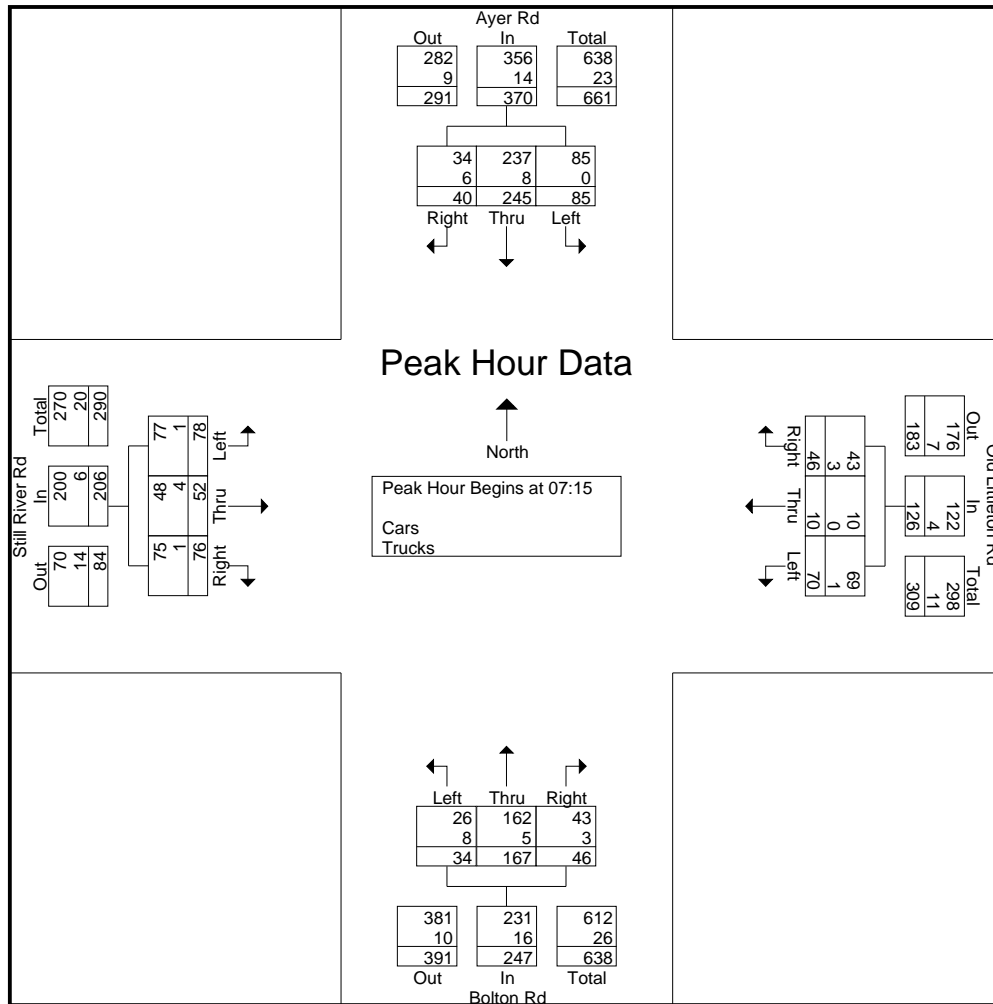
Accurate Counts  
 978-664-2565

File Name : 86525007  
 Site Code : 86525007  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	9	52	4	0	17	4	1	0	6	14	2	0	19	2	13	0	0	143	143
07:15	12	56	5	0	21	2	5	0	3	29	6	0	13	16	18	0	0	186	186
07:30	20	91	8	2	38	2	8	0	9	47	21	0	27	12	26	1	3	309	312
07:45	29	59	9	0	6	2	17	0	16	53	14	0	13	13	12	0	0	243	243
Total	70	258	26	2	82	10	31	0	34	143	43	0	72	43	69	1	3	881	884
08:00	24	39	18	0	5	4	16	0	6	38	5	0	25	11	20	0	0	211	211
08:15	13	44	9	0	4	5	10	0	4	21	3	0	21	14	8	0	0	156	156
08:30	11	53	5	2	23	2	15	2	3	29	13	0	10	12	11	0	4	187	191
08:45	8	68	9	0	24	6	16	0	11	60	19	0	10	7	17	0	0	255	255
Total	56	204	41	2	56	17	57	2	24	148	40	0	66	44	56	0	4	809	813
Grand Total	126	462	67	4	138	27	88	2	58	291	83	0	138	87	125	1	7	1690	1697
Apprch %	19.2	70.5	10.2		54.5	10.7	34.8		13.4	67.4	19.2		39.4	24.9	35.7				
Total %	7.5	27.3	4		8.2	1.6	5.2		3.4	17.2	4.9		8.2	5.1	7.4		0.4	99.6	
Cars	123	444	55		135	27	81		49	277	76		134	79	123		0	0	1610
% Cars	97.6	96.1	82.1	100	97.8	100	92	100	84.5	95.2	91.6	0	97.1	90.8	98.4	100	0	0	94.9
Trucks	3	18	12		3	0	7		9	14	7		4	8	2		0	0	87
% Trucks	2.4	3.9	17.9	0	2.2	0	8	0	15.5	4.8	8.4	0	2.9	9.2	1.6	0	0	0	5.1

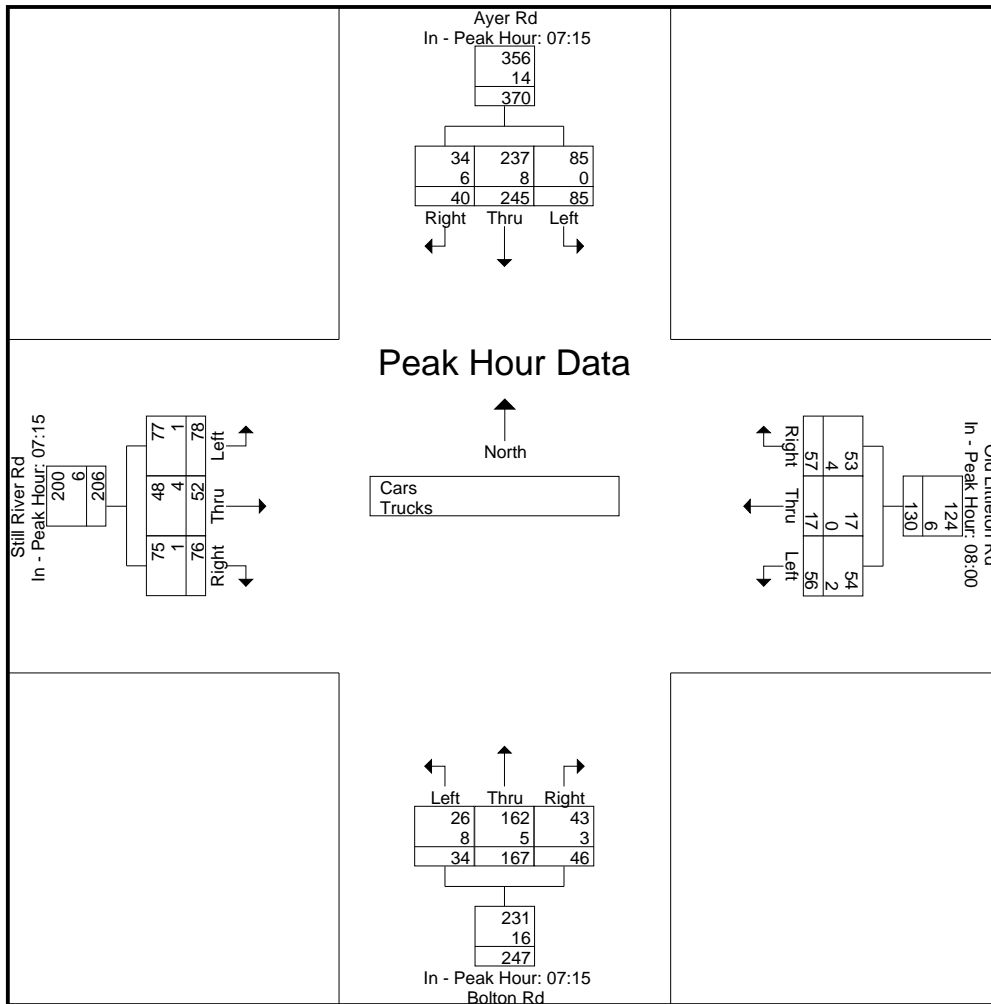
Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	12	56	5	73	21	2	5	28	3	29	6	38	13	16	18	47	186
07:30	20	91	8	119	38	2	8	48	9	47	21	77	27	12	26	65	309
07:45	29	59	9	97	6	2	17	25	16	53	14	83	13	13	12	38	243
08:00	24	39	18	81	5	4	16	25	6	38	5	49	25	11	20	56	211
Total Volume	85	245	40	370	70	10	46	126	34	167	46	247	78	52	76	206	949
% App. Total	23	66.2	10.8		55.6	7.9	36.5		13.8	67.6	18.6		37.9	25.2	36.9		
PHF	.733	.673	.556	.777	.461	.625	.676	.656	.531	.788	.548	.744	.722	.813	.731	.792	.768
Cars	85	237	34	356	69	10	43	122	26	162	43	231	77	48	75	200	909
% Cars	100	96.7	85.0	96.2	98.6	100	93.5	96.8	76.5	97.0	93.5	93.5	98.7	92.3	98.7	97.1	95.8
Trucks	0	8	6	14	1	0	3	4	8	5	3	16	1	4	1	6	40
% Trucks	0	3.3	15.0	3.8	1.4	0	6.5	3.2	23.5	3.0	6.5	6.5	1.3	7.7	1.3	2.9	4.2



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15				08:00				07:15				07:15			
+0 mins.	12	56	5	73	5	4	16	25	3	29	6	38	13	16	18	47
+15 mins.	20	91	8	119	4	5	10	19	9	47	21	77	27	12	26	65
+30 mins.	29	59	9	97	23	2	15	40	16	53	14	83	13	13	12	38
+45 mins.	24	39	18	81	24	6	16	46	6	38	5	49	25	11	20	56
Total Volume	85	245	40	370	56	17	57	130	34	167	46	247	78	52	76	206
% App. Total	23	66.2	10.8		43.1	13.1	43.8		13.8	67.6	18.6		37.9	25.2	36.9	
PHF	.733	.673	.556	.777	.583	.708	.891	.707	.531	.788	.548	.744	.722	.813	.731	.792
Cars	85	237	34	356	54	17	53	124	26	162	43	231	77	48	75	200
% Cars	100	96.7	85	96.2	96.4	100	93	95.4	76.5	97	93.5	93.5	98.7	92.3	98.7	97.1
Trucks	0	8	6	14	2	0	4	6	8	5	3	16	1	4	1	6
% Trucks	0	3.3	15	3.8	3.6	0	7	4.6	23.5	3	6.5	6.5	1.3	7.7	1.3	2.9



N/S Street : Ayer Road  
 E/W Street: Old Littleton/Still River  
 City/State : Harvard, MA  
 Weather : Clear

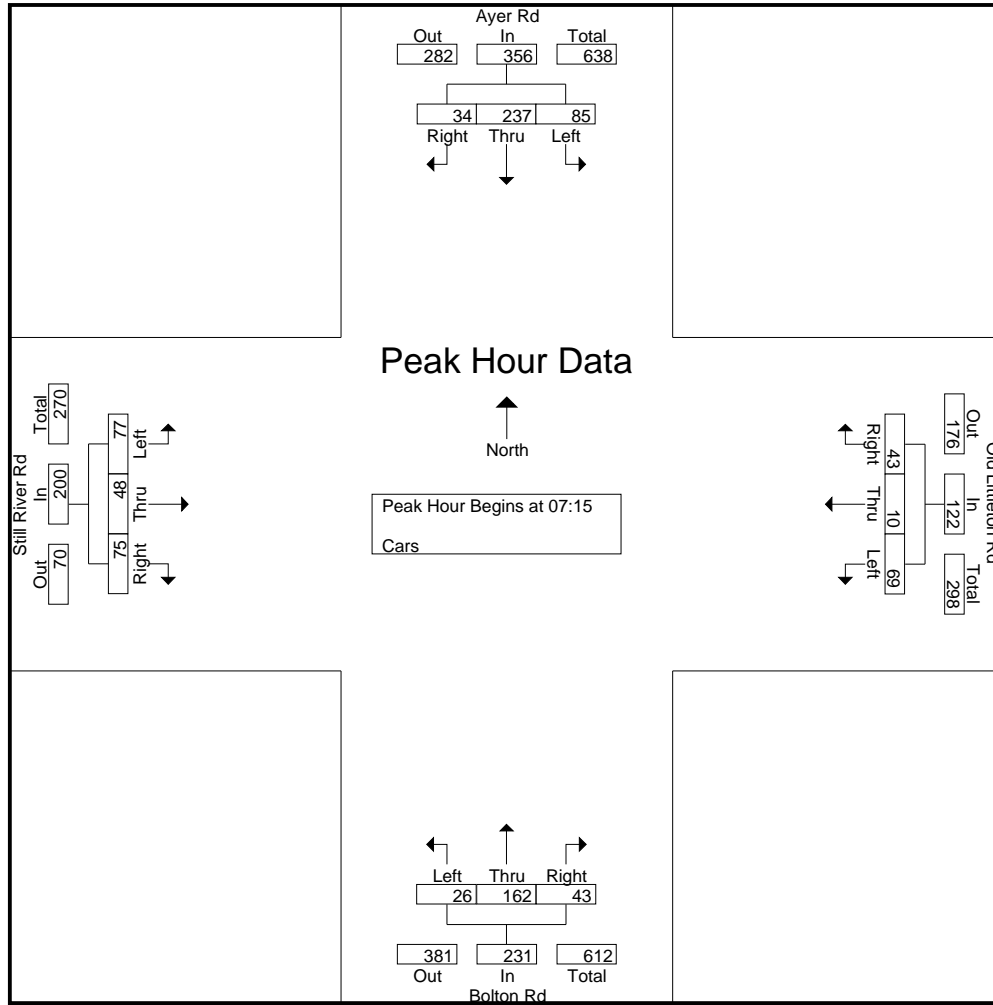
Accurate Counts  
 978-664-2565

File Name : 86525007  
 Site Code : 86525007  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	9	50	3	0	17	4	1	0	6	13	2	0	18	2	13	0	0	138	138
07:15	12	53	5	0	21	2	3	0	3	29	6	0	13	15	18	0	0	180	180
07:30	20	90	7	2	37	2	8	0	6	46	21	0	26	12	26	1	3	301	304
07:45	29	57	7	0	6	2	16	0	13	53	14	0	13	12	11	0	0	233	233
Total	70	250	22	2	81	10	28	0	28	141	43	0	70	41	68	1	3	852	855
08:00	24	37	15	0	5	4	16	0	4	34	2	0	25	9	20	0	0	195	195
08:15	12	39	6	0	2	5	8	0	3	20	2	0	21	14	8	0	0	140	140
08:30	9	52	4	2	23	2	14	2	3	25	11	0	9	9	10	0	4	171	175
08:45	8	66	8	0	24	6	15	0	11	57	18	0	9	6	17	0	0	245	245
Total	53	194	33	2	54	17	53	2	21	136	33	0	64	38	55	0	4	751	755
Grand Total	123	444	55	4	135	27	81	2	49	277	76	0	134	79	123	1	7	1603	1610
Apprch %	19.8	71.4	8.8		55.6	11.1	33.3		12.2	68.9	18.9		39.9	23.5	36.6				
Total %	7.7	27.7	3.4		8.4	1.7	5.1		3.1	17.3	4.7		8.4	4.9	7.7		0.4	99.6	

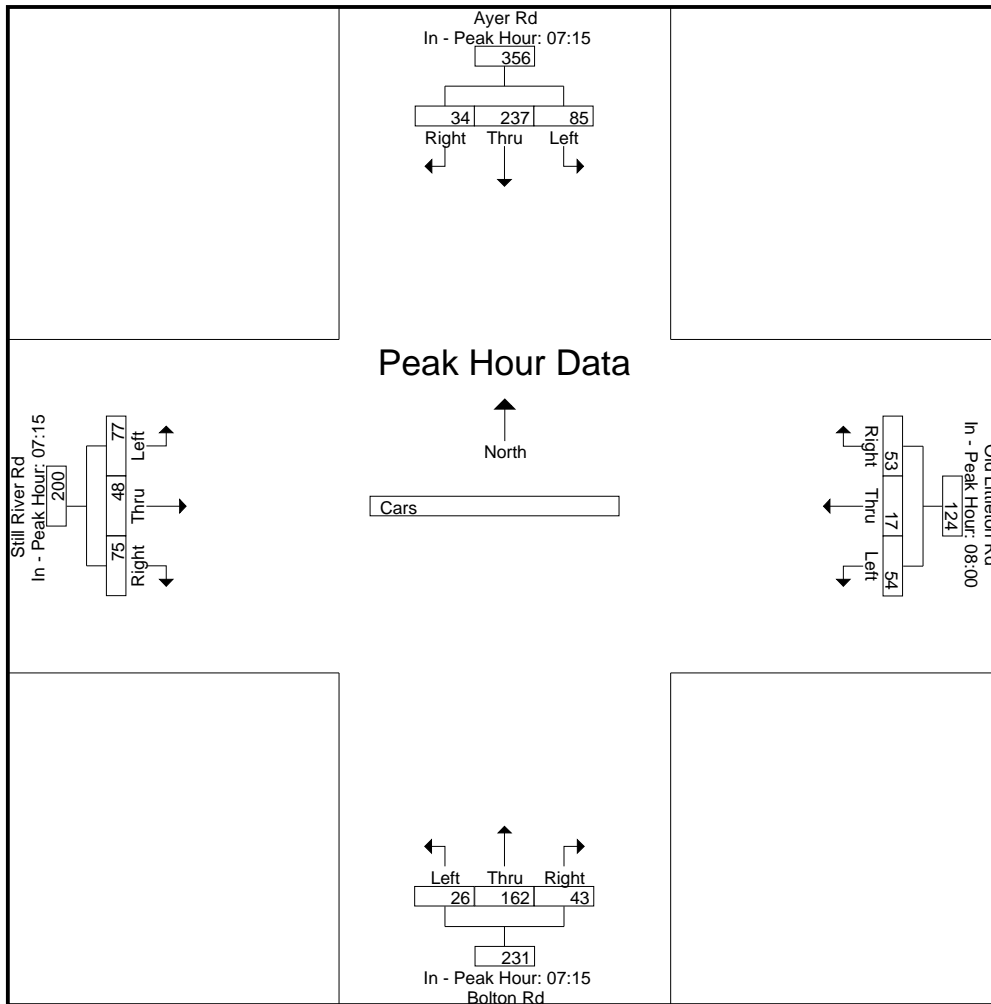
Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	12	53	5	70	21	2	3	26	3	29	6	38	13	15	18	46	180
07:30	20	90	7	117	37	2	8	47	6	46	21	73	26	12	26	64	301
07:45	29	57	7	93	6	2	16	24	13	53	14	80	13	12	11	36	233
08:00	24	37	15	76	5	4	16	25	4	34	2	40	25	9	20	54	195
Total Volume	85	237	34	356	69	10	43	122	26	162	43	231	77	48	75	200	909
% App. Total	23.9	66.6	9.6		56.6	8.2	35.2		11.3	70.1	18.6		38.5	24	37.5		
PHF	.733	.658	.567	.761	.466	.625	.672	.649	.500	.764	.512	.722	.740	.800	.721	.781	.755



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15				08:00				07:15				07:15			
+0 mins.	12	53	5	70	5	4	16	25	3	29	6	38	13	15	18	46
+15 mins.	20	90	7	117	2	5	8	15	6	46	21	73	26	12	26	64
+30 mins.	29	57	7	93	23	2	14	39	13	53	14	80	13	12	11	36
+45 mins.	24	37	15	76	24	6	15	45	4	34	2	40	25	9	20	54
Total Volume	85	237	34	356	54	17	53	124	26	162	43	231	77	48	75	200
% App. Total	23.9	66.6	9.6		43.5	13.7	42.7		11.3	70.1	18.6		38.5	24	37.5	
PHF	.733	.658	.567	.761	.563	.708	.828	.689	.500	.764	.512	.722	.740	.800	.721	.781





N/S Street : Ayer Road  
 E/W Street: Old Littleton/Still River  
 City/State : Harvard, MA  
 Weather : Clear

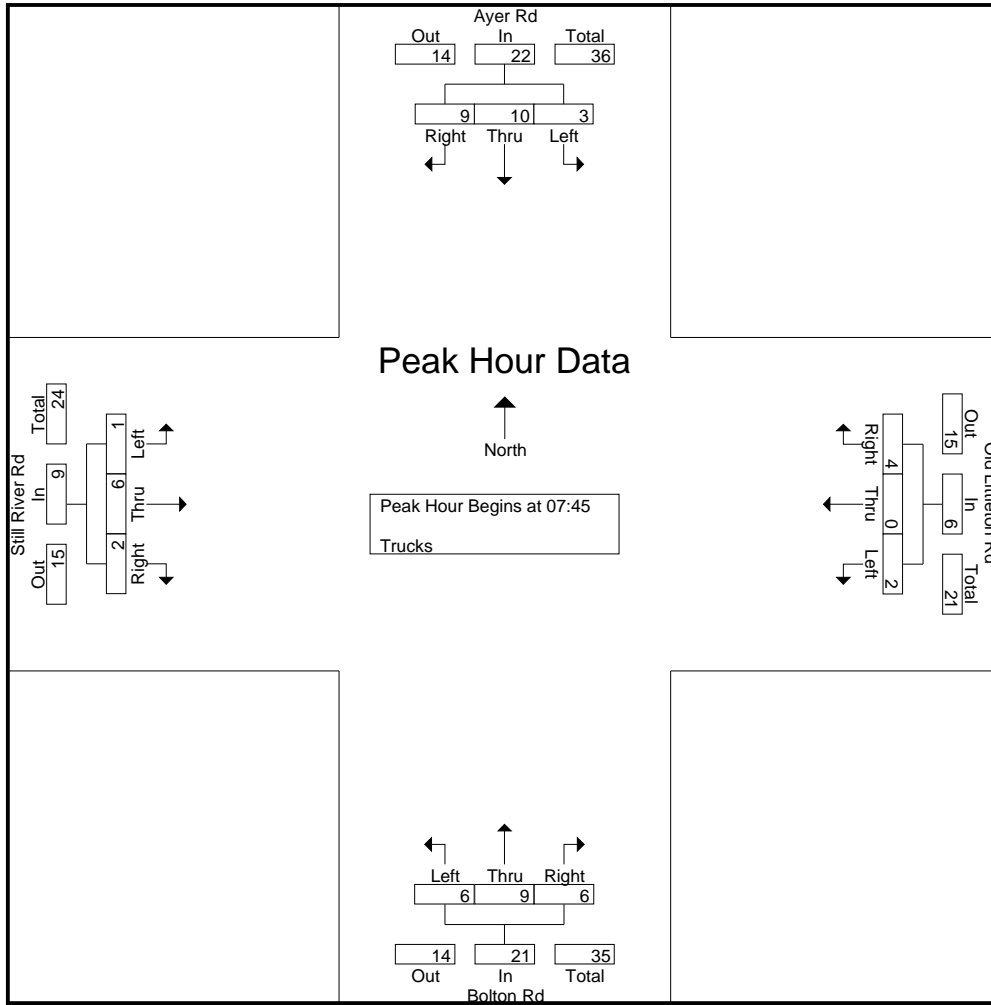
Accurate Counts  
 978-664-2565

File Name : 86525007  
 Site Code : 86525007  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Exclu. Total	Inclu. Total	Int. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
07:00	0	2	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	5	5
07:15	0	3	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	6	6
07:30	0	1	1	0	1	0	0	0	3	1	0	0	1	0	0	0	0	0	8	8
07:45	0	2	2	0	0	0	1	0	3	0	0	0	0	1	1	1	0	0	10	10
Total	0	8	4	0	1	0	3	0	6	2	0	0	2	2	1	0	0	0	29	29
08:00	0	2	3	0	0	0	0	0	2	4	3	0	0	2	0	0	0	0	16	16
08:15	1	5	3	0	2	0	2	0	1	1	1	0	0	0	0	0	0	0	16	16
08:30	2	1	1	0	0	0	1	0	0	4	2	0	1	3	1	0	0	0	16	16
08:45	0	2	1	0	0	0	1	0	0	3	1	0	1	1	0	0	0	0	10	10
Total	3	10	8	0	2	0	4	0	3	12	7	0	2	6	1	0	0	0	58	58
Grand Total	3	18	12	0	3	0	7	0	9	14	7	0	4	8	2	0	0	0	87	87
Apprch %	9.1	54.5	36.4		30	0	70		30	46.7	23.3		28.6	57.1	14.3					
Total %	3.4	20.7	13.8		3.4	0	8		10.3	16.1	8		4.6	9.2	2.3				0	100

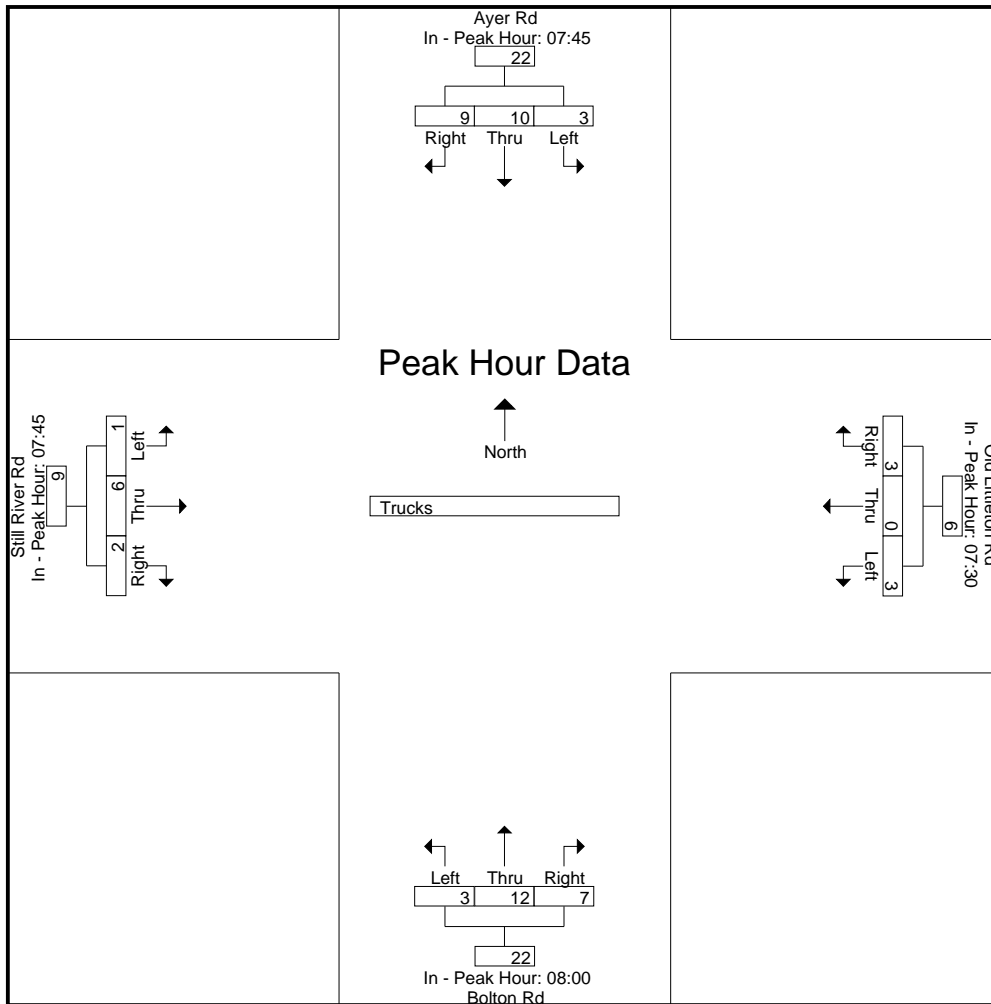
Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	0	2	2	4	0	0	1	1	3	0	0	3	0	1	1	2	10
08:00	0	2	3	5	0	0	0	0	2	4	3	9	0	2	0	2	16
08:15	1	5	3	9	2	0	2	4	1	1	1	3	0	0	0	0	16
08:30	2	1	1	4	0	0	1	1	0	4	2	6	1	3	1	5	16
Total Volume	3	10	9	22	2	0	4	6	6	9	6	21	1	6	2	9	58
% App. Total	13.6	45.5	40.9		33.3	0	66.7		28.6	42.9	28.6		11.1	66.7	22.2		
PHF	.375	.500	.750	.611	.250	.000	.500	.375	.500	.563	.500	.583	.250	.500	.500	.450	.906



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45				07:30				08:00				07:45			
+0 mins.	0	2	2	4	1	0	0	1	2	4	3	9	0	1	1	2
+15 mins.	0	2	3	5	0	0	1	1	1	1	1	3	0	2	0	2
+30 mins.	1	5	3	9	0	0	0	0	0	4	2	6	0	0	0	0
+45 mins.	2	1	1	4	2	0	2	4	0	3	1	4	1	3	1	5
Total Volume	3	10	9	22	3	0	3	6	3	12	7	22	1	6	2	9
% App. Total	13.6	45.5	40.9		50	0	50		13.6	54.5	31.8		11.1	66.7	22.2	
PHF	.375	.500	.750	.611	.375	.000	.375	.375	.375	.750	.583	.611	.250	.500	.500	.450



N/S Street : Ayer Road  
 E/W Street: Old Littleton/Still River  
 City/State : Harvard, MA  
 Weather : Clear

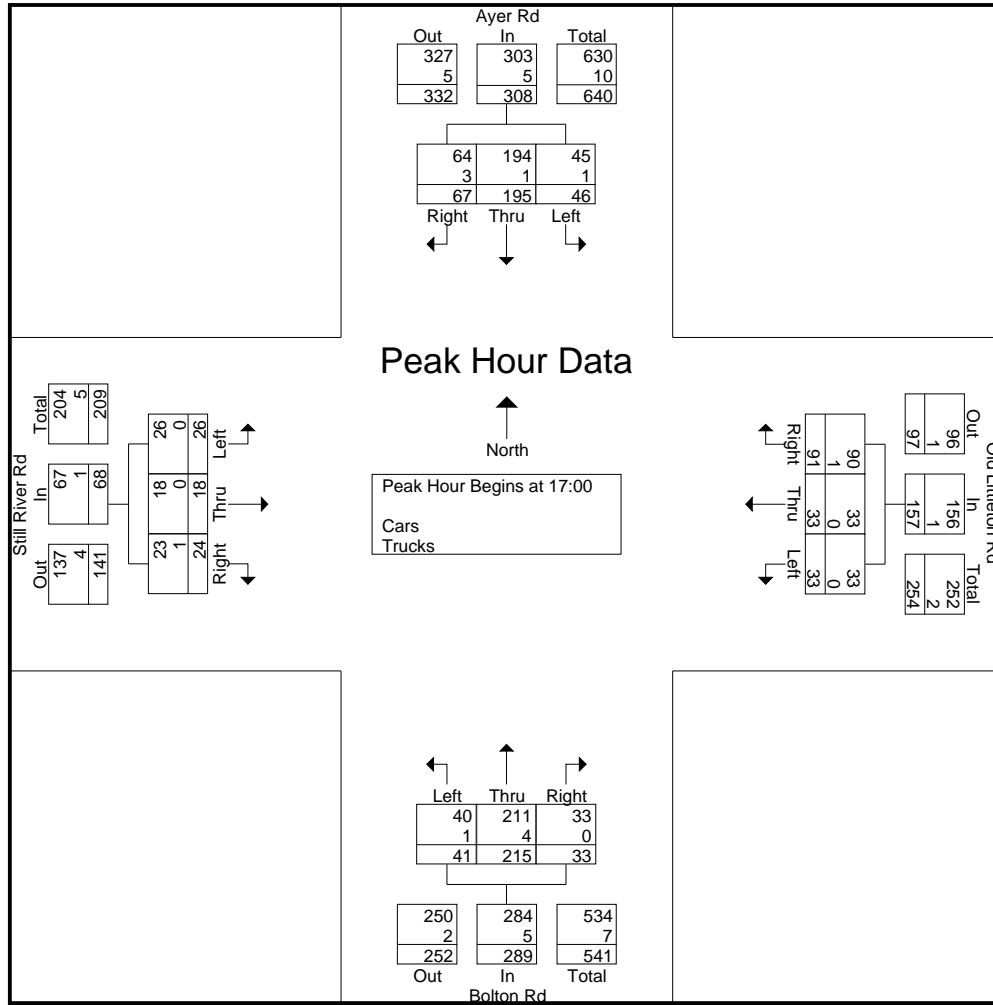
Accurate Counts  
 978-664-2565

File Name : 86525007  
 Site Code : 86525007  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	4	36	14	0	6	5	22	0	11	47	5	0	6	4	8	0	0	168	168
16:15	9	32	14	1	7	5	10	0	8	40	8	0	6	1	8	0	1	148	149
16:30	3	34	12	1	7	4	20	0	15	42	4	0	11	2	8	0	1	162	163
16:45	6	39	13	1	3	8	13	0	5	47	15	0	9	4	2	0	1	164	165
Total	22	141	53	3	23	22	65	0	39	176	32	0	32	11	26	0	3	642	645
17:00	15	44	15	0	3	8	23	2	8	51	4	0	10	1	7	1	3	189	192
17:15	9	54	21	1	10	7	21	0	20	52	15	1	6	5	4	1	3	224	227
17:30	13	58	16	0	8	8	26	0	8	55	11	0	7	8	4	0	0	222	222
17:45	9	39	15	0	12	10	21	1	5	57	3	0	3	4	9	0	1	187	188
Total	46	195	67	1	33	33	91	3	41	215	33	1	26	18	24	2	7	822	829
Grand Total	68	336	120	4	56	55	156	3	80	391	65	1	58	29	50	2	10	1464	1474
Apprch %	13	64.1	22.9		21	20.6	58.4		14.9	72.9	12.1		42.3	21.2	36.5				
Total %	4.6	23	8.2		3.8	3.8	10.7		5.5	26.7	4.4		4	2	3.4		0.7	99.3	
Cars	67	333	115		56	55	155		79	385	64		55	29	44		0	0	1447
% Cars	98.5	99.1	95.8	100	100	100	99.4	100	98.8	98.5	98.5	100	94.8	100	88	100	0	0	98.2
Trucks	1	3	5		0	0	1		1	6	1		3	0	6		0	0	27
% Trucks	1.5	0.9	4.2	0	0	0	0.6	0	1.2	1.5	1.5	0	5.2	0	12	0	0	0	1.8

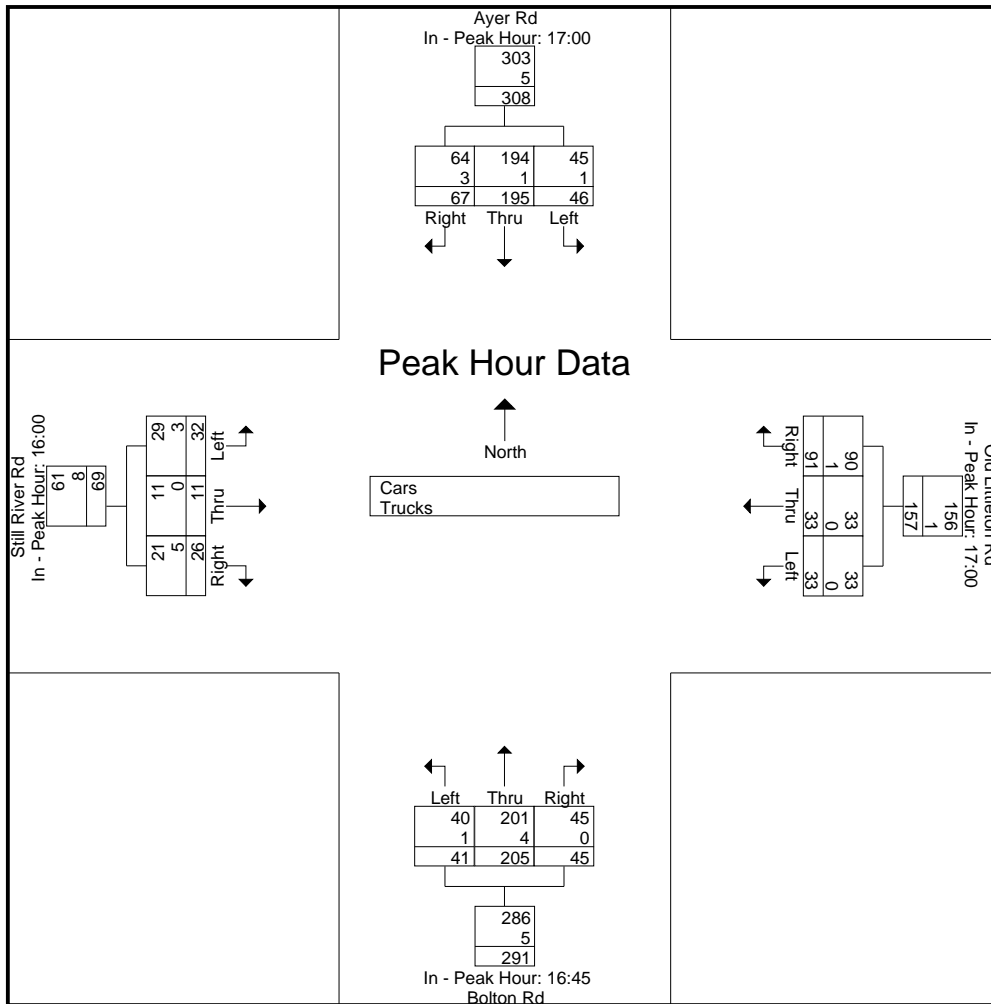
Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 17:00																	
17:00	15	44	15	74	3	8	23	34	8	51	4	63	10	1	7	18	189
17:15	9	54	21	84	10	7	21	38	20	52	15	87	6	5	4	15	224
17:30	13	58	16	87	8	8	26	42	8	55	11	74	7	8	4	19	222
17:45	9	39	15	63	12	10	21	43	5	57	3	65	3	4	9	16	187
Total Volume	46	195	67	308	33	33	91	157	41	215	33	289	26	18	24	68	822
% App. Total	14.9	63.3	21.8		21	21	58		14.2	74.4	11.4		38.2	26.5	35.3		
PHF	.767	.841	.798	.885	.688	.825	.875	.913	.513	.943	.550	.830	.650	.563	.667	.895	.917
Cars	45	194	64	303	33	33	90	156	40	211	33	284	26	18	23	67	810
% Cars	97.8	99.5	95.5	98.4	100	100	98.9	99.4	97.6	98.1	100	98.3	100	100	95.8	98.5	98.5
Trucks	1	1	3	5	0	0	1	1	1	4	0	5	0	0	1	1	12
% Trucks	2.2	0.5	4.5	1.6	0	0	1.1	0.6	2.4	1.9	0	1.7	0	0	4.2	1.5	1.5



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00				17:00				16:45				16:00			
+0 mins.	15	44	15	74	3	8	23	34	5	47	15	67	6	4	8	18
+15 mins.	9	54	21	84	10	7	21	38	8	51	4	63	6	1	8	15
+30 mins.	13	58	16	87	8	8	26	42	20	52	15	87	11	2	8	21
+45 mins.	9	39	15	63	12	10	21	43	8	55	11	74	9	4	2	15
Total Volume	46	195	67	308	33	33	91	157	41	205	45	291	32	11	26	69
% App. Total	14.9	63.3	21.8		21	21	58		14.1	70.4	15.5		46.4	15.9	37.7	
PHF	.767	.841	.798	.885	.688	.825	.875	.913	.513	.932	.750	.836	.727	.688	.813	.821
Cars	45	194	64	303	33	33	90	156	40	201	45	286	29	11	21	61
% Cars	97.8	99.5	95.5	98.4	100	100	98.9	99.4	97.6	98	100	98.3	90.6	100	80.8	88.4
Trucks	1	1	3	5	0	0	1	1	1	4	0	5	3	0	5	8
% Trucks	2.2	0.5	4.5	1.6	0	0	1.1	0.6	2.4	2	0	1.7	9.4	0	19.2	11.6



N/S Street : Ayer Road  
 E/W Street: Old Littleton/Still River  
 City/State : Harvard, MA  
 Weather : Clear

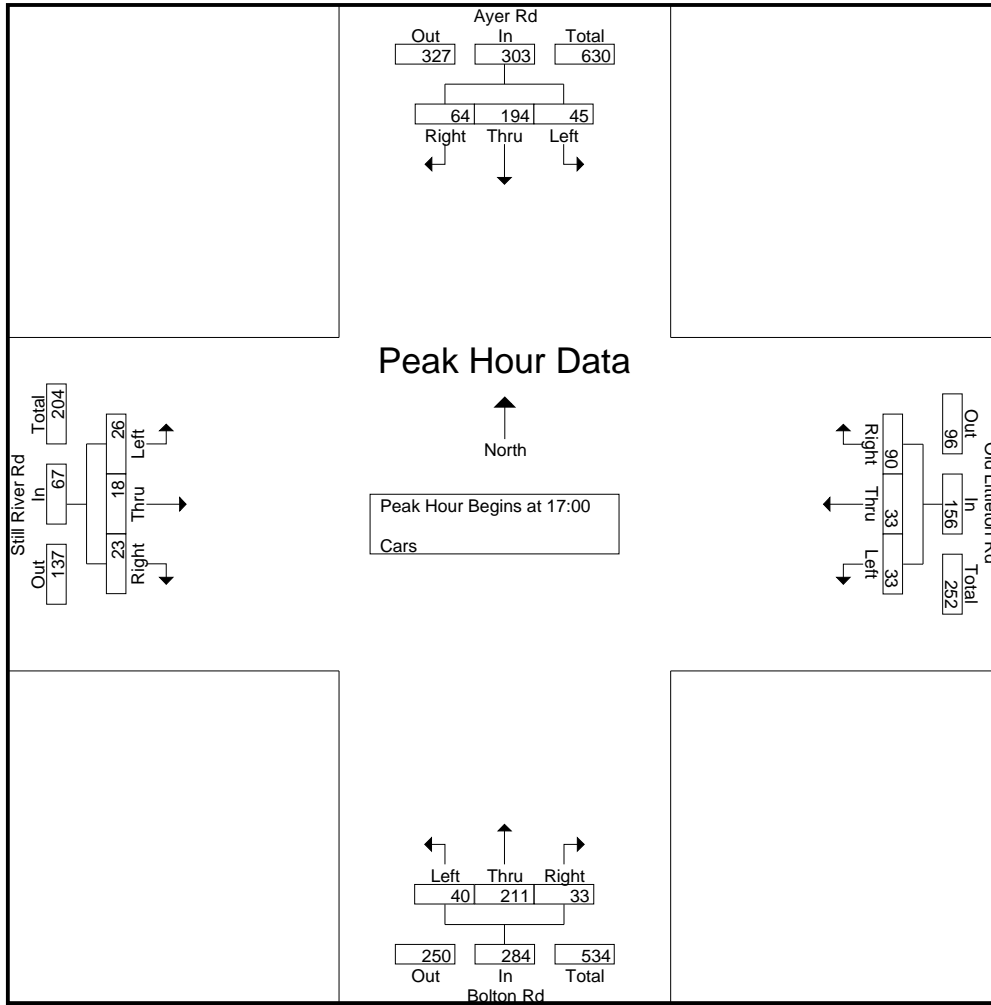
Accurate Counts  
 978-664-2565

File Name : 86525007  
 Site Code : 86525007  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	4	34	13	0	6	5	22	0	11	47	4	0	5	4	5	0	0	160	160
16:15	9	32	13	1	7	5	10	0	8	40	8	0	6	1	8	0	1	147	148
16:30	3	34	12	1	7	4	20	0	15	41	4	0	9	2	6	0	1	157	158
16:45	6	39	13	1	3	8	13	0	5	46	15	0	9	4	2	0	1	163	164
Total	22	139	51	3	23	22	65	0	39	174	31	0	29	11	21	0	3	627	630
17:00	15	44	15	0	3	8	23	2	8	50	4	0	10	1	7	1	3	188	191
17:15	8	54	18	1	10	7	21	0	19	52	15	1	6	5	4	1	3	219	222
17:30	13	58	16	0	8	8	25	0	8	53	11	0	7	8	4	0	0	219	219
17:45	9	38	15	0	12	10	21	1	5	56	3	0	3	4	8	0	1	184	185
Total	45	194	64	1	33	33	90	3	40	211	33	1	26	18	23	2	7	810	817
Grand Total	67	333	115	4	56	55	155	3	79	385	64	1	55	29	44	2	10	1437	1447
Apprch %	13	64.7	22.3		21.1	20.7	58.3		15	72.9	12.1		43	22.7	34.4				
Total %	4.7	23.2	8		3.9	3.8	10.8		5.5	26.8	4.5		3.8	2	3.1		0.7	99.3	

Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 17:00																	
17:00	15	44	15	74	3	8	23	34	8	50	4	62	10	1	7	18	188
17:15	8	54	18	80	10	7	21	38	19	52	15	86	6	5	4	15	219
17:30	13	58	16	87	8	8	25	41	8	53	11	72	7	8	4	19	219
17:45	9	38	15	62	12	10	21	43	5	56	3	64	3	4	8	15	184
Total Volume	45	194	64	303	33	33	90	156	40	211	33	284	26	18	23	67	810
% App. Total	14.9	64	21.1		21.2	21.2	57.7		14.1	74.3	11.6		38.8	26.9	34.3		
PHF	.750	.836	.889	.871	.688	.825	.900	.907	.526	.942	.550	.826	.650	.563	.719	.882	.925

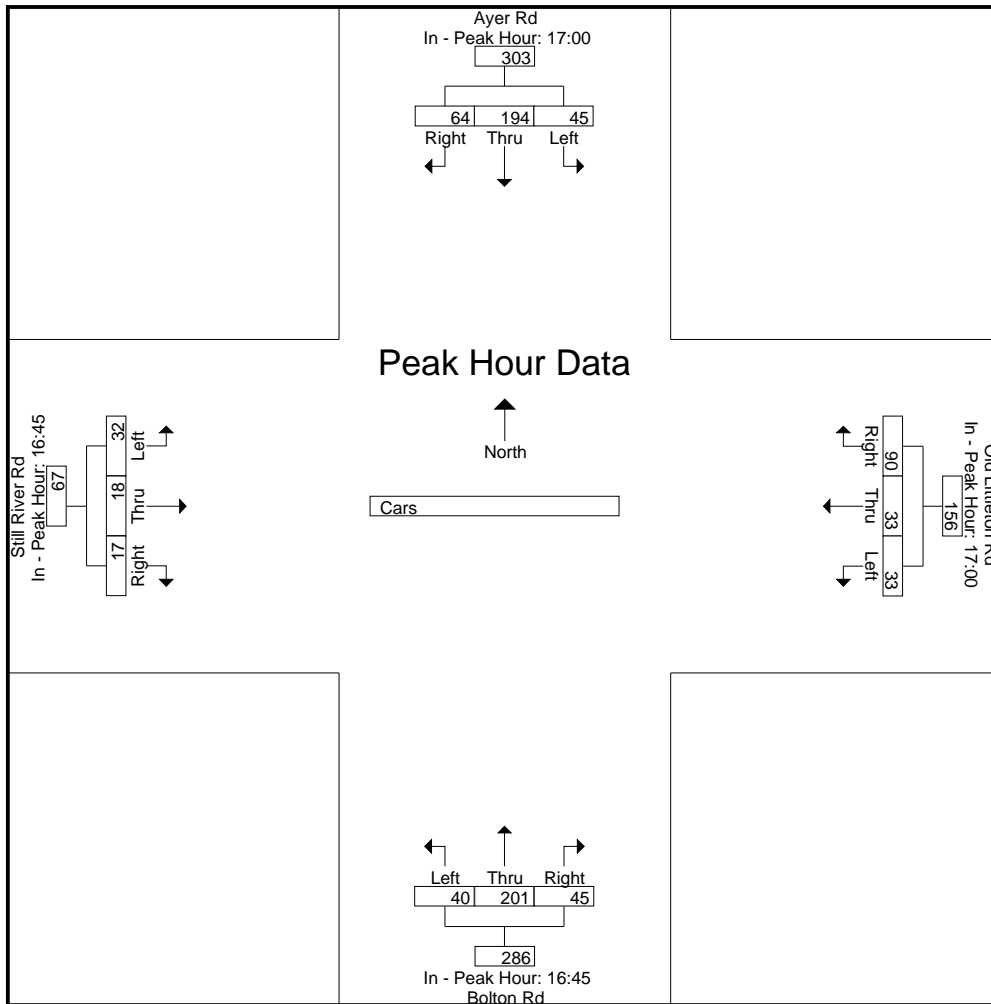


Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00				17:00				16:45				16:45			
+0 mins.	15	44	15	74	3	8	23	34	5	46	15	66	9	4	2	15
+15 mins.	8	54	18	80	10	7	21	38	8	50	4	62	10	1	7	18
+30 mins.	13	58	16	87	8	8	25	41	19	52	15	86	6	5	4	15
+45 mins.	9	38	15	62	12	10	21	43	8	53	11	72	7	8	4	19
Total Volume	45	194	64	303	33	33	90	156	40	201	45	286	32	18	17	67
% App. Total	14.9	64	21.1		21.2	21.2	57.7		14	70.3	15.7		47.8	26.9	25.4	
PHF	.750	.836	.889	.871	.688	.825	.900	.907	.526	.948	.750	.831	.800	.563	.607	.882





N/S Street : Ayer Road  
 E/W Street: Old Littleton/Still River  
 City/State : Harvard, MA  
 Weather : Clear

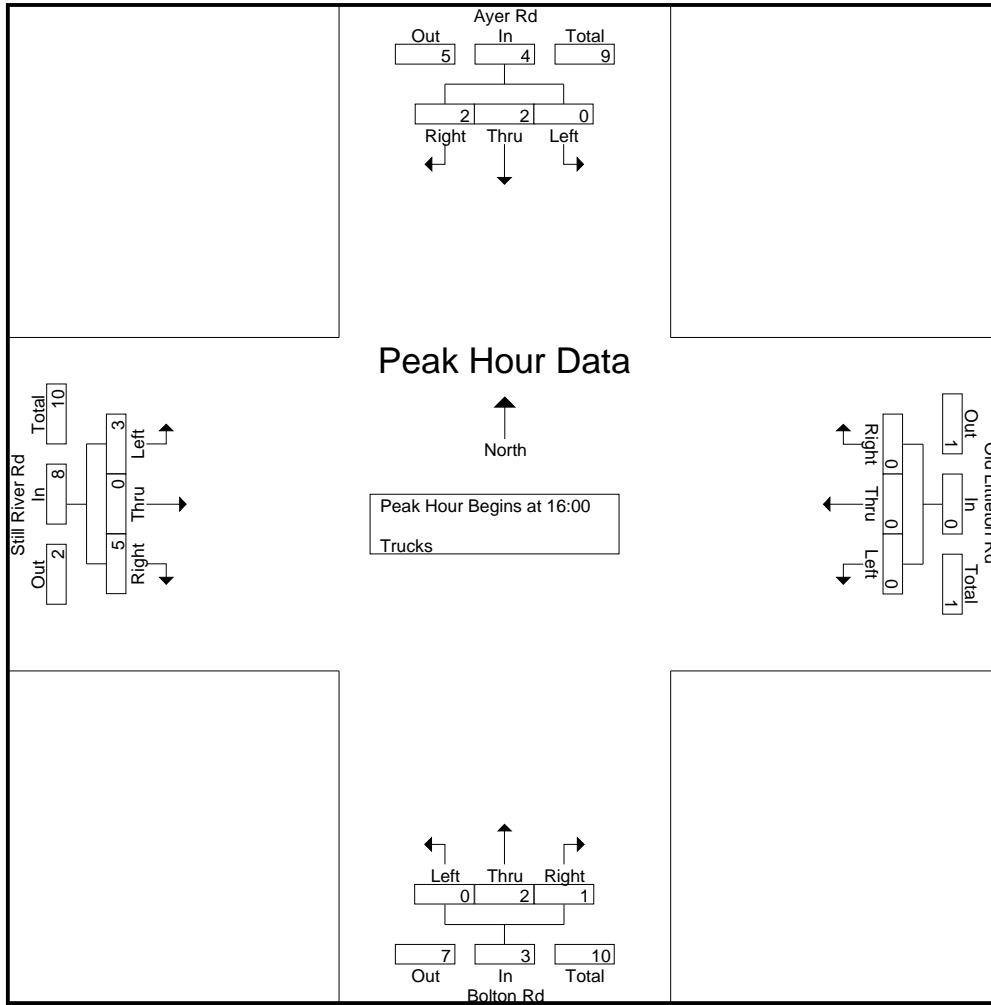
Accurate Counts  
 978-664-2565

File Name : 86525007  
 Site Code : 86525007  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	0	2	1	0	0	0	0	0	0	0	1	0	1	0	3	0	0	8	8
16:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
16:30	0	0	0	0	0	0	0	0	0	1	0	0	2	0	2	0	0	5	5
16:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
Total	0	2	2	0	0	0	0	0	0	2	1	0	3	0	5	0	0	15	15
17:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
17:15	1	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	5
17:30	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	3	3
17:45	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	3	3
Total	1	1	3	0	0	0	1	0	1	4	0	0	0	0	1	0	0	12	12
Grand Total	1	3	5	0	0	0	1	0	1	6	1	0	3	0	6	0	0	27	27
Apprch %	11.1	33.3	55.6		0	0	100		12.5	75	12.5		33.3	0	66.7				
Total %	3.7	11.1	18.5		0	0	3.7		3.7	22.2	3.7		11.1	0	22.2		0	100	

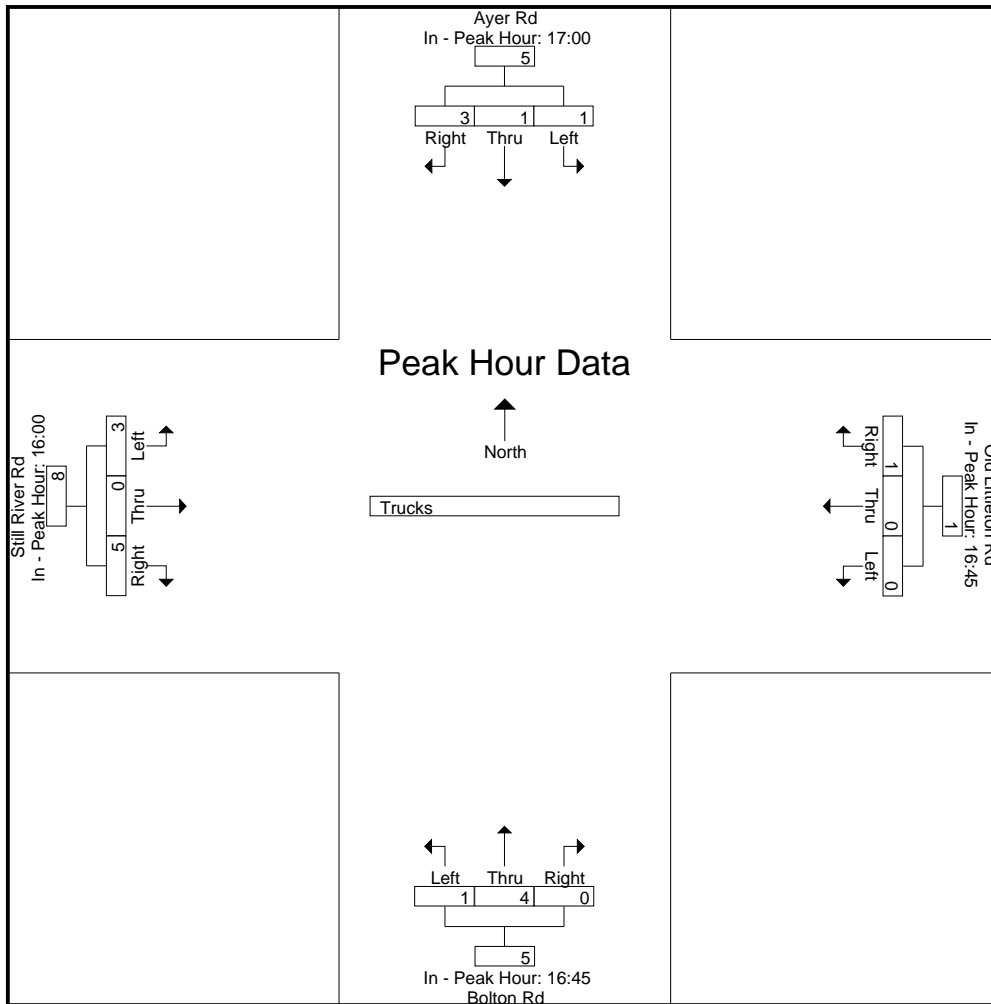
Start Time	Ayer Rd From North				Old Littleton Rd From East				Bolton Rd From South				Still River Rd From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:00																	
16:00	0	2	1	3	0	0	0	0	0	0	1	1	1	0	3	4	8
16:15	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
16:30	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	4	5
16:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	2	2	4	0	0	0	0	0	2	1	3	3	0	5	8	15
% App. Total	0	50	50		0	0	0		0	66.7	33.3		37.5	0	62.5		
PHF	.000	.250	.500	.333	.000	.000	.000	.000	.000	.500	.250	.750	.375	.000	.417	.500	.469



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00				16:45				16:45				16:00			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	1	0	3	4
+15 mins.	1	0	3	4	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	1	2	0	2	4
+45 mins.	0	1	0	1	0	0	1	1	0	2	0	2	0	0	0	0
Total Volume	1	1	3	5	0	0	1	1	1	4	0	5	3	0	5	8
% App. Total	20	20	60		0	0	100		20	80	0		37.5	0	62.5	
PHF	.250	.250	.250	.313	.000	.000	.250	.250	.250	.500	.000	.625	.375	.000	.417	.500



N/S Street : Shirley Rd / Route 70  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

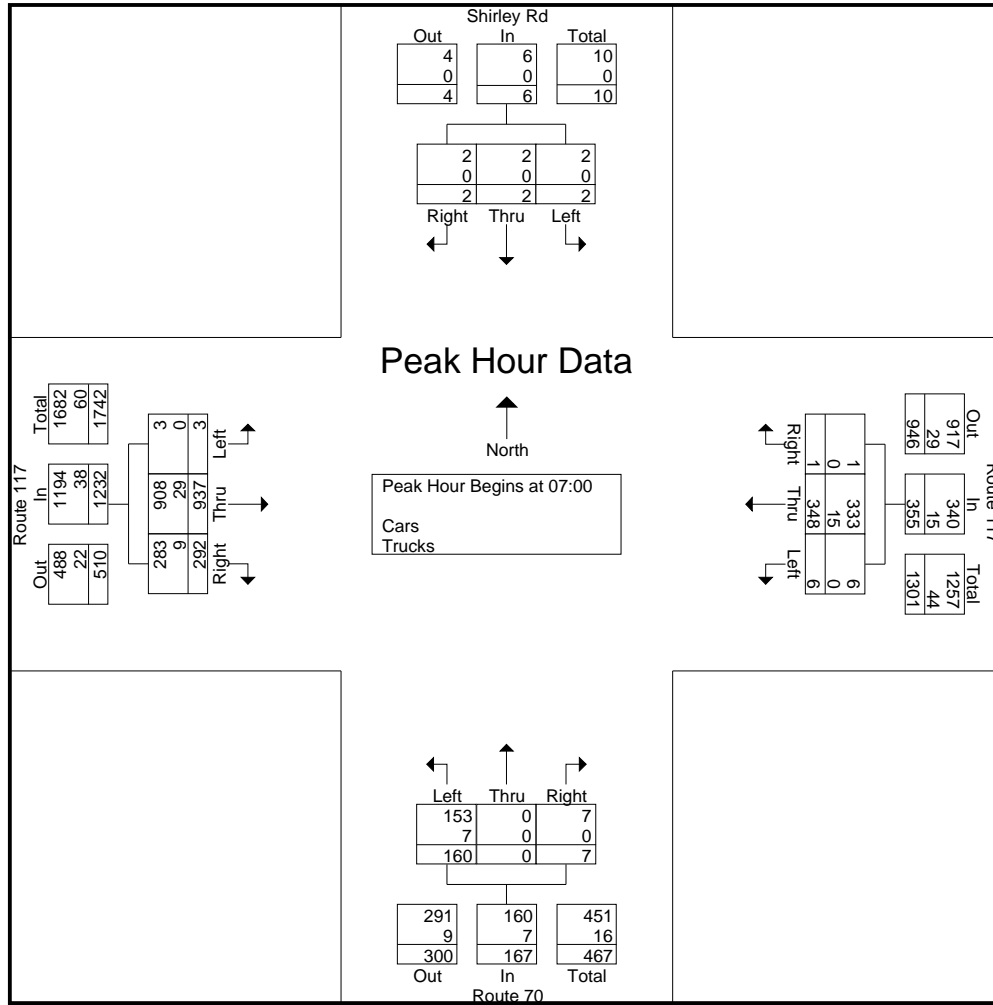
Accurate Counts  
 978-664-2565

File Name : 86525008  
 Site Code : 86525008  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	0	0	1	1	0	85	1	0	24	0	5	0	0	288	14	1	2	418	420
07:15	0	1	0	0	2	77	0	0	34	0	0	0	0	239	91	0	0	444	444
07:30	2	0	1	0	3	116	0	0	59	0	1	0	3	190	89	0	0	464	464
07:45	0	1	0	0	1	70	0	0	43	0	1	0	0	220	98	2	2	434	436
Total	2	2	2	1	6	348	1	0	160	0	7	0	3	937	292	3	4	1760	1764
08:00	1	3	0	0	2	69	0	0	48	1	0	0	0	157	63	0	0	344	344
08:15	0	2	0	0	2	67	2	0	65	0	3	0	0	162	69	2	2	372	374
08:30	2	0	2	0	3	88	0	0	55	0	2	0	0	140	60	0	0	352	352
08:45	1	0	1	0	1	68	0	0	50	1	1	0	1	118	38	0	0	280	280
Total	4	5	3	0	8	292	2	0	218	2	6	0	1	577	230	2	2	1348	1350
Grand Total	6	7	5	1	14	640	3	0	378	2	13	0	4	1514	522	5	6	3108	3114
Apprch %	33.3	38.9	27.8		2.1	97.4	0.5		96.2	0.5	3.3		0.2	74.2	25.6				
Total %	0.2	0.2	0.2		0.5	20.6	0.1		12.2	0.1	0.4		0.1	48.7	16.8		0.2	99.8	
Cars	6	5	5		12	597	2		357	1	12		3	1463	506		0	0	2975
% Cars	100	71.4	100	100	85.7	93.3	66.7	0	94.4	50	92.3	0	75	96.6	96.9	100	0	0	95.5
Trucks	0	2	0		2	43	1		21	1	1		1	51	16		0	0	139
% Trucks	0	28.6	0	0	14.3	6.7	33.3	0	5.6	50	7.7	0	25	3.4	3.1	0	0	0	4.5

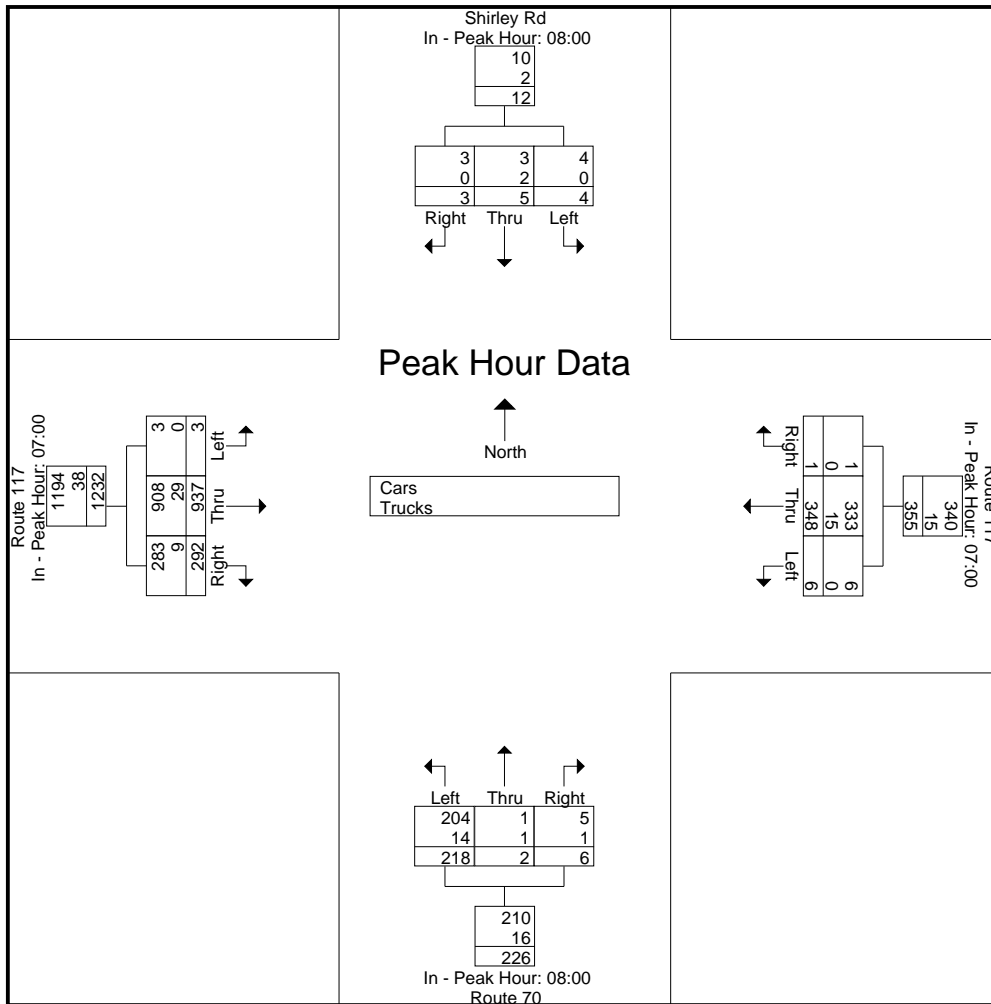
Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00																	
07:00	0	0	1	1	0	85	1	86	24	0	5	29	0	288	14	302	418
07:15	0	1	0	1	2	77	0	79	34	0	0	34	0	239	91	330	444
07:30	2	0	1	3	3	116	0	119	59	0	1	60	3	190	89	282	464
07:45	0	1	0	1	1	70	0	71	43	0	1	44	0	220	98	318	434
Total Volume	2	2	2	6	6	348	1	355	160	0	7	167	3	937	292	1232	1760
% App. Total	33.3	33.3	33.3		1.7	98	0.3		95.8	0	4.2		0.2	76.1	23.7		
PHF	.250	.500	.500	.500	.500	.750	.250	.746	.678	.000	.350	.696	.250	.813	.745	.933	.948
Cars	2	2	2	6	6	333	1	340	153	0	7	160	3	908	283	1194	1700
% Cars	100	100	100	100	100	95.7	100	95.8	95.6	0	100	95.8	100	96.9	96.9	96.9	96.6
Trucks	0	0	0	0	0	15	0	15	7	0	0	7	0	29	9	38	60
% Trucks	0	0	0	0	0	4.3	0	4.2	4.4	0	0	4.2	0	3.1	3.1	3.1	3.4



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00				07:00				08:00				07:00			
+0 mins.	1	3	0	4	0	85	1	86	48	1	0	49	0	288	14	302
+15 mins.	0	2	0	2	2	77	0	79	65	0	3	68	0	239	91	330
+30 mins.	2	0	2	4	3	116	0	119	55	0	2	57	3	190	89	282
+45 mins.	1	0	1	2	1	70	0	71	50	1	1	52	0	220	98	318
Total Volume	4	5	3	12	6	348	1	355	218	2	6	226	3	937	292	1232
% App. Total	33.3	41.7	25		1.7	98	0.3		96.5	0.9	2.7		0.2	76.1	23.7	
PHF	.500	.417	.375	.750	.500	.750	.250	.746	.838	.500	.500	.831	.250	.813	.745	.933
Cars	4	3	3	10	6	333	1	340	204	1	5	210	3	908	283	1194
% Cars	100	60	100	83.3	100	95.7	100	95.8	93.6	50	83.3	92.9	100	96.9	96.9	96.9
Trucks	0	2	0	2	0	15	0	15	14	1	1	16	0	29	9	38
% Trucks	0	40	0	16.7	0	4.3	0	4.2	6.4	50	16.7	7.1	0	3.1	3.1	3.1



N/S Street : Shirley Rd / Route 70  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

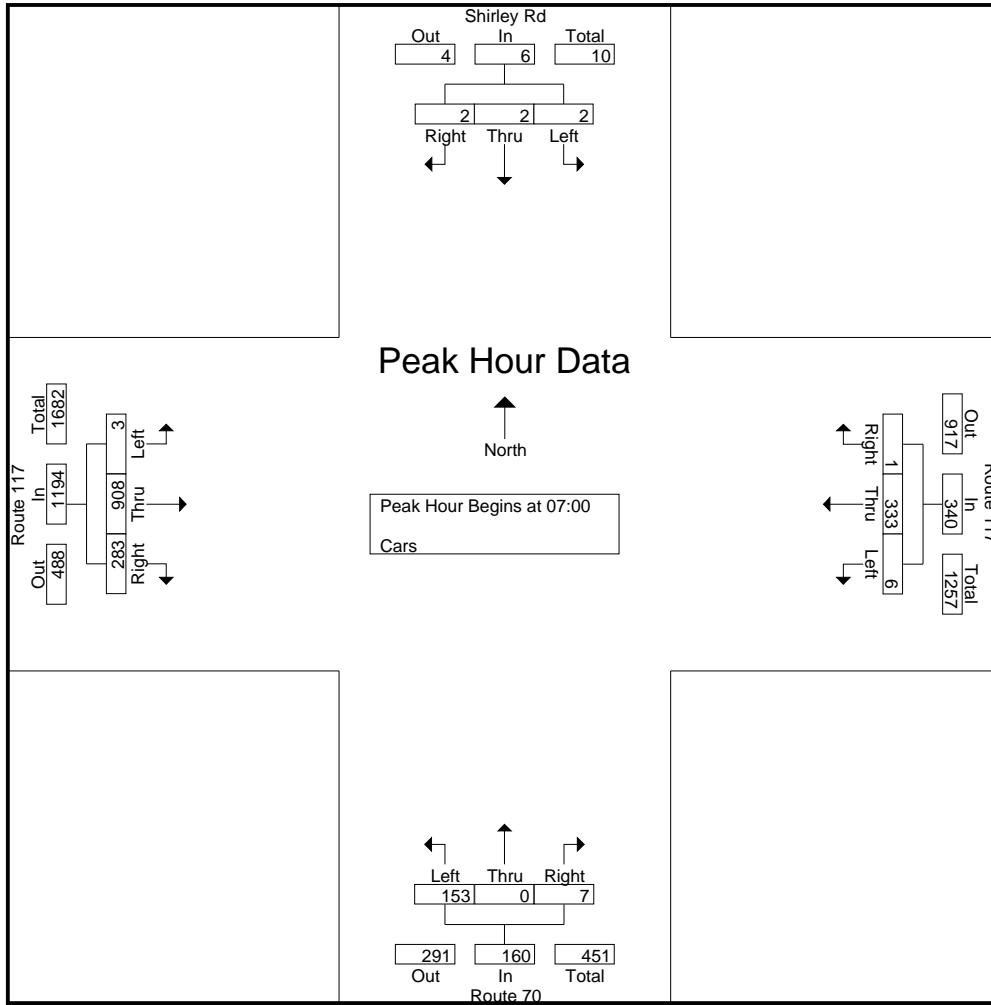
File Name : 86525008  
 Site Code : 86525008  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	0	0	1	1	0	80	1	0	23	0	5	0	0	281	13	1	2	404	406
07:15	0	1	0	0	2	74	0	0	32	0	0	0	0	231	86	0	0	426	426
07:30	2	0	1	0	3	113	0	0	56	0	1	0	3	181	89	0	0	449	449
07:45	0	1	0	0	1	66	0	0	42	0	1	0	0	215	95	2	2	421	423
Total	2	2	2	1	6	333	1	0	153	0	7	0	3	908	283	3	4	1700	1704
08:00	1	1	0	0	2	64	0	0	46	0	0	0	0	152	62	0	0	328	328
08:15	0	2	0	0	0	64	1	0	57	0	2	0	0	158	66	2	2	350	352
08:30	2	0	2	0	3	75	0	0	52	0	2	0	0	135	60	0	0	331	331
08:45	1	0	1	0	1	61	0	0	49	1	1	0	0	110	35	0	0	260	260
Total	4	3	3	0	6	264	1	0	204	1	5	0	0	555	223	2	2	1269	1271
Grand Total	6	5	5	1	12	597	2	0	357	1	12	0	3	1463	506	5	6	2969	2975
Apprch %	37.5	31.2	31.2		2	97.7	0.3		96.5	0.3	3.2		0.2	74.2	25.7				
Total %	0.2	0.2	0.2		0.4	20.1	0.1		12	0	0.4		0.1	49.3	17		0.2	99.8	

Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00																	
07:00	0	0	1	1	0	80	1	81	23	0	5	28	0	281	13	294	404
07:15	0	1	0	1	2	74	0	76	32	0	0	32	0	231	86	317	426
07:30	2	0	1	3	3	113	0	116	56	0	1	57	3	181	89	273	449
07:45	0	1	0	1	1	66	0	67	42	0	1	43	0	215	95	310	421
Total Volume	2	2	2	6	6	333	1	340	153	0	7	160	3	908	283	1194	1700
% App. Total	33.3	33.3	33.3		1.8	97.9	0.3		95.6	0	4.4		0.3	76	23.7		
PHF	.250	.500	.500	.500	.500	.737	.250	.733	.683	.000	.350	.702	.250	.808	.745	.942	.947

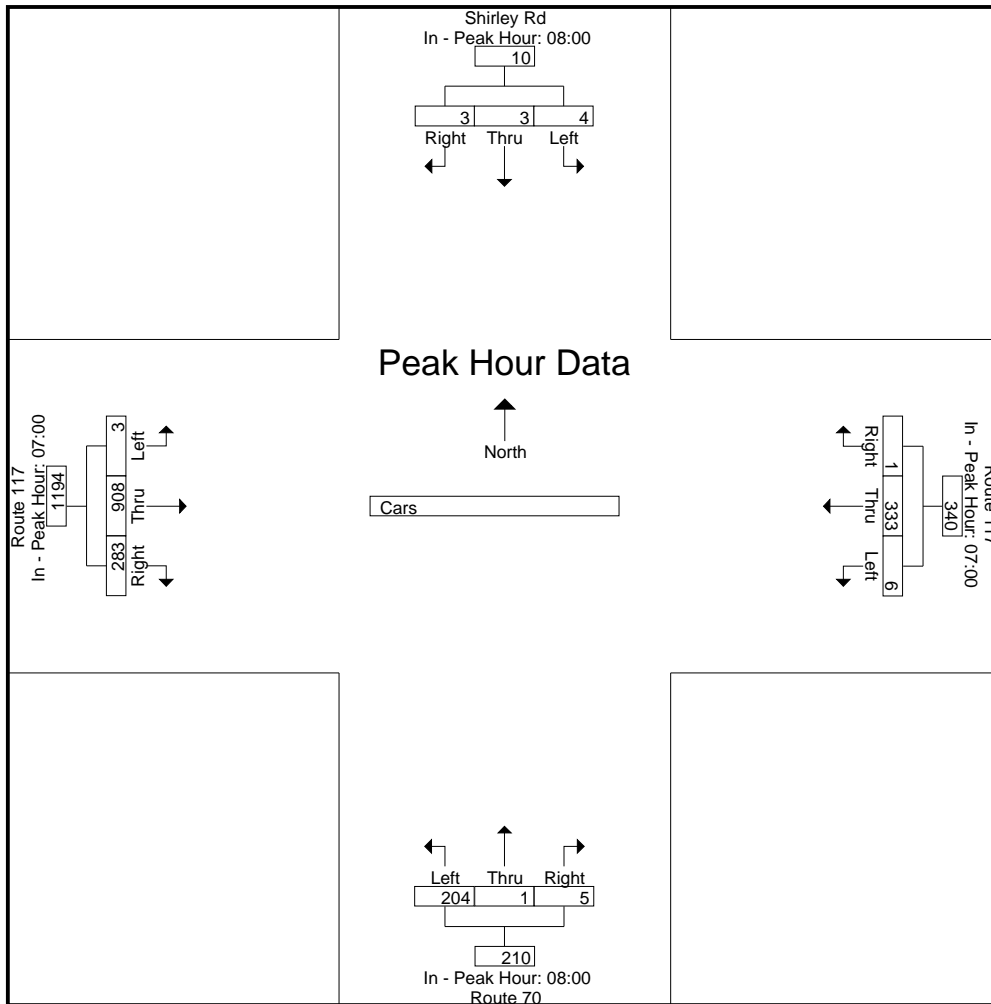




Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00				07:00				08:00				07:00			
+0 mins.	1	1	0	2	0	80	1	81	46	0	0	46	0	281	13	294
+15 mins.	0	2	0	2	2	74	0	76	57	0	2	59	0	231	86	317
+30 mins.	2	0	2	4	3	113	0	116	52	0	2	54	3	181	89	273
+45 mins.	1	0	1	2	1	66	0	67	49	1	1	51	0	215	95	310
Total Volume	4	3	3	10	6	333	1	340	204	1	5	210	3	908	283	1194
% App. Total	40	30	30		1.8	97.9	0.3		97.1	0.5	2.4		0.3	76	23.7	
PHF	.500	.375	.375	.625	.500	.737	.250	.733	.895	.250	.625	.890	.250	.808	.745	.942



N/S Street : Shirley Rd / Route 70  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

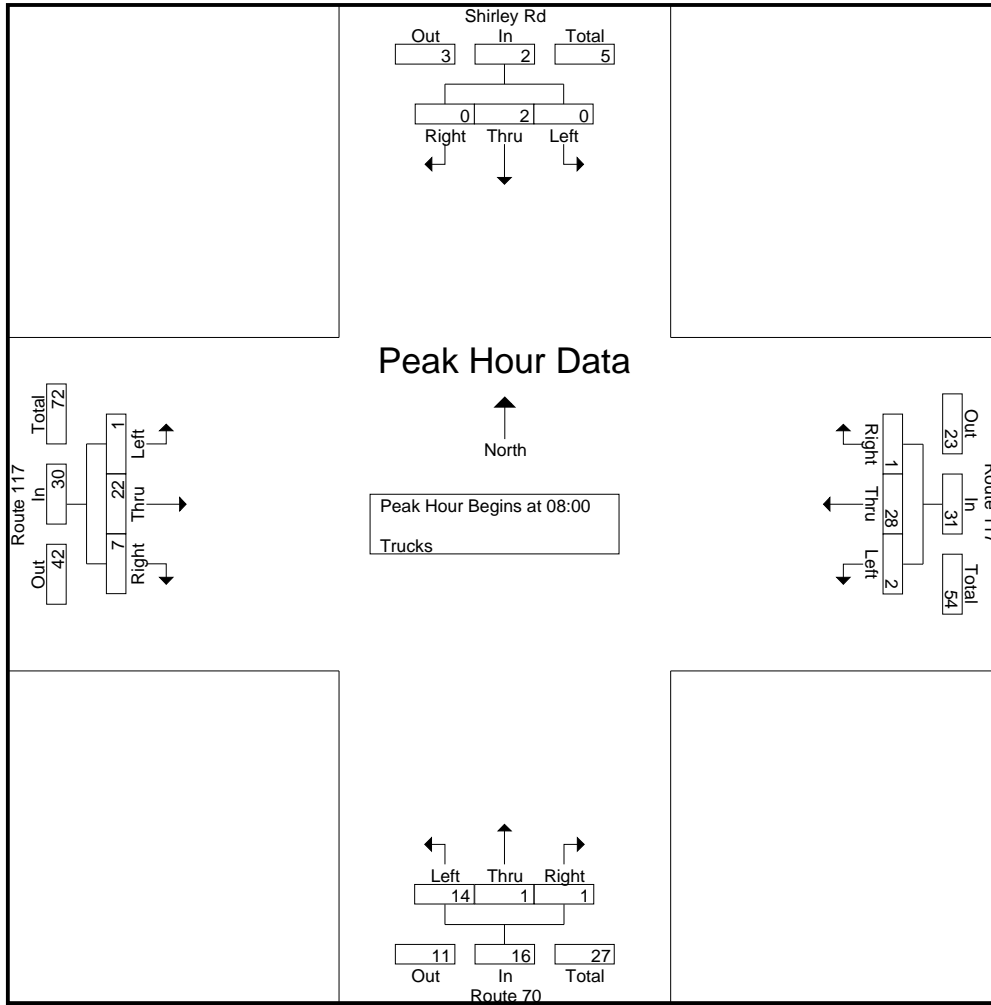
File Name : 86525008  
 Site Code : 86525008  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	0	0	0	0	0	5	0	0	1	0	0	0	0	7	1	0	0	14	14
07:15	0	0	0	0	0	3	0	0	2	0	0	0	0	8	5	0	0	18	18
07:30	0	0	0	0	0	3	0	0	3	0	0	0	0	9	0	0	0	15	15
07:45	0	0	0	0	0	4	0	0	1	0	0	0	0	5	3	0	0	13	13
Total	0	0	0	0	0	15	0	0	7	0	0	0	0	29	9	0	0	60	60
08:00	0	2	0	0	0	5	0	0	2	1	0	0	0	5	1	0	0	16	16
08:15	0	0	0	0	2	3	1	0	8	0	1	0	0	4	3	0	0	22	22
08:30	0	0	0	0	0	13	0	0	3	0	0	0	0	5	0	0	0	21	21
08:45	0	0	0	0	0	7	0	0	1	0	0	0	1	8	3	0	0	20	20
Total	0	2	0	0	2	28	1	0	14	1	1	0	1	22	7	0	0	79	79
Grand Total	0	2	0	0	2	43	1	0	21	1	1	0	1	51	16	0	0	139	139
Apprch %	0	100	0		4.3	93.5	2.2		91.3	4.3	4.3		1.5	75	23.5				
Total %	0	1.4	0		1.4	30.9	0.7		15.1	0.7	0.7		0.7	36.7	11.5		0	100	

Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00	0	2	0	2	0	5	0	5	2	1	0	3	0	5	1	6	16
08:15	0	0	0	0	2	3	1	6	8	0	1	9	0	4	3	7	22
08:30	0	0	0	0	0	13	0	13	3	0	0	3	0	5	0	5	21
08:45	0	0	0	0	0	7	0	7	1	0	0	1	1	8	3	12	20
Total Volume	0	2	0	2	2	28	1	31	14	1	1	16	1	22	7	30	79
% App. Total	0	100	0		6.5	90.3	3.2		87.5	6.2	6.2		3.3	73.3	23.3		
PHF	.000	.250	.000	.250	.250	.538	.250	.596	.438	.250	.250	.444	.250	.688	.583	.625	.898

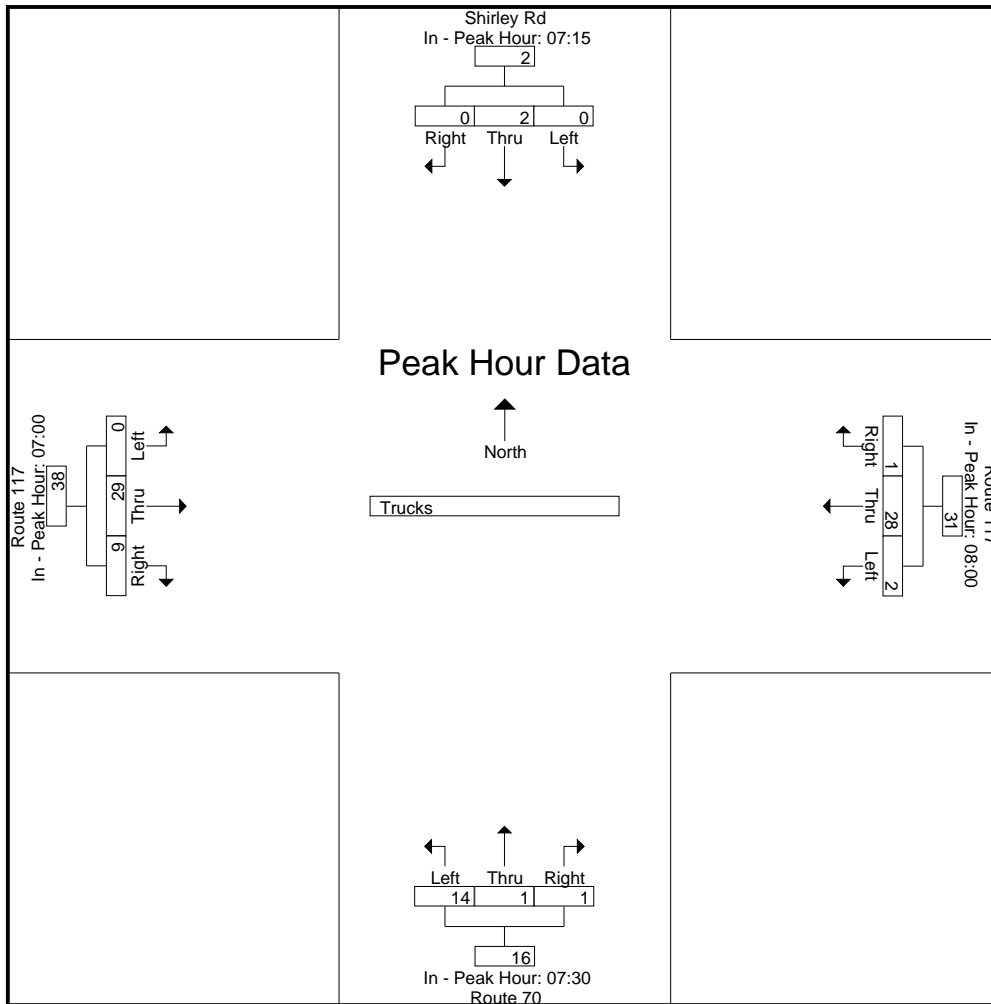
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 08:00



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15				08:00				07:30				07:00			
+0 mins.	0	0	0	0	0	5	0	5	3	0	0	3	0	7	1	8
+15 mins.	0	0	0	0	2	3	1	6	1	0	0	1	0	8	5	13
+30 mins.	0	0	0	0	0	13	0	13	2	1	0	3	0	9	0	9
+45 mins.	0	2	0	2	0	7	0	7	8	0	1	9	0	5	3	8
Total Volume	0	2	0	2	2	28	1	31	14	1	1	16	0	29	9	38
% App. Total	0	100	0	0	6.5	90.3	3.2	100	87.5	6.2	6.2	100	0	76.3	23.7	100
PHF	.000	.250	.000	.250	.250	.538	.250	.596	.438	.250	.250	.444	.000	.806	.450	.731



N/S Street : Shirley Rd / Route 70  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

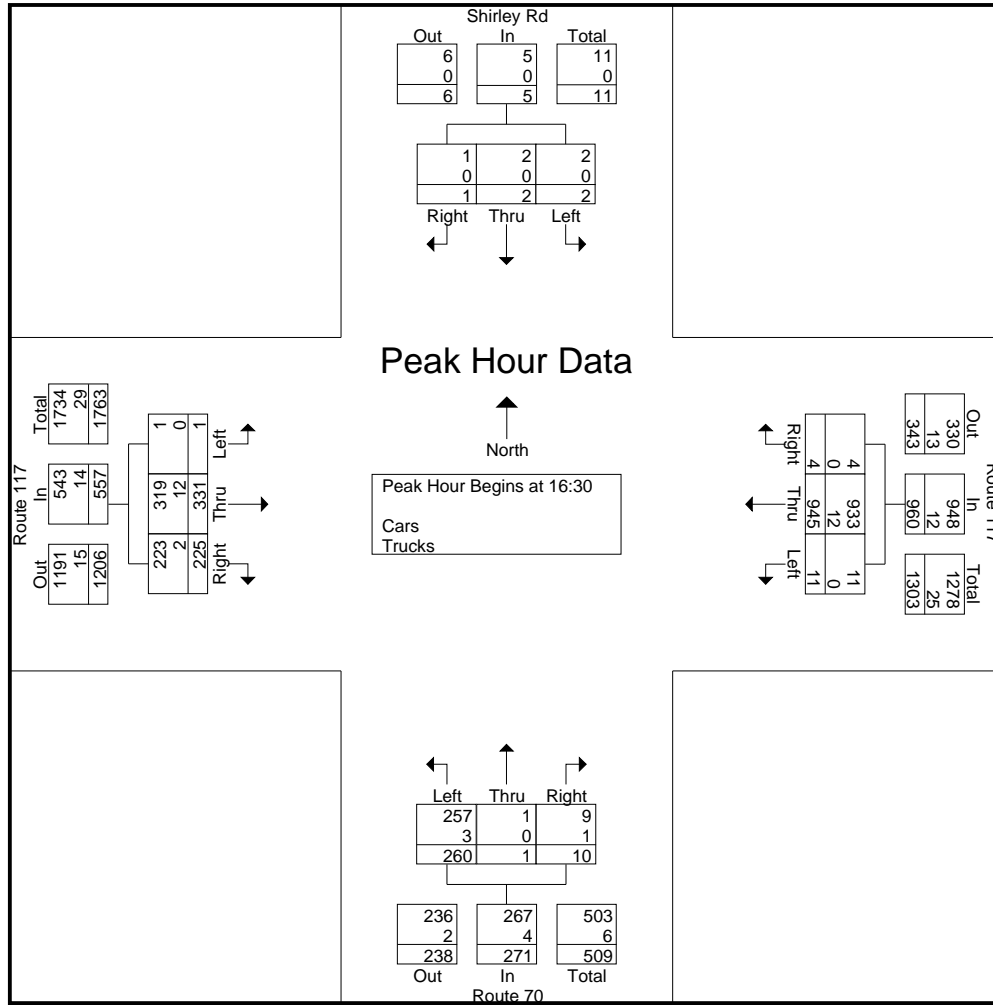
Accurate Counts  
 978-664-2565

File Name : 86525008  
 Site Code : 86525008  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	1	0	1	0	2	213	1	0	62	3	3	0	1	71	55	0	0	413	413
16:15	0	1	0	0	0	212	1	0	82	0	1	0	0	74	59	0	0	430	430
16:30	1	0	0	0	1	267	2	0	58	0	1	0	0	64	53	0	0	447	447
16:45	1	2	1	0	4	247	0	0	61	0	2	0	0	87	53	0	0	458	458
Total	3	3	2	0	7	939	4	0	263	3	7	0	1	296	220	0	0	1748	1748
17:00	0	0	0	0	6	196	1	0	75	1	3	0	0	88	57	1	1	427	428
17:15	0	0	0	0	0	235	1	0	66	0	4	0	1	92	62	0	0	461	461
17:30	0	0	0	0	3	222	1	0	66	1	0	0	2	86	46	0	0	427	427
17:45	1	2	1	0	2	221	0	0	79	0	1	0	2	88	43	0	0	440	440
Total	1	2	1	0	11	874	3	0	286	2	8	0	5	354	208	1	1	1755	1756
Grand Total	4	5	3	0	18	1813	7	0	549	5	15	0	6	650	428	1	1	3503	3504
Apprch %	33.3	41.7	25		1	98.6	0.4		96.5	0.9	2.6		0.6	60	39.5				
Total %	0.1	0.1	0.1		0.5	51.8	0.2		15.7	0.1	0.4		0.2	18.6	12.2		0	100	
Cars	4	5	3		18	1787	7		543	5	14		6	630	425		0	0	3448
% Cars	100	100	100	0	100	98.6	100	0	98.9	100	93.3	0	100	96.9	99.3	100	0	0	98.4
Trucks	0	0	0		0	26	0		6	0	1		0	20	3		0	0	56
% Trucks	0	0	0	0	0	1.4	0	0	1.1	0	6.7	0	0	3.1	0.7	0	0	0	1.6

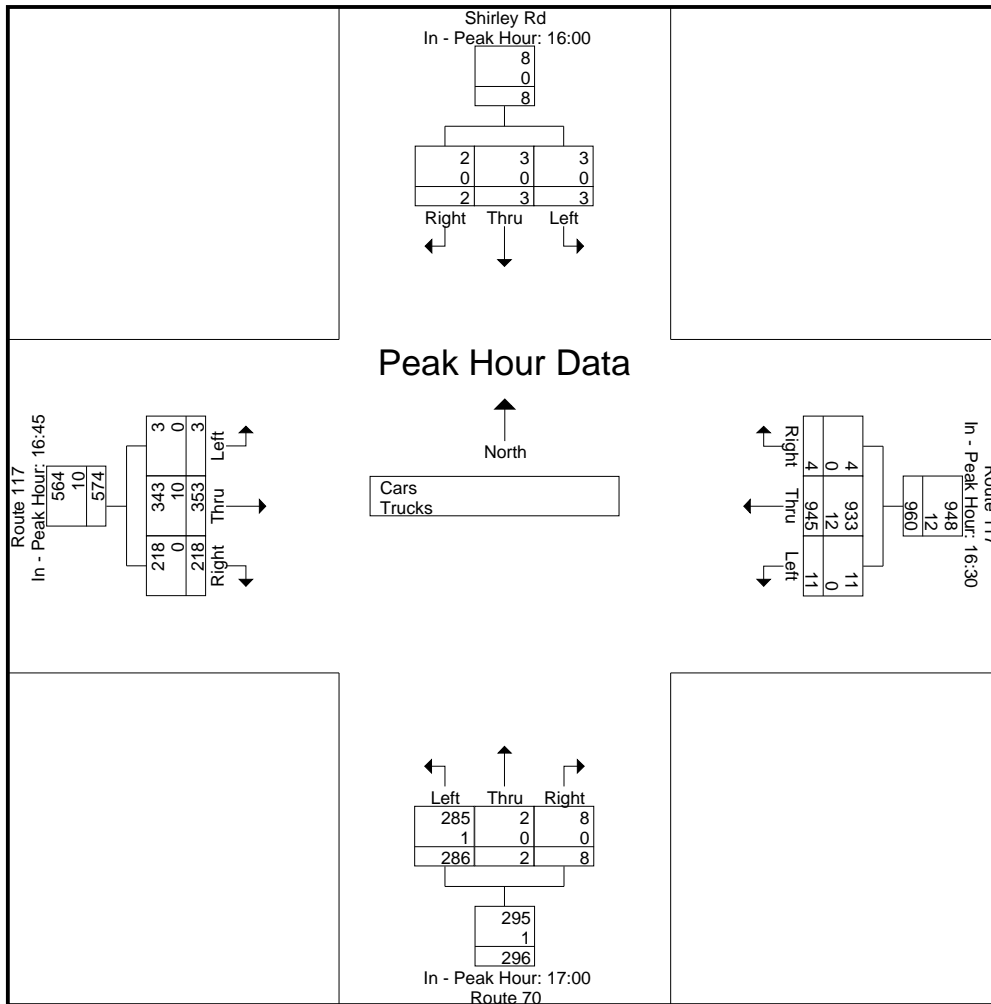
Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	1	0	0	1	1	267	2	270	58	0	1	59	0	64	53	117	447
16:45	1	2	1	4	4	247	0	251	61	0	2	63	0	87	53	140	458
17:00	0	0	0	0	6	196	1	203	75	1	3	79	0	88	57	145	427
17:15	0	0	0	0	0	235	1	236	66	0	4	70	1	92	62	155	461
Total Volume	2	2	1	5	11	945	4	960	260	1	10	271	1	331	225	557	1793
% App. Total	40	40	20		1.1	98.4	0.4		95.9	0.4	3.7		0.2	59.4	40.4		
PHF	.500	.250	.250	.313	.458	.885	.500	.889	.867	.250	.625	.858	.250	.899	.907	.898	.972
Cars	2	2	1	5	11	933	4	948	257	1	9	267	1	319	223	543	1763
% Cars	100	100	100	100	100	98.7	100	98.8	98.8	100	90.0	98.5	100	96.4	99.1	97.5	98.3
Trucks	0	0	0	0	0	12	0	12	3	0	1	4	0	12	2	14	30
% Trucks	0	0	0	0	0	1.3	0	1.3	1.2	0	10.0	1.5	0	3.6	0.9	2.5	1.7



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:30				17:00				16:45			
+0 mins.	1	0	1	2	1	267	2	270	75	1	3	79	0	87	53	140
+15 mins.	0	1	0	1	4	247	0	251	66	0	4	70	0	88	57	145
+30 mins.	1	0	0	1	6	196	1	203	66	1	0	67	1	92	62	155
+45 mins.	1	2	1	4	0	235	1	236	79	0	1	80	2	86	46	134
Total Volume	3	3	2	8	11	945	4	960	286	2	8	296	3	353	218	574
% App. Total	37.5	37.5	25		1.1	98.4	0.4		96.6	0.7	2.7		0.5	61.5	38	
PHF	.750	.375	.500	.500	.458	.885	.500	.889	.905	.500	.500	.925	.375	.959	.879	.926
Cars	3	3	2	8	11	933	4	948	285	2	8	295	3	343	218	564
% Cars	100	100	100	100	100	98.7	100	98.8	99.7	100	100	99.7	100	97.2	100	98.3
Trucks	0	0	0	0	0	12	0	12	1	0	0	1	0	10	0	10
% Trucks	0	0	0	0	0	1.3	0	1.2	0.3	0	0	0.3	0	2.8	0	1.7





N/S Street : Shirley Rd / Route 70  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

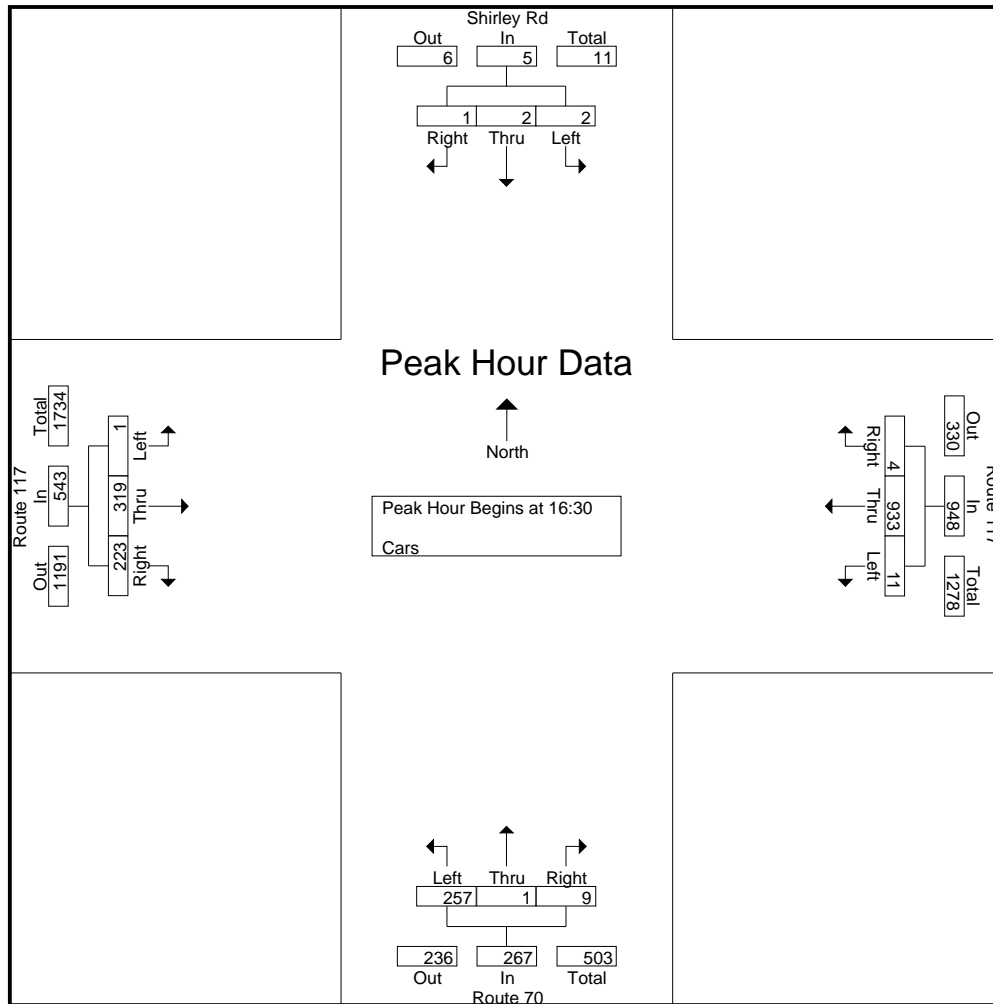
Accurate Counts  
 978-664-2565

File Name : 86525008  
 Site Code : 86525008  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	1	0	1	0	2	205	1	0	61	3	3	0	1	68	55	0	0	401	401
16:15	0	1	0	0	0	211	1	0	80	0	1	0	0	70	58	0	0	422	422
16:30	1	0	0	0	1	262	2	0	58	0	0	0	0	62	51	0	0	437	437
16:45	1	2	1	0	4	244	0	0	59	0	2	0	0	85	53	0	0	451	451
Total	3	3	2	0	7	922	4	0	258	3	6	0	1	285	217	0	0	1711	1711
17:00	0	0	0	0	6	196	1	0	74	1	3	0	0	82	57	1	1	420	421
17:15	0	0	0	0	0	231	1	0	66	0	4	0	1	90	62	0	0	455	455
17:30	0	0	0	0	3	222	1	0	66	1	0	0	2	86	46	0	0	427	427
17:45	1	2	1	0	2	216	0	0	79	0	1	0	2	87	43	0	0	434	434
Total	1	2	1	0	11	865	3	0	285	2	8	0	5	345	208	1	1	1736	1737
Grand Total	4	5	3	0	18	1787	7	0	543	5	14	0	6	630	425	1	1	3447	3448
Apprch %	33.3	41.7	25		1	98.6	0.4		96.6	0.9	2.5		0.6	59.4	40.1				
Total %	0.1	0.1	0.1		0.5	51.8	0.2		15.8	0.1	0.4		0.2	18.3	12.3		0	100	

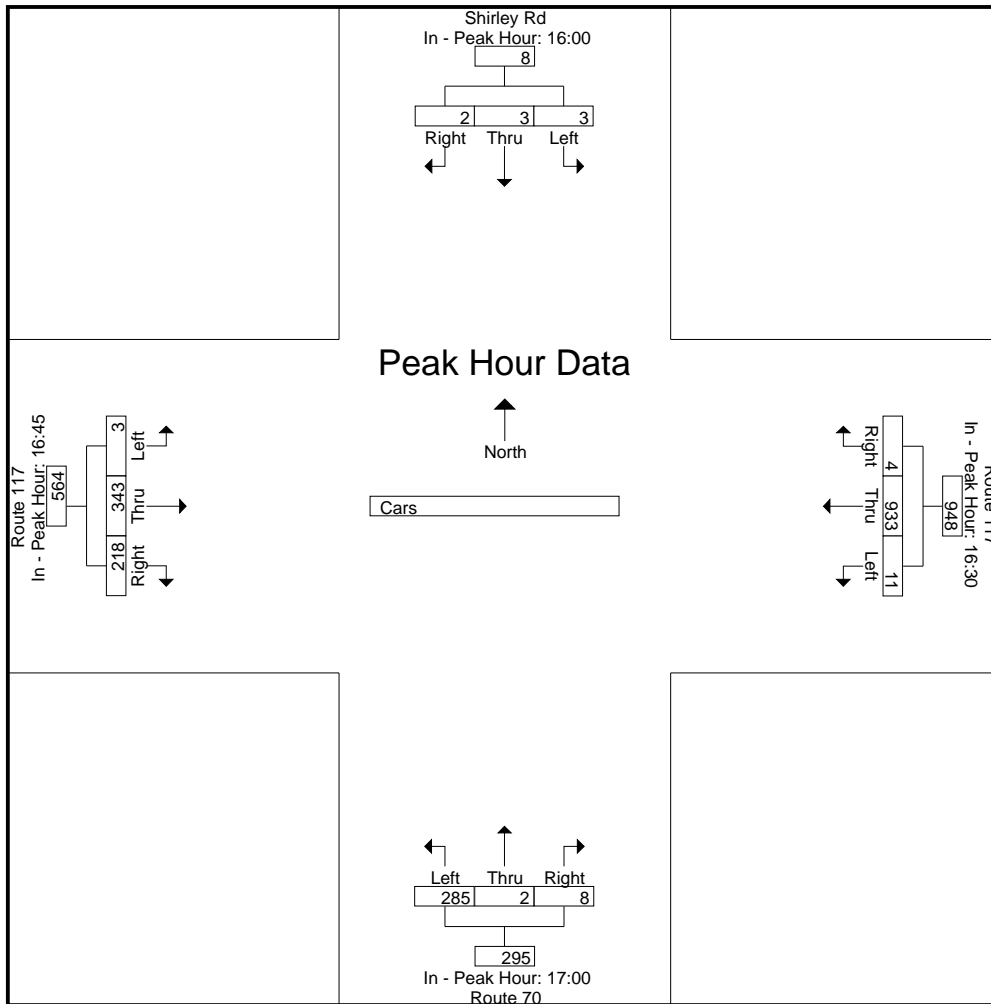
Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	1	0	0	1	1	262	2	265	58	0	0	58	0	62	51	113	437
16:45	1	2	1	4	4	244	0	248	59	0	2	61	0	85	53	138	451
17:00	0	0	0	0	6	196	1	203	74	1	3	78	0	82	57	139	420
17:15	0	0	0	0	0	231	1	232	66	0	4	70	1	90	62	153	455
Total Volume	2	2	1	5	11	933	4	948	257	1	9	267	1	319	223	543	1763
% App. Total	40	40	20		1.2	98.4	0.4		96.3	0.4	3.4		0.2	58.7	41.1		
PHF	.500	.250	.250	.313	.458	.890	.500	.894	.868	.250	.563	.856	.250	.886	.899	.887	.969



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:30				17:00				16:45			
+0 mins.	1	0	1	2	1	262	2	265	74	1	3	78	0	85	53	138
+15 mins.	0	1	0	1	4	244	0	248	66	0	4	70	0	82	57	139
+30 mins.	1	0	0	1	6	196	1	203	66	1	0	67	1	90	62	153
+45 mins.	1	2	1	4	0	231	1	232	79	0	1	80	2	86	46	134
Total Volume	3	3	2	8	11	933	4	948	285	2	8	295	3	343	218	564
% App. Total	37.5	37.5	25		1.2	98.4	0.4		96.6	0.7	2.7		0.5	60.8	38.7	
PHF	.750	.375	.500	.500	.458	.890	.500	.894	.902	.500	.500	.922	.375	.953	.879	.922



N/S Street : Shirley Rd / Route 70  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

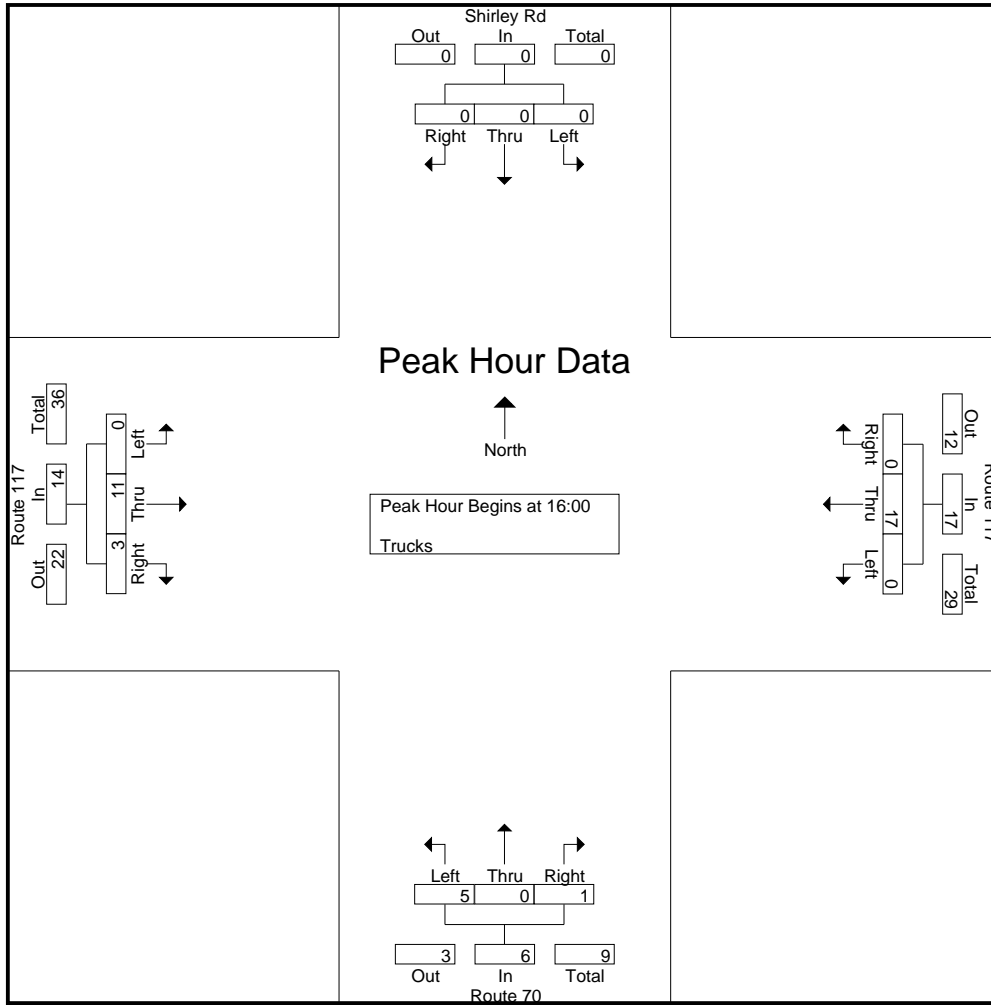
File Name : 86525008  
 Site Code : 86525008  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	0	0	0	0	0	8	0	0	1	0	0	0	0	3	0	0	0	12	12
16:15	0	0	0	0	0	1	0	0	2	0	0	0	0	4	1	0	0	8	8
16:30	0	0	0	0	0	5	0	0	0	0	1	0	0	2	2	0	0	10	10
16:45	0	0	0	0	0	3	0	0	2	0	0	0	0	2	0	0	0	7	7
Total	0	0	0	0	0	17	0	0	5	0	1	0	0	11	3	0	0	37	37
17:00	0	0	0	0	0	0	0	0	1	0	0	0	0	6	0	0	0	7	7
17:15	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0	0	6	6
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	5	0	0	0	0	0	0	0	1	0	0	0	6	6
Total	0	0	0	0	0	9	0	0	1	0	0	0	0	9	0	0	0	19	19
Grand Total	0	0	0	0	0	26	0	0	6	0	1	0	0	20	3	0	0	56	56
Apprch %	0	0	0	0	0	100	0	0	85.7	0	14.3	0	0	87	13	0	0	100	100
Total %	0	0	0	0	0	46.4	0	0	10.7	0	1.8	0	0	35.7	5.4	0	0	100	100

Start Time	Shirley Rd From North				Route 117 From East				Route 70 From South				Route 117 From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
16:00	0	0	0	0	0	8	0	8	1	0	0	1	0	3	0	3	12
16:15	0	0	0	0	0	1	0	1	2	0	0	2	0	4	1	5	8
16:30	0	0	0	0	0	5	0	5	0	0	1	1	0	2	2	4	10
16:45	0	0	0	0	0	3	0	3	2	0	0	2	0	2	0	2	7
Total Volume	0	0	0	0	0	17	0	17	5	0	1	6	0	11	3	14	37
% App. Total	0	0	0	0	0	100	0	100	83.3	0	16.7	100	0	78.6	21.4	100	100
PHF	.000	.000	.000	.000	.000	.531	.000	.531	.625	.000	.250	.750	.000	.688	.375	.700	.771

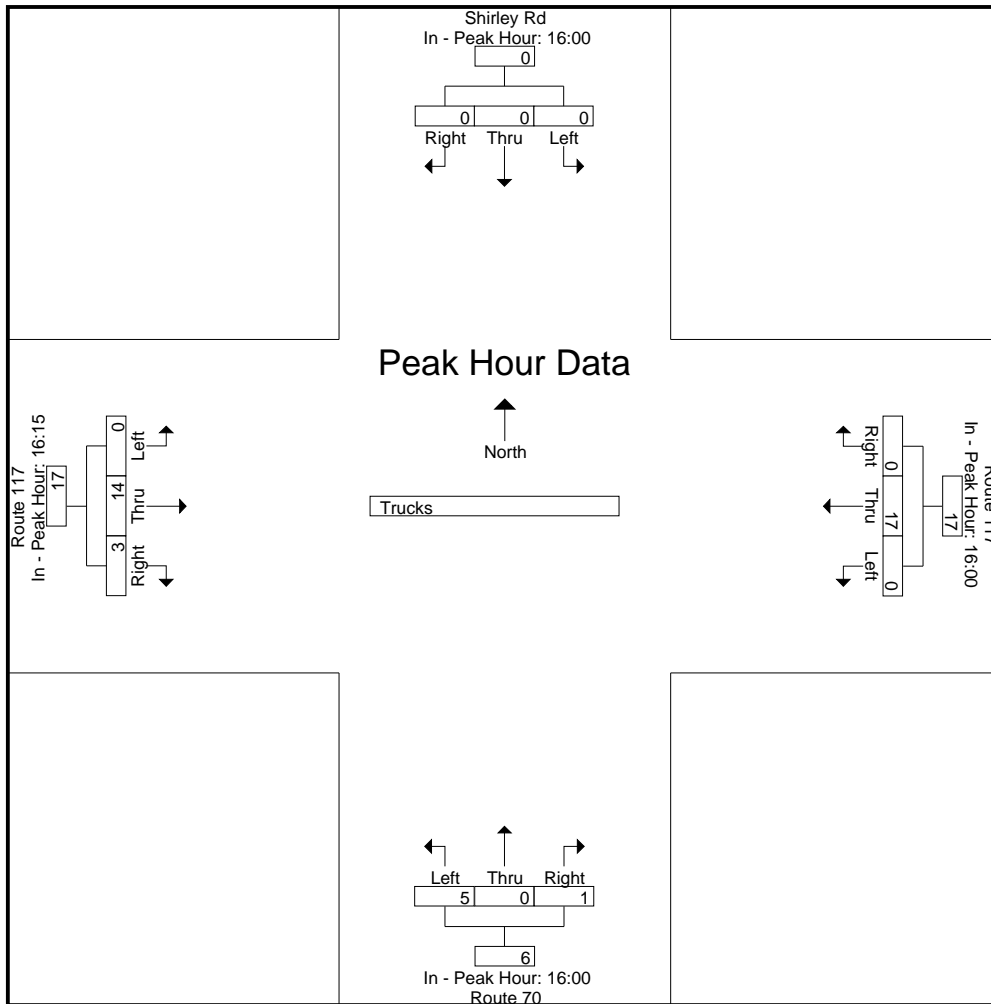
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:00				16:00				16:15			
+0 mins.	0	0	0	0	0	8	0	8	1	0	0	1	0	4	1	5
+15 mins.	0	0	0	0	0	1	0	1	2	0	0	2	0	2	2	4
+30 mins.	0	0	0	0	0	5	0	5	0	0	1	1	0	2	0	2
+45 mins.	0	0	0	0	0	3	0	3	2	0	0	2	0	6	0	6
Total Volume	0	0	0	0	0	17	0	17	5	0	1	6	0	14	3	17
% App. Total	0	0	0	0	0	100	0	0	83.3	0	16.7	6	0	82.4	17.6	0
PHF	.000	.000	.000	.000	.000	.531	.000	.531	.625	.000	.250	.750	.000	.583	.375	.708



N/S Street : Lunenburg Road  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

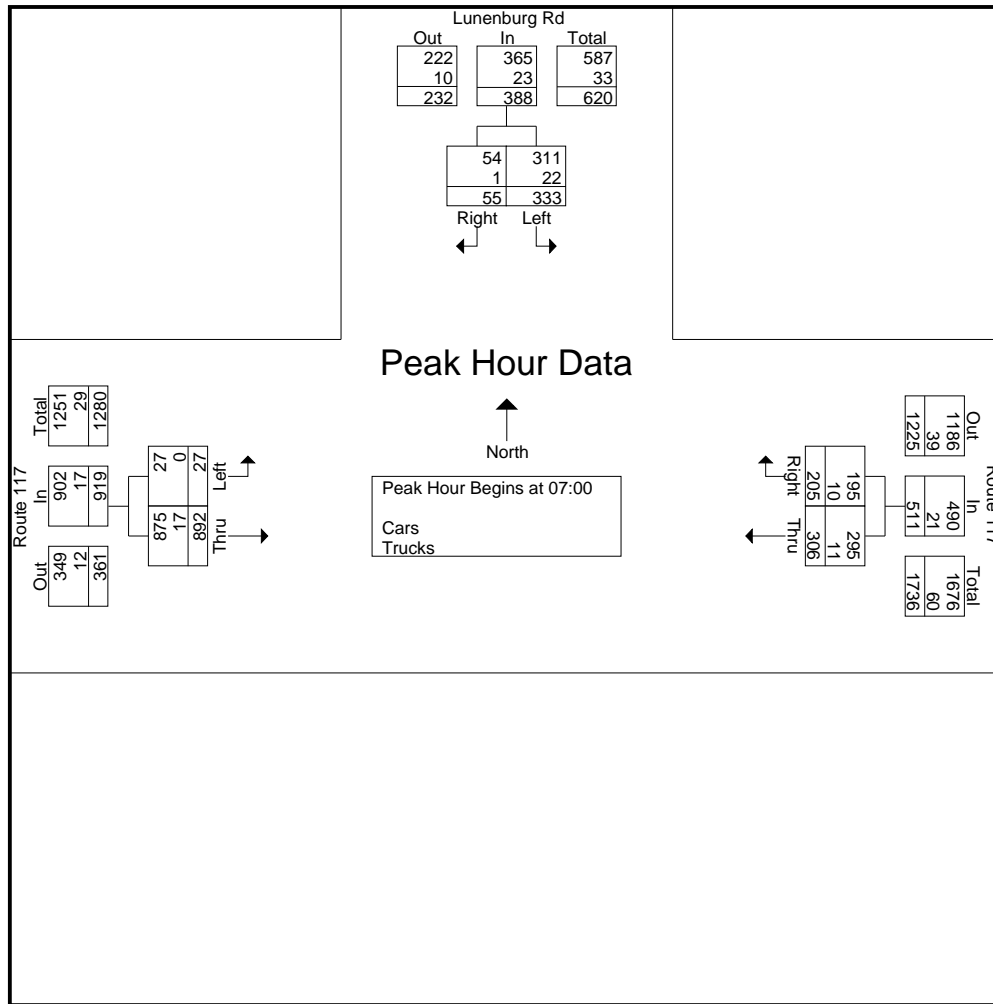
Accurate Counts  
 978-664-2565

File Name : 86525009  
 Site Code : 86525009  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
07:00	87	11	0	60	47	0	3	228	0	0	436	436
07:15	79	12	0	67	47	0	5	228	0	0	438	438
07:30	80	16	0	114	56	0	8	211	0	0	485	485
07:45	87	16	0	65	55	0	11	225	0	0	459	459
Total	333	55	0	306	205	0	27	892	0	0	1818	1818
08:00	71	5	0	60	51	0	7	164	0	0	358	358
08:15	55	3	0	77	59	1	4	182	0	1	380	381
08:30	53	6	0	95	46	1	5	136	0	1	341	342
08:45	55	6	0	79	51	0	7	98	0	0	296	296
Total	234	20	0	311	207	2	23	580	0	2	1375	1377
Grand Total	567	75	0	617	412	2	50	1472	0	2	3193	3195
Apprch %	88.3	11.7		60	40		3.3	96.7				
Total %	17.8	2.3		19.3	12.9		1.6	46.1		0.1	99.9	
Cars	540	71		566	397		47	1431		0	0	3053
% Cars	95.2	94.7	0	91.7	96.4	50	94	97.2	0	0	0	95.6
Trucks	27	4		51	15		3	41		0	0	142
% Trucks	4.8	5.3	0	8.3	3.6	50	6	2.8	0	0	0	4.4

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00										
07:00	87	11	98	60	47	107	3	228	231	436
07:15	79	12	91	67	47	114	5	228	233	438
07:30	80	16	96	114	56	170	8	211	219	485
07:45	87	16	103	65	55	120	11	225	236	459
Total Volume	333	55	388	306	205	511	27	892	919	1818
% App. Total	85.8	14.2		59.9	40.1		2.9	97.1		
PHF	.957	.859	.942	.671	.915	.751	.614	.978	.974	.937
Cars	311	54	365	295	195	490	27	875	902	1757
% Cars	93.4	98.2	94.1	96.4	95.1	95.9	100	98.1	98.2	96.6
Trucks	22	1	23	11	10	21	0	17	17	61
% Trucks	6.6	1.8	5.9	3.6	4.9	4.1	0	1.9	1.8	3.4

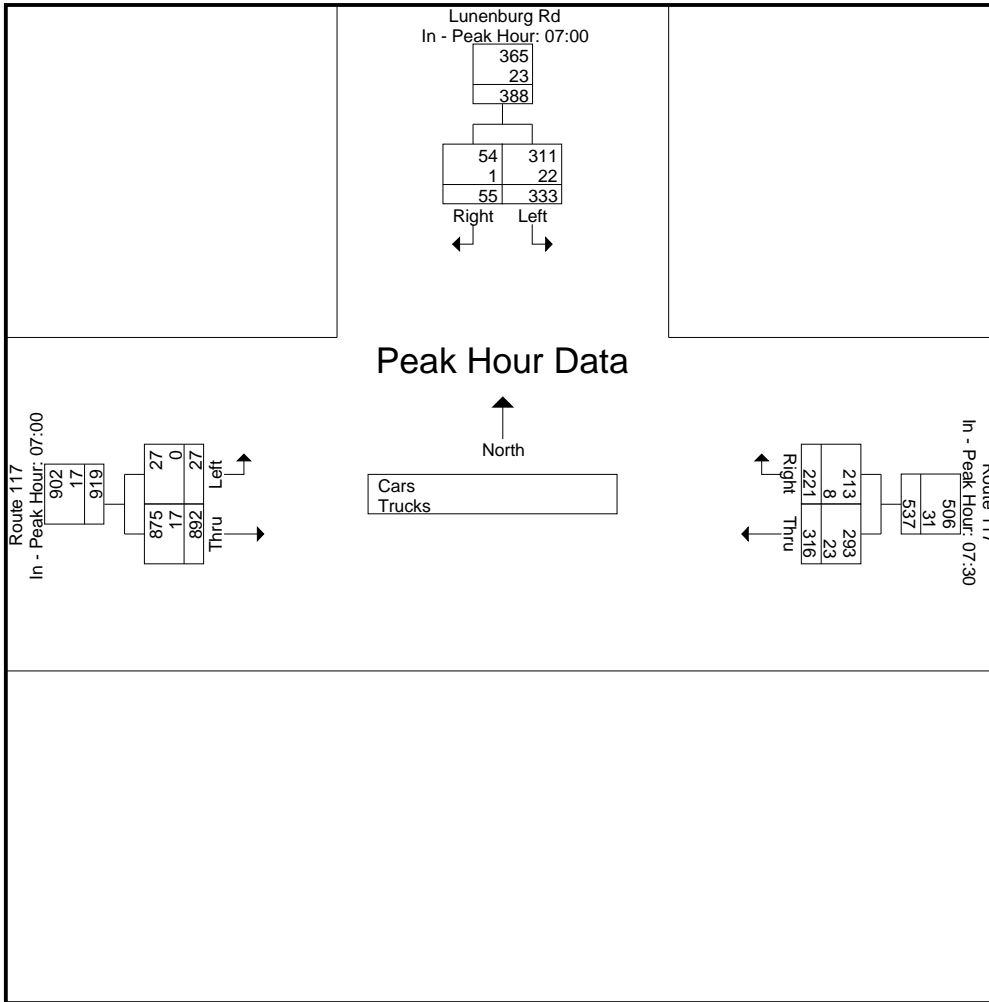


Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00			07:30			07:00		
+0 mins.	87	11	98	114	56	170	3	228	231
+15 mins.	79	12	91	65	55	120	5	228	233
+30 mins.	80	16	96	60	51	111	8	211	219
+45 mins.	87	16	103	77	59	136	11	225	236
Total Volume	333	55	388	316	221	537	27	892	919
% App. Total	85.8	14.2		58.8	41.2		2.9	97.1	
PHF	.957	.859	.942	.693	.936	.790	.614	.978	.974
Cars	311	54	365	293	213	506	27	875	902
% Cars	93.4	98.2	94.1	92.7	96.4	94.2	100	98.1	98.2
Trucks	22	1	23	23	8	31	0	17	17
% Trucks	6.6	1.8	5.9	7.3	3.6	5.8	0	1.9	1.8





N/S Street : Lunenburg Road  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

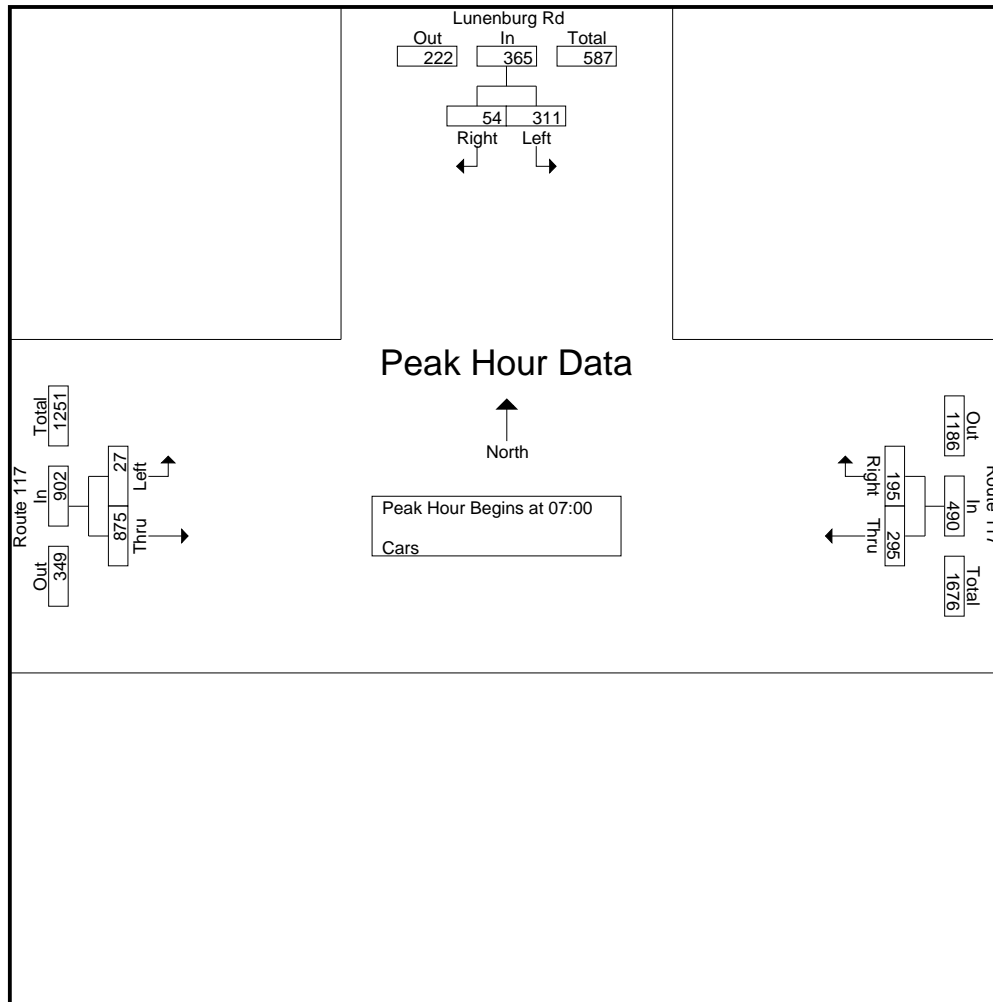
File Name : 86525009  
 Site Code : 86525009  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
07:00	84	11	0	57	46	0	3	224	0	0	425	425
07:15	71	12	0	64	44	0	5	223	0	0	419	419
07:30	74	15	0	112	52	0	8	207	0	0	468	468
07:45	82	16	0	62	53	0	11	221	0	0	445	445
Total	311	54	0	295	195	0	27	875	0	0	1757	1757
08:00	69	4	0	53	49	0	7	159	0	0	341	341
08:15	54	3	0	66	59	1	4	178	0	1	364	365
08:30	53	5	0	80	44	0	2	130	0	0	314	314
08:45	53	5	0	72	50	0	7	89	0	0	276	276
Total	229	17	0	271	202	1	20	556	0	1	1295	1296
Grand Total	540	71	0	566	397	1	47	1431	0	1	3052	3053
Apprch %	88.4	11.6		58.8	41.2		3.2	96.8				
Total %	17.7	2.3		18.5	13		1.5	46.9		0	100	

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00	84	11	95	57	46	103	3	224	227	425
07:15	71	12	83	64	44	108	5	223	228	419
07:30	74	15	89	112	52	164	8	207	215	468
07:45	82	16	98	62	53	115	11	221	232	445
Total Volume	311	54	365	295	195	490	27	875	902	1757
% App. Total	85.2	14.8		60.2	39.8		3	97		
PHF	.926	.844	.931	.658	.920	.747	.614	.977	.972	.939

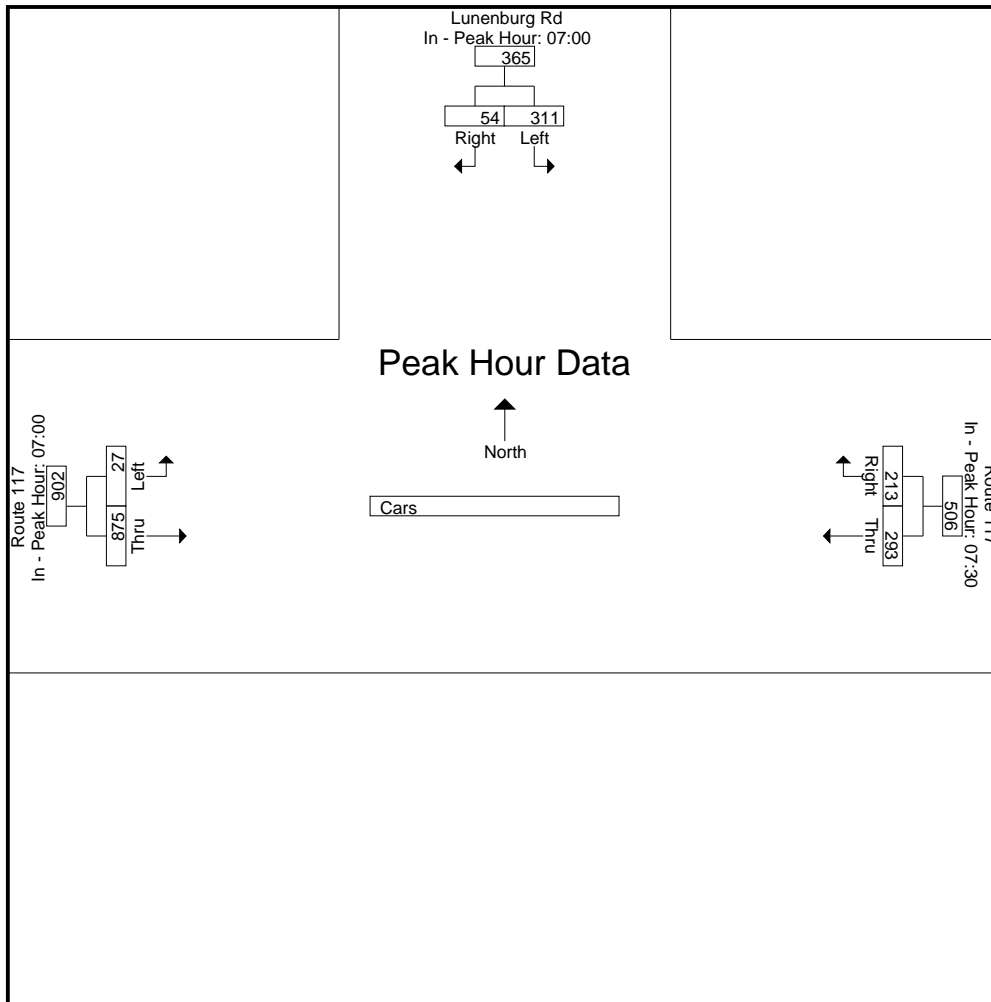
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:00



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00			07:30			07:00		
+0 mins.	84	11	95	112	52	164	3	224	227
+15 mins.	71	12	83	62	53	115	5	223	228
+30 mins.	74	15	89	53	49	102	8	207	215
+45 mins.	82	16	98	66	59	125	11	221	232
Total Volume	311	54	365	293	213	506	27	875	902
% App. Total	85.2	14.8		57.9	42.1		3	97	
PHF	.926	.844	.931	.654	.903	.771	.614	.977	.972



N/S Street : Lunenburg Road  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

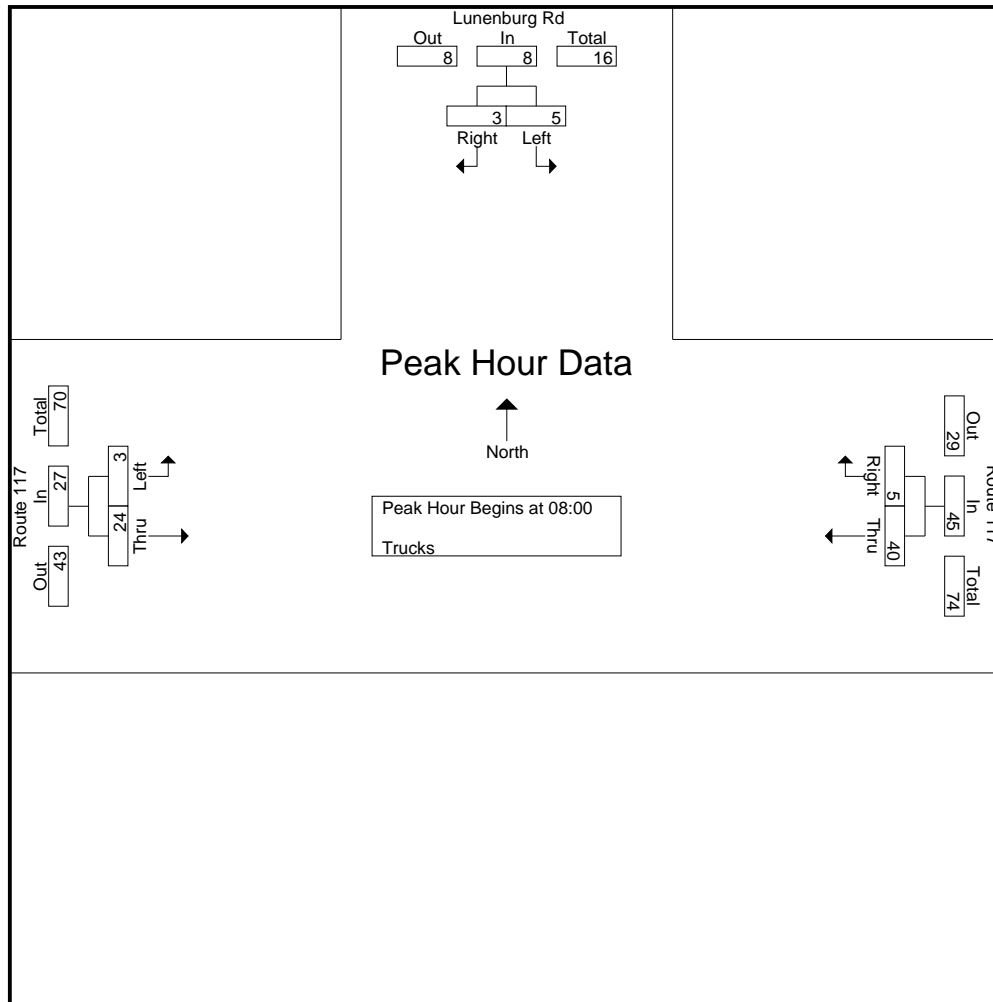
File Name : 86525009  
 Site Code : 86525009  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
07:00	3	0	0	3	1	0	0	4	0	0	11	11
07:15	8	0	0	3	3	0	0	5	0	0	19	19
07:30	6	1	0	2	4	0	0	4	0	0	17	17
07:45	5	0	0	3	2	0	0	4	0	0	14	14
Total	22	1	0	11	10	0	0	17	0	0	61	61
08:00	2	1	0	7	2	0	0	5	0	0	17	17
08:15	1	0	0	11	0	0	0	4	0	0	16	16
08:30	0	1	0	15	2	1	3	6	0	1	27	28
08:45	2	1	0	7	1	0	0	9	0	0	20	20
Total	5	3	0	40	5	1	3	24	0	1	80	81
Grand Total	27	4	0	51	15	1	3	41	0	1	141	142
Apprch %	87.1	12.9		77.3	22.7		6.8	93.2				
Total %	19.1	2.8		36.2	10.6		2.1	29.1		0.7	99.3	

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
08:00	2	1	3	7	2	9	0	5	5	17
08:15	1	0	1	11	0	11	0	4	4	16
08:30	0	1	1	15	2	17	3	6	9	27
08:45	2	1	3	7	1	8	0	9	9	20
Total Volume	5	3	8	40	5	45	3	24	27	80
% App. Total	62.5	37.5		88.9	11.1		11.1	88.9		
PHF	.625	.750	.667	.667	.625	.662	.250	.667	.750	.741

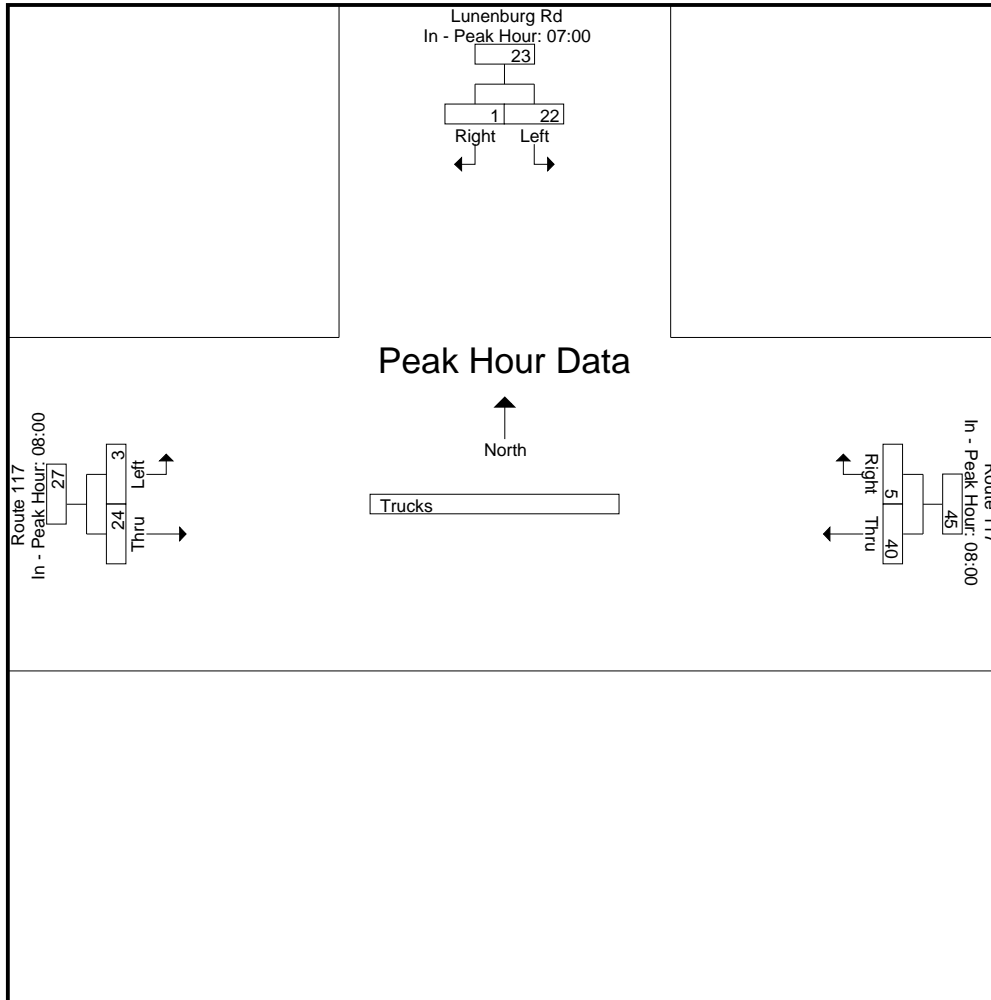
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 08:00



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00			08:00			08:00		
+0 mins.	3	0	3	7	2	9	0	5	5
+15 mins.	8	0	8	11	0	11	0	4	4
+30 mins.	6	1	7	15	2	17	3	6	9
+45 mins.	5	0	5	7	1	8	0	9	9
Total Volume	22	1	23	40	5	45	3	24	27
% App. Total	95.7	4.3		88.9	11.1		11.1	88.9	
PHF	.688	.250	.719	.667	.625	.662	.250	.667	.750



N/S Street : Lunenburg Road  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

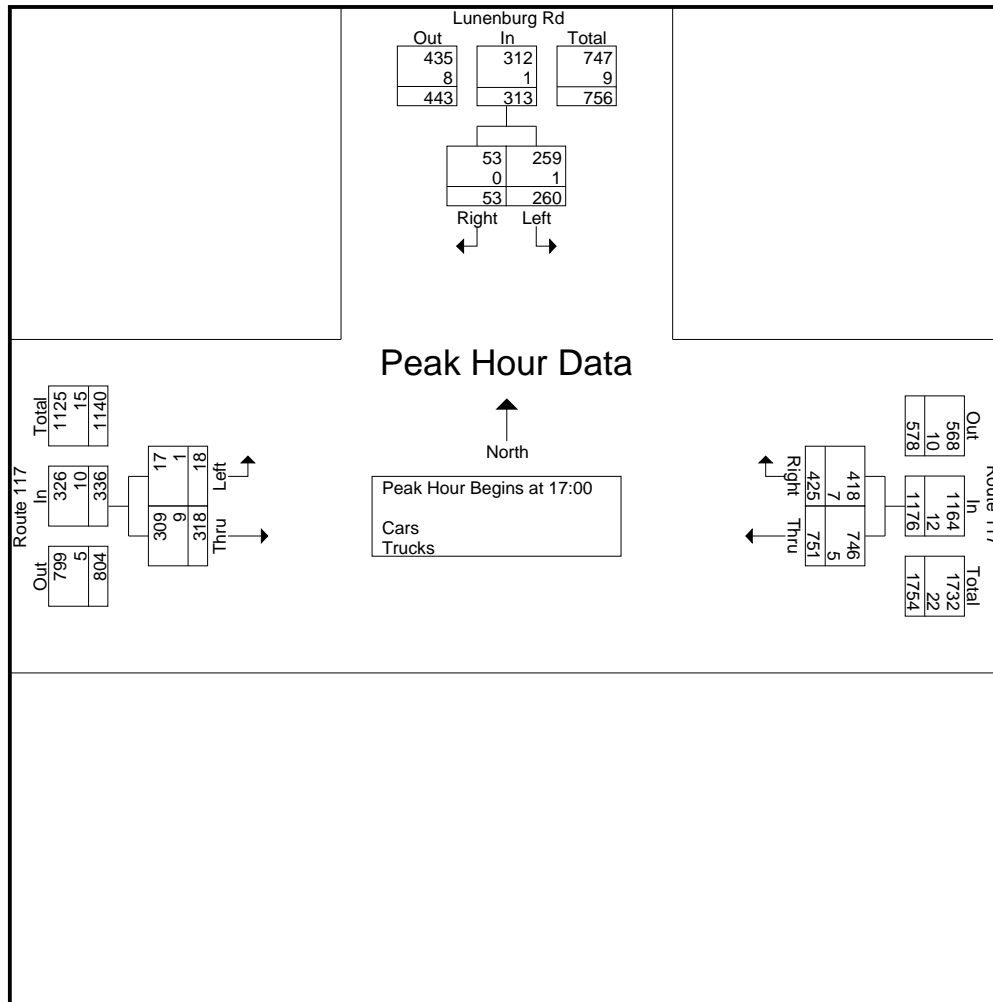
File Name : 86525009  
 Site Code : 86525009  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
16:00	49	3	1	182	94	0	6	69	0	1	403	404
16:15	52	7	0	194	103	0	13	80	0	0	449	449
16:30	42	8	0	197	103	0	7	67	0	0	424	424
16:45	49	9	0	197	115	0	7	87	0	0	464	464
Total	192	27	1	770	415	0	33	303	0	1	1740	1741
17:00	66	7	0	184	97	0	6	81	0	0	441	441
17:15	70	14	0	196	99	0	5	85	0	0	469	469
17:30	62	12	0	188	102	0	3	76	0	0	443	443
17:45	62	20	0	183	127	0	4	76	0	0	472	472
Total	260	53	0	751	425	0	18	318	0	0	1825	1825
Grand Total	452	80	1	1521	840	0	51	621	0	1	3565	3566
Apprch %	85	15		64.4	35.6		7.6	92.4				
Total %	12.7	2.2		42.7	23.6		1.4	17.4		0	100	
Cars	445	80		1503	825		48	604		0	0	3506
% Cars	98.5	100	100	98.8	98.2	0	94.1	97.3	0	0	0	98.3
Trucks	7	0		18	15		3	17		0	0	60
% Trucks	1.5	0	0	1.2	1.8	0	5.9	2.7	0	0	0	1.7

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 17:00										
17:00	66	7	73	184	97	281	6	81	87	441
17:15	70	14	84	196	99	295	5	85	90	469
17:30	62	12	74	188	102	290	3	76	79	443
17:45	62	20	82	183	127	310	4	76	80	472
Total Volume	260	53	313	751	425	1176	18	318	336	1825
% App. Total	83.1	16.9		63.9	36.1		5.4	94.6		
PHF	.929	.663	.932	.958	.837	.948	.750	.935	.933	.967
Cars	259	53	312	746	418	1164	17	309	326	1802
% Cars	99.6	100	99.7	99.3	98.4	99.0	94.4	97.2	97.0	98.7
Trucks	1	0	1	5	7	12	1	9	10	23
% Trucks	0.4	0	0.3	0.7	1.6	1.0	5.6	2.8	3.0	1.3

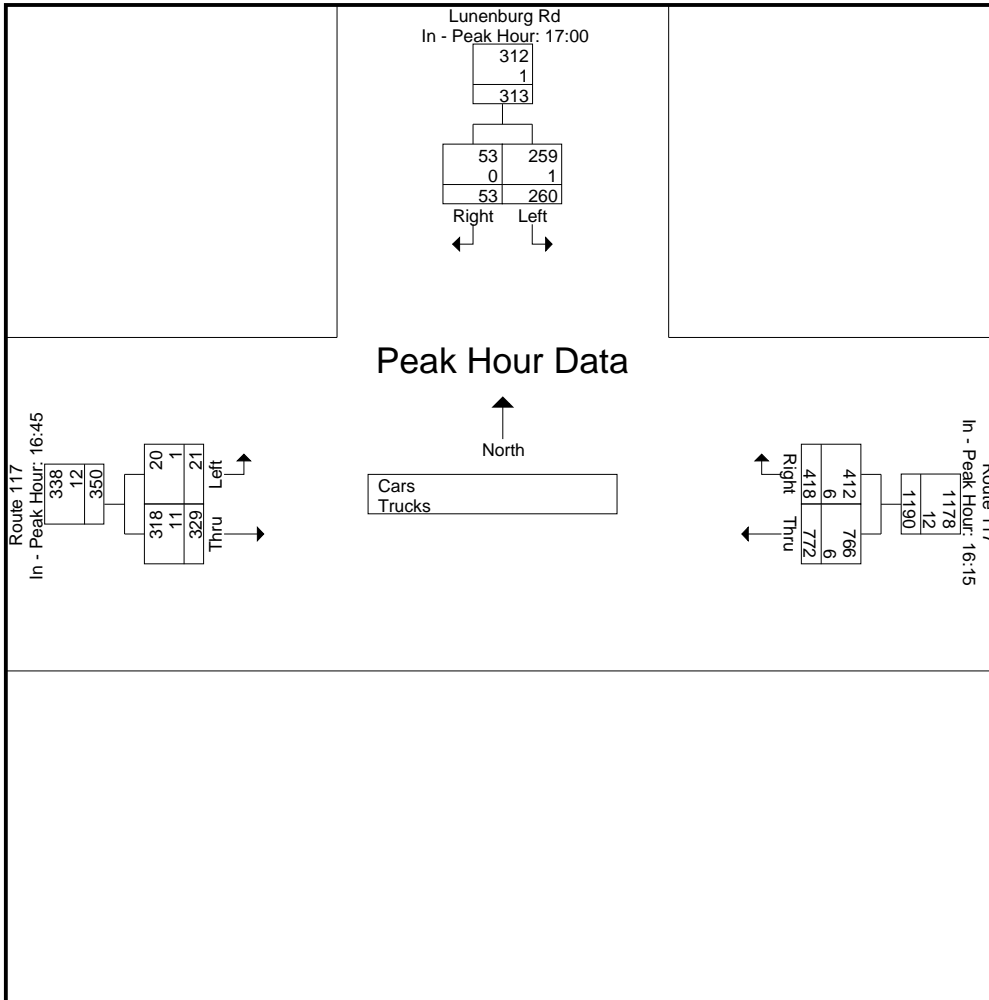




Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00			16:15			16:45		
+0 mins.	66	7	73	194	103	297	7	87	94
+15 mins.	70	14	84	197	103	300	6	81	87
+30 mins.	62	12	74	197	115	312	5	85	90
+45 mins.	62	20	82	184	97	281	3	76	79
Total Volume	260	53	313	772	418	1190	21	329	350
% App. Total	83.1	16.9		64.9	35.1		6	94	
PHF	.929	.663	.932	.980	.909	.954	.750	.945	.931
Cars	259	53	312	766	412	1178	20	318	338
% Cars	99.6	100	99.7	99.2	98.6	99	95.2	96.7	96.6
Trucks	1	0	1	6	6	12	1	11	12
% Trucks	0.4	0	0.3	0.8	1.4	1	4.8	3.3	3.4



N/S Street : Lunenburg Road  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

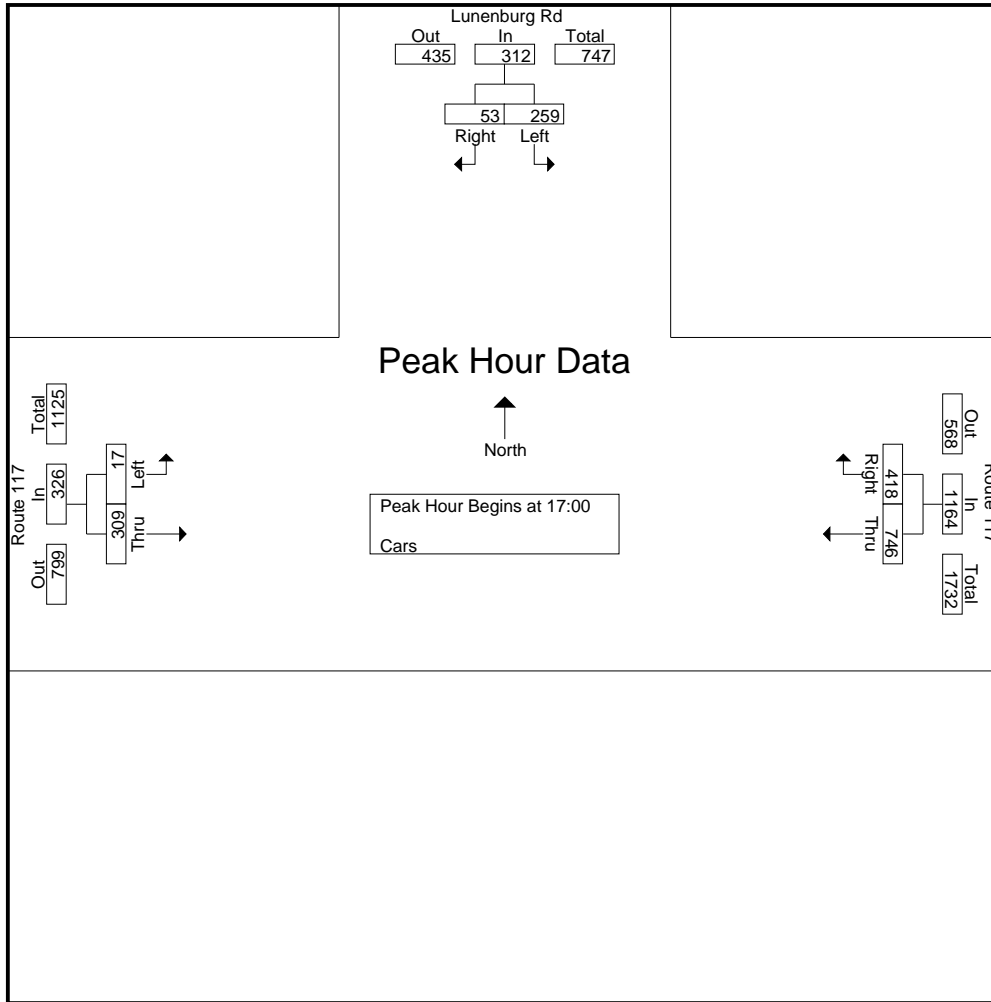
Accurate Counts  
 978-664-2565

File Name : 86525009  
 Site Code : 86525009  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
16:00	47	3	1	175	91	0	5	68	0	1	389	390
16:15	50	7	0	193	102	0	12	78	0	0	442	442
16:30	40	8	0	195	102	0	7	65	0	0	417	417
16:45	49	9	0	194	112	0	7	84	0	0	455	455
Total	186	27	1	757	407	0	31	295	0	1	1703	1704
17:00	66	7	0	184	96	0	6	76	0	0	435	435
17:15	69	14	0	194	96	0	4	82	0	0	459	459
17:30	62	12	0	187	102	0	3	76	0	0	442	442
17:45	62	20	0	181	124	0	4	75	0	0	466	466
Total	259	53	0	746	418	0	17	309	0	0	1802	1802
Grand Total	445	80	1	1503	825	0	48	604	0	1	3505	3506
Apprch %	84.8	15.2		64.6	35.4		7.4	92.6				
Total %	12.7	2.3		42.9	23.5		1.4	17.2		0	100	

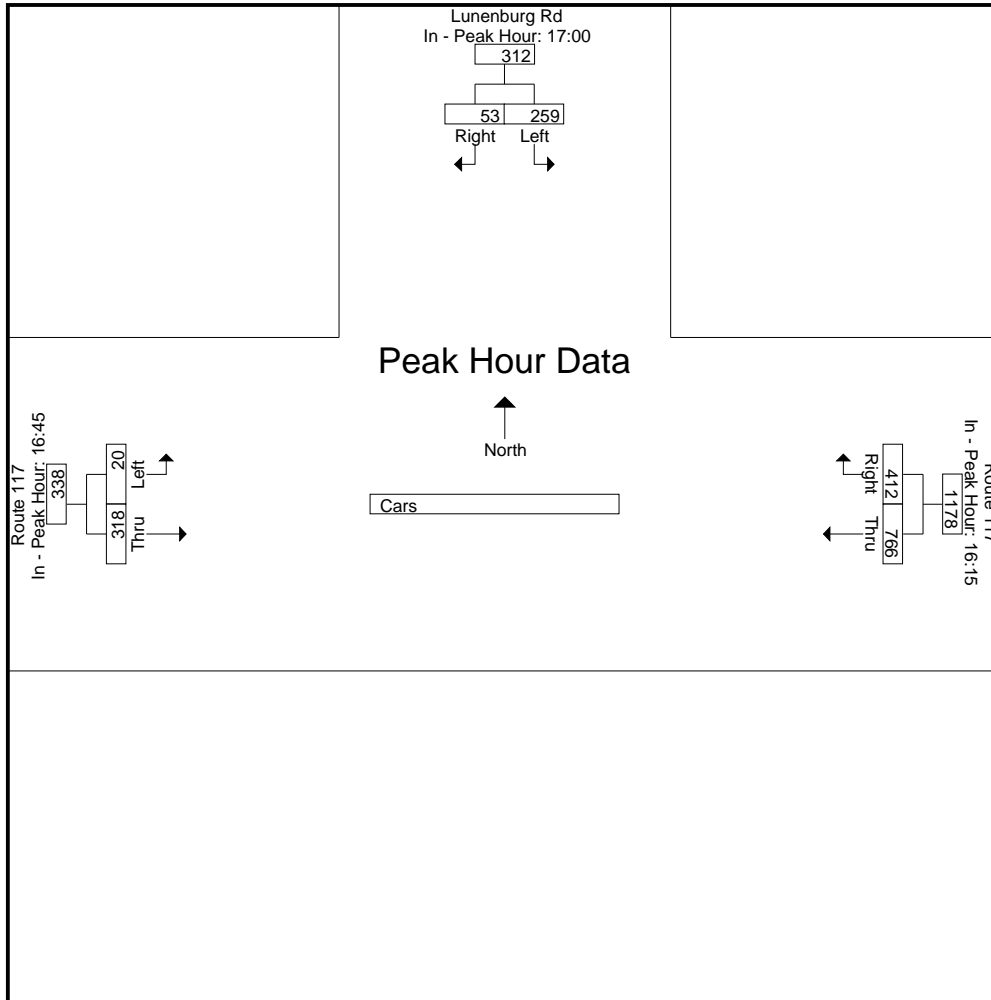
Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 17:00										
17:00	66	7	73	184	96	280	6	76	82	435
17:15	69	14	83	194	96	290	4	82	86	459
17:30	62	12	74	187	102	289	3	76	79	442
17:45	62	20	82	181	124	305	4	75	79	466
Total Volume	259	53	312	746	418	1164	17	309	326	1802
% App. Total	83	17		64.1	35.9		5.2	94.8		
PHF	.938	.663	.940	.961	.843	.954	.708	.942	.948	.967



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00			16:15			16:45			
+0 mins.	66	7	73	193	102	295	7	84	91	
+15 mins.	69	14	83	195	102	297	6	76	82	
+30 mins.	62	12	74	194	112	306	4	82	86	
+45 mins.	62	20	82	184	96	280	3	76	79	
Total Volume	259	53	312	766	412	1178	20	318	338	
% App. Total	83	17		65	35		5.9	94.1		
PHF	.938	.663	.940	.982	.920	.962	.714	.946	.929	



N/S Street : Lunenburg Road  
 E/W Street: Route 117  
 City/State : Lancaster, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

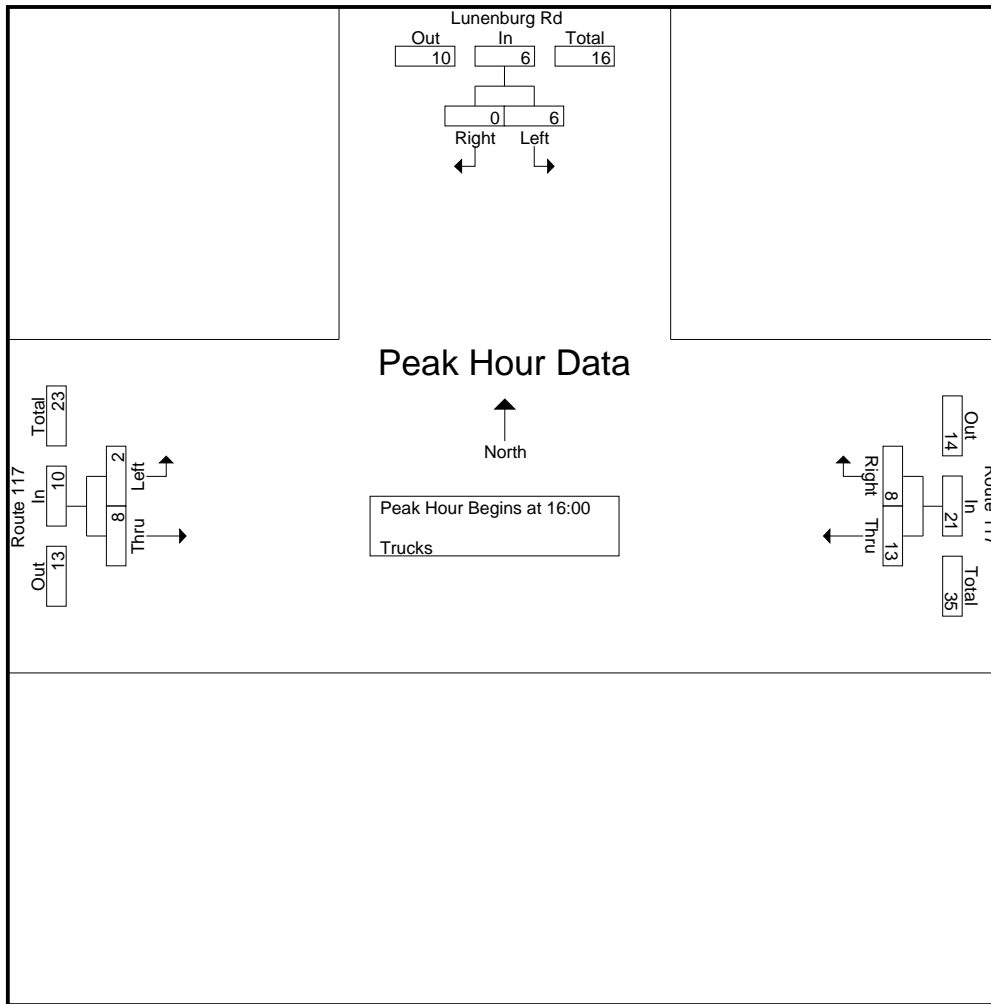
File Name : 86525009  
 Site Code : 86525009  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds			
16:00	2	0	0	7	3	0	1	1	0	0	14	14
16:15	2	0	0	1	1	0	1	2	0	0	7	7
16:30	2	0	0	2	1	0	0	2	0	0	7	7
16:45	0	0	0	3	3	0	0	3	0	0	9	9
Total	6	0	0	13	8	0	2	8	0	0	37	37
17:00	0	0	0	0	1	0	0	5	0	0	6	6
17:15	1	0	0	2	3	0	1	3	0	0	10	10
17:30	0	0	0	1	0	0	0	0	0	0	1	1
17:45	0	0	0	2	3	0	0	1	0	0	6	6
Total	1	0	0	5	7	0	1	9	0	0	23	23
Grand Total	7	0	0	18	15	0	3	17	0	0	60	60
Apprch %	100	0		54.5	45.5		15	85				
Total %	11.7	0		30	25		5	28.3		0	100	

Start Time	Lunenburg Rd From North			Route 117 From East			Route 117 From West			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
16:00	2	0	2	7	3	10	1	1	2	14
16:15	2	0	2	1	1	2	1	2	3	7
16:30	2	0	2	2	1	3	0	2	2	7
16:45	0	0	0	3	3	6	0	3	3	9
Total Volume	6	0	6	13	8	21	2	8	10	37
% App. Total	100	0		61.9	38.1		20	80		
PHF	.750	.000	.750	.464	.667	.525	.500	.667	.833	.661

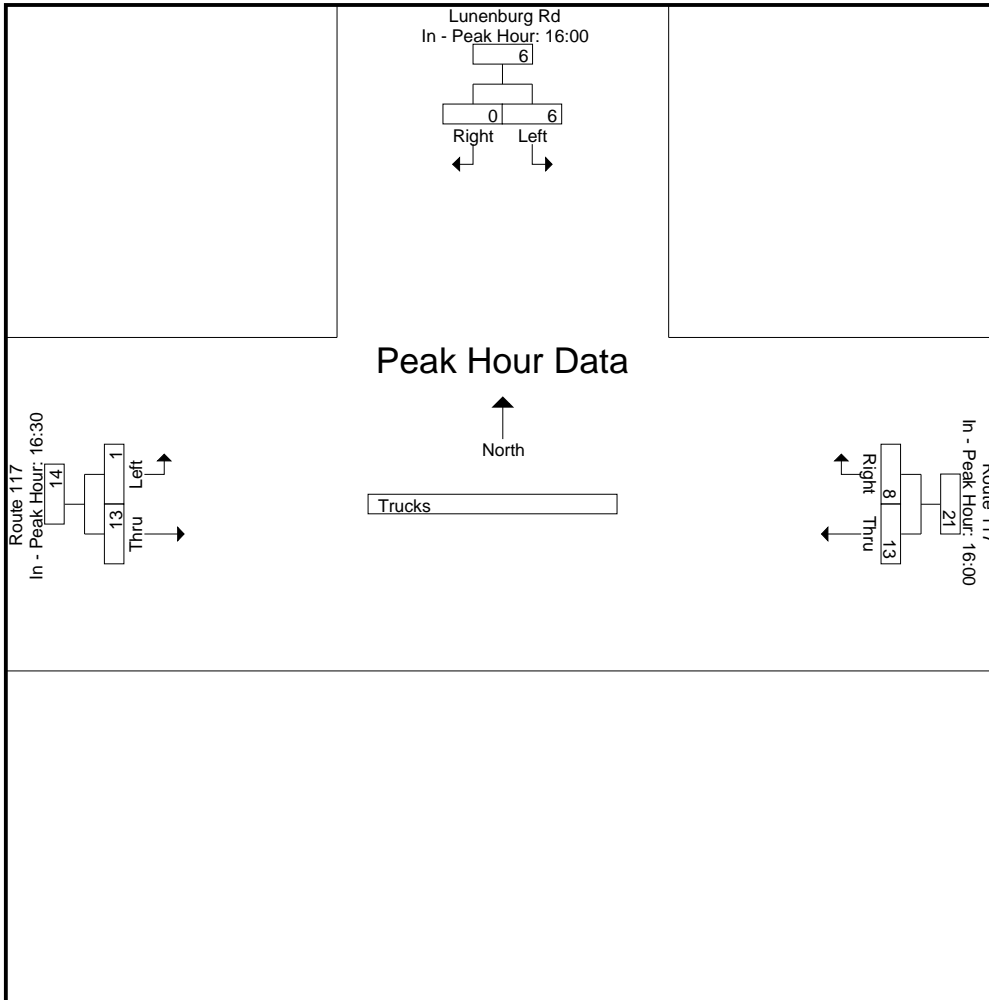
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00			16:00			16:30		
+0 mins.	2	0	2	7	3	10	0	2	2
+15 mins.	2	0	2	1	1	2	0	3	3
+30 mins.	2	0	2	2	1	3	0	5	5
+45 mins.	0	0	0	3	3	6	1	3	4
Total Volume	6	0	6	13	8	21	1	13	14
% App. Total	100	0		61.9	38.1		7.1	92.9	
PHF	.750	.000	.750	.464	.667	.525	.250	.650	.700





N/S Street : Great Road  
 E/W Street: King Street  
 City/State : Littleton, MA  
 Weather : Clear

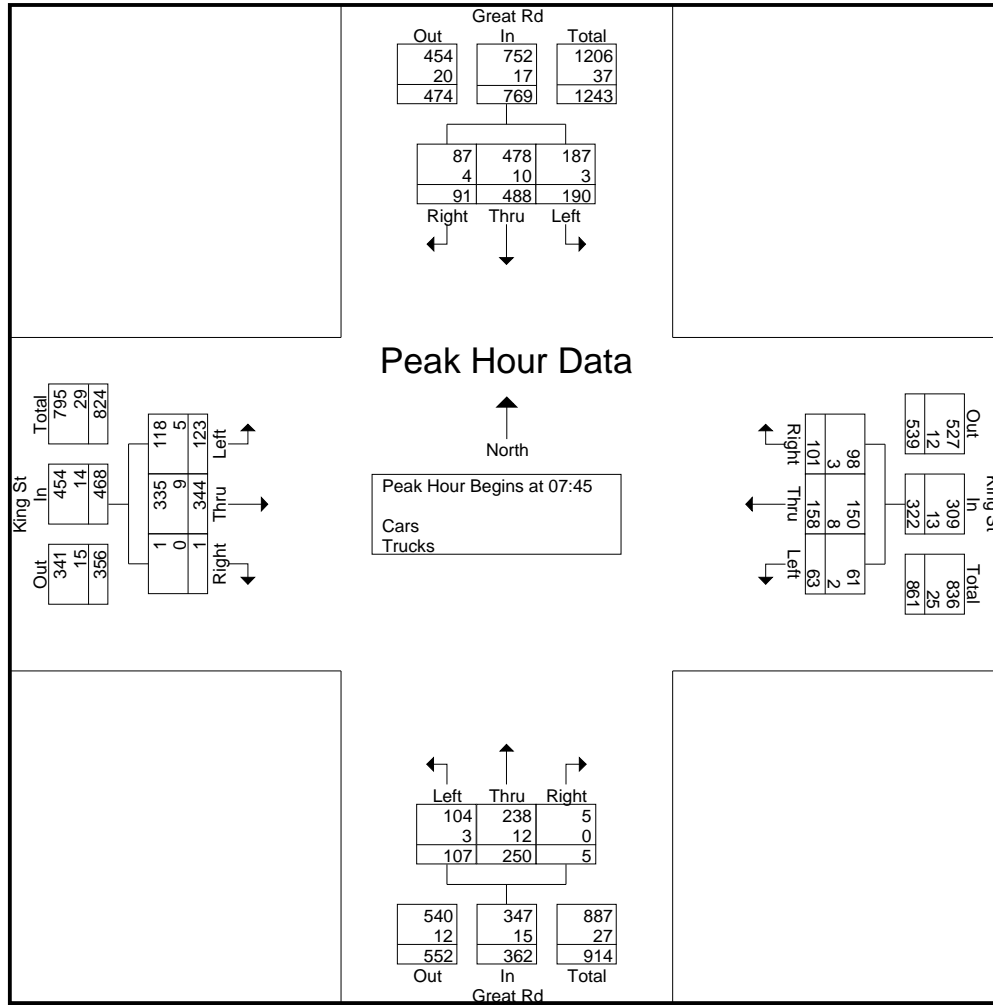
Accurate Counts  
 978-664-2565

File Name : 86525010  
 Site Code : 86525010  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	40	106	19	0	13	22	23	0	31	35	0	0	36	55	0	0	0	380	380
07:15	36	130	18	0	8	40	30	0	24	59	1	0	36	45	0	0	0	427	427
07:30	34	106	22	0	18	39	30	0	25	50	2	0	40	72	1	0	0	439	439
07:45	62	130	21	0	10	39	25	0	21	48	1	0	39	94	0	0	0	490	490
Total	172	472	80	0	49	140	108	0	101	192	4	0	151	266	1	0	0	1736	1736
08:00	41	111	20	0	16	40	31	0	24	62	0	0	30	77	0	0	0	452	452
08:15	40	134	22	0	21	39	30	0	27	70	0	0	23	73	0	0	0	479	479
08:30	47	113	28	0	16	40	15	0	35	70	4	0	31	100	1	1	1	500	501
08:45	40	116	14	0	19	28	26	0	32	61	0	0	22	76	0	0	0	434	434
Total	168	474	84	0	72	147	102	0	118	263	4	0	106	326	1	1	1	1865	1866
Grand Total	340	946	164	0	121	287	210	0	219	455	8	0	257	592	2	1	1	3601	3602
Apprch %	23.4	65.2	11.3		19.6	46.4	34		32.1	66.7	1.2		30.2	69.6	0.2				
Total %	9.4	26.3	4.6		3.4	8	5.8		6.1	12.6	0.2		7.1	16.4	0.1		0	100	
Cars	330	927	157		118	270	204		213	430	8		248	579	2		0	0	3487
% Cars	97.1	98	95.7	0	97.5	94.1	97.1	0	97.3	94.5	100	0	96.5	97.8	100	100	0	0	96.8
Trucks	10	19	7		3	17	6		6	25	0		9	13	0		0	0	115
% Trucks	2.9	2	4.3	0	2.5	5.9	2.9	0	2.7	5.5	0	0	3.5	2.2	0	0	0	0	3.2

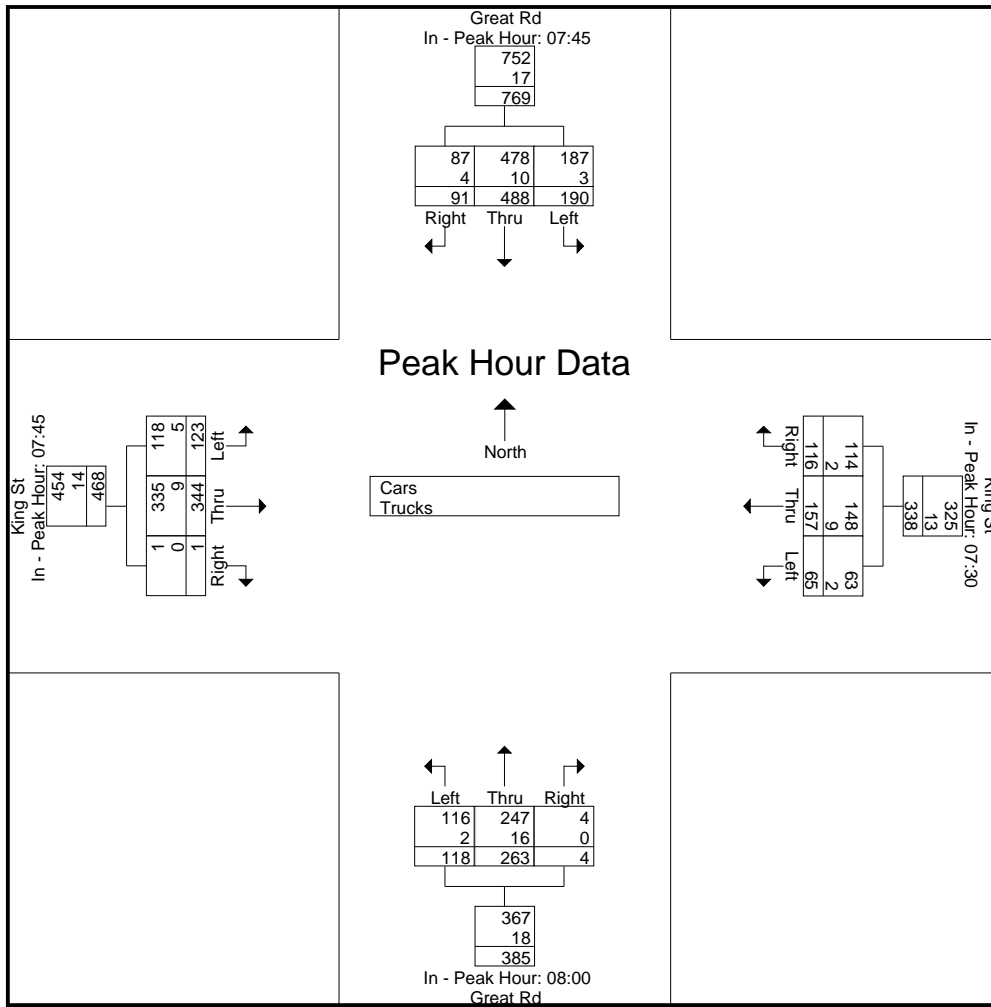
Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	62	130	21	213	10	39	25	74	21	48	1	70	39	94	0	133	490
08:00	41	111	20	172	16	40	31	87	24	62	0	86	30	77	0	107	452
08:15	40	134	22	196	21	39	30	90	27	70	0	97	23	73	0	96	479
08:30	47	113	28	188	16	40	15	71	35	70	4	109	31	100	1	132	500
Total Volume	190	488	91	769	63	158	101	322	107	250	5	362	123	344	1	468	1921
% App. Total	24.7	63.5	11.8		19.6	49.1	31.4		29.6	69.1	1.4		26.3	73.5	0.2		
PHF	.766	.910	.813	.903	.750	.988	.815	.894	.764	.893	.313	.830	.788	.860	.250	.880	.961
Cars	187	478	87	752	61	150	98	309	104	238	5	347	118	335	1	454	1862
% Cars	98.4	98.0	95.6	97.8	96.8	94.9	97.0	96.0	97.2	95.2	100	95.9	95.9	97.4	100	97.0	96.9
Trucks	3	10	4	17	2	8	3	13	3	12	0	15	5	9	0	14	59
% Trucks	1.6	2.0	4.4	2.2	3.2	5.1	3.0	4.0	2.8	4.8	0	4.1	4.1	2.6	0	3.0	3.1



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45				07:30				08:00				07:45			
+0 mins.	62	130	21	213	18	39	30	87	24	62	0	86	39	94	0	133
+15 mins.	41	111	20	172	10	39	25	74	27	70	0	97	30	77	0	107
+30 mins.	40	134	22	196	16	40	31	87	35	70	4	109	23	73	0	96
+45 mins.	47	113	28	188	21	39	30	90	32	61	0	93	31	100	1	132
Total Volume	190	488	91	769	65	157	116	338	118	263	4	385	123	344	1	468
% App. Total	24.7	63.5	11.8		19.2	46.4	34.3		30.6	68.3	1		26.3	73.5	0.2	
PHF	.766	.910	.813	.903	.774	.981	.935	.939	.843	.939	.250	.883	.788	.860	.250	.880
Cars	187	478	87	752	63	148	114	325	116	247	4	367	118	335	1	454
% Cars	98.4	98	95.6	97.8	96.9	94.3	98.3	96.2	98.3	93.9	100	95.3	95.9	97.4	100	97
Trucks	3	10	4	17	2	9	2	13	2	16	0	18	5	9	0	14
% Trucks	1.6	2	4.4	2.2	3.1	5.7	1.7	3.8	1.7	6.1	0	4.7	4.1	2.6	0	3



N/S Street : Great Road  
 E/W Street: King Street  
 City/State : Littleton, MA  
 Weather : Clear

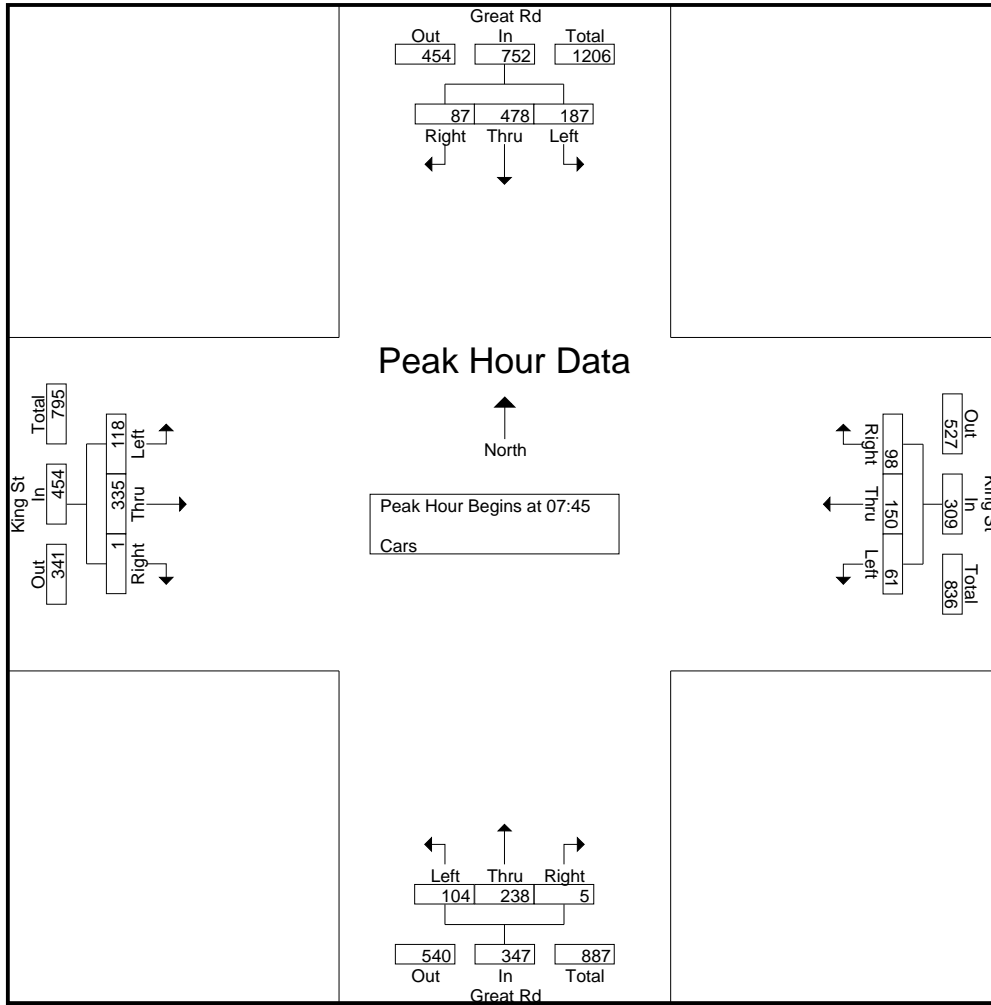
Accurate Counts  
 978-664-2565

File Name : 86525010  
 Site Code : 86525010  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	38	103	19	0	13	19	22	0	31	32	0	0	35	54	0	0	0	366	366
07:15	32	130	16	0	8	39	30	0	22	57	1	0	36	45	0	0	0	416	416
07:30	33	101	22	0	17	36	30	0	25	48	2	0	38	71	1	0	0	424	424
07:45	61	128	19	0	10	39	24	0	19	46	1	0	37	91	0	0	0	475	475
Total	164	462	76	0	48	133	106	0	97	183	4	0	146	261	1	0	0	1681	1681
08:00	41	108	20	0	15	36	30	0	24	57	0	0	29	74	0	0	0	434	434
08:15	39	130	22	0	21	37	30	0	26	65	0	0	23	72	0	0	0	465	465
08:30	46	112	26	0	15	38	14	0	35	70	4	0	29	98	1	1	1	488	489
08:45	40	115	13	0	19	26	24	0	31	55	0	0	21	74	0	0	0	418	418
Total	166	465	81	0	70	137	98	0	116	247	4	0	102	318	1	1	1	1805	1806
Grand Total	330	927	157	0	118	270	204	0	213	430	8	0	248	579	2	1	1	3486	3487
Apprch %	23.3	65.6	11.1		19.9	45.6	34.5		32.7	66.1	1.2		29.9	69.8	0.2				
Total %	9.5	26.6	4.5		3.4	7.7	5.9		6.1	12.3	0.2		7.1	16.6	0.1		0	100	

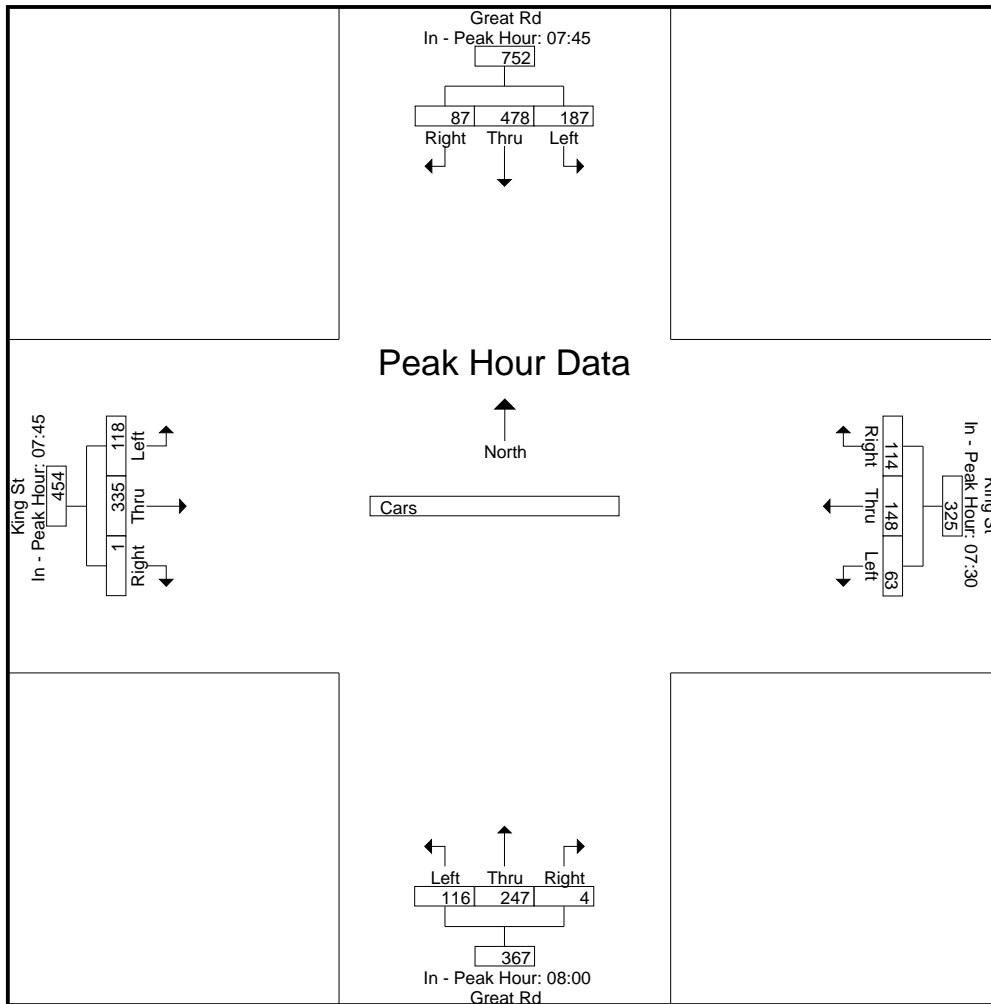
Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	61	128	19	208	10	39	24	73	19	46	1	66	37	91	0	128	475
08:00	41	108	20	169	15	36	30	81	24	57	0	81	29	74	0	103	434
08:15	39	130	22	191	21	37	30	88	26	65	0	91	23	72	0	95	465
08:30	46	112	26	184	15	38	14	67	35	70	4	109	29	98	1	128	488
Total Volume	187	478	87	752	61	150	98	309	104	238	5	347	118	335	1	454	1862
% App. Total	24.9	63.6	11.6		19.7	48.5	31.7		30	68.6	1.4		26	73.8	0.2		
PHF	.766	.919	.837	.904	.726	.962	.817	.878	.743	.850	.313	.796	.797	.855	.250	.887	.954



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45				07:30				08:00				07:45			
+0 mins.	61	128	19	208	17	36	30	83	24	57	0	81	37	91	0	128
+15 mins.	41	108	20	169	10	39	24	73	26	65	0	91	29	74	0	103
+30 mins.	39	130	22	191	15	36	30	81	35	70	4	109	23	72	0	95
+45 mins.	46	112	26	184	21	37	30	88	31	55	0	86	29	98	1	128
Total Volume	187	478	87	752	63	148	114	325	116	247	4	367	118	335	1	454
% App. Total	24.9	63.6	11.6		19.4	45.5	35.1		31.6	67.3	1.1		26	73.8	0.2	
PHF	.766	.919	.837	.904	.750	.949	.950	.923	.829	.882	.250	.842	.797	.855	.250	.887



N/S Street : Great Road  
 E/W Street: King Street  
 City/State : Littleton, MA  
 Weather : Clear

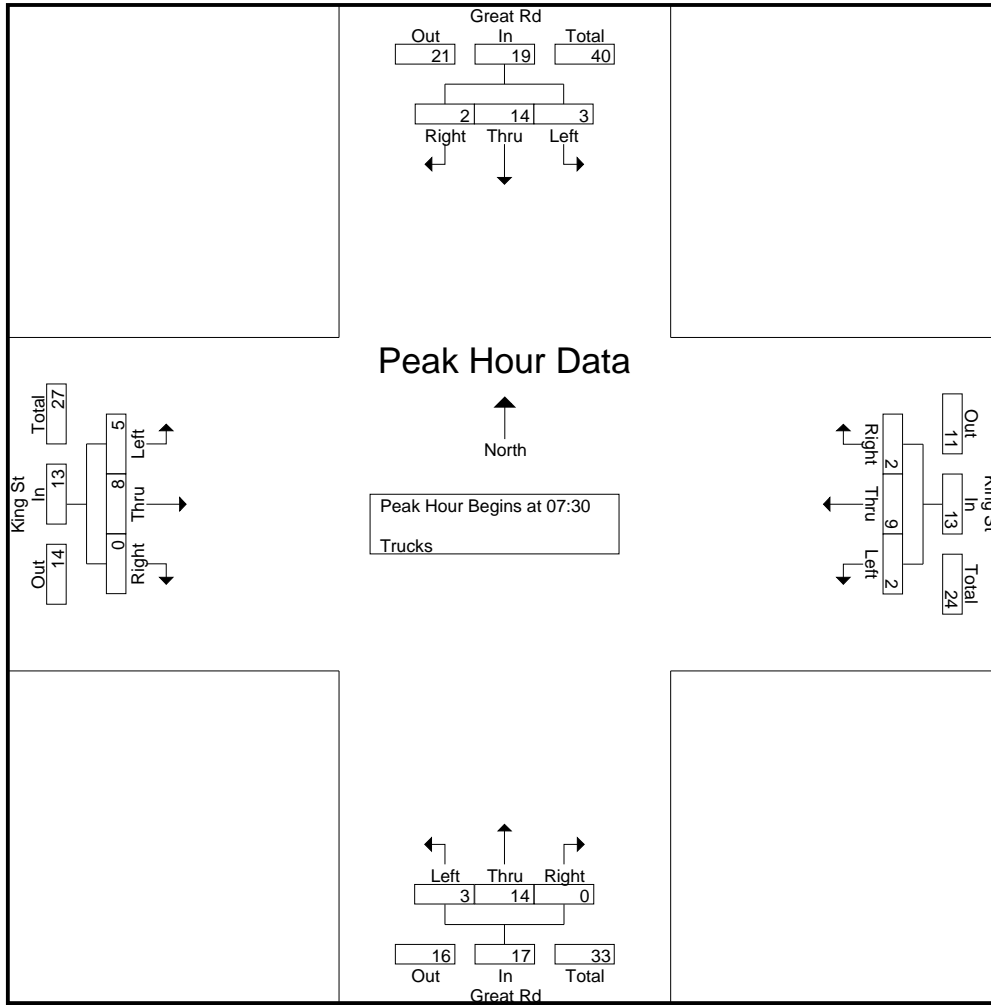
Accurate Counts  
 978-664-2565

File Name : 86525010  
 Site Code : 86525010  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	2	3	0	0	0	3	1	0	0	3	0	0	1	1	0	0	0	14	14
07:15	4	0	2	0	0	1	0	0	2	2	0	0	0	0	0	0	0	11	11
07:30	1	5	0	0	1	3	0	0	0	2	0	0	2	1	0	0	0	15	15
07:45	1	2	2	0	0	0	1	0	2	2	0	0	2	3	0	0	0	15	15
Total	8	10	4	0	1	7	2	0	4	9	0	0	5	5	0	0	0	55	55
08:00	0	3	0	0	1	4	1	0	0	5	0	0	1	3	0	0	0	18	18
08:15	1	4	0	0	0	2	0	0	1	5	0	0	0	1	0	0	0	14	14
08:30	1	1	2	0	1	2	1	0	0	0	0	0	2	2	0	0	0	12	12
08:45	0	1	1	0	0	2	2	0	1	6	0	0	1	2	0	0	0	16	16
Total	2	9	3	0	2	10	4	0	2	16	0	0	4	8	0	0	0	60	60
Grand Total	10	19	7	0	3	17	6	0	6	25	0	0	9	13	0	0	0	115	115
Apprch %	27.8	52.8	19.4		11.5	65.4	23.1		19.4	80.6	0		40.9	59.1	0		0	100	
Total %	8.7	16.5	6.1		2.6	14.8	5.2		5.2	21.7	0		7.8	11.3	0		0	100	

Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30																	
07:30	1	5	0	6	1	3	0	4	0	2	0	2	2	1	0	3	15
07:45	1	2	2	5	0	0	1	1	2	2	0	4	2	3	0	5	15
08:00	0	3	0	3	1	4	1	6	0	5	0	5	1	3	0	4	18
08:15	1	4	0	5	0	2	0	2	1	5	0	6	0	1	0	1	14
Total Volume	3	14	2	19	2	9	2	13	3	14	0	17	5	8	0	13	62
% App. Total	15.8	73.7	10.5		15.4	69.2	15.4		17.6	82.4	0		38.5	61.5	0		
PHF	.750	.700	.250	.792	.500	.563	.500	.542	.375	.700	.000	.708	.625	.667	.000	.650	.861

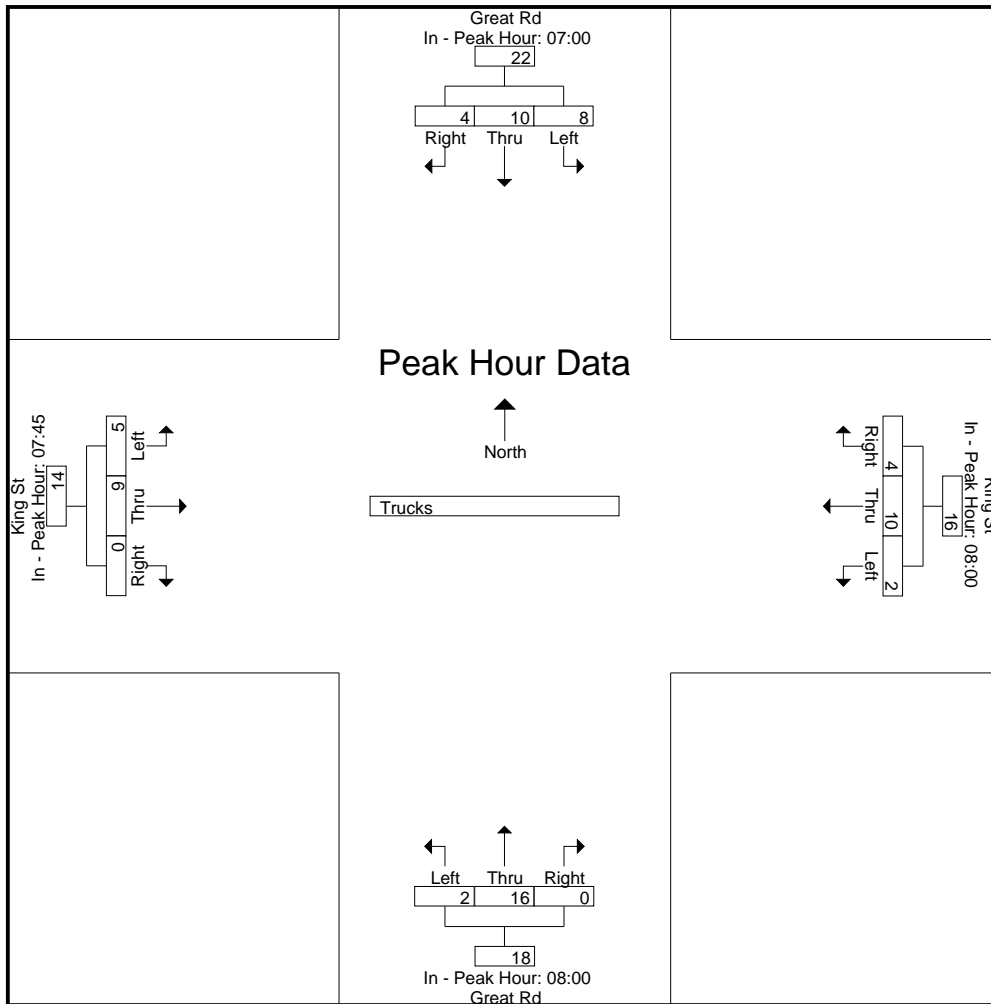


Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00				08:00				08:00				07:45			
+0 mins.	2	3	0	5	1	4	1	6	0	5	0	5	2	3	0	5
+15 mins.	4	0	2	6	0	2	0	2	1	5	0	6	1	3	0	4
+30 mins.	1	5	0	6	1	2	1	4	0	0	0	0	0	1	0	1
+45 mins.	1	2	2	5	0	2	2	4	1	6	0	7	2	2	0	4
Total Volume	8	10	4	22	2	10	4	16	2	16	0	18	5	9	0	14
% App. Total	36.4	45.5	18.2		12.5	62.5	25		11.1	88.9	0		35.7	64.3	0	
PHF	.500	.500	.500	.917	.500	.625	.500	.667	.500	.667	.000	.643	.625	.750	.000	.700





N/S Street : Great Road  
 E/W Street: King Street  
 City/State : Littleton, MA  
 Weather : Clear

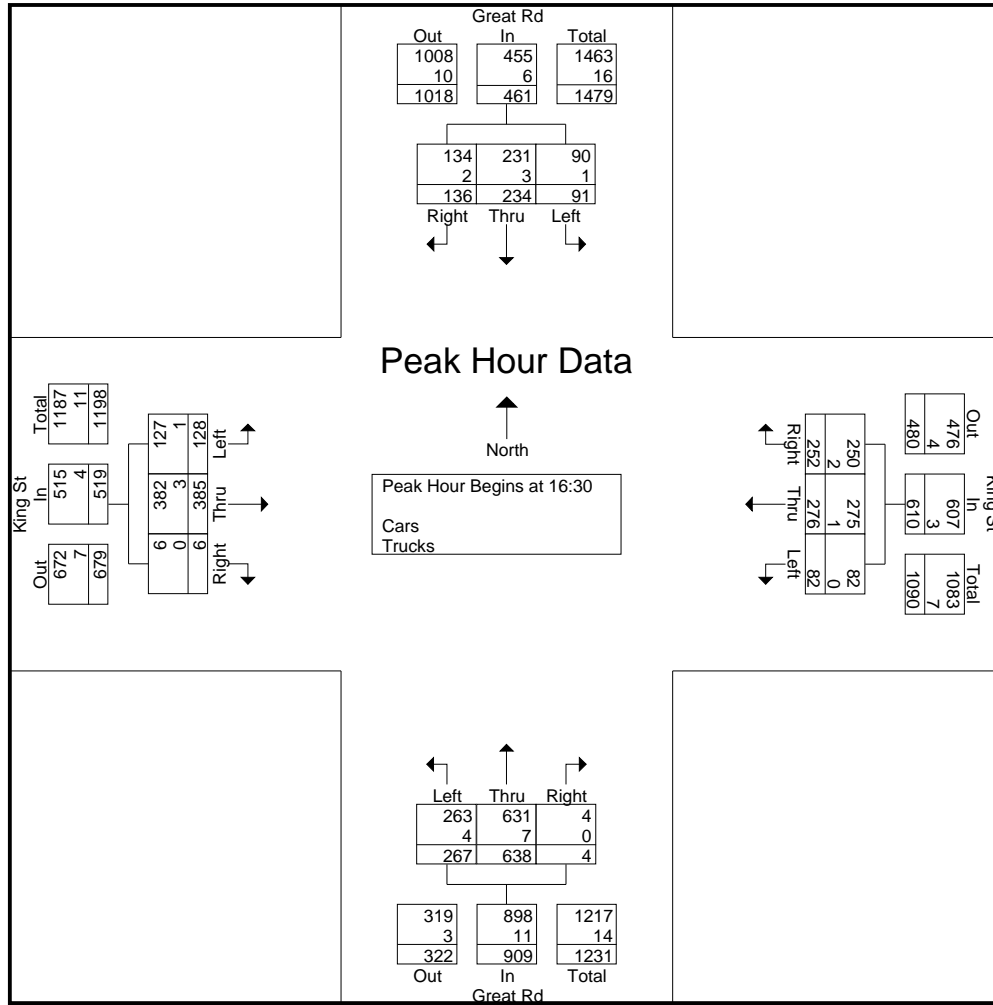
Accurate Counts  
 978-664-2565

File Name : 86525010  
 Site Code : 86525010  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	19	39	31	0	27	62	60	0	74	123	3	0	28	45	2	0	0	513	513
16:15	19	58	33	0	14	49	48	0	69	114	1	0	26	45	1	0	0	477	477
16:30	14	51	32	0	17	67	66	0	74	144	1	0	33	127	2	0	0	628	628
16:45	25	66	34	0	30	56	51	0	62	140	1	0	37	101	2	0	0	605	605
Total	77	214	130	0	88	234	225	0	279	521	6	0	124	318	7	0	0	2223	2223
17:00	27	59	33	0	14	82	74	0	64	159	2	0	38	80	1	0	0	633	633
17:15	25	58	37	0	21	71	61	2	67	195	0	0	20	77	1	0	2	633	635
17:30	23	58	26	0	16	73	61	0	63	143	3	0	30	72	0	0	0	568	568
17:45	30	40	36	0	11	61	60	1	44	142	0	0	23	66	0	0	1	513	514
Total	105	215	132	0	62	287	256	3	238	639	5	0	111	295	2	0	3	2347	2350
Grand Total	182	429	262	0	150	521	481	3	517	1160	11	0	235	613	9	0	3	4570	4573
Apprch %	20.8	49.1	30		13	45.2	41.8		30.6	68.7	0.7		27.4	71.5	1.1				
Total %	4	9.4	5.7		3.3	11.4	10.5		11.3	25.4	0.2		5.1	13.4	0.2		0.1	99.9	
Cars	179	424	259		150	519	477		511	1146	11		233	608	9		0	0	4529
% Cars	98.4	98.8	98.9	0	100	99.6	99.2	100	98.8	98.8	100	0	99.1	99.2	100	0	0	0	99
Trucks	3	5	3		0	2	4		6	14	0		2	5	0		0	0	44
% Trucks	1.6	1.2	1.1	0	0	0.4	0.8	0	1.2	1.2	0	0	0.9	0.8	0	0	0	0	1

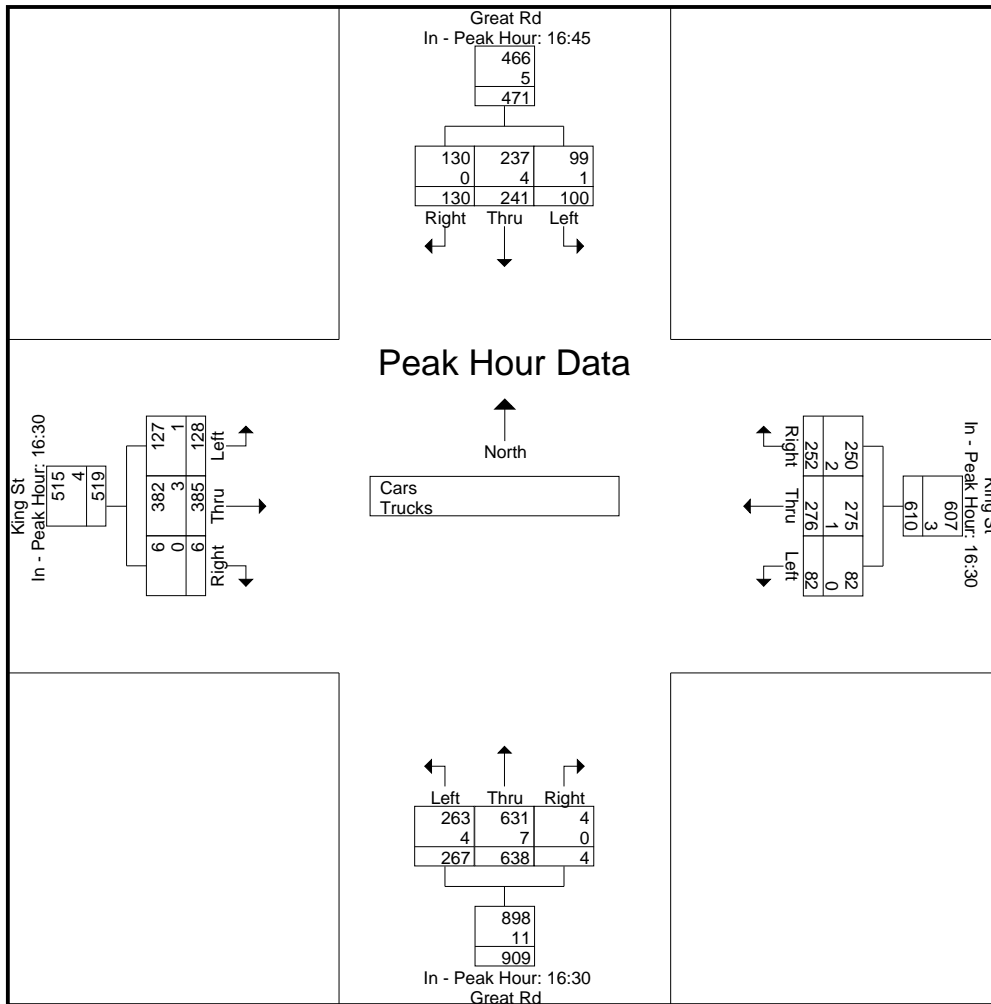
Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	14	51	32	97	17	67	66	150	74	144	1	219	33	127	2	162	628
16:45	25	66	34	125	30	56	51	137	62	140	1	203	37	101	2	140	605
17:00	27	59	33	119	14	82	74	170	64	159	2	225	38	80	1	119	633
17:15	25	58	37	120	21	71	61	153	67	195	0	262	20	77	1	98	633
Total Volume	91	234	136	461	82	276	252	610	267	638	4	909	128	385	6	519	2499
% App. Total	19.7	50.8	29.5		13.4	45.2	41.3		29.4	70.2	0.4		24.7	74.2	1.2		
PHF	.843	.886	.919	.922	.683	.841	.851	.897	.902	.818	.500	.867	.842	.758	.750	.801	.987
Cars	90	231	134	455	82	275	250	607	263	631	4	898	127	382	6	515	2475
% Cars	98.9	98.7	98.5	98.7	100	99.6	99.2	99.5	98.5	98.9	100	98.8	99.2	99.2	100	99.2	99.0
Trucks	1	3	2	6	0	1	2	3	4	7	0	11	1	3	0	4	24
% Trucks	1.1	1.3	1.5	1.3	0	0.4	0.8	0.5	1.5	1.1	0	1.2	0.8	0.8	0	0.8	1.0



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:45				16:30				16:30				16:30			
+0 mins.	25	66	34	125	17	67	66	150	74	144	1	219	33	127	2	162
+15 mins.	27	59	33	119	30	56	51	137	62	140	1	203	37	101	2	140
+30 mins.	25	58	37	120	14	82	74	170	64	159	2	225	38	80	1	119
+45 mins.	23	58	26	107	21	71	61	153	67	195	0	262	20	77	1	98
Total Volume	100	241	130	471	82	276	252	610	267	638	4	909	128	385	6	519
% App. Total	21.2	51.2	27.6		13.4	45.2	41.3		29.4	70.2	0.4		24.7	74.2	1.2	
PHF	.926	.913	.878	.942	.683	.841	.851	.897	.902	.818	.500	.867	.842	.758	.750	.801
Cars	99	237	130	466	82	275	250	607	263	631	4	898	127	382	6	515
% Cars	99	98.3	100	98.9	100	99.6	99.2	99.5	98.5	98.9	100	98.8	99.2	99.2	100	99.2
Trucks	1	4	0	5	0	1	2	3	4	7	0	11	1	3	0	4
% Trucks	1	1.7	0	1.1	0	0.4	0.8	0.5	1.5	1.1	0	1.2	0.8	0.8	0	0.8



N/S Street : Great Road  
 E/W Street: King Street  
 City/State : Littleton, MA  
 Weather : Clear

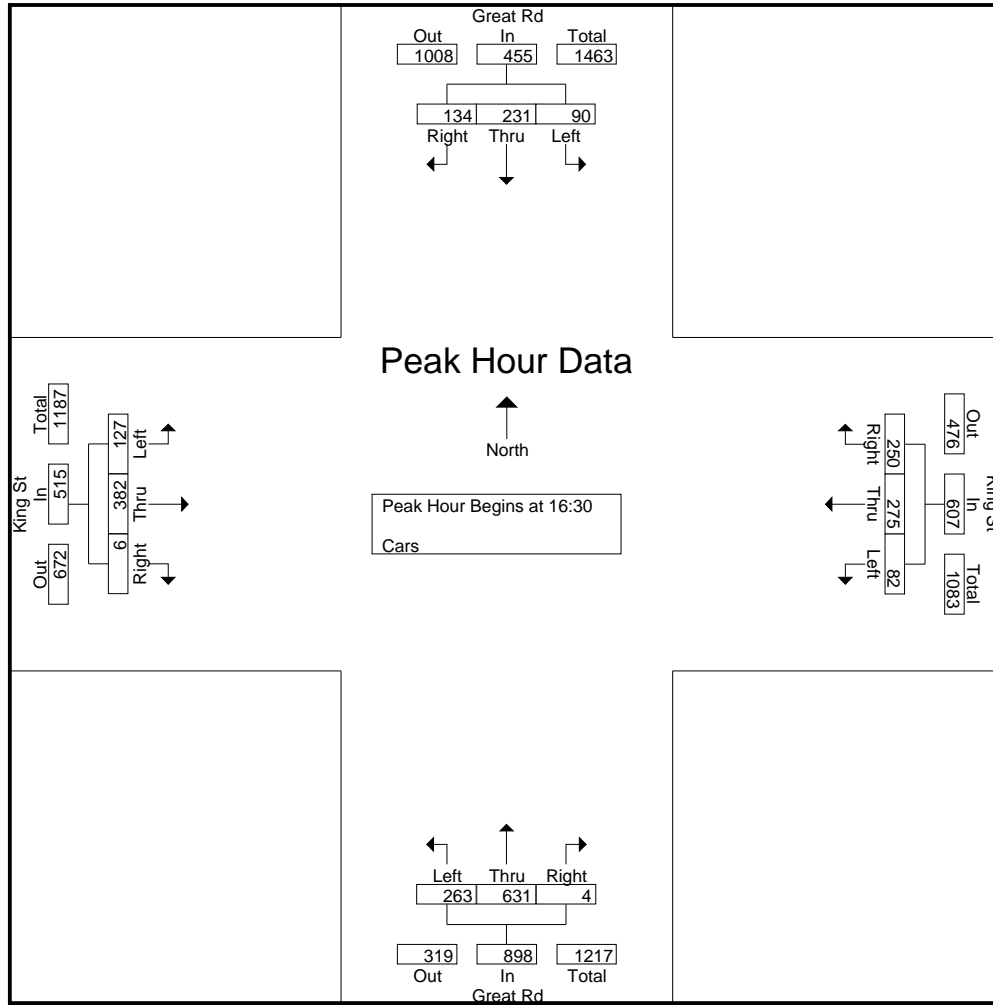
Accurate Counts  
 978-664-2565

File Name : 86525010  
 Site Code : 86525010  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	19	38	30	0	27	62	58	0	72	121	3	0	27	44	2	0	0	503	503
16:15	18	58	33	0	14	48	48	0	69	111	1	0	26	45	1	0	0	472	472
16:30	14	51	30	0	17	66	64	0	72	142	1	0	32	126	2	0	0	617	617
16:45	24	66	34	0	30	56	51	0	62	139	1	0	37	100	2	0	0	602	602
Total	75	213	127	0	88	232	221	0	275	513	6	0	122	315	7	0	0	2194	2194
17:00	27	59	33	0	14	82	74	0	64	156	2	0	38	80	1	0	0	630	630
17:15	25	55	37	0	21	71	61	2	65	194	0	0	20	76	1	0	2	626	628
17:30	23	57	26	0	16	73	61	0	63	142	3	0	30	72	0	0	0	566	566
17:45	29	40	36	0	11	61	60	1	44	141	0	0	23	65	0	0	1	510	511
Total	104	211	132	0	62	287	256	3	236	633	5	0	111	293	2	0	3	2332	2335
Grand Total	179	424	259	0	150	519	477	3	511	1146	11	0	233	608	9	0	3	4526	4529
Apprch %	20.8	49.2	30		13.1	45.3	41.6		30.6	68.7	0.7		27.4	71.5	1.1				
Total %	4	9.4	5.7		3.3	11.5	10.5		11.3	25.3	0.2		5.1	13.4	0.2		0.1	99.9	

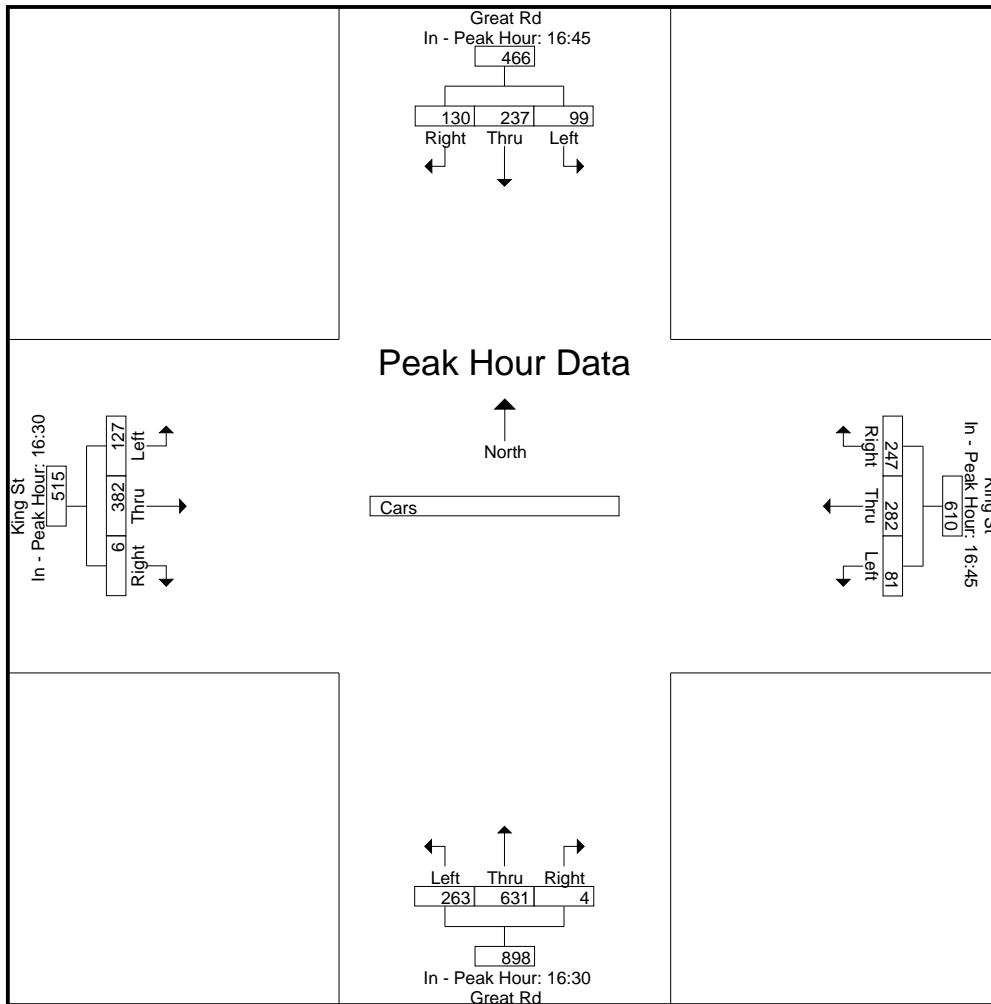
Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	14	51	30	95	17	66	64	147	72	142	1	215	32	126	2	160	617
16:45	24	66	34	124	30	56	51	137	62	139	1	202	37	100	2	139	602
17:00	27	59	33	119	14	82	74	170	64	156	2	222	38	80	1	119	630
17:15	25	55	37	117	21	71	61	153	65	194	0	259	20	76	1	97	626
Total Volume	90	231	134	455	82	275	250	607	263	631	4	898	127	382	6	515	2475
% App. Total	19.8	50.8	29.5		13.5	45.3	41.2		29.3	70.3	0.4		24.7	74.2	1.2		
PHF	.833	.875	.905	.917	.683	.838	.845	.893	.913	.813	.500	.867	.836	.758	.750	.805	.982



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:45				16:45				16:30				16:30			
+0 mins.	24	66	34	124	30	56	51	137	72	142	1	215	32	126	2	160
+15 mins.	27	59	33	119	14	82	74	170	62	139	1	202	37	100	2	139
+30 mins.	25	55	37	117	21	71	61	153	64	156	2	222	38	80	1	119
+45 mins.	23	57	26	106	16	73	61	150	65	194	0	259	20	76	1	97
Total Volume	99	237	130	466	81	282	247	610	263	631	4	898	127	382	6	515
% App. Total	21.2	50.9	27.9		13.3	46.2	40.5		29.3	70.3	0.4		24.7	74.2	1.2	
PHF	.917	.898	.878	.940	.675	.860	.834	.897	.913	.813	.500	.867	.836	.758	.750	.805



N/S Street : Great Road  
 E/W Street: King Street  
 City/State : Littleton, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

File Name : 86525010  
 Site Code : 86525010  
 Start Date : 4/8/2008  
 Page No : 1

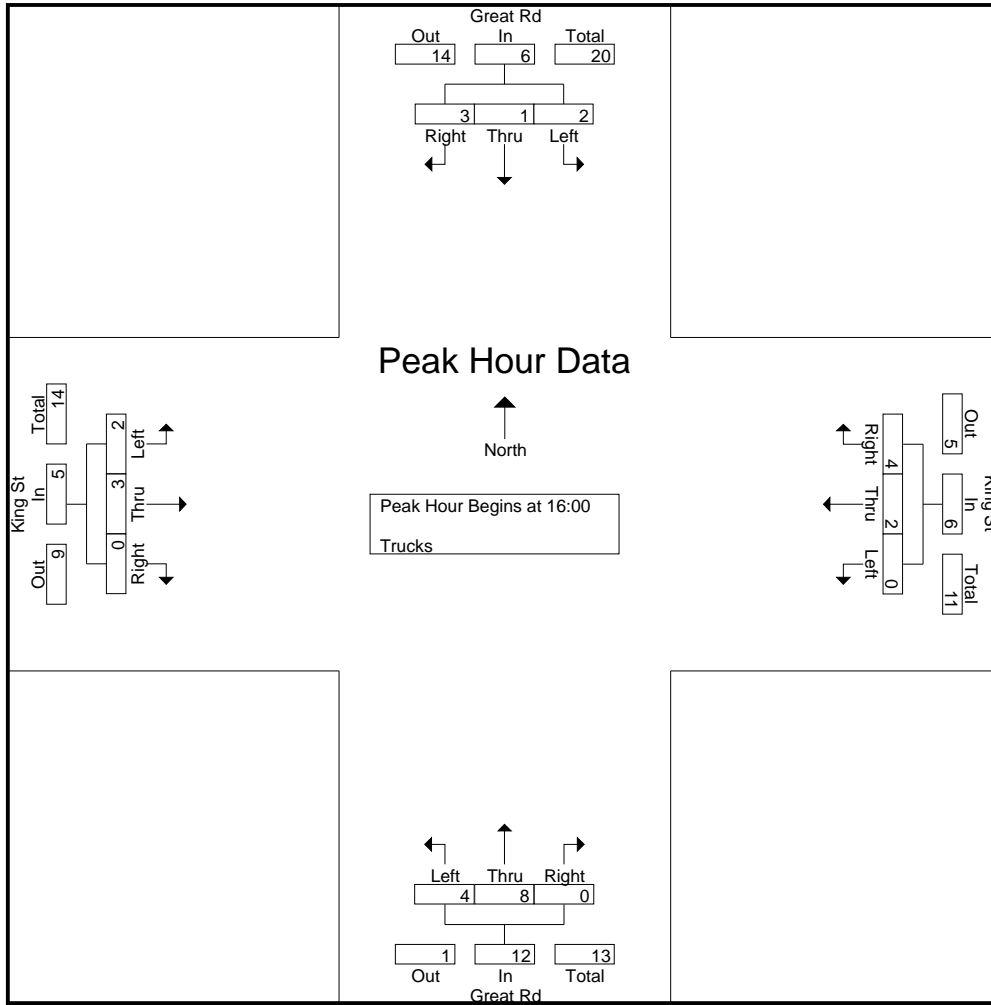
Groups Printed- Trucks

Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	0	1	1	0	0	0	2	0	2	2	0	0	1	1	0	0	0	10	10
16:15	1	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	5	5
16:30	0	0	2	0	0	1	2	0	2	2	0	0	1	1	0	0	0	11	11
16:45	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	3	3
Total	2	1	3	0	0	2	4	0	4	8	0	0	2	3	0	0	0	29	29
17:00	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	3
17:15	0	3	0	0	0	0	0	0	2	1	0	0	0	1	0	0	0	7	7
17:30	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	2
17:45	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	3	3
Total	1	4	0	0	0	0	0	0	2	6	0	0	0	2	0	0	0	15	15
Grand Total	3	5	3	0	0	2	4	0	6	14	0	0	2	5	0	0	0	44	44
Apprch %	27.3	45.5	27.3		0	33.3	66.7		30	70	0		28.6	71.4	0		0		
Total %	6.8	11.4	6.8		0	4.5	9.1		13.6	31.8	0		4.5	11.4	0		0	100	

Start Time	Great Rd From North				King St From East				Great Rd From South				King St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
16:00	0	1	1	2	0	0	2	2	2	2	0	4	1	1	0	2	10
16:15	1	0	0	1	0	1	0	1	0	3	0	3	0	0	0	0	5
16:30	0	0	2	2	0	1	2	3	2	2	0	4	1	1	0	2	11
16:45	1	0	0	1	0	0	0	0	0	1	0	1	0	1	0	1	3
Total Volume	2	1	3	6	0	2	4	6	4	8	0	12	2	3	0	5	29
% App. Total	33.3	16.7	50		0	33.3	66.7		33.3	66.7	0		40	60	0		
PHF	.500	.250	.375	.750	.000	.500	.500	.500	.500	.667	.000	.750	.500	.750	.000	.625	.659

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00

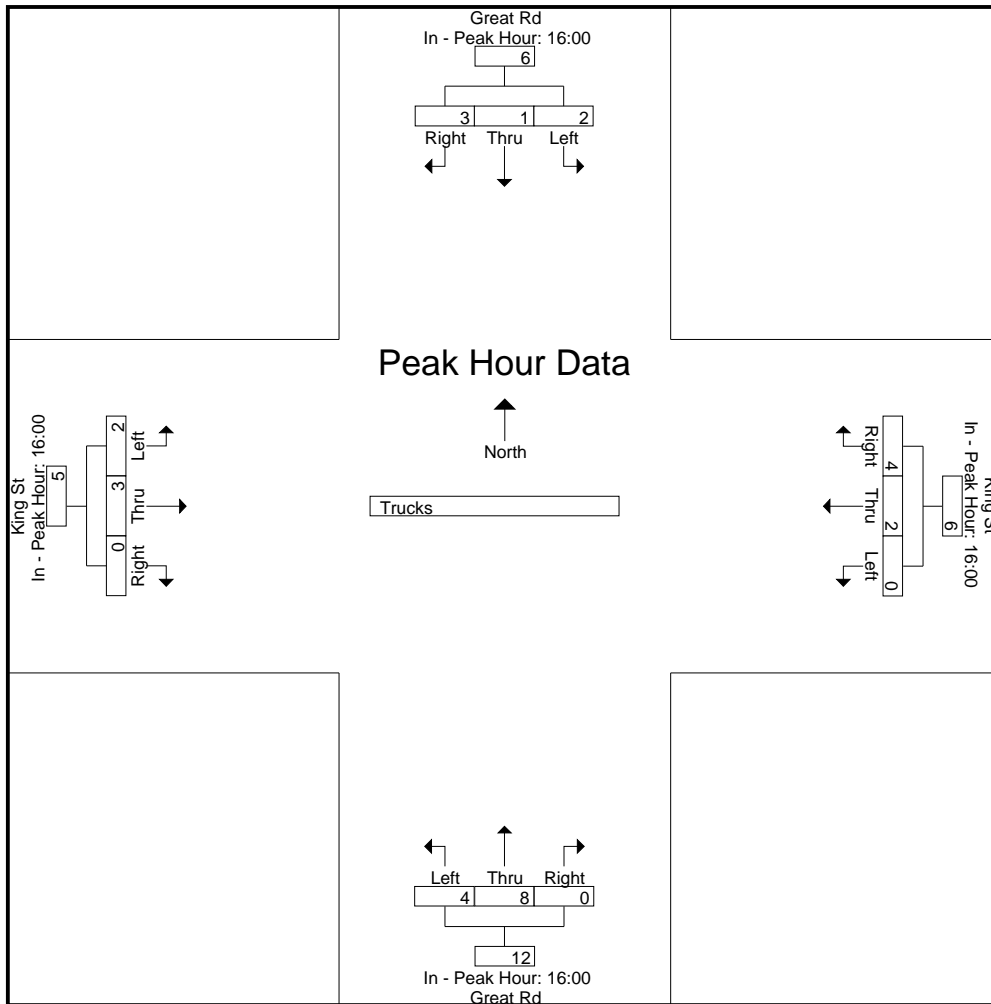




Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:00				16:00				16:00			
+0 mins.	0	1	1	2	0	0	2	2	2	2	0	4	1	1	0	2
+15 mins.	1	0	0	1	0	1	0	1	0	3	0	3	0	0	0	0
+30 mins.	0	0	2	2	0	1	2	3	2	2	0	4	1	1	0	2
+45 mins.	1	0	0	1	0	0	0	0	0	1	0	1	0	1	0	1
Total Volume	2	1	3	6	0	2	4	6	4	8	0	12	2	3	0	5
% App. Total	33.3	16.7	50		0	33.3	66.7		33.3	66.7	0		40	60	0	
PHF	.500	.250	.375	.750	.000	.500	.500	.500	.500	.667	.000	.750	.500	.750	.000	.625



N/S Street : Goldsmith Street  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

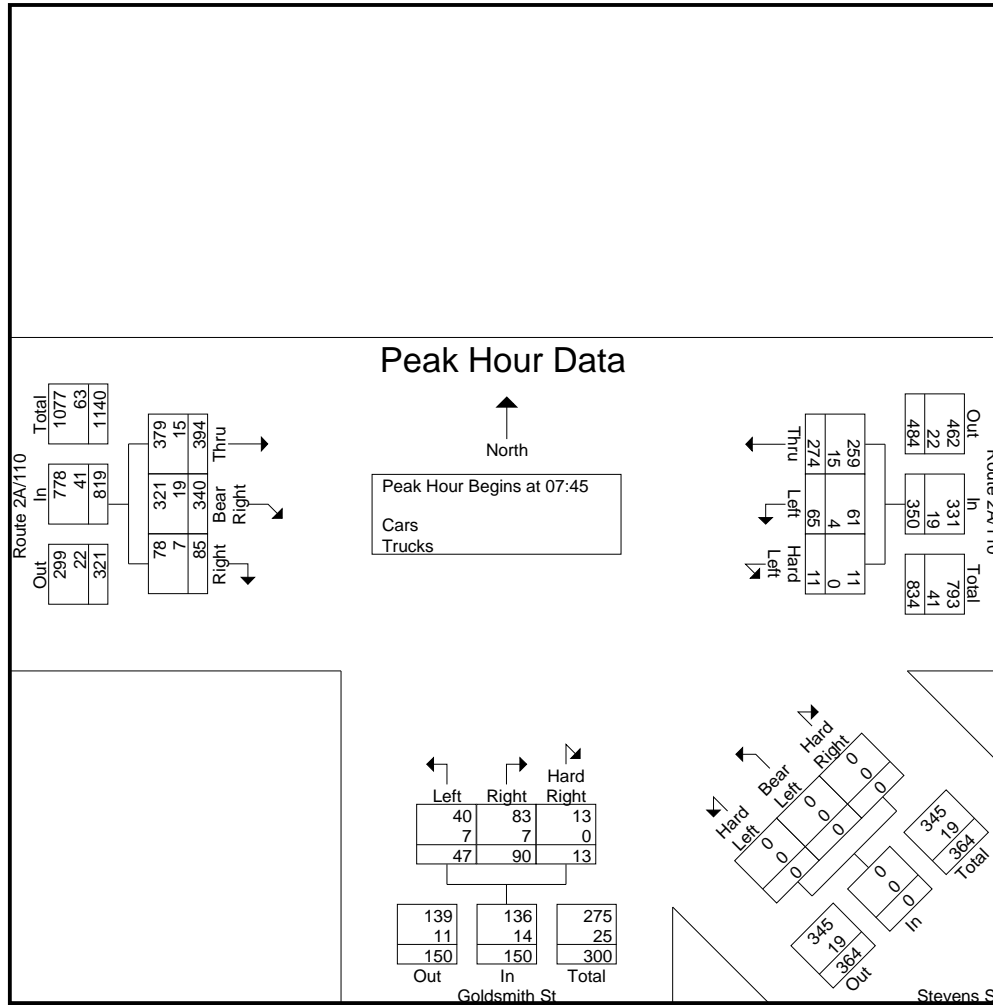
Accurate Counts  
 978-664-2565

File Name : 86525011  
 Site Code : 86525011  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Hard Left	Left	Thru	Peds	Hard Left	Bear Left	Hard Right	Peds	Left	Right	Hard Right	Peds	Thru	Bear Right	Right	Peds			
07:00	1	13	60	0	0	0	0	0	29	20	4	0	63	51	11	2	2	252	254
07:15	3	9	65	0	0	0	0	0	18	19	2	0	67	71	20	0	0	274	274
07:30	2	9	75	0	0	0	0	0	19	19	1	0	90	77	18	0	0	310	310
07:45	2	16	62	0	0	0	0	0	15	28	2	1	119	90	25	0	1	359	360
Total	8	47	262	0	0	0	0	0	81	86	9	1	339	289	74	2	3	1195	1198
08:00	3	13	63	0	0	0	0	0	8	22	3	5	75	73	17	0	5	277	282
08:15	4	16	72	0	0	0	0	0	9	18	3	3	89	89	20	0	3	320	323
08:30	2	20	77	0	0	0	0	0	15	22	5	2	111	88	23	0	2	363	365
08:45	4	12	63	0	0	0	0	0	14	16	5	1	90	82	21	1	2	307	309
Total	13	61	275	0	0	0	0	0	46	78	16	11	365	332	81	1	12	1267	1279
Grand Total	21	108	537	0	0	0	0	0	127	164	25	12	704	621	155	3	15	2462	2477
Apprch %	3.2	16.2	80.6		0	0	0		40.2	51.9	7.9		47.6	42	10.5				
Total %	0.9	4.4	21.8		0	0	0		5.2	6.7	1		28.6	25.2	6.3		0.6	99.4	
Cars	21	102	508		0	0	0		115	152	24		682	577	138		0	0	2334
% Cars	100	94.4	94.6	0	0	0	0	0	90.6	92.7	96	100	96.9	92.9	89	100	0	0	94.2
Trucks	0	6	29		0	0	0		12	12	1		22	44	17		0	0	143
% Trucks	0	5.6	5.4	0	0	0	0	0	9.4	7.3	4	0	3.1	7.1	11	0	0	0	5.8

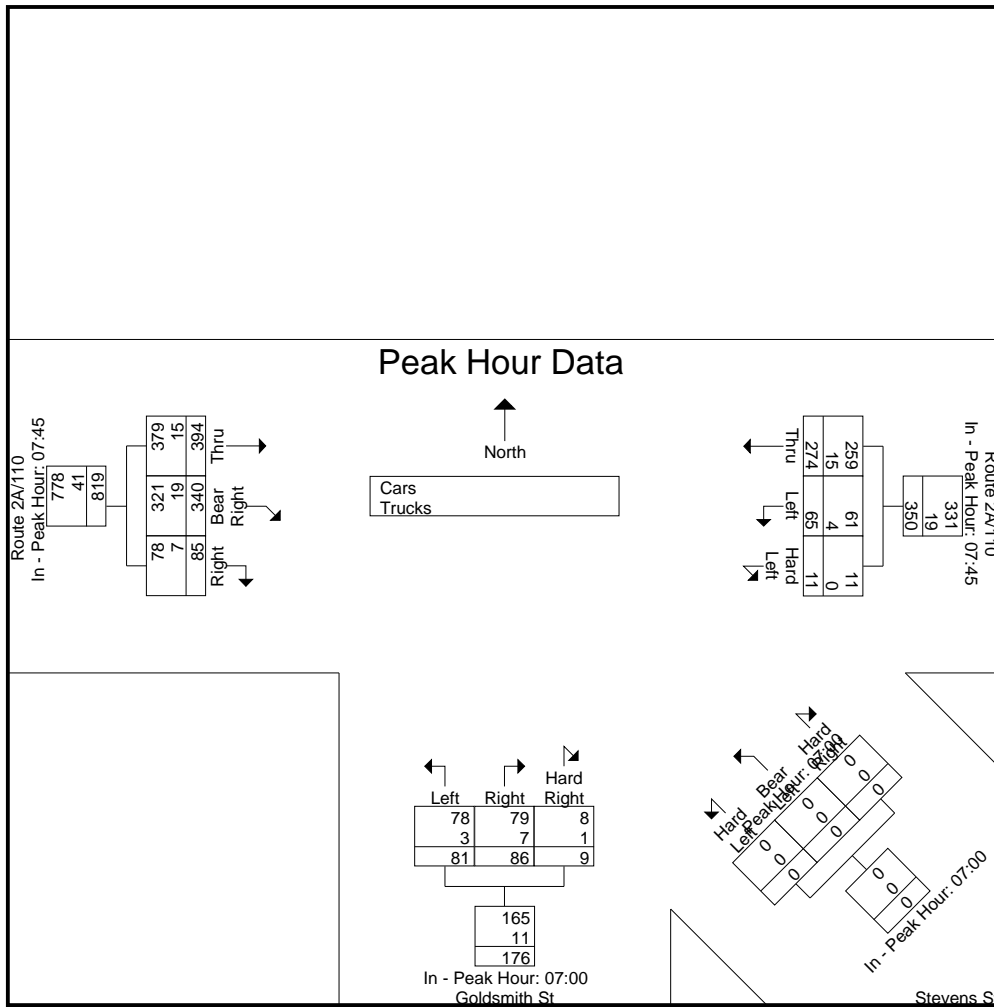
Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Int. Total
	Hard Left	Left	Thru	App. Total	Hard Left	Bear Left	Hard Right	App. Total	Left	Right	Hard Right	App. Total	Thru	Bear Right	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	2	16	62	80	0	0	0	0	15	28	2	45	119	90	25	234	359
08:00	3	13	63	79	0	0	0	0	8	22	3	33	75	73	17	165	277
08:15	4	16	72	92	0	0	0	0	9	18	3	30	89	89	20	198	320
08:30	2	20	77	99	0	0	0	0	15	22	5	42	111	88	23	222	363
Total Volume	11	65	274	350	0	0	0	0	47	90	13	150	394	340	85	819	1319
% App. Total	3.1	18.6	78.3		0	0	0		31.3	60	8.7		48.1	41.5	10.4		
PHF	.688	.813	.890	.884	.000	.000	.000	.000	.783	.804	.650	.833	.828	.944	.850	.875	.908
Cars	11	61	259	331	0	0	0	0	40	83	13	136	379	321	78	778	1245
% Cars	100	93.8	94.5	94.6	0	0	0	0	85.1	92.2	100	90.7	96.2	94.4	91.8	95.0	94.4
Trucks	0	4	15	19	0	0	0	0	7	7	0	14	15	19	7	41	74
% Trucks	0	6.2	5.5	5.4	0	0	0	0	14.9	7.8	0	9.3	3.8	5.6	8.2	5.0	5.6



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45				07:00				07:00				07:45			
+0 mins.	2	16	62	80	0	0	0	0	29	20	4	53	119	90	25	234
+15 mins.	3	13	63	79	0	0	0	0	18	19	2	39	75	73	17	165
+30 mins.	4	16	72	92	0	0	0	0	19	19	1	39	89	89	20	198
+45 mins.	2	20	77	99	0	0	0	0	15	28	2	45	111	88	23	222
Total Volume	11	65	274	350	0	0	0	0	81	86	9	176	394	340	85	819
% App. Total	3.1	18.6	78.3		0	0	0		46	48.9	5.1		48.1	41.5	10.4	
PHF	.688	.813	.890	.884	.000	.000	.000	.000	.698	.768	.563	.830	.828	.944	.850	.875
Cars	11	61	259	331	0	0	0	0	78	79	8	165	379	321	78	778
% Cars	100	93.8	94.5	94.6	0	0	0	0	96.3	91.9	88.9	93.8	96.2	94.4	91.8	95
Trucks	0	4	15	19	0	0	0	0	3	7	1	11	15	19	7	41
% Trucks	0	6.2	5.5	5.4	0	0	0	0	3.7	8.1	11.1	6.2	3.8	5.6	8.2	5



N/S Street : Goldsmith Street  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

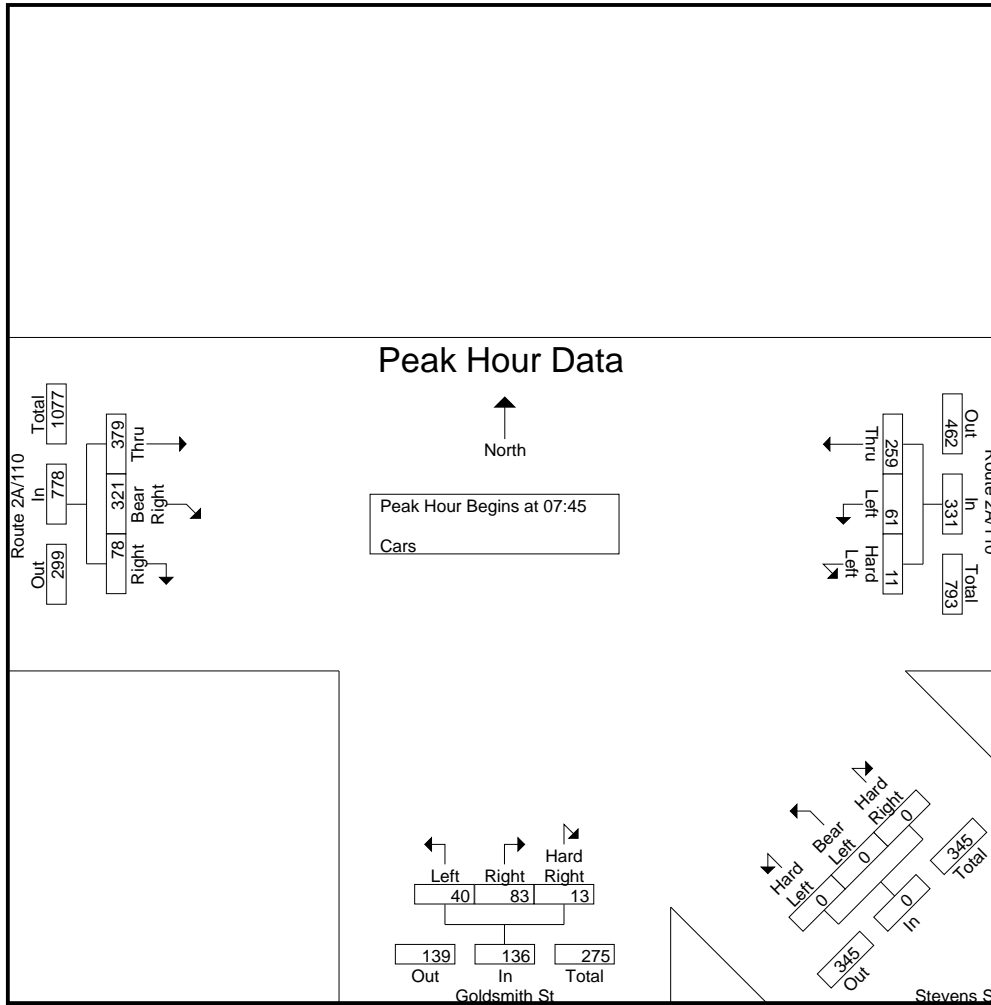
Accurate Counts  
 978-664-2565

File Name : 86525011  
 Site Code : 86525011  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Hard Left	Left	Thru	Peds	Hard Left	Bear Left	Hard Right	Peds	Left	Right	Hard Right	Peds	Thru	Bear Right	Right	Peds			
07:00	1	13	57	0	0	0	0	0	28	19	4	0	61	44	11	2	2	238	240
07:15	3	7	63	0	0	0	0	0	17	18	1	0	67	67	17	0	0	260	260
07:30	2	9	71	0	0	0	0	0	18	17	1	0	88	70	15	0	0	291	291
07:45	2	13	57	0	0	0	0	0	15	25	2	1	114	83	25	0	1	336	337
Total	8	42	248	0	0	0	0	0	78	79	8	1	330	264	68	2	3	1125	1128
08:00	3	13	61	0	0	0	0	0	7	20	3	5	73	69	16	0	5	265	270
08:15	4	16	67	0	0	0	0	0	8	18	3	3	87	82	19	0	3	304	307
08:30	2	19	74	0	0	0	0	0	10	20	5	2	105	87	18	0	2	340	342
08:45	4	12	58	0	0	0	0	0	12	15	5	1	87	75	17	1	2	285	287
Total	13	60	260	0	0	0	0	0	37	73	16	11	352	313	70	1	12	1194	1206
Grand Total	21	102	508	0	0	0	0	0	115	152	24	12	682	577	138	3	15	2319	2334
Apprch %	3.3	16.2	80.5		0	0	0		39.5	52.2	8.2		48.8	41.3	9.9				
Total %	0.9	4.4	21.9		0	0	0		5	6.6	1		29.4	24.9	6		0.6	99.4	

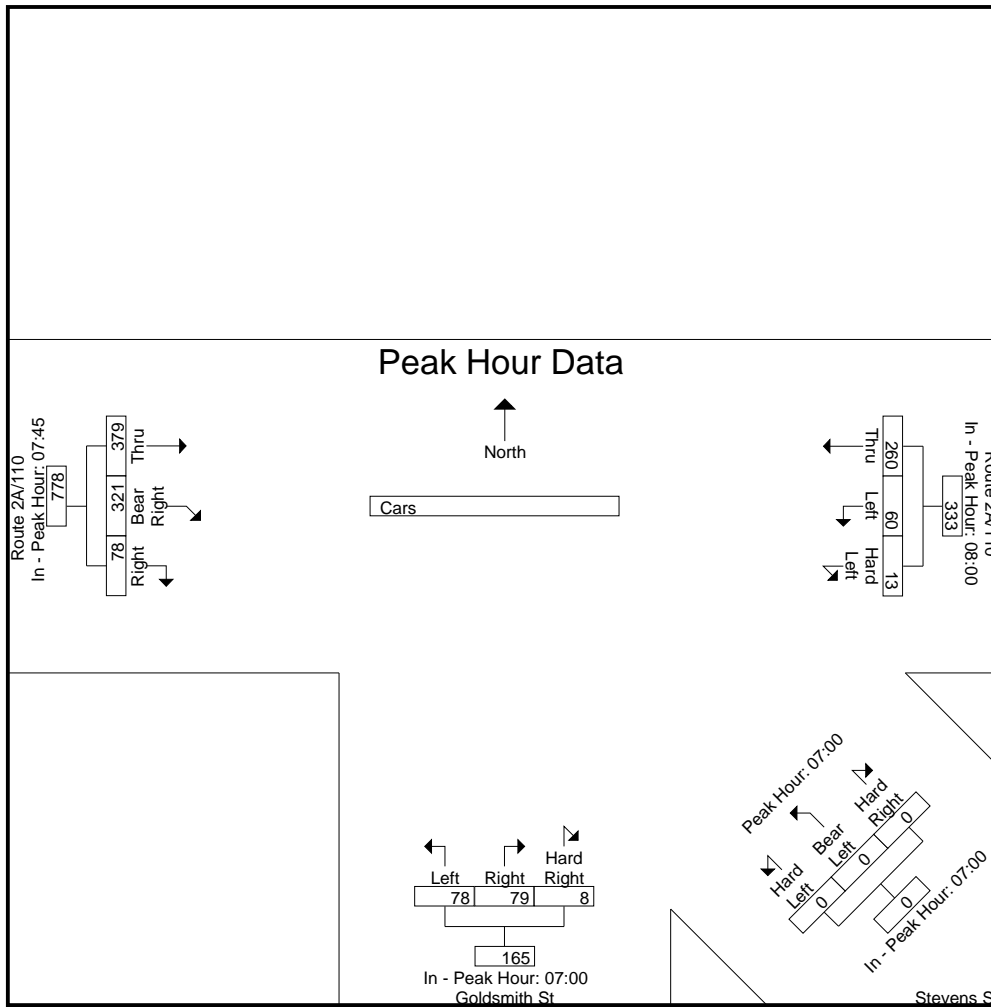
Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Int. Total
	Hard Left	Left	Thru	App. Total	Hard Left	Bear Left	Hard Right	App. Total	Left	Right	Hard Right	App. Total	Thru	Bear Right	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	2	13	57	72	0	0	0	0	15	25	2	42	114	83	25	222	336
08:00	3	13	61	77	0	0	0	0	7	20	3	30	73	69	16	158	265
08:15	4	16	67	87	0	0	0	0	8	18	3	29	87	82	19	188	304
08:30	2	19	74	95	0	0	0	0	10	20	5	35	105	87	18	210	340
Total Volume	11	61	259	331	0	0	0	0	40	83	13	136	379	321	78	778	1245
% App. Total	3.3	18.4	78.2		0	0	0		29.4	61	9.6		48.7	41.3	10		
PHF	.688	.803	.875	.871	.000	.000	.000	.000	.667	.830	.650	.810	.831	.922	.780	.876	.915



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00				07:00				07:00				07:45			
+0 mins.	3	13	61	77	0	0	0	0	28	19	4	51	114	83	25	222
+15 mins.	4	16	67	87	0	0	0	0	17	18	1	36	73	69	16	158
+30 mins.	2	19	74	95	0	0	0	0	18	17	1	36	87	82	19	188
+45 mins.	4	12	58	74	0	0	0	0	15	25	2	42	105	87	18	210
Total Volume	13	60	260	333	0	0	0	0	78	79	8	165	379	321	78	778
% App. Total	3.9	18	78.1		0	0	0		47.3	47.9	4.8		48.7	41.3	10	
PHF	.813	.789	.878	.876	.000	.000	.000	.000	.696	.790	.500	.809	.831	.922	.780	.876





N/S Street : Goldsmith Street  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

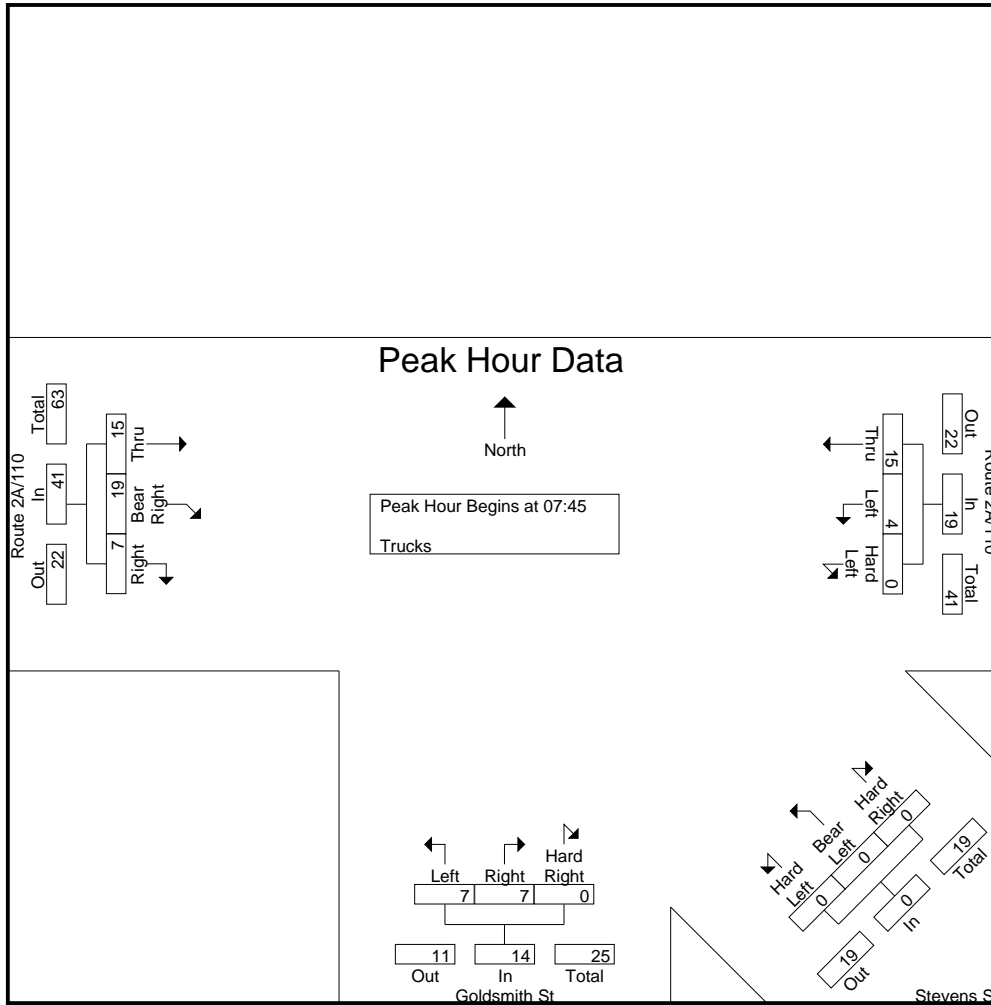
File Name : 86525011  
 Site Code : 86525011  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Hard Left	Left	Thru	Peds	Hard Left	Bear Left	Hard Right	Peds	Left	Right	Hard Right	Peds	Thru	Bear Right	Right	Peds			
07:00	0	0	3	0	0	0	0	0	1	1	0	0	2	7	0	0	0	14	14
07:15	0	2	2	0	0	0	0	0	1	1	1	0	0	4	3	0	0	14	14
07:30	0	0	4	0	0	0	0	0	1	2	0	0	2	7	3	0	0	19	19
07:45	0	3	5	0	0	0	0	0	0	3	0	0	5	7	0	0	0	23	23
Total	0	5	14	0	0	0	0	0	3	7	1	0	9	25	6	0	0	70	70
08:00	0	0	2	0	0	0	0	0	1	2	0	0	2	4	1	0	0	12	12
08:15	0	0	5	0	0	0	0	0	1	0	0	0	2	7	1	0	0	16	16
08:30	0	1	3	0	0	0	0	0	5	2	0	0	6	1	5	0	0	23	23
08:45	0	0	5	0	0	0	0	0	2	1	0	0	3	7	4	0	0	22	22
Total	0	1	15	0	0	0	0	0	9	5	0	0	13	19	11	0	0	73	73
Grand Total	0	6	29	0	0	0	0	0	12	12	1	0	22	44	17	0	0	143	143
Apprch %	0	17.1	82.9		0	0	0		48	48	4		26.5	53	20.5				
Total %	0	4.2	20.3		0	0	0		8.4	8.4	0.7		15.4	30.8	11.9		0	100	

Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Int. Total
	Hard Left	Left	Thru	App. Total	Hard Left	Bear Left	Hard Right	App. Total	Left	Right	Hard Right	App. Total	Thru	Bear Right	Right	App. Total	
07:45	0	3	5	8	0	0	0	0	0	3	0	3	5	7	0	12	23
08:00	0	0	2	2	0	0	0	0	1	2	0	3	2	4	1	7	12
08:15	0	0	5	5	0	0	0	0	1	0	0	1	2	7	1	10	16
08:30	0	1	3	4	0	0	0	0	5	2	0	7	6	1	5	12	23
Total Volume	0	4	15	19	0	0	0	0	7	7	0	14	15	19	7	41	74
% App. Total	0	21.1	78.9		0	0	0		50	50	0		36.6	46.3	17.1		
PHF	.000	.333	.750	.594	.000	.000	.000	.000	.350	.583	.000	.500	.625	.679	.350	.854	.804

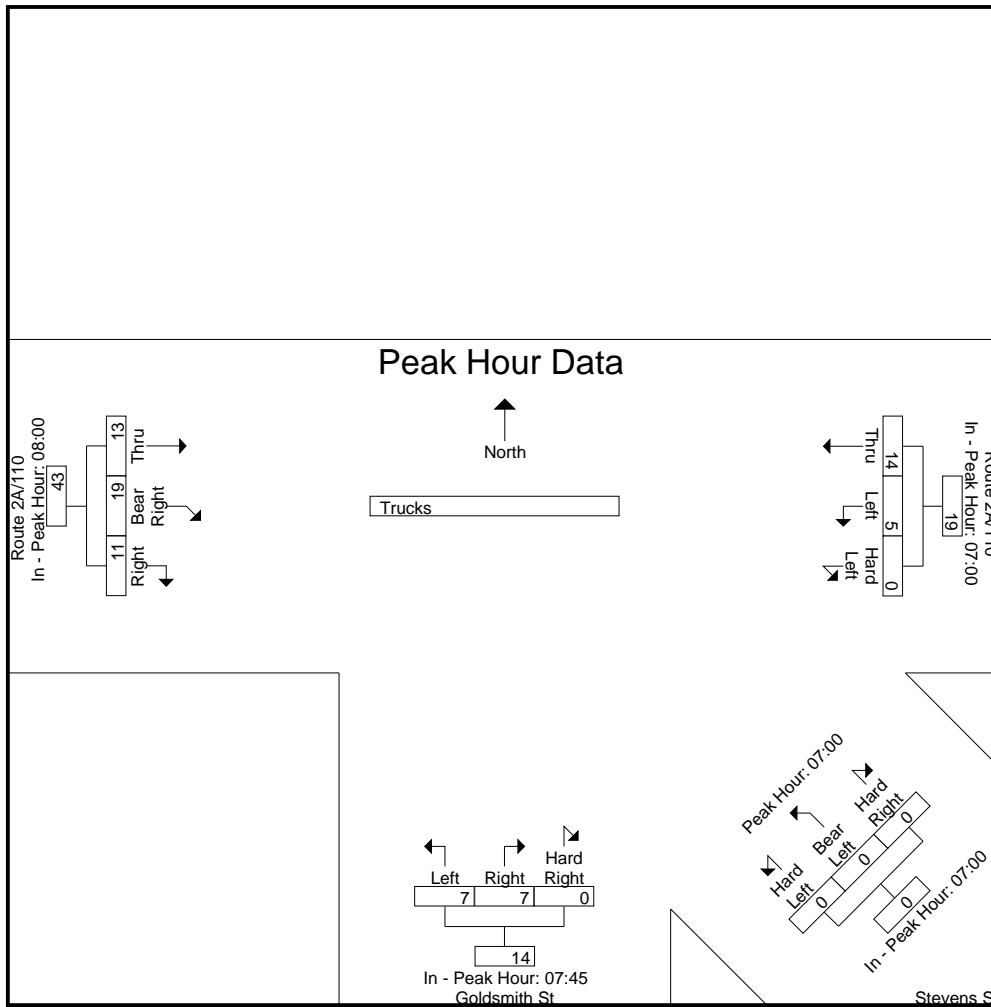
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:45



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00				07:45				08:00							
+0 mins.	0	0	3	3	0	0	0	0	0	3	0	3	2	4	1	7
+15 mins.	0	2	2	4	0	0	0	0	1	2	0	3	2	7	1	10
+30 mins.	0	0	4	4	0	0	0	0	1	0	0	1	6	1	5	12
+45 mins.	0	3	5	8	0	0	0	0	5	2	0	7	3	7	4	14
Total Volume	0	5	14	19	0	0	0	0	7	7	0	14	13	19	11	43
% App. Total	0	26.3	73.7		0	0	0	0	50	50	0		30.2	44.2	25.6	
PHF	.000	.417	.700	.594	.000	.000	.000	.000	.350	.583	.000	.500	.542	.679	.550	.768



N/S Street : Goldsmith Street  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

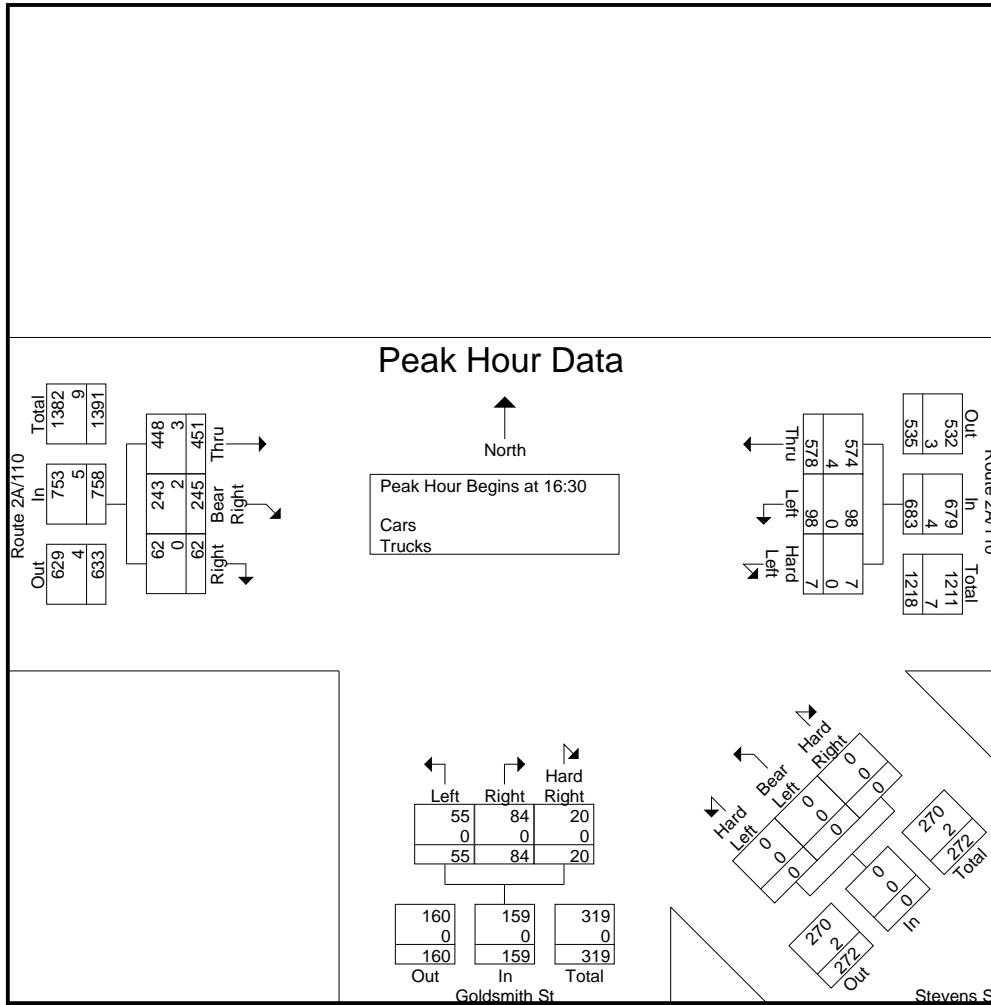
Accurate Counts  
 978-664-2565

File Name : 86525011  
 Site Code : 86525011  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Hard Left	Left	Thru	Peds	Hard Left	Bear Left	Hard Right	Peds	Left	Right	Hard Right	Peds	Thru	Bear Right	Right	Peds			
16:00	2	26	139	1	0	0	0	0	14	14	6	0	50	56	18	0	1	325	326
16:15	4	23	127	0	0	0	0	0	24	20	6	0	55	67	15	0	0	341	341
16:30	0	23	148	0	0	0	0	0	20	13	2	0	156	63	11	0	0	436	436
16:45	3	28	125	0	0	0	0	0	11	24	8	0	122	77	9	0	0	407	407
Total	9	100	539	1	0	0	0	0	69	71	22	0	383	263	53	0	1	1509	1510
17:00	3	22	154	0	0	0	0	0	12	25	2	1	91	41	23	0	1	373	374
17:15	1	25	151	0	0	0	0	0	12	22	8	0	82	64	19	0	0	384	384
17:30	1	28	136	0	0	0	0	0	14	32	4	0	71	68	22	0	0	376	376
17:45	3	32	121	0	0	0	0	0	9	30	6	1	63	55	22	0	1	341	342
Total	8	107	562	0	0	0	0	0	47	109	20	2	307	228	86	0	2	1474	1476
Grand Total	17	207	1101	1	0	0	0	0	116	180	42	2	690	491	139	0	3	2983	2986
Apprch %	1.3	15.6	83.1		0	0	0		34.3	53.3	12.4		52.3	37.2	10.5				
Total %	0.6	6.9	36.9		0	0	0		3.9	6	1.4		23.1	16.5	4.7		0.1	99.9	
Cars	17	207	1095		0	0	0		115	180	42		686	489	139		0	0	2973
% Cars	100	100	99.5	100	0	0	0	0	99.1	100	100	100	99.4	99.6	100	0	0	0	99.6
Trucks	0	0	6		0	0	0		1	0	0		4	2	0		0	0	13
% Trucks	0	0	0.5	0	0	0	0	0	0.9	0	0	0	0.6	0.4	0	0	0	0	0.4

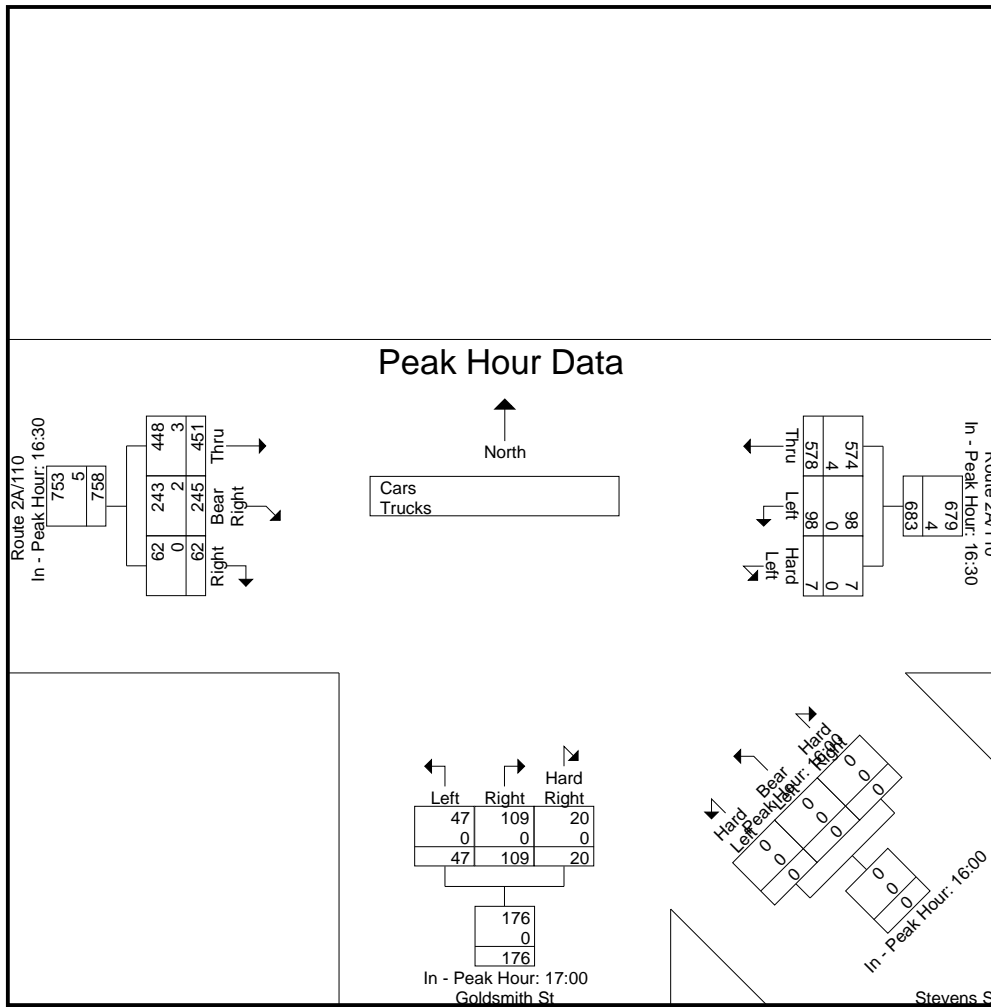
Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Int. Total
	Hard Left	Left	Thru	App. Total	Hard Left	Bear Left	Hard Right	App. Total	Left	Right	Hard Right	App. Total	Thru	Bear Right	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	0	23	148	171	0	0	0	0	20	13	2	35	156	63	11	230	436
16:45	3	28	125	156	0	0	0	0	11	24	8	43	122	77	9	208	407
17:00	3	22	154	179	0	0	0	0	12	25	2	39	91	41	23	155	373
17:15	1	25	151	177	0	0	0	0	12	22	8	42	82	64	19	165	384
Total Volume	7	98	578	683	0	0	0	0	55	84	20	159	451	245	62	758	1600
% App. Total	1	14.3	84.6		0	0	0		34.6	52.8	12.6		59.5	32.3	8.2		
PHF	.583	.875	.938	.954	.000	.000	.000	.000	.688	.840	.625	.924	.723	.795	.674	.824	.917
Cars	7	98	574	679	0	0	0	0	55	84	20	159	448	243	62	753	1591
% Cars	100	100	99.3	99.4	0	0	0	0	100	100	100	100	99.3	99.2	100	99.3	99.4
Trucks	0	0	4	4	0	0	0	0	0	0	0	0	3	2	0	5	9
% Trucks	0	0	0.7	0.6	0	0	0	0	0	0	0	0	0.7	0.8	0	0.7	0.6



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:30				16:00				17:00				16:30			
+0 mins.	0	23	148	171	0	0	0	0	12	25	2	39	156	63	11	230
+15 mins.	3	28	125	156	0	0	0	0	12	22	8	42	122	77	9	208
+30 mins.	3	22	154	179	0	0	0	0	14	32	4	50	91	41	23	155
+45 mins.	1	25	151	177	0	0	0	0	9	30	6	45	82	64	19	165
Total Volume	7	98	578	683	0	0	0	0	47	109	20	176	451	245	62	758
% App. Total	1	14.3	84.6		0	0	0		26.7	61.9	11.4		59.5	32.3	8.2	
PHF	.583	.875	.938	.954	.000	.000	.000	.000	.839	.852	.625	.880	.723	.795	.674	.824
Cars	7	98	574	679	0	0	0	0	47	109	20	176	448	243	62	753
% Cars	100	100	99.3	99.4	0	0	0	0	100	100	100	100	99.3	99.2	100	99.3
Trucks	0	0	4	4	0	0	0	0	0	0	0	0	3	2	0	5
% Trucks	0	0	0.7	0.6	0	0	0	0	0	0	0	0	0.7	0.8	0	0.7



N/S Street : Goldsmith Street  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

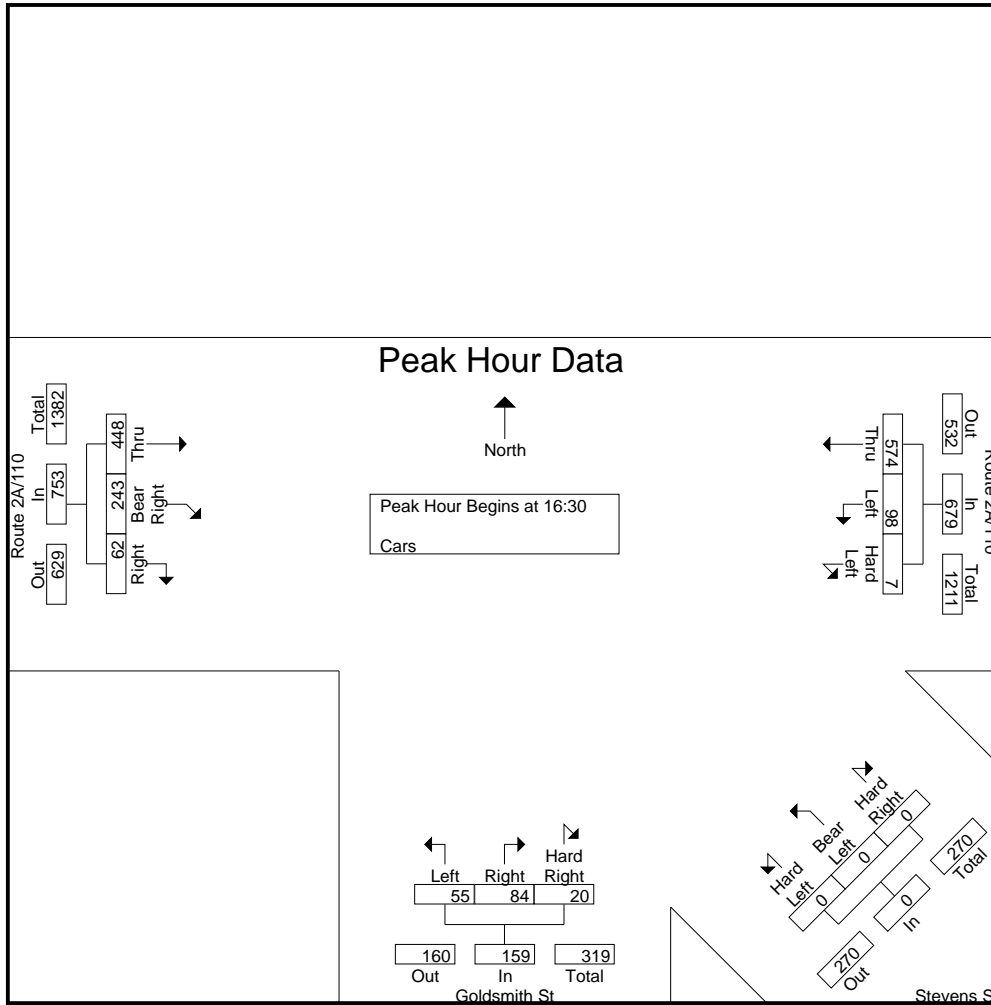
Accurate Counts  
 978-664-2565

File Name : 86525011  
 Site Code : 86525011  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total
	Hard Left	Left	Thru	Peds	Hard Left	Bear Left	Hard Right	Peds	Left	Right	Hard Right	Peds	Thru	Bear Right	Right	Peds			
16:00	2	26	138	1	0	0	0	0	14	14	6	0	49	56	18	0	1	323	324
16:15	4	23	126	0	0	0	0	0	23	20	6	0	55	67	15	0	0	339	339
16:30	0	23	145	0	0	0	0	0	20	13	2	0	154	62	11	0	0	430	430
16:45	3	28	125	0	0	0	0	0	11	24	8	0	121	76	9	0	0	405	405
Total	9	100	534	1	0	0	0	0	68	71	22	0	379	261	53	0	1	1497	1498
17:00	3	22	154	0	0	0	0	0	12	25	2	1	91	41	23	0	1	373	374
17:15	1	25	150	0	0	0	0	0	12	22	8	0	82	64	19	0	0	383	383
17:30	1	28	136	0	0	0	0	0	14	32	4	0	71	68	22	0	0	376	376
17:45	3	32	121	0	0	0	0	0	9	30	6	1	63	55	22	0	1	341	342
Total	8	107	561	0	0	0	0	0	47	109	20	2	307	228	86	0	2	1473	1475
Grand Total	17	207	1095	1	0	0	0	0	115	180	42	2	686	489	139	0	3	2970	2973
Apprch %	1.3	15.7	83		0	0	0		34.1	53.4	12.5		52.2	37.2	10.6				
Total %	0.6	7	36.9		0	0	0		3.9	6.1	1.4		23.1	16.5	4.7		0.1	99.9	

Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Int. Total
	Hard Left	Left	Thru	App. Total	Hard Left	Bear Left	Hard Right	App. Total	Left	Right	Hard Right	App. Total	Thru	Bear Right	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	0	23	145	168	0	0	0	0	20	13	2	35	154	62	11	227	430
16:45	3	28	125	156	0	0	0	0	11	24	8	43	121	76	9	206	405
17:00	3	22	154	179	0	0	0	0	12	25	2	39	91	41	23	155	373
17:15	1	25	150	176	0	0	0	0	12	22	8	42	82	64	19	165	383
Total Volume	7	98	574	679	0	0	0	0	55	84	20	159	448	243	62	753	1591
% App. Total	1	14.4	84.5		0	0	0		34.6	52.8	12.6		59.5	32.3	8.2		
PHF	.583	.875	.932	.948	.000	.000	.000	.000	.688	.840	.625	.924	.727	.799	.674	.829	.925

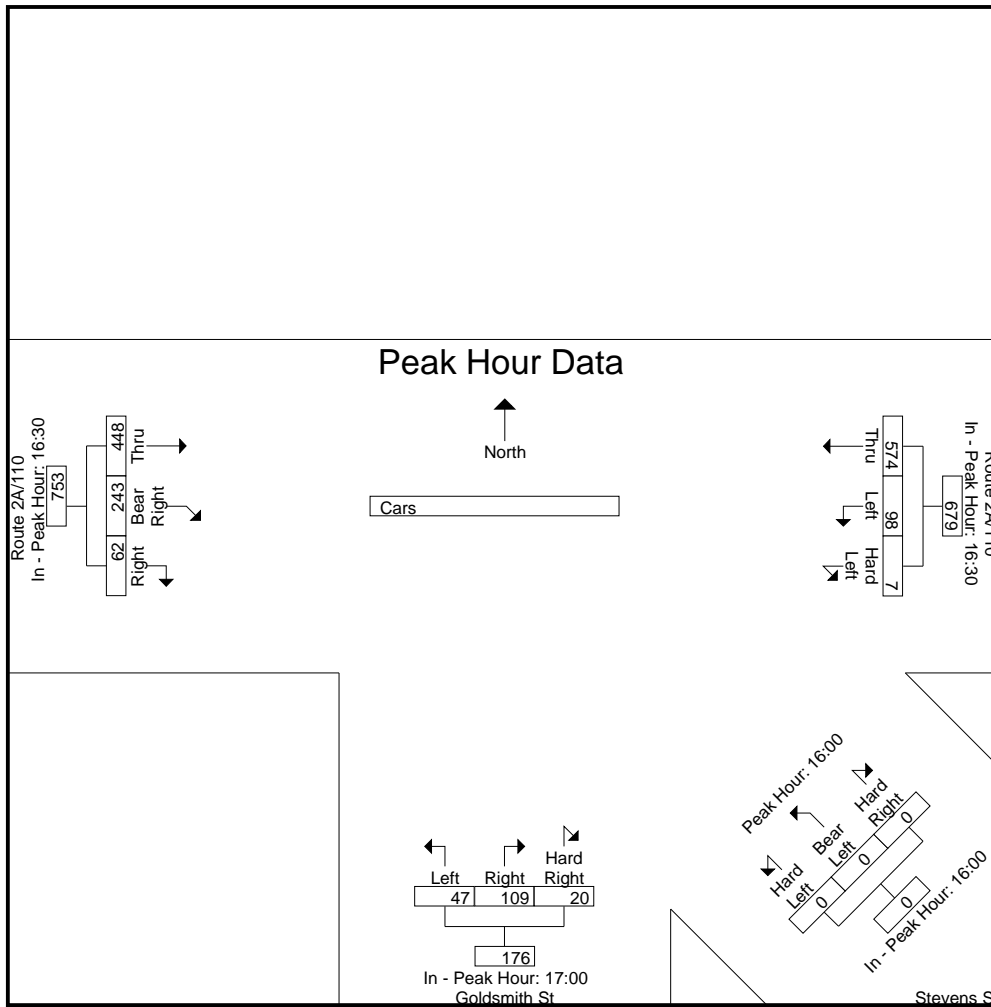


Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:30				16:00				17:00				16:30			
+0 mins.	0	23	145	168	0	0	0	0	12	25	2	39	154	62	11	227
+15 mins.	3	28	125	156	0	0	0	0	12	22	8	42	121	76	9	206
+30 mins.	3	22	154	179	0	0	0	0	14	32	4	50	91	41	23	155
+45 mins.	1	25	150	176	0	0	0	0	9	30	6	45	82	64	19	165
Total Volume	7	98	574	679	0	0	0	0	47	109	20	176	448	243	62	753
% App. Total	1	14.4	84.5		0	0	0		26.7	61.9	11.4		59.5	32.3	8.2	
PHF	.583	.875	.932	.948	.000	.000	.000	.000	.839	.852	.625	.880	.727	.799	.674	.829





N/S Street : Goldsmith Street  
 E/W Street: Route 2A/110  
 City/State : Littleton, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

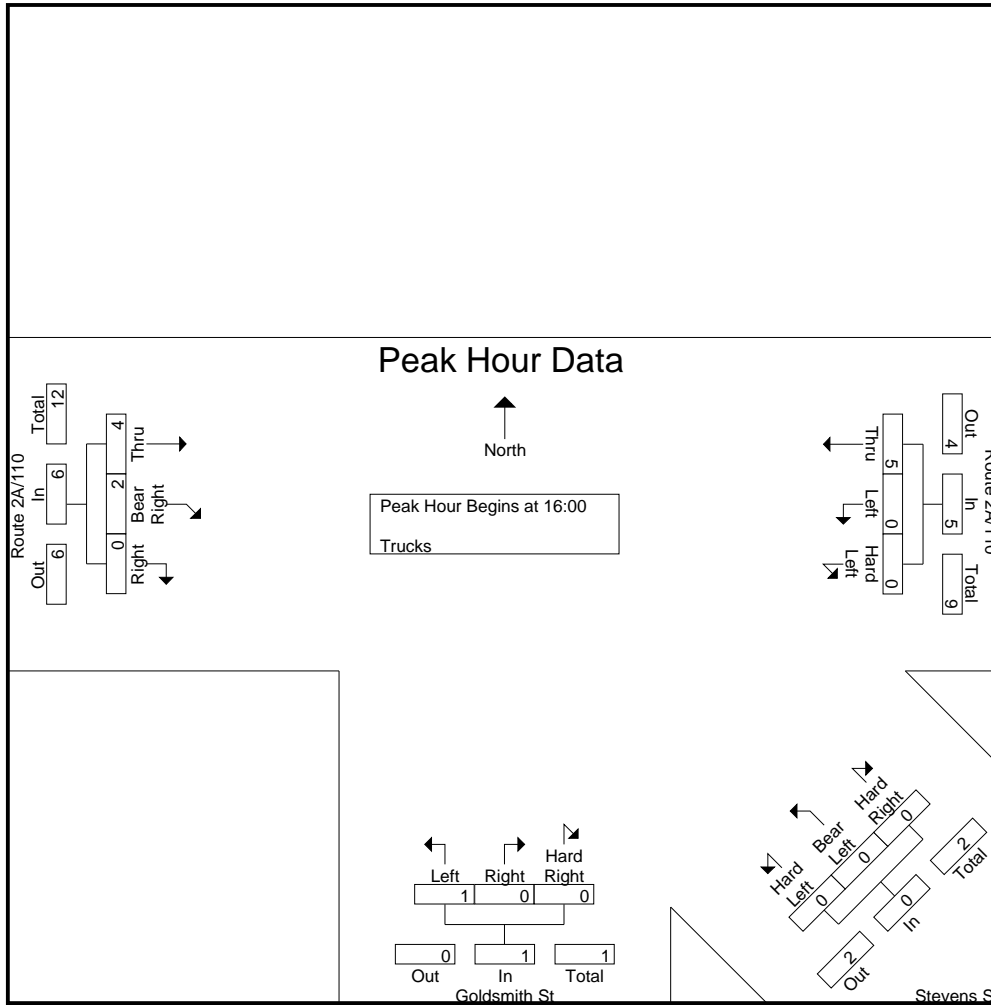
File Name : 86525011  
 Site Code : 86525011  
 Start Date : 4/8/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Exclu. Total	Inclu. Total	Int. Total	
	Hard Left	Left	Thru	Peds	Hard Left	Bear Left	Hard Right	Peds	Left	Right	Hard Right	Peds	Thru	Bear Right	Right	Peds				
16:00	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	2
16:15	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	2
16:30	0	0	3	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	6	6
16:45	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	2
Total	0	0	5	0	0	0	0	0	1	0	0	0	4	2	0	0	0	0	12	12
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	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
Grand Total	0	0	6	0	0	0	0	0	1	0	0	0	4	2	0	0	0	0	13	13
Apprch %	0	0	100		0	0	0		100	0	0		66.7	33.3	0					
Total %	0	0	46.2		0	0	0		7.7	0	0		30.8	15.4	0				100	

Start Time	Route 2A/110 From East				Stevens St From Southeast				Goldsmith St From South				Route 2A/110 From West				Int. Total
	Hard Left	Left	Thru	App. Total	Hard Left	Bear Left	Hard Right	App. Total	Left	Right	Hard Right	App. Total	Thru	Bear Right	Right	App. Total	
16:00	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	2
16:15	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0	2
16:30	0	0	3	3	0	0	0	0	0	0	0	0	2	1	0	3	6
16:45	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2
Total Volume	0	0	5	5	0	0	0	0	1	0	0	1	4	2	0	6	12
% App. Total	0	0	100		0	0	0		100	0	0		66.7	33.3	0		
PHF	.000	.000	.417	.417	.000	.000	.000	.000	.250	.000	.000	.250	.500	.500	.000	.500	.500

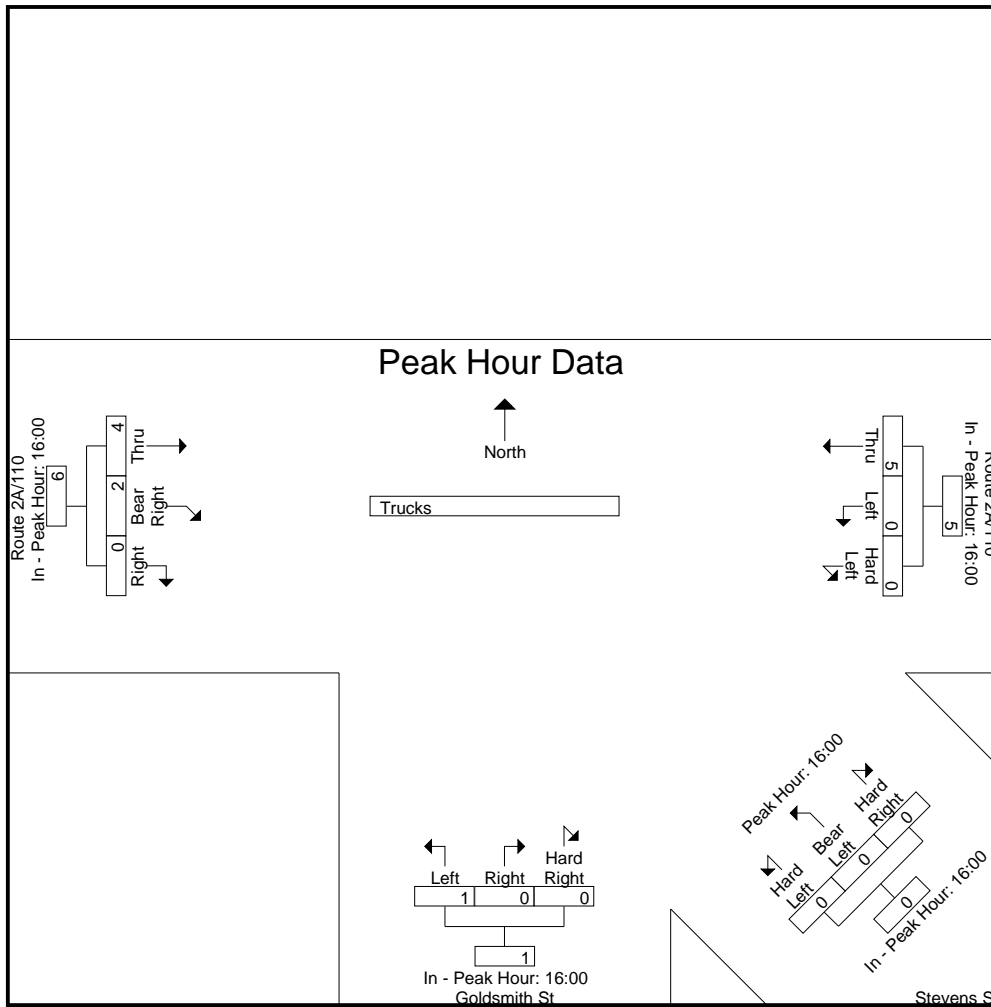
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:00				16:00				16:00			
+0 mins.	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1
+15 mins.	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0
+30 mins.	0	0	3	3	0	0	0	0	0	0	0	0	2	1	0	3
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Total Volume	0	0	5	5	0	0	0	0	1	0	0	1	4	2	0	6
% App. Total	0	0	100		0	0	0		100	0	0		66.7	33.3	0	
PHF	.000	.000	.417	.417	.000	.000	.000	.000	.250	.000	.000	.250	.500	.500	.000	.500



N/S Street : Macpherson Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

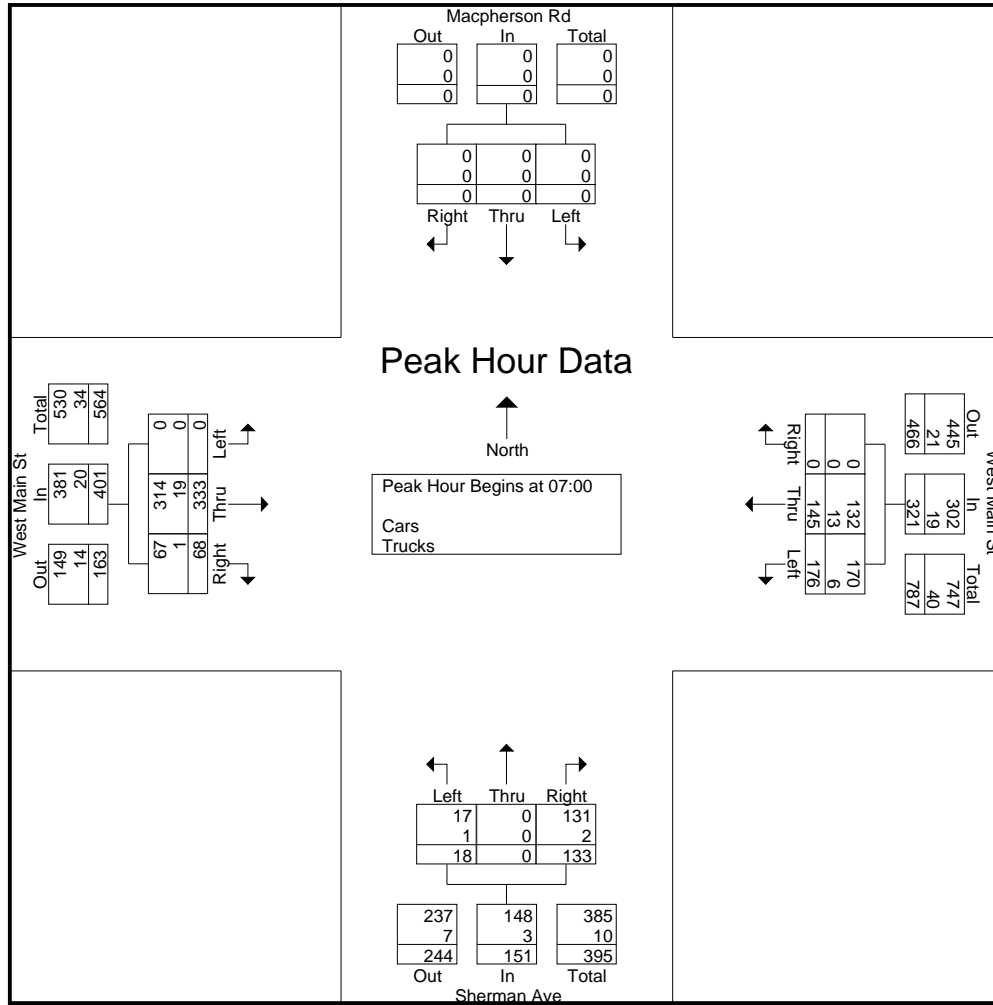
File Name : 86525012  
 Site Code : 86525012  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	0	0	0	0	45	35	0	0	3	0	33	0	0	94	9	0	0	219	219
07:15	0	0	0	0	45	29	0	0	2	0	39	0	0	103	13	0	0	231	231
07:30	0	0	0	0	45	39	0	1	6	0	26	0	0	66	20	0	1	202	203
07:45	0	0	0	0	41	42	0	1	7	0	35	0	0	70	26	0	1	221	222
Total	0	0	0	0	176	145	0	2	18	0	133	0	0	333	68	0	2	873	875
08:00	0	0	0	0	45	37	0	0	2	0	34	0	0	62	20	0	0	200	200
08:15	0	0	0	2	52	44	0	0	4	0	23	0	0	71	12	0	2	206	208
08:30	0	0	0	0	32	26	0	0	5	0	30	0	0	53	8	0	0	154	154
08:45	0	0	0	0	26	27	0	0	4	0	28	0	0	62	8	0	0	155	155
Total	0	0	0	2	155	134	0	0	15	0	115	0	0	248	48	0	2	715	717
Grand Total	0	0	0	2	331	279	0	2	33	0	248	0	0	581	116	0	4	1588	1592
Apprch %	0	0	0		54.3	45.7	0		11.7	0	88.3		0	83.4	16.6				
Total %	0	0	0		20.8	17.6	0		2.1	0	15.6		0	36.6	7.3		0.3	99.7	
Cars	0	0	0		319	253	0		30	0	242		0	539	113		0	0	1500
% Cars	0	0	0	100	96.4	90.7	0	100	90.9	0	97.6	0	0	92.8	97.4	0	0	0	94.2
Trucks	0	0	0		12	26	0		3	0	6		0	42	3		0	0	92
% Trucks	0	0	0	0	3.6	9.3	0	0	9.1	0	2.4	0	0	7.2	2.6	0	0	0	5.8

Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00	0	0	0	0	45	35	0	80	3	0	33	36	0	94	9	103	219
07:15	0	0	0	0	45	29	0	74	2	0	39	41	0	103	13	116	231
07:30	0	0	0	0	45	39	0	84	6	0	26	32	0	66	20	86	202
07:45	0	0	0	0	41	42	0	83	7	0	35	42	0	70	26	96	221
Total Volume	0	0	0	0	176	145	0	321	18	0	133	151	0	333	68	401	873
% App. Total	0	0	0	0	54.8	45.2	0		11.9	0	88.1		0	83	17		
PHF	.000	.000	.000	.000	.978	.863	.000	.955	.643	.000	.853	.899	.000	.808	.654	.864	.945
Cars	0	0	0	0	170	132	0	302	17	0	131	148	0	314	67	381	831
% Cars	0	0	0	0	96.6	91.0	0	94.1	94.4	0	98.5	98.0	0	94.3	98.5	95.0	95.2
Trucks	0	0	0	0	6	13	0	19	1	0	2	3	0	19	1	20	42
% Trucks	0	0	0	0	3.4	9.0	0	5.9	5.6	0	1.5	2.0	0	5.7	1.5	5.0	4.8

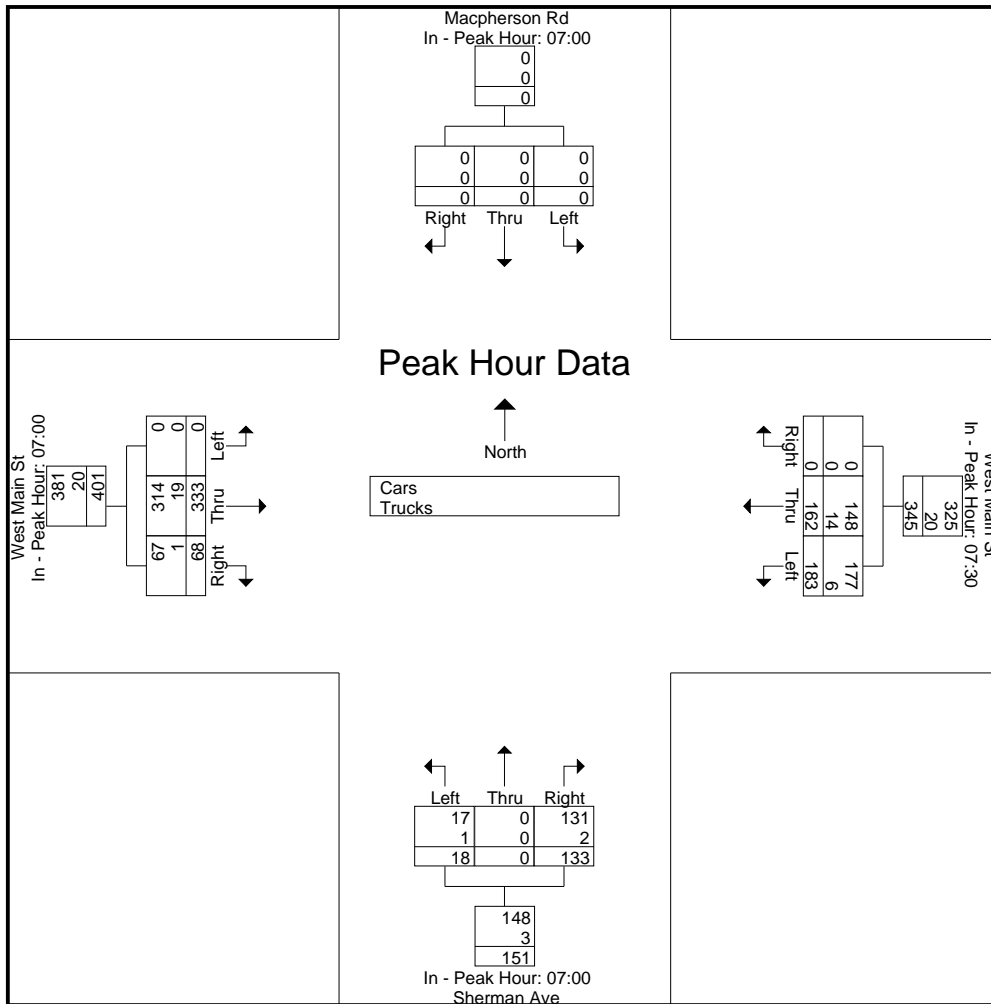
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:00



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00				07:30				07:00				07:00			
+0 mins.	0	0	0	0	45	39	0	84	3	0	33	36	0	94	9	103
+15 mins.	0	0	0	0	41	42	0	83	2	0	39	41	0	103	13	116
+30 mins.	0	0	0	0	45	37	0	82	6	0	26	32	0	66	20	86
+45 mins.	0	0	0	0	52	44	0	96	7	0	35	42	0	70	26	96
Total Volume	0	0	0	0	183	162	0	345	18	0	133	151	0	333	68	401
% App. Total	0	0	0	0	53	47	0		11.9	0	88.1		0	83	17	
PHF	.000	.000	.000	.000	.880	.920	.000	.898	.643	.000	.853	.899	.000	.808	.654	.864
Cars	0	0	0	0	177	148	0	325	17	0	131	148	0	314	67	381
% Cars	0	0	0	0	96.7	91.4	0	94.2	94.4	0	98.5	98	0	94.3	98.5	95
Trucks	0	0	0	0	6	14	0	20	1	0	2	3	0	19	1	20
% Trucks	0	0	0	0	3.3	8.6	0	5.8	5.6	0	1.5	2	0	5.7	1.5	5



N/S Street : Macpherson Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

File Name : 86525012  
 Site Code : 86525012  
 Start Date : 4/9/2008  
 Page No : 1

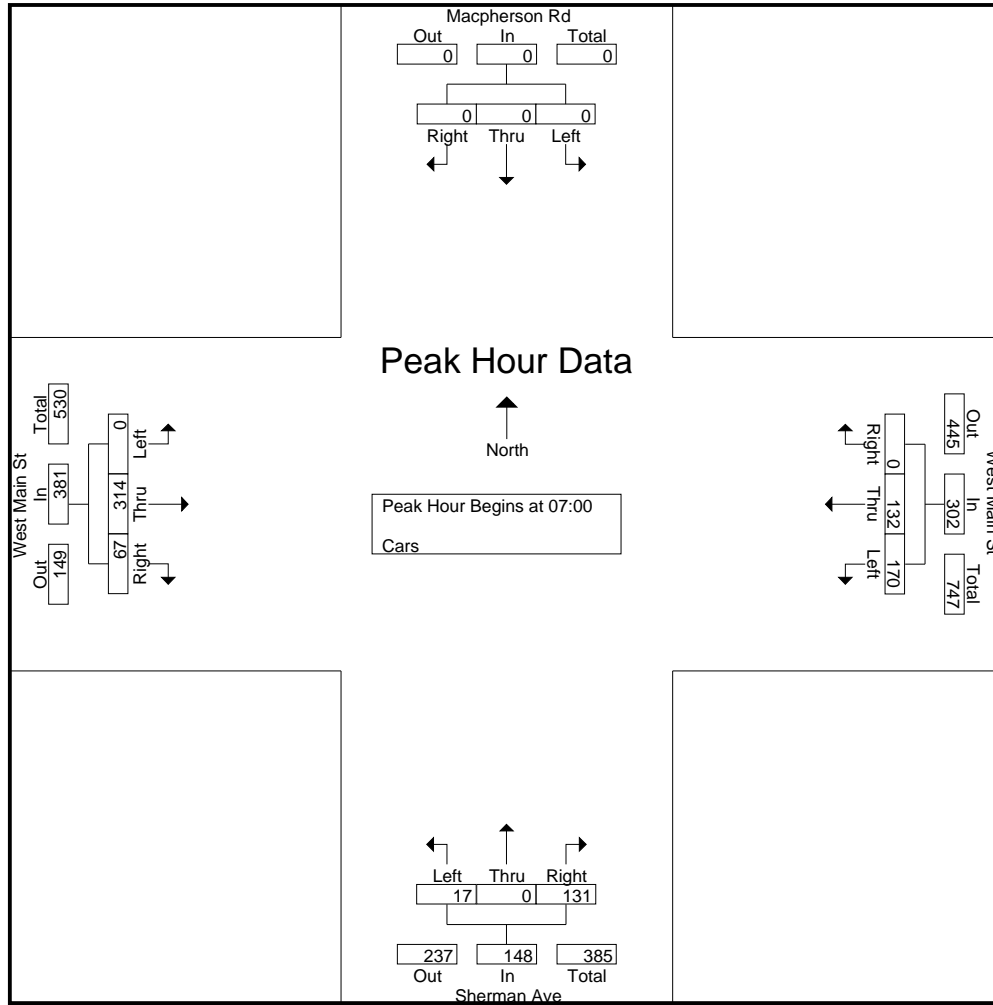
Groups Printed- Cars

Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	0	0	0	0	44	30	0	0	2	0	33	0	0	92	9	0	0	210	210
07:15	0	0	0	0	43	26	0	0	2	0	38	0	0	96	13	0	0	218	218
07:30	0	0	0	0	43	37	0	1	6	0	26	0	0	62	20	0	1	194	195
07:45	0	0	0	0	40	39	0	1	7	0	34	0	0	64	25	0	1	209	210
Total	0	0	0	0	170	132	0	2	17	0	131	0	0	314	67	0	2	831	833
08:00	0	0	0	0	45	32	0	0	1	0	31	0	0	59	20	0	0	188	188
08:15	0	0	0	2	49	40	0	0	4	0	23	0	0	65	12	0	2	193	195
08:30	0	0	0	0	31	24	0	0	4	0	30	0	0	51	8	0	0	148	148
08:45	0	0	0	0	24	25	0	0	4	0	27	0	0	50	6	0	0	136	136
Total	0	0	0	2	149	121	0	0	13	0	111	0	0	225	46	0	2	665	667
Grand Total	0	0	0	2	319	253	0	2	30	0	242	0	0	539	113	0	4	1496	1500
Apprch %	0	0	0		55.8	44.2	0		11	0	89		0	82.7	17.3				
Total %	0	0	0		21.3	16.9	0		2	0	16.2		0	36	7.6		0.3	99.7	

Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00	0	0	0	0	44	30	0	74	2	0	33	35	0	92	9	101	210
07:15	0	0	0	0	43	26	0	69	2	0	38	40	0	96	13	109	218
07:30	0	0	0	0	43	37	0	80	6	0	26	32	0	62	20	82	194
07:45	0	0	0	0	40	39	0	79	7	0	34	41	0	64	25	89	209
Total Volume	0	0	0	0	170	132	0	302	17	0	131	148	0	314	67	381	831
% App. Total	0	0	0		56.3	43.7	0		11.5	0	88.5		0	82.4	17.6		
PHF	.000	.000	.000	.000	.966	.846	.000	.944	.607	.000	.862	.902	.000	.818	.670	.874	.953

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:00

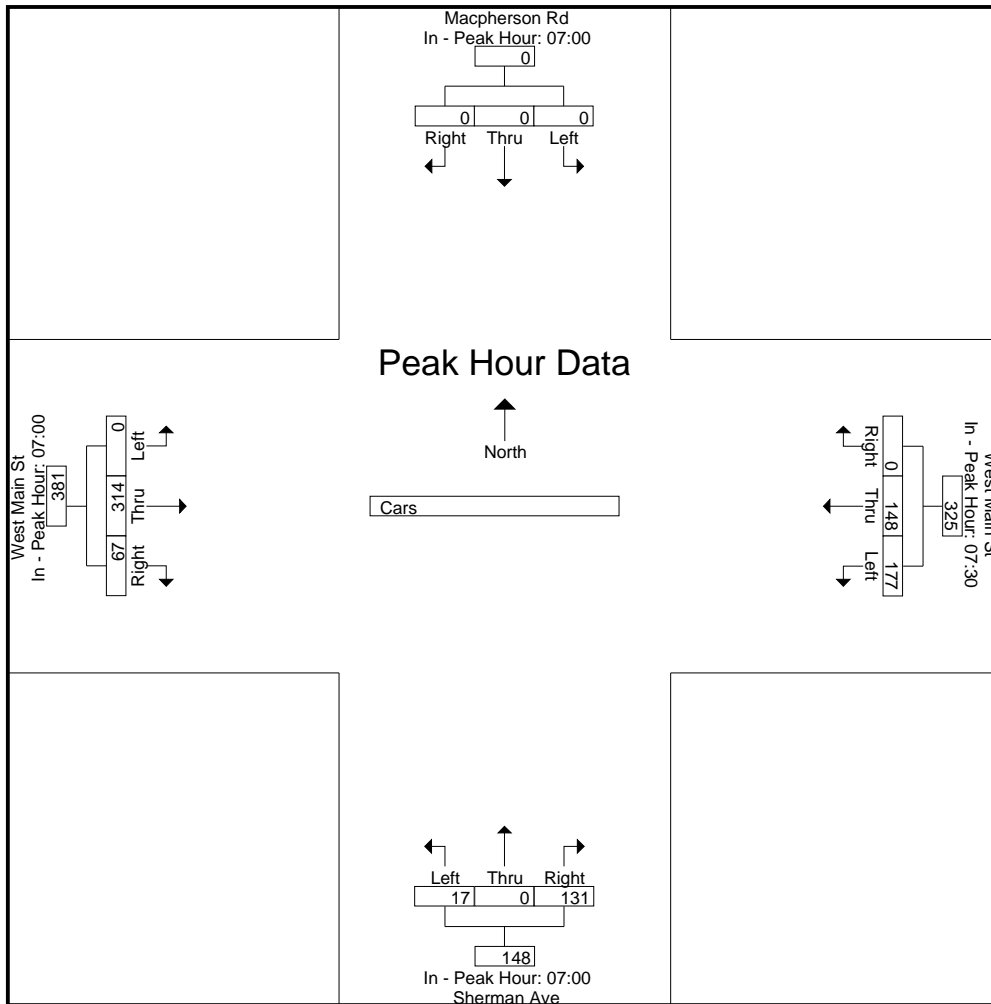




Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00				07:30				07:00				07:00			
+0 mins.	0	0	0	0	43	37	0	80	2	0	33	35	0	92	9	101
+15 mins.	0	0	0	0	40	39	0	79	2	0	38	40	0	96	13	109
+30 mins.	0	0	0	0	45	32	0	77	6	0	26	32	0	62	20	82
+45 mins.	0	0	0	0	49	40	0	89	7	0	34	41	0	64	25	89
Total Volume	0	0	0	0	177	148	0	325	17	0	131	148	0	314	67	381
% App. Total	0	0	0	0	54.5	45.5	0		11.5	0	88.5		0	82.4	17.6	
PHF	.000	.000	.000	.000	.903	.925	.000	.913	.607	.000	.862	.902	.000	.818	.670	.874



N/S Street : Macpherson Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

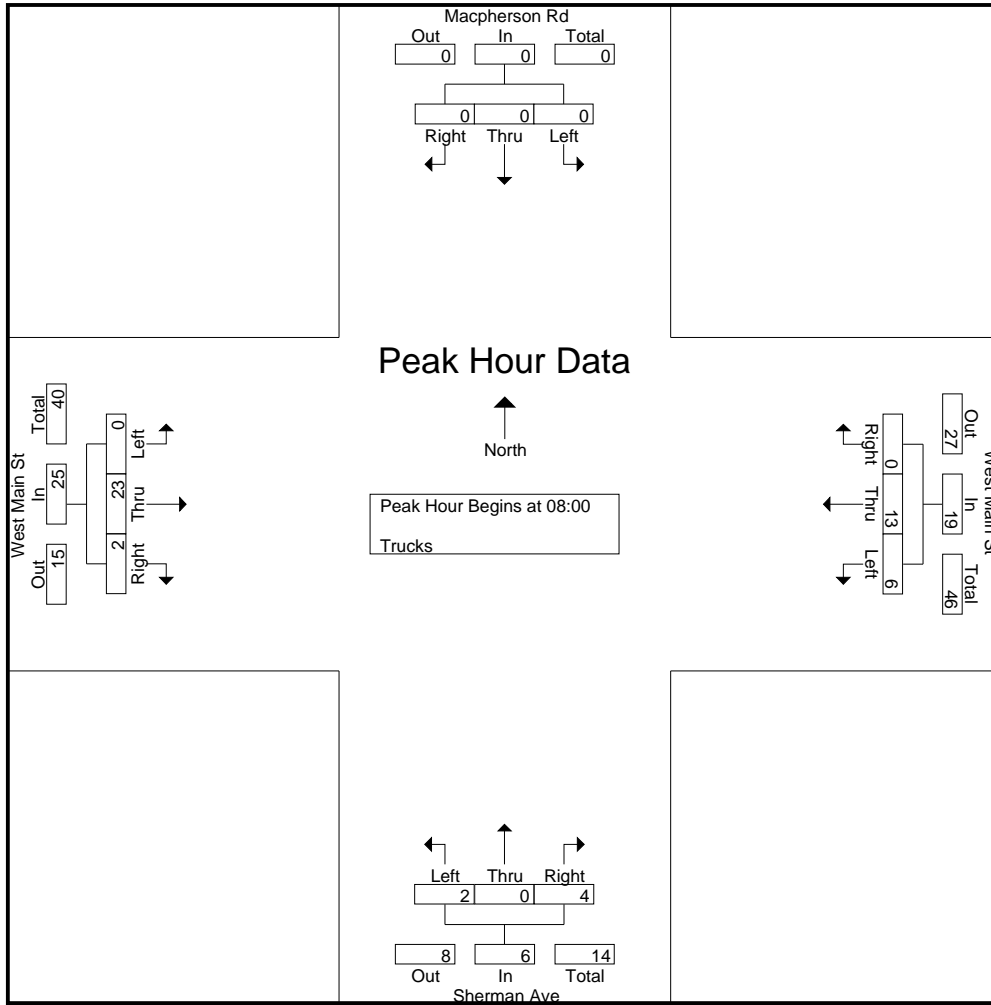
File Name : 86525012  
 Site Code : 86525012  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00	0	0	0	0	1	5	0	0	1	0	0	0	0	2	0	0	0	9	9
07:15	0	0	0	0	2	3	0	0	0	0	1	0	0	7	0	0	0	13	13
07:30	0	0	0	0	2	2	0	0	0	0	0	0	0	4	0	0	0	8	8
07:45	0	0	0	0	1	3	0	0	0	0	1	0	0	6	1	0	0	12	12
Total	0	0	0	0	6	13	0	0	1	0	2	0	0	19	1	0	0	42	42
08:00	0	0	0	0	0	5	0	0	1	0	3	0	0	3	0	0	0	12	12
08:15	0	0	0	0	3	4	0	0	0	0	0	0	0	6	0	0	0	13	13
08:30	0	0	0	0	1	2	0	0	1	0	0	0	0	2	0	0	0	6	6
08:45	0	0	0	0	2	2	0	0	0	0	1	0	0	12	2	0	0	19	19
Total	0	0	0	0	6	13	0	0	2	0	4	0	0	23	2	0	0	50	50
Grand Total	0	0	0	0	12	26	0	0	3	0	6	0	0	42	3	0	0	92	92
Apprch %	0	0	0		31.6	68.4	0		33.3	0	66.7		0	93.3	6.7				
Total %	0	0	0		13	28.3	0		3.3	0	6.5		0	45.7	3.3		0	100	

Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00	0	0	0	0	0	5	0	5	1	0	3	4	0	3	0	3	12
08:15	0	0	0	0	3	4	0	7	0	0	0	0	0	6	0	6	13
08:30	0	0	0	0	1	2	0	3	1	0	0	1	0	2	0	2	6
08:45	0	0	0	0	2	2	0	4	0	0	1	1	0	12	2	14	19
Total Volume	0	0	0	0	6	13	0	19	2	0	4	6	0	23	2	25	50
% App. Total	0	0	0		31.6	68.4	0		33.3	0	66.7		0	92	8		
PHF	.000	.000	.000	.000	.500	.650	.000	.679	.500	.000	.333	.375	.000	.479	.250	.446	.658

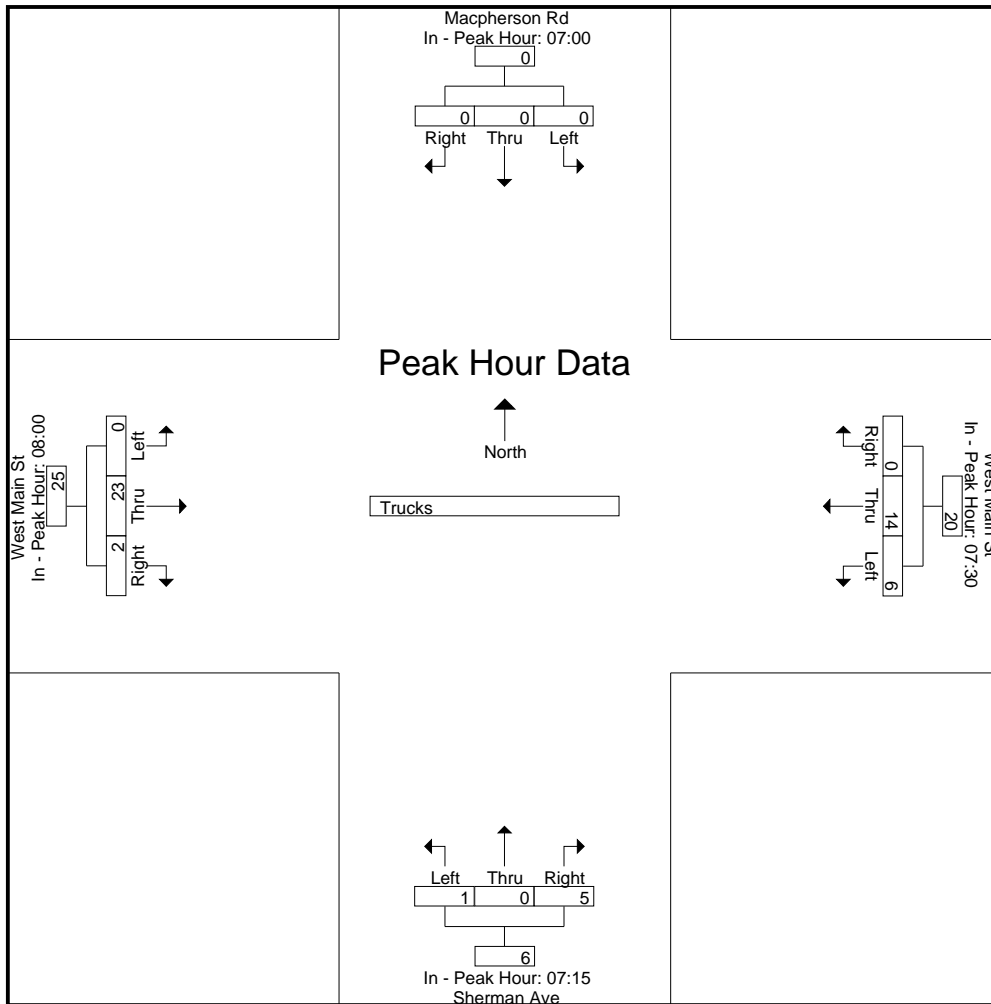
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 08:00



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00				07:30				07:15				08:00			
+0 mins.	0	0	0	0	2	2	0	4	0	0	1	1	0	3	0	3
+15 mins.	0	0	0	0	1	3	0	4	0	0	0	0	0	6	0	6
+30 mins.	0	0	0	0	0	5	0	5	0	0	1	1	0	2	0	2
+45 mins.	0	0	0	0	3	4	0	7	1	0	3	4	0	12	2	14
Total Volume	0	0	0	0	6	14	0	20	1	0	5	6	0	23	2	25
% App. Total	0	0	0	0	30	70	0		16.7	0	83.3		0	92	8	
PHF	.000	.000	.000	.000	.500	.700	.000	.714	.250	.000	.417	.375	.000	.479	.250	.446



N/S Street : Macpherson Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

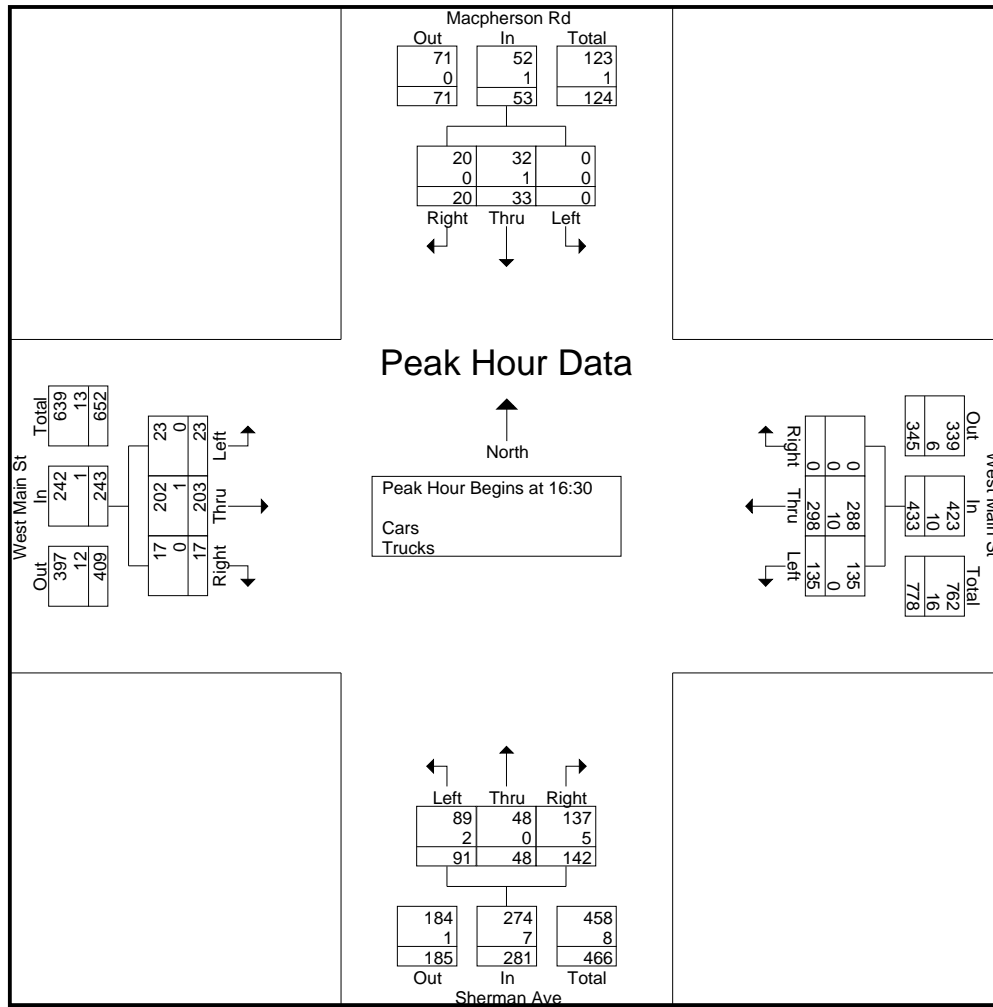
Accurate Counts  
 978-664-2565

File Name : 86525012  
 Site Code : 86525012  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	1	5	6	0	18	66	2	0	21	12	42	1	6	35	6	0	1	220	221
16:15	0	6	4	0	39	67	2	0	9	22	31	0	3	45	2	0	0	230	230
16:30	0	5	5	0	31	75	0	1	15	11	36	0	7	51	6	0	1	242	243
16:45	0	6	5	0	24	74	0	0	14	15	30	1	7	54	2	0	1	231	232
Total	1	22	20	0	112	282	4	1	59	60	139	2	23	185	16	0	3	923	926
17:00	0	12	7	0	39	86	0	0	33	8	34	0	4	49	5	0	0	277	277
17:15	0	10	3	0	41	63	0	0	29	14	42	0	5	49	4	0	0	260	260
17:30	0	7	9	0	24	72	0	0	24	13	41	0	4	36	6	0	0	236	236
17:45	0	2	1	0	20	65	0	0	18	11	28	0	5	47	1	0	0	198	198
Total	0	31	20	0	124	286	0	0	104	46	145	0	18	181	16	0	0	971	971
Grand Total	1	53	40	0	236	568	4	1	163	106	284	2	41	366	32	0	3	1894	1897
Apprch %	1.1	56.4	42.6		29.2	70.3	0.5		29.5	19.2	51.4		9.3	83.4	7.3				
Total %	0.1	2.8	2.1		12.5	30	0.2		8.6	5.6	15		2.2	19.3	1.7		0.2	99.8	
Cars	1	52	39		233	552	4		161	106	273		40	361	30		0	0	1855
% Cars	100	98.1	97.5	0	98.7	97.2	100	100	98.8	100	96.1	100	97.6	98.6	93.8	0	0	0	97.8
Trucks	0	1	1		3	16	0		2	0	11		1	5	2		0	0	42
% Trucks	0	1.9	2.5	0	1.3	2.8	0	0	1.2	0	3.9	0	2.4	1.4	6.2	0	0	0	2.2

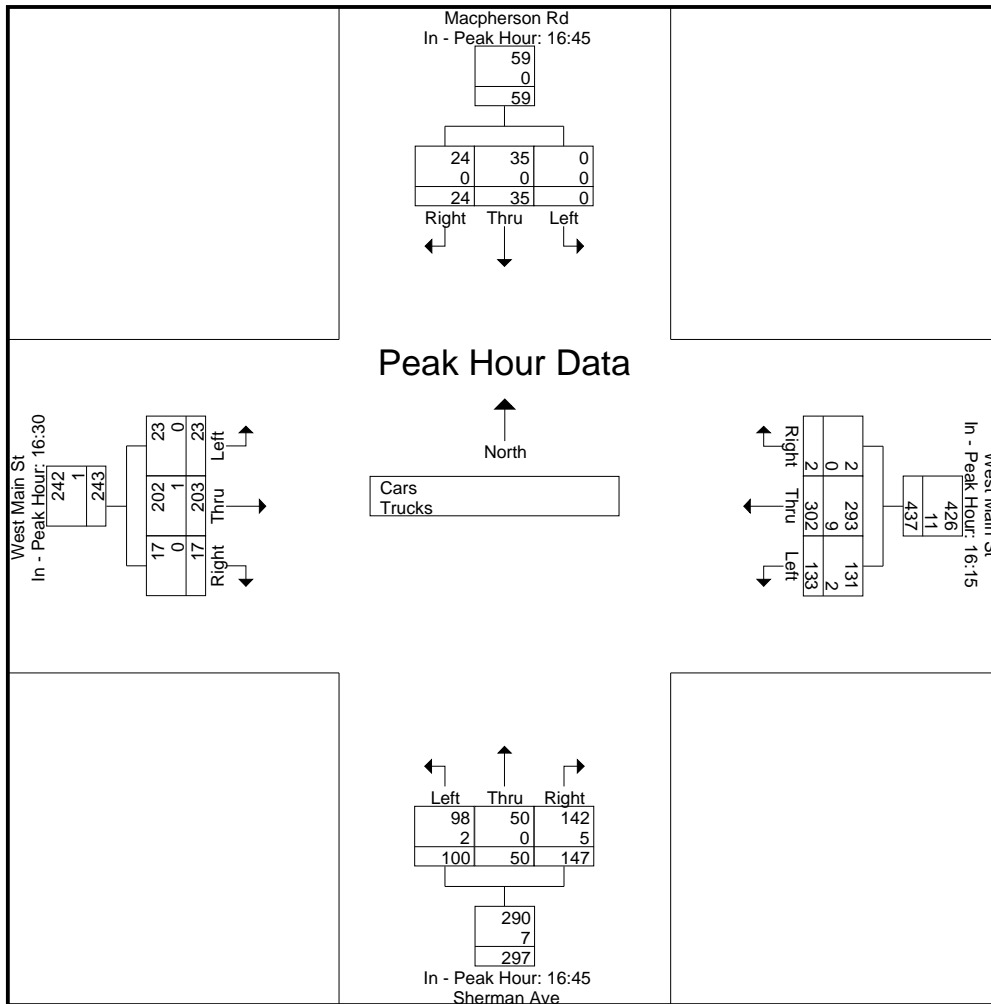
Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	0	5	5	10	31	75	0	106	15	11	36	62	7	51	6	64	242
16:45	0	6	5	11	24	74	0	98	14	15	30	59	7	54	2	63	231
17:00	0	12	7	19	39	86	0	125	33	8	34	75	4	49	5	58	277
17:15	0	10	3	13	41	63	0	104	29	14	42	85	5	49	4	58	260
Total Volume	0	33	20	53	135	298	0	433	91	48	142	281	23	203	17	243	1010
% App. Total	0	62.3	37.7		31.2	68.8	0		32.4	17.1	50.5		9.5	83.5	7		
PHF	.000	.688	.714	.697	.823	.866	.000	.866	.689	.800	.845	.826	.821	.940	.708	.949	.912
Cars	0	32	20	52	135	288	0	423	89	48	137	274	23	202	17	242	991
% Cars	0	97.0	100	98.1	100	96.6	0	97.7	97.8	100	96.5	97.5	100	99.5	100	99.6	98.1
Trucks	0	1	0	1	0	10	0	10	2	0	5	7	0	1	0	1	19
% Trucks	0	3.0	0	1.9	0	3.4	0	2.3	2.2	0	3.5	2.5	0	0.5	0	0.4	1.9



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:45				16:15				16:45				16:30			
+0 mins.	0	6	5	11	39	67	2	108	14	15	30	59	7	51	6	64
+15 mins.	0	12	7	19	31	75	0	106	33	8	34	75	7	54	2	63
+30 mins.	0	10	3	13	24	74	0	98	29	14	42	85	4	49	5	58
+45 mins.	0	7	9	16	39	86	0	125	24	13	41	78	5	49	4	58
Total Volume	0	35	24	59	133	302	2	437	100	50	147	297	23	203	17	243
% App. Total	0	59.3	40.7		30.4	69.1	0.5		33.7	16.8	49.5		9.5	83.5	7	
PHF	.000	.729	.667	.776	.853	.878	.250	.874	.758	.833	.875	.874	.821	.940	.708	.949
Cars	0	35	24	59	131	293	2	426	98	50	142	290	23	202	17	242
% Cars	0	100	100	100	98.5	97	100	97.5	98	100	96.6	97.6	100	99.5	100	99.6
Trucks	0	0	0	0	2	9	0	11	2	0	5	7	0	1	0	1
% Trucks	0	0	0	0	1.5	3	0	2.5	2	0	3.4	2.4	0	0.5	0	0.4





N/S Street : Macpherson Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

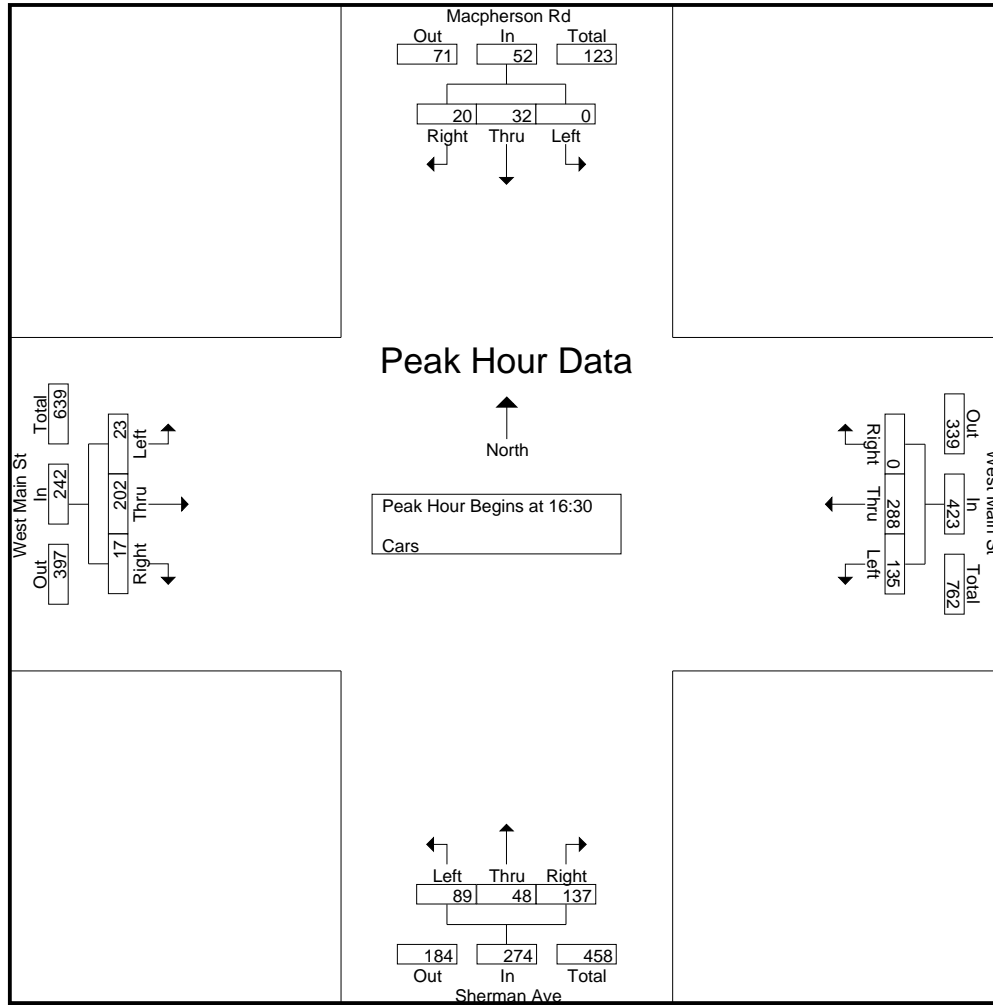
Accurate Counts  
 978-664-2565

File Name : 86525012  
 Site Code : 86525012  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	1	5	6	0	17	63	2	0	21	12	40	1	5	35	4	0	1	211	212
16:15	0	6	3	0	37	66	2	0	9	22	29	0	3	44	2	0	0	223	223
16:30	0	4	5	0	31	69	0	1	15	11	35	0	7	51	6	0	1	234	235
16:45	0	6	5	0	24	73	0	0	14	15	29	1	7	54	2	0	1	229	230
Total	1	21	19	0	109	271	4	1	59	60	133	2	22	184	14	0	3	897	900
17:00	0	12	7	0	39	85	0	0	32	8	33	0	4	49	5	0	0	274	274
17:15	0	10	3	0	41	61	0	0	28	14	40	0	5	48	4	0	0	254	254
17:30	0	7	9	0	24	72	0	0	24	13	40	0	4	35	6	0	0	234	234
17:45	0	2	1	0	20	63	0	0	18	11	27	0	5	45	1	0	0	193	193
Total	0	31	20	0	124	281	0	0	102	46	140	0	18	177	16	0	0	955	955
Grand Total	1	52	39	0	233	552	4	1	161	106	273	2	40	361	30	0	3	1852	1855
Apprch %	1.1	56.5	42.4		29.5	70	0.5		29.8	19.6	50.6		9.3	83.8	7				
Total %	0.1	2.8	2.1		12.6	29.8	0.2		8.7	5.7	14.7		2.2	19.5	1.6		0.2	99.8	

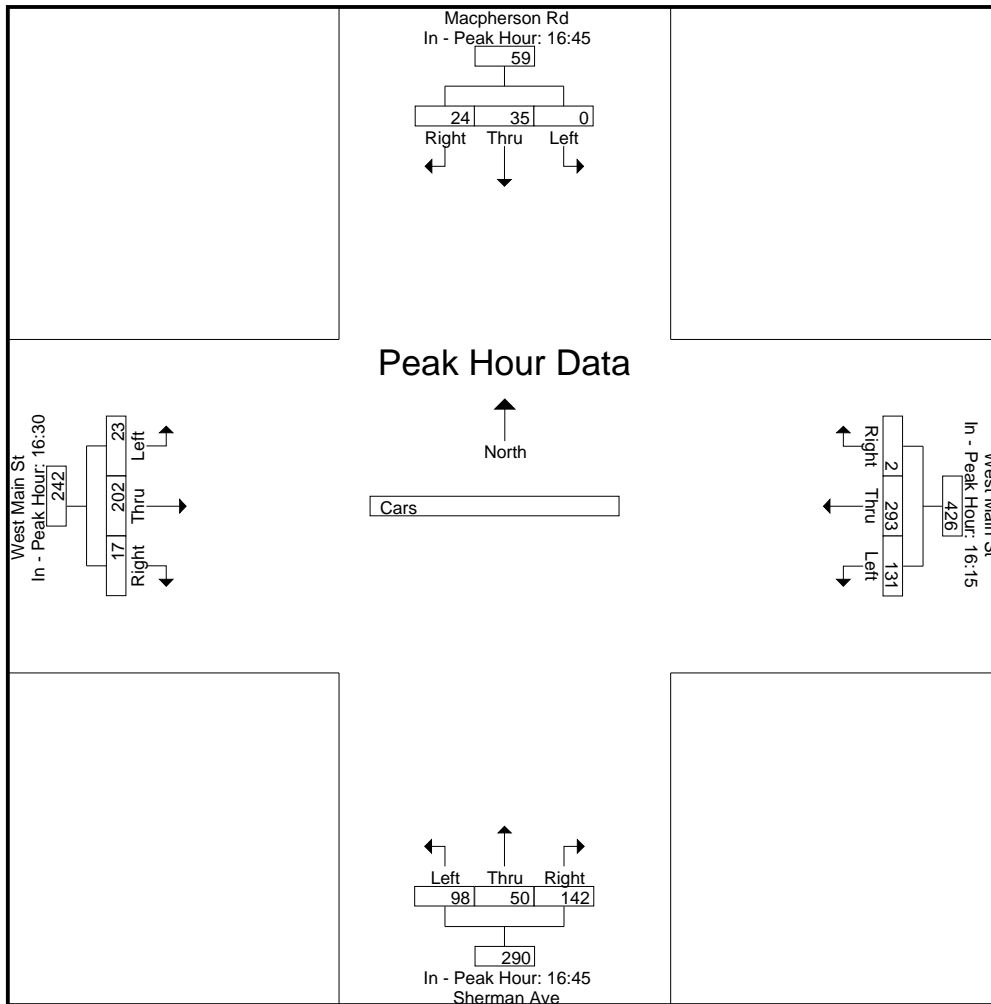
Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	0	4	5	9	31	69	0	100	15	11	35	61	7	51	6	64	234
16:45	0	6	5	11	24	73	0	97	14	15	29	58	7	54	2	63	229
17:00	0	12	7	19	39	85	0	124	32	8	33	73	4	49	5	58	274
17:15	0	10	3	13	41	61	0	102	28	14	40	82	5	48	4	57	254
Total Volume	0	32	20	52	135	288	0	423	89	48	137	274	23	202	17	242	991
% App. Total	0	61.5	38.5		31.9	68.1	0		32.5	17.5	50		9.5	83.5	7		
PHF	.000	.667	.714	.684	.823	.847	.000	.853	.695	.800	.856	.835	.821	.935	.708	.945	.904



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:45				16:15				16:45				16:30			
+0 mins.	0	6	5	11	37	66	2	105	14	15	29	58	7	51	6	64
+15 mins.	0	12	7	19	31	69	0	100	32	8	33	73	7	54	2	63
+30 mins.	0	10	3	13	24	73	0	97	28	14	40	82	4	49	5	58
+45 mins.	0	7	9	16	39	85	0	124	24	13	40	77	5	48	4	57
Total Volume	0	35	24	59	131	293	2	426	98	50	142	290	23	202	17	242
% App. Total	0	59.3	40.7		30.8	68.8	0.5		33.8	17.2	49		9.5	83.5	7	
PHF	.000	.729	.667	.776	.840	.862	.250	.859	.766	.833	.888	.884	.821	.935	.708	.945



N/S Street : Macpherson Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

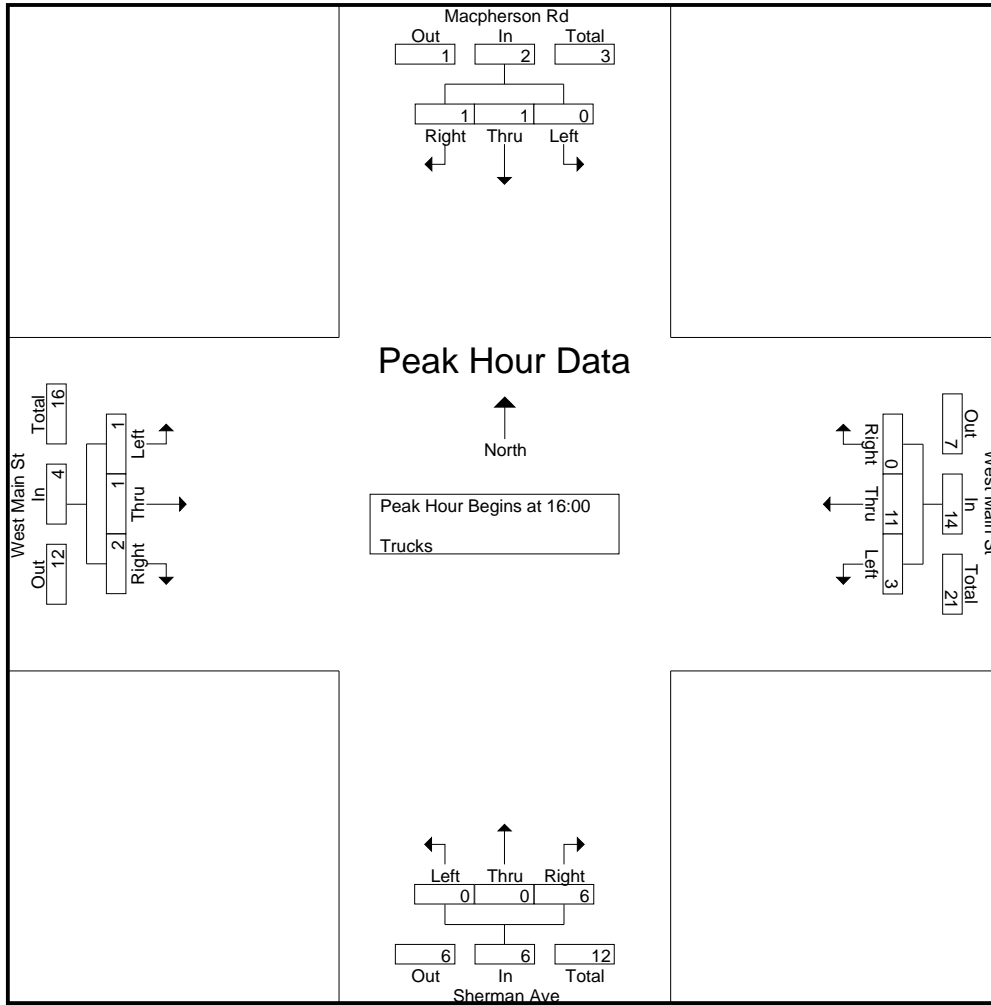
Accurate Counts  
 978-664-2565

File Name : 86525012  
 Site Code : 86525012  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
16:00	0	0	0	0	1	3	0	0	0	0	2	0	1	0	2	0	0	9	9
16:15	0	0	1	0	2	1	0	0	0	0	2	0	0	1	0	0	0	7	7
16:30	0	1	0	0	0	6	0	0	0	0	1	0	0	0	0	0	0	8	8
16:45	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	2
Total	0	1	1	0	3	11	0	0	0	0	6	0	1	1	2	0	0	26	26
17:00	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	3	3
17:15	0	0	0	0	0	2	0	0	1	0	2	0	0	1	0	0	0	6	6
17:30	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	2
17:45	0	0	0	0	0	2	0	0	0	0	1	0	0	2	0	0	0	5	5
Total	0	0	0	0	0	5	0	0	2	0	5	0	0	4	0	0	0	16	16
Grand Total	0	1	1	0	3	16	0	0	2	0	11	0	1	5	2	0	0	42	42
Apprch %	0	50	50		15.8	84.2	0		15.4	0	84.6		12.5	62.5	25				
Total %	0	2.4	2.4		7.1	38.1	0		4.8	0	26.2		2.4	11.9	4.8		0	100	

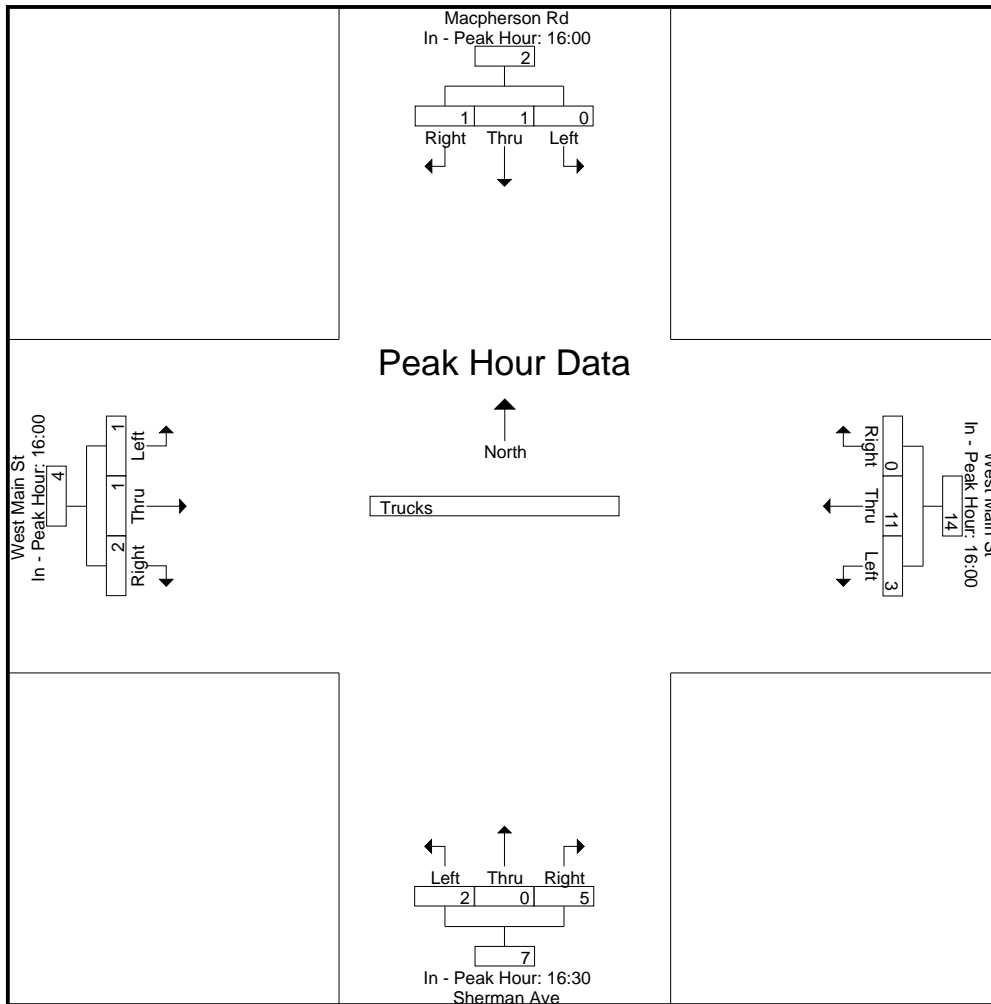
Start Time	Macpherson Rd From North				West Main St From East				Sherman Ave From South				West Main St From West				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:00																	
16:00	0	0	0	0	1	3	0	4	0	0	2	2	1	0	2	3	9
16:15	0	0	1	1	2	1	0	3	0	0	2	2	0	1	0	1	7
16:30	0	1	0	1	0	6	0	6	0	0	1	1	0	0	0	0	8
16:45	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
Total Volume	0	1	1	2	3	11	0	14	0	0	6	6	1	1	2	4	26
% App. Total	0	50	50		21.4	78.6	0		0	0	100		25	25	50		
PHF	.000	.250	.250	.500	.375	.458	.000	.583	.000	.000	.750	.750	.250	.250	.250	.333	.722



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:00				16:30				16:00			
+0 mins.	0	0	0	0	1	3	0	4	0	0	1	1	1	0	2	3
+15 mins.	0	0	1	1	2	1	0	3	0	0	1	1	0	1	0	1
+30 mins.	0	1	0	1	0	6	0	6	1	0	1	2	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	1	0	2	3	0	0	0	0
Total Volume	0	1	1	2	3	11	0	14	2	0	5	7	1	1	2	4
% App. Total	0	50	50		21.4	78.6	0		28.6	0	71.4		25	25	50	
PHF	.000	.250	.250	.500	.375	.458	.000	.583	.500	.000	.625	.583	.250	.250	.250	.333



N/S Street : Grant Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

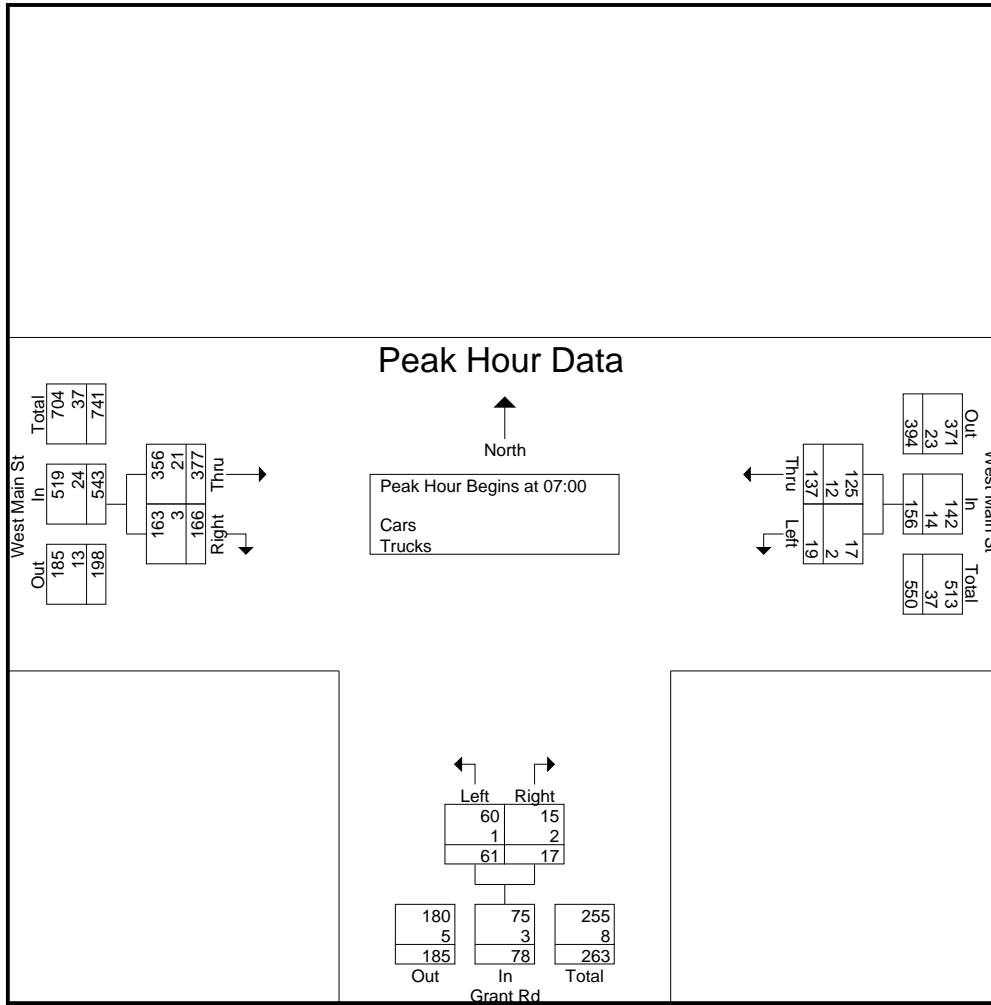
Accurate Counts  
 978-664-2565

File Name : 86525013  
 Site Code : 86525013  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	5	32	0	16	8	0	104	33	0	0	198	198
07:15	4	27	0	14	3	0	98	45	0	0	191	191
07:30	4	38	0	26	3	0	77	45	0	0	193	193
07:45	6	40	0	5	3	0	98	43	0	0	195	195
Total	19	137	0	61	17	0	377	166	0	0	777	777
08:00	5	32	0	17	4	0	70	39	0	0	167	167
08:15	4	44	2	6	7	0	74	32	0	2	167	169
08:30	3	28	1	8	4	0	55	24	0	1	122	123
08:45	4	24	0	19	2	0	68	22	0	0	139	139
Total	16	128	3	50	17	0	267	117	0	3	595	598
Grand Total	35	265	3	111	34	0	644	283	0	3	1372	1375
Apprch %	11.7	88.3		76.6	23.4		69.5	30.5				
Total %	2.6	19.3		8.1	2.5		46.9	20.6		0.2	99.8	
Cars	32	241		107	32		601	274		0	0	1290
% Cars	91.4	90.9	100	96.4	94.1	0	93.3	96.8	0	0	0	93.8
Trucks	3	24		4	2		43	9		0	0	85
% Trucks	8.6	9.1	0	3.6	5.9	0	6.7	3.2	0	0	0	6.2

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00										
07:00	5	32	37	16	8	24	104	33	137	198
07:15	4	27	31	14	3	17	98	45	143	191
07:30	4	38	42	26	3	29	77	45	122	193
07:45	6	40	46	5	3	8	98	43	141	195
Total Volume	19	137	156	61	17	78	377	166	543	777
% App. Total	12.2	87.8		78.2	21.8		69.4	30.6		
PHF	.792	.856	.848	.587	.531	.672	.906	.922	.949	.981
Cars	17	125	142	60	15	75	356	163	519	736
% Cars	89.5	91.2	91.0	98.4	88.2	96.2	94.4	98.2	95.6	94.7
Trucks	2	12	14	1	2	3	21	3	24	41
% Trucks	10.5	8.8	9.0	1.6	11.8	3.8	5.6	1.8	4.4	5.3

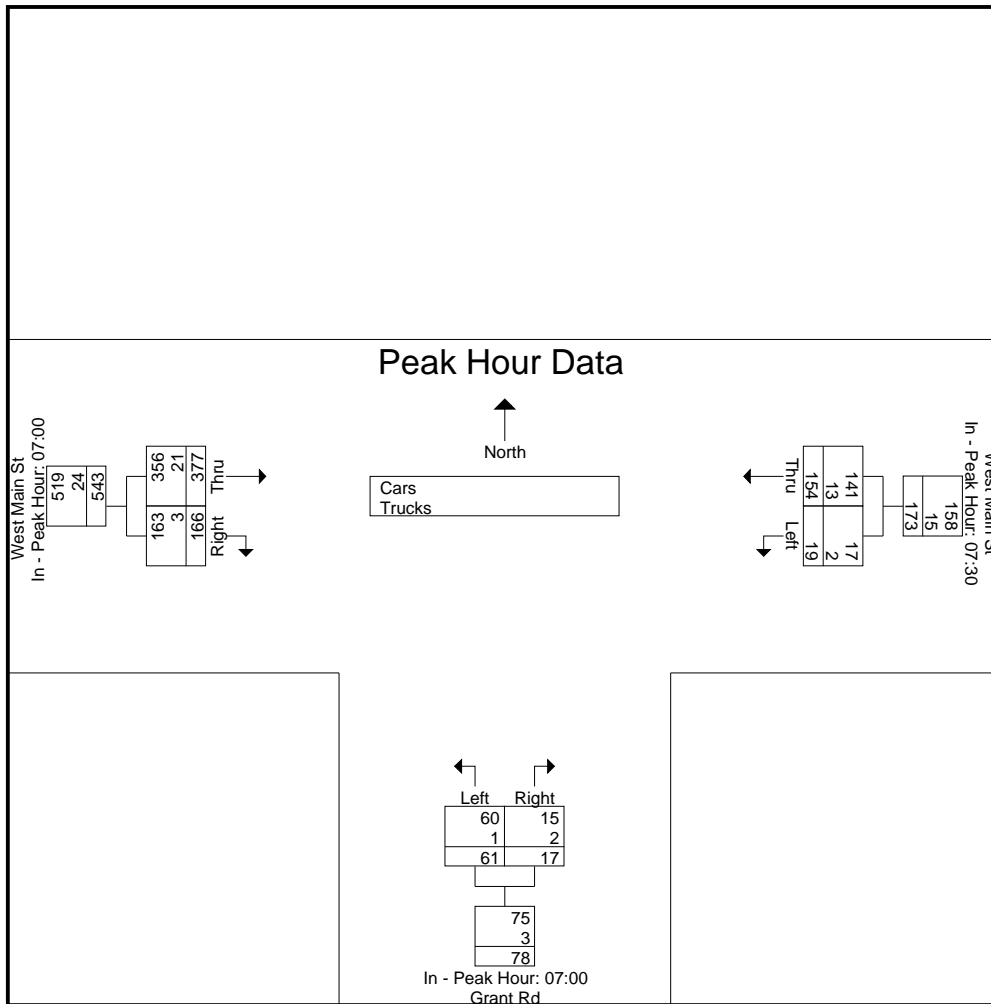


Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30			07:00			07:00		
+0 mins.	4	38	42	16	8	24	104	33	137
+15 mins.	6	40	46	14	3	17	98	45	143
+30 mins.	5	32	37	26	3	29	77	45	122
+45 mins.	4	44	48	5	3	8	98	43	141
Total Volume	19	154	173	61	17	78	377	166	543
% App. Total	11	89		78.2	21.8		69.4	30.6	
PHF	.792	.875	.901	.587	.531	.672	.906	.922	.949
Cars	17	141	158	60	15	75	356	163	519
% Cars	89.5	91.6	91.3	98.4	88.2	96.2	94.4	98.2	95.6
Trucks	2	13	15	1	2	3	21	3	24
% Trucks	10.5	8.4	8.7	1.6	11.8	3.8	5.6	1.8	4.4





N/S Street : Grant Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

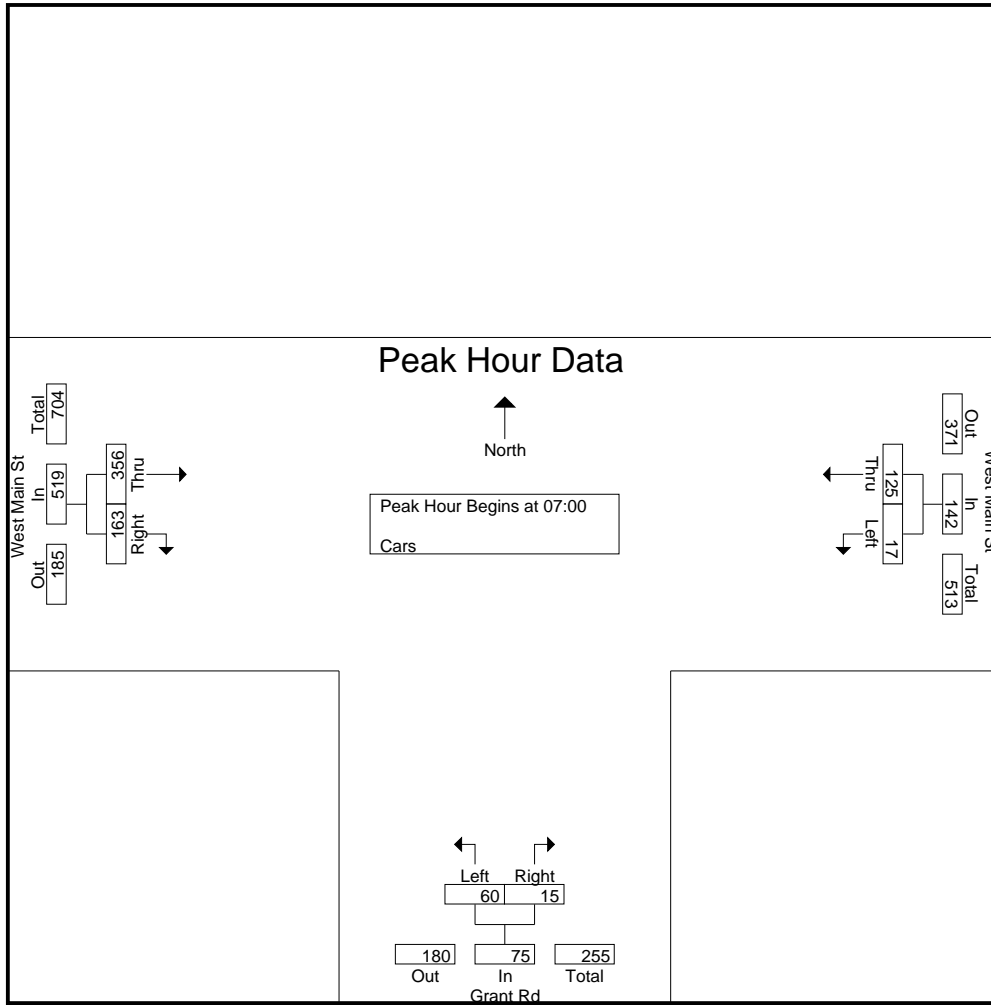
File Name : 86525013  
 Site Code : 86525013  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	5	26	0	16	8	0	100	33	0	0	188	188
07:15	3	25	0	14	3	0	92	43	0	0	180	180
07:30	3	37	0	25	3	0	74	45	0	0	187	187
07:45	6	37	0	5	1	0	90	42	0	0	181	181
Total	17	125	0	60	15	0	356	163	0	0	736	736
08:00	4	27	0	17	4	0	67	37	0	0	156	156
08:15	4	40	2	6	7	0	70	32	0	2	159	161
08:30	3	27	1	7	4	0	53	20	0	1	114	115
08:45	4	22	0	17	2	0	55	22	0	0	122	122
Total	15	116	3	47	17	0	245	111	0	3	551	554
Grand Total	32	241	3	107	32	0	601	274	0	3	1287	1290
Apprch %	11.7	88.3		77	23		68.7	31.3				
Total %	2.5	18.7		8.3	2.5		46.7	21.3		0.2	99.8	

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00	5	26	31	16	8	24	100	33	133	188
07:15	3	25	28	14	3	17	92	43	135	180
07:30	3	37	40	25	3	28	74	45	119	187
07:45	6	37	43	5	1	6	90	42	132	181
Total Volume	17	125	142	60	15	75	356	163	519	736
% App. Total	12	88		80	20		68.6	31.4		
PHF	.708	.845	.826	.600	.469	.670	.890	.906	.961	.979

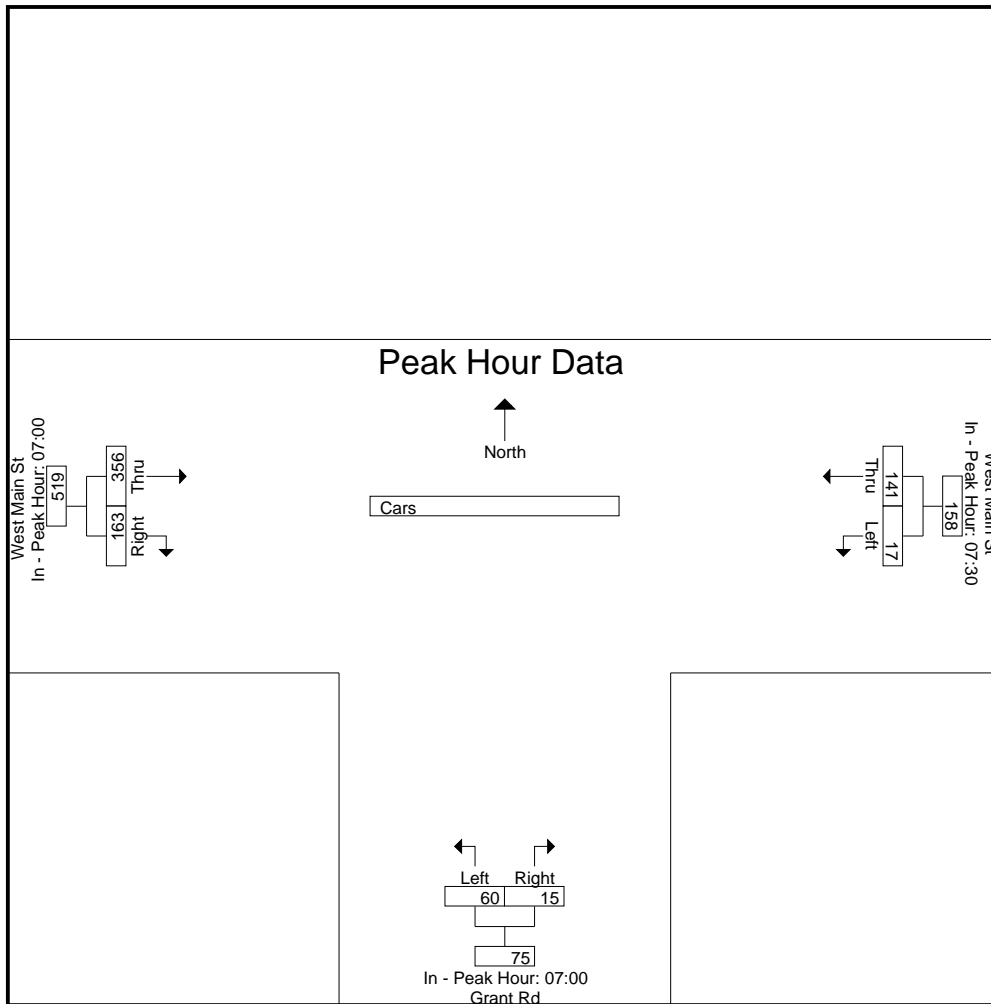
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:00



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30			07:00			07:00		
+0 mins.	3	37	40	16	8	24	100	33	133
+15 mins.	6	37	43	14	3	17	92	43	135
+30 mins.	4	27	31	25	3	28	74	45	119
+45 mins.	4	40	44	5	1	6	90	42	132
Total Volume	17	141	158	60	15	75	356	163	519
% App. Total	10.8	89.2		80	20		68.6	31.4	
PHF	.708	.881	.898	.600	.469	.670	.890	.906	.961



N/S Street : Grant Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

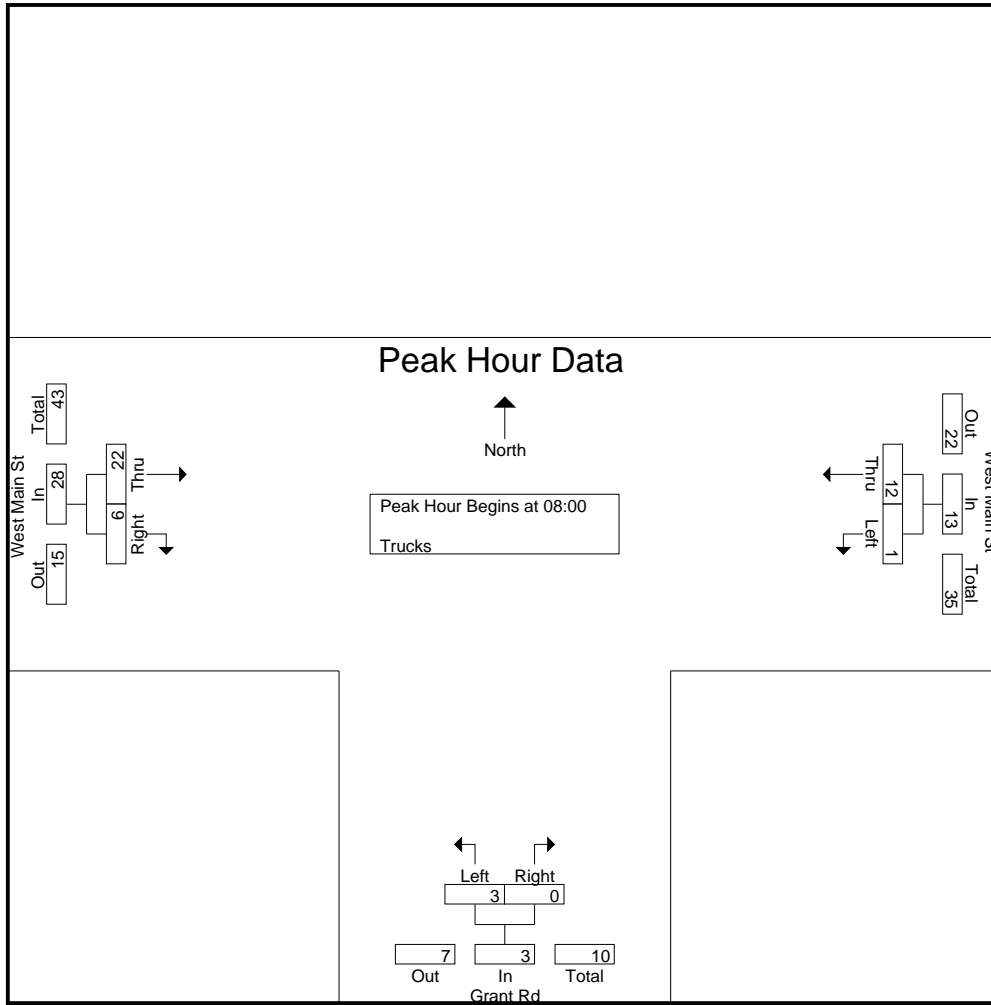
File Name : 86525013  
 Site Code : 86525013  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	0	6	0	0	0	0	4	0	0	0	10	10
07:15	1	2	0	0	0	0	6	2	0	0	11	11
07:30	1	1	0	1	0	0	3	0	0	0	6	6
07:45	0	3	0	0	2	0	8	1	0	0	14	14
Total	2	12	0	1	2	0	21	3	0	0	41	41
08:00	1	5	0	0	0	0	3	2	0	0	11	11
08:15	0	4	0	0	0	0	4	0	0	0	8	8
08:30	0	1	0	1	0	0	2	4	0	0	8	8
08:45	0	2	0	2	0	0	13	0	0	0	17	17
Total	1	12	0	3	0	0	22	6	0	0	44	44
Grand Total	3	24	0	4	2	0	43	9	0	0	85	85
Apprch %	11.1	88.9		66.7	33.3		82.7	17.3				
Total %	3.5	28.2		4.7	2.4		50.6	10.6		0	100	

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
08:00	1	5	6	0	0	0	3	2	5	11
08:15	0	4	4	0	0	0	4	0	4	8
08:30	0	1	1	1	0	1	2	4	6	8
08:45	0	2	2	2	0	2	13	0	13	17
Total Volume	1	12	13	3	0	3	22	6	28	44
% App. Total	7.7	92.3		100	0		78.6	21.4		
PHF	.250	.600	.542	.375	.000	.375	.423	.375	.538	.647

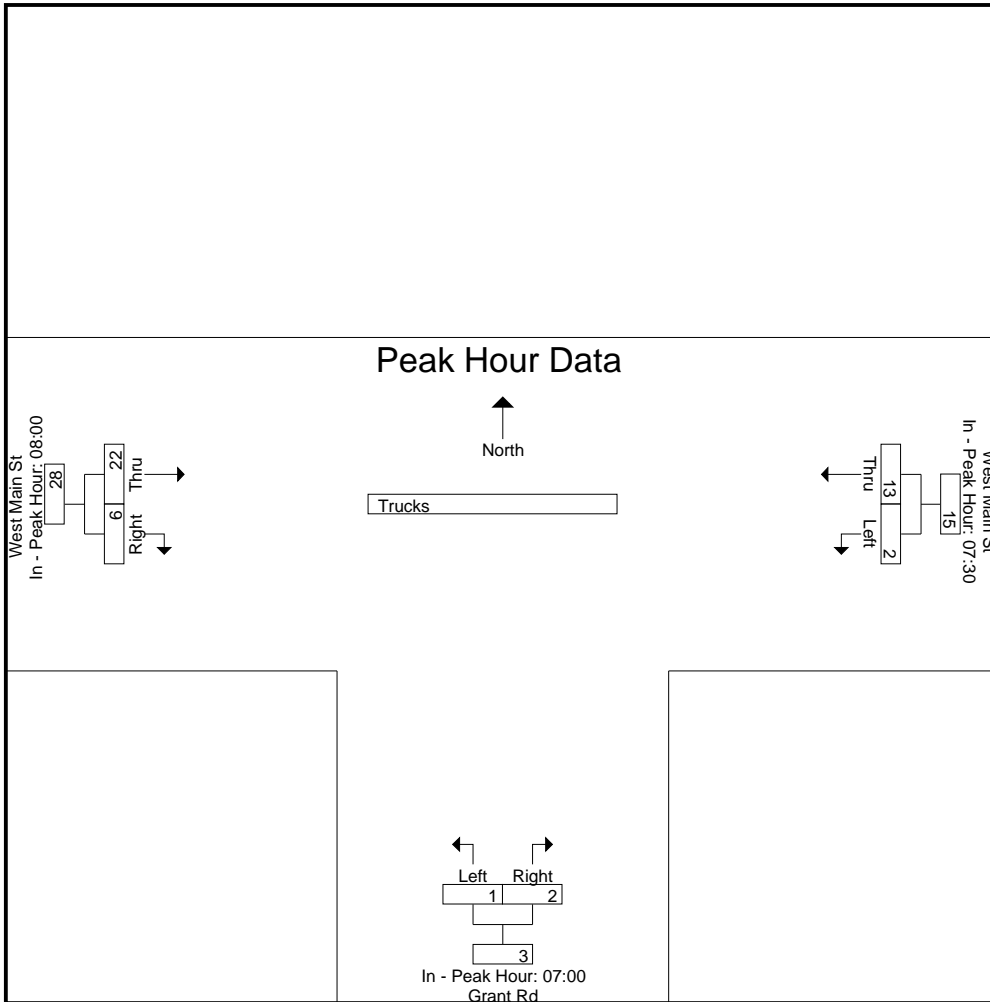
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 08:00



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30			07:00			08:00		
+0 mins.	1	1	2	0	0	0	3	2	5
+15 mins.	0	3	3	0	0	0	4	0	4
+30 mins.	1	5	6	1	0	1	2	4	6
+45 mins.	0	4	4	0	2	2	13	0	13
Total Volume	2	13	15	1	2	3	22	6	28
% App. Total	13.3	86.7		33.3	66.7		78.6	21.4	
PHF	.500	.650	.625	.250	.250	.375	.423	.375	.538



N/S Street : Grant Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

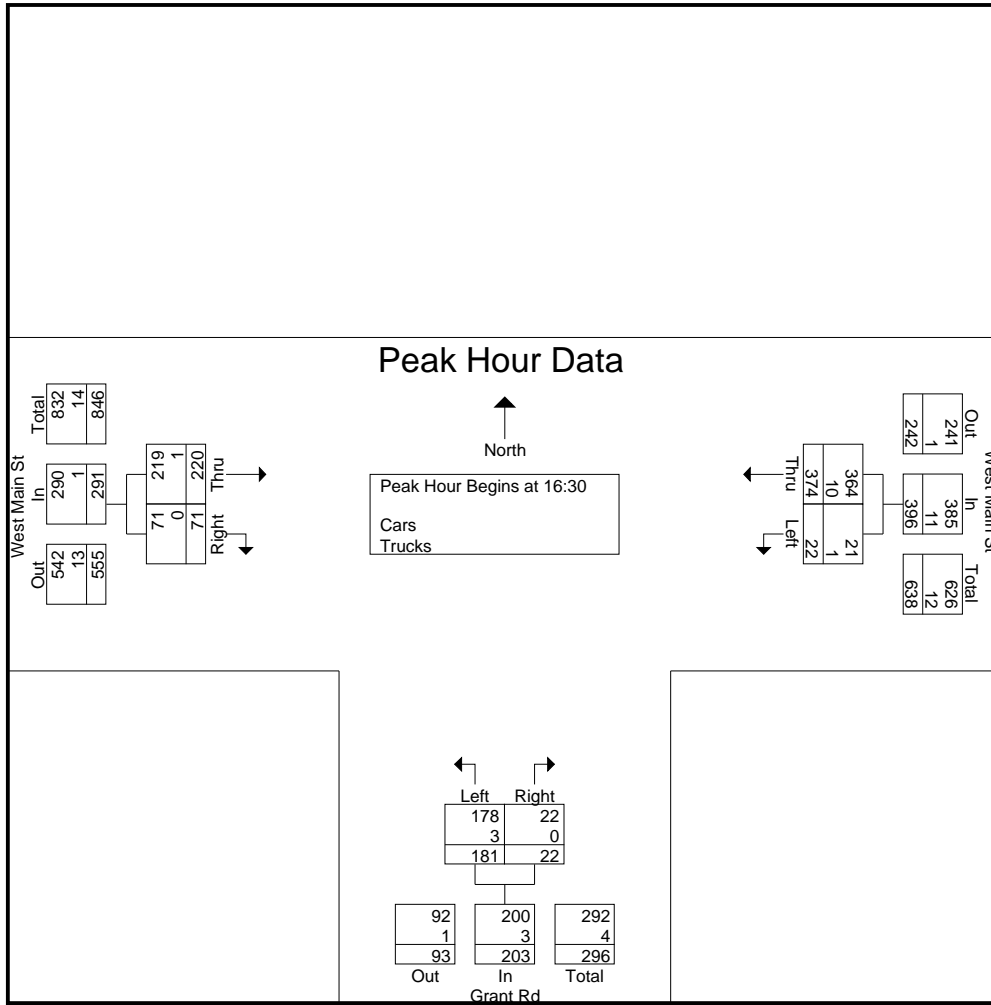
File Name : 86525013  
 Site Code : 86525013  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	7	85	2	20	6	0	41	13	0	2	172	174
16:15	1	78	0	19	5	0	45	7	0	0	155	155
16:30	6	89	1	22	4	0	65	22	0	1	208	209
16:45	4	85	1	38	6	0	54	11	0	1	198	199
Total	18	337	4	99	21	0	205	53	0	4	733	737
17:00	7	114	0	65	6	0	52	24	0	0	268	268
17:15	5	86	0	56	6	0	49	14	0	0	216	216
17:30	3	92	0	51	2	0	42	6	0	0	196	196
17:45	1	83	2	44	3	0	49	5	0	2	185	187
Total	16	375	2	216	17	0	192	49	0	2	865	867
Grand Total	34	712	6	315	38	0	397	102	0	6	1598	1604
Apprch %	4.6	95.4		89.2	10.8		79.6	20.4				
Total %	2.1	44.6		19.7	2.4		24.8	6.4		0.4	99.6	
Cars	33	698		312	38		391	101		0	0	1579
% Cars	97.1	98	100	99	100	0	98.5	99	0	0	0	98.4
Trucks	1	14		3	0		6	1		0	0	25
% Trucks	2.9	2	0	1	0	0	1.5	1	0	0	0	1.6

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:30										
16:30	6	89	95	22	4	26	65	22	87	208
16:45	4	85	89	38	6	44	54	11	65	198
17:00	7	114	121	65	6	71	52	24	76	268
17:15	5	86	91	56	6	62	49	14	63	216
Total Volume	22	374	396	181	22	203	220	71	291	890
% App. Total	5.6	94.4		89.2	10.8		75.6	24.4		
PHF	.786	.820	.818	.696	.917	.715	.846	.740	.836	.830
Cars	21	364	385	178	22	200	219	71	290	875
% Cars	95.5	97.3	97.2	98.3	100	98.5	99.5	100	99.7	98.3
Trucks	1	10	11	3	0	3	1	0	1	15
% Trucks	4.5	2.7	2.8	1.7	0	1.5	0.5	0	0.3	1.7

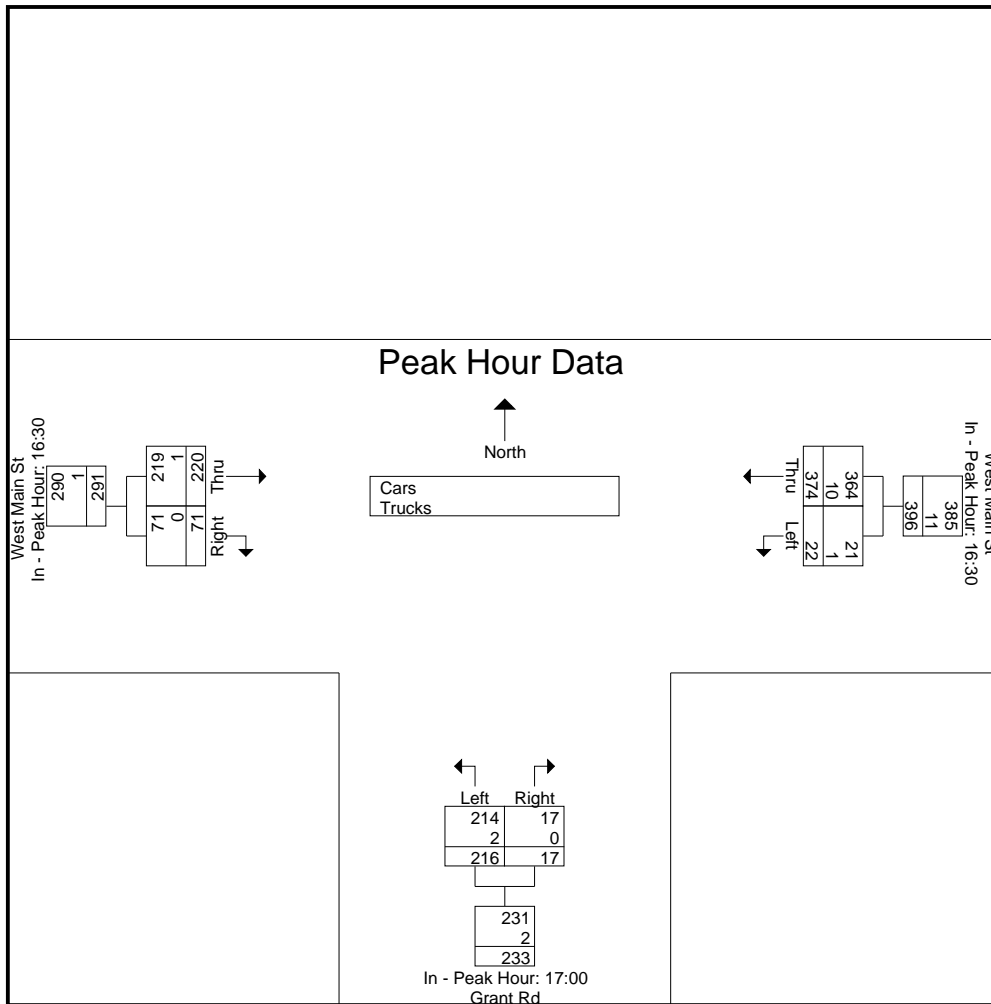




Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:30			17:00			16:30		
+0 mins.	6	89	95	65	6	71	65	22	87
+15 mins.	4	85	89	56	6	62	54	11	65
+30 mins.	7	114	121	51	2	53	52	24	76
+45 mins.	5	86	91	44	3	47	49	14	63
Total Volume	22	374	396	216	17	233	220	71	291
% App. Total	5.6	94.4		92.7	7.3		75.6	24.4	
PHF	.786	.820	.818	.831	.708	.820	.846	.740	.836
Cars	21	364	385	214	17	231	219	71	290
% Cars	95.5	97.3	97.2	99.1	100	99.1	99.5	100	99.7
Trucks	1	10	11	2	0	2	1	0	1
% Trucks	4.5	2.7	2.8	0.9	0	0.9	0.5	0	0.3



N/S Street : Grant Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

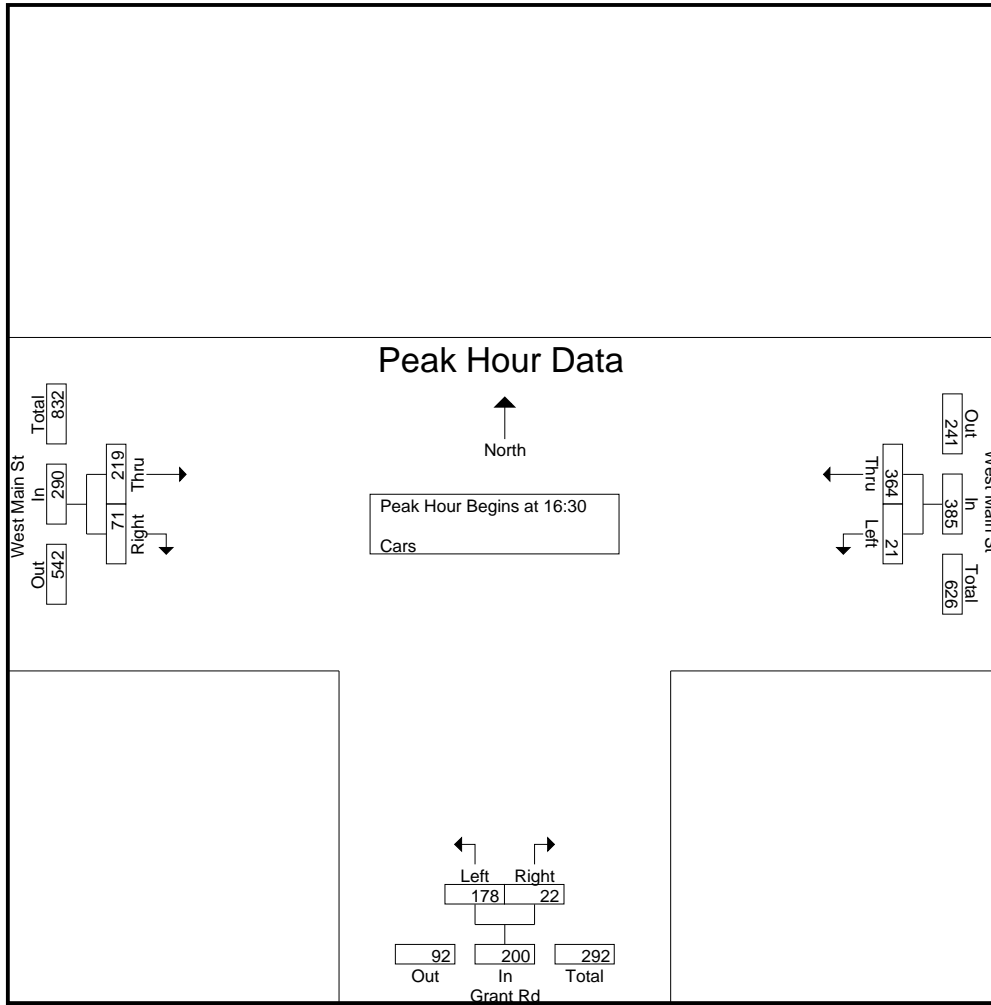
Accurate Counts  
 978-664-2565

File Name : 86525013  
 Site Code : 86525013  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	7	84	2	20	6	0	38	12	0	2	167	169
16:15	1	76	0	19	5	0	44	7	0	0	152	152
16:30	6	83	1	22	4	0	65	22	0	1	202	203
16:45	4	84	1	37	6	0	54	11	0	1	196	197
Total	18	327	4	98	21	0	201	52	0	4	717	721
17:00	7	113	0	65	6	0	52	24	0	0	267	267
17:15	4	84	0	54	6	0	48	14	0	0	210	210
17:30	3	92	0	51	2	0	42	6	0	0	196	196
17:45	1	82	2	44	3	0	48	5	0	2	183	185
Total	15	371	2	214	17	0	190	49	0	2	856	858
Grand Total	33	698	6	312	38	0	391	101	0	6	1573	1579
Apprch %	4.5	95.5		89.1	10.9		79.5	20.5				
Total %	2.1	44.4		19.8	2.4		24.9	6.4		0.4	99.6	

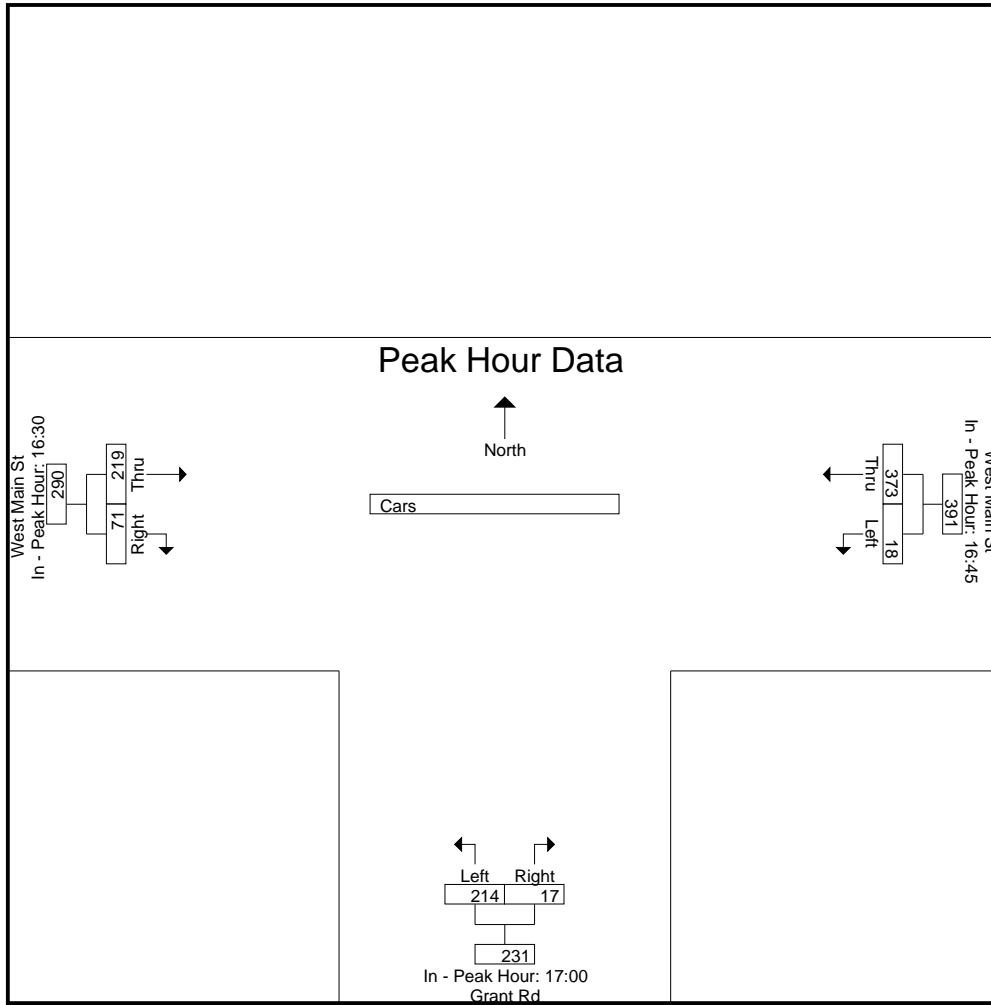
Start Time	West Main St From East			Grant Rd From South			West Main St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:30										
16:30	6	83	89	22	4	26	65	22	87	202
16:45	4	84	88	37	6	43	54	11	65	196
17:00	7	113	120	65	6	71	52	24	76	267
17:15	4	84	88	54	6	60	48	14	62	210
Total Volume	21	364	385	178	22	200	219	71	290	875
% App. Total	5.5	94.5		89	11		75.5	24.5		
PHF	.750	.805	.802	.685	.917	.704	.842	.740	.833	.819



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:45			17:00			16:30		
+0 mins.	4	84	88	65	6	71	65	22	87
+15 mins.	7	113	120	54	6	60	54	11	65
+30 mins.	4	84	88	51	2	53	52	24	76
+45 mins.	3	92	95	44	3	47	48	14	62
Total Volume	18	373	391	214	17	231	219	71	290
% App. Total	4.6	95.4		92.6	7.4		75.5	24.5	
PHF	.643	.825	.815	.823	.708	.813	.842	.740	.833



N/S Street : Grant Road  
 E/W Street: West Main Street  
 City/State : Ayer, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

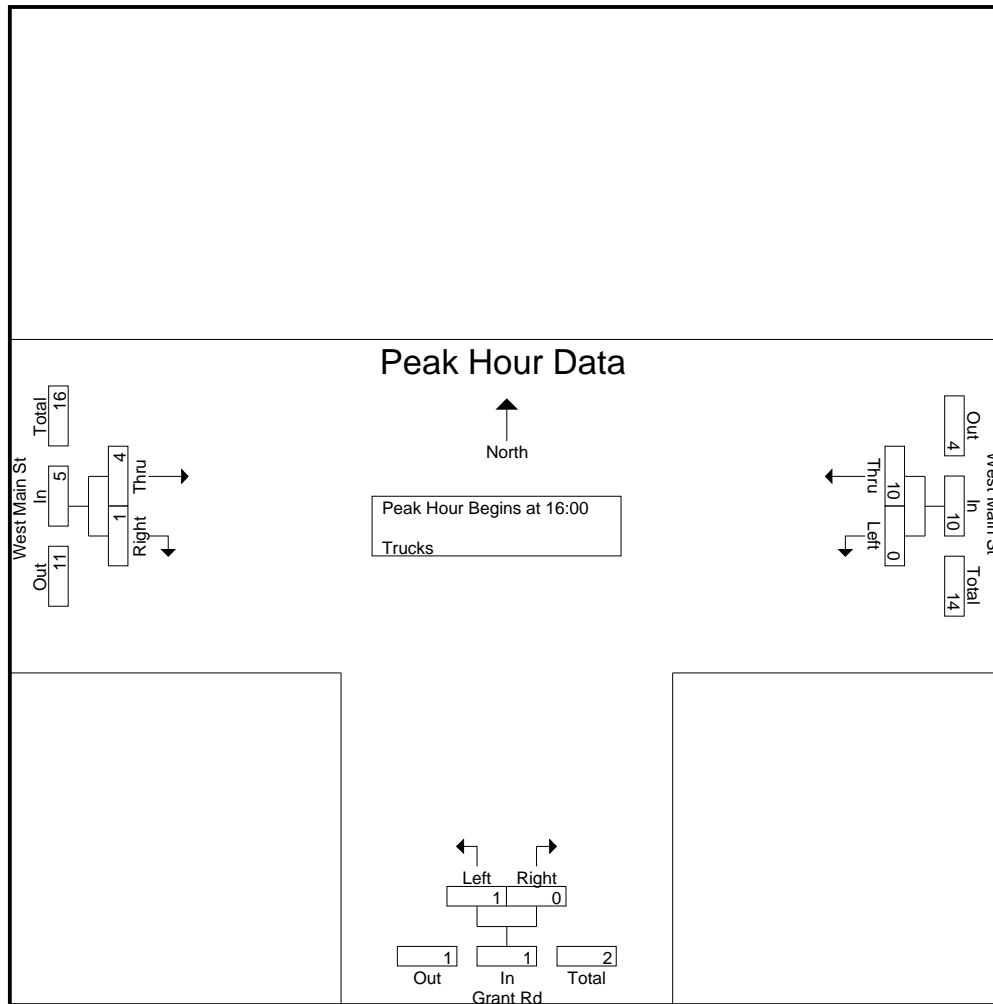
File Name : 86525013  
 Site Code : 86525013  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	0	1	0	0	0	0	3	1	0	0	5	5
16:15	0	2	0	0	0	0	1	0	0	0	3	3
16:30	0	6	0	0	0	0	0	0	0	0	6	6
16:45	0	1	0	1	0	0	0	0	0	0	2	2
Total	0	10	0	1	0	0	4	1	0	0	16	16
17:00	0	1	0	0	0	0	0	0	0	0	1	1
17:15	1	2	0	2	0	0	1	0	0	0	6	6
17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	1	0	0	0	0	1	0	0	0	2	2
Total	1	4	0	2	0	0	2	0	0	0	9	9
Grand Total	1	14	0	3	0	0	6	1	0	0	25	25
Apprch %	6.7	93.3		100	0		85.7	14.3				
Total %	4	56		12	0		24	4		0	100	

Start Time	West Main St From East			Grant Rd From South			West Main St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
16:00	0	1	1	0	0	0	3	1	4	5
16:15	0	2	2	0	0	0	1	0	1	3
16:30	0	6	6	0	0	0	0	0	0	6
16:45	0	1	1	1	0	1	0	0	0	2
Total Volume	0	10	10	1	0	1	4	1	5	16
% App. Total	0	100		100	0		80	20		
PHF	.000	.417	.417	.250	.000	.250	.333	.250	.313	.667

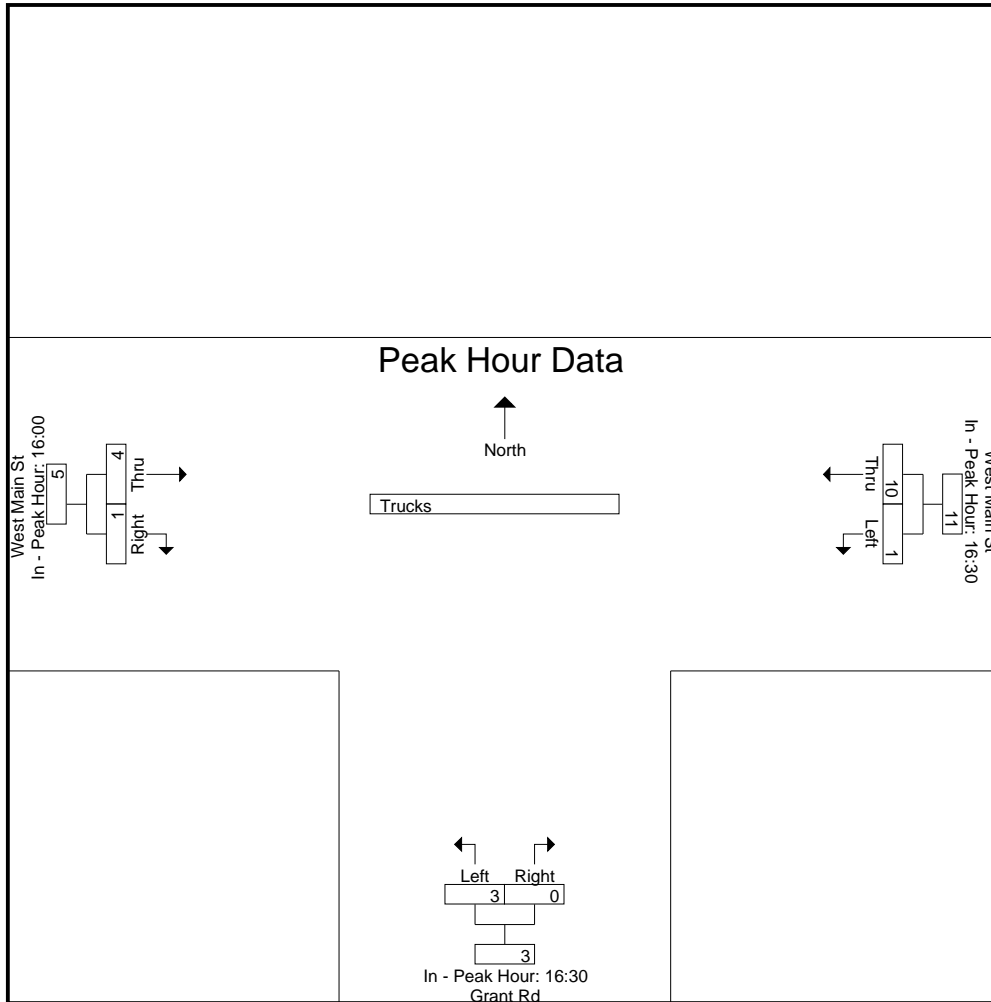
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:30			16:30			16:00		
+0 mins.	0	6	6	0	0	0	3	1	4
+15 mins.	0	1	1	1	0	1	1	0	1
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	1	2	3	2	0	2	0	0	0
Total Volume	1	10	11	3	0	3	4	1	5
% App. Total	9.1	90.9		100	0		80	20	
PHF	.250	.417	.458	.375	.000	.375	.333	.250	.313





N/S Street : Hospital Road  
 E/W Street: Front Street  
 City/State : Shirley, MA  
 Weather : Clear

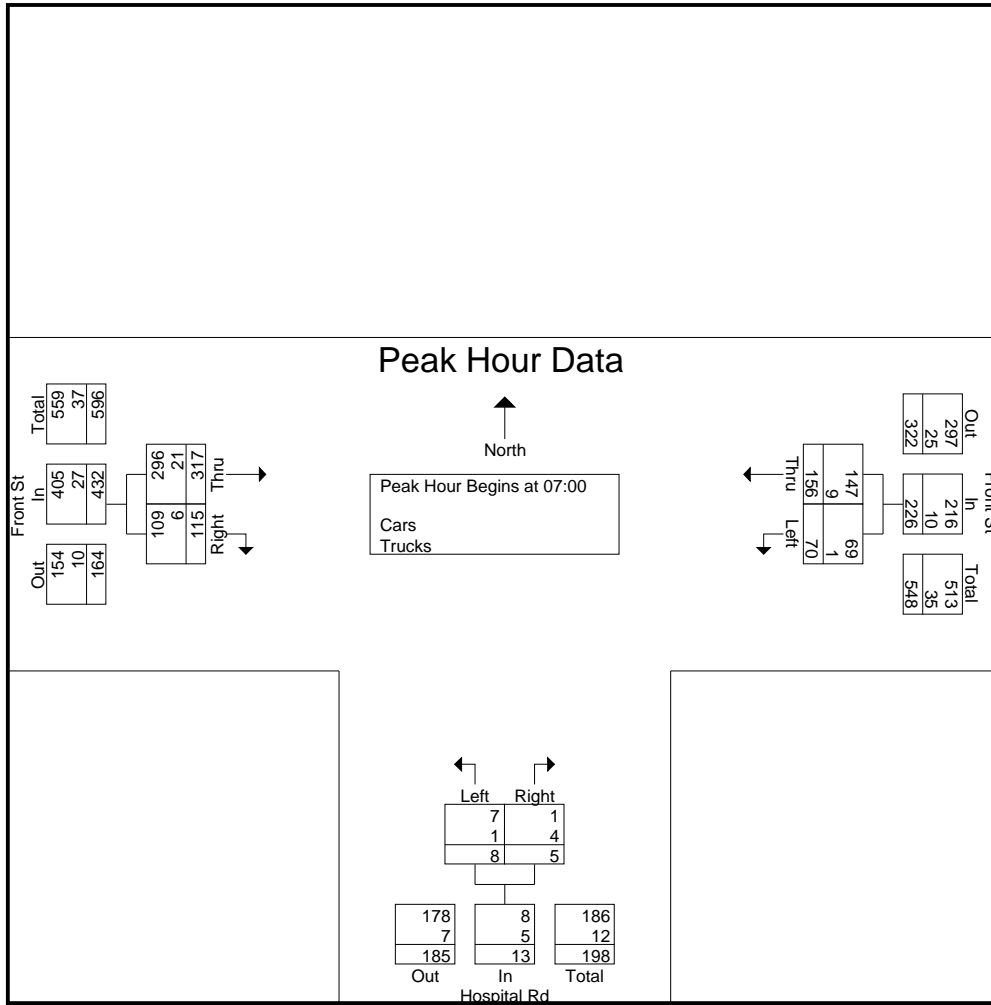
Accurate Counts  
 978-664-2565

File Name : 86525014  
 Site Code : 86525014  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Front St From East			Hospital Rd From South			Front St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	11	23	0	2	0	1	85	13	0	1	134	135
07:15	12	35	0	2	2	0	89	22	0	0	162	162
07:30	26	52	0	1	1	0	61	56	0	0	197	197
07:45	21	46	0	3	2	2	82	24	0	2	178	180
Total	70	156	0	8	5	3	317	115	0	3	671	674
08:00	5	31	0	3	1	0	60	3	0	0	103	103
08:15	9	45	0	1	1	0	65	5	0	0	126	126
08:30	3	34	0	4	3	2	59	4	0	2	107	109
08:45	3	32	0	2	2	0	59	8	0	0	106	106
Total	20	142	0	10	7	2	243	20	0	2	442	444
Grand Total	90	298	0	18	12	5	560	135	0	5	1113	1118
Apprch %	23.2	76.8		60	40		80.6	19.4				
Total %	8.1	26.8		1.6	1.1		50.3	12.1		0.4	99.6	
Cars	87	273		15	7		511	126		0	0	1024
% Cars	96.7	91.6	0	83.3	58.3	100	91.2	93.3	0	0	0	91.6
Trucks	3	25		3	5		49	9		0	0	94
% Trucks	3.3	8.4	0	16.7	41.7	0	8.8	6.7	0	0	0	8.4

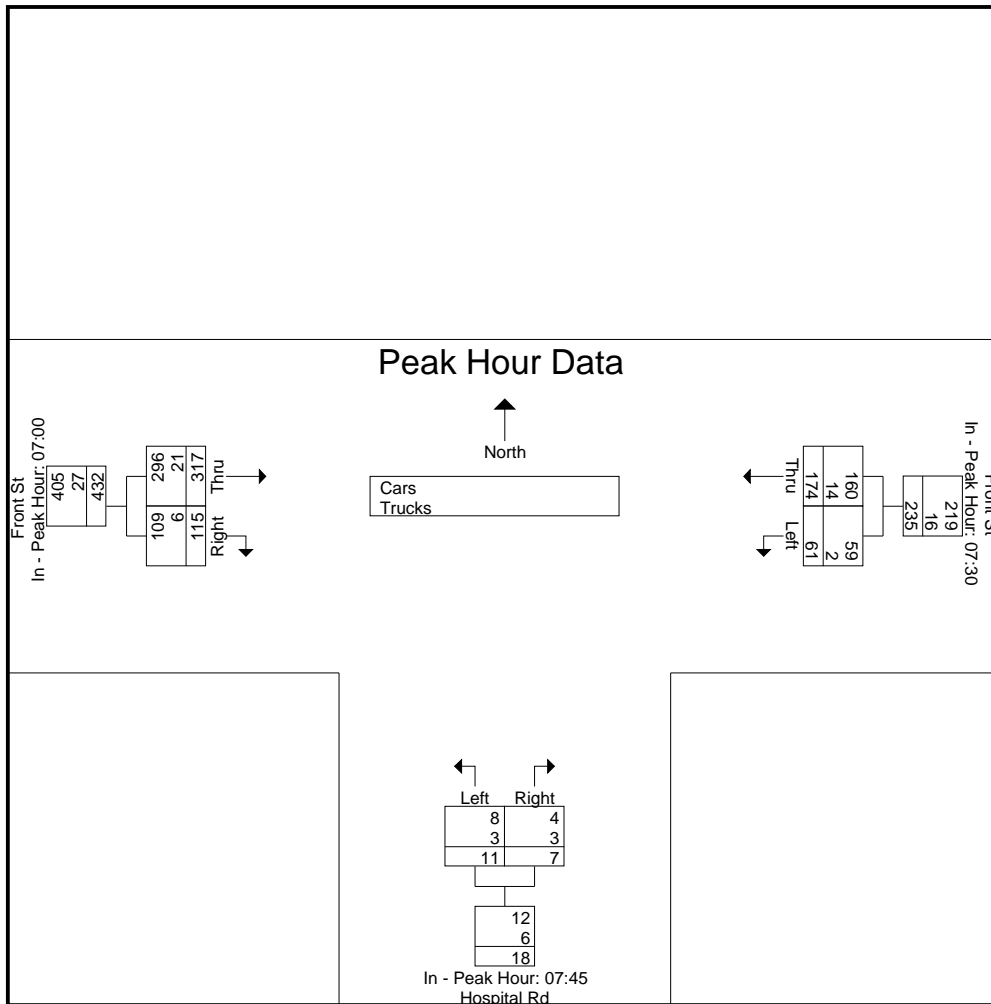
Start Time	Front St From East			Hospital Rd From South			Front St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00										
07:00	11	23	34	2	0	2	85	13	98	134
07:15	12	35	47	2	2	4	89	22	111	162
07:30	26	52	78	1	1	2	61	56	117	197
07:45	21	46	67	3	2	5	82	24	106	178
Total Volume	70	156	226	8	5	13	317	115	432	671
% App. Total	31	69		61.5	38.5		73.4	26.6		
PHF	.673	.750	.724	.667	.625	.650	.890	.513	.923	.852
Cars	69	147	216	7	1	8	296	109	405	629
% Cars	98.6	94.2	95.6	87.5	20.0	61.5	93.4	94.8	93.8	93.7
Trucks	1	9	10	1	4	5	21	6	27	42
% Trucks	1.4	5.8	4.4	12.5	80.0	38.5	6.6	5.2	6.3	6.3



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30			07:45			07:00		
+0 mins.	26	52	78	3	2	5	85	13	98
+15 mins.	21	46	67	3	1	4	89	22	111
+30 mins.	5	31	36	1	1	2	61	56	117
+45 mins.	9	45	54	4	3	7	82	24	106
Total Volume	61	174	235	11	7	18	317	115	432
% App. Total	26	74		61.1	38.9		73.4	26.6	
PHF	.587	.837	.753	.688	.583	.643	.890	.513	.923
Cars	59	160	219	8	4	12	296	109	405
% Cars	96.7	92	93.2	72.7	57.1	66.7	93.4	94.8	93.8
Trucks	2	14	16	3	3	6	21	6	27
% Trucks	3.3	8	6.8	27.3	42.9	33.3	6.6	5.2	6.2



N/S Street : Hospital Road  
 E/W Street: Front Street  
 City/State : Shirley, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

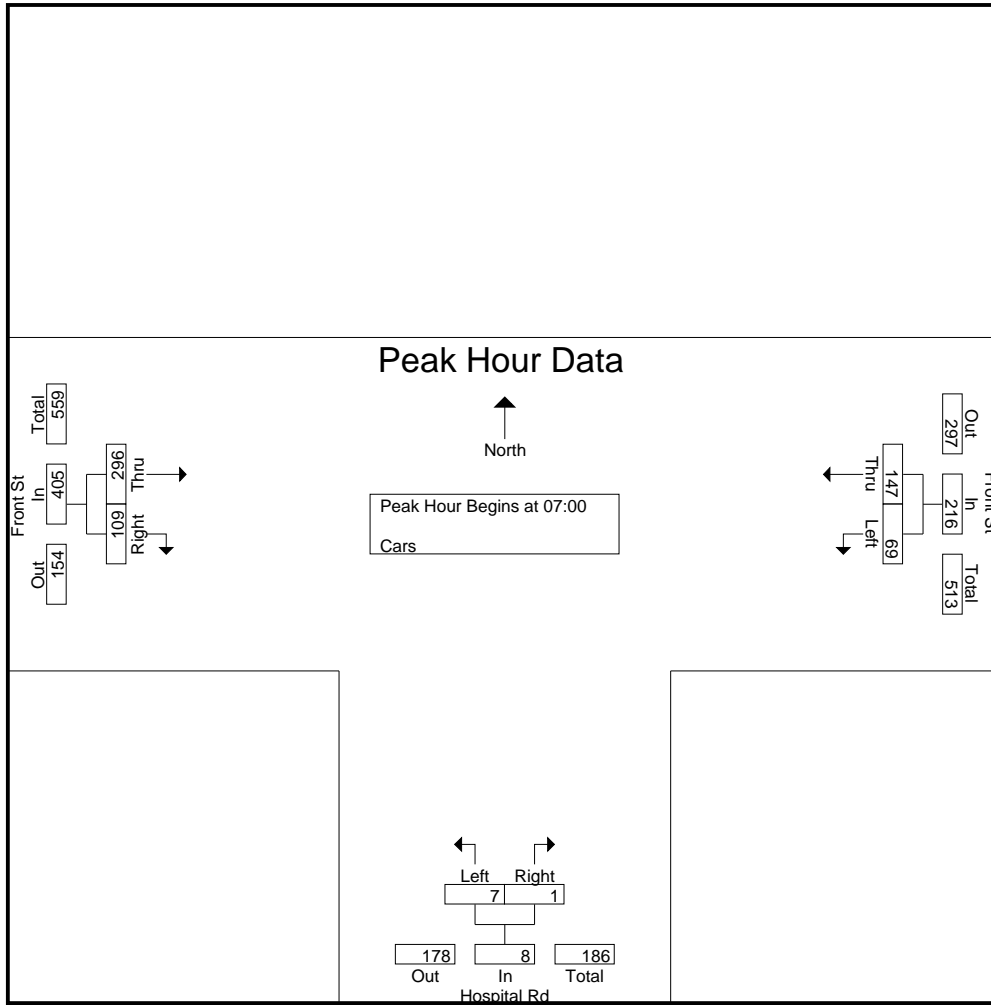
File Name : 86525014  
 Site Code : 86525014  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Front St From East			Hospital Rd From South			Front St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	11	20	0	2	0	1	82	13	0	1	128	129
07:15	12	32	0	2	1	0	81	19	0	0	147	147
07:30	25	52	0	1	0	0	58	54	0	0	190	190
07:45	21	43	0	2	0	2	75	23	0	2	164	166
Total	69	147	0	7	1	3	296	109	0	3	629	632
08:00	5	29	0	2	0	0	55	3	0	0	94	94
08:15	8	36	0	1	1	0	60	5	0	0	111	111
08:30	3	30	0	3	3	2	53	3	0	2	95	97
08:45	2	31	0	2	2	0	47	6	0	0	90	90
Total	18	126	0	8	6	2	215	17	0	2	390	392
Grand Total	87	273	0	15	7	5	511	126	0	5	1019	1024
Apprch %	24.2	75.8		68.2	31.8		80.2	19.8				
Total %	8.5	26.8		1.5	0.7		50.1	12.4		0.5	99.5	

Start Time	Front St From East			Hospital Rd From South			Front St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00	11	20	31	2	0	2	82	13	95	128
07:15	12	32	44	2	1	3	81	19	100	147
07:30	25	52	77	1	0	1	58	54	112	190
07:45	21	43	64	2	0	2	75	23	98	164
Total Volume	69	147	216	7	1	8	296	109	405	629
% App. Total	31.9	68.1		87.5	12.5		73.1	26.9		
PHF	.690	.707	.701	.875	.250	.667	.902	.505	.904	.828

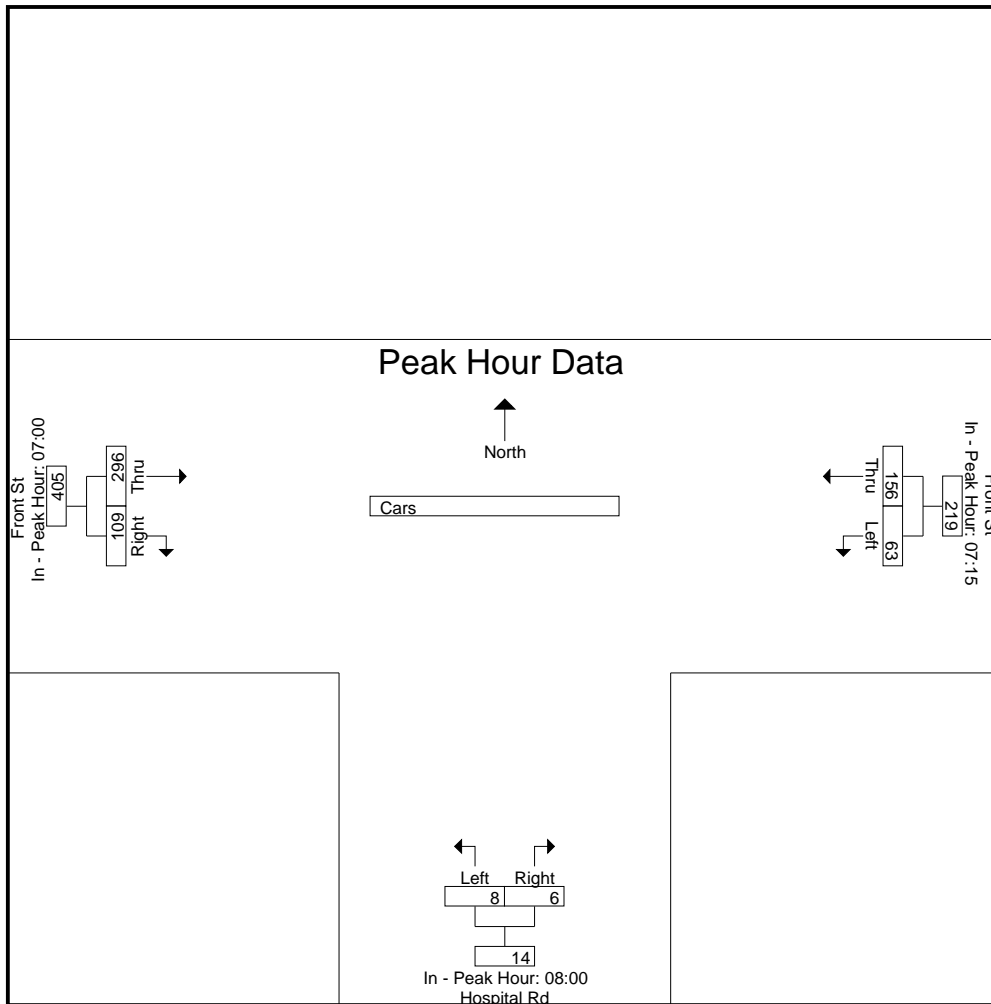
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:00



Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15			08:00			07:00		
+0 mins.	12	32	44	2	0	2	82	13	95
+15 mins.	25	52	77	1	1	2	81	19	100
+30 mins.	21	43	64	3	3	6	58	54	112
+45 mins.	5	29	34	2	2	4	75	23	98
Total Volume	63	156	219	8	6	14	296	109	405
% App. Total	28.8	71.2		57.1	42.9		73.1	26.9	
PHF	.630	.750	.711	.667	.500	.583	.902	.505	.904



N/S Street : Hospital Road  
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 City/State : Shirley, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

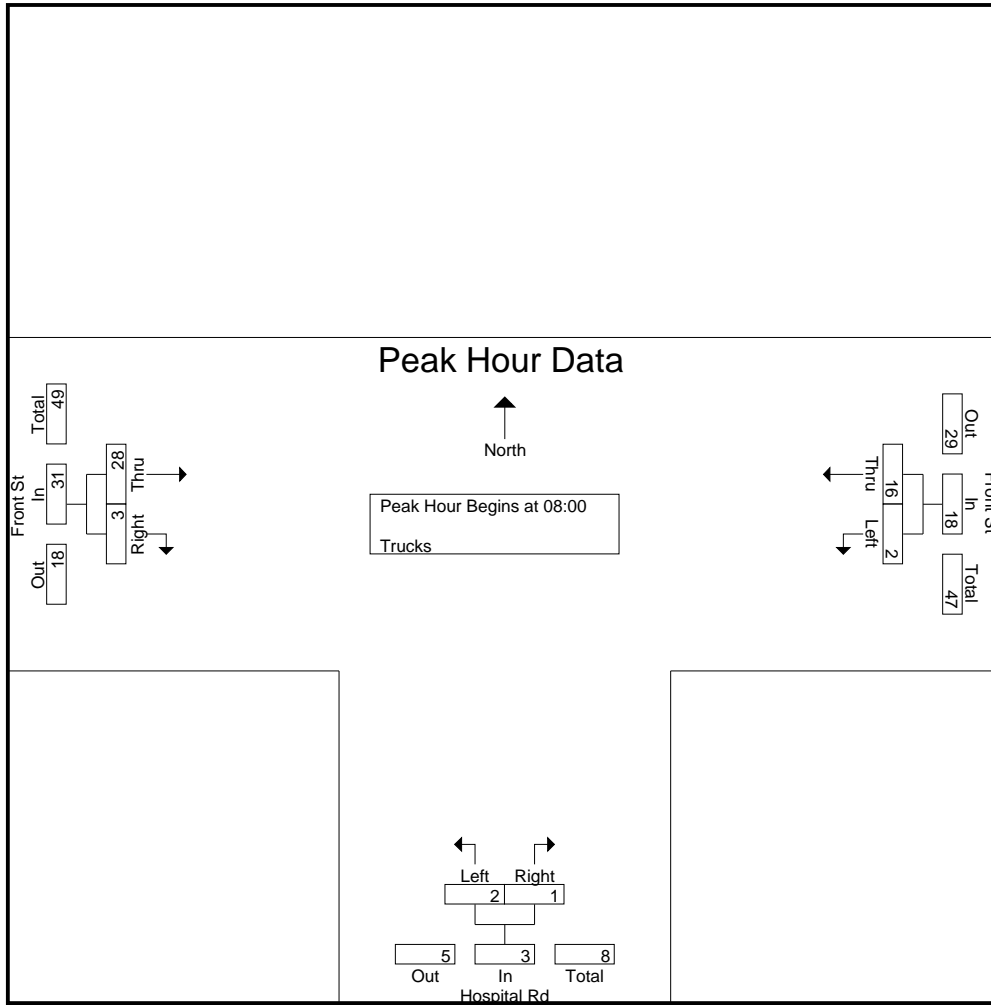
File Name : 86525014  
 Site Code : 86525014  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Trucks

Start Time	Front St From East			Hospital Rd From South			Front St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
07:00	0	3	0	0	0	0	3	0	0	0	6	6
07:15	0	3	0	0	1	0	8	3	0	0	15	15
07:30	1	0	0	0	1	0	3	2	0	0	7	7
07:45	0	3	0	1	2	0	7	1	0	0	14	14
Total	1	9	0	1	4	0	21	6	0	0	42	42
08:00	0	2	0	1	1	0	5	0	0	0	9	9
08:15	1	9	0	0	0	0	5	0	0	0	15	15
08:30	0	4	0	1	0	0	6	1	0	0	12	12
08:45	1	1	0	0	0	0	12	2	0	0	16	16
Total	2	16	0	2	1	0	28	3	0	0	52	52
Grand Total	3	25	0	3	5	0	49	9	0	0	94	94
Apprch %	10.7	89.3		37.5	62.5		84.5	15.5				
Total %	3.2	26.6		3.2	5.3		52.1	9.6		0	100	

Start Time	Front St From East			Hospital Rd From South			Front St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
08:00	0	2	2	1	1	2	5	0	5	9
08:15	1	9	10	0	0	0	5	0	5	15
08:30	0	4	4	1	0	1	6	1	7	12
08:45	1	1	2	0	0	0	12	2	14	16
Total Volume	2	16	18	2	1	3	28	3	31	52
% App. Total	11.1	88.9		66.7	33.3		90.3	9.7		
PHF	.500	.444	.450	.500	.250	.375	.583	.375	.554	.813

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 08:00

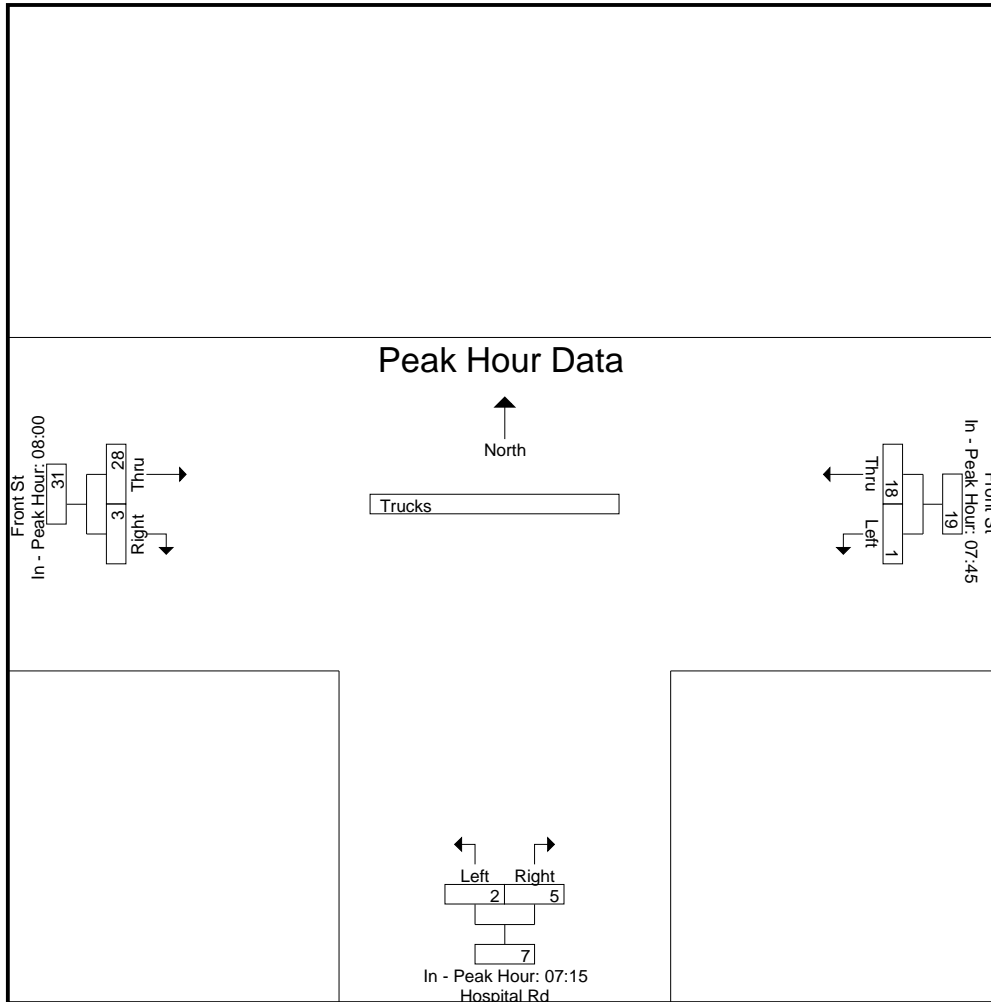


Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45			07:15			08:00		
+0 mins.	0	3	3	0	1	1	5	0	5
+15 mins.	0	2	2	0	1	1	5	0	5
+30 mins.	1	9	10	1	2	3	6	1	7
+45 mins.	0	4	4	1	1	2	12	2	14
Total Volume	1	18	19	2	5	7	28	3	31
% App. Total	5.3	94.7		28.6	71.4		90.3	9.7	
PHF	.250	.500	.475	.500	.625	.583	.583	.375	.554





N/S Street : Hospital Road  
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 City/State : Shirley, MA  
 Weather : Clear

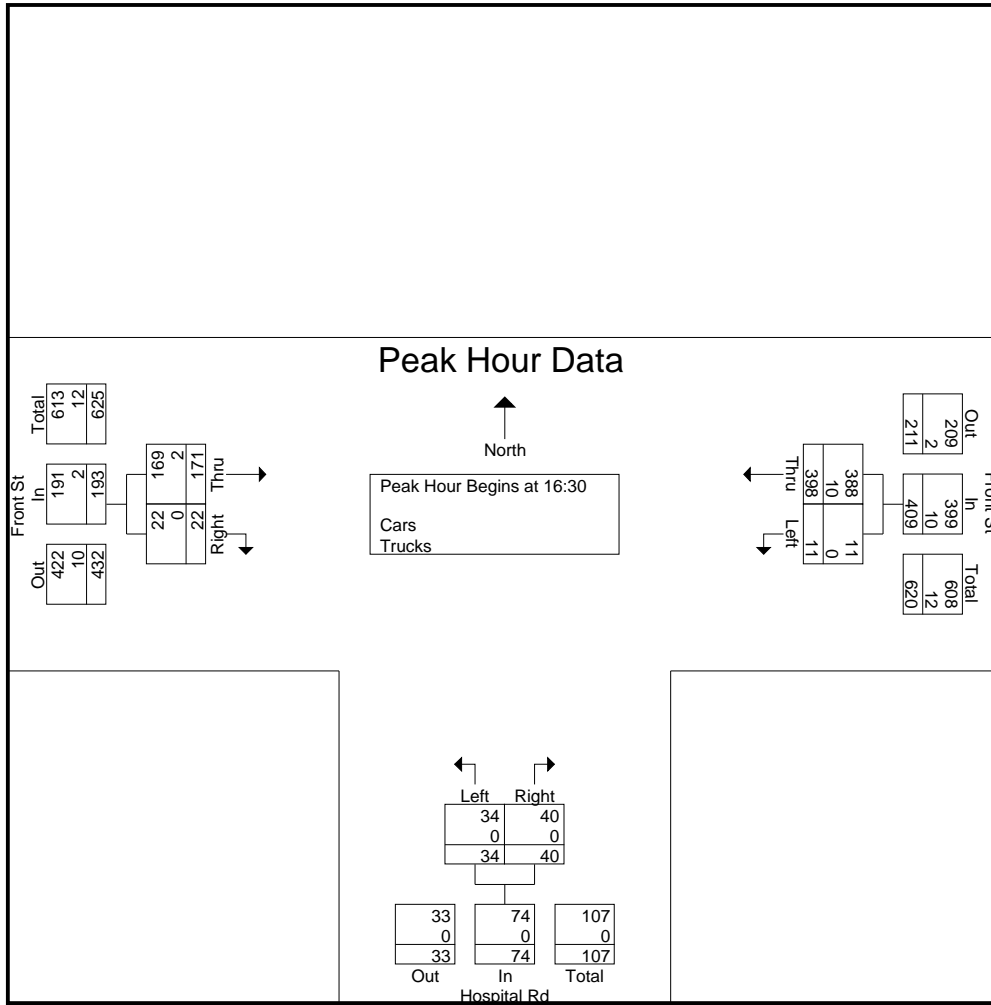
Accurate Counts  
 978-664-2565

File Name : 86525014  
 Site Code : 86525014  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Front St From East			Hospital Rd From South			Front St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	10	83	0	12	9	0	37	10	0	0	161	161
16:15	2	73	0	13	7	1	36	10	0	1	141	142
16:30	2	85	0	15	18	1	43	0	0	1	163	164
16:45	1	90	0	5	5	1	48	1	0	1	150	151
Total	15	331	0	45	39	3	164	21	0	3	615	618
17:00	4	101	0	9	13	1	42	4	0	1	173	174
17:15	4	122	0	5	4	0	38	17	0	0	190	190
17:30	1	103	0	6	3	3	39	6	0	3	158	161
17:45	2	101	0	1	1	0	30	3	0	0	138	138
Total	11	427	0	21	21	4	149	30	0	4	659	663
Grand Total	26	758	0	66	60	7	313	51	0	7	1274	1281
Apprch %	3.3	96.7		52.4	47.6		86	14				
Total %	2	59.5		5.2	4.7		24.6	4		0.5	99.5	
Cars	26	743		66	60		306	51		0	0	1259
% Cars	100	98	0	100	100	100	97.8	100	0	0	0	98.3
Trucks	0	15		0	0		7	0		0	0	22
% Trucks	0	2	0	0	0	0	2.2	0	0	0	0	1.7

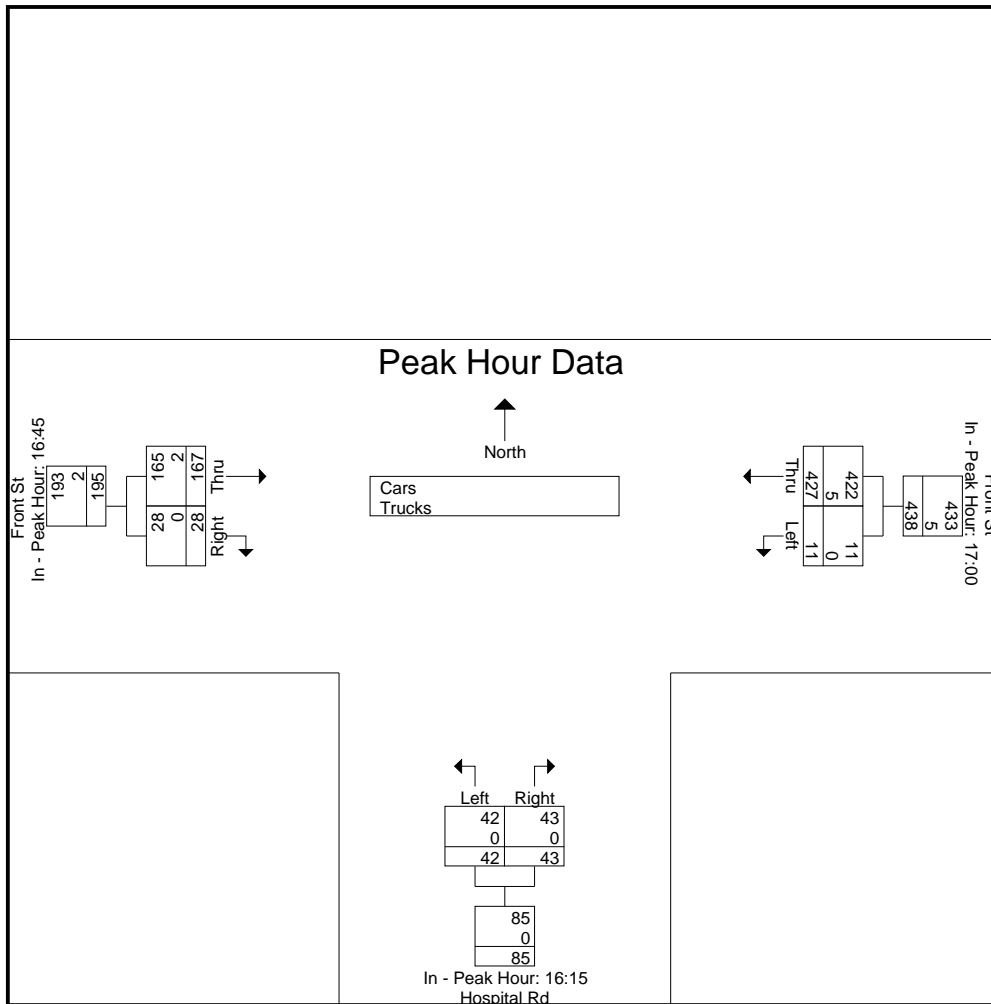
Start Time	Front St From East			Hospital Rd From South			Front St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:30										
16:30	2	85	87	15	18	33	43	0	43	163
16:45	1	90	91	5	5	10	48	1	49	150
17:00	4	101	105	9	13	22	42	4	46	173
17:15	4	122	126	5	4	9	38	17	55	190
Total Volume	11	398	409	34	40	74	171	22	193	676
% App. Total	2.7	97.3		45.9	54.1		88.6	11.4		
PHF	.688	.816	.812	.567	.556	.561	.891	.324	.877	.889
Cars	11	388	399	34	40	74	169	22	191	664
% Cars	100	97.5	97.6	100	100	100	98.8	100	99.0	98.2
Trucks	0	10	10	0	0	0	2	0	2	12
% Trucks	0	2.5	2.4	0	0	0	1.2	0	1.0	1.8



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00			16:15			16:45		
+0 mins.	4	101	105	13	7	20	48	1	49
+15 mins.	4	122	126	15	18	33	42	4	46
+30 mins.	1	103	104	5	5	10	38	17	55
+45 mins.	2	101	103	9	13	22	39	6	45
Total Volume	11	427	438	42	43	85	167	28	195
% App. Total	2.5	97.5		49.4	50.6		85.6	14.4	
PHF	.688	.875	.869	.700	.597	.644	.870	.412	.886
Cars	11	422	433	42	43	85	165	28	193
% Cars	100	98.8	98.9	100	100	100	98.8	100	99
Trucks	0	5	5	0	0	0	2	0	2
% Trucks	0	1.2	1.1	0	0	0	1.2	0	1



N/S Street : Hospital Road  
 E/W Street: Front Street  
 City/State : Shirley, MA  
 Weather : Clear

Accurate Counts  
 978-664-2565

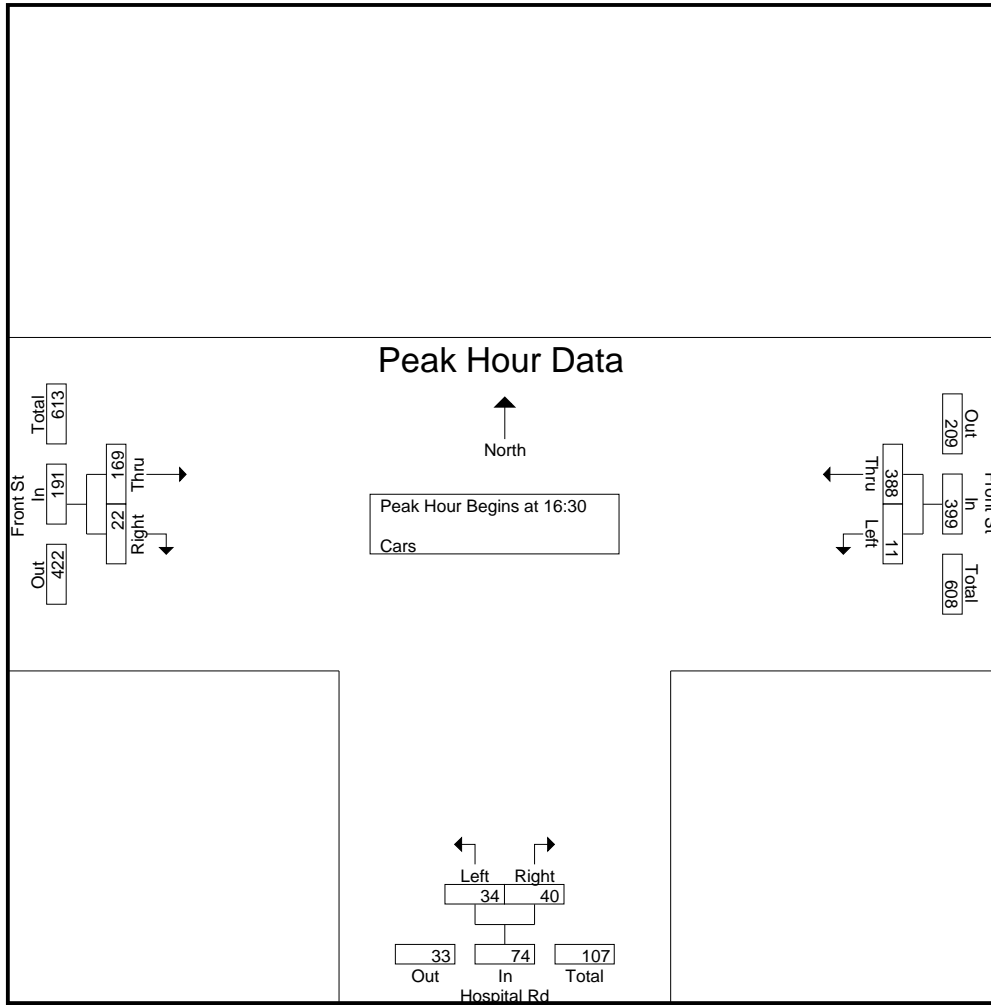
File Name : 86525014  
 Site Code : 86525014  
 Start Date : 4/9/2008  
 Page No : 1

Groups Printed- Cars

Start Time	Front St From East			Hospital Rd From South			Front St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	10	82	0	12	9	0	34	10	0	0	157	157
16:15	2	71	0	13	7	1	36	10	0	1	139	140
16:30	2	80	0	15	18	1	43	0	0	1	158	159
16:45	1	88	0	5	5	1	47	1	0	1	147	148
Total	15	321	0	45	39	3	160	21	0	3	601	604
17:00	4	100	0	9	13	1	42	4	0	1	172	173
17:15	4	120	0	5	4	0	37	17	0	0	187	187
17:30	1	103	0	6	3	3	39	6	0	3	158	161
17:45	2	99	0	1	1	0	28	3	0	0	134	134
Total	11	422	0	21	21	4	146	30	0	4	651	655
Grand Total	26	743	0	66	60	7	306	51	0	7	1252	1259
Apprch %	3.4	96.6		52.4	47.6		85.7	14.3				
Total %	2.1	59.3		5.3	4.8		24.4	4.1		0.6	99.4	

Start Time	Front St From East			Hospital Rd From South			Front St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
16:30	2	80	82	15	18	33	43	0	43	158
16:45	1	88	89	5	5	10	47	1	48	147
17:00	4	100	104	9	13	22	42	4	46	172
17:15	4	120	124	5	4	9	37	17	54	187
Total Volume	11	388	399	34	40	74	169	22	191	664
% App. Total	2.8	97.2		45.9	54.1		88.5	11.5		
PHF	.688	.808	.804	.567	.556	.561	.899	.324	.884	.888

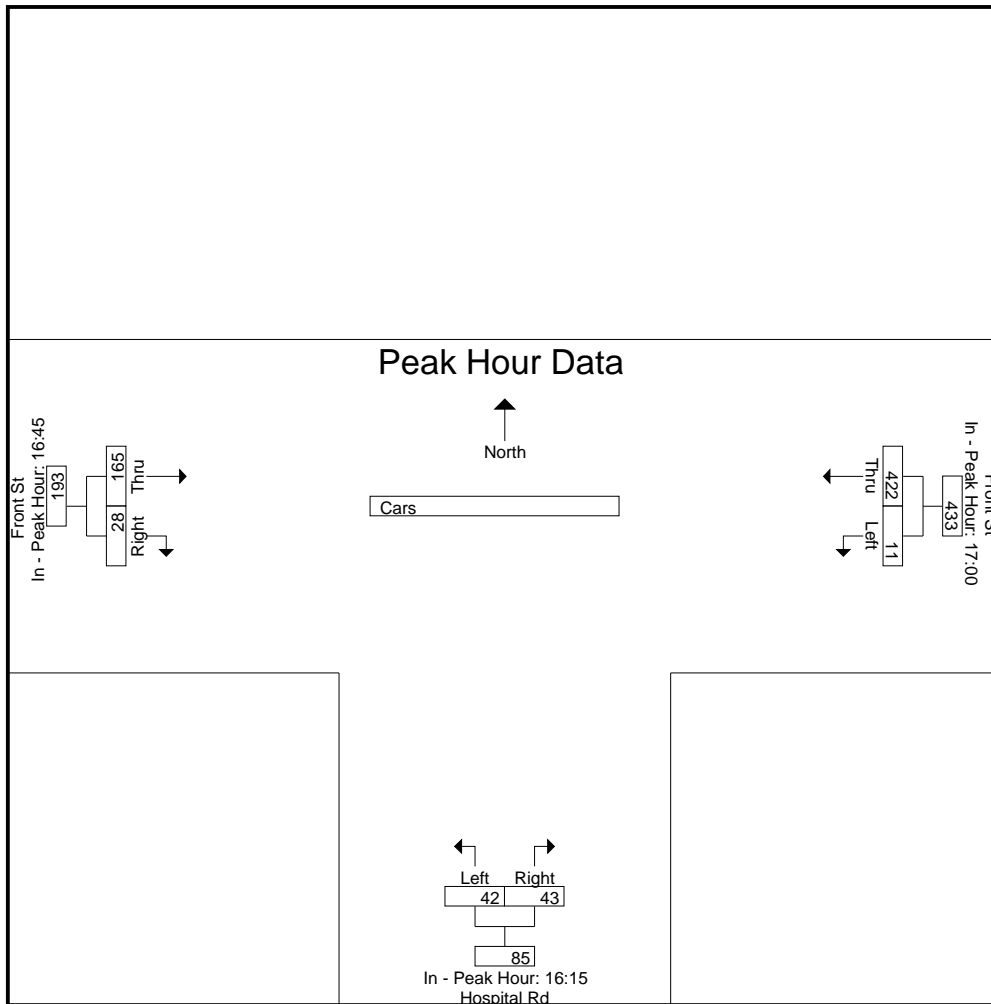
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:30



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00			16:15			16:45		
+0 mins.	4	100	104	13	7	20	47	1	48
+15 mins.	4	120	124	15	18	33	42	4	46
+30 mins.	1	103	104	5	5	10	37	17	54
+45 mins.	2	99	101	9	13	22	39	6	45
Total Volume	11	422	433	42	43	85	165	28	193
% App. Total	2.5	97.5		49.4	50.6		85.5	14.5	
PHF	.688	.879	.873	.700	.597	.644	.878	.412	.894



N/S Street : Hospital Road  
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 Weather : Clear

Accurate Counts  
 978-664-2565

File Name : 86525014  
 Site Code : 86525014  
 Start Date : 4/9/2008  
 Page No : 1

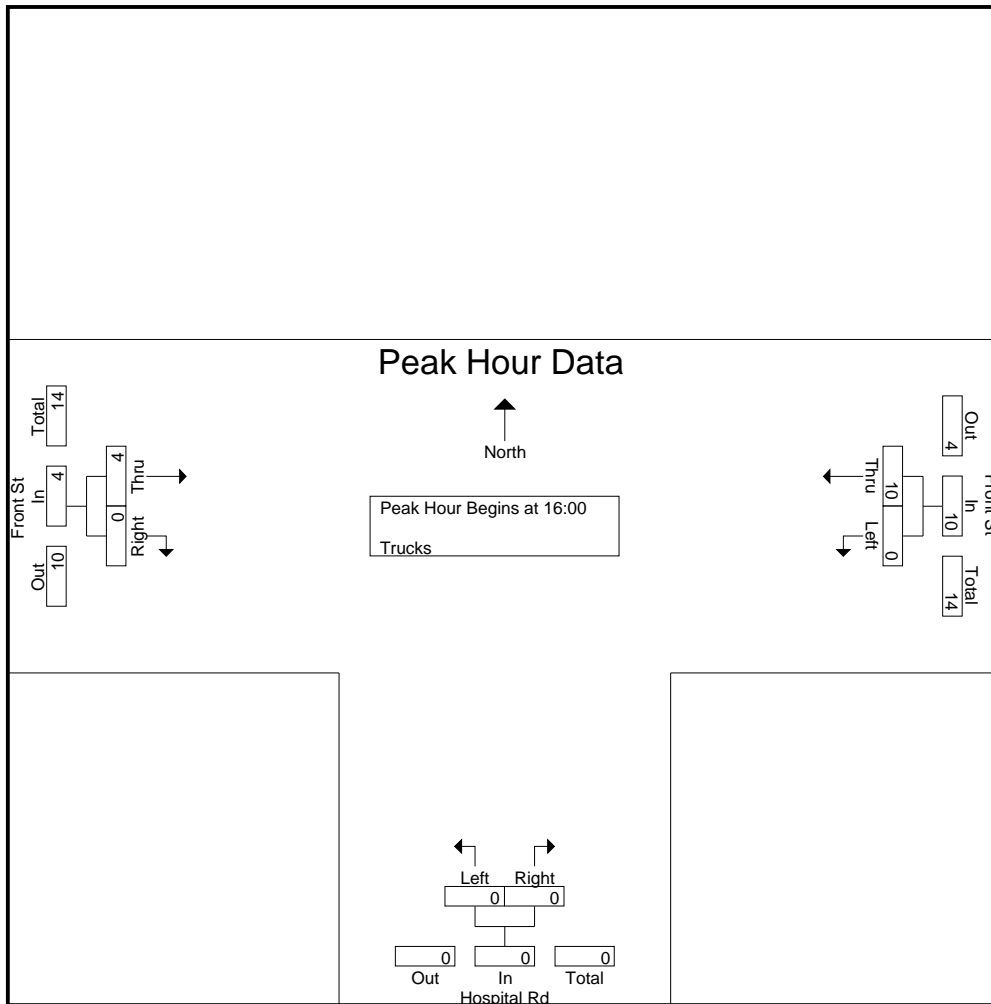
Groups Printed- Trucks

Start Time	Front St From East			Hospital Rd From South			Front St From West			Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds			
16:00	0	1	0	0	0	0	3	0	0	0	4	4
16:15	0	2	0	0	0	0	0	0	0	0	2	2
16:30	0	5	0	0	0	0	0	0	0	0	5	5
16:45	0	2	0	0	0	0	1	0	0	0	3	3
Total	0	10	0	0	0	0	4	0	0	0	14	14
17:00	0	1	0	0	0	0	0	0	0	0	1	1
17:15	0	2	0	0	0	0	1	0	0	0	3	3
17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	2	0	0	0	0	2	0	0	0	4	4
Total	0	5	0	0	0	0	3	0	0	0	8	8
Grand Total	0	15	0	0	0	0	7	0	0	0	22	22
Apprch %	0	100		0	0		100	0				
Total %	0	68.2		0	0		31.8	0		0	100	

Start Time	Front St From East			Hospital Rd From South			Front St From West			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
16:00	0	1	1	0	0	0	3	0	3	4
16:15	0	2	2	0	0	0	0	0	0	2
16:30	0	5	5	0	0	0	0	0	0	5
16:45	0	2	2	0	0	0	1	0	1	3
Total Volume	0	10	10	0	0	0	4	0	4	14
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.333	.000	.333	.700

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 16:00

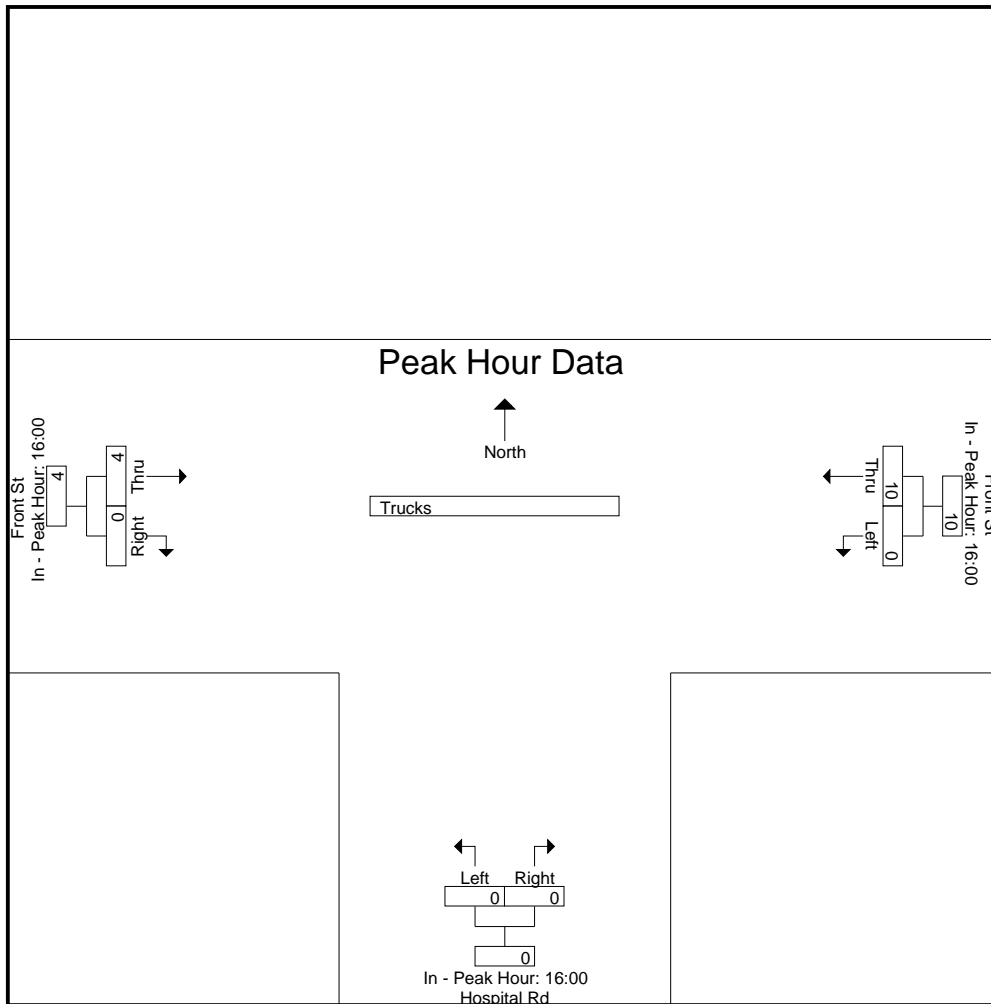




Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00			16:00			16:00		
+0 mins.	0	1	1	0	0	0	3	0	3
+15 mins.	0	2	2	0	0	0	0	0	0
+30 mins.	0	5	5	0	0	0	0	0	0
+45 mins.	0	2	2	0	0	0	1	0	1
Total Volume	0	10	10	0	0	0	4	0	4
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.333	.000	.333



## **APPENDIX B**

### **LEVEL OF SERVICE ANALYSIS**

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2008 Existing Conditions

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Scenario Report

Scenario: AM EXISTING

Command: Default Command

Volume: AM PEAK HOUR

Geometry: Default Geometry

Impact Fee: Default Impact Fee

Trip Generation: AM PEAK HOUR

Trip Distribution: AM PEAK HOUR

Paths: Default Path

Routes: Default Route

Configuration: Default Configuration

2008 Existing Conditions

Intersection Volume Report  
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
27 Verbeck Gate/	18	47	133	3	96	22	21	333	68	176	145	0
66 Routes 70/117	160	0	7	2	2	2	3	937	292	6	348	1
67 Routes 70/117	0	0	0	333	0	55	27	892	0	0	306	205
78 Front Street/	8	0	5	0	0	0	0	317	115	70	156	0
79 Front St/Lanc	3	45	220	39	88	16	15	197	0	143	69	3
82 Park St/Main/	3	4	9	409	11	207	139	302	4	8	208	200
84 Park St./Fitc	0	218	172	9	500	0	0	0	0	330	0	9
90 Groton-Harvar	159	137	26	12	99	10	6	72	43	7	219	11
102 Rte. 110/111	34	167	46	85	245	40	78	52	76	70	10	46
128 Rte. 110/2A/W	6	3	5	176	2	30	39	572	3	2	294	81
132 Rte. 2A-110/4	188	5	32	34	33	28	11	670	126	109	321	21
133 Rte. 2A-110/4	110	0	276	0	0	0	0	423	323	25	315	0
143 Rte. 2A-110 (	47	0	103	0	0	0	0	394	425	76	274	0
144 Rte. 110(King	107	250	5	190	488	91	123	344	1	63	158	101
613 West Main St/	61	0	17	0	0	0	0	377	166	19	137	0

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 2008 Existing Conditions
 

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 Intersection Volume Report  
 Future Volume Alternative
 

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Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
27 Verbeck Gate/	18	47	133	3	97	22	21	333	69	177	145	0
66 Routes 70/117	160	0	7	2	2	2	3	937	292	6	348	1
67 Routes 70/117	0	0	0	333	0	55	27	892	0	0	306	205
78 Front Street/	8	0	5	0	0	0	0	318	115	70	156	0
79 Front St/Lanc	3	45	220	39	88	16	16	197	0	143	69	3
82 Park St/Main/	3	4	9	409	11	207	139	302	4	8	209	200
84 Park St./Fitc	0	218	172	9	501	0	0	0	0	330	0	9
90 Groton-Harvar	159	137	26	12	99	10	6	72	43	7	220	11
102 Rte. 110/111	34	167	46	85	245	40	78	52	76	70	10	46
128 RTe. 110/2A/W	6	3	5	176	2	30	39	572	3	2	295	81
132 Rte. 2A-110/4	189	5	32	34	33	28	11	670	126	109	321	21
133 Rte. 2A-110/4	110	0	276	0	0	0	0	423	323	25	315	0
143 Rte. 2A-110 (	47	0	103	0	0	0	0	394	425	76	274	0
144 Rte. 110(King	107	250	5	190	488	91	123	344	1	63	158	101
613 West Main St/	61	0	17	0	0	0	0	378	166	19	137	0

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 2008 Existing Conditions
 

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 Impact Analysis Report  
 Level Of Service

Intersection		Base		Future		Change		
		Del/	V/	Del/	V/	in		
		LOS	Veh	LOS	Veh			
			C		C			
# 27	Verbeck Gate/Macpherson/West M	D	32.6	0.000	D	33.2	0.000	+ 0.527 D/V
# 66	Routes 70/117/(7 Mile Bridge)S	F	358.7	0.000	F	358.7	0.000	+ 0.000 D/V
# 67	Routes 70/117/Lunenberg Road	F	571.1	0.000	F	571.1	0.000	+ 0.000 D/V
# 78	Front Street/Hospital Road	B	12.7	0.000	B	12.7	0.000	+ 0.011 D/V
# 79	Front St/Lancaster St/Leominst	C	24.3	0.000	C	24.4	0.000	+ 0.115 D/V
# 82	Park St/Main/W. Main (Routes 2	F	571.9	0.000	F	573.5	0.000	+ 1.625 D/V
# 84	Park St./Fitchburg Rd./Groton	F	79.4	0.000	F	79.8	0.000	+ 0.385 D/V
# 90	Groton-Harvard Rd./Central Ave	C	21.4	0.000	C	21.4	0.000	+ 0.057 D/V
#102	Rte. 110/111 /Ayer Road	D	30.0	0.000	D	30.0	0.000	+ 0.000 D/V
#128	RTe. 110/2A/Willow Rd	F	72.3	0.000	F	72.6	0.000	+ 0.334 D/V
#132	Rte. 2A-110/495 SB Ramps	F	472.4	0.000	F	476.5	0.000	+ 4.144 D/V
#133	Rte. 2A-110/495 NB Ramps	C	16.8	0.000	C	16.8	0.000	+ 0.000 D/V
#143	Rte. 2A-110 (King St)/Goldsmit	C	21.5	0.000	C	21.5	0.000	+ 0.000 D/V
#144	Rte. 110(King St)/Rte. 119/2A(	D	50.6	0.886	D	50.2	0.948	-0.372 D/V
#613	West Main St/ Grant Road	B	14.2	0.000	B	14.3	0.000	+ 0.015 D/V

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 2008 Existing Conditions
 

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 Threshold Report (Base Alternative)
 

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Threshold Criteria [Ops LOS >= \*][Plan LOS >= \*]  
 [Delay >= 60.000][V/C >= 1.000]

Intersection	Movement	LOS	Delay	V/C
# 66 Routes 70/117/(7 Mile Bridge)Shirley Road	NB LT	*	OVRFL	1.523
# 67 Routes 70/117/Lunenberg Road	SB LT	*	OVRFL	2.051
# 82 Park St/Main/W. Main (Routes 2A and 111)	SB LT	*	OVRFL	1.852
#132 Rte. 2A-110/495 SB Ramps	NB LT	*	OVRFL	1.946
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	SB TH	F	130.4	1.183
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	SB RT	F	130.4	1.183



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2008 Existing Conditions  
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## Threshold Report (Future Alternative)

Threshold Criteria [Ops LOS >= \*][Plan LOS >= \*]  
[Delay >= 60.000][V/C >= 1.000]

Intersection	Movement	LOS	Delay	V/C
# 66 Routes 70/117/(7 Mile Bridge)Shirley Road	NB LT	*	OVRFL	1.523
# 67 Routes 70/117/Lunenberg Road	SB LT	*	OVRFL	2.051
# 82 Park St/Main/W. Main (Routes 2A and 111)	SB LT	*	OVRFL	1.855
#132 Rte. 2A-110/495 SB Ramps	NB LT	*	OVRFL	1.957
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	EB LT	F	226.2	1.305

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #79 Front St/Lancaster St/Leominster St/Center Rd [Int.#1 Shirley]
\*\*\*\*\*

Average Delay (sec/veh): 10.0 Worst Case Level Of Service: C[ 24.3]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0 0 1! 0 0).

Volume Module: >> Count Date: 15 Mar 1900 << AM Peak Hour. Table with 13 columns for volume and adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Critical Gap Module: Table with 13 columns showing Critical Gap and FollowUpTim values for each approach.

Capacity Module: Table with 13 columns showing Capacity values like Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module: Table with 13 columns showing Level of Service values for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #84 Park St./Fitchburg Rd./Groton School Rd. (111/2A) [Int.#2 Ayer]
\*\*\*\*\*
Average Delay (sec/veh): 21.8 Worst Case Level Of Service: F[ 79.4]
\*\*\*\*\*

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Lanes.

Table with columns: Volume Module, Count, Date (15 Mar 1900), AMPEAK, Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with columns: Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns: Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns: Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #82 Park St/Main/W. Main (Routes 2A and 111) [Int.#3 Ayer]

Average Delay (sec/veh): 239.4 Worst Case Level Of Service: F[571.9]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 10 rows of volume-related metrics.

Critical Gap Module table with 12 columns and 3 rows of gap and follow-up time data.

Capacity Module table with 12 columns and 5 rows of capacity and volume/capacity data.

Level Of Service Module table with 12 columns and 10 rows of LOS and delay data.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #90 Groton-Harvard Rd./Central Ave [Int.#4 Ayer]
\*\*\*\*\*
Average Delay (sec/veh): 10.7 Worst Case Level Of Service: C[ 21.4]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0 0 1! 0 0).

Volume Module: >> Count Date: 15 Mar 1900 << AM Peak Hour. Table with 12 columns for volume counts and adjustment factors (Growth Adj, User Adj, PHF Adj, Reduct Vol).

Critical Gap Module: Table with 12 columns for critical gap and follow-up time values.

Capacity Module: Table with 12 columns for conflict volume, potential capacity, move capacity, and volume/capacity ratios.

Level Of Service Module: Table with 12 columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #133 Rte. 2A-110/495 NB Ramps [Int.#5]

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: C[ 16.8]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Mar 1900 << Am Peak Hour. Grid of traffic volume data.

Critical Gap Module: Grid showing critical gap and follow-up time values.

Capacity Module: Grid showing conflict volume, potent capacity, move capacity, and volume/capacity ratios.

Level Of Service Module: Grid showing delay, LOS by move, movement, shared queue, shared delay, shared LOS, approach delay, and approach LOS.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #132 Rte. 2A-110/495 SB Ramps [Int.#6 Littleton]

Average Delay (sec/veh): 71.7 Worst Case Level Of Service: F[472.4]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module table with columns: Count, Date, AM, Peak Hour. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module table with columns: Critical Gp, FollowUpTim. Rows include Critical Gp and FollowUpTim.

Capacity Module table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Rows include Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #102 Rte. 110/111 /Ayer Road [Int.#7 Harvard]  
\*\*\*\*\*

Average Delay (sec/veh): 11.8 Worst Case Level Of Service: D[ 30.0]  
\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	>> Count	Date:	15 Mar 1900	<< AM Peak Hour
Base Vol:	34 167 46		85 245 40	78 52 76
Growth Adj:	1.00 1.00 1.00		1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	34 167 46		85 245 40	78 52 76
User Adj:	0.60 0.79 0.60		0.60 0.67 0.73	1.00 1.00 1.00
PHF Adj:	0.60 0.79 0.60		0.73 0.67 0.60	0.72 0.81 0.73
PHF Volume:	34 167 46		70 245 49	108 64 104
Reduct Vol:	0 0 0		0 0 0	0 0 0
FinalVolume:	34 167 46		70 245 49	108 64 104

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflict Vol:	294	xxxx	xxxxx	213	xxxx	xxxxx	695	690	269	751	691	190
Potent Cap.:	1268	xxxx	xxxxx	1357	xxxx	xxxxx	357	368	769	327	368	852
Move Cap.:	1268	xxxx	xxxxx	1357	xxxx	xxxxx	310	339	769	228	339	852
Volume/Cap:	0.03	xxxx	xxxx	0.05	xxxx	xxxx	0.35	0.19	0.14	0.31	0.03	0.05

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.1	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	411	xxxxx	xxxx	322	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	4.8	xxxxx	xxxxx	1.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	30.0	xxxxx	xxxxx	23.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	C	*
ApproachDel:	xxxxxx	xxxxxx		xxxxxx			30.0			23.2		
ApproachLOS:	*	*		*			D			C		

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #66 Routes 70/117/(7 Mile Bridge)Shirley Road [Int#8]
\*\*\*\*\*

Average Delay (sec/veh): 34.2 Worst Case Level Of Service: F[358.7]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0 0 1! 0 0).

Volume Module: >> Count Date: 15 Mar 1900 << AM Peak Hour. Table with 13 columns for volume and growth factors.

Critical Gap Module: Table with 13 columns for gap and follow-up times.

Capacity Module: Table with 13 columns for conflict volume, potential capacity, and volume/capacity.

Level Of Service Module: Table with 13 columns for delay, LOS, and approach delay.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #67 Routes 70/117/Lunenberg Road [Int.#9 Lancaster]
Average Delay (sec/veh): 122.0 Worst Case Level Of Service: F[571.1]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 15 Mar 1900 << AM Peak Hour. Grid of traffic volume data.

Critical Gap Module: Grid of critical gap and follow-up time data.

Capacity Module: Grid of capacity-related data including conflict volume and potent capacity.

Level Of Service Module: Grid of level of service data including delay, LOS, and queue length.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #144 Rte. 110(King St)/Rte. 119/2A(Great Rd) [Int.#10 Littleton]
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap.(X): 0.886
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 50.6
Optimal Cycle: 79 Level Of Service: D
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Prot+Permit, Permitted), Rights (Include), Min. Green (36, 27, 27), and Lanes (1 0 0 1 0).

Volume Module: >> Count Date: 14 Mar 1900 << AM Peak Hour. Grid of traffic volume and adjustment factors for various parameters like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Grid showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for different approaches.

Capacity Analysis Module: Grid showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ values.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #143 Rte. 2A-110 (King St)/Goldsmith St [Int.#11 Littleton]

\*\*\*\*\*

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: C[ 21.5]

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0

Volume Module:	>>	Count	Date:	14 Mar 1900	<<	AM	Peak	Hour				
Base Vol:	47	0	103	0	0	0	0	394	425	76	274	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	0	103	0	0	0	0	394	425	76	274	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	47	0	103	0	0	0	0	394	425	76	274	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	47	0	103	0	0	0	0	394	425	76	274	0

Critical Gap Module:												
Critical Gp:	6.4	6.6	6.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:												
Cnflct Vol:	1033	1033	607	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	819	xxxx	xxxxx
Potent Cap.:	254	230	491	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	810	xxxx	xxxxx
Move Cap.:	235	207	491	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	810	xxxx	xxxxx
Volume/Cap:	0.20	0.00	0.21	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	xxxx	xxxx

Level Of Service Module:															
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	366	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	1.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx			
Shrd ConDel:	xxxxx	21.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx			
Shared LOS:	*	C	*	*	*	*	*	*	*	A	*	*			
ApproachDel:	21.5			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	C			*			*			*					

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #27 Verbeck Gate/Macpherson/West Main [Int.#12 Ayer]
\*\*\*\*\*

Average Delay (sec/veh): 10.3 Worst Case Level Of Service: D[ 32.6]
\*\*\*\*\*

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Table with 12 columns for volume counts. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns for critical gap and follow-up times. Rows include Critical Gap Module, Critical Gp, and FollowUpTim.

Table with 12 columns for capacity. Rows include Capacity Module, Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns for level of service. Rows include Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #613 West Main St/ Grant Road [Int. # 13 Ayer]
\*\*\*\*\*
Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[ 14.2]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0 0 1! 0 0).

Volume Module: AM Peak Hour. Table with 12 columns for volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Critical Gap Module. Table with 12 columns for gap and follow-up times. Rows include Critical Gp and FollowUpTim.

Capacity Module. Table with 12 columns for capacity and volume/capacity. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module. Table with 12 columns for LOS and delay. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, Approach Del, and Approach LOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #78 Front Street/Hospital Road [Intersection #14]
\*\*\*\*\*

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[ 12.7]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: AM Peak Hour. Table with 12 columns for volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Critical Gap Module. Table with 12 columns for gap and follow-up times. Rows include Critical Gp and FollowUpTim.

Capacity Module. Table with 12 columns for capacity and volume/capacity. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module. Table with 12 columns for LOS and delay. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #128 RTE. 110/2A/Willow Rd [Int. #15 Ayer]

Average Delay (sec/veh): 12.9 Worst Case Level Of Service: F[ 72.3]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module:AM Peak Hour

Table with 12 columns representing different traffic movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Critical Gap Module:

Table with 12 columns and 2 rows showing Critical Gap and FollowUpTim values.

Capacity Module:

Table with 12 columns and 4 rows showing Capacity data including Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module:

Table with 12 columns and 10 rows showing Level of Service data including 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.



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 2008 Existing Conditions  
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 Base Queue Report (cars)  
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Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
#27	[2Way95thQ]:	3.2	3.2	3.2	2.5	2.5	2.5	0.0	xxxx	xxxx	0.5	0.5	xxxx
#66	[2Way95thQ]:	12.4	12.4	12.4	0.1	0.1	0.1	0.0	xxxx	xxxx	0.0	xxxx	xxxx
#67	[2Way95thQ]:	xxxx	xxxx	xxxx	30.6	30.6	30.6	0.1	0.1	xxxx	xxxx	xxxx	xxxx
#78	[2Way95thQ]:	0.1	0.1	0.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.2	0.2	xxxx
#79	[2Way95thQ]:	1.9	1.9	1.9	2.1	2.1	2.1	0.0	0.0	xxxx	0.3	xxxx	xxxx
#82	[2Way95thQ]:	0.2	0.2	0.2	47.4	47.4	47.4	0.4	xxxx	xxxx	0.0	xxxx	xxxx
#84	[2Way95thQ]:	xxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxx	xxxx	xxxx	10.9	10.9	10.9
#90	[2Way95thQ]:	3.9	3.9	3.9	0.8	0.8	0.8	0.0	xxxx	xxxx	0.0	xxxx	xxxx
#102	[2Way95thQ]:	0.1	xxxx	xxxx	0.2	xxxx	xxxx	4.8	4.8	4.8	1.8	1.8	1.8
#128	[2Way95thQ]:	0.2	0.2	0.2	7.1	7.1	7.1	0.1	xxxx	xxxx	0.0	xxxx	xxxx
#132	[2Way95thQ]:	16.4	16.4	0.2	3.3	3.3	3.3	0.0	0.0	xxxx	0.5	xxxx	xxxx
#133	[2Way95thQ]:	1.3	xxxx	2.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	0.1	xxxx
#143	[2Way95thQ]:	1.9	1.9	1.9	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.3	0.3	xxxx
#144	[HCM2kAvgQ]:	1	6	6	2	28	28	2	6	6	1	4	4
#613	[2Way95thQ]:	0.6	0.6	0.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	0.1	xxxx

-----  
 2008 Existing Conditions  
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-----  
 Future Queue Report (cars)  
 -----

Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
#27	[2Way95thQ]:	3.2	3.2	3.2	2.5	2.5	2.5	0.0	xxxx	xxxx	0.5	0.5	xxxx
#66	[2Way95thQ]:	12.4	12.4	12.4	0.1	0.1	0.1	0.0	xxxx	xxxx	0.0	xxxx	xxxx
#67	[2Way95thQ]:	xxxx	xxxx	xxxx	30.6	30.6	30.6	0.1	0.1	xxxx	xxxx	xxxx	xxxx
#78	[2Way95thQ]:	0.1	0.1	0.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.2	0.2	xxxx
#79	[2Way95thQ]:	1.9	1.9	1.9	2.1	2.1	2.1	0.0	0.0	xxxx	0.3	xxxx	xxxx
#82	[2Way95thQ]:	0.2	0.2	0.2	47.5	47.5	47.5	0.4	xxxx	xxxx	0.0	xxxx	xxxx
#84	[2Way95thQ]:	xxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxx	xxxx	xxxx	10.9	10.9	10.9
#90	[2Way95thQ]:	4.0	4.0	4.0	0.8	0.8	0.8	0.0	xxxx	xxxx	0.0	xxxx	xxxx
#102	[2Way95thQ]:	0.1	xxxx	xxxx	0.2	xxxx	xxxx	4.8	4.8	4.8	1.8	1.8	1.8
#128	[2Way95thQ]:	0.2	0.2	0.2	7.1	7.1	7.1	0.1	xxxx	xxxx	0.0	xxxx	xxxx
#132	[2Way95thQ]:	16.5	16.5	0.2	3.3	3.3	3.3	0.0	0.0	xxxx	0.5	xxxx	xxxx
#133	[2Way95thQ]:	1.3	xxxx	2.3	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	0.1	xxxx
#143	[2Way95thQ]:	1.9	1.9	1.9	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.3	0.3	xxxx
#144	[HCM2kAvgQ]:	1	5	5	1	18	18	9	12	12	3	8	8
#613	[2Way95thQ]:	0.6	0.6	0.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	0.1	xxxx

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2008 Existing Conditions

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Scenario Report

Scenario: PM EXISTING

Command: Default Command  
Volume: PM PEAK HOUR  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: PM PEAK HOUR  
Trip Distribution: PM PEAK HOUR  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

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 2008 Existing Conditions
 

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 Intersection Volume Report  
 Base Volume Alternative
 

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Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
27 Verbeck Gate/	91	48	142	0	33	20	23	203	17	135	298	0
66 Routes 70/117	260	1	10	2	2	1	1	331	225	11	945	4
67 Routes 70/117	0	0	0	260	0	53	18	318	0	0	751	425
78 Front Street/	34	0	40	0	0	0	0	171	22	11	398	0
79 Front St/Lanc	1	60	132	11	48	28	19	86	3	190	307	4
82 Park St/Main/	2	3	8	228	2	176	178	232	0	5	293	627
84 Park St./Fitc	0	569	342	26	271	0	0	0	0	180	0	26
90 Groton-Harvar	55	88	20	22	182	15	7	171	67	16	109	13
102 Rte. 110/111	41	215	33	46	195	67	26	18	24	33	33	91
128 RTe. 110/2A/W	7	4	6	133	4	41	31	343	7	4	577	195
132 Rte. 2A-110/4	208	14	29	16	7	26	34	589	93	103	535	79
133 Rte. 2A-110/4	162	0	304	0	0	0	0	387	239	22	533	0
143 Rte. 2A-110 (	55	0	104	0	0	0	0	451	307	105	578	0
144 Rte. 110(King	267	638	4	91	234	136	128	385	6	82	276	252
613 West Main St/	181	0	22	0	0	0	0	220	71	22	374	0

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 2008 Existing Conditions  
 -----

Intersection Volume Report  
 Future Volume Alternative  
 -----

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L --	T --	R	L --	T --	R	L --	T --	R	L --	T --	R
27 Verbeck Gate/	91	48	142	0	33	20	23	203	17	135	298	0
66 Routes 70/117	260	1	10	2	2	1	1	331	225	11	945	4
67 Routes 70/117	0	0	0	260	0	53	18	318	0	0	751	425
78 Front Street/	34	0	40	0	0	0	0	171	22	11	398	0
79 Front St/Lanc	1	60	132	11	48	28	19	86	3	190	307	4
82 Park St/Main/	2	3	8	228	2	176	178	232	0	5	293	627
84 Park St./Fitc	0	569	342	26	271	0	0	0	0	180	0	26
90 Groton-Harvar	55	88	20	22	182	15	7	171	67	16	109	13
102 Rte. 110/111	41	215	33	46	195	67	26	18	24	33	33	91
128 RTe. 110/2A/W	7	4	6	133	4	41	31	343	7	4	577	195
132 Rte. 2A-110/4	208	14	29	16	7	26	34	589	93	103	535	79
133 Rte. 2A-110/4	162	0	304	0	0	0	0	387	239	22	533	0
143 Rte. 2A-110 (	55	0	104	0	0	0	0	451	307	105	578	0
144 Rte. 110(King	267	638	4	91	234	136	128	385	6	82	276	252
613 West Main St/	181	0	22	0	0	0	0	220	71	22	374	0

2008 Existing Conditions

Impact Analysis Report  
Level Of Service

Intersection	LOS	Base		LOS	Future		Change in
		Del/ Veh	V/ C		Del/ Veh	V/ C	
# 27 Verbeck Gate/Macpherson/West M	F	161.0	0.000	F	161.0	0.000	+ 0.000 D/V
# 66 Routes 70/117/(7 Mile Bridge)S	F	OVRFL	0.000	F	OVRFL	0.000	+ 0.000 D/V
# 67 Routes 70/117/Lunenberg Road	F	645.2	0.000	F	645.2	0.000	+ 0.000 D/V
# 78 Front Street/Hospital Road	B	11.6	0.000	B	11.6	0.000	+ 0.000 D/V
# 79 Front St/Lancaster St/Leominst	D	26.9	0.000	D	26.9	0.000	+ 0.000 D/V
# 82 Park St/Main/W. Main (Routes 2	F	OVRFL	0.000	F	OVRFL	0.000	+ 0.000 D/V
# 84 Park St./Fitchburg Rd./Groton	F	100.5	0.000	F	100.5	0.000	+ 0.000 D/V
# 90 Groton-Harvard Rd./Central Ave	C	21.9	0.000	C	21.9	0.000	+ 0.000 D/V
#102 Rte. 110/111 /Ayer Road	E	35.2	0.000	E	35.2	0.000	+ 0.000 D/V
#128 RTe. 110/2A/Willow Rd	F	73.8	0.000	F	73.8	0.000	+ 0.000 D/V
#132 Rte. 2A-110/495 SB Ramps	F	OVRFL	0.000	F	OVRFL	0.000	+ 0.000 D/V
#133 Rte. 2A-110/495 NB Ramps	E	40.1	0.000	E	40.1	0.000	+ 0.000 D/V
#143 Rte. 2A-110 (King St)/Goldsmi	F	72.7	0.000	F	72.7	0.000	+ 0.000 D/V
#144 Rte. 110(King St)/Rte. 119/2A(	E	72.7	1.173	F	149.1	1.045	+76.378 D/V
#613 West Main St/ Grant Road	C	20.0	0.000	C	20.0	0.000	+ 0.000 D/V

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 2008 Existing Conditions
 

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## Threshold Report (Base Alternative)

Threshold Criteria [Ops LOS >= \*][Plan LOS >= \*]  
 [Delay >= 60.000][V/C >= 1.000]

Intersection	Movement	LOS	Delay	V/C
# 66 Routes 70/117/(7 Mile Bridge)Shirley Road	NB LT	*	OVRFL	3.178
# 67 Routes 70/117/Lunenberg Road	SB LT	*	OVRFL	2.075
# 82 Park St/Main/W. Main (Routes 2A and 111)	SB LT	*	OVRFL	2.998
#132 Rte. 2A-110/495 SB Ramps	NB LT	*	OVRFL	4.419
#133 Rte. 2A-110/495 NB Ramps	NB LT	F	76.5	0.879
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	NB TH	F	204.6	1.362
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	NB RT	F	204.6	1.362
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	EB LT	F	106.8	1.039

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 2008 Existing Conditions
 

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## Threshold Report (Future Alternative)

Threshold Criteria [Ops LOS >= \*][Plan LOS >= \*]  
 [Delay >= 60.000][V/C >= 1.000]

Intersection	Movement	LOS	Delay	V/C
# 66 Routes 70/117/(7 Mile Bridge)Shirley Road	NB LT	*	OVRFL	3.178
# 67 Routes 70/117/Lunenberg Road	SB LT	*	OVRFL	2.075
# 82 Park St/Main/W. Main (Routes 2A and 111)	SB LT	*	OVRFL	2.998
#132 Rte. 2A-110/495 SB Ramps	NB LT	*	OVRFL	4.419
#133 Rte. 2A-110/495 NB Ramps	NB LT	F	76.5	0.879
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	NB TH	E	79.6	1.063
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	NB RT	E	79.6	1.063
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	EB LT	F	352.1	1.616
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	EB TH	F	158.9	1.237
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	EB RT	F	158.9	1.237
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	WB LT	F	114.9	0.967
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	WB TH	F	348.8	1.678
#144 Rte. 110(King St)/Rte. 119/2A(Great Rd)	WB RT	F	348.8	1.678



2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #79 Front St/Lancaster St/Leominster St/Center Rd [Int.#1 Shirley]

Average Delay (sec/veh): 8.6 Worst Case Level Of Service: D[ 26.9]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 15 Mar 2000 << PM Peak Hour. Table with 13 columns for volume counts and adjustment factors.

Critical Gap Module: Table with 13 columns for critical gap and follow-up time values.

Capacity Module: Table with 13 columns for conflict volume, potential capacity, move capacity, and volume/capacity ratio.

Level Of Service Module: Table with 13 columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #84 Park St./Fitchburg Rd./Groton School Rd. (111/2A) [Int.#2 Ayer]
\*\*\*\*\*

Average Delay (sec/veh): 14.3 Worst Case Level Of Service: F[100.5]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Table with 12 columns: Volume Module, Count, Date, PM Peak, and 11 traffic flow categories. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns: Critical Gap Module, Critical Gp, FollowUpTim, and 10 traffic flow categories.

Table with 12 columns: Capacity Module, Cnflct Vol, Potent Cap., Move Cap., and 10 traffic flow categories.

Table with 12 columns: Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #82 Park St/Main/W. Main (Routes 2A and 111) [Int.#3 Ayer]
\*\*\*\*\*

Average Delay (sec/veh): 271.3 Worst Case Level Of Service: F[1170.3]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: Table with 12 columns representing different traffic movements and 10 rows of volume-related metrics like Base Vol, Growth Adj, etc.

Critical Gap Module: Table with 12 columns and 3 rows showing critical gap and follow-up times.

Capacity Module: Table with 12 columns and 5 rows showing capacity metrics like Cnflct Vol, Potent Cap., etc.

Level Of Service Module: Table with 12 columns and 10 rows showing LOS metrics like 2Way95thQ, Control Del, etc.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #90 Groton-Harvard Rd./Central Ave [Int.#4 Ayer]
\*\*\*\*\*

Average Delay (sec/veh): 11.1 Worst Case Level Of Service: C[ 21.9]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 15 Mar 1900 << PM Peak Hour. Grid of traffic volume data.

Critical Gap Module: Grid of critical gap and follow-up time data.

Capacity Module: Grid of capacity-related data including conflict volume and volume/capacity.

Level Of Service Module: Grid of level of service data including delay, LOS, and approach delay.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #133 Rte. 2A-110/495 NB Ramps [Int.#5]
\*\*\*\*\*

Average Delay (sec/veh): 12.3 Worst Case Level Of Service: E[ 40.1]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Mar 1900 << PM Peak Hour. Table with 12 columns for volume and adjustment factors.

Critical Gap Module: Table with 3 columns for gap, critical gap, and follow-up time.

Capacity Module: Table with 3 columns for conflict volume, potential capacity, and move capacity.

Level Of Service Module: Table with 3 columns for delay, LOS, and approach delay/LOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #132 Rte. 2A-110/495 SB Ramps [Int.#6 Littleton]
Average Delay (sec/veh): 241.1 Worst Case Level Of Service: F[1576.8]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Mar 1900 << PM Peak Hour. Grid of traffic volume data for various conditions.

Critical Gap Module: Grid of critical gap and follow-up time data.

Capacity Module: Grid of capacity-related data including conflict volume and volume/capacity ratios.

Level Of Service Module: Grid of level of service data including delay, LOS, and approach delay.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #102 Rte. 110/111 /Ayer Road [Int.#7 Harvard]  
\*\*\*\*\*

Average Delay (sec/veh): 10.4 Worst Case Level Of Service: E[ 35.2]  
\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module: >> Count Date: 15 Mar 1900 << PM Peak Hour

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	41	215	33	46	195	67	26	18	24	33	33	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	215	33	46	195	67	26	18	24	33	33	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.60	0.79	0.60	0.73	0.67	0.60	0.72	0.81	0.79	0.60	0.63	0.68
PHF Volume:	68	273	55	63	290	112	36	22	30	55	53	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	68	273	55	63	290	112	36	22	30	55	53	135

Critical Gap Module:

Critical Gp:	North Bound			South Bound			East Bound			West Bound		
FollowUpTim:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	North Bound			South Bound			East Bound			West Bound		
Potent Cap.:	401	xxxx	xxxxx	328	xxxx	xxxxx	1002	936	346	934	964	300
Move Cap.:	1157	xxxx	xxxxx	1232	xxxx	xxxxx	221	265	697	246	255	739
Volume/Cap:	0.06	xxxx	xxxxx	0.05	xxxx	xxxxx	0.26	0.09	0.04	0.27	0.23	0.18

Level Of Service Module:

2Way95thQ:	North Bound			South Bound			East Bound			West Bound		
Control Del:	0.2	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	220	xxxxx	xxxx	351	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.8	xxxxx	xxxxx	4.9	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	31.9	xxxxx	xxxxx	35.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	E	*
ApproachDel:	xxxxxx			xxxxxx				31.9			35.2	
ApproachLOS:	*			*				D			E	

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #66 Routes 70/117/(7 Mile Bridge)Shirley Road [Int#8]
\*\*\*\*\*

Average Delay (sec/veh): 172.7 Worst Case Level Of Service: F[1087.9]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0 0 1! 0 0).

Volume Module: >> Count Date: 15 Mar 1900 << PM Peak Hour. Table with 12 columns for volume and adjustment factors (Base Vol, Growth Adj, etc.).

Critical Gap Module: Table with 12 columns for critical gap and follow-up time values.

Capacity Module: Table with 12 columns for conflict volume, potential capacity, move capacity, and volume/capacity ratios.

Level Of Service Module: Table with 12 columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap, Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.



2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #67 Routes 70/117/Lunenberg Road [Int.#9 Lancaster]

Average Delay (sec/veh): 124.8 Worst Case Level Of Service: F[645.2]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Table with 13 columns: Volume Module, Count, Date, and 12 traffic flow directions. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns: Critical Gap Module, Critical Gp, FollowUpTim, and 12 traffic flow directions.

Table with 13 columns: Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap, and 12 traffic flow directions.

Table with 13 columns: Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS, and 12 traffic flow directions.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #144 Rte. 110(King St)/Rte. 119/2A(Great Rd) [Int.#10 Littleton]
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 1.173
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 72.7
Optimal Cycle: 120 Level Of Service: E
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 14 Mar 1900 <<
Table with 12 columns for different traffic movements and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:
Table with 12 columns for different traffic movements and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with 12 columns for different traffic movements and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

2008 Existing Conditions

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #143 Rte. 2A-110 (King St)/Goldsmith St [Int.#11 Littleton]

Average Delay (sec/veh): 8.5 Worst Case Level Of Service: F[ 72.7]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 14 Mar 1900 << PM Peak Hour. Grid of traffic volume data.

Critical Gap Module: Grid showing critical gap and follow-up time values.

Capacity Module: Grid showing conflict volume, potent capacity, move capacity, and volume/capacity ratios.

Level Of Service Module: Grid showing LOS values for various movements and approaches.

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #27 Verbeck Gate/Macpherson/West Main [Int.#12 Ayer]

\*\*\*\*\*

Average Delay (sec/veh): 44.8 Worst Case Level Of Service: F[161.0]

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	0 1 0	0	0	1! 0 0	0	1	0 0 0

Volume Module:	>>	Count	Date:	15 Mar 1900	<<	PM Peak Hour						
Base Vol:	91	48	142	0	33	20	23	203	17	135	298	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	48	142	0	33	20	23	203	17	135	298	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.67	0.67	0.67	0.86	0.86	0.86	0.81	0.81	0.81
PHF Volume:	102	54	160	0	49	30	27	236	20	167	368	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	102	54	160	0	49	30	27	236	20	167	368	0

Critical Gap Module:												
Critical Gp:	7.2	6.6	6.3	xxxxx	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.6	4.1	3.4	xxxxx	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:												
Cnflct Vol:	1040	1001	246	xxxx	1011	368	368	xxxx	xxxxx	256	xxxx	xxxxx
Potent Cap.:	205	239	783	xxxx	242	682	1185	xxxx	xxxxx	1309	xxxx	xxxxx
Move Cap.:	140	201	783	xxxx	203	682	1185	xxxx	xxxxx	1309	xxxx	xxxxx
Volume/Cap:	0.73	0.27	0.20	xxxx	0.24	0.04	0.02	xxxx	xxxx	0.13	xxxx	xxxx

Level Of Service Module:															
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.4	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	8.2	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	263	xxxxx	xxxx	xxxx	276	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	14.7	xxxxx	xxxxx	xxxx	1.2	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx			
Shrd ConDel:	xxxxx	161	xxxxx	xxxxx	xxxx	23.2	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx			
Shared LOS:	*	F	*	*	*	C	*	*	*	A	*	*			
ApproachDel:	161.0			23.2			xxxxxxx			xxxxxxx					
ApproachLOS:	F			C			*			*					

Note: Queue reported is the number of cars per lane.

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #613 West Main St/ Grant Road [Int. # 13 Ayer]

\*\*\*\*\*
Average Delay (sec/veh): 4.8 Worst Case Level Of Service: C[ 20.0]

\*\*\*\*\*
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 4 columns for North, South, East, and West Bound movements. Rows include Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0 0 1! 0 0, etc.).

Volume Module: PM Peak Hour
Base Vol: 181 0 22 0 0 0 0 220 71 22 374 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 181 0 22 0 0 0 0 220 71 22 374 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 181 0 22 0 0 0 0 220 71 22 374 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Volume: 181 0 22 0 0 0 0 220 71 22 374 0

Critical Gap Module:
Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxxx
FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxxx

Capacity Module:
Cnflct Vol: 674 674 256 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 291 xxxx xxxxxx
Potent Cap.: 423 379 788 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 1282 xxxx xxxxxx
Move Cap.: 418 372 788 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 1282 xxxx xxxxxx
Volume/Cap: 0.43 0.00 0.03 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.02 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx 0.1 xxxx xxxxxx
Control Del: xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 7.9 xxxx xxxxxx
LOS by Move: \* \* \* \* \* \* \* \* \* \* A \* \*
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 440 xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx
SharedQueue: xxxxxx 2.4 xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 0.1 xxxx xxxxxx
Shrd ConDel: xxxxxx 20.0 xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 7.9 xxxx xxxxxx
Shared LOS: \* C \* \* \* \* \* \* \* \* \* A \* \*
ApproachDel: 20.0 xxxxxxx xxxxxxx xxxxxxx
ApproachLOS: C \* \* \*

\*\*\*\*\*
Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #78 Front Street/Hospital Road [Intersection #14]

\*\*\*\*\*

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[ 11.6]

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0

Volume Module: PM Peak Hour

Base Vol:	34	0	40	0	0	0	0	171	22	11	398	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	34	0	40	0	0	0	0	171	22	11	398	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	0	40	0	0	0	0	171	22	11	398	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	34	0	40	0	0	0	0	171	22	11	398	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	602	602	182	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	193	xxxx	xxxxx
Potent Cap.:	466	416	866	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1392	xxxx	xxxxx
Move Cap.:	463	413	866	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1392	xxxx	xxxxx
Volume/Cap:	0.07	0.00	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	619	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Shared Queue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Shrd ConDel:	xxxxx	11.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx			
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*			
ApproachDel:	11.6			xxxxxxx			xxxxxxx			xxxxxxx					
ApproachLOS:	B			*			*			*					

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

2008 Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #128 RTE. 110/2A/Willow Rd [Int. #15 Ayer]
\*\*\*\*\*

Average Delay (sec/veh): 10.2 Worst Case Level Of Service: F[ 73.8]
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: PM Peak Hour. Table with 12 columns for volume and 12 columns for various adjustment factors like Growth Adj, User Adj, PHF Adj, etc.

Critical Gap Module. Table with 12 columns for gap and follow-up times across different movements.

Capacity Module. Table with 12 columns for capacity and 12 columns for various volume and capacity metrics.

Level Of Service Module. Table with 12 columns for LOS and 12 columns for delay, LOS, and approach metrics.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

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 2008 Existing Conditions  
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-----  
 Base Queue Report (cars)  
 -----

Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
#27	[2Way95thQ]:	14.7	14.7	14.7	xxxx	1.2	1.2	0.1	xxxx	xxxx	0.4	0.4	xxxx
#66	[2Way95thQ]:	30.3	30.3	30.3	0.4	0.4	0.4	0.0	xxxx	xxxx	0.0	xxxx	xxxx
#67	[2Way95thQ]:	xxxx	xxxx	xxxx	31.5	31.5	31.5	0.1	0.1	xxxx	xxxx	xxxx	xxxx
#78	[2Way95thQ]:	0.4	0.4	0.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.0	0.0	xxxx
#79	[2Way95thQ]:	2.2	2.2	2.2	1.8	1.8	1.8	0.1	xxxx	xxxx	0.5	xxxx	xxxx
#82	[2Way95thQ]:	0.3	0.3	0.3	43.9	43.9	43.9	1.3	1.3	xxxx	0.0	xxxx	xxxx
#84	[2Way95thQ]:	xxxx	xxxx	xxxx	0.1	0.1	xxxx	xxxx	xxxx	xxxx	8.6	8.6	8.6
#90	[2Way95thQ]:	2.6	2.6	2.6	3.3	3.3	3.3	0.0	xxxx	xxxx	0.0	xxxx	xxxx
#102	[2Way95thQ]:	0.2	xxxx	xxxx	0.2	xxxx	xxxx	1.8	1.8	1.8	4.9	4.9	4.9
#128	[2Way95thQ]:	0.2	0.2	0.2	6.3	6.3	6.3	0.1	xxxx	xxxx	0.0	xxxx	xxxx
#132	[2Way95thQ]:	29.3	29.3	0.3	3.2	3.2	3.2	0.1	0.1	xxxx	0.5	xxxx	xxxx
#133	[2Way95thQ]:	7.1	xxxx	4.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	0.1	xxxx
#143	[2Way95thQ]:	6.6	6.6	6.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.5	0.5	xxxx
#144	[HCM2kAvgQ]:	3	41	41	1	12	12	8	9	9	2	14	14
#613	[2Way95thQ]:	2.4	2.4	2.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	0.1	xxxx



-----  
 2008 Existing Conditions  
 -----

-----  
 Future Queue Report (cars)  
 -----

Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R
#27	[2Way95thQ]:	14.7	14.7	14.7	xxxx	1.2	1.2	0.1	xxxx	xxxx	0.4	0.4	xxxx
#66	[2Way95thQ]:	30.3	30.3	30.3	0.4	0.4	0.4	0.0	xxxx	xxxx	0.0	xxxx	xxxx
#67	[2Way95thQ]:	xxxx	xxxx	xxxx	31.5	31.5	31.5	0.1	0.1	xxxx	xxxx	xxxx	xxxx
#78	[2Way95thQ]:	0.4	0.4	0.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.0	0.0	xxxx
#79	[2Way95thQ]:	2.2	2.2	2.2	1.8	1.8	1.8	0.1	xxxx	xxxx	0.5	xxxx	xxxx
#82	[2Way95thQ]:	0.3	0.3	0.3	43.9	43.9	43.9	1.3	1.3	xxxx	0.0	xxxx	xxxx
#84	[2Way95thQ]:	xxxx	xxxx	xxxx	0.1	0.1	xxxx	xxxx	xxxx	xxxx	8.6	8.6	8.6
#90	[2Way95thQ]:	2.6	2.6	2.6	3.3	3.3	3.3	0.0	xxxx	xxxx	0.0	xxxx	xxxx
#102	[2Way95thQ]:	0.2	xxxx	xxxx	0.2	xxxx	xxxx	1.8	1.8	1.8	4.9	4.9	4.9
#128	[2Way95thQ]:	0.2	0.2	0.2	6.3	6.3	6.3	0.1	xxxx	xxxx	0.0	xxxx	xxxx
#132	[2Way95thQ]:	29.3	29.3	0.3	3.2	3.2	3.2	0.1	0.1	xxxx	0.5	xxxx	xxxx
#133	[2Way95thQ]:	7.1	xxxx	4.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	0.1	xxxx
#143	[2Way95thQ]:	6.6	6.6	6.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.5	0.5	xxxx
#144	[HCM2kAvgQ]:	2	27	27	1	9	9	13	25	25	5	45	45
#613	[2Way95thQ]:	2.4	2.4	2.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	0.1	xxxx

## **APPENDIX C**

### **48 HOUR AUTOMATIC TRAFFIC RECORDER COUNTS**





Accurate Counts  
978-664-2565

Location : Route 111 @ Ayer/Groton  
Location : Town Line  
City/State: Ayer, MA  
Counter : 2377

86525003  
Site Code: 86525003

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	4	9	5	5	*	*	*	*	*	*	*	*	4	7
01:00	*	*	2	4	0	4	*	*	*	*	*	*	*	*	1	4
02:00	*	*	3	5	3	2	*	*	*	*	*	*	*	*	3	4
03:00	*	*	5	10	5	5	*	*	*	*	*	*	*	*	5	8
04:00	*	*	19	7	14	7	*	*	*	*	*	*	*	*	16	7
05:00	*	*	84	38	73	45	*	*	*	*	*	*	*	*	78	42
06:00	*	*	192	119	204	119	*	*	*	*	*	*	*	*	198	119
07:00	*	*	<b>268</b>	<b>239</b>	<b>280</b>	<b>212</b>	*	*	*	*	*	*	*	*	<b>274</b>	<b>226</b>
08:00	*	*	199	178	189	205	*	*	*	*	*	*	*	*	194	192
09:00	*	*	129	137	181	165	*	*	*	*	*	*	*	*	155	151
10:00	*	*	119	134	118	150	*	*	*	*	*	*	*	*	118	142
11:00	*	*	112	148	143	142	*	*	*	*	*	*	*	*	128	145
12:00 PM	*	*	146	189	158	159	*	*	*	*	*	*	*	*	152	174
01:00	*	*	135	150	140	152	*	*	*	*	*	*	*	*	138	151
02:00	*	*	152	212	148	227	*	*	*	*	*	*	*	*	150	220
03:00	*	*	194	273	177	252	*	*	*	*	*	*	*	*	186	262
04:00	*	*	<b>212</b>	256	184	<b>295</b>	*	*	*	*	*	*	*	*	<b>198</b>	276
05:00	*	*	167	<b>315</b>	<b>203</b>	269	*	*	*	*	*	*	*	*	185	<b>292</b>
06:00	*	*	117	197	150	223	*	*	*	*	*	*	*	*	134	210
07:00	*	*	88	120	89	141	*	*	*	*	*	*	*	*	88	130
08:00	*	*	51	89	74	96	*	*	*	*	*	*	*	*	62	92
09:00	*	*	59	58	55	66	*	*	*	*	*	*	*	*	57	62
10:00	*	*	36	33	46	32	*	*	*	*	*	*	*	*	41	32
11:00	*	*	16	22	21	22	*	*	*	*	*	*	*	*	18	22
Lane Day	0	0	2509	2942	2660	2995	0	0	0	0	0	0	0	0	2583	2970
AM Peak Vol.			07:00	07:00	07:00	07:00									07:00	07:00
PM Peak Vol.			16:00	17:00	17:00	16:00									16:00	17:00
Comb. Total	0		5451		5655		0	0	0	0	0	0	0		5553	
ADT	ADT 5,553		AADT 5,553													

Comb. Total 0 5451 5655 0 0 0 0 5553

ADT ADT 5,553 AADT 5,553

Accurate Counts  
978-664-2565

Location : Sandy Pond Road East of  
Location : Central Avenue  
City/State: Harvard, MA  
Counter : 5853

86525004  
Site Code: 86525004

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	*	*	17	5	15	11	*	*	*	*	*	*	*	*	16	8
01:00	*	*	14	10	13	5	*	*	*	*	*	*	*	*	14	8
02:00	*	*	5	7	0	6	*	*	*	*	*	*	*	*	2	6
03:00	*	*	0	9	1	8	*	*	*	*	*	*	*	*	0	8
04:00	*	*	7	29	5	22	*	*	*	*	*	*	*	*	6	26
05:00	*	*	33	65	29	51	*	*	*	*	*	*	*	*	31	58
06:00	*	*	152	208	147	191	*	*	*	*	*	*	*	*	150	200
07:00	*	*	<b>223</b>	<b>300</b>	<b>198</b>	<b>318</b>	*	*	*	*	*	*	*	*	<b>210</b>	<b>309</b>
08:00	*	*	189	220	196	235	*	*	*	*	*	*	*	*	192	228
09:00	*	*	132	147	119	130	*	*	*	*	*	*	*	*	126	138
10:00	*	*	107	121	119	120	*	*	*	*	*	*	*	*	113	120
11:00	*	*	149	166	168	139	*	*	*	*	*	*	*	*	158	152
12:00 PM	*	*	176	151	182	194	*	*	*	*	*	*	*	*	179	172
01:00	*	*	137	163	142	177	*	*	*	*	*	*	*	*	140	170
02:00	*	*	172	182	201	186	*	*	*	*	*	*	*	*	186	184
03:00	*	*	268	219	297	216	*	*	*	*	*	*	*	*	282	218
04:00	*	*	<b>356</b>	<b>221</b>	<b>354</b>	<b>245</b>	*	*	*	*	*	*	*	*	<b>355</b>	<b>233</b>
05:00	*	*	279	217	314	224	*	*	*	*	*	*	*	*	296	220
06:00	*	*	184	169	187	192	*	*	*	*	*	*	*	*	186	180
07:00	*	*	99	132	109	124	*	*	*	*	*	*	*	*	104	128
08:00	*	*	71	64	68	76	*	*	*	*	*	*	*	*	70	70
09:00	*	*	54	62	46	61	*	*	*	*	*	*	*	*	50	62
10:00	*	*	32	18	38	27	*	*	*	*	*	*	*	*	35	22
11:00	*	*	32	13	27	22	*	*	*	*	*	*	*	*	30	18
Lane Day	0	0	2888	2898	2975	2980	0	0	0	0	0	0	0	0	2931	2938
AM Peak Vol.			07:00	07:00	07:00	07:00									07:00	07:00
PM Peak Vol.			16:00	16:00	16:00	16:00									16:00	16:00
Comb. Total	0		5786		5955		0		0		0		0		5869	
ADT	ADT 5,870		AADT 5,870													

Comb. Total 0 5786 5955 0 0 0 0 5869

ADT ADT 5,870 AADT 5,870



Accurate Counts  
978-664-2565

Location : Front Street West of  
Location : Ayer Street  
City/State: Shirley, MA  
Counter : 5864

86525006  
Site Code: 86525006

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	10	2	7	8	9	10	*	*	*	*	*	*	9	7
01:00	*	*	10	0	4	5	8	8	*	*	*	*	*	*	7	4
02:00	*	*	8	0	4	3	5	10	*	*	*	*	*	*	6	4
03:00	*	*	9	0	7	7	5	7	*	*	*	*	*	*	7	5
04:00	*	*	27	9	17	14	20	10	*	*	*	*	*	*	21	11
05:00	*	*	89	42	114	4	75	34	*	*	*	*	*	*	93	27
06:00	*	*	212	89	272	10	229	79	*	*	*	*	*	*	238	59
07:00	*	*	<b>331</b>	<b>181</b>	<b>527</b>	11	<b>362</b>	<b>207</b>	*	*	*	*	*	*	<b>407</b>	<b>133</b>
08:00	*	*	258	159	413	23	255	185	*	*	*	*	*	*	309	122
09:00	*	*	167	142	261	22	165	149	*	*	*	*	*	*	198	104
10:00	*	*	172	137	280	19	198	178	*	*	*	*	*	*	217	111
11:00	*	*	221	165	329	<b>28</b>	198	198	*	*	*	*	*	*	249	130
12:00 PM	*	*	197	163	350	29	226	225	*	*	*	*	*	*	258	139
01:00	*	*	190	182	336	27	218	240	*	*	*	*	*	*	248	150
02:00	*	*	224	220	431	50	225	251	*	*	*	*	*	*	293	174
03:00	*	*	226	275	450	49	<b>246</b>	288	*	*	*	*	*	*	307	204
04:00	*	*	241	<b>312</b>	499	<b>63</b>	245	286	*	*	*	*	*	*	328	220
05:00	*	*	<b>263</b>	281	<b>552</b>	53	196	<b>333</b>	*	*	*	*	*	*	<b>337</b>	<b>222</b>
06:00	*	*	157	194	294	33	148	183	*	*	*	*	*	*	200	137
07:00	*	*	136	126	228	16	118	144	*	*	*	*	*	*	161	95
08:00	*	*	62	89	153	12	62	73	*	*	*	*	*	*	92	58
09:00	*	*	41	60	110	13	53	69	*	*	*	*	*	*	68	47
10:00	*	*	36	43	67	5	32	68	*	*	*	*	*	*	45	39
11:00	*	*	16	18	25	2	18	30	*	*	*	*	*	*	20	17
Lane Day	0	0	3303	2889	5730	506	3316	3265	0	0	0	0	0	0	4118	2219
AM Peak Vol.			331	181	527	28	362	207							407	133
PM Peak Vol.			263	312	552	63	246	333							337	222

Comb. Total	0	6192	6236	6581	0	0	0	6337
ADT	ADT 6,336	AADT 6,336						



**Accurate Counts**  
978-664-2565

Location : Front Street West of  
Location : Ayer Street  
City/State: Shirley, MA  
Counter : 5864

86525006  
Site Code: 86525006

Start Time	08-Apr-08 Tue	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		4	49			0	53				
12:15		4	50			1	36				
12:30		0	54			1	35				
12:45		2	44	10	197	0	39	2	163	12	360
01:00		3	41			0	41				
01:15		5	44			0	52				
01:30		1	56			0	48				
01:45		1	49	10	190	0	41	0	182	10	372
02:00		2	62			0	50				
02:15		2	49			0	53				
02:30		1	58			0	64				
02:45		3	55	8	224	0	53	0	220	8	444
03:00		2	63			0	52				
03:15		2	58			0	59				
03:30		4	56			0	77				
03:45		1	49	9	226	0	87	0	275	9	501
04:00		2	65			0	94				
04:15		6	60			1	79				
04:30		12	68			5	79				
04:45		7	48	27	241	3	60	9	312	36	553
05:00		5	72			5	79				
05:15		17	79			4	75				
05:30		28	46			18	64				
05:45		39	66	89	263	15	63	42	281	131	544
06:00		38	37			16	60				
06:15		41	33			19	40				
06:30		49	47			17	39				
06:45		84	40	212	157	37	55	89	194	301	351
07:00		78	46			31	45				
07:15		81	33			28	34				
07:30		86	26			75	25				
07:45		86	31	331	136	47	22	181	126	512	262
08:00		67	20			42	41				
08:15		70	16			53	14				
08:30		58	15			29	14				
08:45		63	11	258	62	35	20	159	89	417	151
09:00		45	12			31	19				
09:15		27	8			28	14				
09:30		51	12			43	12				
09:45		44	9	167	41	40	15	142	60	309	101
10:00		39	10			31	18				
10:15		42	12			41	13				
10:30		41	11			31	8				
10:45		50	3	172	36	34	4	137	43	309	79
11:00		43	8			45	6				
11:15		53	2			31	7				
11:30		70	2			45	3				
11:45		55	4	221	16	44	2	165	18	386	34
Total		1514	1789			926	1963			2440	3752
Percent		45.8%	54.2%			32.1%	67.9%			39.4%	60.6%

**Accurate Counts**  
978-664-2565

Location : Front Street West of  
Location : Ayer Street  
City/State: Shirley, MA  
Counter : 5864

86525006  
Site Code: 86525006

Start Time	09-Apr-08 Wed	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		4	100			4	7				
12:15		1	86			1	6				
12:30		1	85			3	9				
12:45		1	79	7	350	0	7	8	29	15	379
01:00		0	88			2	6				
01:15		2	78			0	10				
01:30		2	92			2	4				
01:45		0	78	4	336	1	7	5	27	9	363
02:00		1	122			0	11				
02:15		1	112			1	15				
02:30		0	106			1	11				
02:45		2	91	4	431	1	13	3	50	7	481
03:00		1	106			3	11				
03:15		0	107			1	11				
03:30		2	119			1	12				
03:45		4	118	7	450	2	15	7	49	14	499
04:00		0	119			2	18				
04:15		3	111			4	16				
04:30		4	138			2	13				
04:45		10	131	17	499	6	16	14	63	31	562
05:00		10	167			3	19				
05:15		27	133			1	11				
05:30		34	137			0	10				
05:45		43	115	114	552	0	13	4	53	118	605
06:00		40	101			4	11				
06:15		59	61			2	4				
06:30		66	77			2	10				
06:45		107	55	272	294	2	8	10	33	282	327
07:00		123	60			2	5				
07:15		137	72			3	7				
07:30		131	54			5	1				
07:45		136	42	527	228	1	3	11	16	538	244
08:00		102	43			9	2				
08:15		116	39			6	3				
08:30		100	35			4	3				
08:45		95	36	413	153	4	4	23	12	436	165
09:00		77	41			4	5				
09:15		57	29			8	7				
09:30		67	22			3	1				
09:45		60	18	261	110	7	0	22	13	283	123
10:00		71	25			1	4				
10:15		69	15			6	0				
10:30		65	16			6	1				
10:45		75	11	280	67	6	0	19	5	299	72
11:00		69	9			7	1				
11:15		72	6			5	0				
11:30		98	4			8	1				
11:45		90	6	329	25	8	0	28	2	357	27
Total		2235	3495			154	352			2389	3847
Percent		39.0%	61.0%			30.4%	69.6%			38.3%	61.7%

# Accurate Counts

## 978-664-2565

Location : Front Street West of  
 Location : Ayer Street  
 City/State: Shirley, MA  
 Counter : 5864

















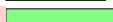







86525006  
 Site Code: 86525006

Start Time	10-Apr-08 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		2	54			3	64				
12:15		1	50			0	56				
12:30		2	53			4	61				
12:45		4	69	9	226	3	44	10	225	19	451
01:00		5	71			4	71				
01:15		0	46			3	62				
01:30		2	48			1	47				
01:45		1	53	8	218	0	60	8	240	16	458
02:00		2	72			3	46				
02:15		0	64			2	48				
02:30		0	37			4	78				
02:45		3	52	5	225	1	79	10	251	15	476
03:00		0	49			3	72				
03:15		0	65			3	63				
03:30		3	71			0	90				
03:45		2	61	5	246	1	63	7	288	12	534
04:00		4	69			2	87				
04:15		3	52			1	65				
04:30		6	67			3	59				
04:45		7	57	20	245	4	75	10	286	30	531
05:00		7	49			7	87				
05:15		15	56			3	89				
05:30		22	58			14	81				
05:45		31	33	75	196	10	76	34	333	109	529
06:00		33	36			19	51				
06:15		60	36			14	44				
06:30		51	47			22	50				
06:45		85	29	229	148	24	38	79	183	308	331
07:00		82	36			38	50				
07:15		87	28			44	38				
07:30		104	37			65	32				
07:45		89	17	362	118	60	24	207	144	569	262
08:00		70	16			43	23				
08:15		62	17			51	23				
08:30		66	20			34	14				
08:45		57	9	255	62	57	13	185	73	440	135
09:00		45	21			44	23				
09:15		27	14			30	18				
09:30		36	9			41	17				
09:45		57	9	165	53	34	11	149	69	314	122
10:00		42	10			48	29				
10:15		49	6			44	15				
10:30		52	9			36	11				
10:45		55	7	198	32	50	13	178	68	376	100
11:00		50	12			41	7				
11:15		43	5			45	11				
11:30		54	0			54	6				
11:45		51	1	198	18	58	6	198	30	396	48
Total		1529	1787			1075	2190			2604	3977
Percent		46.1%	53.9%			32.9%	67.1%			39.6%	60.4%
Grand Total		5278	7071			2155	4505			7433	11576
Percent		42.7%	57.3%			32.4%	67.6%			39.1%	60.9%
ADT		ADT 6,336		AADT 6,336							

Accurate Counts  
978-664-2565

Location : Route 2 WB Off Ramp to  
Location : Jackson Street  
City/State: Harvard, MA  
Counter : 2743

86525015  
Site Code: 86525015

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	6	9	*	*	8	*	*	8 
01:00	*	3	5	*	*	4	*	*	4 
02:00	*	3	0	*	*	2	*	*	2 
03:00	*	6	5	*	*	6	*	*	6 
04:00	*	8	15	*	*	12	*	*	12 
05:00	*	37	38	*	*	38	*	*	38 
06:00	*	228	243	*	*	236	*	*	236 
07:00	*	<b>290</b>	<b>301</b>	*	*	<b>296</b>	*	*	<b>296</b> 
08:00	*	232	240	*	*	236	*	*	236 
09:00	*	128	116	*	*	122	*	*	122 
10:00	*	78	84	*	*	81	*	*	81 
11:00	*	84	93	*	*	88	*	*	88 
12:00 PM	*	87	74	*	*	80	*	*	80 
01:00	*	70	91	*	*	80	*	*	80 
02:00	*	83	83	*	*	83	*	*	83 
03:00	*	111	92	*	*	102	*	*	102 
04:00	*	107	124	*	*	116	*	*	116 
05:00	*	<b>143</b>	<b>298</b>	*	*	<b>220</b>	*	*	<b>220</b> 
06:00	*	90	73	*	*	82	*	*	82 
07:00	*	25	33	*	*	29	*	*	29 
08:00	*	41	41	*	*	41	*	*	41 
09:00	*	31	30	*	*	30	*	*	30 
10:00	*	13	20	*	*	16	*	*	16 
11:00	*	16	16	*	*	16	*	*	16 
Day Total	0	1920	2124	0	0	2024	0	0	2024
% Avg. WkDay	0.0%	94.9%	104.9%	0.0%	0.0%				
% Avg. Week	0.0%	94.9%	104.9%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak		07:00	07:00			07:00			07:00
Vol.		290	301			296			296
PM Peak		17:00	17:00			17:00			17:00
Vol.		143	298			220			220
Grand Total	0	1920	2124	0	0	2024	0	0	2024
ADT		ADT 2,022	AADT 2,022						

Accurate Counts  
978-664-2565

Location : Jackson Road NB South of  
Location : Route 2 Off Ramp  
City/State: Devens, MA  
Counter : 124

























86525016  
Site Code: 86525016

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	13	6	*	*	10	*	*	10
01:00	*	8	4	*	*	6	*	*	6
02:00	*	5	13	*	*	9	*	*	9
03:00	*	11	12	*	*	12	*	*	12
04:00	*	44	45	*	*	44	*	*	44
05:00	*	253	275	*	*	264	*	*	264
06:00	*	<b>711</b>	<b>667</b>	*	*	<b>689</b>	*	*	<b>689</b>
07:00	*	593	646	*	*	620	*	*	620
08:00	*	388	381	*	*	384	*	*	384
09:00	*	185	182	*	*	184	*	*	184
10:00	*	166	181	*	*	174	*	*	174
11:00	*	161	151	*	*	156	*	*	156
12:00 PM	*	218	194	*	*	206	*	*	206
01:00	*	192	<b>243</b>	*	*	218	*	*	218
02:00	*	<b>246</b>	226	*	*	<b>236</b>	*	*	<b>236</b>
03:00	*	224	201	*	*	212	*	*	212
04:00	*	159	169	*	*	164	*	*	164
05:00	*	172	195	*	*	184	*	*	184
06:00	*	117	138	*	*	128	*	*	128
07:00	*	94	100	*	*	97	*	*	97
08:00	*	91	95	*	*	93	*	*	93
09:00	*	65	94	*	*	80	*	*	80
10:00	*	76	92	*	*	84	*	*	84
11:00	*	42	43	*	*	42	*	*	42
Day Total	0	4234	4353	0	0	4296	0	0	4296
% Avg. WkDay	0.0%	98.6%	101.3%	0.0%	0.0%				
% Avg. Week	0.0%	98.6%	101.3%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak		06:00	06:00			06:00			06:00
Vol.		711	667			689			689
PM Peak		14:00	13:00			14:00			14:00
Vol.		246	243			236			236
Grand Total	0	4234	4353	0	0	4296	0	0	4296
ADT		ADT 4,294	AADT 4,294						

Accurate Counts  
978-664-2565

Location : Jackson Road SB South of  
Location : Route 2 Off Ramp  
City/State: Devens, MA  
Counter : 2488

86525S16  
Site Code: 86525016

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	40	32	*	*	36	*	*	36 
01:00	*	15	14	*	*	14	*	*	14 
02:00	*	22	14	*	*	18	*	*	18 
03:00	*	11	28	*	*	20	*	*	20 
04:00	*	27	19	*	*	23	*	*	23 
05:00	*	68	67	*	*	68	*	*	68 
06:00	*	179	197	*	*	188	*	*	188 
07:00	*	315	<b>324</b>	*	*	320	*	*	320 
08:00	*	<b>337</b>	309	*	*	<b>323</b>	*	*	<b>323</b> 
09:00	*	220	205	*	*	212	*	*	212 
10:00	*	243	227	*	*	235	*	*	235 
11:00	*	264	287	*	*	276	*	*	276 
12:00 PM	*	306	348	*	*	327	*	*	327 
01:00	*	229	260	*	*	244	*	*	244 
02:00	*	470	500	*	*	485	*	*	485 
03:00	*	<b>878</b>	<b>869</b>	*	*	<b>874</b>	*	*	<b>874</b> 
04:00	*	801	823	*	*	812	*	*	812 
05:00	*	745	728	*	*	736	*	*	736 
06:00	*	288	304	*	*	296	*	*	296 
07:00	*	184	176	*	*	180	*	*	180 
08:00	*	95	113	*	*	104	*	*	104 
09:00	*	87	81	*	*	84	*	*	84 
10:00	*	61	87	*	*	74	*	*	74 
11:00	*	110	129	*	*	120	*	*	120 
Day Total	0	5995	6141	0	0	6069	0	0	6069
% Avg. WkDay	0.0%	98.8%	101.2%	0.0%	0.0%				
% Avg. Week	0.0%	98.8%	101.2%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak		08:00	07:00			08:00			08:00
Vol.		337	324			323			323
PM Peak		15:00	15:00			15:00			15:00
Vol.		878	869			874			874
Grand Total	0	5995	6141	0	0	6069	0	0	6069
ADT		ADT 6,068	AADT 6,068						



**Calculation Sheet**

 Computed by \_\_\_\_\_ Subject \_\_\_\_\_ Sheet 1 of 2  
 Checked by \_\_\_\_\_ Client \_\_\_\_\_ Job No. \_\_\_\_\_ Date \_\_\_\_\_

⑦ JACKSON ROAD GATE

	<u>AWDT (ypd)</u>
① FROM RT. 2 WB OFF RAMP	2,024
② FROM RT. 2 EB OFF RAMP	4,296
③ TO RT. 2 WB ON RAMP	4,285 (6069 - 1784 = 4,285)
④ TO RT. 2 EB ON RAMP	1,784

## PEAK HOUR CALCULATION FOR LOCATIONS 1 AND 2.

TIME	① RT. 2 WB OFF RAMP	② RT. 2 EB OFF RAMP	SUM OF 1 & 2
6:00	(236) ✓	(689) ✓	(925) → highest
7:00	296	620	916
8:00	236	384	620
9:00	122	184	306
10:00	81	174	255
11:00	88	156	244
12:00	80	206	286
1:00	80	218	298
2:00	83	236	319
3:00	102	212	314
4:00	116	164	280
5:00	(220) ✓	(184) ✓	(404) highest
6:00	82	128	210



**Calculation Sheet**

Computed by \_\_\_\_\_ Subject \_\_\_\_\_ Sheet 2 of 2  
Checked by \_\_\_\_\_ Client \_\_\_\_\_ Job No. \_\_\_\_\_ Date \_\_\_\_\_

(7) JACKSON ROAD GATE (CONT'D)

PEAK HOUR CALCULATION FOR LOCATIONS 3 AND 4.

TIME	RT. 2 <sup>(3)</sup> WB ON RAMP	RT. 2 <sup>(4)</sup> EB ON RAMP	DIFFERENCE OF 3 & 4 (USED FOR LOC 3)
6:00	188	62	126
7:00	320	139	181
8:00	323	(120)	(203)
9:00	212	74	138
10:00	235	79	156
11:00	276	78	198
12:00	327	98	229
1:00	244	72	172
2:00	485	123	362
3:00	874	(206)	(668)
4:00	812	230	582
5:00	736	240	496
6:00	296	89	207

























PEAK HOUR CALCULATION FOR JACKSON ROAD GATE

TIME	LOC. 1	LOC. 2	LOC. 3	LOC. 4	TOTAL
6:00	236	689	126	62	1113
7:00	296	620	181	139	(1236)
8:00	236	384	203	120	943
9:00	122	184	138	74	518
10:00	81	174	156	79	490
11:00	88	156	198	78	520
12:00	80	206	229	98	613
1:00	80	218	172	72	542
2:00	83	236	362	123	804
3:00	102	212	668	206	(1188)
4:00	116	164	582	230	1092
5:00	220	184	496	240	1140
6:00	82	128	207	89	506

Accurate Counts  
978-664-2565

Location : Macarthur Avenue South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 11660

























86525A2BVL  
Site Code: 86525A2B

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	22	24	*	*	23	*	*	23 
01:00	*	7	2	*	*	4	*	*	4 
02:00	*	11	7	*	*	9	*	*	9 
03:00	*	5	5	*	*	5	*	*	5 
04:00	*	17	14	*	*	16	*	*	16 
05:00	*	27	29	*	*	28	*	*	28 
06:00	*	93	120	*	*	106	*	*	106 
07:00	*	161	152	*	*	156	*	*	156 
08:00	*	<b>199</b>	137	*	*	168	*	*	168 
09:00	*	129	99	*	*	114	*	*	114 
10:00	*	101	101	*	*	101	*	*	101 
11:00	*	169	<b>177</b>	*	*	<b>173</b>	*	*	<b>173</b> 
12:00 PM	*	211	217	*	*	214	*	*	214 
01:00	*	122	156	*	*	139	*	*	139 
02:00	*	164	186	*	*	175	*	*	175 
03:00	*	280	217	*	*	248	*	*	248 
04:00	*	267	271	*	*	269	*	*	269 
05:00	*	<b>301</b>	<b>315</b>	*	*	<b>308</b>	*	*	<b>308</b> 
06:00	*	158	183	*	*	170	*	*	170 
07:00	*	101	136	*	*	118	*	*	118 
08:00	*	95	102	*	*	98	*	*	98 
09:00	*	58	75	*	*	66	*	*	66 
10:00	*	48	56	*	*	52	*	*	52 
11:00	*	32	37	*	*	34	*	*	34 
Day Total	0	2778	2818	0	0	2794	0	0	2794
% Avg. WkDay	0.0%	99.4%	100.9%	0.0%	0.0%				
% Avg. Week	0.0%	99.4%	100.9%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak		08:00	11:00			11:00			11:00
Vol.		199	177			173			173
PM Peak		17:00	17:00			17:00			17:00
Vol.		301	315			308			308
Grand Total	0	2778	2818	0	0	2794	0	0	2794
ADT		ADT 2,798	AADT 2,798						

Accurate Counts  
978-664-2565

Location : Sherman Avenue South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 16192

8652502BVL  
Site Code: 8652502B

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	17	9	*	*	13	*	*	13 
01:00	*	3	1	*	*	2	*	*	2 
02:00	*	10	9	*	*	10	*	*	10 
03:00	*	6	7	*	*	6	*	*	6 
04:00	*	21	14	*	*	18	*	*	18 
05:00	*	43	45	*	*	44	*	*	44 
06:00	*	138	154	*	*	146	*	*	146 
07:00	*	245	<b>244</b>	*	*	<b>244</b>	*	*	<b>244</b> 
08:00	*	<b>270</b>	209	*	*	240	*	*	240 
09:00	*	130	111	*	*	120	*	*	120 
10:00	*	115	122	*	*	118	*	*	118 
11:00	*	133	133	*	*	133	*	*	133 
12:00 PM	*	194	<b>197</b>	*	*	196	*	*	196 
01:00	*	132	155	*	*	144	*	*	144 
02:00	*	127	156	*	*	142	*	*	142 
03:00	*	181	155	*	*	168	*	*	168 
04:00	*	193	177	*	*	185	*	*	185 
05:00	*	<b>217</b>	190	*	*	<b>204</b>	*	*	<b>204</b> 
06:00	*	129	152	*	*	140	*	*	140 
07:00	*	87	89	*	*	88	*	*	88 
08:00	*	60	70	*	*	65	*	*	65 
09:00	*	36	49	*	*	42	*	*	42 
10:00	*	46	46	*	*	46	*	*	46 
11:00	*	19	19	*	*	19	*	*	19 
Day Total	0	2552	2513	0	0	2533	0	0	2533
% Avg. WkDay	0.0%	100.8%	99.2%	0.0%	0.0%				
% Avg. Week	0.0%	100.8%	99.2%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak Vol.		08:00 270	07:00 244			07:00 244			07:00 244
PM Peak Vol.		17:00 217	12:00 197			17:00 204			17:00 204
Grand Total	0	2552	2513	0	0	2533	0	0	2533

ADT

ADT 2,532

AADT 2,532









Accurate Counts  
978-664-2565

Location : Route 2A East of  
Location : Carleton Rotary  
City/State: Devens, MA  
Counter : 5865

86525C13  
Site Code: 86525013

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	36	42	40	43	*	*	*	*	*	*	*	*	38	42
01:00	*	*	34	29	19	31	*	*	*	*	*	*	*	*	26	30
02:00	*	*	24	54	29	44	*	*	*	*	*	*	*	*	26	49
03:00	*	*	38	36	42	50	*	*	*	*	*	*	*	*	40	43
04:00	*	*	85	61	84	48	*	*	*	*	*	*	*	*	84	54
05:00	*	*	257	190	228	174	*	*	*	*	*	*	*	*	242	182
06:00	*	*	535	350	514	375	*	*	*	*	*	*	*	*	524	362
07:00	*	*	590	462	611	443	*	*	*	*	*	*	*	*	600	452
08:00	*	*	562	444	555	429	*	*	*	*	*	*	*	*	558	436
09:00	*	*	405	334	415	382	*	*	*	*	*	*	*	*	410	358
10:00	*	*	328	367	392	359	*	*	*	*	*	*	*	*	360	363
11:00	*	*	424	382	464	464	*	*	*	*	*	*	*	*	444	423
12:00 PM	*	*	403	468	546	575	*	*	*	*	*	*	*	*	474	522
01:00	*	*	427	452	443	468	*	*	*	*	*	*	*	*	435	460
02:00	*	*	489	537	541	584	*	*	*	*	*	*	*	*	515	560
03:00	*	*	555	591	572	633	*	*	*	*	*	*	*	*	564	612
04:00	*	*	527	680	548	674	*	*	*	*	*	*	*	*	538	677
05:00	*	*	429	697	489	737	*	*	*	*	*	*	*	*	459	717
06:00	*	*	357	478	374	535	*	*	*	*	*	*	*	*	366	506
07:00	*	*	240	342	334	326	*	*	*	*	*	*	*	*	287	334
08:00	*	*	198	233	216	254	*	*	*	*	*	*	*	*	207	244
09:00	*	*	126	167	124	161	*	*	*	*	*	*	*	*	125	164
10:00	*	*	107	139	115	137	*	*	*	*	*	*	*	*	111	138
11:00	*	*	95	60	117	82	*	*	*	*	*	*	*	*	106	71
Lane Day	0	0	7271	7595	7812	8008	0	0	0	0	0	0	0	0	7539	7799
AM Peak Vol.			07:00	07:00	07:00	11:00									07:00	07:00
PM Peak Vol.			15:00	17:00	15:00	17:00									15:00	17:00
Comb. Total	0		14866		15820		0		0		0		0		15338	
ADT	ADT 15,343		AADT 15,343													

Comb. Total      0                      14866                      15820                      0                      0                      0                      0                      15338

ADT              ADT 15,343              AADT 15,343





Accurate Counts  
978-664-2565

Location : Route 110/111/2A WB  
Location : West of Carleton Rotary  
City/State: Harvard, MA  
Counter : 2242

























86525B13WB  
Site Code: 86525013

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	46	40	*	*	43	*	*	43
01:00	*	23	23	*	*	23	*	*	23
02:00	*	40	23	*	*	32	*	*	32
03:00	*	22	26	*	*	24	*	*	24
04:00	*	27	38	*	*	32	*	*	32
05:00	*	105	101	*	*	103	*	*	103
06:00	*	265	268	*	*	266	*	*	266
07:00	*	456	469	*	*	462	*	*	462
08:00	*	<b>488</b>	<b>538</b>	*	*	<b>513</b>	*	*	<b>513</b>
09:00	*	393	417	*	*	405	*	*	405
10:00	*	405	464	*	*	434	*	*	434
11:00	*	464	511	*	*	488	*	*	488
12:00 PM	*	573	588	*	*	580	*	*	580
01:00	*	490	525	*	*	508	*	*	508
02:00	*	653	665	*	*	659	*	*	659
03:00	*	847	878	*	*	862	*	*	862
04:00	*	940	951	*	*	946	*	*	946
05:00	*	<b>1059</b>	<b>1085</b>	*	*	<b>1072</b>	*	*	<b>1072</b>
06:00	*	763	796	*	*	780	*	*	780
07:00	*	510	459	*	*	484	*	*	484
08:00	*	331	367	*	*	349	*	*	349
09:00	*	258	245	*	*	252	*	*	252
10:00	*	174	150	*	*	162	*	*	162
11:00	*	97	110	*	*	104	*	*	104
Day Total	0	9429	9737	0	0	9583	0	0	9583
% Avg. WkDay	0.0%	98.4%	101.6%	0.0%	0.0%				
% Avg. Week	0.0%	98.4%	101.6%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak		08:00	08:00			08:00			08:00
Vol.		488	538			513			513
PM Peak		17:00	17:00			17:00			17:00
Vol.		1059	1085			1072			1072
Grand Total	0	9429	9737	0	0	9583	0	0	9583
ADT		ADT 9,583	AADT 9,583						

Accurate Counts  
978-664-2565

Location : Route 110/111EB West of  
Location : Carleton Rotary  
City/State: Harvard, MA  
Counter : 232

86525B13  
Site Code: 86525013

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	39	40	*	*	40	*	*	40 
01:00	*	29	22	*	*	26	*	*	26 
02:00	*	27	21	*	*	24	*	*	24 
03:00	*	35	34	*	*	34	*	*	34 
04:00	*	88	92	*	*	90	*	*	90 
05:00	*	341	326	*	*	334	*	*	334 
06:00	*	759	738	*	*	748	*	*	748 
07:00	*	<b>822</b>	<b>882</b>	*	*	<b>852</b>	*	*	<b>852</b> 
08:00	*	792	775	*	*	784	*	*	784 
09:00	*	591	570	*	*	580	*	*	580 
10:00	*	435	504	*	*	470	*	*	470 
11:00	*	456	545	*	*	500	*	*	500 
12:00 PM	*	540	571	*	*	556	*	*	556 
01:00	*	509	522	*	*	516	*	*	516 
02:00	*	530	560	*	*	545	*	*	545 
03:00	*	556	<b>586</b>	*	*	571	*	*	571 
04:00	*	<b>587</b>	556	*	*	<b>572</b>	*	*	<b>572</b> 
05:00	*	487	504	*	*	496	*	*	496 
06:00	*	457	489	*	*	473	*	*	473 
07:00	*	300	393	*	*	346	*	*	346 
08:00	*	230	274	*	*	252	*	*	252 
09:00	*	174	166	*	*	170	*	*	170 
10:00	*	94	110	*	*	102	*	*	102 
11:00	*	67	75	*	*	71	*	*	71 
Day Total	0	8945	9355	0	0	9152	0	0	9152
% Avg. WkDay	0.0%	97.7%	102.2%	0.0%	0.0%				
% Avg. Week	0.0%	97.7%	102.2%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak		07:00	07:00			07:00			07:00
Vol.		822	882			852			852
PM Peak		16:00	15:00			16:00			16:00
Vol.		587	586			572			572
Grand Total	0	8945	9355	0	0	9152	0	0	9152
ADT		ADT 9,150	AADT 9,150						

Accurate Counts  
978-664-2565

Location : Barnum Road South of  
Location : Rotary  
City/State: Harvard, MA  
Counter : 187

86525E13  
Site Code: 86525E13

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	23	19	19	18	*	*	*	*	*	*	*	*	21	18
01:00	*	*	28	16	15	14	*	*	*	*	*	*	*	*	22	15
02:00	*	*	15	20	21	22	*	*	*	*	*	*	*	*	18	21
03:00	*	*	21	13	29	27	*	*	*	*	*	*	*	*	25	20
04:00	*	*	37	43	50	35	*	*	*	*	*	*	*	*	44	39
05:00	*	*	63	189	56	172	*	*	*	*	*	*	*	*	60	180
06:00	*	*	124	354	143	359	*	*	*	*	*	*	*	*	134	356
07:00	*	*	153	327	178	365	*	*	*	*	*	*	*	*	166	346
08:00	*	*	219	262	227	253	*	*	*	*	*	*	*	*	223	258
09:00	*	*	161	182	191	228	*	*	*	*	*	*	*	*	176	205
10:00	*	*	175	210	220	190	*	*	*	*	*	*	*	*	198	200
11:00	*	*	311	234	291	315	*	*	*	*	*	*	*	*	301	274
12:00 PM	*	*	285	355	362	414	*	*	*	*	*	*	*	*	324	384
01:00	*	*	269	272	273	306	*	*	*	*	*	*	*	*	271	289
02:00	*	*	303	246	348	287	*	*	*	*	*	*	*	*	326	266
03:00	*	*	330	201	330	216	*	*	*	*	*	*	*	*	330	208
04:00	*	*	297	232	356	192	*	*	*	*	*	*	*	*	326	212
05:00	*	*	262	207	256	201	*	*	*	*	*	*	*	*	259	204
06:00	*	*	202	126	170	140	*	*	*	*	*	*	*	*	186	133
07:00	*	*	148	103	121	113	*	*	*	*	*	*	*	*	134	108
08:00	*	*	64	67	75	78	*	*	*	*	*	*	*	*	70	72
09:00	*	*	59	42	51	52	*	*	*	*	*	*	*	*	55	47
10:00	*	*	52	51	56	66	*	*	*	*	*	*	*	*	54	58
11:00	*	*	75	28	87	37	*	*	*	*	*	*	*	*	81	32
Lane Day	0	0	3676	3799	3925	4100	0	0	0	0	0	0	0	0	3804	3945
AM Peak Vol.			11:00 311	06:00 354	11:00 291	07:00 365									11:00 301	06:00 356
PM Peak Vol.			15:00 330	12:00 355	12:00 362	12:00 414									15:00 330	12:00 384

Comb. Total	0	7475	8025	0	0	0	0	7749
ADT	ADT 7,750	AADT 7,750						

Accurate Counts  
978-664-2565

Location : Route 110/111 South of  
Location : Carleton Rotary  
City/State: Harvard, MA,  
Counter : 5846

86525A13  
Site Code: 86525013

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	27	27	30	38	*	*	*	*	*	*	*	*	28	32
01:00	*	*	23	36	12	26	*	*	*	*	*	*	*	*	18	31
02:00	*	*	15	32	10	14	*	*	*	*	*	*	*	*	12	23
03:00	*	*	18	23	24	17	*	*	*	*	*	*	*	*	21	20
04:00	*	*	48	57	56	54	*	*	*	*	*	*	*	*	52	56
05:00	*	*	167	170	147	170	*	*	*	*	*	*	*	*	157	170
06:00	*	*	411	422	387	420	*	*	*	*	*	*	*	*	399	421
07:00	*	*	<b>523</b>	<b>703</b>	<b>562</b>	<b>720</b>	*	*	*	*	*	*	*	*	<b>542</b>	<b>712</b>
08:00	*	*	456	611	461	592	*	*	*	*	*	*	*	*	458	602
09:00	*	*	333	434	414	459	*	*	*	*	*	*	*	*	374	446
10:00	*	*	373	327	426	346	*	*	*	*	*	*	*	*	400	336
11:00	*	*	445	355	484	424	*	*	*	*	*	*	*	*	464	390
12:00 PM	*	*	461	405	490	391	*	*	*	*	*	*	*	*	476	398
01:00	*	*	409	377	447	415	*	*	*	*	*	*	*	*	428	396
02:00	*	*	471	439	505	<b>486</b>	*	*	*	*	*	*	*	*	488	462
03:00	*	*	611	526	558	484	*	*	*	*	*	*	*	*	584	505
04:00	*	*	634	<b>538</b>	594	486	*	*	*	*	*	*	*	*	614	<b>512</b>
05:00	*	*	<b>737</b>	421	<b>760</b>	418	*	*	*	*	*	*	*	*	<b>748</b>	420
06:00	*	*	501	344	513	356	*	*	*	*	*	*	*	*	507	350
07:00	*	*	310	200	296	205	*	*	*	*	*	*	*	*	303	202
08:00	*	*	213	137	210	141	*	*	*	*	*	*	*	*	212	139
09:00	*	*	157	92	168	96	*	*	*	*	*	*	*	*	162	94
10:00	*	*	95	42	96	58	*	*	*	*	*	*	*	*	96	50
11:00	*	*	49	51	65	49	*	*	*	*	*	*	*	*	57	50
Lane Day	0	0	7487	6769	7715	6865	0	0	0	0	0	0	0	0	7600	6817
AM Peak Vol.			07:00	07:00	07:00	07:00									07:00	07:00
PM Peak Vol.			17:00	16:00	17:00	14:00									17:00	16:00
Comb. Total	0		14256		14580		0		0		0		0		14417	
ADT	ADT 14,418		AADT 14,418													

Comb. Total 0 14256 14580 0 0 0 0 14417

ADT ADT 14,418 AADT 14,418



## **APPENDIX D**

### **7 DAY AUTOMATIC TRAFFIC RECORDER COUNTS**

**Accurate Counts**  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18529

8652501A  
Site Code: 86525006B

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	24	14	23	33	63	2	27	22	64	0	57	37	89	0	50	15
01:00	11	12	5	31	44	1	19	35	39	0	17	28	61	0	28	15
02:00	7	5	13	23	23	3	8	32	30	0	17	14	26	0	18	11
03:00	13	9	11	20	22	9	16	20	23	0	18	13	22	0	18	10
04:00	41	34	53	49	53	48	42	44	50	38	18	32	13	0	39	35
05:00	117	150	149	175	142	156	141	149	130	176	70	45	51	0	114	122
06:00	380	397	369	404	368	410	365	425	382	397	194	25	*	*	343	343
07:00	500	672	550	672	566	676	851	14	562	628	294	38	*	*	554	450
08:00	533	612	507	631	553	654	823	1	502	597	500	0	*	*	570	416
09:00	386	420	360	422	450	441	656	0	403	458	585	0	*	*	473	290
10:00	340	366	329	350	391	399	561	0	328	425	648	0	*	*	433	257
11:00	322	387	382	372	405	457	583	0	362	388	743	0	*	*	466	267
12:00 PM	340	402	381	403	404	390	634	0	437	439	748	0	*	*	491	272
01:00	392	375	402	354	404	418	611	0	374	397	708	0	*	*	482	257
02:00	471	421	439	464	470	498	701	0	474	479	664	0	*	*	536	310
03:00	536	531	786	202	595	560	765	0	585	592	672	0	*	*	656	314
04:00	594	548	924	91	589	518	789	0	585	570	567	0	*	*	675	288
05:00	595	555	930	124	691	608	804	0	635	602	540	0	*	*	699	315
06:00	486	373	747	69	511	395	678	0	515	429	436	0	*	*	562	211
07:00	291	221	481	30	288	251	477	0	346	271	353	0	*	*	373	129
08:00	182	133	304	13	187	148	364	0	187	162	275	0	*	*	250	76
09:00	121	97	223	9	146	126	235	0	131	128	197	0	*	*	176	60
10:00	78	54	136	4	109	72	184	0	167	110	196	0	*	*	145	40
11:00	63	49	110	1	59	42	95	0	93	87	143	0	*	*	94	30
Lane Day	6823	6837	8614	4946	7533	7282	10429	742	7404	7373	8660	232	262	0	8245	4533
	13660		13560		14815		11171		14777		8892		262		12778	
AM Peak Vol.	08:00 533	07:00 672	07:00 550	07:00 672	07:00 566	07:00 676	07:00 851	06:00 425	07:00 562	07:00 628	11:00 743	05:00 45	00:00 89		08:00 570	07:00 450
PM Peak Vol.	17:00 595	17:00 555	17:00 930	14:00 464	17:00 691	17:00 608	17:00 804		17:00 635	17:00 602	12:00 748				17:00 699	17:00 315

Comb. Total	13660	13560	14815	11171	14777	8892	7499	20015
ADT	ADT 10,547	AADT 10,547						





**Accurate Counts**  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18529

8652501A  
Site Code: 86525006B

Start Time	07-Apr-08 Mon	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		6	66			3	85				
12:15		3	107			3	110				
12:30		13	78			4	105				
12:45		2	89	24	340	4	102	14	402	38	742
01:00		2	86			0	91				
01:15		6	99			2	85				
01:30		0	102			5	85				
01:45		3	105	11	392	5	114	12	375	23	767
02:00		2	91			1	88				
02:15		3	77			2	103				
02:30		1	174			1	100				
02:45		1	129	7	471	1	130	5	421	12	892
03:00		1	124			2	145				
03:15		3	124			0	109				
03:30		5	132			4	147				
03:45		4	156	13	536	3	130	9	531	22	1067
04:00		3	164			4	142				
04:15		8	131			14	133				
04:30		8	159			8	155				
04:45		22	140	41	594	8	118	34	548	75	1142
05:00		9	136			23	171				
05:15		23	151			27	149				
05:30		30	143			47	136				
05:45		55	165	117	595	53	99	150	555	267	1150
06:00		57	126			80	112				
06:15		81	121			86	90				
06:30		107	138			108	92				
06:45		135	101	380	486	123	79	397	373	777	859
07:00		101	73			145	68				
07:15		119	84			158	58				
07:30		127	73			200	51				
07:45		153	61	500	291	169	44	672	221	1172	512
08:00		151	52			180	37				
08:15		127	51			150	31				
08:30		123	40			151	29				
08:45		132	39	533	182	131	36	612	133	1145	315
09:00		118	45			117	32				
09:15		79	32			99	29				
09:30		102	33			108	22				
09:45		87	11	386	121	96	14	420	97	806	218
10:00		75	20			94	17				
10:15		82	17			87	12				
10:30		94	20			95	16				
10:45		89	21	340	78	90	9	366	54	706	132
11:00		80	25			98	8				
11:15		76	12			97	12				
11:30		65	12			85	14				
11:45		101	14	322	63	107	15	387	49	709	112
Total		2674	4149			3078	3759			5752	7908
Percent		39.2%	60.8%			45.0%	55.0%			42.1%	57.9%

# Accurate Counts

## 978-664-2565

Location : Route 110/111 North of  
 Location : Route 2  
 City/State: Harvard, MA  
 Counter : 18529

8652501A  
 Site Code: 86525006B

Start Time	08-Apr-08 Tue	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		7	94			7	111				
12:15		5	96			16	101				
12:30		7	93			4	88				
12:45		4	98	23	381	6	103	33	403	56	784
01:00		1	113			2	80				
01:15		0	79			11	93				
01:30		2	109			9	95				
01:45		2	101	5	402	9	86	31	354	36	756
02:00		1	98			5	108				
02:15		4	94			7	114				
02:30		6	129			9	108				
02:45		2	118	13	439	2	134	23	464	36	903
03:00		3	130			5	116				
03:15		5	219			3	29				
03:30		2	223			6	33				
03:45		1	214	11	786	6	24	20	202	31	988
04:00		7	238			9	18				
04:15		9	227			9	26				
04:30		15	219			12	22				
04:45		22	240	53	924	19	25	49	91	102	1015
05:00		20	253			30	34				
05:15		26	220			31	29				
05:30		38	220			54	38				
05:45		65	237	149	930	60	23	175	124	324	1054
06:00		46	209			80	30				
06:15		88	198			80	16				
06:30		105	172			127	13				
06:45		130	168	369	747	117	10	404	69	773	816
07:00		113	129			133	10				
07:15		128	112			182	12				
07:30		142	134			188	3				
07:45		167	106	550	481	169	5	672	30	1222	511
08:00		126	78			180	4				
08:15		134	77			132	5				
08:30		115	68			159	1				
08:45		132	81	507	304	160	3	631	13	1138	317
09:00		99	72			133	5				
09:15		103	61			112	2				
09:30		82	53			100	1				
09:45		76	37	360	223	77	1	422	9	782	232
10:00		72	45			98	1				
10:15		92	34			97	1				
10:30		82	26			82	1				
10:45		83	31	329	136	73	1	350	4	679	140
11:00		93	33			99	0				
11:15		92	30			99	1				
11:30		91	30			88	0				
11:45		106	17	382	110	86	0	372	1	754	111
Total		2751	5863			3182	1764			5933	7627
Percent		31.9%	68.1%			64.3%	35.7%			43.8%	56.2%

**Accurate Counts**  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18529

8652501A  
Site Code: 86525006B

Start Time	09-Apr-08 Wed	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		15	103			0	108				
12:15		21	109			2	96				
12:30		18	109			0	95				
12:45		9	83	63	404	0	91	2	390	65	794
01:00		22	97			1	103				
01:15		6	98			0	99				
01:30		10	104			0	118				
01:45		6	105	44	404	0	98	1	418	45	822
02:00		7	100			1	110				
02:15		5	110			0	100				
02:30		7	124			1	131				
02:45		4	136	23	470	1	157	3	498	26	968
03:00		6	133			0	138				
03:15		7	168			2	122				
03:30		2	141			0	149				
03:45		7	153	22	595	7	151	9	560	31	1155
04:00		8	152			6	138				
04:15		13	144			8	120				
04:30		5	131			12	127				
04:45		27	162	53	589	22	133	48	518	101	1107
05:00		16	169			24	179				
05:15		29	146			28	165				
05:30		30	184			55	147				
05:45		67	192	142	691	49	117	156	608	298	1299
06:00		50	153			84	106				
06:15		71	136			113	110				
06:30		101	120			114	86				
06:45		146	102	368	511	99	93	410	395	778	906
07:00		124	82			140	67				
07:15		120	84			155	68				
07:30		142	64			212	84				
07:45		180	58	566	288	169	32	676	251	1242	539
08:00		129	57			181	34				
08:15		139	50			161	33				
08:30		136	42			144	43				
08:45		149	38	553	187	168	38	654	148	1207	335
09:00		125	37			131	33				
09:15		109	43			111	30				
09:30		113	34			97	35				
09:45		103	32	450	146	102	28	441	126	891	272
10:00		89	34			108	23				
10:15		99	27			92	21				
10:30		105	25			113	12				
10:45		98	23	391	109	86	16	399	72	790	181
11:00		105	19			116	12				
11:15		105	15			122	9				
11:30		85	12			112	15				
11:45		110	13	405	59	107	6	457	42	862	101
Total		3080	4453			3256	4026			6336	8479
Percent		40.9%	59.1%			44.7%	55.3%			42.8%	57.2%

**Accurate Counts**  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18529

8652501A  
Site Code: 86525006B

Start Time	10-Apr-08 Thu	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		5	151			6	0				
12:15		11	166			5	0				
12:30		7	163			4	0				
12:45		4	154	27	634	7	0	22	0	49	634
01:00		4	159			10	0				
01:15		4	152			6	0				
01:30		7	150			12	0				
01:45		4	150	19	611	7	0	35	0	54	611
02:00		2	171			7	0				
02:15		3	162			13	0				
02:30		2	186			1	0				
02:45		1	182	8	701	11	0	32	0	40	701
03:00		4	194			5	0				
03:15		6	182			5	0				
03:30		3	191			4	0				
03:45		3	198	16	765	6	0	20	0	36	765
04:00		8	206			11	0				
04:15		4	195			9	0				
04:30		9	206			16	0				
04:45		21	182	42	789	8	0	44	0	86	789
05:00		12	201			21	0				
05:15		25	207			38	0				
05:30		34	191			47	0				
05:45		70	205	141	804	43	0	149	0	290	804
06:00		48	161			84	0				
06:15		85	194			109	0				
06:30		103	179			120	0				
06:45		129	144	365	678	112	0	425	0	790	678
07:00		181	140			14	0				
07:15		210	116			0	0				
07:30		234	114			0	0				
07:45		226	107	851	477	0	0	14	0	865	477
08:00		222	99			0	0				
08:15		200	98			1	0				
08:30		203	84			0	0				
08:45		198	83	823	364	0	0	1	0	824	364
09:00		206	72			0	0				
09:15		159	73			0	0				
09:30		151	48			0	0				
09:45		140	42	656	235	0	0	0	0	656	235
10:00		150	45			0	0				
10:15		132	56			0	0				
10:30		142	36			0	0				
10:45		137	47	561	184	0	0	0	0	561	184
11:00		145	30			0	0				
11:15		140	25			0	0				
11:30		155	23			0	0				
11:45		143	17	583	95	0	0	0	0	583	95
Total		4092	6337			742	0			4834	6337
Percent		39.2%	60.8%			100.0%	0.0%			43.3%	56.7%

**Accurate Counts**  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18529

8652501A  
Site Code: 86525006B

Start Time	11-Apr-08 Fri	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		18	117			0	118				
12:15		17	103			0	107				
12:30		16	116			0	96				
12:45		13	101	64	437	0	118	0	439	64	876
01:00		8	102			0	95				
01:15		10	97			0	119				
01:30		10	79			0	95				
01:45		11	96	39	374	0	88	0	397	39	771
02:00		3	94			0	104				
02:15		11	114			0	124				
02:30		7	136			0	132				
02:45		9	130	30	474	0	119	0	479	30	953
03:00		4	131			0	172				
03:15		7	165			0	137				
03:30		5	131			0	135				
03:45		7	158	23	585	0	148	0	592	23	1177
04:00		17	158			2	163				
04:15		2	156			5	157				
04:30		9	133			14	123				
04:45		22	138	50	585	17	127	38	570	88	1155
05:00		9	161			24	164				
05:15		23	163			37	155				
05:30		37	167			57	139				
05:45		61	144	130	635	58	144	176	602	306	1237
06:00		56	139			73	118				
06:15		89	144			93	118				
06:30		123	133			115	103				
06:45		114	99	382	515	116	90	397	429	779	944
07:00		117	102			134	82				
07:15		145	111			150	60				
07:30		141	62			188	69				
07:45		159	71	562	346	156	60	628	271	1190	617
08:00		120	50			183	50				
08:15		138	48			131	45				
08:30		109	39			152	37				
08:45		135	50	502	187	131	30	597	162	1099	349
09:00		124	35			135	35				
09:15		89	29			109	31				
09:30		98	28			101	29				
09:45		92	39	403	131	113	33	458	128	861	259
10:00		84	51			100	31				
10:15		68	51			131	30				
10:30		88	41			84	26				
10:45		88	24	328	167	110	23	425	110	753	277
11:00		93	26			113	18				
11:15		84	31			88	31				
11:30		90	21			85	20				
11:45		95	15	362	93	102	18	388	87	750	180
Total		2875	4529			3107	4266			5982	8795
Percent		38.8%	61.2%			42.1%	57.9%			40.5%	59.5%

**Accurate Counts**  
978-664-2565

Location : Route 2A/110 @  
Location : Ayer/Littleton Town Line  
City/State: Ayer, MA  
Counter : 13663

8652502A  
Site Code: 8652502A

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	24	27	51	35	36	40	30	49	41	41	39	71	40	65	37	47
01:00	10	19	29	29	21	26	29	22	21	37	30	40	51	49	27	32
02:00	12	27	41	42	53	27	52	37	48	36	21	27	34	24	37	31
03:00	35	30	38	26	46	35	34	35	50	37	38	23	30	17	39	29
04:00	69	68	67	63	60	60	62	63	57	55	23	21	16	8	51	48
05:00	175	146	199	167	188	166	194	178	204	192	73	99	29	24	152	139
06:00	521	318	497	343	526	287	470	307	487	296	105	126	58	32	381	244
07:00	547	277	<b>574</b>	302	<b>589</b>	313	<b>594</b>	365	<b>587</b>	340	165	142	87	87	<b>449</b>	261
08:00	<b>566</b>	<b>345</b>	559	<b>383</b>	536	355	516	389	528	352	237	160	115	86	437	296
09:00	371	279	362	244	397	278	376	337	380	311	271	211	201	139	337	257
10:00	343	245	299	278	312	292	299	346	320	289	288	268	193	166	293	269
11:00	348	324	321	287	322	<b>357</b>	319	<b>416</b>	306	<b>399</b>	<b>320</b>	<b>361</b>	<b>229</b>	<b>192</b>	309	<b>334</b>
12:00 PM	320	331	279	350	385	411	406	422	370	399	331	299	<b>293</b>	228	341	349
01:00	314	339	337	383	344	382	346	471	379	381	302	<b>320</b>	273	233	328	358
02:00	403	418	385	426	365	428	419	432	430	459	<b>334</b>	304	238	<b>239</b>	368	387
03:00	<b>469</b>	461	<b>471</b>	470	<b>484</b>	500	<b>447</b>	515	469	460	270	269	246	223	<b>408</b>	414
04:00	413	501	399	<b>525</b>	423	544	410	528	<b>486</b>	459	265	278	210	222	372	437
05:00	334	<b>553</b>	397	520	358	<b>597</b>	337	<b>588</b>	440	<b>468</b>	265	258	193	182	332	<b>452</b>
06:00	226	420	249	398	256	434	252	453	280	438	208	228	189	164	237	362
07:00	158	264	168	270	204	248	204	297	194	258	147	161	138	153	173	236
08:00	119	177	108	207	123	218	146	226	117	172	107	151	83	108	115	180
09:00	73	127	88	156	104	156	120	157	114	173	76	125	66	93	92	141
10:00	87	131	76	137	79	123	79	151	123	149	75	155	39	79	80	132
11:00	98	66	89	63	97	71	101	94	133	85	60	88	23	31	86	71
Lane Day	6035	5893	6083	6104	6308	6348	6242	6878	6564	6286	4050	4185	3074	2844	5481	5506
AM Peak Vol.	566	345	574	383	589	357	594	416	587	399	320	361	229	192	449	334
PM Peak Vol.	469	553	471	525	484	597	447	588	486	468	334	320	293	239	408	452

Comb. Total	11928	12187	12656	13120	12850	8235	5918	10987
ADT	ADT 10,985	AADT 10,985						





Accurate Counts  
978-664-2565

Location : Route 2 West of  
Location : Route 495  
City/State: Harvard, MA  
Counter : 10013

8652504A  
Site Code: 8652504A










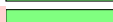














Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	204	66	31	99	230	111	259	113	72	97	370	138	292	186	208	116
01:00	92	49	9	62	113	63	117	72	15	56	186	92	203	120	105	73
02:00	66	51	4	66	90	84	86	70	14	83	111	94	113	71	69	74
03:00	59	114	34	139	64	131	76	116	25	117	74	75	70	65	57	108
04:00	116	347	135	308	134	321	125	336	116	344	91	112	66	72	112	263
05:00	340	1235	351	1357	312	1339	310	1311	352	1241	142	315	68	115	268	988
06:00	1282	2939	1118	2908	1121	2849	1123	2978	1128	2718	378	633	176	314	904	2191
07:00	<b>1778</b>	<b>3521</b>	<b>1570</b>	<b>3640</b>	1546	<b>3618</b>	<b>1578</b>	<b>3363</b>	<b>1611</b>	<b>3367</b>	626	850	516	445	<b>1318</b>	<b>2686</b>
08:00	1577	2912	1484	2941	<b>1590</b>	2981	1540	2962	1438	2787	834	989	555	562	1288	2305
09:00	426	1880	1237	1850	1248	1838	1281	1803	1259	1754	1095	1150	782	835	1047	1587
10:00	280	1279	1098	1359	1034	1385	1204	1377	1126	1433	1222	1230	905	1013	981	1297
11:00	283	1130	1073	1214	1178	1243	1222	1226	1166	1366	<b>1312</b>	<b>1374</b>	<b>1252</b>	<b>1244</b>	1069	1257
12:00 PM	338	1086	1118	1152	1154	1199	1206	1173	1330	1257	1446	1445	1395	1241	1141	1222
01:00	393	1111	1203	1080	1316	1165	1358	1225	1486	1339	1446	1382	1405	1334	1230	1234
02:00	591	1240	1611	1233	1664	1317	1659	1433	1976	1528	1383	<b>1533</b>	1380	1536	1466	1403
03:00	1057	<b>1537</b>	2325	1504	2396	1557	2415	<b>1612</b>	2643	1787	1441	1423	<b>1492</b>	1484	1967	<b>1558</b>
04:00	1503	1295	2957	1374	3017	1545	<b>2725</b>	1549	3104	<b>1790</b>	<b>1459</b>	1356	1448	<b>1647</b>	<b>2316</b>	1508
05:00	<b>1584</b>	1392	<b>3223</b>	<b>1565</b>	<b>3288</b>	<b>1639</b>	1717	1583	<b>3202</b>	1778	1343	1283	1342	1396	2243	1519
06:00	1062	1026	2355	1021	2273	1078	1104	1075	2318	1232	1108	1023	1142	1287	1623	1106
07:00	437	609	1373	704	1306	709	513	794	1347	819	923	774	872	876	967	755
08:00	293	485	1029	499	971	453	372	549	925	587	807	649	692	629	727	550
09:00	169	325	732	347	731	405	220	400	698	437	670	518	497	426	531	408
10:00	100	272	517	280	562	281	157	305	672	376	589	449	383	308	426	324
11:00	68	201	380	208	497	181	131	206	659	282	495	311	252	197	355	227
Lane Day	14098	26102	26967	26910	27835	27492	22498	27631	28682	28575	19551	19198	17298	17403	22418	24759
AM Peak	07:00	07:00	07:00	07:00	08:00	07:00	07:00	07:00	07:00	07:00	11:00	11:00	11:00	11:00	07:00	07:00
Vol.	1778	3521	1570	3640	1590	3618	1578	3363	1611	3367	1312	1374	1252	1244	1318	2686
PM Peak	17:00	15:00	17:00	17:00	17:00	17:00	16:00	15:00	17:00	16:00	16:00	14:00	15:00	16:00	16:00	15:00
Vol.	1584	1537	3223	1565	3288	1639	2725	1612	3202	1790	1459	1533	1492	1647	2316	1558

Comb. Total	40200	53877	55327	50129	57257	38749	34701	47177
ADT	ADT 47,177	AADT 47,177						

Accurate Counts  
978-664-2565

Location : Route 2 WB West of  
Location : Route 70  
City/State: Ayer, MA  
Counter : 13647

86525W5A  
Site Code: 86525W5A

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	*	268	275	258	267	385	<b>285</b>	294 
01:00	*	*	139	141	169	150	192	190	166 
02:00	*	*	122	109	110	114	120	104	113 
03:00	*	69	96	121	135	105	74	74	95 
04:00	*	145	140	142	142	142	100	68	123 
05:00	*	307	288	303	356	314	142	*	279 
06:00	*	845	871	856	879	863	326	*	755 
07:00	*	<b>1393</b>	<b>1434</b>	<b>1450</b>	<b>1456</b>	<b>1433</b>	661	*	1279 
08:00	*	1392	1420	1407	1302	1380	930	*	1290 
09:00	*	1230	1287	1309	1308	1284	1208	*	1268 
10:00	*	1153	1157	1312	1295	1229	1397	*	1263 
11:00	*	1197	1312	1374	1448	1333	<b>1520</b>	*	<b>1370</b> 
12:00 PM	*	1284	1252	1419	1555	1378	1615	*	1425 
01:00	*	1307	1425	1440	1613	1446	1624	*	1482 
02:00	*	1726	1932	1950	2245	1963	1657	*	1902 
03:00	*	2848	2987	3194	3290	3080	<b>1697</b>	*	2803 
04:00	*	3292	<b>3221</b>	2188	3320	3005	1630	*	2730 
05:00	*	<b>3336</b>	3204	<b>3265</b>	<b>3321</b>	<b>3282</b>	1487	*	<b>2923</b> 
06:00	*	2268	2416	2513	2258	2364	1205	*	2132 
07:00	*	1335	1256	1353	1385	1332	1019	*	1270 
08:00	*	955	963	852	951	930	818	*	908 
09:00	*	693	721	754	672	710	669	*	702 
10:00	*	513	503	475	697	547	606	*	559 
11:00	*	493	486	463	709	538	493	*	529 
Day Total	0	27781	28900	28665	30874	29189	21575	721	27660
% Avg. WkDay	0.0%	95.2%	99.0%	98.2%	105.8%				
% Avg. Week	0.0%	100.4%	104.5%	103.6%	111.6%	105.5%	78.0%	2.6%	
AM Peak Vol.		07:00 1393	07:00 1434	07:00 1450	07:00 1456	07:00 1433	11:00 1520	00:00 285	11:00 1370
PM Peak Vol.		17:00 3336	16:00 3221	17:00 3265	17:00 3321	17:00 3282	15:00 1697		17:00 2923
Grand Total	0	27781	28900	28665	30874	29189	21575	721	27660
ADT		ADT 23,086		AADT 23,086					

Accurate Counts  
978-664-2565

Location : Route 2 EB West of  
Location : Route 70  
City/State: Lancaster, MA  
Counter : 10310

86525E5A  
Site Code: 8652505A

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	*	108	105	112	108	167	<b>194</b>	137
01:00	*	*	80	75	84	80	110	134	97
02:00	*	*	104	82	93	93	101	92	94
03:00	*	154	166	139	154	153	104	81	133
04:00	*	430	443	468	437	444	156	96	338
05:00	*	1757	1764	1733	1608	1716	459	*	1464
06:00	*	3671	3512	<b>3618</b>	3403	3551	733	*	2987
07:00	*	<b>3697</b>	<b>3798</b>	3549	<b>3515</b>	<b>3640</b>	715	*	<b>3055</b>
08:00	*	2690	2756	2773	2614	2708	977	*	2362
09:00	*	1680	1632	1684	1706	1676	1011	*	1543
10:00	*	1324	1389	1396	1413	1380	997	*	1304
11:00	*	1255	1258	1261	1235	1252	<b>1110</b>	*	1224
12:00 PM	*	1291	1293	1318	1406	1327	1129	*	1287
01:00	*	1251	1335	1431	1498	1379	<b>1181</b>	*	1339
02:00	*	<b>1396</b>	<b>1437</b>	<b>1527</b>	<b>1753</b>	<b>1528</b>	1101	*	<b>1443</b>
03:00	*	1381	1417	1503	1692	1498	1158	*	1430
04:00	*	1303	1396	1468	1688	1464	1139	*	1399
05:00	*	1395	1425	1417	1624	1465	1008	*	1374
06:00	*	1013	1024	1081	1188	1076	984	*	1058
07:00	*	743	776	840	879	810	874	*	822
08:00	*	604	617	685	679	646	716	*	660
09:00	*	439	498	531	593	515	641	*	540
10:00	*	434	440	459	462	449	512	*	461
11:00	*	240	207	234	336	254	367	*	277
Day Total	0	28148	28875	29377	30172	29212	17450	597	26828
% Avg. WkDay	0.0%	96.4%	98.8%	100.6%	103.3%				
% Avg. Week	0.0%	104.9%	107.6%	109.5%	112.5%	108.9%	65.0%	2.2%	
AM Peak Vol.		07:00 3697	07:00 3798	06:00 3618	07:00 3515	07:00 3640	11:00 1110	00:00 194	07:00 3055
PM Peak Vol.		14:00 1396	14:00 1437	14:00 1527	14:00 1753	14:00 1528	13:00 1181		14:00 1443
Grand Total	0	28148	28875	29377	30172	29212	17450	597	26828
ADT		ADT 26,468		AADT 26,468					

# Accurate Counts

978-664-2565

Location : Route 2 EB West of  
 Location : Route 70  
 City/State: Lancaster, MA  
 Counter : 13735
















86582E5AA  
 Site Code: 8652505A

Start Time	Sun 27-Apr-08		Mon 28-Apr-08		Tue 29-Apr-08		Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	331	31	288	31	*	31	310
12:15	*	338	26	262	25	*	26	300
12:30	*	398	24	311	17	*	20	354
12:45	*	370	18	331	15	*	16	350
01:00	*	334	22	307	18	*	20	320
01:15	*	368	11	324	22	*	16	346
01:30	*	356	23	309	18	*	20	332
01:45	*	365	10	<b>346</b>	25	*	18	<b>356</b>
02:00	*	361	15	<b>326</b>	21	*	18	<b>344</b>
02:15	*	<b>432</b>	20	<b>352</b>	17	*	18	<b>392</b>
02:30	*	<b>375</b>	22	<b>364</b>	24	*	23	<b>370</b>
02:45	*	<b>390</b>	30	306	19	*	24	348
03:00	*	<b>370</b>	29	322	<b>31</b>	*	30	346
03:15	*	385	23	335	<b>36</b>	*	30	360
03:30	*	386	41	287	<b>31</b>	*	36	336
03:45	*	341	40	316	<b>30</b>	*	35	328
04:00	*	369	61	306	*	*	61	338
04:15	*	369	94	307	*	*	94	338
04:30	*	375	116	286	*	*	116	330
04:45	*	376	161	296	*	*	161	336
05:00	*	358	206	284	*	*	206	321
05:15	*	340	324	342	*	*	324	341
05:30	*	326	474	321	*	*	474	324
05:45	*	321	611	284	*	*	611	302
06:00	*	334	762	252	*	*	762	293
06:15	*	314	802	234	*	*	802	274
06:30	*	323	<b>988</b>	205	*	*	<b>988</b>	264
06:45	*	269	<b>903</b>	183	*	*	<b>903</b>	226
07:00	*	285	<b>853</b>	188	*	*	<b>853</b>	236
07:15	*	289	<b>859</b>	157	*	*	<b>859</b>	223
07:30	*	220	851	183	*	*	851	202
07:45	*	207	846	130	*	*	846	168
08:00	*	190	777	119	*	*	777	154
08:15	159	180	711	127	*	*	435	154
08:30	148	168	602	115	*	*	375	142
08:45	186	160	550	119	*	*	368	140
09:00	190	142	421	110	*	*	306	126
09:15	196	119	429	95	*	*	312	107
09:30	199	134	414	106	*	*	306	120
09:45	245	102	332	88	*	*	288	95
10:00	245	107	316	94	*	*	280	100
10:15	252	93	330	96	*	*	291	94
10:30	287	116	289	136	*	*	288	126
10:45	298	80	325	54	*	*	312	67
11:00	<b>306</b>	53	299	55	*	*	302	54
11:15	<b>336</b>	60	305	62	*	*	320	61
11:30	<b>314</b>	69	333	54	*	*	324	62
11:45	<b>352</b>	48	294	38	*	*	323	43
Total	3713	12796	16023	10512	380	0	14899	11653
Combined Total	16509		26535		380		26552	
Peak	11:00	02:15	06:30	01:45	03:00		06:30	01:45
Vol.	1308	1567	3603	1388	128		3603	1462
P.H.F.	0.929	0.907	0.912	0.953	0.889		0.912	0.932
ADT		ADT 26,535		AADT 26,535				

Accurate Counts  
978-664-2565

Location : Route 2 EB West of  
Location : Route 70  
City/State: Lancaster, MA  
Counter : 13735

86582E5AA  
Site Code: 8652505A

Start Time	Mon 21-Apr-08	Tue 22-Apr-08	Wed 23-Apr-08	Thu 24-Apr-08	Fri 25-Apr-08	Average Day	Sat 26-Apr-08	Sun 27-Apr-08	Week Average
12:00 AM	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	830	830 
10:00	*	*	*	*	*	*	*	1082	1082 
11:00	*	*	*	*	*	*	*	<b>1308</b>	<b>1308</b> 
12:00 PM	*	*	*	*	*	*	*	1437	1437 
01:00	*	*	*	*	*	*	*	1423	1423 
02:00	*	*	*	*	*	*	*	<b>1558</b>	<b>1558</b> 
03:00	*	*	*	*	*	*	*	1482	1482 
04:00	*	*	*	*	*	*	*	1489	1489 
05:00	*	*	*	*	*	*	*	1345	1345 
06:00	*	*	*	*	*	*	*	1240	1240 
07:00	*	*	*	*	*	*	*	1001	1001 
08:00	*	*	*	*	*	*	*	698	698 
09:00	*	*	*	*	*	*	*	497	497 
10:00	*	*	*	*	*	*	*	396	396 
11:00	*	*	*	*	*	*	*	230	230 
Day Total	0	0	0	0	0	0	0	16016	16016
% Avg. WkDay	0.0%	0.0%	0.0%	0.0%	0.0%				
% Avg. Week	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
AM Peak Vol.								11:00 1308	11:00 1308
PM Peak Vol.								14:00 1558	14:00 1558

Accurate Counts  
978-664-2565

Location : Route 2 EB West of  
Location : Route 70  
City/State: Lancaster, MA  
Counter : 13735

86582E5AA  
Site Code: 8652505A

Start Time	Mon 28-Apr-08	Tue 29-Apr-08	Wed 30-Apr-08	Thu 01-May-08	Fri 02-May-08	Average Day	Sat 03-May-08	Sun 04-May-08	Week Average
12:00 AM	99	88	*	*	*	94	*	*	94
01:00	66	83	*	*	*	74	*	*	74
02:00	87	81	*	*	*	84	*	*	84
03:00	133	<b>128</b>	*	*	*	130	*	*	130
04:00	432	*	*	*	*	432	*	*	432
05:00	1615	*	*	*	*	1615	*	*	1615
06:00	<b>3455</b>	*	*	*	*	<b>3455</b>	*	*	<b>3455</b>
07:00	3409	*	*	*	*	3409	*	*	3409
08:00	2640	*	*	*	*	2640	*	*	2640
09:00	1596	*	*	*	*	1596	*	*	1596
10:00	1260	*	*	*	*	1260	*	*	1260
11:00	1231	*	*	*	*	1231	*	*	1231
12:00 PM	1192	*	*	*	*	1192	*	*	1192
01:00	1286	*	*	*	*	1286	*	*	1286
02:00	<b>1348</b>	*	*	*	*	<b>1348</b>	*	*	<b>1348</b>
03:00	1260	*	*	*	*	1260	*	*	1260
04:00	1195	*	*	*	*	1195	*	*	1195
05:00	1231	*	*	*	*	1231	*	*	1231
06:00	874	*	*	*	*	874	*	*	874
07:00	658	*	*	*	*	658	*	*	658
08:00	480	*	*	*	*	480	*	*	480
09:00	399	*	*	*	*	399	*	*	399
10:00	380	*	*	*	*	380	*	*	380
11:00	209	*	*	*	*	209	*	*	209
Day Total	26535	380	0	0	0	26532	0	0	26532
% Avg. WkDay	100.0%	1.4%	0.0%	0.0%	0.0%				
% Avg. Week	100.0%	1.4%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak	06:00	03:00				06:00			06:00
Vol.	3455	128				3455			3455
PM Peak	14:00					14:00			14:00
Vol.	1348					1348			1348
Grand Total	26535	380	0	0	0	26532	0	16016	42548
ADT		ADT 26,535			AADT 26,535				

# Accurate Counts

978-664-2565

Location : Route 2 WB West of  
 Location : Route 70  
 City/State: Lancaster, MA  
 Counter : 16427

















86525W5AA  
 Site Code: 8652505E

Start Time	Sun 27-Apr-08		Mon 28-Apr-08		Tue 29-Apr-08		Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	405	49	372	65	*	57	388
12:15	*	397	38	347	76	*	57	372
12:30	*	391	65	332	43	*	54	362
12:45	*	371	40	310	46	*	43	340
01:00	*	383	21	286	44	*	32	334
01:15	*	351	25	345	24	*	24	348
01:30	*	388	27	355	33	*	30	372
01:45	*	399	22	317	25	*	24	358
02:00	*	404	27	363	15	*	21	384
02:15	*	360	10	337	29	*	20	348
02:30	*	381	13	446	24	*	18	414
02:45	*	355	21	528	10	*	16	442
03:00	*	416	9	577	32	*	20	496
03:15	*	406	15	665	25	*	20	536
03:30	*	365	15	715	14	*	14	540
03:45	*	380	24	757	16	*	20	568
04:00	*	404	26	790	*	*	26	597
04:15	*	400	20	706	*	*	20	553
04:30	*	352	27	724	*	*	27	538
04:45	*	348	42	791	*	*	42	570
05:00	*	341	44	735	*	*	44	538
05:15	*	343	64	831	*	*	64	587
05:30	*	351	73	852	*	*	73	602
05:45	*	335	96	765	*	*	96	550
06:00	*	327	121	655	*	*	121	491
06:15	*	359	189	576	*	*	189	468
06:30	*	338	192	503	*	*	192	420
06:45	*	301	243	477	*	*	243	389
07:00	*	268	298	353	*	*	298	310
07:15	*	252	308	366	*	*	308	309
07:30	*	245	378	312	*	*	378	278
07:45	*	234	359	220	*	*	359	227
08:00	28	197	341	246	*	*	184	222
08:15	130	190	315	175	*	*	222	182
08:30	126	191	334	180	*	*	230	186
08:45	168	195	388	144	*	*	278	170
09:00	169	161	306	169	*	*	238	165
09:15	175	158	308	129	*	*	242	144
09:30	202	135	306	115	*	*	254	125
09:45	203	134	315	121	*	*	259	128
10:00	275	89	260	126	*	*	268	108
10:15	230	79	307	113	*	*	268	96
10:30	271	89	274	113	*	*	272	101
10:45	290	92	312	109	*	*	301	100
11:00	310	124	268	151	*	*	289	138
11:15	315	109	295	145	*	*	305	127
11:30	329	86	336	79	*	*	332	82
11:45	366	72	343	89	*	*	354	80
Total	3587	13451	7909	18912	521	0	7246	16183
Combined Total	17038		26821		521		23429	
Peak	11:00	03:00	07:30	04:45	12:00		07:00	04:45
Vol.	1320	1567	1393	3209	230		1343	2297
P.H.F.	0.902	0.942	0.921	0.942	0.757		0.888	0.954
ADT	ADT 26,821		AADT 26,821					

Accurate Counts  
978-664-2565

Location : Route 2 WB West of  
Location : Route 70  
City/State: Lancaster, MA  
Counter : 16427

86525W5AA  
Site Code: 8652505E

























Start Time	Mon 21-Apr-08	Tue 22-Apr-08	Wed 23-Apr-08	Thu 24-Apr-08	Fri 25-Apr-08	Average Day	Sat 26-Apr-08	Sun 27-Apr-08	Week Average
12:00 AM	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	452	452 
09:00	*	*	*	*	*	*	*	749	749 
10:00	*	*	*	*	*	*	*	1066	1066 
11:00	*	*	*	*	*	*	*	<b>1320</b>	<b>1320</b> 
12:00 PM	*	*	*	*	*	*	*	1564	1564 
01:00	*	*	*	*	*	*	*	1521	1521 
02:00	*	*	*	*	*	*	*	1500	1500 
03:00	*	*	*	*	*	*	*	<b>1567</b>	<b>1567</b> 
04:00	*	*	*	*	*	*	*	1504	1504 
05:00	*	*	*	*	*	*	*	1370	1370 
06:00	*	*	*	*	*	*	*	1325	1325 
07:00	*	*	*	*	*	*	*	999	999 
08:00	*	*	*	*	*	*	*	773	773 
09:00	*	*	*	*	*	*	*	588	588 
10:00	*	*	*	*	*	*	*	349	349 
11:00	*	*	*	*	*	*	*	391	391 
Day Total	0	0	0	0	0	0	0	17038	17038
% Avg. WkDay	0.0%	0.0%	0.0%	0.0%	0.0%				
% Avg. Week	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
AM Peak Vol.								11:00 1320	11:00 1320
PM Peak Vol.								15:00 1567	15:00 1567



Accurate Counts  
978-664-2565

Location : Route 2 WB West of  
Location : Route 70  
City/State: Lancaster, MA  
Counter : 16427

86525W5AA  
Site Code: 8652505E

Start Time	Mon 28-Apr-08	Tue 29-Apr-08	Wed 30-Apr-08	Thu 01-May-08	Fri 02-May-08	Average Day	Sat 03-May-08	Sun 04-May-08	Week Average
12:00 AM	192	<b>230</b>	*	*	*	211	*	*	211 
01:00	95	126	*	*	*	110	*	*	110 
02:00	71	78	*	*	*	74	*	*	74 
03:00	63	87	*	*	*	75	*	*	75 
04:00	115	*	*	*	*	115	*	*	115 
05:00	277	*	*	*	*	277	*	*	277 
06:00	745	*	*	*	*	745	*	*	745 
07:00	1343	*	*	*	*	1343	*	*	1343 
08:00	<b>1378</b>	*	*	*	*	<b>1378</b>	*	*	<b>1378</b> 
09:00	1235	*	*	*	*	1235	*	*	1235 
10:00	1153	*	*	*	*	1153	*	*	1153 
11:00	1242	*	*	*	*	1242	*	*	1242 
12:00 PM	1361	*	*	*	*	1361	*	*	1361 
01:00	1303	*	*	*	*	1303	*	*	1303 
02:00	1674	*	*	*	*	1674	*	*	1674 
03:00	2714	*	*	*	*	2714	*	*	2714 
04:00	3011	*	*	*	*	3011	*	*	3011 
05:00	<b>3183</b>	*	*	*	*	<b>3183</b>	*	*	<b>3183</b> 
06:00	2211	*	*	*	*	2211	*	*	2211 
07:00	1251	*	*	*	*	1251	*	*	1251 
08:00	745	*	*	*	*	745	*	*	745 
09:00	534	*	*	*	*	534	*	*	534 
10:00	461	*	*	*	*	461	*	*	461 
11:00	464	*	*	*	*	464	*	*	464 
Day Total	26821	521	0	0	0	26870	0	0	26870
% Avg. WkDay	99.8%	1.9%	0.0%	0.0%	0.0%				
% Avg. Week	99.8%	1.9%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak	08:00	00:00				08:00			08:00
Vol.	1378	230				1378			1378
PM Peak	17:00					17:00			17:00
Vol.	3183					3183			3183
Grand Total	26821	521	0	0	0	26870	0	17038	43908
ADT		ADT 26,821			AADT 26,821				

**Calculation Sheet**

Computed by \_\_\_\_\_ Subject \_\_\_\_\_ Sheet 1 of 1  
 Checked by \_\_\_\_\_ Client \_\_\_\_\_ Job No. \_\_\_\_\_ Date \_\_\_\_\_

7 DAY ATR. COUNTS

LOCATION 5 : ROUTE 2 WEST OF ROUTE 70  
 LANCASTER, MA  
 AYER, MA

DAYS	3:00 PM			4:00 PM			5:00 PM		
	EB	WB	TOTAL	EB	WB	TOTAL	EB	WB	TOTAL
MON	1260	2714	3974	1195	3011	4206	1231	3183	4414
TUE	1381	2848	4229	1303	3292	4595	1395	3336	4731
WED	1417	2987	4404	1396	3221	4617	1425	3204	4629
THUR	1503	3194	4697	1468	2188	3656	1417	3265	4682
FRI	1692	3290	4982	1688	3320	5008	1624	3321	4945

SATURDAY PEAK HOUR VOLUME

	EB	WB	TOTAL
AM PEAK VOL.	1110	1520	2630
PM PEAK VOL.	1158	1697	2855

→ highest. (chosen)

SUNDAY PEAK HOUR VOLUME

	EB	WB	TOTAL
AM VOL. (11:00)	1320	1308	2628
PM 2:00 PM	1500	1558	3058
3:00 PM	1567	1482	3049
4:00 PM	1504	1139	2643
5:00 PM	1370	1008	2378

→ Used

AWDT EB+WB

MON	53356
TUE	56615
WED	57775
THUR	58,042
FRI	61,046
AWDT	57,367

ADT Calculation

TIME	5-DAY EB AVG	5-DAY WB AVG	TOTAL
AM	3607	1422	5029
PM	1431	3262	4693

# Accurate Counts

## 978-664-2565

Location : Route 2 West of  
 Location : Route 190  
 City/State: Harvard, MA  
 Counter : 10011

8652506A  
 Site Code: 8652506A

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	259	111	311	123	399	129	335	129	376	158	513	247	411	297	372	171
01:00	127	93	168	93	164	86	161	98	136	117	288	176	286	218	190	126
02:00	94	96	94	98	158	113	159	113	150	133	229	155	207	116	156	118
03:00	90	194	106	205	90	196	49	184	118	201	125	124	113	98	99	172
04:00	153	481	209	505	166	510	184	538	159	488	118	188	80	123	153	405
05:00	391	1680	381	1843	380	1796	379	1795	393	1692	172	530	161	314	322	1379
06:00	1022	3670	1062	3735	1088	3679	1089	3752	1048	3448	366	1015	232	674	844	2853
07:00	<b>1893</b>	<b>4088</b>	<b>1931</b>	<b>4156</b>	<b>1966</b>	<b>4097</b>	1941	<b>4196</b>	<b>2010</b>	<b>3963</b>	793	1170	524	631	1580	<b>3186</b>
08:00	1769	3102	1848	3244	1941	3201	<b>1947</b>	3159	1866	3134	1138	1513	682	823	1599	2597
09:00	1686	2115	1668	2097	1715	2110	1739	2121	1789	2124	1412	1645	1035	1232	1578	1921
10:00	1581	1644	1522	1837	1499	1827	1714	1882	1726	1921	1638	1854	1227	1624	1558	1798
11:00	1612	1712	1588	1779	1590	1778	1687	1854	1745	2011	<b>1885</b>	<b>2163</b>	<b>1695</b>	<b>1895</b>	<b>1686</b>	1885
12:00 PM	1605	1869	1593	1826	1570	1842	1785	1941	1980	2052	2044	<b>2342</b>	1869	2074	1778	1992
01:00	1724	1845	1732	1892	1758	1956	1862	2007	2080	2129	<b>2148</b>	2229	1948	2172	1893	2033
02:00	2021	2043	2076	2078	2147	2151	2305	2191	2618	2512	2071	2211	1948	<b>2194</b>	2169	2197
03:00	3109	<b>2098</b>	3097	<b>2106</b>	3135	<b>2182</b>	3331	2256	3722	<b>2565</b>	2080	2088	1997	2104	2924	<b>2200</b>
04:00	3059	1989	3704	2073	3720	2136	3506	<b>2258</b>	<b>4073</b>	2485	2062	2116	<b>2034</b>	2044	3165	2157
05:00	<b>3246</b>	2031	<b>3733</b>	2031	<b>3773</b>	2142	<b>3680</b>	2209	4041	2502	1985	1935	1803	1941	<b>3180</b>	2113
06:00	2618	1500	2723	1490	2820	1618	3018	1644	3025	1927	1632	1613	1562	1624	2485	1631
07:00	1623	1075	1752	1116	1751	1156	1459	1250	2010	1295	1490	1338	1353	1220	1634	1207
08:00	1155	876	1284	834	1293	896	1264	1030	1396	953	1308	1092	1042	857	1249	934
09:00	852	566	956	600	945	719	934	759	1060	850	1039	876	768	613	936	712
10:00	592	500	716	560	601	595	702	596	983	703	984	737	535	488	730	597
11:00	597	327	632	342	721	286	671	344	910	476	770	498	405	264	672	362
Lane Day	32878	35705	34886	36663	35390	37201	35901	38306	39414	39839	28290	29855	23917	25640	32952	34746
AM Peak Vol.	07:00	07:00	07:00	07:00	07:00	07:00	08:00	07:00	07:00	07:00	11:00	11:00	11:00	11:00	11:00	07:00
PM Peak Vol.	17:00	15:00	17:00	15:00	17:00	15:00	17:00	16:00	16:00	15:00	13:00	12:00	16:00	14:00	17:00	15:00

Comb. Total	68583	71549	72591	74207	79253	58145	49557	67698
ADT	ADT 67,698	AADT 67,698						

## **APPENDIX E**

### **VEHICLE CLASSIFICATION COUNTS**

Accurate Counts  
978-664-2565

Location : Barnum Road South of  
Location : Rotary  
City/State: Harvard, MA  
Counter : 14014  
Southbound

8652501BCL  
Site Code: 8652501B

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	Not Classed	Total
04/08/08	0	1	3	0	3	0	0	0	0	0	0	0	0	0	7
01:00	1	1	4	0	3	2	0	0	0	0	0	0	0	1	12
02:00	0	0	8	0	7	0	0	0	0	0	0	0	0	0	15
03:00	0	1	4	0	5	1	0	0	0	0	0	0	0	0	11
04:00	0	2	7	1	15	0	0	0	0	0	0	0	0	6	31
05:00	0	4	25	8	110	2	0	0	0	0	0	0	0	3	152
06:00	4	77	154	4	80	7	0	3	3	0	0	0	0	6	338
07:00	5	44	128	8	37	5	0	3	6	0	0	0	0	6	242
08:00	1	38	134	9	36	1	0	2	6	1	0	0	0	16	244
09:00	3	17	57	5	44	4	0	1	4	0	0	0	0	7	142
10:00	6	13	40	9	39	5	0	0	7	1	0	0	0	12	132
11:00	5	18	46	11	30	4	0	5	11	0	0	0	0	9	139
12 PM	5	39	84	8	54	5	0	0	9	0	0	0	0	14	218
13:00	9	30	70	10	44	4	0	3	8	0	0	0	0	15	193
14:00	3	47	63	9	32	4	0	3	6	0	0	0	0	16	183
15:00	2	35	45	4	21	3	0	2	4	0	0	0	0	8	124
16:00	6	25	71	4	30	7	0	1	2	0	0	0	0	7	153
17:00	5	59	62	3	15	4	0	1	3	0	0	0	0	1	153
18:00	2	13	42	1	14	0	0	0	0	0	0	0	0	6	78
19:00	1	4	21	4	19	2	0	0	0	0	0	0	0	3	54
20:00	2	2	18	0	6	1	0	0	1	0	0	0	0	2	32
21:00	0	10	18	2	1	0	0	0	0	0	0	0	0	1	32
22:00	0	16	18	0	4	0	0	0	1	0	0	0	0	3	42
23:00	0	6	7	0	4	0	0	0	1	0	0	0	0	0	18
Total	60	502	1129	100	653	61	0	24	72	2	0	0	0	142	2745
Percent	2.2%	18.3%	41.1%	3.6%	23.8%	2.2%	0.0%	0.9%	2.6%	0.1%	0.0%	0.0%	0.0%	5.2%	
AM Peak	10:00	06:00	06:00	11:00	05:00	06:00		11:00	11:00	08:00				08:00	
Vol.	6	77	154	11	110	7		5	11	1				16	
PM Peak	13:00	17:00	12:00	13:00	12:00	16:00		13:00	12:00					14:00	
Vol.	9	59	84	10	54	7		3	9					16	

Accurate Counts  
978-664-2565

Location : Barnum Road South of  
Location : Rotary  
City/State: Harvard, MA  
Counter : 14014  
Southbound

8652501BCL  
Site Code: 8652501B

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	Not Classed	Total
04/09/08	0	2	0	1	7	1	0	0	0	0	0	0	0	3	14
01:00	0	0	1	1	6	0	0	0	0	0	0	0	0	4	12
02:00	0	7	0	1	8	1	0	0	0	0	0	0	0	2	19
03:00	0	3	2	1	9	0	0	0	0	0	0	0	0	4	19
04:00	1	6	8	2	11	0	0	0	0	0	0	0	0	2	30
05:00	1	10	16	25	90	4	0	0	0	0	0	0	0	5	151
06:00	1	7	14	31	263	0	0	0	0	0	0	0	0	20	336
07:00	3	10	10	39	203	5	1	0	0	0	0	0	0	25	296
08:00	1	4	36	19	155	2	0	0	0	0	0	0	0	20	237
09:00	3	5	21	27	104	1	0	1	1	0	0	0	0	17	180
10:00	5	6	31	19	62	3	0	0	1	0	0	0	0	20	147
11:00	6	8	59	12	45	4	1	2	3	0	0	0	0	22	162
12 PM	10	9	115	14	78	6	2	2	4	0	0	0	0	19	259
13:00	7	8	66	16	83	2	0	2	4	0	0	0	0	20	208
14:00	3	22	84	8	57	5	0	2	5	0	0	0	0	9	195
15:00	6	6	57	10	43	3	0	1	1	1	0	0	0	13	141
16:00	5	11	59	7	49	2	1	0	2	0	0	0	0	8	144
17:00	3	13	75	4	27	3	0	1	0	0	0	0	0	14	140
18:00	3	3	44	3	30	0	0	0	0	0	0	0	0	3	86
19:00	0	4	31	2	20	0	0	0	0	0	0	0	0	5	62
20:00	0	1	17	1	16	2	0	0	0	0	0	0	0	9	46
21:00	0	1	14	1	13	0	0	0	0	0	0	0	0	2	31
22:00	0	2	24	1	20	1	0	0	0	0	0	0	0	1	49
23:00	0	0	10	0	3	0	0	0	0	0	0	0	0	7	20
Total	58	148	794	245	1402	45	5	11	21	1	0	0	0	254	2984
Percent	1.9%	5.0%	26.6%	8.2%	47.0%	1.5%	0.2%	0.4%	0.7%	0.0%	0.0%	0.0%	0.0%	8.5%	
AM Peak	11:00	05:00	11:00	07:00	06:00	07:00	07:00	11:00	11:00					07:00	
Vol.	6	10	59	39	263	5	1	2	3					25	
PM Peak	12:00	14:00	12:00	13:00	13:00	12:00	12:00	12:00	14:00	15:00				13:00	
Vol.	10	22	115	16	83	6	2	2	5	1				20	
Grand Total	118	650	1923	345	2055	106	5	35	93	3	0	0	0	396	5729
Percent	2.1%	11.3%	33.6%	6.0%	35.9%	1.9%	0.1%	0.6%	1.6%	0.1%	0.0%	0.0%	0.0%	6.9%	

Accurate Counts  
978-664-2565

Location : Barnum Road South of  
 Location : Rotary  
 City/State: Harvard, MA  
 Counter : 14014  
 Northbound

8652501BCL  
 Site Code: 8652501B

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	Not Classed	Total
04/08/08	1	6	5	0	3	0	0	0	1	0	0	0	0	0	16
01:00	0	3	3	0	7	1	0	0	1	0	0	0	0	1	16
02:00	1	3	9	0	2	0	0	0	0	0	0	0	0	0	15
03:00	0	2	9	0	4	0	0	0	1	0	0	0	0	1	17
04:00	0	1	4	1	7	1	0	1	1	0	0	0	0	5	21
05:00	2	3	22	3	7	1	0	0	4	0	0	0	0	7	49
06:00	2	44	16	3	3	2	0	1	9	0	0	0	0	1	81
07:00	0	57	17	0	7	1	0	3	9	0	0	0	0	7	101
08:00	1	90	31	5	6	2	0	2	14	0	0	0	0	3	154
09:00	2	43	31	3	10	3	0	6	7	0	0	0	0	3	108
10:00	3	37	22	4	11	2	0	5	11	0	0	0	0	8	103
11:00	4	89	39	5	24	11	1	5	13	0	0	0	1	9	201
12 PM	3	104	51	4	18	4	0	1	15	0	0	0	0	5	205
13:00	3	67	37	6	14	12	0	4	17	0	0	0	0	9	169
14:00	2	127	45	5	8	1	0	5	12	0	0	0	0	6	211
15:00	1	218	58	2	8	6	0	5	11	1	0	0	0	8	318
16:00	6	171	48	3	9	6	0	3	8	0	0	0	0	5	259
17:00	1	167	38	0	7	3	0	1	6	0	0	0	0	4	227
18:00	1	93	18	0	5	3	0	0	5	0	0	0	0	1	126
19:00	0	72	18	1	1	2	0	1	1	0	0	0	0	1	97
20:00	0	33	4	0	2	0	0	1	3	0	0	0	0	0	43
21:00	0	24	0	0	0	1	0	1	2	0	0	0	0	0	28
22:00	1	29	0	0	0	1	0	0	1	0	0	0	0	3	35
23:00	0	57	12	0	0	0	0	0	0	0	0	0	0	1	70
Total	34	1540	537	45	163	63	1	45	152	1	0	0	1	88	2670
Percent	1.3%	57.7%	20.1%	1.7%	6.1%	2.4%	0.0%	1.7%	5.7%	0.0%	0.0%	0.0%	0.0%	3.3%	
AM Peak	11:00	08:00	11:00	08:00	11:00	11:00	11:00	09:00	08:00				11:00	11:00	
Vol.	4	90	39	5	24	11	1	6	14				1	9	
PM Peak	16:00	15:00	15:00	13:00	12:00	13:00		14:00	13:00	15:00				13:00	
Vol.	6	218	58	6	18	12		5	17	1				9	

Accurate Counts  
978-664-2565

Location : Barnum Road South of  
Location : Rotary  
City/State: Harvard, MA  
Counter : 14014  
Northbound

8652501BCL  
Site Code: 8652501B

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	Not Classed	Total
04/09/08	0	5	2	0	1	1	0	0	1	0	0	0	0	0	10
01:00	0	7	1	1	4	0	0	0	0	0	0	0	0	2	15
02:00	0	9	0	1	2	0	0	0	1	0	0	0	0	0	13
03:00	0	16	2	0	0	1	0	0	2	0	0	0	0	0	21
04:00	1	12	2	0	2	1	0	0	5	0	0	0	0	2	25
05:00	2	6	11	1	5	1	0	0	5	0	0	0	0	6	37
06:00	2	14	33	4	27	1	0	0	1	1	0	0	0	9	92
07:00	4	15	51	12	28	1	0	1	2	0	0	0	0	14	128
08:00	2	17	53	12	30	4	0	1	9	0	0	0	0	16	144
09:00	3	13	33	8	30	1	0	2	12	0	0	0	0	14	116
10:00	5	7	36	17	39	2	0	0	9	0	0	0	0	17	132
11:00	2	24	84	8	40	3	1	5	6	2	0	0	0	8	183
12 PM	5	42	117	12	53	4	0	4	8	0	0	0	0	14	259
13:00	3	22	71	10	37	3	0	3	9	2	0	0	0	11	171
14:00	2	41	92	8	65	4	0	3	14	0	0	0	0	10	239
15:00	3	49	167	15	63	0	0	4	5	0	0	0	0	9	315
16:00	4	53	151	9	63	4	0	2	7	0	0	0	0	9	302
17:00	1	36	157	4	35	2	0	0	1	0	0	0	0	8	244
18:00	1	19	70	1	25	3	0	0	3	0	0	0	0	2	124
19:00	3	11	47	4	16	2	0	0	0	0	0	0	0	1	84
20:00	1	10	33	0	6	2	0	0	0	0	0	0	0	0	52
21:00	1	5	17	1	1	1	0	0	1	0	0	0	0	1	28
22:00	1	7	29	1	5	0	0	0	0	0	0	0	0	0	43
23:00	0	14	47	1	10	2	0	0	0	0	0	0	0	5	79
Total	46	454	1306	130	587	43	1	25	101	5	0	0	0	158	2856
Percent	1.6%	15.9%	45.7%	4.6%	20.6%	1.5%	0.0%	0.9%	3.5%	0.2%	0.0%	0.0%	0.0%	5.5%	
AM Peak	10:00	11:00	11:00	10:00	11:00	08:00	11:00	11:00	09:00	11:00				10:00	
Vol.	5	24	84	17	40	4	1	5	12	2				17	
PM Peak	12:00	16:00	15:00	15:00	14:00	12:00		12:00	14:00	13:00				12:00	
Vol.	5	53	167	15	65	4		4	14	2				14	
Grand Total	80	1994	1843	175	750	106	2	70	253	6	0	0	1	246	5526
Percent	1.4%	36.1%	33.4%	3.2%	13.6%	1.9%	0.0%	1.3%	4.6%	0.1%	0.0%	0.0%	0.0%	4.5%	



Accurate Counts  
978-664-2565

Location : Barnum Road South of  
Location : Rotary  
City/State: Harvard, MA  
Counter : 14014  
Southbound, Northbound

8652501BCL  
Site Code: 8652501B

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	Not Classed	Total
04/08/08	1	7	8	0	6	0	0	0	1	0	0	0	0	0	23
01:00	1	4	7	0	10	3	0	0	1	0	0	0	0	2	28
02:00	1	3	17	0	9	0	0	0	0	0	0	0	0	0	30
03:00	0	3	13	0	9	1	0	0	1	0	0	0	0	1	28
04:00	0	3	11	2	22	1	0	1	1	0	0	0	0	11	52
05:00	2	7	47	11	117	3	0	0	4	0	0	0	0	10	201
06:00	6	121	170	7	83	9	0	4	12	0	0	0	0	7	419
07:00	5	101	145	8	44	6	0	6	15	0	0	0	0	13	343
08:00	2	128	165	14	42	3	0	4	20	1	0	0	0	19	398
09:00	5	60	88	8	54	7	0	7	11	0	0	0	0	10	250
10:00	9	50	62	13	50	7	0	5	18	1	0	0	0	20	235
11:00	9	107	85	16	54	15	1	10	24	0	0	0	1	18	340
12 PM	8	143	135	12	72	9	0	1	24	0	0	0	0	19	423
13:00	12	97	107	16	58	16	0	7	25	0	0	0	0	24	362
14:00	5	174	108	14	40	5	0	8	18	0	0	0	0	22	394
15:00	3	253	103	6	29	9	0	7	15	1	0	0	0	16	442
16:00	12	196	119	7	39	13	0	4	10	0	0	0	0	12	412
17:00	6	226	100	3	22	7	0	2	9	0	0	0	0	5	380
18:00	3	106	60	1	19	3	0	0	5	0	0	0	0	7	204
19:00	1	76	39	5	20	4	0	1	1	0	0	0	0	4	151
20:00	2	35	22	0	8	1	0	1	4	0	0	0	0	2	75
21:00	0	34	18	2	1	1	0	1	2	0	0	0	0	1	60
22:00	1	45	18	0	4	1	0	0	2	0	0	0	0	6	77
23:00	0	63	19	0	4	0	0	0	1	0	0	0	0	1	88
Total	94	2042	1666	145	816	124	1	69	224	3	0	0	1	230	5415
Percent	1.7%	37.7%	30.8%	2.7%	15.1%	2.3%	0.0%	1.3%	4.1%	0.1%	0.0%	0.0%	0.0%	4.2%	
AM Peak	10:00	08:00	06:00	11:00	05:00	11:00	11:00	11:00	11:00	08:00			11:00	10:00	
Vol.	9	128	170	16	117	15	1	10	24	1			1	20	
PM Peak	13:00	15:00	12:00	13:00	12:00	13:00		14:00	13:00	15:00				13:00	
Vol.	12	253	135	16	72	16		8	25	1				24	

Accurate Counts  
978-664-2565

Location : Barnum Road South of  
Location : Rotary  
City/State: Harvard, MA  
Counter : 14014  
Southbound, Northbound

8652501BCL  
Site Code: 8652501B

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	Not Classed	Total
04/09/08	0	7	2	1	8	2	0	0	1	0	0	0	0	3	24
01:00	0	7	2	2	10	0	0	0	0	0	0	0	0	6	27
02:00	0	16	0	2	10	1	0	0	1	0	0	0	0	2	32
03:00	0	19	4	1	9	1	0	0	2	0	0	0	0	4	40
04:00	2	18	10	2	13	1	0	0	5	0	0	0	0	4	55
05:00	3	16	27	26	95	5	0	0	5	0	0	0	0	11	188
06:00	3	21	47	35	290	1	0	0	1	1	0	0	0	29	428
07:00	7	25	61	51	231	6	1	1	2	0	0	0	0	39	424
08:00	3	21	89	31	185	6	0	1	9	0	0	0	0	36	381
09:00	6	18	54	35	134	2	0	3	13	0	0	0	0	31	296
10:00	10	13	67	36	101	5	0	0	10	0	0	0	0	37	279
11:00	8	32	143	20	85	7	2	7	9	2	0	0	0	30	345
12 PM	15	51	232	26	131	10	2	6	12	0	0	0	0	33	518
13:00	10	30	137	26	120	5	0	5	13	2	0	0	0	31	379
14:00	5	63	176	16	122	9	0	5	19	0	0	0	0	19	434
15:00	9	55	224	25	106	3	0	5	6	1	0	0	0	22	456
16:00	9	64	210	16	112	6	1	2	9	0	0	0	0	17	446
17:00	4	49	232	8	62	5	0	1	1	0	0	0	0	22	384
18:00	4	22	114	4	55	3	0	0	3	0	0	0	0	5	210
19:00	3	15	78	6	36	2	0	0	0	0	0	0	0	6	146
20:00	1	11	50	1	22	4	0	0	0	0	0	0	0	9	98
21:00	1	6	31	2	14	1	0	0	1	0	0	0	0	3	59
22:00	1	9	53	2	25	1	0	0	0	0	0	0	0	1	92
23:00	0	14	57	1	13	2	0	0	0	0	0	0	0	12	99
Total	104	602	2100	375	1989	88	6	36	122	6	0	0	0	412	5840
Percent	1.8%	10.3%	36.0%	6.4%	34.1%	1.5%	0.1%	0.6%	2.1%	0.1%	0.0%	0.0%	0.0%	7.1%	
AM Peak	10:00	11:00	11:00	07:00	06:00	11:00	11:00	11:00	09:00	11:00				07:00	
Vol.	10	32	143	51	290	7	2	7	13	2				39	
PM Peak	12:00	16:00	12:00	12:00	12:00	12:00	12:00	12:00	14:00	13:00				12:00	
Vol.	15	64	232	26	131	10	2	6	19	2				33	
Grand Total	198	2644	3766	520	2805	212	7	105	346	9	0	0	1	642	11255
Percent	1.8%	23.5%	33.5%	4.6%	24.9%	1.9%	0.1%	0.9%	3.1%	0.1%	0.0%	0.0%	0.0%	5.7%	

Accurate Counts  
978-664-2565

Location : Sherman Avenue South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 16192  
Southbound

8652502BCL  
Site Code: 8652502B

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
04/08/08	0	15	1	0	0	0	0	1	0	0	0	0	0	17
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	1	8	1	0	0	0	0	0	0	0	0	0	0	10
03:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
04:00	0	18	3	0	0	0	0	0	0	0	0	0	0	21
05:00	1	35	6	0	0	1	0	0	0	0	0	0	0	43
06:00	1	103	26	1	4	0	0	3	0	0	0	0	0	138
07:00	1	195	38	4	3	1	0	2	0	1	0	0	0	245
08:00	1	<b>214</b>	<b>44</b>	1	<b>6</b>	1	0	1	<b>2</b>	0	0	0	0	<b>270</b>
09:00	1	82	39	2	5	0	0	0	1	0	0	0	0	130
10:00	1	80	26	0	4	2	0	1	1	0	0	0	0	115
11:00	<b>2</b>	94	27	0	5	<b>3</b>	0	2	0	0	0	0	0	133
12 PM	<b>2</b>	144	<b>40</b>	1	4	1	0	<b>2</b>	0	0	0	0	0	194
13:00	1	96	28	0	4	<b>2</b>	0	0	<b>1</b>	0	0	0	0	132
14:00	0	100	21	<b>2</b>	3	1	0	0	0	0	0	0	0	127
15:00	0	145	27	2	<b>6</b>	0	0	1	0	0	0	0	0	181
16:00	0	159	28	0	2	2	0	2	0	0	0	0	0	193
17:00	0	<b>187</b>	27	0	1	0	0	2	0	0	0	0	0	<b>217</b>
18:00	1	108	18	0	2	0	0	0	0	0	0	0	0	129
19:00	0	74	13	0	0	0	0	0	0	0	0	0	0	87
20:00	0	50	10	0	0	0	0	0	0	0	0	0	0	60
21:00	0	33	2	0	1	0	0	0	0	0	0	0	0	36
22:00	0	38	8	0	0	0	0	0	0	0	0	0	0	46
23:00	0	17	2	0	0	0	0	0	0	0	0	0	0	19
Day Total	13	2003	436	13	50	14	0	17	5	1	0	0	0	2552
Percent	0.5%	78.5%	17.1%	0.5%	2.0%	0.5%	0.0%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	08:00	07:00	08:00	11:00		06:00	08:00	07:00				08:00
Vol.	2	214	44	4	6	3		3	2	1				270
PM Peak	12:00	17:00	12:00	14:00	15:00	13:00		12:00	13:00					17:00
Vol.	2	187	40	2	6	2		2	1					217

Accurate Counts  
978-664-2565

Location : Sherman Avenue South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 16192  
Southbound

8652502BCL  
Site Code: 8652502B

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
04/09/08	0	9	0	0	0	0	0	0	0	0	0	0	0	9
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
03:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
04:00	0	10	4	0	0	0	0	0	0	0	0	0	0	14
05:00	0	33	12	0	0	0	0	0	0	0	0	0	0	45
06:00	0	116	33	1	3	1	0	0	0	0	0	0	0	154
07:00	2	204	31	1	5	0	0	0	1	0	0	0	0	244
08:00	2	169	31	1	2	1	0	3	0	0	0	0	0	209
09:00	0	84	23	0	3	1	0	0	0	0	0	0	0	111
10:00	2	89	24	2	4	0	0	1	0	0	0	0	0	122
11:00	0	95	32	1	3	1	0	0	1	0	0	0	0	133
12 PM	2	157	35	0	1	1	0	1	0	0	0	0	0	197
13:00	2	122	28	0	3	0	0	0	0	0	0	0	0	155
14:00	1	122	23	2	5	1	0	2	0	0	0	0	0	156
15:00	0	128	18	2	3	3	0	1	0	0	0	0	0	155
16:00	0	139	30	0	6	0	0	2	0	0	0	0	0	177
17:00	1	159	30	0	0	0	0	0	0	0	0	0	0	190
18:00	0	133	17	0	2	0	0	0	0	0	0	0	0	152
19:00	0	75	13	0	1	0	0	0	0	0	0	0	0	89
20:00	0	62	6	0	2	0	0	0	0	0	0	0	0	70
21:00	0	43	6	0	0	0	0	0	0	0	0	0	0	49
22:00	0	39	7	0	0	0	0	0	0	0	0	0	0	46
23:00	0	17	2	0	0	0	0	0	0	0	0	0	0	19
Day Total	12	2022	405	10	43	9	0	10	2	0	0	0	0	2513
Percent	0.5%	80.5%	16.1%	0.4%	1.7%	0.4%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	06:00	10:00	07:00	06:00		08:00	07:00					07:00
Vol.	2	204	33	2	5	1		3	1					244
PM Peak	12:00	17:00	12:00	14:00	16:00	15:00		14:00						12:00
Vol.	2	159	35	2	6	3		2						197
Grand Total	25	4025	841	23	93	23	0	27	7	1	0	0	0	5065
Percent	0.5%	79.5%	16.6%	0.5%	1.8%	0.5%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	

Accurate Counts  
978-664-2565

Location : Macarthur Avenue South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 11660  
Northbound

86525A2BCL  
Site Code: 86525A2B

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	Not Classed	Total
04/08/08	0	18	4	0	0	0	0	0	0	0	0	0	0	0	22
01:00	0	6	0	0	0	0	0	1	0	0	0	0	0	0	7
02:00	0	7	4	0	0	0	0	0	0	0	0	0	0	0	11
03:00	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	3	7	0	0	0	0	0	0	0	0	0	0	7	17
05:00	0	16	8	0	1	0	0	0	1	0	0	0	0	1	27
06:00	0	68	19	0	3	2	0	0	0	0	0	0	0	1	93
07:00	0	125	28	3	3	1	0	0	0	0	0	0	0	1	161
08:00	0	143	44	2	7	1	0	0	1	0	0	0	0	1	199
09:00	0	83	34	1	3	2	0	3	0	1	0	0	0	2	129
10:00	1	58	29	1	7	2	0	2	0	0	0	0	0	1	101
11:00	1	109	48	1	7	0	0	2	1	0	0	0	0	0	169
12 PM	2	158	40	0	4	1	0	4	1	0	0	0	0	1	211
13:00	0	84	27	0	6	2	0	1	0	0	0	0	0	2	122
14:00	3	114	34	3	4	0	0	4	0	0	0	0	1	1	164
15:00	3	197	62	1	8	1	0	3	0	0	0	0	0	5	280
16:00	5	198	52	0	7	0	0	2	0	0	0	0	0	3	267
17:00	5	229	50	0	9	0	0	3	1	0	0	0	0	4	301
18:00	0	118	27	0	6	1	0	2	0	0	0	0	0	4	158
19:00	0	79	21	0	0	0	0	0	0	0	0	0	0	1	101
20:00	1	77	17	0	0	0	0	0	0	0	0	0	0	0	95
21:00	1	39	15	0	1	0	0	1	0	0	0	0	0	1	58
22:00	2	31	13	0	1	0	0	0	0	0	0	0	0	1	48
23:00	0	24	7	0	1	0	0	0	0	0	0	0	0	0	32
Total	24	1987	592	12	78	13	0	28	5	1	0	0	1	37	2778
Percent	0.9%	71.5%	21.3%	0.4%	2.8%	0.5%	0.0%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	1.3%	
AM Peak	10:00	08:00	11:00	07:00	08:00	06:00		09:00	05:00	09:00				04:00	
Vol.	1	143	48	3	7	2		3	1	1				7	
PM Peak	16:00	17:00	15:00	14:00	17:00	13:00		12:00	12:00				14:00	15:00	
Vol.	5	229	62	3	9	2		4	1				1	5	

Accurate Counts  
978-664-2565

Location : Macarthur Avenue South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 11660  
Northbound

86525A2BCL  
Site Code: 86525A2B

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	Not Classed	Total
04/09/08	0	12	11	0	0	0	0	0	0	0	0	0	0	1	24
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	5	2	0	0	0	0	0	0	0	0	0	0	0	7
03:00	0	2	3	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	4	5	0	0	0	0	0	0	0	0	0	0	5	14
05:00	0	17	8	0	1	0	0	1	0	0	0	0	0	2	29
06:00	0	76	38	0	3	2	0	0	1	0	0	0	0	0	120
07:00	0	117	27	2	2	0	0	2	0	0	0	0	0	2	152
08:00	1	100	28	1	4	1	0	0	0	0	1	0	0	1	137
09:00	0	58	32	0	6	0	0	1	0	0	0	0	0	2	99
10:00	0	71	20	0	6	0	0	0	0	0	0	0	0	4	101
11:00	0	120	48	2	4	1	0	0	1	0	0	0	0	1	177
12 PM	0	169	35	0	8	0	0	2	0	0	0	0	0	3	217
13:00	4	113	27	2	5	0	0	1	0	0	0	0	0	4	156
14:00	3	126	43	2	8	0	0	2	0	0	0	0	0	2	186
15:00	6	152	41	3	9	0	0	3	0	0	0	0	0	3	217
16:00	3	204	53	0	6	0	0	3	0	0	0	0	0	2	271
17:00	7	239	54	0	6	1	0	3	0	0	0	1	0	4	315
18:00	3	143	30	0	4	0	0	1	0	0	0	0	0	2	183
19:00	0	110	21	0	3	0	0	0	0	0	0	0	0	2	136
20:00	1	78	20	0	2	1	0	0	0	0	0	0	0	0	102
21:00	1	56	16	0	0	1	0	1	0	0	0	0	0	0	75
22:00	0	39	11	0	4	1	0	1	0	0	0	0	0	0	56
23:00	0	28	8	0	1	0	0	0	0	0	0	0	0	0	37
Total	29	2041	581	12	82	8	0	21	2	0	1	1	0	40	2818
Percent	1.0%	72.4%	20.6%	0.4%	2.9%	0.3%	0.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	1.4%	
AM Peak	08:00	11:00	11:00	07:00	09:00	06:00		07:00	06:00		08:00			04:00	
Vol.	1	120	48	2	6	2		2	1		1			5	
PM Peak	17:00	17:00	17:00	15:00	15:00	17:00		15:00				17:00		13:00	
Vol.	7	239	54	3	9	1		3				1		4	
Grand Total	53	4028	1173	24	160	21	0	49	7	1	1	1	1	77	5596
Percent	0.9%	72.0%	21.0%	0.4%	2.9%	0.4%	0.0%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	1.4%	

Accurate Counts  
978-664-2565

Location : Jackson Road North of  
Location : Route 2 Ramps  
City/State: Harvard, MA  
Counter : 13569  
Northbound

8652503BCL  
Site Code: 8652503B

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
04/08/08	0	5	9	0	4	0	0	0	1	0	0	0	0	19
01:00	0	5	3	0	0	0	0	0	1	0	0	0	0	9
02:00	1	3	3	1	0	0	0	0	0	0	0	0	0	8
03:00	1	4	2	0	1	1	0	1	0	0	0	0	0	10
04:00	1	20	25	0	6	1	0	0	0	0	0	0	0	53
05:00	0	14	160	2	76	1	0	4	0	0	0	0	0	257
06:00	<b>5</b>	<b>38</b>	<b>360</b>	<b>27</b>	<b>414</b>	<b>3</b>	<b>1</b>	<b>17</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>867</b>
07:00	4	<b>59</b>	298	27	397	2	<b>2</b>	15	2	<b>1</b>	0	0	0	807
08:00	3	54	256	18	264	2	0	6	2	0	0	0	<b>1</b>	606
09:00	4	32	107	15	142	<b>6</b>	0	5	1	0	0	0	0	312
10:00	3	21	70	15	121	4	1	4	1	1	0	0	0	241
11:00	2	25	62	21	95	2	2	4	1	1	0	0	0	215
12 PM	<b>6</b>	30	88	<b>20</b>	136	0	<b>1</b>	0	<b>2</b>	<b>1</b>	0	0	0	284
13:00	1	32	75	12	123	<b>3</b>	1	<b>4</b>	1	0	0	0	0	252
14:00	1	41	<b>113</b>	15	<b>152</b>	3	0	4	2	0	0	0	0	<b>331</b>
15:00	1	49	91	15	138	1	0	2	2	0	0	0	0	299
16:00	1	33	90	6	135	1	0	1	1	0	0	0	0	268
17:00	1	<b>59</b>	97	11	137	1	0	1	2	0	0	0	0	309
18:00	1	37	48	3	111	1	0	2	1	0	0	0	0	204
19:00	1	19	26	4	68	0	0	0	1	0	0	0	0	119
20:00	0	17	47	1	65	0	0	1	1	0	0	0	0	132
21:00	3	15	16	7	53	0	0	0	1	0	0	0	0	95
22:00	1	8	21	1	60	0	0	0	0	0	0	0	0	91
23:00	0	6	8	4	46	0	0	0	0	0	0	0	0	64
Day Total	41	626	2075	225	2744	32	8	71	25	4	0	0	1	5852
Percent	0.7%	10.7%	35.5%	3.8%	46.9%	0.5%	0.1%	1.2%	0.4%	0.1%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	06:00	06:00	06:00	09:00	07:00	06:00	06:00	07:00			08:00	06:00
Vol.	5	59	360	27	414	6	2	17	2	1			1	867
PM Peak	12:00	17:00	14:00	12:00	14:00	13:00	12:00	13:00	12:00	12:00				14:00
Vol.	6	59	113	20	152	3	1	4	2	1				331

Accurate Counts  
978-664-2565

Location : Jackson Road North of  
Location : Route 2 Ramps  
City/State: Harvard, MA  
Counter : 13569  
Northbound

8652503BCL  
Site Code: 8652503B

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
04/09/08	0	3	2	3	9	0	0	0	0	0	0	0	0	17
01:00	0	1	1	0	6	0	0	0	0	0	0	0	0	8
02:00	1	1	1	2	8	0	0	0	0	0	0	0	0	13
03:00	1	3	2	3	7	0	0	0	0	0	0	0	0	16
04:00	0	25	18	3	12	1	0	1	1	0	0	0	0	61
05:00	3	96	113	0	48	1	0	3	2	0	0	0	0	266
06:00	2	234	<b>346</b>	4	<b>186</b>	1	0	29	4	<b>3</b>	0	0	0	809
07:00	<b>10</b>	<b>347</b>	343	12	94	<b>6</b>	0	<b>32</b>	5	0	0	0	0	<b>849</b>
08:00	2	269	242	13	49	2	1	20	8	2	<b>1</b>	<b>1</b>	0	610
09:00	0	101	111	0	41	0	2	6	<b>13</b>	2	0	0	0	276
10:00	2	80	90	<b>14</b>	30	1	<b>3</b>	7	12	1	0	0	<b>1</b>	241
11:00	0	96	59	7	36	4	0	5	7	0	0	0	0	214
12 PM	0	100	83	4	36	1	<b>1</b>	2	12	0	0	0	0	239
13:00	2	121	97	<b>8</b>	37	1	1	3	<b>15</b>	<b>1</b>	0	0	0	286
14:00	<b>4</b>	125	105	4	<b>38</b>	0	1	6	11	1	0	0	0	295
15:00	1	118	109	1	27	1	0	5	8	0	0	0	0	270
16:00	3	157	87	1	26	0	0	2	3	0	0	<b>1</b>	0	280
17:00	1	<b>253</b>	<b>160</b>	2	33	0	1	<b>12</b>	2	0	0	0	0	<b>464</b>
18:00	1	117	68	0	10	<b>2</b>	0	2	6	0	0	0	0	206
19:00	1	68	51	0	6	0	0	1	1	0	0	0	0	128
20:00	0	74	51	0	12	0	0	1	2	0	0	0	0	140
21:00	0	54	50	0	5	1	0	1	3	0	0	0	0	114
22:00	0	60	27	0	4	1	0	1	5	0	0	0	0	98
23:00	1	30	26	0	5	1	0	0	1	0	0	0	0	64
Day Total	35	2533	2242	81	765	24	10	139	121	10	1	2	1	5964
Percent	0.6%	42.5%	37.6%	1.4%	12.8%	0.4%	0.2%	2.3%	2.0%	0.2%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	06:00	10:00	06:00	07:00	10:00	07:00	09:00	06:00	08:00	08:00	10:00	07:00
Vol.	10	347	346	14	186	6	3	32	13	3	1	1	1	849
PM Peak	14:00	17:00	17:00	13:00	14:00	18:00	12:00	17:00	13:00	13:00		16:00		17:00
Vol.	4	253	160	8	38	2	1	12	15	1		1		464
Grand Total	76	3159	4317	306	3509	56	18	210	146	14	1	2	2	11816
Percent	0.6%	26.7%	36.5%	2.6%	29.7%	0.5%	0.2%	1.8%	1.2%	0.1%	0.0%	0.0%	0.0%	



Accurate Counts  
978-664-2565

Location : Jackson Road North of  
Location : Route 2 Ramps  
City/State: Harvard, MA  
Counter : 13569  
Southbound

8652503BCL  
Site Code: 8652503B

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
04/08/08	0	28	8	0	0	0	0	0	1	0	0	0	0	37
01:00	0	8	1	1	0	0	0	0	3	0	0	0	0	13
02:00	0	11	3	0	1	1	0	0	2	0	0	0	0	18
03:00	0	8	0	0	0	0	0	0	1	0	0	0	0	9
04:00	0	10	1	0	0	0	0	1	3	0	0	0	0	15
05:00	1	38	8	0	2	1	0	1	5	0	0	0	0	56
06:00	0	121	26	0	5	0	0	2	4	0	0	0	0	158
07:00	0	199	48	1	10	3	0	1	15	1	0	0	0	278
08:00	0	<b>204</b>	<b>68</b>	2	10	3	<b>1</b>	1	14	0	0	0	0	<b>303</b>
09:00	0	99	54	<b>7</b>	<b>18</b>	2	1	<b>3</b>	7	1	0	0	0	192
10:00	0	117	55	4	12	<b>5</b>	0	1	13	<b>4</b>	0	0	0	211
11:00	<b>2</b>	132	60	5	9	2	0	1	12	0	0	0	0	223
12 PM	1	177	49	6	13	<b>8</b>	0	1	<b>18</b>	1	0	0	0	274
13:00	2	112	50	<b>7</b>	10	7	<b>2</b>	0	9	0	0	0	0	199
14:00	3	277	98	3	21	6	0	4	5	0	0	0	0	417
15:00	1	542	<b>203</b>	2	<b>37</b>	5	0	5	6	<b>2</b>	0	0	<b>1</b>	<b>804</b>
16:00	3	<b>582</b>	154	0	11	1	0	<b>6</b>	5	2	0	0	0	764
17:00	<b>6</b>	547	132	0	20	0	0	1	3	0	0	0	0	709
18:00	1	223	43	0	4	2	0	0	4	0	0	0	0	277
19:00	0	141	27	0	3	1	0	2	3	0	0	0	0	177
20:00	3	71	13	1	1	0	1	0	2	0	0	0	0	92
21:00	1	62	14	1	2	0	0	1	2	0	0	0	0	83
22:00	0	40	7	0	2	0	0	0	4	0	0	0	0	53
23:00	2	88	19	0	1	0	0	0	0	0	0	0	0	110
Day Total	26	3837	1141	40	192	47	5	31	141	11	0	0	1	5472
Percent	0.5%	70.1%	20.9%	0.7%	3.5%	0.9%	0.1%	0.6%	2.6%	0.2%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	08:00	09:00	09:00	10:00	08:00	09:00	07:00	10:00				08:00
Vol.	2	204	68	7	18	5	1	3	15	4				303
PM Peak	17:00	16:00	15:00	13:00	15:00	12:00	13:00	16:00	12:00	15:00			15:00	15:00
Vol.	6	582	203	7	37	8	2	6	18	2			1	804

Accurate Counts  
978-664-2565

Location : Jackson Road North of  
Location : Route 2 Ramps  
City/State: Harvard, MA  
Counter : 13569  
Southbound

8652503BCL  
Site Code: 8652503B

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
04/09/08	1	25	3	0	0	0	0	0	1	0	0	0	0	30
01:00	0	5	2	1	0	0	0	0	3	0	0	0	0	11
02:00	1	12	0	0	1	0	0	0	0	0	0	0	0	14
03:00	0	12	5	0	2	0	0	0	3	0	0	0	0	22
04:00	0	8	1	0	1	0	0	2	2	0	0	0	0	14
05:00	1	38	16	0	1	0	0	1	2	0	0	0	0	59
06:00	0	115	38	2	4	2	1	1	6	0	0	0	1	170
07:00	1	<b>229</b>	39	5	11	3	0	<b>4</b>	<b>10</b>	0	0	0	0	<b>302</b>
08:00	0	208	53	4	<b>13</b>	3	0	3	9	0	0	0	0	293
09:00	1	106	46	4	8	<b>11</b>	1	1	5	1	0	0	2	186
10:00	<b>6</b>	117	48	5	10	5	1	0	10	1	0	0	0	203
11:00	1	133	<b>79</b>	<b>9</b>	12	5	<b>2</b>	4	6	<b>2</b>	0	0	<b>3</b>	256
12 PM	5	211	71	<b>5</b>	18	2	<b>1</b>	2	9	<b>1</b>	0	0	1	326
13:00	1	161	49	3	14	3	0	2	6	0	0	0	<b>2</b>	241
14:00	2	290	118	4	14	<b>4</b>	0	6	8	0	0	0	1	447
15:00	3	555	<b>218</b>	2	<b>27</b>	4	1	<b>9</b>	<b>15</b>	1	0	0	0	<b>835</b>
16:00	<b>6</b>	<b>600</b>	134	2	25	2	0	8	10	0	0	0	0	787
17:00	3	558	124	0	22	1	0	4	4	1	0	0	0	717
18:00	1	240	45	0	5	0	0	2	3	0	0	0	0	296
19:00	0	129	32	0	5	0	0	0	6	0	0	0	0	172
20:00	0	88	16	0	1	1	0	0	3	0	0	0	0	109
21:00	0	67	6	0	0	0	0	0	3	1	0	0	0	77
22:00	1	60	16	0	3	1	0	0	2	0	0	0	0	83
23:00	2	97	20	0	2	0	0	0	4	0	0	0	0	125
Day Total	36	4064	1179	46	199	47	7	49	130	8	0	0	10	5775
Percent	0.6%	70.4%	20.4%	0.8%	3.4%	0.8%	0.1%	0.8%	2.3%	0.1%	0.0%	0.0%	0.2%	
AM Peak	10:00	07:00	11:00	11:00	08:00	09:00	11:00	07:00	07:00	11:00			11:00	07:00
Vol.	6	229	79	9	13	11	2	4	10	2			3	302
PM Peak	16:00	16:00	15:00	12:00	15:00	14:00	12:00	15:00	15:00	12:00			13:00	15:00
Vol.	6	600	218	5	27	4	1	9	15	1			2	835
Grand Total	62	7901	2320	86	391	94	12	80	271	19	0	0	11	11247
Percent	0.6%	70.2%	20.6%	0.8%	3.5%	0.8%	0.1%	0.7%	2.4%	0.2%	0.0%	0.0%	0.1%	

Accurate Counts  
978-664-2565

Location : Jackson Road North of  
Location : Route 2 Ramps  
City/State: Harvard, MA  
Counter : 13569  
Northbound, Southbound

8652503BCL  
Site Code: 8652503B

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
04/08/08	0	33	17	0	4	0	0	0	2	0	0	0	0	56
01:00	0	13	4	1	0	0	0	0	4	0	0	0	0	22
02:00	1	14	6	1	1	1	0	0	2	0	0	0	0	26
03:00	1	12	2	0	1	1	0	1	1	0	0	0	0	19
04:00	1	30	26	0	6	1	0	1	3	0	0	0	0	68
05:00	1	52	168	2	78	2	0	5	5	0	0	0	0	313
06:00	<b>5</b>	<b>159</b>	<b>386</b>	<b>27</b>	<b>419</b>	<b>3</b>	<b>1</b>	<b>19</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1025</b>
07:00	<b>4</b>	<b>258</b>	<b>346</b>	<b>28</b>	<b>407</b>	<b>5</b>	<b>2</b>	<b>16</b>	<b>17</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1085</b>
08:00	3	258	324	20	274	5	1	7	16	0	0	0	<b>1</b>	909
09:00	4	131	161	22	160	8	1	8	8	1	0	0	0	504
10:00	3	138	125	19	133	<b>9</b>	1	5	14	<b>5</b>	0	0	0	452
11:00	4	157	122	26	104	4	2	5	13	1	0	0	0	438
12 PM	<b>7</b>	<b>207</b>	<b>137</b>	<b>26</b>	<b>149</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>20</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>558</b>
13:00	3	144	125	19	133	<b>10</b>	<b>3</b>	4	10	0	0	0	0	451
14:00	4	318	211	18	173	9	0	<b>8</b>	7	0	0	0	0	748
15:00	2	591	<b>294</b>	17	<b>175</b>	6	0	7	8	2	0	0	<b>1</b>	<b>1103</b>
16:00	4	<b>615</b>	244	6	146	2	0	7	6	2	0	0	0	1032
17:00	7	606	229	11	157	1	0	2	5	0	0	0	0	1018
18:00	2	260	91	3	115	3	0	2	5	0	0	0	0	481
19:00	1	160	53	4	71	1	0	2	4	0	0	0	0	296
20:00	3	88	60	2	66	0	1	1	3	0	0	0	0	224
21:00	4	77	30	8	55	0	0	1	3	0	0	0	0	178
22:00	1	48	28	1	62	0	0	0	4	0	0	0	0	144
23:00	2	94	27	4	47	0	0	0	0	0	0	0	0	174
Day Total	67	4463	3216	265	2936	79	13	102	166	15	0	0	2	11324
Percent	0.6%	39.4%	28.4%	2.3%	25.9%	0.7%	0.1%	0.9%	1.5%	0.1%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	06:00	07:00	06:00	10:00	07:00	06:00	07:00	10:00			08:00	07:00
Vol.	5	258	386	28	419	9	2	19	17	5			1	1085
PM Peak	12:00	16:00	15:00	12:00	15:00	13:00	13:00	14:00	12:00	12:00			15:00	15:00
Vol.	7	615	294	26	175	10	3	8	20	2			1	1103

Accurate Counts  
978-664-2565

Location : Jackson Road North of  
Location : Route 2 Ramps  
City/State: Harvard, MA  
Counter : 13569  
Northbound, Southbound

8652503BCL  
Site Code: 8652503B

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
04/09/08	1	28	5	3	9	0	0	0	1	0	0	0	0	47
01:00	0	6	3	1	6	0	0	0	3	0	0	0	0	19
02:00	2	13	1	2	9	0	0	0	0	0	0	0	0	27
03:00	1	15	7	3	9	0	0	0	3	0	0	0	0	38
04:00	0	33	19	3	13	1	0	3	3	0	0	0	0	75
05:00	4	134	129	0	49	1	0	4	4	0	0	0	0	325
06:00	2	349	<b>384</b>	6	<b>190</b>	3	1	30	10	<b>3</b>	0	0	1	979
07:00	<b>11</b>	<b>576</b>	382	17	105	9	0	<b>36</b>	15	0	0	0	0	<b>1151</b>
08:00	2	477	295	17	62	5	1	23	17	2	<b>1</b>	<b>1</b>	0	903
09:00	1	207	157	4	49	<b>11</b>	3	7	18	3	0	0	2	462
10:00	8	197	138	<b>19</b>	40	6	<b>4</b>	7	<b>22</b>	2	0	0	1	444
11:00	1	229	138	16	48	9	2	9	13	2	0	0	<b>3</b>	470
12 PM	5	311	154	9	54	3	<b>2</b>	4	21	<b>1</b>	0	0	1	565
13:00	3	282	146	<b>11</b>	51	4	1	5	21	1	0	0	<b>2</b>	527
14:00	6	415	223	8	52	4	1	12	19	1	0	0	1	742
15:00	4	673	<b>327</b>	3	54	<b>5</b>	1	14	<b>23</b>	1	0	0	0	1105
16:00	<b>9</b>	757	221	3	51	2	0	10	13	0	0	<b>1</b>	0	1067
17:00	4	<b>811</b>	284	2	<b>55</b>	1	1	<b>16</b>	6	1	0	0	0	<b>1181</b>
18:00	2	357	113	0	15	2	0	4	9	0	0	0	0	502
19:00	1	197	83	0	11	0	0	1	7	0	0	0	0	300
20:00	0	162	67	0	13	1	0	1	5	0	0	0	0	249
21:00	0	121	56	0	5	1	0	1	6	1	0	0	0	191
22:00	1	120	43	0	7	2	0	1	7	0	0	0	0	181
23:00	3	127	46	0	7	1	0	0	5	0	0	0	0	189
Day Total	71	6597	3421	127	964	71	17	188	251	18	1	2	11	11739
Percent	0.6%	56.2%	29.1%	1.1%	8.2%	0.6%	0.1%	1.6%	2.1%	0.2%	0.0%	0.0%	0.1%	
AM Peak	07:00	07:00	06:00	10:00	06:00	09:00	10:00	07:00	10:00	06:00	08:00	08:00	11:00	07:00
Vol.	11	576	384	19	190	11	4	36	22	3	1	1	3	1151
PM Peak	16:00	17:00	15:00	13:00	17:00	15:00	12:00	17:00	15:00	12:00		16:00	13:00	17:00
Vol.	9	811	327	11	55	5	2	16	23	1		1	2	1181
Grand Total	138	11060	6637	392	3900	150	30	290	417	33	1	2	13	23063
Percent	0.6%	48.0%	28.8%	1.7%	16.9%	0.7%	0.1%	1.3%	1.8%	0.1%	0.0%	0.0%	0.1%	

Accurate Counts  
978-664-2565

Location : Grant Road South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 16427  
Northbound

8652504BCL  
Site Code: 8652504B

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
04/08/08	0	2	1	0	0	0	0	0	0	0	0	0	0	3
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	1	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	4	1	0	2	0	0	0	0	0	0	0	0	7
05:00	0	8	5	0	1	0	0	0	0	0	0	0	0	14
06:00	0	23	12	0	1	0	0	0	0	0	0	0	0	36
07:00	0	<b>55</b>	12	0	2	0	0	<b>1</b>	0	0	0	0	0	70
08:00	<b>2</b>	48	<b>18</b>	0	<b>4</b>	0	0	0	0	0	0	0	0	<b>72</b>
09:00	0	29	15	<b>1</b>	1	<b>1</b>	0	0	0	0	0	0	0	47
10:00	0	11	12	0	2	0	0	0	0	0	0	0	0	25
11:00	0	33	13	1	3	1	0	0	0	0	0	0	0	51
12 PM	<b>1</b>	46	13	<b>1</b>	1	0	0	0	0	0	0	0	<b>1</b>	63
13:00	1	26	13	0	3	<b>2</b>	0	<b>1</b>	0	0	0	0	0	46
14:00	1	42	15	0	1	2	0	1	0	0	0	0	0	62
15:00	0	67	<b>30</b>	1	<b>5</b>	0	0	0	0	0	0	0	0	103
16:00	0	99	29	0	1	0	0	0	0	0	0	0	0	129
17:00	1	<b>110</b>	21	0	2	0	0	0	0	0	0	0	0	<b>134</b>
18:00	1	68	8	0	1	0	0	0	0	0	0	0	0	78
19:00	0	35	5	0	0	0	0	0	0	0	0	0	0	40
20:00	0	31	7	0	1	0	0	0	0	0	0	0	0	39
21:00	0	28	9	0	0	0	0	0	0	0	0	0	0	37
22:00	0	13	3	0	0	0	0	0	0	0	0	0	0	16
23:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
Day Total	7	787	243	4	31	6	0	3	0	0	0	0	1	1082
Percent	0.6%	72.7%	22.5%	0.4%	2.9%	0.6%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.1%	
AM Peak	08:00	07:00	08:00	09:00	08:00	09:00		07:00						08:00
Vol.	2	55	18	1	4	1		1						72
PM Peak	12:00	17:00	15:00	12:00	15:00	13:00		13:00					12:00	17:00
Vol.	1	110	30	1	5	2		1				1		134

Accurate Counts  
978-664-2565

Location : Grant Road South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 16427  
Northbound

8652504BCL  
Site Code: 8652504B

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
04/09/08	0	2	1	0	1	0	0	0	0	0	0	0	0	4
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
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	4	4	0	1	0	0	0	0	0	0	0	0	9
05:00	0	5	4	0	2	0	0	0	0	0	0	0	0	11
06:00	1	22	13	0	2	0	0	2	0	0	0	0	0	40
07:00	0	60	17	0	1	0	0	0	0	1	0	0	0	79
08:00	1	48	15	0	3	0	0	0	0	1	0	0	0	68
09:00	0	30	9	0	0	2	0	0	0	0	0	0	0	41
10:00	0	14	10	2	3	0	0	0	0	0	0	0	0	29
11:00	0	40	9	0	3	0	0	0	0	0	0	0	0	52
12 PM	1	32	7	0	0	0	0	0	0	0	0	0	0	40
13:00	0	31	11	0	3	1	0	0	1	0	0	0	0	47
14:00	0	42	16	0	4	3	0	0	1	0	0	0	0	66
15:00	0	61	23	0	3	2	0	0	0	0	0	0	0	89
16:00	2	80	26	0	4	0	0	0	0	0	0	0	0	112
17:00	2	190	43	0	7	0	0	3	0	0	0	0	0	245
18:00	0	66	14	0	1	0	0	0	0	0	0	0	0	81
19:00	0	35	6	0	0	0	0	0	0	0	0	0	0	41
20:00	0	30	7	0	1	0	0	0	0	0	0	0	0	38
21:00	0	38	4	0	1	0	0	0	0	0	0	0	0	43
22:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
23:00	0	9	4	0	0	0	0	0	0	0	0	0	0	13
Day Total	7	851	246	2	40	8	0	5	2	2	0	0	0	1163
Percent	0.6%	73.2%	21.2%	0.2%	3.4%	0.7%	0.0%	0.4%	0.2%	0.2%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	10:00	08:00	09:00		06:00		07:00				07:00
Vol.	1	60	17	2	3	2		2		1				79
PM Peak	16:00	17:00	17:00		17:00	14:00		17:00	13:00					17:00
Vol.	2	190	43		7	3		3	1					245
Grand Total	14	1638	489	6	71	14	0	8	2	2	0	0	1	2245
Percent	0.6%	73.0%	21.8%	0.3%	3.2%	0.6%	0.0%	0.4%	0.1%	0.1%	0.0%	0.0%	0.0%	

Accurate Counts  
978-664-2565

Location : Grant Road South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 16427  
Southbound

8652504BCL  
Site Code: 8652504B

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
04/08/08	0	2	0	0	0	0	0	0	0	0	0	0	0	2
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	3	0	0	1	0	0	0	0	0	0	0	0	4
05:00	0	19	12	0	5	0	0	0	0	0	0	0	0	36
06:00	0	58	33	0	3	0	0	1	0	0	0	0	0	95
07:00	0	<b>130</b>	33	0	5	<b>2</b>	0	0	0	0	0	0	0	<b>170</b>
08:00	<b>1</b>	101	<b>34</b>	0	3	2	0	0	<b>1</b>	0	0	0	0	142
09:00	1	34	21	<b>1</b>	<b>7</b>	1	0	0	0	0	0	0	0	65
10:00	0	24	13	0	6	2	0	0	1	0	0	0	0	46
11:00	0	42	18	1	5	0	0	0	0	0	0	0	0	66
12 PM	0	40	11	0	<b>7</b>	0	0	0	0	0	0	0	0	58
13:00	1	26	11	0	5	<b>1</b>	0	0	0	0	0	0	0	44
14:00	0	52	<b>19</b>	0	2	1	0	0	0	0	0	0	0	74
15:00	0	37	14	0	0	0	0	<b>1</b>	0	0	0	0	0	52
16:00	0	<b>60</b>	12	0	1	1	0	0	0	0	0	0	0	74
17:00	<b>2</b>	60	16	0	2	0	0	0	0	0	0	0	0	<b>80</b>
18:00	1	27	6	0	0	0	0	0	0	0	0	0	0	34
19:00	0	27	10	0	1	0	0	0	0	0	0	0	0	38
20:00	0	14	3	0	0	0	0	0	0	0	0	0	0	17
21:00	0	6	0	0	1	0	0	0	0	0	0	0	0	7
22:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
23:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
Day Total	6	772	269	2	54	10	0	2	2	0	0	0	0	1117
Percent	0.5%	69.1%	24.1%	0.2%	4.8%	0.9%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	09:00	09:00	07:00		06:00	08:00					07:00
Vol.	1	130	34	1	7	2		1	1					170
PM Peak	17:00	16:00	14:00		12:00	13:00		15:00						17:00
Vol.	2	60	19		7	1		1						80

Accurate Counts  
978-664-2565

Location : Grant Road South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 16427  
Southbound

8652504BCL  
Site Code: 8652504B

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
04/09/08	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	1	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	2	0	1	0	0	0	0	0	0	0	0	7
05:00	0	27	15	0	6	0	0	0	0	0	0	0	0	48
06:00	0	52	29	0	3	1	0	0	0	0	0	0	0	85
07:00	<b>1</b>	<b>140</b>	34	<b>1</b>	3	0	0	0	<b>1</b>	0	0	0	0	<b>180</b>
08:00	0	98	<b>38</b>	0	<b>9</b>	<b>2</b>	0	0	1	0	0	0	0	148
09:00	0	42	10	0	2	1	0	0	0	0	0	0	0	55
10:00	0	29	13	1	4	1	0	0	1	0	0	0	0	49
11:00	0	33	16	1	2	1	0	0	0	0	0	0	0	53
12 PM	0	37	17	<b>1</b>	2	1	0	<b>1</b>	0	0	0	0	0	59
13:00	1	32	14	0	<b>8</b>	1	0	0	0	0	0	0	0	56
14:00	<b>3</b>	40	16	0	3	2	0	0	0	0	0	0	0	64
15:00	0	40	<b>23</b>	0	4	<b>3</b>	0	0	0	0	0	0	0	70
16:00	0	<b>53</b>	16	0	3	0	0	0	0	0	0	0	0	<b>72</b>
17:00	1	53	12	0	0	2	0	0	0	0	0	0	0	68
18:00	0	29	5	0	0	0	0	0	0	0	0	0	0	34
19:00	0	14	4	0	2	0	0	0	0	0	0	0	0	20
20:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
21:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
22:00	0	4	1	0	1	0	0	0	0	0	0	0	0	6
23:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
Day Total	6	753	269	4	53	15	0	1	3	0	0	0	0	1104
Percent	0.5%	68.2%	24.4%	0.4%	4.8%	1.4%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	07:00	08:00	08:00			07:00					07:00
Vol.	1	140	38	1	9	2			1					180
PM Peak	14:00	16:00	15:00	12:00	13:00	15:00		12:00						16:00
Vol.	3	53	23	1	8	3		1						72
Grand Total	12	1525	538	6	107	25	0	3	5	0	0	0	0	2221
Percent	0.5%	68.7%	24.2%	0.3%	4.8%	1.1%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	



Accurate Counts  
978-664-2565

Location : Grant Road South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 16427  
Northbound, Southbound

8652504BCL  
Site Code: 8652504B

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
04/08/08	0	4	1	0	0	0	0	0	0	0	0	0	0	5
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	7	1	0	3	0	0	0	0	0	0	0	0	11
05:00	0	27	17	0	6	0	0	0	0	0	0	0	0	50
06:00	0	81	45	0	4	0	0	1	0	0	0	0	0	131
07:00	0	<b>185</b>	45	0	7	2	0	1	0	0	0	0	0	<b>240</b>
08:00	<b>3</b>	149	<b>52</b>	0	7	2	0	0	<b>1</b>	0	0	0	0	214
09:00	1	63	36	<b>2</b>	<b>8</b>	2	0	0	0	0	0	0	0	112
10:00	0	35	25	0	8	2	0	0	1	0	0	0	0	71
11:00	0	75	31	2	8	1	0	0	0	0	0	0	0	117
12 PM	1	86	24	<b>1</b>	<b>8</b>	0	0	0	0	0	0	0	<b>1</b>	121
13:00	2	52	24	0	8	<b>3</b>	0	<b>1</b>	0	0	0	0	0	90
14:00	1	94	34	0	3	3	0	1	0	0	0	0	0	136
15:00	0	104	<b>44</b>	1	5	0	0	1	0	0	0	0	0	155
16:00	0	159	41	0	2	1	0	0	0	0	0	0	0	203
17:00	<b>3</b>	<b>170</b>	37	0	4	0	0	0	0	0	0	0	0	<b>214</b>
18:00	2	95	14	0	1	0	0	0	0	0	0	0	0	112
19:00	0	62	15	0	1	0	0	0	0	0	0	0	0	78
20:00	0	45	10	0	1	0	0	0	0	0	0	0	0	56
21:00	0	34	9	0	1	0	0	0	0	0	0	0	0	44
22:00	0	16	5	0	0	0	0	0	0	0	0	0	0	21
23:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
Day Total	13	1559	512	6	85	16	0	5	2	0	0	0	1	2199
Percent	0.6%	70.9%	23.3%	0.3%	3.9%	0.7%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	09:00	09:00	07:00		06:00	08:00					07:00
Vol.	3	185	52	2	8	2		1	1					240
PM Peak	17:00	17:00	15:00	12:00	12:00	13:00		13:00					12:00	17:00
Vol.	3	170	44	1	8	3		1					1	214

Accurate Counts  
978-664-2565

Location : Grant Road South of  
Location : West Main Street  
City/State: Harvard, MA  
Counter : 16427  
Northbound, Southbound

8652504BCL  
Site Code: 8652504B

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
04/09/08	0	3	1	0	1	0	0	0	0	0	0	0	0	5
01:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
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	8	6	0	2	0	0	0	0	0	0	0	0	16
05:00	0	32	19	0	8	0	0	0	0	0	0	0	0	59
06:00	1	74	42	0	5	1	0	2	0	0	0	0	0	125
07:00	1	200	51	1	4	0	0	0	1	1	0	0	0	259
08:00	1	146	53	0	12	2	0	0	1	1	0	0	0	216
09:00	0	72	19	0	2	3	0	0	0	0	0	0	0	96
10:00	0	43	23	3	7	1	0	0	1	0	0	0	0	78
11:00	0	73	25	1	5	1	0	0	0	0	0	0	0	105
12 PM	1	69	24	1	2	1	0	1	0	0	0	0	0	99
13:00	1	63	25	0	11	2	0	0	1	0	0	0	0	103
14:00	3	82	32	0	7	5	0	0	1	0	0	0	0	130
15:00	0	101	46	0	7	5	0	0	0	0	0	0	0	159
16:00	2	133	42	0	7	0	0	0	0	0	0	0	0	184
17:00	3	243	55	0	7	2	0	3	0	0	0	0	0	313
18:00	0	95	19	0	1	0	0	0	0	0	0	0	0	115
19:00	0	49	10	0	2	0	0	0	0	0	0	0	0	61
20:00	0	41	8	0	1	0	0	0	0	0	0	0	0	50
21:00	0	44	4	0	1	0	0	0	0	0	0	0	0	49
22:00	0	11	4	0	1	0	0	0	0	0	0	0	0	16
23:00	0	16	6	0	0	0	0	0	0	0	0	0	0	22
Day Total	13	1604	515	6	93	23	0	6	5	2	0	0	0	2267
Percent	0.6%	70.8%	22.7%	0.3%	4.1%	1.0%	0.0%	0.3%	0.2%	0.1%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	08:00	10:00	08:00	09:00		06:00	07:00	07:00				07:00
Vol.	1	200	53	3	12	3		2	1	1				259
PM Peak	14:00	17:00	17:00	12:00	13:00	14:00		17:00	13:00					17:00
Vol.	3	243	55	1	11	5		3	1					313
Grand Total	26	3163	1027	12	178	39	0	11	7	2	0	0	1	4466
Percent	0.6%	70.8%	23.0%	0.3%	4.0%	0.9%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	



Accurate Counts  
978-664-2565

Location : Hospital Road South of  
Location : Front Street  
City/State: Shirley, MA  
Counter : 15971

86525B5B  
Site Code: 86525B5B

Southbound

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
04/09/08	0	2	0	0	0	0	0	0	0	0	0	0	0	2
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	4	1	0	0	0	0	0	0	0	0	0	0	5
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
07:00	1	4	3	2	1	1	0	0	0	0	0	0	0	12
08:00	0	11	4	2	1	0	0	0	0	0	0	0	0	18
09:00	0	14	8	0	1	0	0	0	0	0	0	0	0	23
10:00	0	18	13	0	2	0	0	0	0	0	0	0	0	33
11:00	1	49	11	0	3	0	0	0	0	0	0	0	0	64
12 PM	0	18	14	0	2	1	0	0	0	0	0	0	0	35
13:00	0	15	10	0	0	0	0	0	0	0	0	0	0	25
14:00	0	32	7	2	1	2	0	0	0	0	0	0	0	44
15:00	0	46	16	0	1	2	0	1	0	0	0	0	0	66
16:00	2	56	21	0	5	0	0	0	0	0	0	0	0	84
17:00	0	34	8	0	0	0	0	0	0	0	0	0	0	42
18:00	0	12	6	0	1	0	0	0	0	0	0	0	0	19
19:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
20:00	0	16	4	0	0	0	0	0	0	0	0	0	0	20
21:00	0	12	3	0	1	0	0	0	0	0	0	0	0	16
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Day Total	4	355	132	6	19	6	0	1	0	0	0	0	0	523
Percent	0.8%	67.9%	25.2%	1.1%	3.6%	1.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	10:00	07:00	11:00	07:00								11:00
Vol.	1	49	13	2	3	1								64
PM Peak	16:00	16:00	16:00	14:00	16:00	14:00		15:00						16:00
Vol.	2	56	21	2	5	2		1						84
Grand Total	11	778	321	12	50	13	0	1	0	0	0	0	0	1186
Percent	0.9%	65.6%	27.1%	1.0%	4.2%	1.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Accurate Counts  
978-664-2565

Location : Hospital Road South of  
Location : Front Street  
City/State: Shirley, MA  
Counter : 15971

86525B5B  
Site Code: 86525B5B

**Northbound**

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
04/08/08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	1	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	3	1	0	0	0	0	0	0	0	0	0	0	0
05:00	3	9	4	0	4	0	0	0	0	0	0	0	0	4
06:00	0	9	7	0	2	0	0	0	0	0	0	0	0	20
07:00	1	107	58	1	14	0	0	9	0	0	0	0	0	18
08:00	2	17	18	0	8	0	0	0	0	0	0	0	0	190
09:00	1	19	17	0	8	0	0	1	0	0	0	0	0	45
10:00	1	25	19	2	3	4	0	0	0	0	0	0	0	46
11:00	0	15	25	0	8	1	0	0	0	0	0	0	0	54
12 PM	0	29	12	0	4	0	0	1	0	0	0	0	0	49
13:00	4	32	23	1	7	1	0	0	0	0	0	0	0	46
14:00	0	26	28	0	6	0	0	0	0	0	0	0	0	68
15:00	0	27	29	0	4	1	0	2	0	0	0	0	0	60
16:00	0	15	22	0	2	0	0	0	0	0	0	0	0	63
17:00	0	29	18	0	4	0	0	0	0	0	0	0	0	39
18:00	0	44	24	0	4	1	0	0	0	0	0	0	0	51
19:00	0	24	15	0	3	0	0	1	0	0	0	0	0	73
20:00	0	7	6	0	1	0	0	0	0	0	0	0	0	43
21:00	0	0	1	0	0	0	0	0	0	0	0	0	0	14
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Day Total	12	437	329	4	82	8	0	14	0	0	0	0	0	886
Percent	1.4%	49.3%	37.1%	0.5%	9.3%	0.9%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00	10:00	07:00	10:00		07:00						07:00
Vol.	3	107	58	2	14	4		9						190
PM Peak	13:00	18:00	15:00	13:00	13:00	13:00		15:00						18:00
Vol.	4	44	29	1	7	1		2						73

Accurate Counts  
978-664-2565

Location : Hospital Road South of  
Location : Front Street  
City/State: Shirley, MA  
Counter : 15971

86525B5B  
Site Code: 86525B5B

Northbound

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
04/09/08	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	1	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	1
04:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0
05:00	2	8	6	0	3	0	0	0	0	0	0	0	0	3
06:00	0	11	5	0	1	0	0	0	0	0	0	0	0	19
07:00	0	109	54	3	14	0	0	4	0	0	0	0	0	17
08:00	1	19	19	0	5	0	0	0	0	0	0	0	0	184
09:00	0	16	15	0	4	0	0	0	0	0	0	0	0	44
10:00	1	24	18	0	3	1	0	0	0	0	0	0	0	35
11:00	0	20	17	0	5	1	0	0	0	0	0	0	0	47
12 PM	0	21	17	0	6	0	0	0	0	0	0	0	0	43
13:00	0	20	10	2	6	1	0	0	0	0	0	0	0	44
14:00	2	33	20	1	4	2	0	0	0	0	0	0	0	39
15:00	0	33	21	0	5	2	0	1	0	0	0	0	0	62
16:00	0	16	15	0	4	0	0	0	0	0	0	0	0	62
17:00	0	22	14	0	4	0	0	1	0	0	0	0	0	35
18:00	0	29	14	0	4	0	0	0	0	0	0	0	0	41
19:00	0	10	7	0	0	1	0	0	0	0	0	0	0	47
20:00	0	3	4	0	0	0	0	0	0	0	0	0	0	18
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	7
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Day Total	6	398	257	6	68	8	0	6	0	0	0	0	0	749
Percent	0.8%	53.1%	34.3%	0.8%	9.1%	1.1%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00	07:00	07:00	10:00		07:00						07:00
Vol.	2	109	54	3	14	1		4						184
PM Peak	14:00	14:00	15:00	13:00	12:00	14:00		15:00						14:00
Vol.	2	33	21	2	6	2		1						62
Grand Total	18	835	586	10	150	16	0	20	0	0	0	0	0	1635
Percent	1.1%	51.1%	35.8%	0.6%	9.2%	1.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	

Accurate Counts  
978-664-2565

Location : Hospital Road South of  
Location : Front Street  
City/State: Shirley, MA  
Counter : 15971

86525B5B  
Site Code: 86525B5B

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
04/08/08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	1	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	8	3	0	0	0	0	0	0	0	0	0	0	0
05:00	3	9	4	0	4	0	0	0	0	0	0	0	0	11
06:00	0	10	8	0	3	0	0	0	0	0	0	0	0	20
07:00	1	<b>117</b>	<b>64</b>	<b>3</b>	<b>15</b>	0	0	<b>9</b>	0	0	0	0	0	<b>21</b>
08:00	2	25	25	3	11	1	0	0	0	0	0	0	0	<b>209</b>
09:00	1	32	28	0	12	0	0	1	0	0	0	0	0	67
10:00	2	52	30	2	5	<b>8</b>	0	0	0	0	0	0	0	74
11:00	0	49	39	0	12	1	0	0	0	0	0	0	0	99
12 PM	0	59	25	0	5	0	0	1	0	0	0	0	0	101
13:00	<b>6</b>	61	32	<b>1</b>	<b>8</b>	1	0	0	0	0	0	0	0	90
14:00	1	66	48	0	8	1	0	0	0	0	0	0	0	109
15:00	1	62	<b>51</b>	1	6	<b>2</b>	0	<b>2</b>	0	0	0	0	0	124
16:00	1	79	45	0	6	0	0	0	0	0	0	0	0	125
17:00	1	<b>82</b>	30	0	5	0	0	0	0	0	0	0	0	<b>131</b>
18:00	0	70	31	0	5	1	0	0	0	0	0	0	0	118
19:00	0	49	29	0	5	0	0	1	0	0	0	0	0	107
20:00	0	26	20	0	3	0	0	0	0	0	0	0	0	84
21:00	0	3	3	0	0	0	0	0	0	0	0	0	0	49
22:00	0	0	2	0	0	0	0	0	0	0	0	0	0	6
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Day Total	19	860	518	10	113	15	0	14	0	0	0	0	0	<b>1549</b>
Percent	1.2%	55.5%	33.4%	0.6%	7.3%	1.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00	07:00	07:00	10:00		07:00						07:00
Vol.	3	117	64	3	15	8		9						
PM Peak	13:00	17:00	15:00	13:00	13:00	15:00		15:00						209
Vol.	6	82	51	1	8	2		2						131

Accurate Counts  
978-664-2565

Location : Hospital Road South of  
Location : Front Street  
City/State: Shirley, MA  
Counter : 15971

86525B5B  
Site Code: 86525B5B

Southbound, Northbound

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
04/09/08	0	3	0	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	1	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	7	1	0	0	0	0	0	0	0	0	0	0	8
05:00	2	9	6	0	3	0	0	0	0	0	0	0	0	20
06:00	0	13	6	0	1	0	0	0	0	0	0	0	0	20
07:00	1	<b>113</b>	<b>57</b>	<b>5</b>	<b>15</b>	<b>1</b>	0	<b>4</b>	0	0	0	0	0	<b>196</b>
08:00	1	30	23	2	6	0	0	0	0	0	0	0	0	62
09:00	0	30	23	0	5	0	0	0	0	0	0	0	0	58
10:00	1	42	31	0	5	1	0	0	0	0	0	0	0	80
11:00	1	69	28	0	8	1	0	0	0	0	0	0	0	107
12 PM	0	39	31	0	8	1	0	0	0	0	0	0	0	79
13:00	0	35	20	2	6	1	0	0	0	0	0	0	0	64
14:00	2	65	27	3	5	4	0	0	0	0	0	0	0	106
15:00	0	<b>79</b>	<b>37</b>	0	6	4	0	<b>2</b>	0	0	0	0	0	<b>128</b>
16:00	2	72	36	0	9	0	0	0	0	0	0	0	0	119
17:00	0	56	22	0	4	0	0	1	0	0	0	0	0	83
18:00	0	41	20	0	5	0	0	0	0	0	0	0	0	66
19:00	0	17	9	0	0	1	0	0	0	0	0	0	0	27
20:00	0	19	8	0	0	0	0	0	0	0	0	0	0	27
21:00	0	12	3	0	1	0	0	0	0	0	0	0	0	16
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Day Total	10	753	389	12	87	14	0	7	0	0	0	0	0	1272
Percent	0.8%	59.2%	30.6%	0.9%	6.8%	1.1%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00	07:00	07:00	07:00		07:00						07:00
Vol.	2	113	57	5	15	1		4						196
PM Peak	14:00	15:00	15:00	14:00	16:00	14:00		15:00						15:00
Vol.	2	79	37	3	9	4		2						128
Grand Total	29	1613	907	22	200	29	0	21	0	0	0	0	0	2821
Percent	1.0%	57.2%	32.2%	0.8%	7.1%	1.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	



Accurate Counts  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18430  
Northbound

8652506BCL  
Site Code: 86525006B

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
04/08/08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	17	9	0	6	0	0	0	0	0	0	0	0	32
05:00	0	73	35	0	10	0	0	2	2	0	0	0	0	122
06:00	7	200	105	3	32	6	0	0	3	0	0	0	0	356
07:00	6	<b>287</b>	<b>156</b>	4	29	6	1	<b>4</b>	6	1	0	0	0	<b>500</b>
08:00	6	252	131	5	<b>38</b>	<b>7</b>	<b>2</b>	4	<b>7</b>	0	0	0	0	452
09:00	2	199	116	<b>9</b>	32	4	0	0	4	<b>2</b>	0	0	0	368
10:00	5	187	76	2	26	2	0	2	6	0	0	0	0	306
11:00	5	206	84	6	25	5	1	1	7	0	0	0	0	340
12 PM	<b>6</b>	242	90	<b>7</b>	<b>50</b>	4	0	0	<b>12</b>	<b>1</b>	0	0	0	412
13:00	1	182	109	3	41	<b>5</b>	<b>1</b>	2	4	0	0	0	0	348
14:00	0	243	146	5	34	4	0	3	3	1	0	0	0	439
15:00	5	330	153	3	44	5	0	2	5	0	0	0	0	547
16:00	2	338	<b>157</b>	3	36	1	0	<b>6</b>	5	0	0	0	0	548
17:00	4	<b>392</b>	150	0	36	2	0	1	1	0	0	0	0	<b>586</b>
18:00	3	355	117	1	12	3	0	0	1	0	0	0	0	492
19:00	1	214	96	1	15	1	0	1	1	0	0	0	0	330
20:00	1	120	54	0	7	0	0	0	0	0	0	0	0	182
21:00	0	71	42	0	13	0	0	0	0	0	0	0	0	126
22:00	0	104	54	0	5	0	0	0	0	0	0	0	0	163
23:00	1	67	22	0	3	0	0	0	0	0	0	0	0	93
Day Total	55	4079	1902	52	494	55	5	28	67	5	0	0	0	6742
Percent	0.8%	60.5%	28.2%	0.8%	7.3%	0.8%	0.1%	0.4%	1.0%	0.1%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	09:00	08:00	08:00	08:00	07:00	08:00	09:00				07:00
Vol.	7	287	156	9	38	7	2	4	7	2				500
PM Peak	12:00	17:00	16:00	12:00	12:00	13:00	13:00	16:00	12:00	12:00				17:00
Vol.	6	392	157	7	50	5	1	6	12	1				586

Accurate Counts  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18430  
Northbound

8652506BCL  
Site Code: 86525006B

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
04/09/08	1	33	21	1	3	0	0	0	1	0	0	0	0	60
01:00	1	24	14	0	3	0	0	0	0	0	0	0	0	42
02:00	0	10	7	1	5	0	0	0	0	0	0	0	0	23
03:00	0	10	8	1	2	0	0	0	0	0	0	0	0	21
04:00	1	23	13	0	7	1	2	0	0	1	0	0	1	49
05:00	0	86	34	2	18	1	0	0	1	0	0	0	0	142
06:00	2	219	101	3	32	2	0	3	1	0	0	0	0	363
07:00	8	314	145	7	49	7	1	11	10	1	0	0	0	553
08:00	8	320	148	5	43	12	2	6	5	0	0	0	0	549
09:00	6	263	111	7	43	4	0	2	4	1	0	0	0	441
10:00	6	201	109	8	37	6	0	4	12	1	0	0	0	384
11:00	3	227	103	7	36	4	1	5	11	0	0	0	0	397
12 PM	6	222	105	6	40	3	0	6	4	1	0	0	0	393
13:00	4	221	119	9	30	6	0	2	7	0	0	0	0	398
14:00	6	281	115	6	41	4	0	5	5	0	0	0	0	463
15:00	4	377	157	2	42	4	1	3	0	0	0	0	0	590
16:00	6	363	165	4	36	3	0	3	2	0	0	0	0	582
17:00	9	448	167	1	44	5	1	6	2	0	0	0	0	683
18:00	7	357	114	1	21	2	0	1	1	1	0	0	0	505
19:00	2	204	66	2	14	0	0	0	0	0	0	0	0	288
20:00	1	132	38	1	9	1	0	2	0	0	0	0	0	184
21:00	1	108	29	0	7	0	0	0	1	0	0	0	0	146
22:00	1	75	25	0	7	0	0	0	1	0	0	0	0	109
23:00	1	43	13	0	0	1	0	0	1	0	0	0	0	59
Day Total	84	4561	1927	74	569	66	8	59	69	6	0	0	1	7424
Percent	1.1%	61.4%	26.0%	1.0%	7.7%	0.9%	0.1%	0.8%	0.9%	0.1%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	08:00	10:00	07:00	08:00	04:00	07:00	10:00	04:00			04:00	07:00
Vol.	8	320	148	8	49	12	2	11	12	1			1	553
PM Peak	17:00	17:00	17:00	13:00	17:00	13:00	15:00	12:00	13:00	12:00				17:00
Vol.	9	448	167	9	44	6	1	6	7	1				683
Grand Total	139	8640	3829	126	1063	121	13	87	136	11	0	0	1	14166
Percent	1.0%	61.0%	27.0%	0.9%	7.5%	0.9%	0.1%	0.6%	1.0%	0.1%	0.0%	0.0%	0.0%	

Accurate Counts  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18430  
Southbound

8652506BCL  
Site Code: 86525006B

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
04/08/08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	16	5	0	8	0	0	0	1	1	0	0	0	31
05:00	2	83	42	3	28	1	0	1	3	0	0	0	0	163
06:00	1	174	87	6	67	5	0	2	6	1	0	0	0	349
07:00	1	<b>334</b>	<b>125</b>	<b>13</b>	77	4	0	1	6	0	0	0	0	<b>561</b>
08:00	<b>3</b>	311	99	11	<b>82</b>	4	0	<b>3</b>	3	1	0	0	0	517
09:00	0	240	70	7	75	5	<b>1</b>	1	5	0	0	0	0	404
10:00	3	249	51	4	64	3	0	2	4	0	0	0	0	380
11:00	2	185	56	9	81	4	1	0	4	0	0	0	0	342
12 PM	<b>4</b>	226	56	11	76	2	0	<b>4</b>	2	0	0	0	<b>1</b>	382
13:00	0	222	47	6	75	2	<b>1</b>	3	0	0	0	0	0	356
14:00	1	265	50	<b>19</b>	81	3	1	3	3	0	0	0	0	426
15:00	3	346	63	7	<b>95</b>	<b>4</b>	0	4	<b>4</b>	0	0	0	0	<b>526</b>
16:00	1	<b>360</b>	71	5	75	2	0	4	0	0	0	0	0	518
17:00	2	356	<b>77</b>	2	75	2	0	2	0	0	0	0	0	516
18:00	1	294	46	7	47	0	0	0	1	0	0	0	0	396
19:00	0	183	33	0	38	1	0	0	0	0	0	0	0	255
20:00	0	101	35	1	17	0	0	0	0	0	0	0	0	154
21:00	0	81	24	0	15	0	0	1	0	0	0	0	0	121
22:00	1	74	24	0	6	1	0	0	0	0	0	0	0	106
23:00	0	57	19	0	7	0	0	1	0	0	0	0	0	84
Day Total	25	4157	1080	111	1089	43	4	32	42	3	0	0	1	6587
Percent	0.4%	63.1%	16.4%	1.7%	16.5%	0.7%	0.1%	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	07:00	08:00	06:00	09:00	08:00	06:00	04:00				07:00
Vol.	3	334	125	13	82	5	1	3	6	1				561
PM Peak	12:00	16:00	17:00	14:00	15:00	15:00	13:00	12:00	15:00				12:00	15:00
Vol.	4	360	77	19	95	4	1	4	4				1	526

Accurate Counts  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18430  
Southbound

8652506BCL  
Site Code: 86525006B

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
04/09/08	0	1	1	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
03:00	0	3	5	0	1	0	0	0	0	0	0	0	0	9
04:00	1	9	12	2	22	0	0	0	0	0	0	0	0	46
05:00	0	10	81	1	62	0	0	0	0	0	0	0	0	154
06:00	2	51	247	8	92	1	0	1	3	1	0	0	0	406
07:00	1	145	<b>385</b>	11	<b>105</b>	6	1	<b>7</b>	4	<b>2</b>	0	0	0	<b>667</b>
08:00	4	<b>160</b>	375	12	79	4	<b>2</b>	7	9	0	0	0	0	652
09:00	2	86	259	10	63	<b>7</b>	0	1	9	0	0	0	0	437
10:00	<b>6</b>	90	210	13	68	4	0	5	2	0	0	0	0	398
11:00	4	89	255	<b>17</b>	66	5	0	6	<b>10</b>	0	0	0	0	452
12 PM	4	109	<b>192</b>	<b>7</b>	<b>58</b>	2	0	5	5	0	0	0	0	382
13:00	4	276	79	5	23	5	<b>2</b>	5	<b>9</b>	0	0	0	0	408
14:00	<b>8</b>	335	107	3	31	2	0	2	7	0	0	0	0	495
15:00	4	387	117	4	21	5	0	<b>7</b>	6	<b>1</b>	0	0	0	552
16:00	4	394	82	2	18	<b>7</b>	0	5	2	0	0	0	0	514
17:00	7	<b>456</b>	110	2	19	2	0	6	3	0	0	0	0	<b>605</b>
18:00	2	322	55	0	9	1	0	0	1	0	0	0	0	390
19:00	2	203	40	0	5	0	0	0	0	0	0	0	0	250
20:00	0	117	23	0	3	1	0	0	0	0	0	<b>1</b>	0	145
21:00	0	109	16	0	1	0	0	0	0	0	0	0	0	126
22:00	1	59	10	0	1	0	0	0	1	0	0	0	0	72
23:00	1	40	0	0	0	0	0	0	1	0	0	0	0	42
Day Total	57	3453	2662	98	747	52	5	57	72	4	0	1	0	7208
Percent	0.8%	47.9%	36.9%	1.4%	10.4%	0.7%	0.1%	0.8%	1.0%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	08:00	07:00	11:00	07:00	09:00	08:00	07:00	11:00	07:00				07:00
Vol.	6	160	385	17	105	7	2	7	10	2				667
PM Peak	14:00	17:00	12:00	12:00	12:00	16:00	13:00	15:00	13:00	15:00		20:00		17:00
Vol.	8	456	192	7	58	7	2	7	9	1		1		605
Grand Total	82	7610	3742	209	1836	95	9	89	114	7	0	1	1	13795
Percent	0.6%	55.2%	27.1%	1.5%	13.3%	0.7%	0.1%	0.6%	0.8%	0.1%	0.0%	0.0%	0.0%	

Accurate Counts  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18430  
Northbound, Southbound

8652506BCL  
Site Code: 86525006B

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
04/08/08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	33	14	0	14	0	0	0	1	1	0	0	0	63
05:00	2	156	77	3	38	1	0	3	5	0	0	0	0	285
06:00	8	374	192	9	99	11	0	2	9	1	0	0	0	705
07:00	7	<b>621</b>	<b>281</b>	<b>17</b>	106	10	1	5	<b>12</b>	1	0	0	0	<b>1061</b>
08:00	<b>9</b>	563	230	16	<b>120</b>	11	<b>2</b>	<b>7</b>	10	1	0	0	0	969
09:00	2	439	186	16	107	9	1	1	9	<b>2</b>	0	0	0	772
10:00	8	436	127	6	90	5	0	4	10	0	0	0	0	686
11:00	7	391	140	15	106	9	2	1	11	0	0	0	0	682
12 PM	<b>10</b>	468	146	18	126	6	0	4	<b>14</b>	<b>1</b>	0	0	<b>1</b>	794
13:00	1	404	156	9	116	7	<b>2</b>	5	4	0	0	0	0	704
14:00	1	508	196	<b>24</b>	115	7	1	6	6	1	0	0	0	865
15:00	8	676	216	10	<b>139</b>	<b>9</b>	0	6	9	0	0	0	0	1073
16:00	3	698	<b>228</b>	8	111	3	0	<b>10</b>	5	0	0	0	0	1066
17:00	6	<b>748</b>	227	2	111	4	0	3	1	0	0	0	0	<b>1102</b>
18:00	4	649	163	8	59	3	0	0	2	0	0	0	0	888
19:00	1	397	129	1	53	2	0	1	1	0	0	0	0	585
20:00	1	221	89	1	24	0	0	0	0	0	0	0	0	336
21:00	0	152	66	0	28	0	0	1	0	0	0	0	0	247
22:00	1	178	78	0	11	1	0	0	0	0	0	0	0	269
23:00	1	124	41	0	10	0	0	1	0	0	0	0	0	177
Day Total	80	8236	2982	163	1583	98	9	60	109	8	0	0	1	13329
Percent	0.6%	61.8%	22.4%	1.2%	11.9%	0.7%	0.1%	0.5%	0.8%	0.1%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	07:00	08:00	06:00	08:00	08:00	07:00	09:00				07:00
Vol.	9	621	281	17	120	11	2	7	12	2				1061
PM Peak	12:00	17:00	16:00	14:00	15:00	15:00	13:00	16:00	12:00	12:00			12:00	17:00
Vol.	10	748	228	24	139	9	2	10	14	1			1	1102

Accurate Counts  
978-664-2565

Location : Route 110/111 North of  
Location : Route 2  
City/State: Harvard, MA  
Counter : 18430  
Northbound, Southbound

8652506BCL  
Site Code: 86525006B

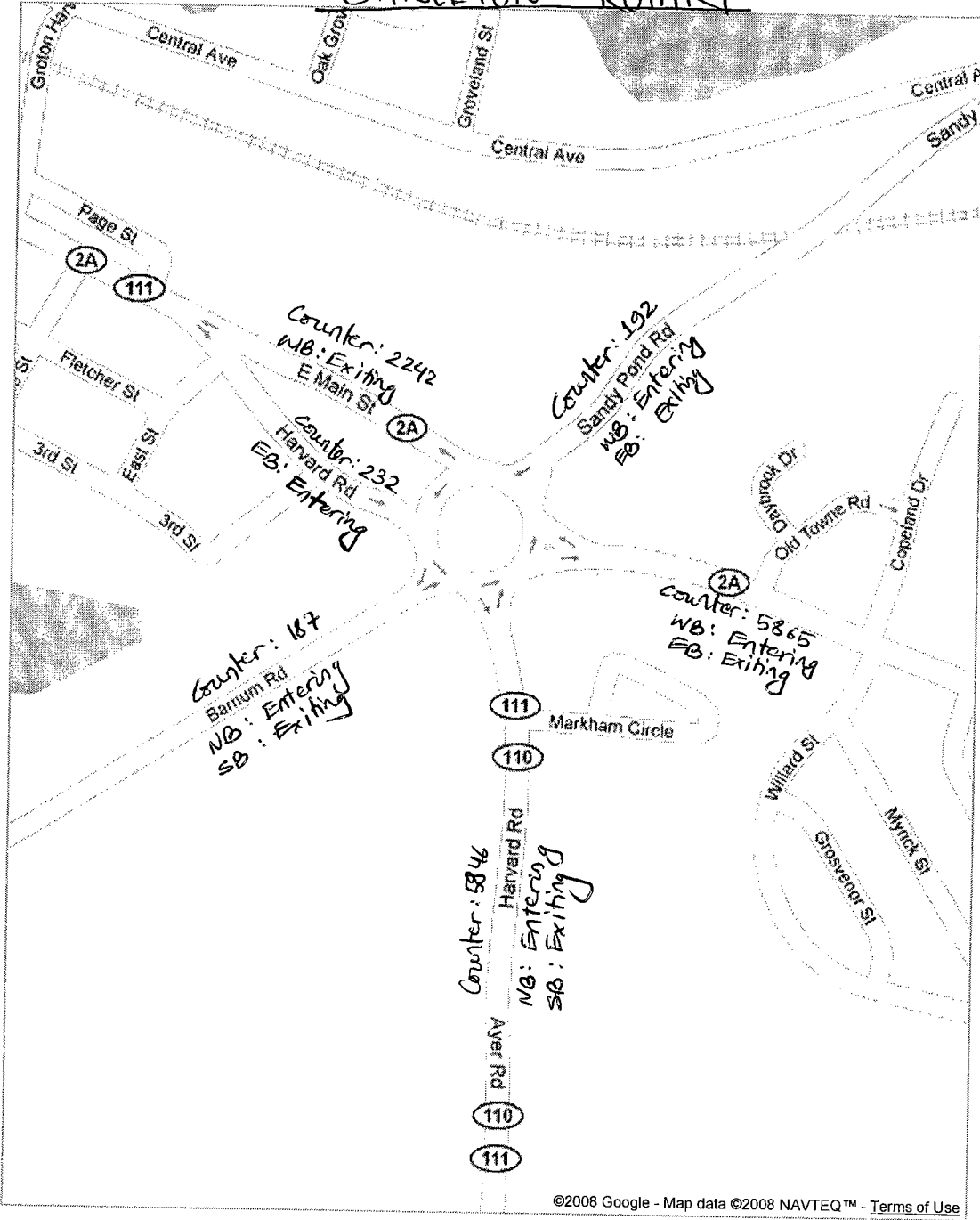
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/09/08	1	34	22	1	3	0	0	0	1	0	0	0	0	62
01:00	1	24	14	1	3	0	0	0	0	0	0	0	0	43
02:00	0	12	8	1	5	0	0	0	0	0	0	0	0	26
03:00	0	13	13	1	3	0	0	0	0	0	0	0	0	30
04:00	2	32	25	2	29	1	2	0	0	1	0	0	1	95
05:00	0	96	115	3	80	1	0	0	1	0	0	0	0	296
06:00	4	270	348	11	124	3	0	4	4	1	0	0	0	769
07:00	9	459	<b>530</b>	18	<b>154</b>	13	2	<b>18</b>	14	<b>3</b>	0	0	0	<b>1220</b>
08:00	<b>12</b>	<b>480</b>	523	17	122	<b>16</b>	<b>4</b>	13	14	0	0	0	0	1201
09:00	8	349	370	17	106	11	0	3	13	1	0	0	0	878
10:00	12	291	319	21	105	10	0	9	14	1	0	0	0	782
11:00	7	316	358	<b>24</b>	102	9	1	11	<b>21</b>	0	0	0	0	849
12 PM	10	331	<b>297</b>	13	<b>98</b>	5	0	11	9	<b>1</b>	0	0	0	775
13:00	8	497	198	<b>14</b>	53	<b>11</b>	<b>2</b>	7	<b>16</b>	0	0	0	0	806
14:00	14	616	222	9	72	6	0	7	12	0	0	0	0	958
15:00	8	764	274	6	63	9	1	10	6	1	0	0	0	1142
16:00	10	757	247	6	54	10	0	8	4	0	0	0	0	1096
17:00	<b>16</b>	<b>904</b>	277	3	63	7	1	<b>12</b>	5	0	0	0	0	<b>1288</b>
18:00	9	679	169	1	30	3	0	1	2	1	0	0	0	895
19:00	4	407	106	2	19	0	0	0	0	0	0	0	0	538
20:00	1	249	61	1	12	2	0	2	0	0	0	<b>1</b>	0	329
21:00	1	217	45	0	8	0	0	0	1	0	0	0	0	272
22:00	2	134	35	0	8	0	0	0	2	0	0	0	0	181
23:00	2	83	13	0	0	1	0	0	2	0	0	0	0	101
Day Total	141	8014	4589	172	1316	118	13	116	141	10	0	1	1	14632
Percent	1.0%	54.8%	31.4%	1.2%	9.0%	0.8%	0.1%	0.8%	1.0%	0.1%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	07:00	11:00	07:00	08:00	08:00	07:00	11:00	07:00			04:00	07:00
Vol.	12	480	530	24	154	16	4	18	21	3			1	1220
PM Peak	17:00	17:00	12:00	13:00	12:00	13:00	13:00	17:00	13:00	12:00		20:00		17:00
Vol.	16	904	297	14	98	11	2	12	16	1		1		1288
Grand Total	221	16250	7571	335	2899	216	22	176	250	18	0	1	2	27961
Percent	0.8%	58.1%	27.1%	1.2%	10.4%	0.8%	0.1%	0.6%	0.9%	0.1%	0.0%	0.0%	0.0%	

## **APPENDIX F**

### **CARLETON ROTARY ENTERING/EXITING COUNTS**

Address Harvard, MA

# CARLETON ROTARY





Accurate Counts  
978-664-2565

Location : Route 2A East of  
Location : Carleton Rotary  
City/State: Devens, MA  
Counter : 5865

86525C13  
Site Code: 86525013

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	36	42	40	43	*	*	*	*	*	*	*	*	38	42
01:00	*	*	34	29	19	31	*	*	*	*	*	*	*	*	26	30
02:00	*	*	24	54	29	44	*	*	*	*	*	*	*	*	26	49
03:00	*	*	38	36	42	50	*	*	*	*	*	*	*	*	40	43
04:00	*	*	85	61	84	48	*	*	*	*	*	*	*	*	84	54
05:00	*	*	257	190	228	174	*	*	*	*	*	*	*	*	242	182
06:00	*	*	535	350	514	375	*	*	*	*	*	*	*	*	524	362
07:00	*	*	590	462	611	443	*	*	*	*	*	*	*	*	600	452
08:00	*	*	562	444	555	429	*	*	*	*	*	*	*	*	558	436
09:00	*	*	405	334	415	382	*	*	*	*	*	*	*	*	410	358
10:00	*	*	328	367	392	359	*	*	*	*	*	*	*	*	360	363
11:00	*	*	424	382	464	464	*	*	*	*	*	*	*	*	444	423
12:00 PM	*	*	403	468	546	575	*	*	*	*	*	*	*	*	474	522
01:00	*	*	427	452	443	468	*	*	*	*	*	*	*	*	435	460
02:00	*	*	489	537	541	584	*	*	*	*	*	*	*	*	515	560
03:00	*	*	555	591	572	633	*	*	*	*	*	*	*	*	564	612
04:00	*	*	527	680	548	674	*	*	*	*	*	*	*	*	538	677
05:00	*	*	429	697	489	737	*	*	*	*	*	*	*	*	459	717
06:00	*	*	357	478	374	535	*	*	*	*	*	*	*	*	366	506
07:00	*	*	240	342	334	326	*	*	*	*	*	*	*	*	287	334
08:00	*	*	198	233	216	254	*	*	*	*	*	*	*	*	207	244
09:00	*	*	126	167	124	161	*	*	*	*	*	*	*	*	125	164
10:00	*	*	107	139	115	137	*	*	*	*	*	*	*	*	111	138
11:00	*	*	95	60	117	82	*	*	*	*	*	*	*	*	106	71
Lane Day	0	0	7271	7595	7812	8008	0	0	0	0	0	0	0	0	7539	7799
AM Peak Vol.			07:00	07:00	07:00	11:00									07:00	07:00
PM Peak Vol.			15:00	17:00	15:00	17:00									15:00	17:00
Comb. Total	0		14866		15820		0		0		0		0		15338	
ADT	ADT 15,343		AADT 15,343													

Comb. Total      0                      14866                      15820                      0                      0                      0                      0                      15338

ADT              ADT 15,343              AADT 15,343

Accurate Counts  
978-664-2565

Location : Route 110/111 South of  
Location : Carleton Rotary  
City/State: Harvard, MA,  
Counter : 5846

86525A13  
Site Code: 86525013

Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	27	27	30	38	*	*	*	*	*	*	*	*	28	32
01:00	*	*	23	36	12	26	*	*	*	*	*	*	*	*	18	31
02:00	*	*	15	32	10	14	*	*	*	*	*	*	*	*	12	23
03:00	*	*	18	23	24	17	*	*	*	*	*	*	*	*	21	20
04:00	*	*	48	57	56	54	*	*	*	*	*	*	*	*	52	56
05:00	*	*	167	170	147	170	*	*	*	*	*	*	*	*	157	170
06:00	*	*	411	422	387	420	*	*	*	*	*	*	*	*	399	421
07:00	*	*	<b>523</b>	<b>703</b>	<b>562</b>	<b>720</b>	*	*	*	*	*	*	*	*	<b>542</b>	<b>712</b>
08:00	*	*	456	611	461	592	*	*	*	*	*	*	*	*	458	602
09:00	*	*	333	434	414	459	*	*	*	*	*	*	*	*	374	446
10:00	*	*	373	327	426	346	*	*	*	*	*	*	*	*	400	336
11:00	*	*	445	355	484	424	*	*	*	*	*	*	*	*	464	390
12:00 PM	*	*	461	405	490	391	*	*	*	*	*	*	*	*	476	398
01:00	*	*	409	377	447	415	*	*	*	*	*	*	*	*	428	396
02:00	*	*	471	439	505	<b>486</b>	*	*	*	*	*	*	*	*	488	462
03:00	*	*	611	526	558	484	*	*	*	*	*	*	*	*	584	505
04:00	*	*	634	<b>538</b>	594	486	*	*	*	*	*	*	*	*	614	<b>512</b>
05:00	*	*	<b>737</b>	421	<b>760</b>	418	*	*	*	*	*	*	*	*	<b>748</b>	420
06:00	*	*	501	344	513	356	*	*	*	*	*	*	*	*	507	350
07:00	*	*	310	200	296	205	*	*	*	*	*	*	*	*	303	202
08:00	*	*	213	137	210	141	*	*	*	*	*	*	*	*	212	139
09:00	*	*	157	92	168	96	*	*	*	*	*	*	*	*	162	94
10:00	*	*	95	42	96	58	*	*	*	*	*	*	*	*	96	50
11:00	*	*	49	51	65	49	*	*	*	*	*	*	*	*	57	50
Lane Day	0	0	7487	6769	7715	6865	0	0	0	0	0	0	0	0	7600	6817
AM Peak Vol.			07:00	07:00	07:00	07:00									07:00	07:00
PM Peak Vol.			17:00	16:00	17:00	14:00									17:00	16:00
Comb. Total	0		14256		14580		0		0		0		0		14417	
ADT	ADT 14,418		AADT 14,418													

Comb. Total      0                      14256                      14580                      0                      0                      0                      0                      14417

ADT              ADT 14,418              AADT 14,418

Accurate Counts  
978-664-2565

Location : Barnum Road South of  
Location : Rotary  
City/State: Harvard, MA  
Counter : 187

86525E13  
Site Code: 86525E13

























Start Time	07-Apr-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	23	19	19	18	*	*	*	*	*	*	*	*	21	18
01:00	*	*	28	16	15	14	*	*	*	*	*	*	*	*	22	15
02:00	*	*	15	20	21	22	*	*	*	*	*	*	*	*	18	21
03:00	*	*	21	13	29	27	*	*	*	*	*	*	*	*	25	20
04:00	*	*	37	43	50	35	*	*	*	*	*	*	*	*	44	39
05:00	*	*	63	189	56	172	*	*	*	*	*	*	*	*	60	180
06:00	*	*	124	354	143	359	*	*	*	*	*	*	*	*	134	356
07:00	*	*	153	327	178	365	*	*	*	*	*	*	*	*	166	346
08:00	*	*	219	262	227	253	*	*	*	*	*	*	*	*	223	258
09:00	*	*	161	182	191	228	*	*	*	*	*	*	*	*	176	205
10:00	*	*	175	210	220	190	*	*	*	*	*	*	*	*	198	200
11:00	*	*	311	234	291	315	*	*	*	*	*	*	*	*	301	274
12:00 PM	*	*	285	355	362	414	*	*	*	*	*	*	*	*	324	384
01:00	*	*	269	272	273	306	*	*	*	*	*	*	*	*	271	289
02:00	*	*	303	246	348	287	*	*	*	*	*	*	*	*	326	266
03:00	*	*	330	201	330	216	*	*	*	*	*	*	*	*	330	208
04:00	*	*	297	232	356	192	*	*	*	*	*	*	*	*	326	212
05:00	*	*	262	207	256	201	*	*	*	*	*	*	*	*	259	204
06:00	*	*	202	126	170	140	*	*	*	*	*	*	*	*	186	133
07:00	*	*	148	103	121	113	*	*	*	*	*	*	*	*	134	108
08:00	*	*	64	67	75	78	*	*	*	*	*	*	*	*	70	72
09:00	*	*	59	42	51	52	*	*	*	*	*	*	*	*	55	47
10:00	*	*	52	51	56	66	*	*	*	*	*	*	*	*	54	58
11:00	*	*	75	28	87	37	*	*	*	*	*	*	*	*	81	32
Lane Day	0	0	3676	3799	3925	4100	0	0	0	0	0	0	0	0	3804	3945
AM Peak Vol.			11:00 311	06:00 354	11:00 291	07:00 365									11:00 301	06:00 356
PM Peak Vol.			15:00 330	12:00 355	12:00 362	12:00 414									15:00 330	12:00 384

Comb. Total	0	7475	8025	0	0	0	0	7749
ADT	ADT 7,750	AADT 7,750						

Accurate Counts  
978-664-2565

Location : Route 110/111EB West of  
Location : Carleton Rotary  
City/State: Harvard, MA  
Counter : 232
















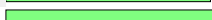
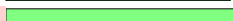

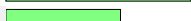





86525B13  
Site Code: 86525013

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	39	40	*	*	40	*	*	40 
01:00	*	29	22	*	*	26	*	*	26 
02:00	*	27	21	*	*	24	*	*	24 
03:00	*	35	34	*	*	34	*	*	34 
04:00	*	88	92	*	*	90	*	*	90 
05:00	*	341	326	*	*	334	*	*	334 
06:00	*	759	738	*	*	748	*	*	748 
07:00	*	<b>822</b>	<b>882</b>	*	*	<b>852</b>	*	*	<b>852</b> 
08:00	*	792	775	*	*	784	*	*	784 
09:00	*	591	570	*	*	580	*	*	580 
10:00	*	435	504	*	*	470	*	*	470 
11:00	*	456	545	*	*	500	*	*	500 
12:00 PM	*	540	571	*	*	556	*	*	556 
01:00	*	509	522	*	*	516	*	*	516 
02:00	*	530	560	*	*	545	*	*	545 
03:00	*	556	<b>586</b>	*	*	571	*	*	571 
04:00	*	<b>587</b>	556	*	*	<b>572</b>	*	*	<b>572</b> 
05:00	*	487	504	*	*	496	*	*	496 
06:00	*	457	489	*	*	473	*	*	473 
07:00	*	300	393	*	*	346	*	*	346 
08:00	*	230	274	*	*	252	*	*	252 
09:00	*	174	166	*	*	170	*	*	170 
10:00	*	94	110	*	*	102	*	*	102 
11:00	*	67	75	*	*	71	*	*	71 
Day Total	0	8945	9355	0	0	9152	0	0	9152
% Avg. WkDay	0.0%	97.7%	102.2%	0.0%	0.0%				
% Avg. Week	0.0%	97.7%	102.2%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak		07:00	07:00			07:00			07:00
Vol.		822	882			852			852
PM Peak		16:00	15:00			16:00			16:00
Vol.		587	586			572			572
Grand Total	0	8945	9355	0	0	9152	0	0	9152
ADT		ADT 9,150	AADT 9,150						

Accurate Counts  
978-664-2565

Location : Route 110/111/2A WB  
Location : West of Carleton Rotary  
City/State: Harvard, MA  
Counter : 2242

86525B13WB  
Site Code: 86525013

Start Time	Mon 07-Apr-08	Tue 08-Apr-08	Wed 09-Apr-08	Thu 10-Apr-08	Fri 11-Apr-08	Average Day	Sat 12-Apr-08	Sun 13-Apr-08	Week Average
12:00 AM	*	46	40	*	*	43	*	*	43 
01:00	*	23	23	*	*	23	*	*	23 
02:00	*	40	23	*	*	32	*	*	32 
03:00	*	22	26	*	*	24	*	*	24 
04:00	*	27	38	*	*	32	*	*	32 
05:00	*	105	101	*	*	103	*	*	103 
06:00	*	265	268	*	*	266	*	*	266 
07:00	*	456	469	*	*	462	*	*	462 
08:00	*	<b>488</b>	<b>538</b>	*	*	<b>513</b>	*	*	<b>513</b> 
09:00	*	393	417	*	*	405	*	*	405 
10:00	*	405	464	*	*	434	*	*	434 
11:00	*	464	511	*	*	488	*	*	488 
12:00 PM	*	573	588	*	*	580	*	*	580 
01:00	*	490	525	*	*	508	*	*	508 
02:00	*	653	665	*	*	659	*	*	659 
03:00	*	847	878	*	*	862	*	*	862 
04:00	*	940	951	*	*	946	*	*	946 
05:00	*	<b>1059</b>	<b>1085</b>	*	*	<b>1072</b>	*	*	<b>1072</b> 
06:00	*	763	796	*	*	780	*	*	780 
07:00	*	510	459	*	*	484	*	*	484 
08:00	*	331	367	*	*	349	*	*	349 
09:00	*	258	245	*	*	252	*	*	252 
10:00	*	174	150	*	*	162	*	*	162 
11:00	*	97	110	*	*	104	*	*	104 
Day Total	0	9429	9737	0	0	9583	0	0	9583
% Avg. WkDay	0.0%	98.4%	101.6%	0.0%	0.0%				
% Avg. Week	0.0%	98.4%	101.6%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak		08:00	08:00			08:00			08:00
Vol.		488	538			513			513
PM Peak		17:00	17:00			17:00			17:00
Vol.		1059	1085			1072			1072
Grand Total	0	9429	9737	0	0	9583	0	0	9583
ADT		ADT 9,583	AADT 9,583						

