Scoping Document

January 31, 20008

John Fitzgerald, Senior Management Economic Development

Boston Redevelopment Authority
Boston City Hall, 9th Floor
Boston, MA 02201

RE: Boston College Amendment to the IMP Brighton Campus

Dear John:

Thank you for the opportunity to comment on the Institutional Master Plan Notification Form/Project Notification Form ("IMPNF/PNF") for Boston College's proposed IMP 10 year plan.

Boston College's Chestnut Hill, Brighton campus. The main components of the ten year institutional master plan consist of four new academic buildings, a Recreation Center, UNIVERSITY Center, a new parking facilities, new and replacement on-campus student housing, and renovations of existing

The Boston Transportation Department (BTD) has reviewed the Institutional Master Plan Notification Form/Project Notification Form ("IMPNF/PNF") for Boston College's proposed IMP 10 year plan and has the following comments/concerns:

TRIP GENERATION

- Page 6-11 states that here could be some limited trip generation associated with the retail portions of the projects located on Commonwealth Avenue. Clarification as to what type of retail is being proposed and where along with mitigation measures, analysis and results of the analysis.

- The proponent should be using BT's mode share XX for this area.

TRANSIT

- The purpose of evaluating the existing routes, ridership, and hours of operation of the MBTA service and Boston College shuttle is to identify redundancies in service and be able to develop recommendations to improve transit services and ridership on the vicinity of Boston College. Please clarify [illegible] findings and recommendations on this issue. Has the proponent thought about consolidating the MBTA service with the Boston College Shuttle service!?
- Would residents in the area be able to ride the shuttle service?

PARKING

- What are the current parking fee [illegible] for Boston College and how do they compare to other colleges in the area? What are the new fees and what is the parking fee plan for the next 10 years? Are students offered a discount?
- There are currently 788 parking spaces on the Brighton Campus. The proponent is proposing on building a parking garage for 500 new spaces and displacing 425 spaces. How soon would the 425 spaces be displaced? Immediately or over time?
- [illegible] should [illegible] illustrate the off-campus on-street and off-street parking [illegible] regulatory parking such as: Resident Parking.
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TRANSPORTATION INFRASTRUCTURE CHANGES

- The propose relocation of St. Thomas More Road [illegible] traffic volumes for all of the proposed options [illegible]
- The proponent proposes to enter the Brighton Campus via Lake Street. There are currently 3 entrances via Lake Street. The community has expressed concern about [illegible]. The proponent should clearly indentify what location are going to be used by whom, as well as, submitting a proposed traffic analysis.
- BTD would like to see the proponent tighten up St. Thomas More Road, Fr. Herlihy Drive and Commonwealth Avenue Intersection.
- The proponent should clarify any right of way issues that are associated with the relocation of St. Thomas More Road.
- There is currently an entrance to the Brighton Campus form Foster Street. What will the overall use of the entrance be?

MBTA Boston College Green Line Station

[illegible] platform alternative on Commonwealth [illegible] traffic management of the intersections of St. Thomas More [illegible] Avenue, Lake Street/Commonwealth Ave. as well as the surrounding Community.

PEDESTRIAN/BIKE PATHS

- The proponent should show in detail how the continuous pedestrian corridor is going to tie all the campuses together.
- BTD would like to see a bicycle lane installed on Beacon Street between Chestnut HILL

BTD looks forward in working with Boston College and the BRA in developing a traffic management plan that will help minimize traffic impacts and improve transportation conditions in the area.

In conclusion I have attached BTD's standard Scope of Work. BTD looks forward in working with Boston College to identify specific components of the scope done. BTD looks forward in working with Harvard University in expediting the submittal of a Draft Project Impact Report (DPIR) and Preliminary Adequacy Determination (PAD).

Sincerely,

William H. Conroy IV,
Senior Planner

- Cc: Vineet Gupta, Director of Policy and Planning
- John DeBenedictis, Director of Engineering

BOSTON TRANSPORTATION DEPARTMENT

TRANSPORTATION ACCESS PLAN GUIDELINES

And

SCOPE OF WORK

Boston is a dense city, with high levels of vehicular congestion, pedestrian traffic, and parking [illegible] will have transportation impacts that require analysis, review, and mitigation. [illegible] development review process, the Boston Transportation Department (BTD) works with development team (the "project proponent") [illegible] thoroughly evaluate the transportation impacts associated with the proposed project, propose and analyze ways to mitigate these transportation impacts, and implement appropriate mitigation measures.

The project proponent is responsible for assessing and mitigating the short-term and long-term [illegible] impacts of the proposed project. Submitting the following [illegible]

1. Transportation Access Plan. The Transportation Access Plan shall fully describe all transportation-related issues surrounding the proposed project. It should include the following principal components:
   - Description of Existing Transportation Conditions. A summary of existing traffic, [illegible]
   - Evaluation of the Proposed Project's Long-Term [illegible] description of the proposed project and a detailed analysis of the project's long-term impacts on traffic, public transit, pedestrian, bicycle, and parking conditions.
   - Mitigation of the Project's Long-Term Transportation Impacts. Identification of appropriate measures to mitigate project impacts, including physical and operational [illegible] improvements, travel demand management (TDM), and long-term project impact monitoring.
   - Description of the Project's Short-Term Construction Impacts and Proposed Mitigation. General overview of the project's construction impacts, construction schedule and phasing, and measures to mitigate the short-term impacts. This is a summary of the more detailed Construction Management Plan (CMP) to be submitted to BTD under separate cover.

   The Access Plan typically comprises the transportation component(s) of the proposed [illegible] Draft Project Impact Report (DPIR) or the Final Project Impact Report (FPIR), [illegible] separate document. In any case, the Access Plan should [illegible] scope of work set forth below. The analysis and reporting guidelines below are designed to be general enough that they will apply to most or all major development [illegible] to be specific enough to ensure adequate information and equitable review of all development projects. These guidelines shall be followed as closely as possible. If the project proponent believes that certain provisions are not applicable to the development in question, the proponent shall [illegible] approval to forego those provisions.

2. Construction Management Plan. The Construction Management Plan (CMP) shall include a detailed proposal for the proposed project's construction: schedule, phasing, and occupancy of the public right-of-way, access and delivery requirements, transportation impacts, and mitigation. The proponent shall submit the CMP to BTD, under separate cover from the Access Plan. The project's general contractor typically prepares the CMP. Guidelines for preparation of [illegible] the CMP are available from BTD. The CMP shall be completed prior to the issuance of a Building Permit from the City of Boston's Inspectional Services Department (ISD).

3. Transportation Access Plan Agreement. The Transportation Access Plan Agreement (TAPA) is a formal legal agreement [illegible] BTD. The TAPA formalizes the findings of the Access Plan, the mitigation commitments, elements of [illegible] other responsibilities of the developer and BTD. [illegible] technical analysis, physical design and assessment of mitigation requirements, it must be executed [illegible] have been completed. However, the TAPA must be executed [illegible] project's design through the City of Boston's Public Improvements Commissioner (PIC). [illegible] responsibility to complete the [illegible] commitments for the project, and to [illegible] BTD review and approval of the document.

STUDY AREA

The Access Plan shall consist of a thorough analysis of the proposed project's transportation impacts throughout the relevant study area. The study area shall comprise the [illegible] way and important transportation [illegible]

a. Commonwealth Avenue @ Lake Street/St. Thomas More Road
b. Commonwealth Avenue @ Foster Street
c. Commonwealth Avenue @ Chestnut Hill Ave.
d. Commonwealth Avenue @ Old Colony
e. Commonwealth Avenue @ South Street
f. Commonwealth Avenue @ Brighton Campus Driveway
g. Proposed St. Thomas Road @ Commonwealth Avenue
h. Beacon Street @ St. Thomas Moore Road/Chestnut Hill Driveway
i. St. Thomas Moore Road @ Chestnut Hill Driveway
j. Father Herlihy Way @ St. Thomas Moore Road
k. Beacon Street @ College Road/Hammond Street
l. Beacon Street @ Chestnut Hill Avenue
m. Beacon Street @ Reservoir Avenue
n. Lake Street @ Washington Street
o. Lake Street/Kenrick Street/Glenmont Road
p. Foster Street @ Rogers Park Avenue
q. Foster Street Brighton Campus Drive
r. Foster Street @ Washington Street
s. Washington Street/ Chestnut Hill Avenue/Market Street

The proponent shall review all relevant project proposals and planning studies that would affect the study area, and incorporate these into the transportation analysis, as appropriate.

DEFINITION OF TASKS

Task 1: Description of Existing Transportation Conditions

The Existing Conditions section shall summarize the current status of transportation within the study area. It shall focus on the issues listed below, and shall identify any existing problems or deficiencies in the transportation system. The Existing Conditions analysis will form the basis for projecting future conditions, and enable comprehensive assessment of the proposed project's transportation impacts.

1.1 Project Site Conditions. Describe general conditions in the vicinity of the project site, including:

- Existing land use, including existing site square footage, building square footage, number of employees or residents, zoning provisions, and other applicable information
- Physical condition of the site, existing access and egress
- Major streets and intersections in the vicinity of the site
- On-street regulations

Include a survey of existing conditions.

1.2 Traffic. The Access Plan shall include traffic volume counts at the study area intersections for weekday morning and evening peak and evening peak periods under existing conditions.

Depending upon the nature of the proposed project, a traffic analysis for additional scenarios, such as the Saturday afternoon peak

study area intersections. Analyses shall reflect realistic peak period characteristics,

stops, pick-up / drop-off), usable lanes, grade, and percentage of heavy vehicles. Appropriate traffic models will be discussed below.

1.3 Parking. The Access Plan shall summarize the parking supply within ¼ mile of the project site. The parking inventory shall focus on publicly available spaces, but shall

The parking inventory shall include:

a. Location (block face for on-street spaces, facility for off-street spaces). Include a graphic representation of the parking supply locations with respect to the project.
b. Type of Space
   - On-street (metered, resident parking, unregulated, etc.)
   - Off-street (monthly, transient, resident, employee, commercially-available, customer, etc.)
c. Parking Fees, by Type of Space
d. Percentage Utilization During Parking Peak (assume 12 noon)

This inventory can be supplemented with data from published sources such as the SFDPW 1997 Downtown Parking Inventory Study.

If there is currently parking associated with the project site, the Access Plan shall summarize the parking use and management. The description of existing on-site parking use shall include: number of spaces, occupancy [illegible] by user type, hour of

Transit. The Access Plan shall describe the study area's mass transit system:

a. Transit Supply
   - Massachusetts Bay Transportation Authority (MBTA) services, proximity to site
   - Service (mode of transit, line, closest station stop)
   - Service characteristics (frequency during peak periods, span of service, connections)
   - Physical characteristics (station conditions, rolling stock)
   - Private transit services (summarize characteristics above)
   - Other transit and high-occupancy vehicle (HOV) services

b. System Utilization
   - Capacity by line during peak periods
   - Current ridership and capacity utilization by line during peak periods

1.5 Pedestrians. The Access Plan shall include a description of pedestrian conditions on sidewalks and intersections adjacent to the site, including major pedestrian routes and desire lines in and around the site, volumes of pedestrians on these routes, and the conditions of these corridors, including any deficiencies or barriers.

Existing and projected pedestrian level of service shall be calculated at the following intersection crossings and sidewalk locations:

a. Commonwealth Avenue @ Lake Street/St. Thomas More Road
b. Commonwealth Avenue @ Foster Street
c. Commonwealth Avenue @ Chestnut Hill Ave.
d. Commonwealth Avenue @ Old Colony
e. Commonwealth Avenue @ South Street
f. Commonwealth Avenue @ Brighton Campus Driveway
g. Proposed St. Thomas Road @ Commonwealth Avenue
h. Beacon Street @ St. Thomas Moore Road/Chestnut Hill Driveway
i. St. Thomas Moore Road @ Chestnut Hill Driveway
j. Father Herilhy Way @ St. Thomas Moore Road
k. Beacon Street @ College Road/Hammond Street
l. Beacon Street @ Chestnut Hill Avenue
m. Beacon Street @ Reservoir Avenue
n. Lake Street @ Washington Street
o. Lake Street/Kenrick Street/Glenmont Road
p. Foster Street @ Rogers Park Avenue
q. Foster Street Brighton Campus Drive
r. Foster Street @ Washington Street
s. Washington Street/ Chestnut Hill Avenue/Market Street

Describe pedestrian accommodation at signalized intersections in the study area (i.e. exclusive vs. concurrent, crossing time provided).

of any existing bicycle racks on or adjacent to the project site. On a day with good weather (record date and weather conditions), survey bicycle rack utilization by location. counts at the following intersections and bike routes.

a. Commonwealth Avenue @ Lake Street/St. Thomas More Road
b. Commonwealth Avenue @ Foster Street
d. Commonwealth Avenue @ Old Colony
e. Commonwealth Avenue @ South Street
f. Commonwealth Avenue @ Brighton Campus Driveway
g. Proposed St. Thomas Road @ Commonwealth Avenue
i. St. Thomas Moore Road @ Chestnut Hill Driveway
m. Beacon Street @ Reservoir Avenue
n. Lake Street @ Washington Street
p. Foster Street @ Rogers Park Avenue
q. Foster Street Brighton Campus Drive
r. Foster Street @ Washington Street
s. Washington Street/ Chestnut Hill Avenue/Market Street

Loading Guidelines', a copy of which is attached for reference. The guidelines can also be accessed from the City of Boston website at

Task 2. Evaluation of Proposed Project's Long-Term Transportation Impacts

long-term transportation impacts. The Access Plan must evaluate, in detail, for all the transportation modes and aspects that will be affected, including traffic, parking, public transit, pedestrians, bicycles, and service and loading. These impacts must be compared to the appropriate baseline condition, the Future No-Build Condition.

2.1 Project Description. The Access Plan shall include a summary of the key project [illegible]

- Project name and street address
- Study area, including critical intersections
- Anticipated construction start and completion dates
- Relevant zoning regulations with respect to use, parking and other characteristics
- Required permits, variances, and licenses
- Site area
- Project's gross square footage and floor-area ratio (FAR)
- Gross square footage by use
- Other relevant variables (e.g. number of dwelling units, number of hotel rooms, number of employees)
- Number of parking spaces, specified by use type
- Number of loading bays, dimensions of bays, design loading vehicle

2.2 Trip Generation Analysis. The Access Plan shall include a clear and detailed trip generation analysis for the proposed uses of the site. This analysis shall include:

a. Person-Trip Generation. The Access Plan shall summarize the proposed project's person-trip generation for daily, AM peak, and PM peak trips. For certain uses, [illegible] person-trips shall also be calculated for other time periods, such as Saturday midday peak hour (e.g. for retail or entertainment use in an area with significant weekend congestion).

The person-trip calculations shall be based on appropriate trip generation rates, typically the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 6th Edition*. The ITE manual includes comprehensive vehicle-trip generation rates based [illegible] United States. Because Boston [illegible] benefits from an excellent public transit system [illegible] trip generation rates are not directly applicable to resulting vehicle trips. ITE rates shall be used to generate total person-trips by correcting for vehicle occupancy rate (VOR). Appendix A [illegible] of the most common ITE trip generation rates and corresponding VOR. The proponent shall use these trip generation rates whenever possible. Where necessary, these trip generation rates may be supplemented by [illegible] data or information from other sources (subject to BTD requirement and/or approval). The person-trip generation analysis shall be summarized in a clear table, in the body of the Access Plan, including all of the following information:

- Land use type
- Square footage by [illegible] land use type
- Vehicle-occupancy rate (VOR) assumption, by land use type (for translation of vehicle-trip rates to person-trip rates)
- Daily person-trip generation (by land use and overall)
  - Daily person-trip generation rate (per 1,000 square feet, or per unit)
  - Resulting daily person-trip ends
- AM peak hour person-trip generation (by land use and overall)
  - AM peak hour person-trip generation rate
  - AM peak hour [illegible]

- AM peak hour person-trips, exiting

[illegible]

  - PM peak hour person-trip generation rate
  - PM peak hour person-trips, entering
  - PM peak hour person-trips, exiting
- Source for trip generation rates

b. Mode Split and Vehicle Occupancy Ratio/Occupancy Rate. Person-trips shall be apportioned among the various principal modes (automobile, public transit, walking, bicycling) using an appropriate mode split. The mode split shall be presented as percentages of [illegible] automobile, public transit, and walk / bicycle travel. [illegible] Transportation Planning Staff (CTPS) has compiled appropriate mode split assumptions for various sections of Boston, according to trip type. Zone 10 should be used to determine these mode splits, along with VOR for automobile trips, are included in Appendix xx. The mode split calculation shall be based upon these assumptions. If the proponent wishes to adjust these mode splits based upon specific [illegible] by appropriate mitigation commitments (e.g. enhanced travel demand management to justify a higher public transit mode share). BTD must approve any adjustments to the mode split and VOR assumptions in Appendix xx. The Access Plan shall include a clear, easily understood table that [illegible] assumptions and the resulting trips [illegible] land use type, by trip purpose, and by mode.

c. Trip Distribution. The trip distribution shall identify the directional split (i.e. north, south, west) of person-trips and vehicle-trips for the specific location and trip types of [illegible] areas of Boston is included in Appendix xx. The trip distribution is allocated by individual mode, and should be applied to the resulting trip totals by mode. The Access Plan shall use this information for trip distribution assumptions, unless BTD recommends or approves other trip distribution assumptions.

d. Trip Assignment. The distributed trips shall be assigned to the appropriate means of [illegible] highway routes, surface streets, surface intersections, [illegible] to rely upon an off-site parking supply, trips shall be assigned appropriately to these locations. [illegible] both entering and exiting the site access, and entering or exiting an off-site parking area.

Attached appendices include the base assumptions that the project proponent shall use for trip generation rates, mode splits, trip distribution, and vehicle occupancy rate for specified areas of Boston. The proponent may believe that [illegible] circumstances, such as proximity to public transit (not relevant for [illegible] such special circumstances warrant, the proponent may propose alternative assumptions, which are subject to BTD approval.

2.3 Future No-Build Condition. The analysis of the proposed project's transportation impacts must be based on a comparison with an appropriate baseline condition. The [illegible] impacts would be felt fully during some future "horizon year" when the

project is expected to be complete, occupied, and operating. The effects of the proposed project should be demonstrated in comparison to projected transportation conditions during the horizon year without the effects of the proposed project.

- The horizon year shall be five years in the future, unless specific circumstances require that a different time frame be used.
- The Future No-Build Condition shall be based on the Existing Conditions assessment with the addition of development and infrastructure projects that have been proposed and are expected to be complete and operational by the horizon year (per BTD and BRA instructions).
- The Future No-Build Condition traffic, transit, and pedestrian volumes shall also include a background growth rate of 1% – 1½ % per year (depending upon local conditions) added to existing traffic volume counts, transit ridership, and pedestrian counts, unless otherwise specified by BTD.

2.4 Future Build Condition. The central component of the Access Plan is the assessment of the proposed project's long term impacts. This shall include evaluations of the project's effects on all transportation modes and aspects, throughout the study area.

a. Traffic Impacts.

i) Traffic Volumes. The traffic analysis shall include diagrams of turning movement volumes generated by the proposed project at all study area intersections, and [illegible] turning movements. The Access Plan shall include turning movement volume diagrams for AM peak volumes, PM peak volumes, and any other required period, of each of the following:

a) Existing Conditions (based on current traffic counts)
b) Future No-Build Conditions (Existing Conditions, plus appropriate future changes and growth factor)
c) Project-Generated Traffic Volumes (based on trip generation)
d) Future Build Conditions (Future No-Build Conditions, plus Project-Generated Traffic Volumes)
e) Future Build Conditions with Mitigation (if the proposed project plans to undertake any roadway or signalization changes in order to mitigate traffic impacts of the proposed project)

ii) Traffic Capacity Analysis Software. The Access Plan shall include traffic capacity analyses for Existing Conditions, Future No-Build Conditions, and Future Build Conditions. The capacity analysis shall be performed using an approved and [illegible] software program.

[illegible] proposed [illegible] (HCS), 1997 edition.

- For closely-spaced intersections with long queues that create interactions between intersections, the proponent shall use a computer model, such as Transyt-7F (version 8) or Synchro, that can accurately model such cases. In such cases, the proponent shall model all of the intersections that would interact.

The computer model output shall be [illegible]

iii) Traffic Capacity Analysis Results Summary. The Access Plan shall include a tabular summary of the traffic capacity analysis, for all conditions (Existing, No-Build, Build) for each intersection as a whole and for each approach of every intersection. The summary shall include the volume to capacity ratio (v/c), level of service (LOS), delay, and estimated queue lengths for each study intersection. [illegible] highlight changes to intersection and individual approach LOS that result from site-generated traffic.

iv) Traffic Counts. The proponent shall submit, under separate cover, turning movement count summary sheets for each intersection in the study area.

b. Parking Impacts. The Access Plan shall include an analysis of projected parking demand and proposed parking supply.

[illegible] Demand Analysis. [illegible]

[illegible] (e.g., hotel employee vs. guest, retail employee vs. patron)

The parking demand analysis shall include

- [illegible] by land use and user type (consistent with mode split and VOR)
- Parking turnover by land use and user type (cite source)
- Parking demand peaks by land use and user type
- Overall parking demand and peak parking demand, based on shared parking among all land uses and user types included in the proposed project

ii) Proposed Parking Supply. The Access Plan shall include a summary of the project's proposed off-street parking supply. Parking supply, and parking costs, [illegible] mode split, and vehicular traffic impact. In general, parking [illegible] neighborhood, the project's transit access, and the project's mode split. Appendix xx includes a map of parking ratio guidelines by land use and area of [illegible]. The project's parking ratio shall remain within these guidelines. If the parking supply exceeds these guidelines, the proponent must justify the excess parking based on circumstances specific to the project. Higher parking ratios may increase transportation impacts, and necessitate enhanced mitigation measures. The information below shall be summarized in a clear table

- Total Spaces
    - Existing
    - Future No-Build (if applicable)
    - Future Build Parking Conditions
- Parking Allocation
    - Space allocation among various land uses
    - Parking ratios: spaces per thousand square feet or per unit, by land use
    - Specially-designated parking spaces, e.g. vanpools, livery vehicles, rental cars, car-sharing

- Treatment of existing parking spaces, including displacement of existing parking spaces and how the parking and how the parking demand for these spaces would be [illegible]
- Comparison of Parking Supply and Demand
  - Projected shortfall or surplus of parking spaces, by land use
  - Proposed management of shortfall or surplus
- Provide a plan of all parking facilities, including layout, access, and size of spaces.

iii) Off-Site Parking Supply. Describe any anticipated utilization of off-site parking supply (as described in the Existing Conditions/Future No-Build Conditions) required to satisfy project-generated parking demand.
- On-Street Parking Supply
- Off-Street Parking Supply
  - Number and type of spaces required (i.e. publicly-available, employee, residential)
  - Resulting parking utilization at 12 noon on a weekday (additional parking survey times may be required, depending upon the nature of the project)

iv) Proposed Parking Management Plan
- Description of Proposed Parking Operations
  - Access control
  - Valet operations
  - Pass or payment medium
  - Assessment of operations to prevent illegal parking, violation of 5-minute idling law
  - Parking Fees
- Management of Specially-Designated Parking Spaces (e.g. vanpool, carpools, rental cars, car-sharing)
  - Location
  - Parking fees
  - Accommodation of increased supply if demand warrants

Provide the anticipated impacts of the project on the mass transit person-trips (based on trip generation). Future transit conditions shall be based on transit supply and capacity that is expected to be available in the horizon year; if there is some doubt, the proponent shall consult with BTD and/or the MBTA. The proponent may use generally available MBTA ridership data as a basis for this analysis. The Access Plan shall include the following information:

i) Transit Trip Distribution
Distribution of project-generated transit trips by zone

- Existing Conditions: Capacity and utilization by line

- No-Build Conditions: Capacity and utilization by line
- Build Conditions: Capacity and utilization by line

d. Pedestrian Impacts. Describe future pedestrian conditions in the study area:
Pedestrian access to and from the project, pedestrian circulation routes

- Pedestrian accommodation in the project's public spaces (e.g. sidewalk, adjacent intersections, plaza spaces, benches, etc.)
- Pedestrian level of service (LOS) at all surveyed crosswalks, sidewalks and other locations
  - Existing Conditions
  - Future No-Build Conditions
  - Future Build Conditions

NOTE: The traffic capacity analyses must also assume appropriate accommodation for pedestrians in all signalization assumptions. The pedestrian impacts analysis shall describe the assumptions regarding accommodation of pedestrians in the traffic analysis, i.e. pedestrian walk rate and percentage of cycles in which pedestrian phase is called (verify with BTD).

e. Bicycles. Describe bicycle access to, from, and within the project site. Describe bicycle storage and other amenities (e.g. shower and changing facilities) to be provided. BTD will provide guidelines on bicycle storage requirements based on project type and size.

f. Loading and Service. The project must accommodate loading and service facilities in an off-street location. The loading and service plan shall not rely upon loading facilities requiring backing maneuvers in the public right-of-way. Describe service and loading requirements:

- Number of loading bays
- Services to be provided (e.g. garbage compactor, garbage collection, restaurant service, move-in / move-out, etc.)
- Level of loading and service activity (number of trucks per day or per week)
- Loading and service schedule, schedule restrictions (proponent shall prohibit or strictly limit loading and service activities during peak periods)
- Required truck turning movements (show design vehicle turning movements on site plan)
- Major loading and service vehicle routes for site access and egress
- Access for emergency vehicles

2.5 Site Plan. Provide an engineered site plan showing Build Conditions (contrast with existing conditions):

- Public right-of-way layout
  - Roadways
  - Sidewalks
- Vehicular access and circulation
- Service and loading

- Parking
- Bicycle storage
- Proposed on-street regulations

Major development projects offer benefits, but they also consume public services and create impacts on public resources. Chief among these impacts is a development's effect on the transportation system. The project proponent is required to quantify and analyze these impacts through the Access Plan. It is then the responsibility of the project proponent, working with BTD, to develop strategies for reducing and mitigating these impacts. These strategies will typically include

transportation system.

These transportation system improvements and mitigation measures have associated costs. The proponent should view these costs as an integral component of the overall project cost necessary to enable the transportation system to accommodate the project's impacts. The mitigation measures benefit the users of the transportation system, in particular the new users associated with the proposed project. Project proponents shall allocate appropriate funding for the mitigation. The mitigation measures associated with a development project will be specified in the project's Transportation Access Plan Agreement (TAPA) between the proponent and BTD.

(TDM). Travel demand management comprises a variety

so critical due to the disproportionate impacts of SOV travel on congestion, parking

assumptions for mode split and VOR, since these default assumptions reflect long-standing TDM efforts and Transportation Management Association programs

Appropriate TDM measures and requirements will vary depending upon the type of development, the neighborhood, the impact analysis assumptions, and other circumstances. For example, many of the measures below would not apply to a residential development. In the case of commercial office development, some (but not all) of the measures below would be the responsibility of the tenants, rather than the proponent. The proponent will be required to implement those TDM measures that are within its control, and should structure lease agreements accordingly. For example, if the proponent seeks to base its impact analysis on aggressive assumptions (e.g. a high transit mode share), the proponent must require appropriate TDM measures in its lease agreements with tenants.

will be required to implement the following TDM measures (as appropriate to the specific project):

a. Transportation Coordinator. Designate a full-time, on-site employee as the

contact and liaison for BTD and the Transportation Management Association

b. Ridesharing / Carpooling. Facilitate ridesharing through geographic matching, parking fee discounts, and preferential parking for carpools / vanpools. May be accomplished through membership in a TMA, participation in CARAVAN for Commuters, and/or use of computerized ridesharing software

c. Guaranteed Ride Home Program. Offer a "guaranteed ride home" in order to remove an obstacle to transit use and ridesharing

d. Transit Pass Programs. Encourage employees to use transit through the following measures:

- Offer an MBTA Corporate T Pass Program
- Offer federal "Commuter Choice" programs, including pre-tax deductions for transit passes and subsidized transit passes

e. Information and Promotion of Travel Alternatives

- Sponsor an annual (or more frequent) "Transportation Day" at which employees may obtain information on travel alternatives and register to participate in ridesharing programs
- Provide information on travel alternatives for employees and visitors via the Internet

f. Transportation Management Association. Encourage tenants to join the TMA as well. If no TMA is established in the project area, investigate starting a new TMA or becoming affiliated with an existing TMA. A TMA can provide many of these TDM measures, including guaranteed ride home, and transit information and promotional materials.

g. Bicycle Facilities and Promotion

- Provide secure bicycle storage (number of spaces will be specified depending upon size of development and type of land use)
- Provide showers and changing facilities for bicycle commuters
- Promote bicycles as an alternative to SOV travel, provide promotional materials on bicycle commuting and bicycle safety, and provide incentives for bicycle use

h. Parking Management
   - Charge market-rate parking fees
   - Offer preferential parking to carpools and vanpools
   - Offer reduced parking rates to carpools and vanpools
   - Offer parking "cash-out" option
   - Offer garage space for car rentals
   - Offer parking space for car-sharing
   - Offer parking space, charging facilities for electric vehicles
   - Offer parking / layover space for livery vehicles (hotel development)
   - Enforce a 5-minute limit on vehicle idling for all users of the Development, in accordance with Massachusetts state law

i. Trip Reduction Strategies. To the degree possible, the Developer shall implement the following strategies for its own on-site employees. The Developer shall also [illegible] strategies as well:

   - Telecommuting. Reduce overall trip demand by enabling employees to telecommute.
   - Flexible Work Schedules. Reduce peak hour and overall trip demand by enabling employees to telecommute, work a compressed workweek, or work hours that enable off-peak commuting.
   - Local Hiring. Recruit and hire employees from the local area. Such local employees can more easily use alternatives to SOV travel, including walking, bicycling, and transit.

j. Transportation Monitoring and Annual Reporting. Monitor transportation conditions, [illegible] the project, and provide benefits to the proponent. BTD will provide employee survey forms and transportation monitoring forms to ensure uniformity of data.

3.2 Transportation System Improvements. In order to meet Boston's mobility needs as its population, density, and land development increase, Boston's transportation system requires improvements. These improvements offset the transportation impacts of new development. In addition, these improvements can make the traveling experience easier in the vicinity of the project, which accrues to the benefit of the proponent and the development's users.

a. Geometric Changes and Improvements to the Public Right-of-Way. The proponent may be required to make geometric changes and improvements to roadways, sidewalks, and other elements in the vicinity of the proposed project. These changes and improvements may be necessary in order to enable new circulation patterns resulting from the project and mitigate impacts of new vehicle or pedestrian trips. Changes and improvements shall be designed by the proponent's consultant in consultation with BTD. The proponent will be required to directly fund and implement all changes and improvements to the public right-of-way, and to obtain [illegible] of the City of Boston's [illegible]. These improvements shall be made with input from BTD, per specifications provided

approval.

b. Traffic Signal Improvements. BTD operates most of the traffic signals in Boston. Improvements to traffic signals in the vicinity of the proposed project may be necessary to manage the increased travel demands placed on the intersection. Improving the operations of these signals can reduce congestion and improve

i) Traffic signal equipment
- Signal controller
- Signal heads and pedestrian heads
- Signal poles and mast arms

ii) Traffic monitoring equipment
- System detectors
- Video monitoring cameras

iii) Traffic signal communications equipment
- Communications conduit (4" PVC)
- Signal interconnect cable

The project proponent will be required to directly fund and implement all traffic signal improvements, and to obtain any required permits. These improvements shall be made with input from BTD, per specifications provided by BTD, by a contractor

- Operating subsidy for water transportation services

- Supplemental transit services. Public transit is the most desirable means of achieving transit access, and the proponent shall make every effort to facilitate transit access to the proposed project via public services. However, there may

buses, are necessary.

Mitigation

The Access Plan shall include an overview of construction period transportation impacts and proposed short-term mitigation. This shall be a summary of the more detailed Construction Management Plan (CMP) that must be submitted to BTD under separate cover. The

construction management summary in the Access Plan shall provide an appropriate level of information regarding the analysis and proposed management of the impacts of the project during the construction period, including:

- The need for full or partial street closures, street occupancy, sidewalk closures, and/or sidewalk occupancy during construction
- Expected schedule for truck movements and construction materials deliveries including designated and prohibited delivery times
- Designated truck routes
- Plans for maintaining pedestrian and vehicle access during each phase of construction
- Parking provisions for construction workers
- Mode of transportation for construction workers, initiatives for reducing driving and parking demands
- Coordination with other construction projects in the area

Traffic Counts

N/S Street : Lake St / St Thomas Moore
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

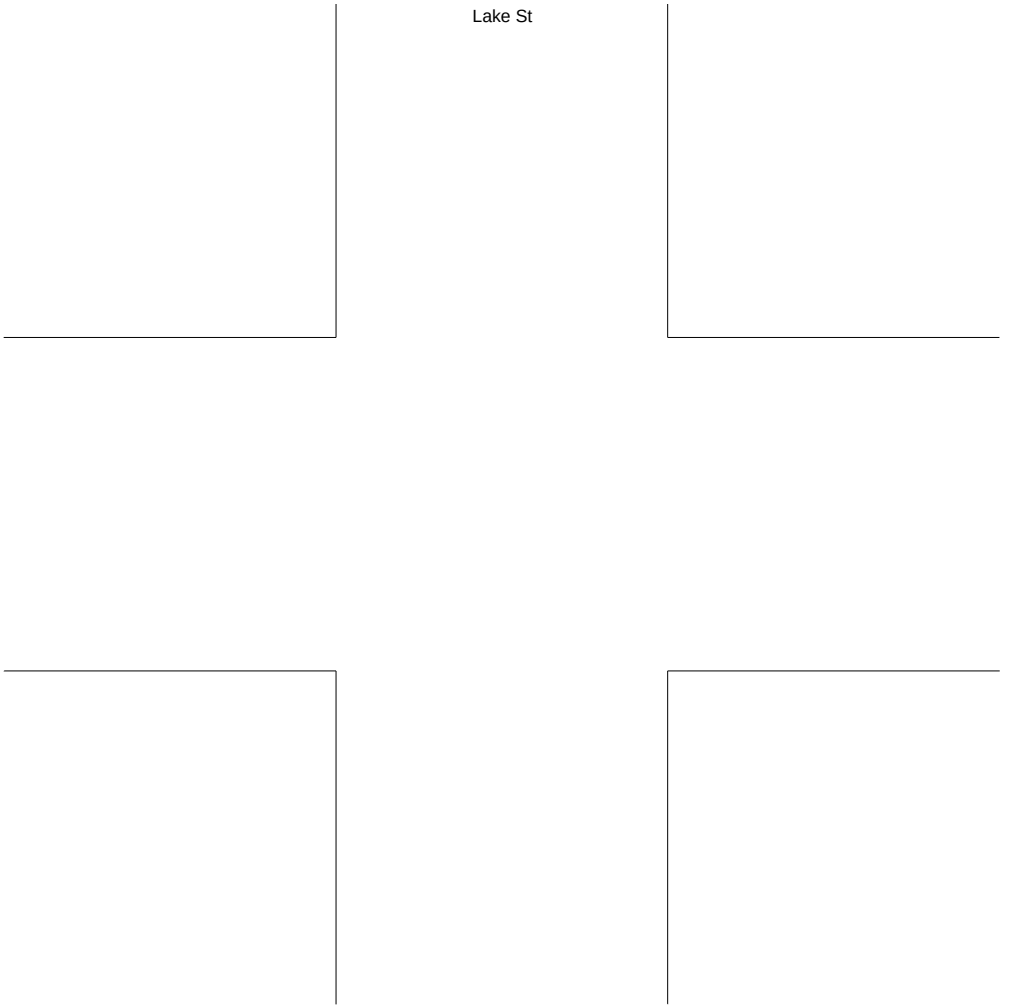
File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008

Groups Printed- Cars - Trucks

	Lake St From North				Commonwealth Ave From East					St Thomas Moore Rd From South				Commonwealth Ave From West							
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	U-Trn	Left	Thru	Right	Peds	Left	Thru	Right	Peds	U-Trn	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	0	4	33	58	13	0	1	7	35	11	1	32	48	0	0	1	7	237	244
07:15	0	0	0	2	37	102	26	2	2	14	42	11	5	60	64	1	0	0	11	357	368
07:30	0	0	0	5	49	126	13	4	1	18	36	7	2	46	84	1	0	1	13	380	393
07:45	0	0	0	4	56	127	20	2	2	20	56	10	5	72	148	0	3	0	16	509	525
Total	0	0	0	15	175	413	72	8	6	59	169	39	13	210	344	2	3	2	47	1483	1530
08:00	0	0	0	2	54	152	27	6	1	8	37	6	9	75	157	0	2	1	21	516	537
08:15	0	0	0	3	61	155	25	4	1	14	44	13	9	64	121	0	2	1	20	497	517
08:30	0	0	0	12	70	144	20	29	0	14	37	19	31	80	123	0	4	0	76	507	583
08:45	0	0	0	9	93	140	14	34	6	20	27	19	39	72	108	2	5	1	94	495	589
Total	0	0	0	26	278	591	86	73	8	56	145	57	88	291	509	2	13	3	211	2015	2226
Grand Total	0	0	0	41	453	1004	158	81	14	115	314	96	101	501	853	4	16	5	258	3498	3756
Apprch %	0	0	0		28	62.2	9.8			21.9	59.8	18.3		36.9	62.8	0.3					
Total %	0	0	0		13	28.7	4.5			3.3	9	2.7		14.3	24.4	0.1			6.9	93.1	
Cars	0	0	0		426	985	149			90	308	78		495	836	4			0	0	3627
% Cars	0	0	0	100	94	98.1	94.3	100	100	78.3	98.1	81.2	99	98.8	98	100	100	80	0	0	96.6
Trucks	0	0	0		27	19	9			25	6	18		6	17	0			0	0	129
% Trucks	0	0	0	0	6	1.9	5.7	0	0	21.7	1.9	18.8	1	1.2	2	0	0	20	0	0	3.4

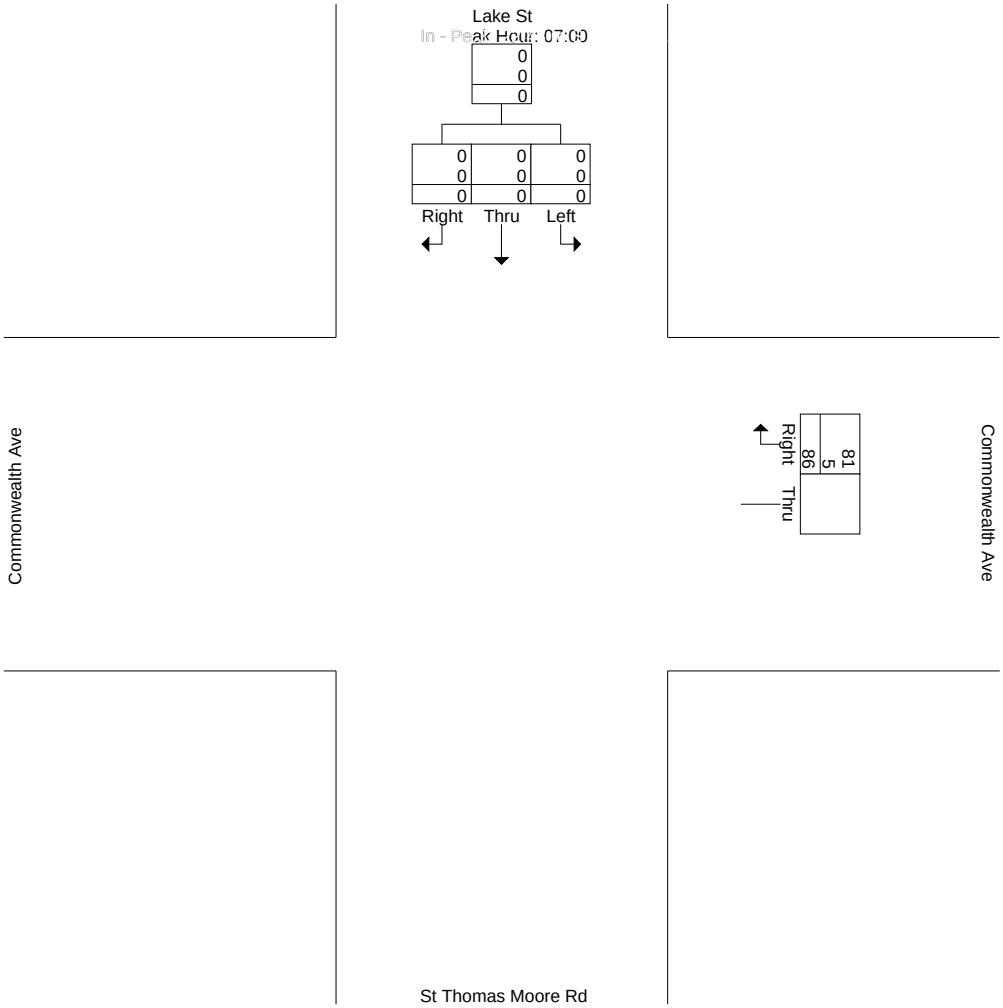
	Lake St From North				Commonwealth Ave From East				St Thomas Moore Rd From South				Commonwealth Ave From West				
Start Time	Left	Thru	Right	App. Total				App. Total				App. Total				App. Total	Int. Total

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


Lake St

Accurate Counts
978-664-2565

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 3

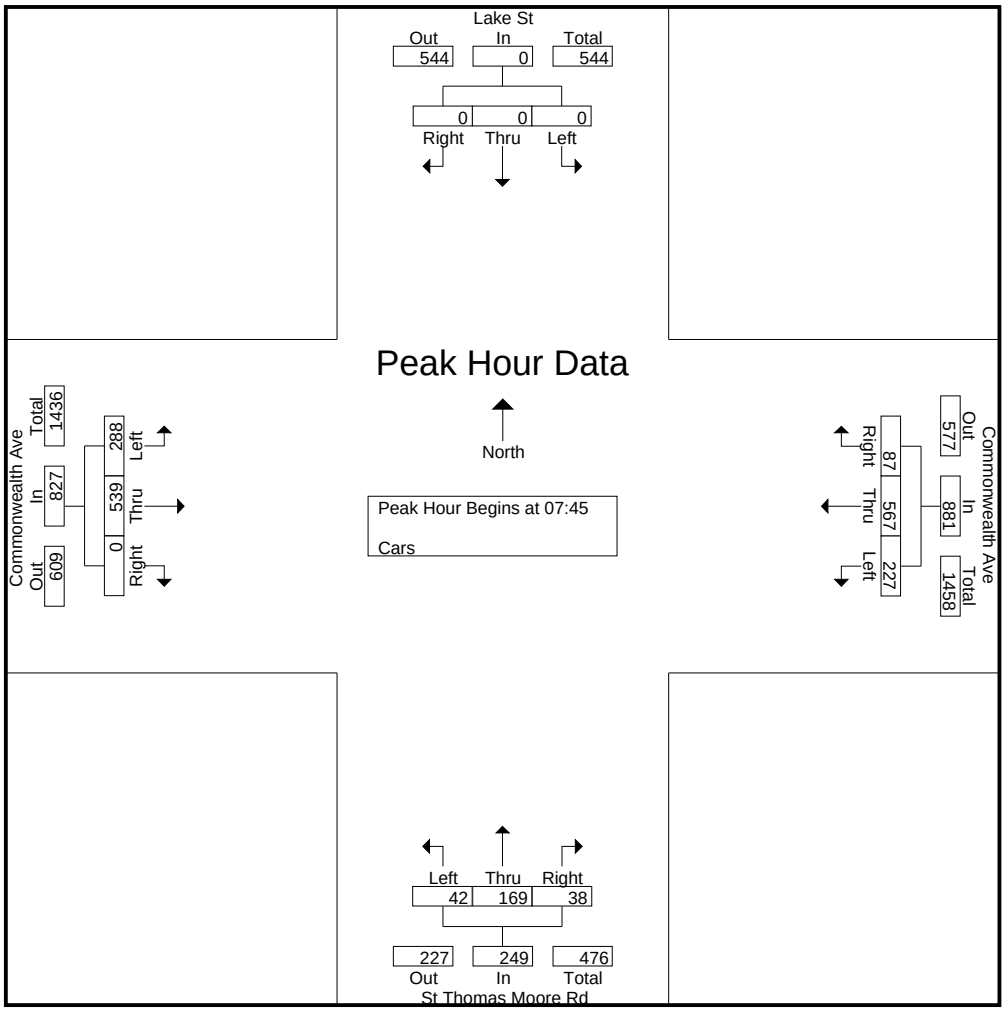


Accurate Counts
978-664-2565

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 1

Accurate Counts
978-664-2565

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 2

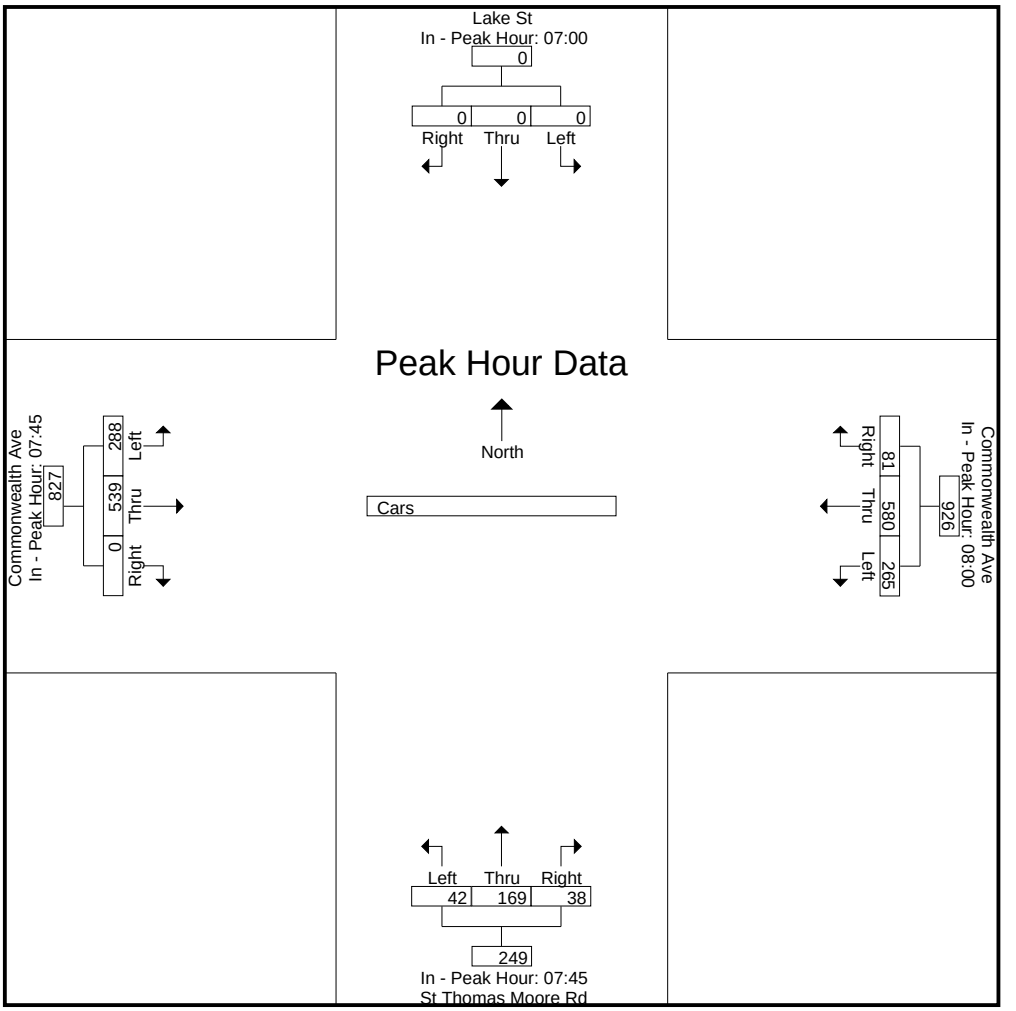


Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00				08:00				07:45				07:45			
+0 mins.	0	0	0	0												

Accurate Counts
978-664-2565

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 3



N/S Street : Lake St / St Thomas Moore
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

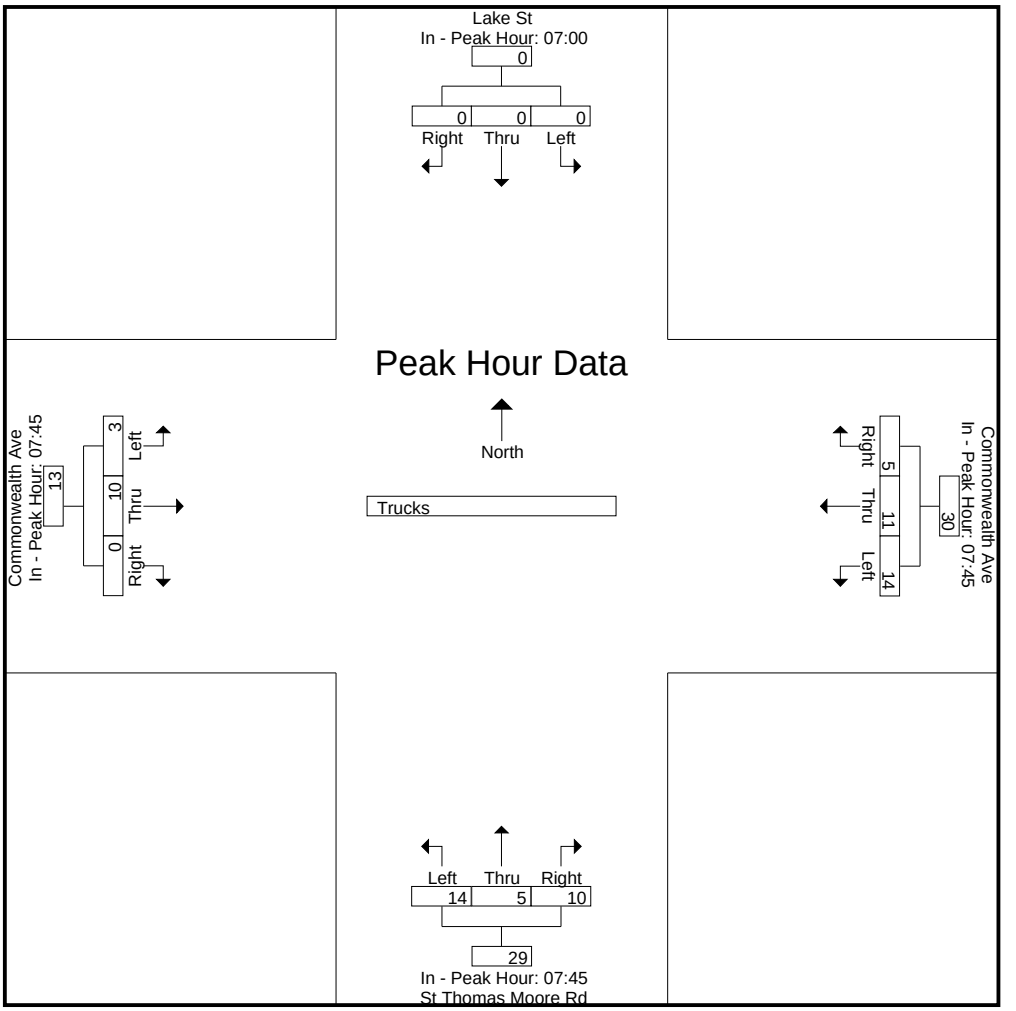
File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 1

Groups Printed- Trucks

	Lake St From North				Commonwealth Ave From East					St Thomas Moore Rd From South				Commonwealth Ave From West							
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	U-Trn	Left	Thru	Right	Peds	Left	Thru	Right	Peds	U-Trn	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	0	0	4	1	1	0	0	2	1	2	1	0	1	0	0	1	2	12	14
07:15	0	0	0	0	2	1	2	0	0	3	0	2	0	1	0	0	0	0	0	11	11
07:30	0	0	0	0	4	3	0	0	0	3	0	2	0	1	3	0	0	0	0	16	16
07:45	0	0	0	0	4	3	1	0	0	5	0	2	0	1	4	0	0	0	0	20	20
Total	0	0	0	0	14	8	4	0	0	13	1	8	1	3	8	0	0	1	2	59	61
08:00	0	0	0	0	1	2	0	0	0	2	1	2	0	0	2	0	0	0	0	10	10
08:15	0	0	0	0	5	2	3	0	0	4	1	2	0	0	1	0	0	0	0	18	18
08:30	0	0	0	0	4	4	1	0	0	3	3	4	0	2	3	0	0	0	0	24	24
08:45	0	0	0	0	3	3	1	0	0	3	0	2	0	1	3	0	0	0	0	16	16
Total	0	0	0	0	13	11	5	0	0												

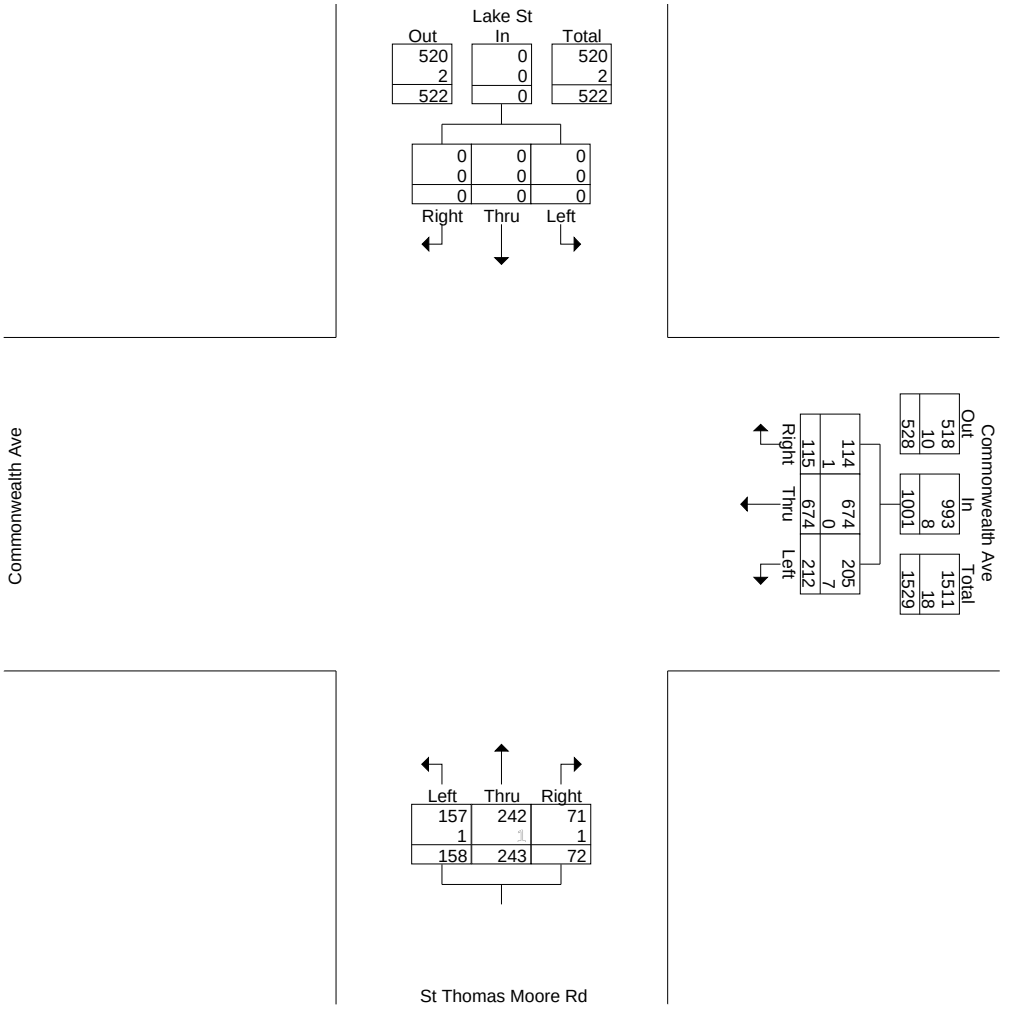
Accurate Counts
978-664-2565

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 3



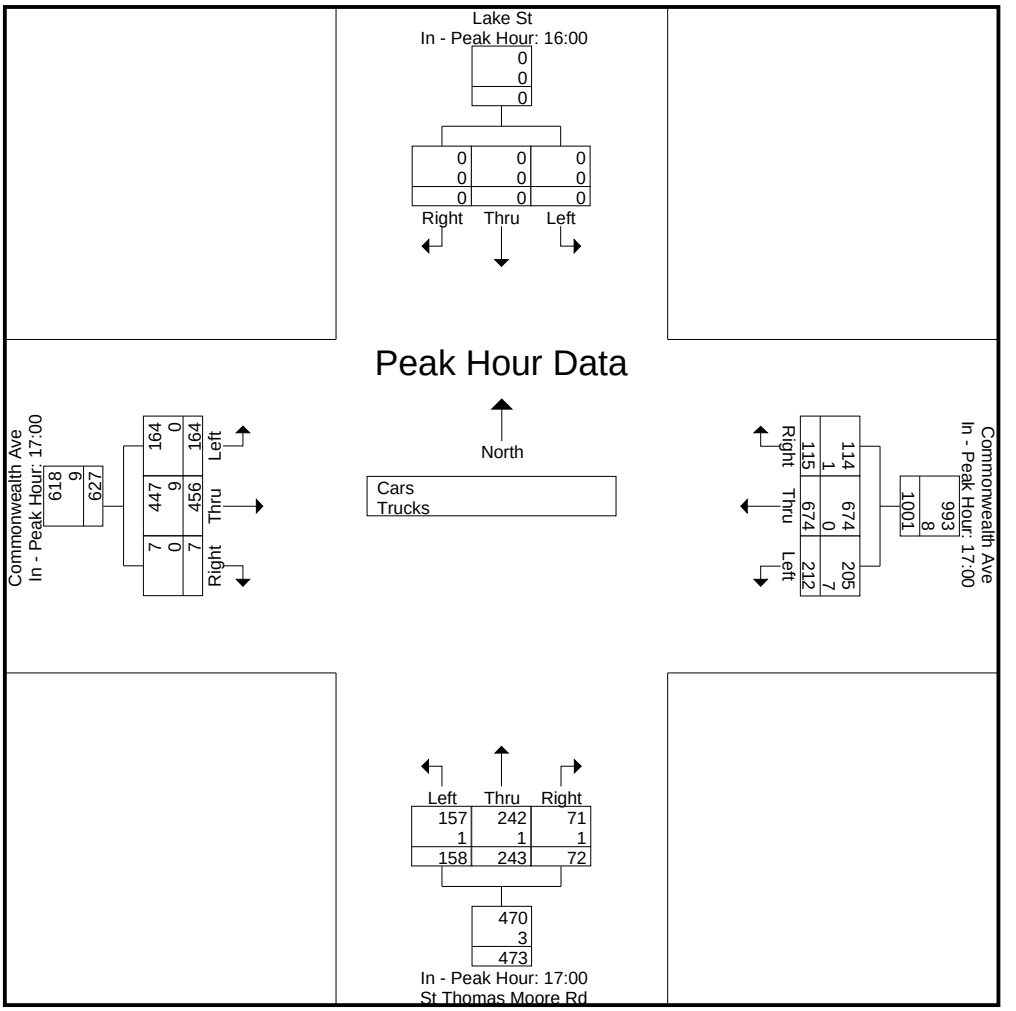
Accurate Counts
978-664-2565

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 3



N/S Street : Lake St / St Thomas Moore
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

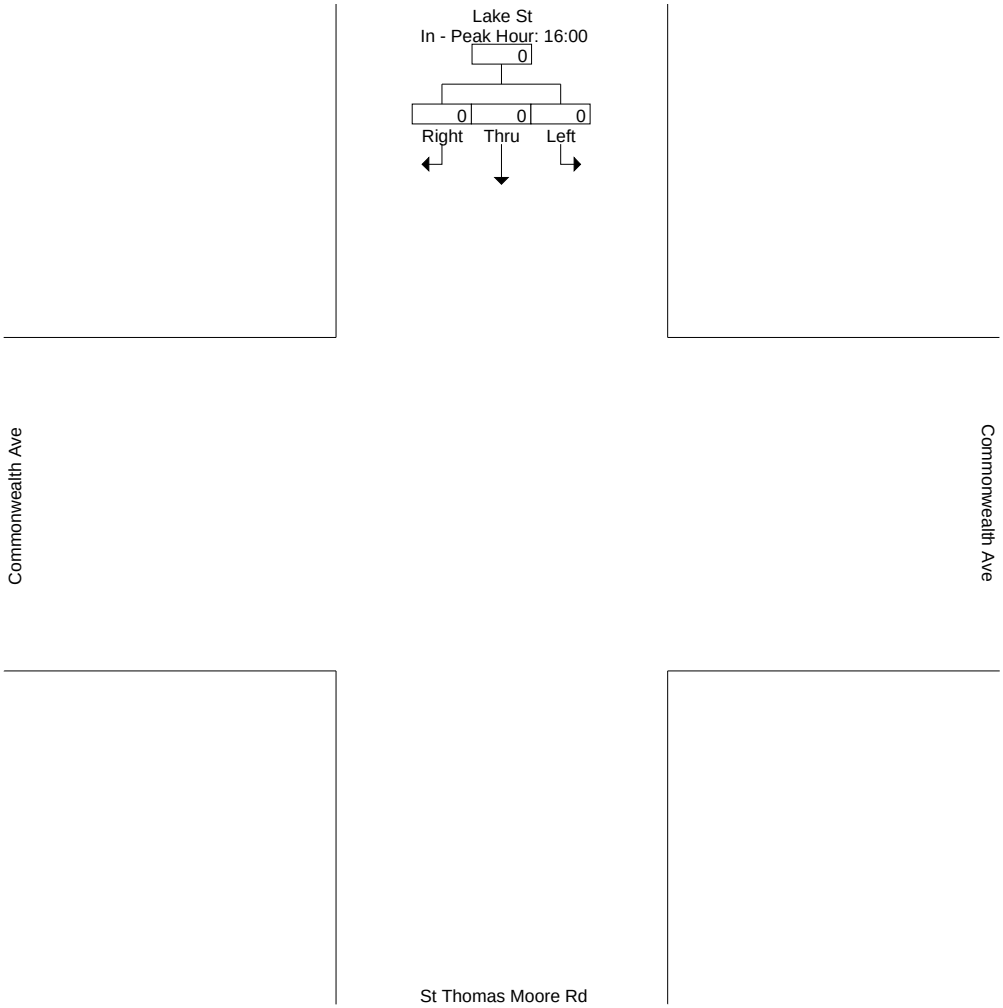
File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars

	Lake St From North				Commonwealth Ave From East	St Thomas Moore Rd From South	Commonwealth Ave From West
Start Time	Left	Thru	Right	x 18 69Cht			

File Name : 39000001
Site Code

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 3



N/S Street : Lake St / St Thomas Moore
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 1

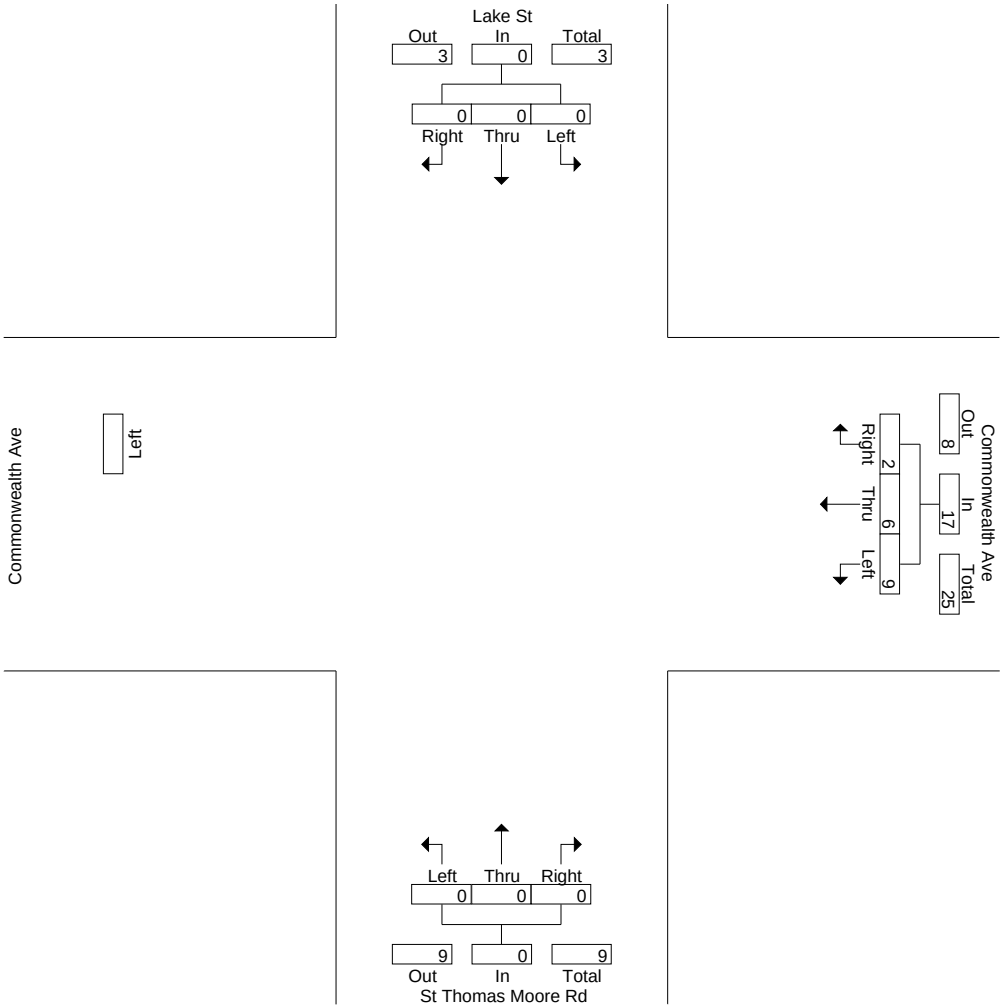
Groups Printed- Trucks

	Lake St From North				Commonwealth Ave From East					St Thomas Moore Rd From South				Commonwealth Ave From West							
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	U-Trn	Left	Thru	Right	Peds	Left	Thru	Right	Peds	U-Trn	Excl. Total	Inclu. Total	Int. Total
16:00	0	0	0																		

0 6472 66:03930

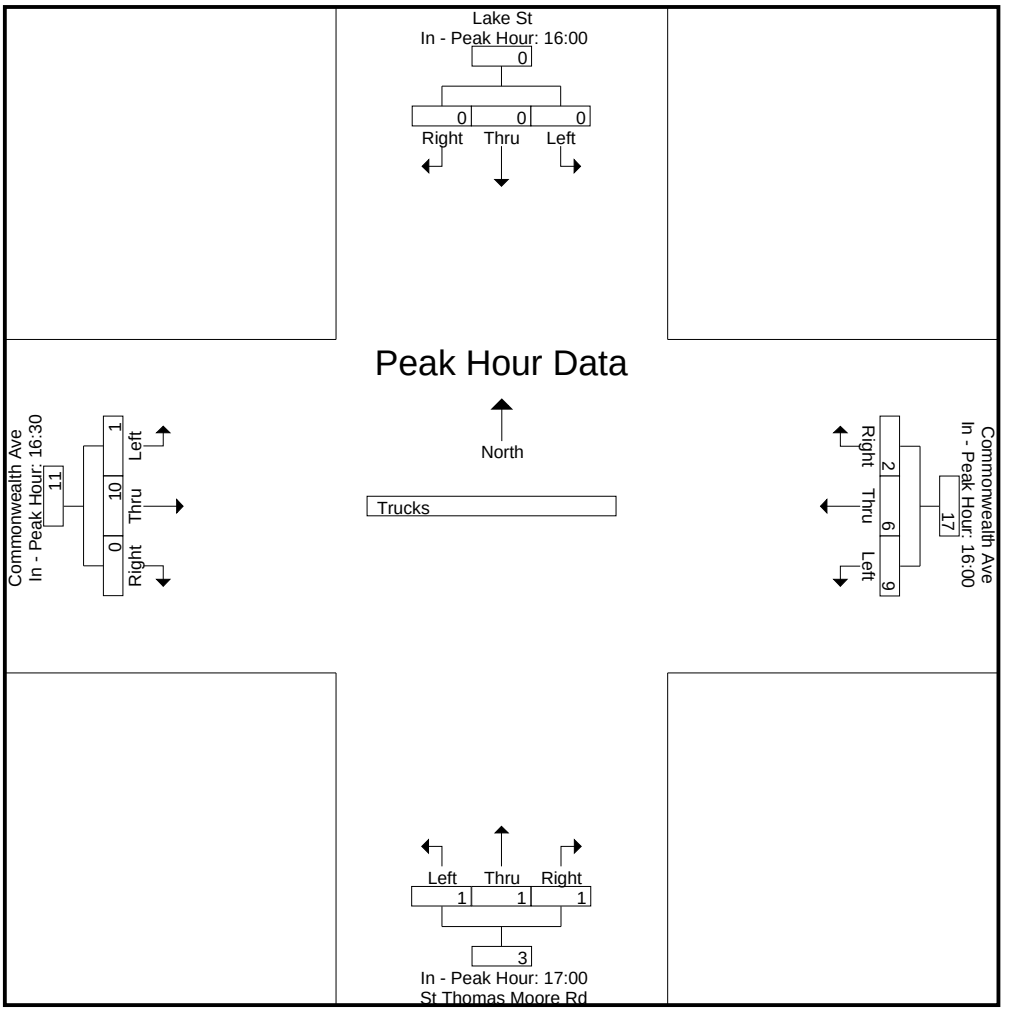
Accurate Counts
978-664-2565

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000001
Site Code : 39000001
Start Date : 3/11/2008
Page No : 3



N/S Street : Foster Street
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

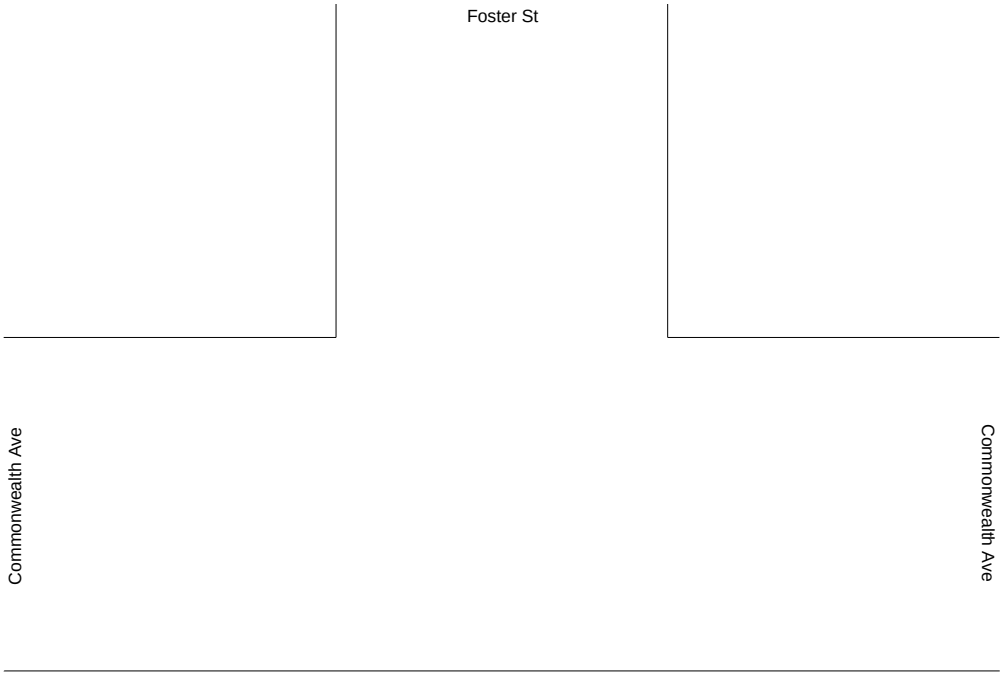
File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars - Trucks

	Foster St From North			Commonwealth Ave From East			Commonwealth Ave From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	45	5	65	10	0	0	73	0	5	193	198
07:15	0	66	8	115	15	0	0	86	0	8	282	290
07:30	0	92	9	114	17	0	0	109	0	9	332	341
07:45	0	79	15	142	19	0	0	160	0	15	400	415
Total	0	282	37	436	61	0	0	428	0	37	1207	1244
08:00	0	76	6	156	26	0	0	165	0	6	423	429
08:15	0	97	9	160	16	0	0	145	0	9	418	427
08:30	0	99	29	155	19	0	0	146	0	29	419	448
08:45	0	105	18	144	19	0	0	133	0	18	401	419
Total	0	377	62	615	80	0	0					

Accurate Counts
978-664-2565

File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 2



N/S Street : Foster Street
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

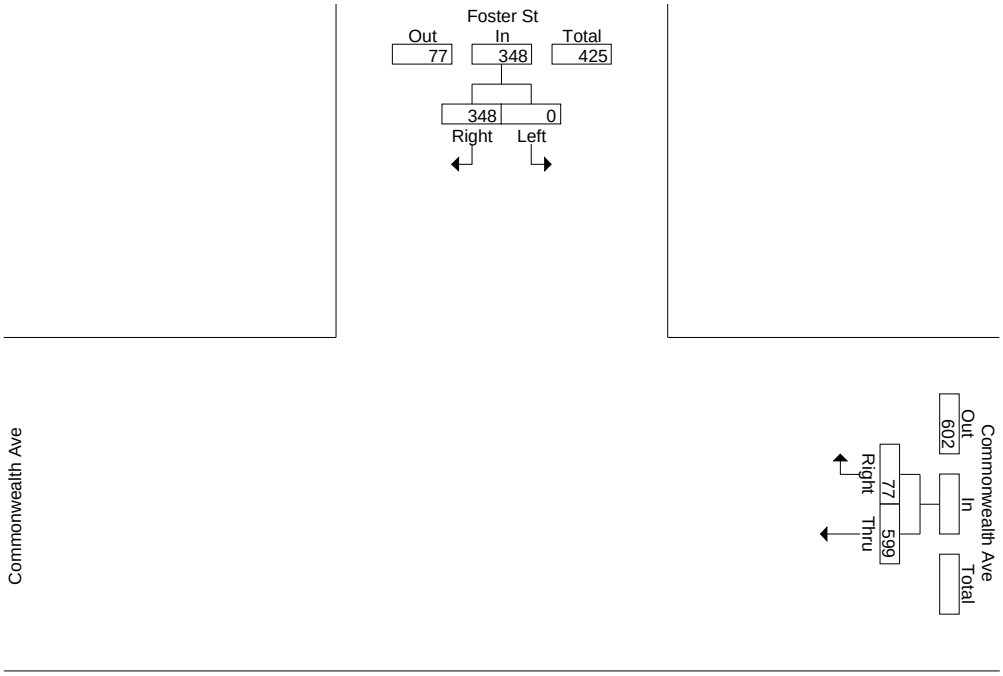
File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars

	Foster St From North			Commonwealth Ave From East			Commonwealth Ave From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	44	5	62	10	0	0	70	0	5	186	

Accurate Counts
978-664-2565

File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 2



N/S Street : Foster Street
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 1

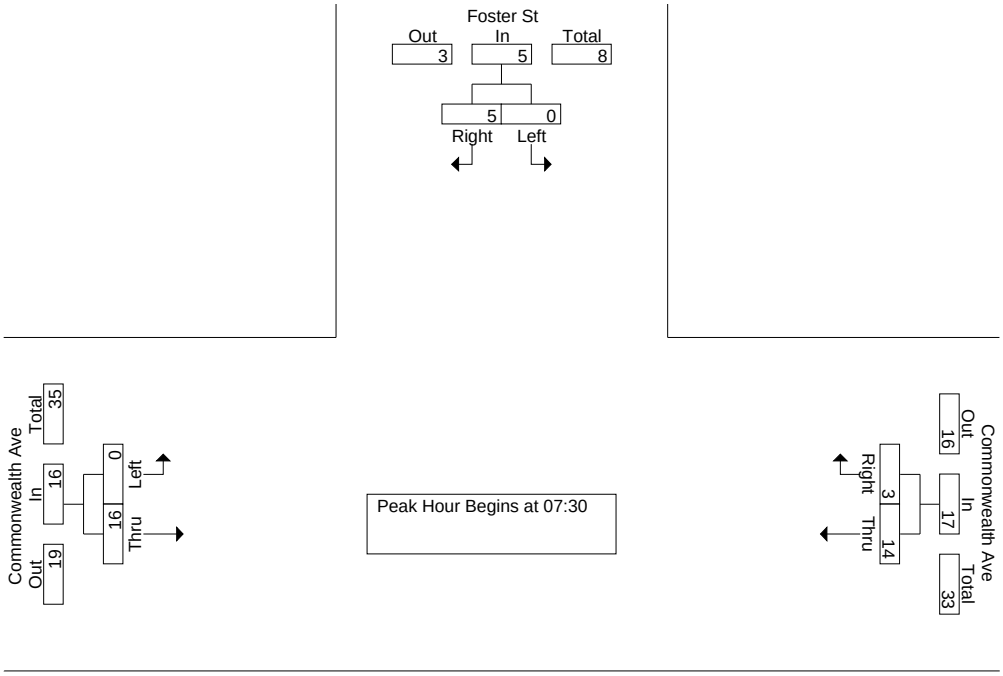
Groups Printed- Trucks

	Foster St From North			Commonwealth Ave From East			Commonwealth Ave From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	1	0	3	0	0	0	3	0	0	7	7
07:15	0	2	0	4	0	0	0	3	0	0	9	9
07:30	0	3	0	3	0	0	0	7	0	0	13	13
07:45	0	1	0	3	0	0	0	4	0	0	8	8
Total	0	7	0	13	0	0	0	17	0	0	37	37
08:00	0	0	0	3	1	0	0	3	0	0	7	7
08:15	0	1	0	5	2	0	0	2	0	0	10	10
08:30	0	1	0	3	0	0	0	5	0	0	9	9
08:45	0	2	0	5	0	0	0	5	0	0	12	12
Total	0	4	0	16	3	0	0	15	0	0	38	38
Grand Total	0	11	0	29	3	0	0	32	0	0	75	75
Apprch %	0	100		90.6	9.4		0	100				
Total %	0	14.7		38.7	4		0	42.7		0	100	

	Foster St From North			Commonwealth Ave From East			Commonwealth Ave From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. 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	3	3	3	0	3	0	7	7	13
07:45	0	1	1	3	0	3	0	4	4	8
08:00	0	0	0	3	1	4	0	3	3	7
08:15	0	1	1	5	2	7	0	2	2	10
Total Volume	0	5	5	14	3	17	0	16	16	38
% App. Total	0	100		82.4	17.6		0	100		
PHF	.000	.417	.417	.700	.375	.607	.000	.571	.571	.731

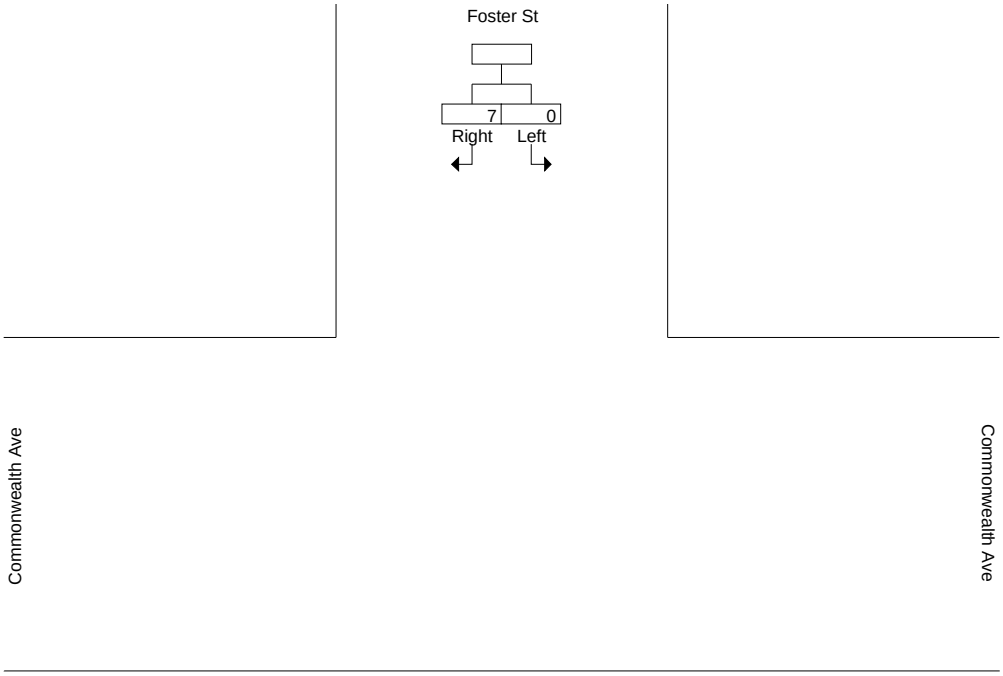
Accurate Counts
978-664-2565

File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 3



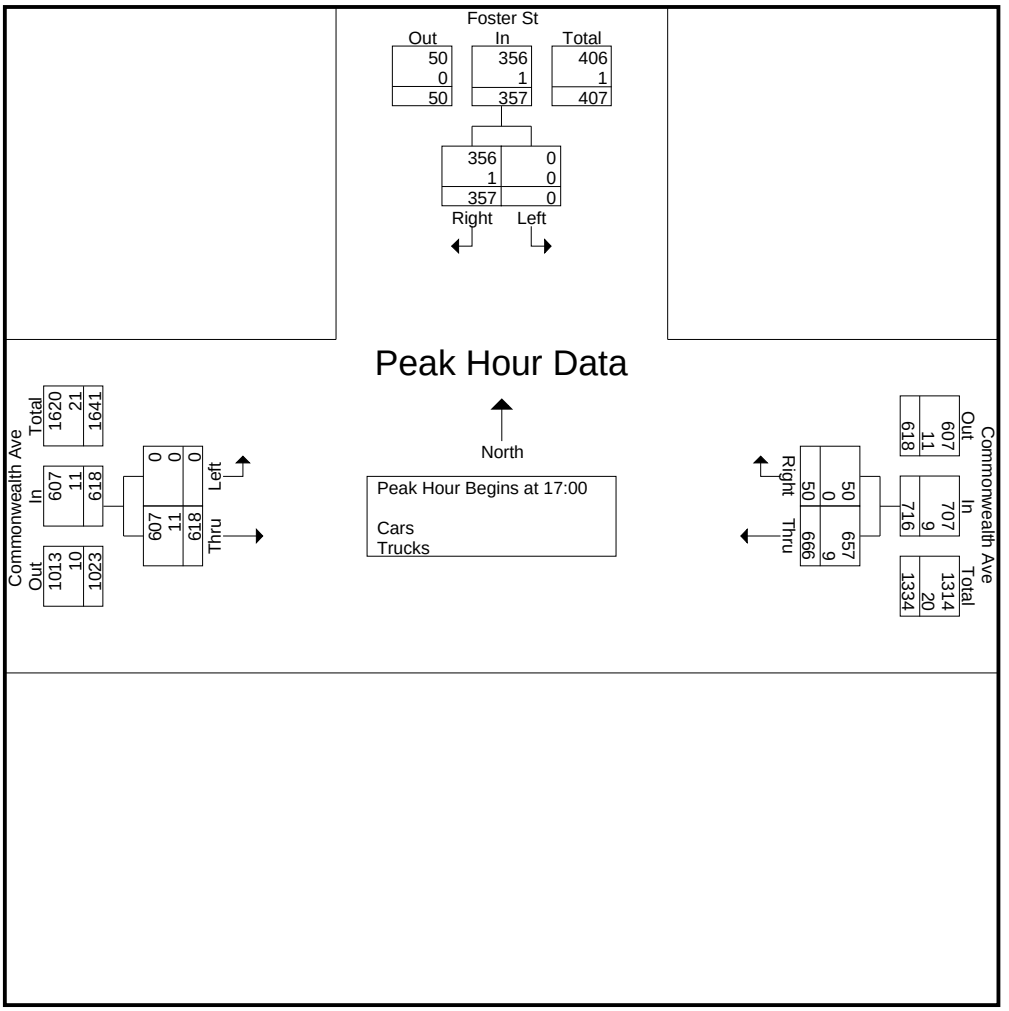
N/S Street : Foster Street

Accurate Counts
978-664-2565

File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 1

Accurate Counts
978-664-2565

File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 2



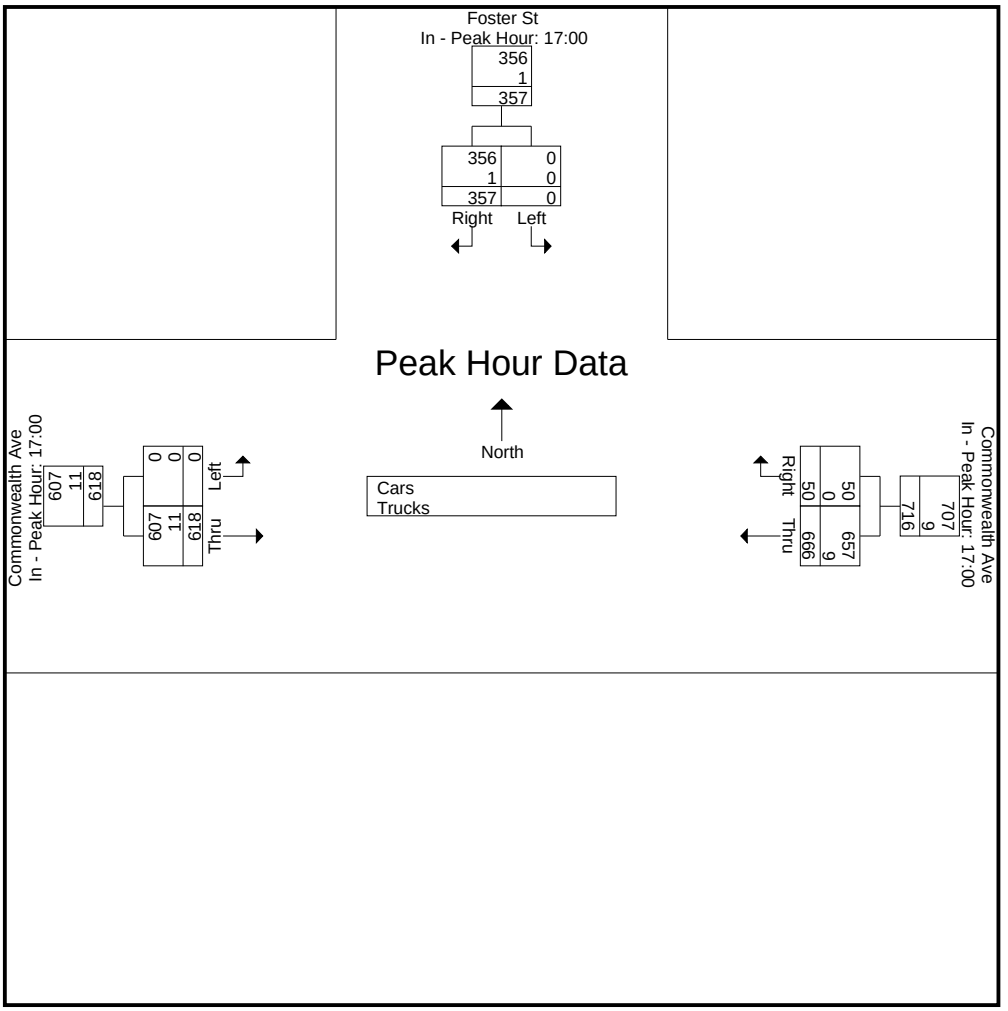
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00			17:00			17:00		
+0 mins.	0	79	79	161	9	170	0	147	147
+15 mins.	0	100	100	178	11	189	0	145	145
+30 mins.	0	88	88	160	13	173	0	140	140
+45 mins.	0	90	90	167	17	184	0	186	186
Total Volume	0	357	357	666	50	716	0	618	618
% App. Total	0	100		93	7		0	100	
PHF	.000	.893	.893	.935	.735	.947	.000	.831	.831
Cars	0	356	356	657	50	707	0	607	607
% Cars	0	99.7	99.7	98.6	100	98.7	0	98.2	98.2
Trucks	0	1	1	9	0	9	0	11	11
% Trucks	0	0.3	0.3	1.4	0	1.3	0	1.8	1.8

Accurate Counts
978-664-2565

File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 3



N/S Street : Foster Street
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 1

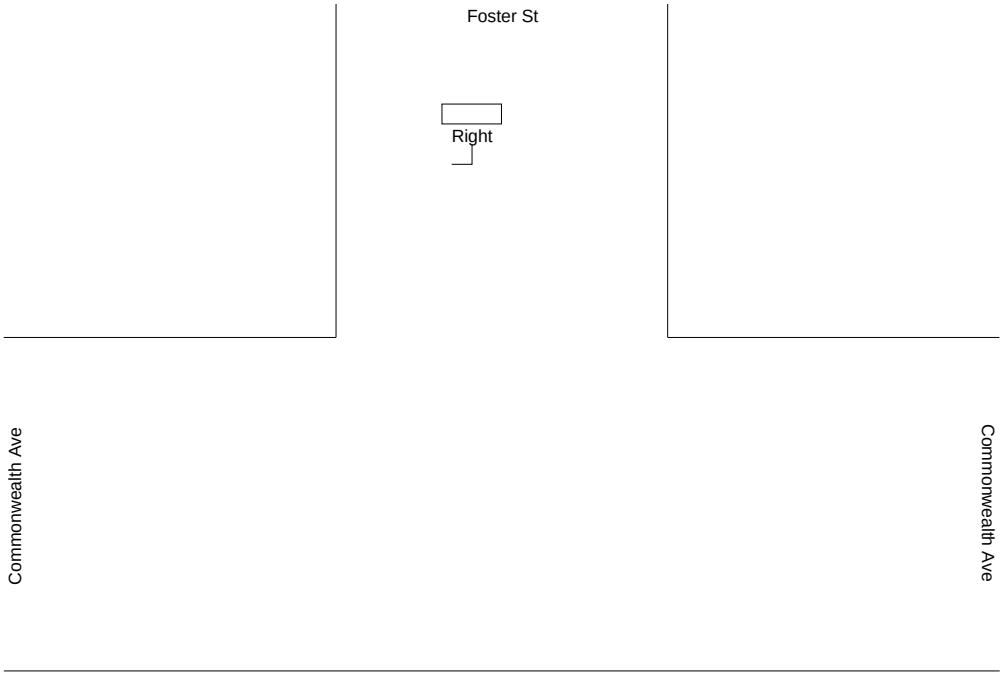
Groups Printed- Cars

	Foster St From North			Commonwealth Ave From East			Commonwealth Ave From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	0	83	13	124	10	4	0	95	0	17	312	329
16:15	0	82	11	162	14	0	0	113	0	11	371	382
16:30	0	76	14	110	12	0	0	127	0	14	325	339
16:45	0	84	14	141	14	0	0	144	0	14	383	397
Total	0	325	52	537	50	4	0	479	0	56	1391	1447
17:00	0	78	14	159	9	0	0	144	0	14	390	404
17:15	0	100	9	176	11	0	0	142	0	9	429	438
17:30	0	88	20	157	13	0	0	138	0	20	396	416
17:45	0	90	22	165	17	0	0	183	0	22	455	477
Total	0	356	65	657	50	0	0	607	0	65	1670	1735
Grand Total	0	681	117	1194	100	4	0	1086	0	121	3061	3182
Apprch %	0	100		92.3	7.7		0	100				
Total %	0	22.2		39	3.3		0	35.5		3.8	96.2	

	Foster St From North			Commonwealth Ave From East			Commonwealth Ave From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. 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	0	78	78	159	9	168	0	144	144	390
17:15	0	100	100	176	11	187	0	142	142	429
17:30	0	88	88	157	13	170	0	138	138	396
17:45	0	90	90	165	17	182	0	183	183	455
Total Volume	0	356	356	657	50	707	0	607	607	1670
% App. Total	0	100		92.9	7.1		0	100		
PHF	.000	.890	.890	.933						

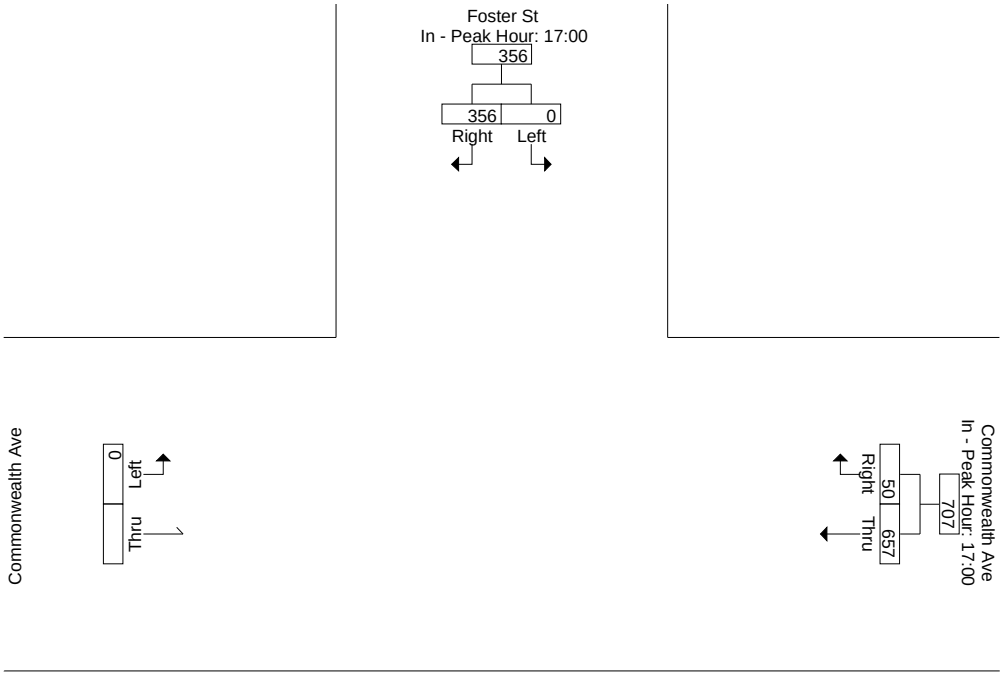
Accurate Counts
978-664-2565

File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

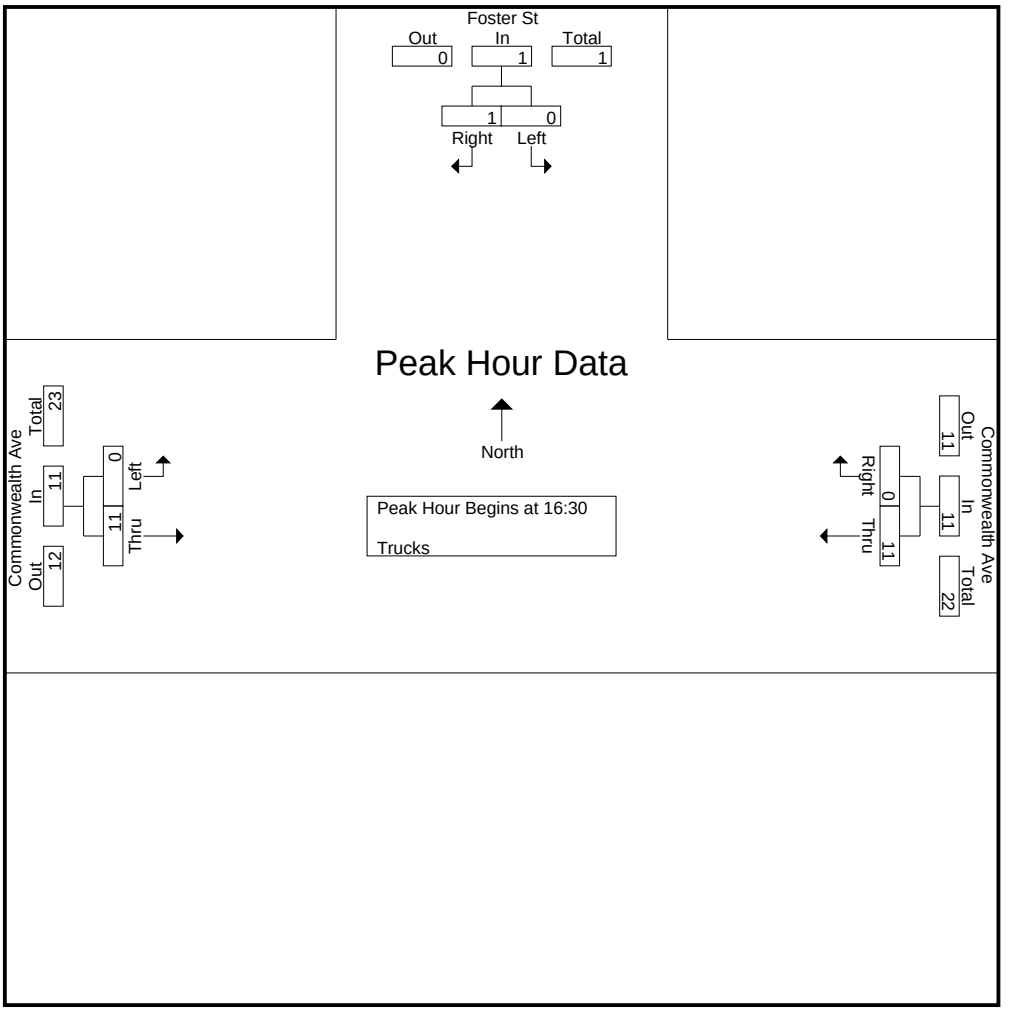
File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 3



Accurate Counts

Accurate Counts
978-664-2565

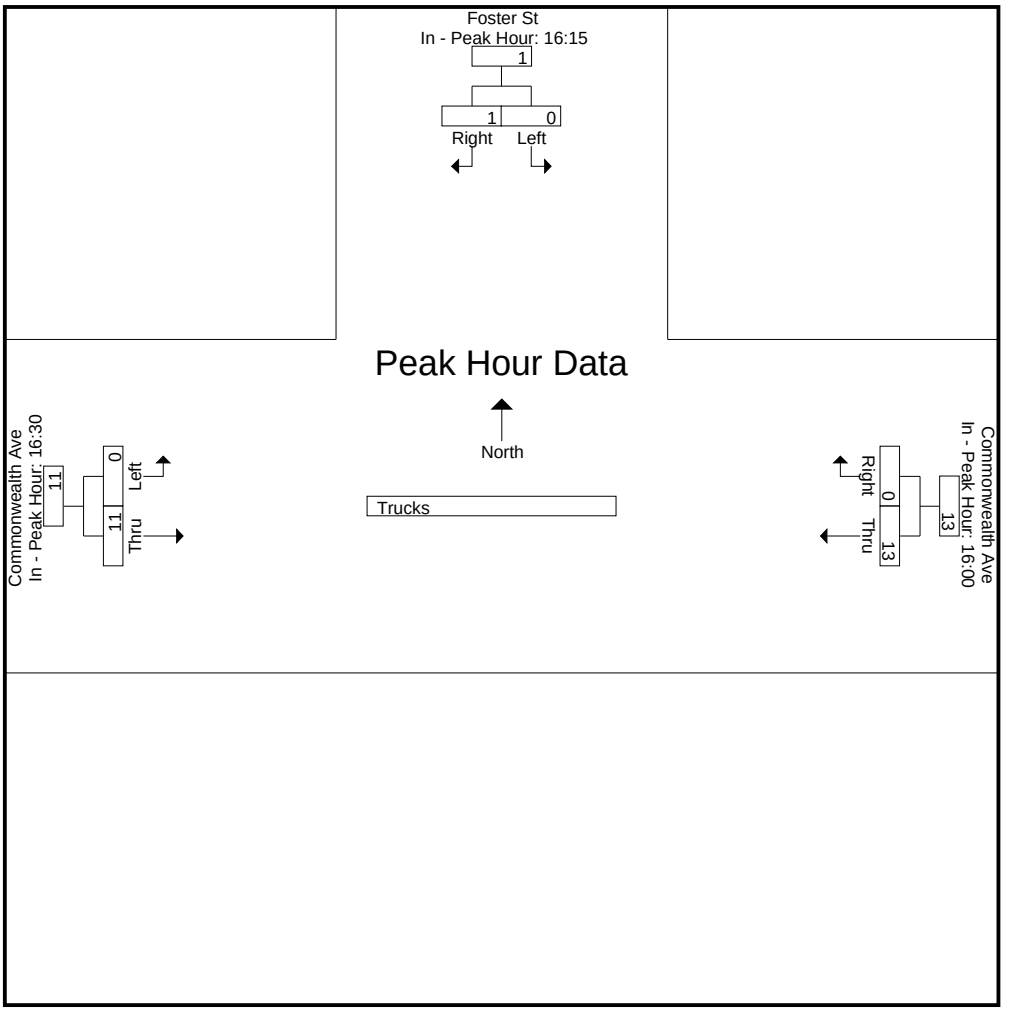
File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 2

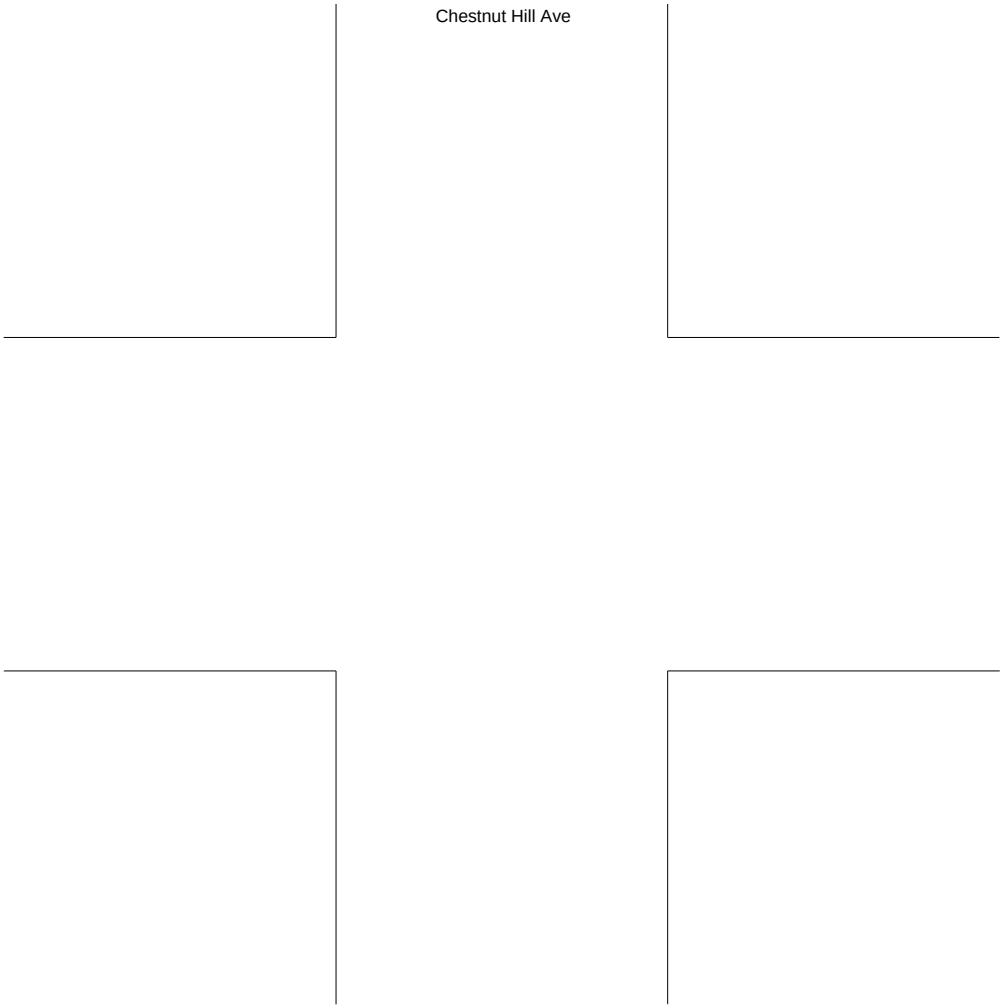


Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	16:15			16:00			16:30		
+0 mins.	0	0	0	4	0	4	0	3	3
+15 mins.	0	0	0	2	0	2	0	2	2
+30 mins.	0	0	0	4	0	4	0	3	3
+45 mins.	0	1	1	3	0	3	0	3	3
Total Volume	0	1	1	13	0	13	0	11	11
% App. Total	0	100		100	0		0	100	
PHF	.000	.250	.250	.813	.000	.813	.000	.917	.917

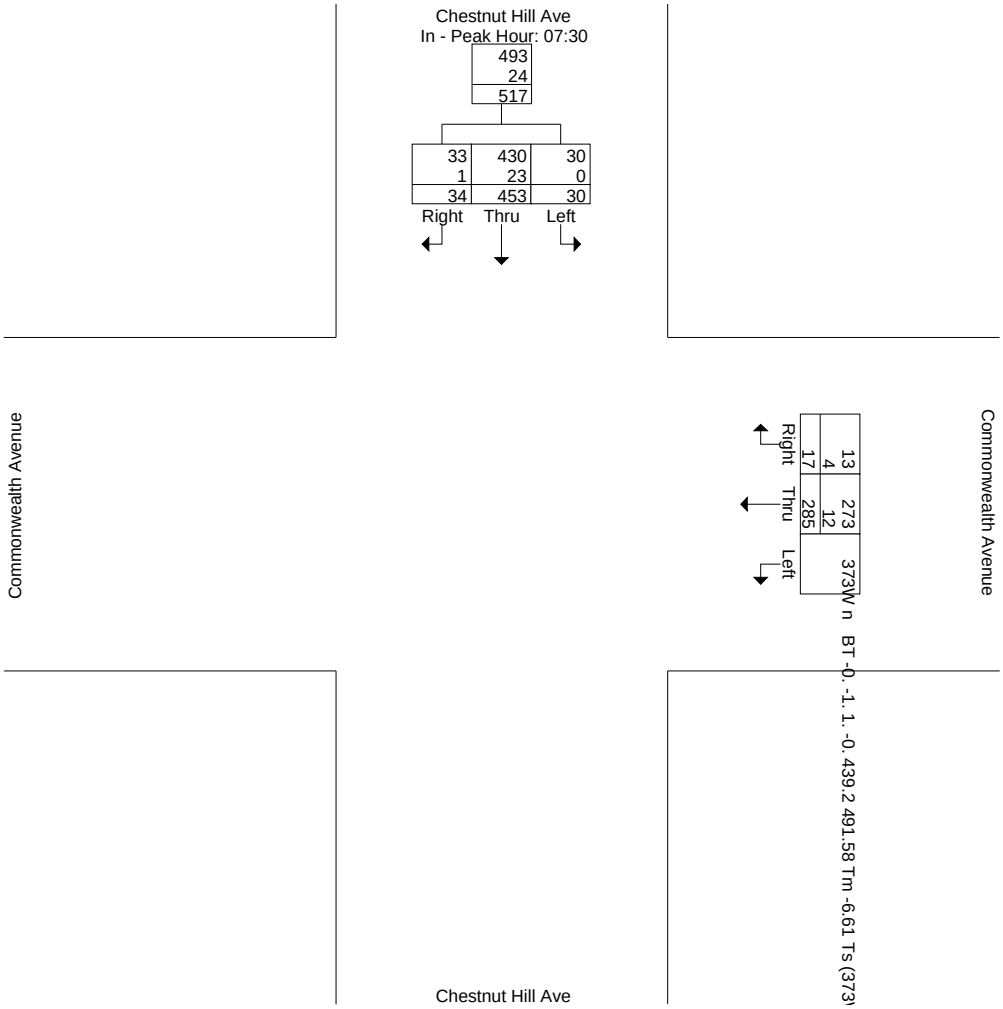
File Name : 39000002
Site Code : 39000002
Start Date : 3/11/2008
Page No : 3




Chestnut Hill Ave

Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 3



N/S Street : Chestnut Hill Avenue
E/W Street: Commonwealth Avenue
City/State : Boston, MA
Weather : Clear

Accurate Counts
978-664-2565

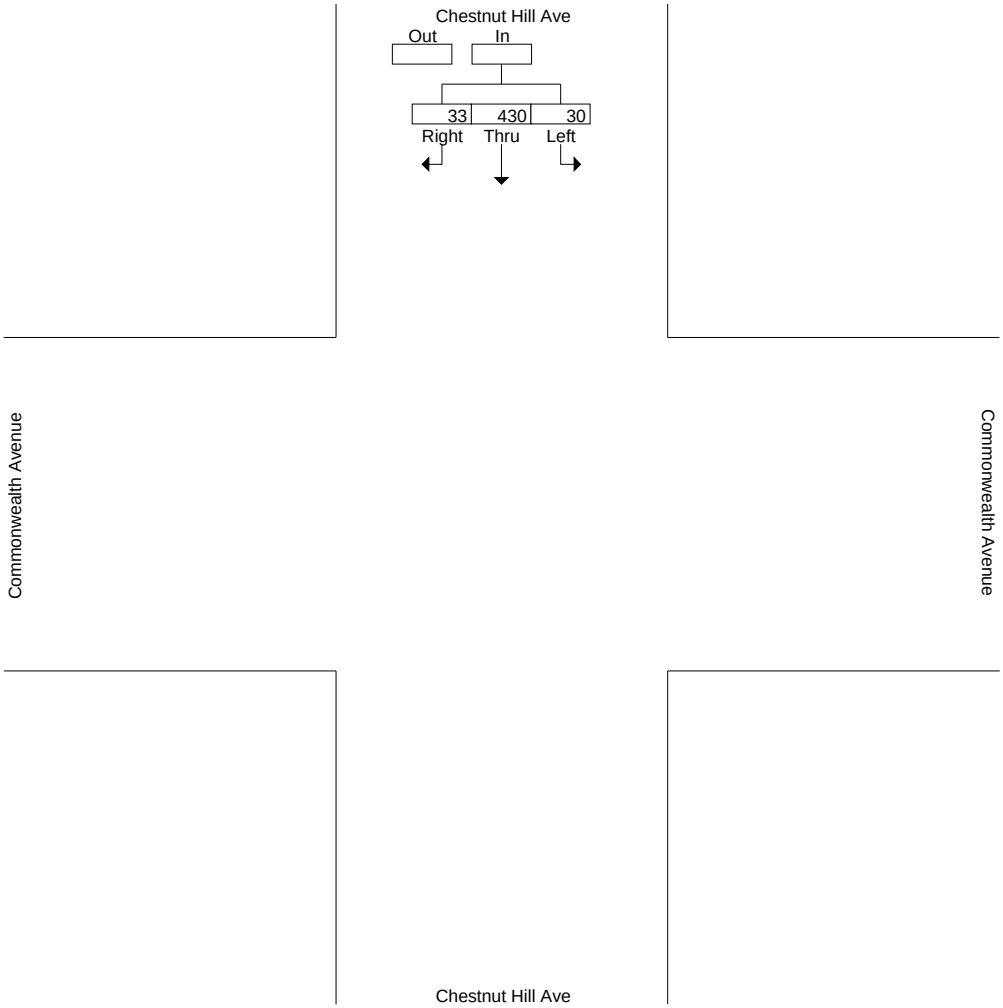
File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 1

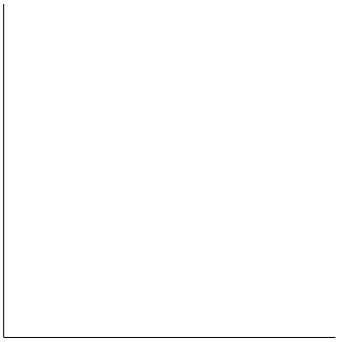
Groups Printed- Cars

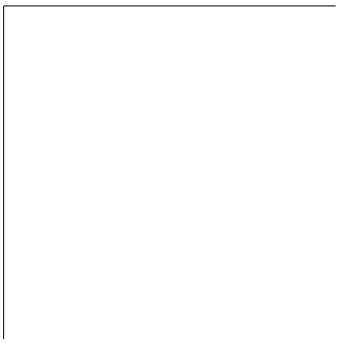
	Chestnut Hill Ave

Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 2

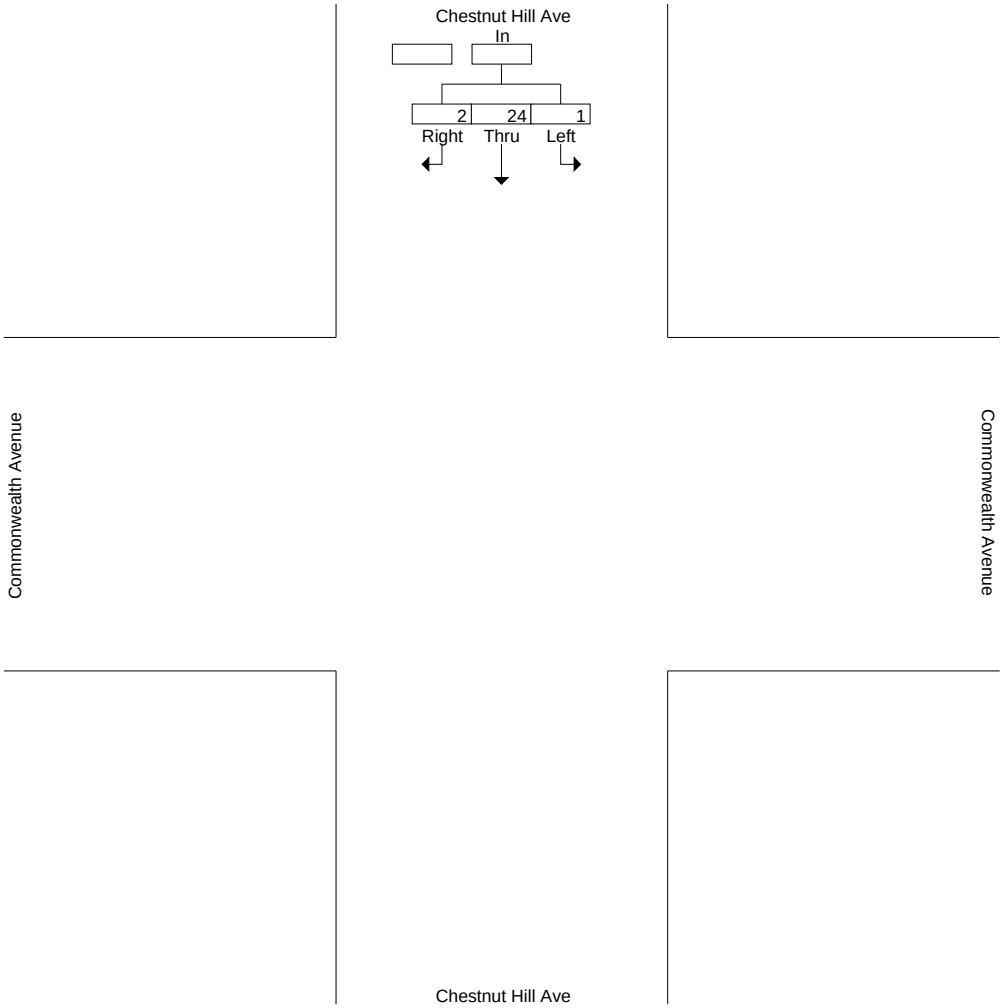






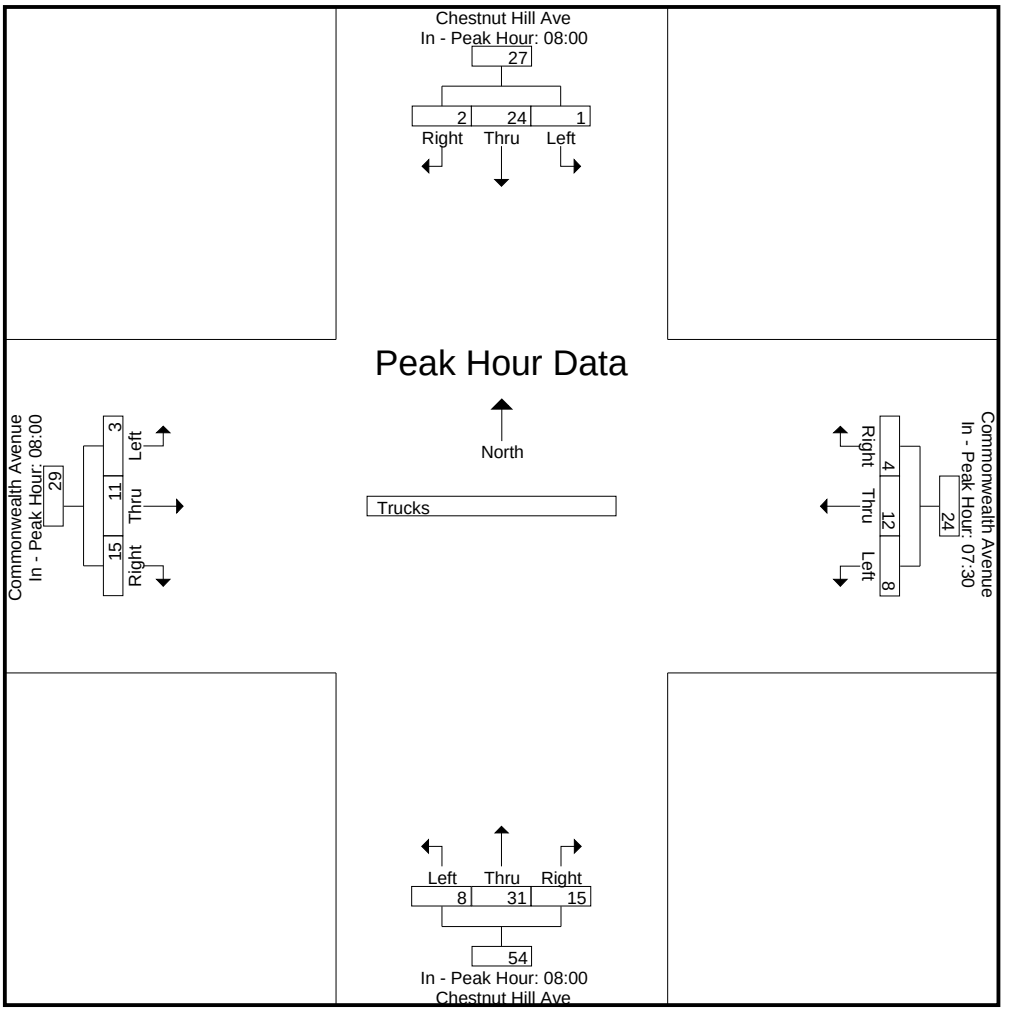
Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 3



N/S Street : Chestnut Hill Avenue
E/W Street: Commonwealth Avenue
City/State : Boston, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars - Trucks

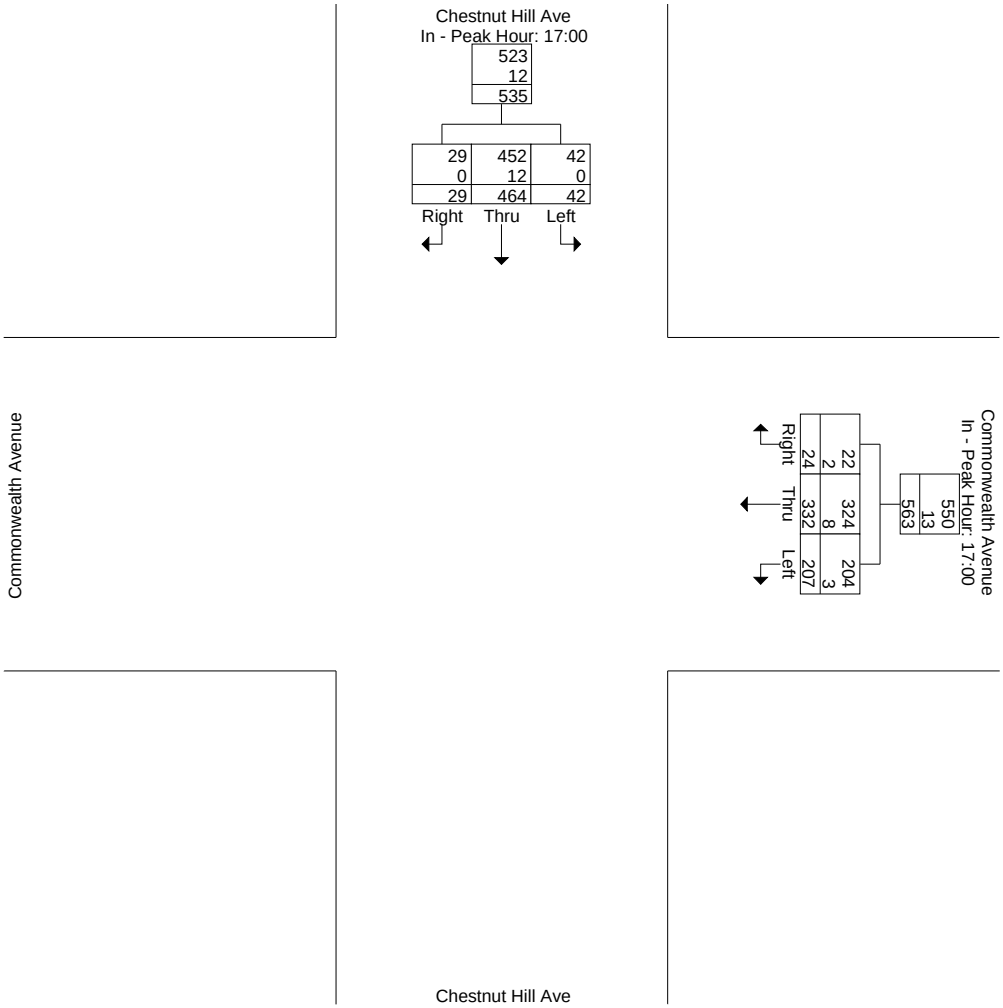
	Chestnut Hill Ave From North				Commonwealth Avenue From East			Chestnut Hill Ave From South	Commonwealth Avenue From West
Start Time	Left	Thru	Right	Peds	Left	Thru	Right		

Left

Left

Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 3



N/S Street : Chestnut Hill Avenue
E/W Street: Commonwealth Avenue
City/State : Boston, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 1

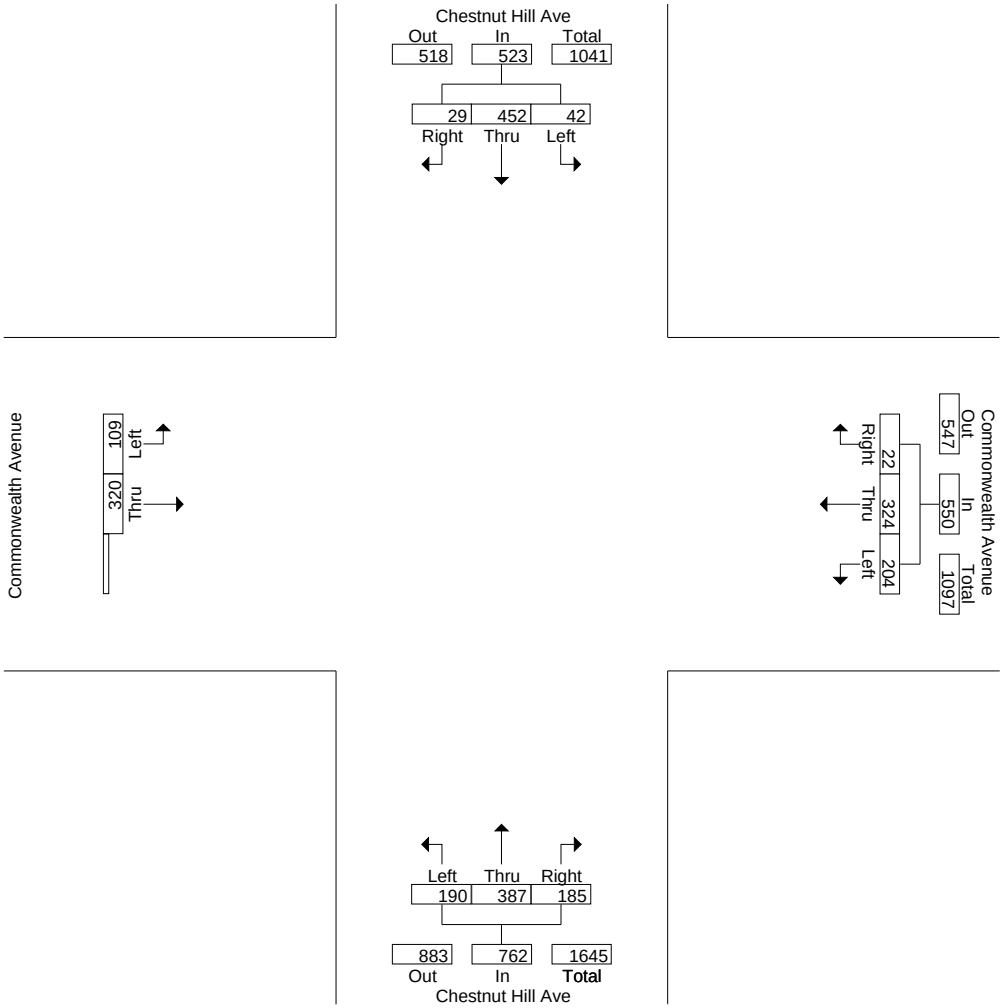
Groups Printed- Cars

	Chestnut Hill Ave From North				Commonwealth Avenue From East					Chestnut Hill Ave From South				Commonwealth Avenue From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	U-Trn	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	13	93	1	15	46	48	5	1	37	46	100	29	14	7	55	38	7	74	481	555
16:15	9	99	8	17	55	72	9	0	44	36	372	31	8	23	65	27	1	70	506	576
16:30	7	108	10	8	46-23.72 637.74 m 393 10-8 9 Td -83.Tj ET BT 356.82180.96 628.49 Td -8 Ts9 9															

8 65

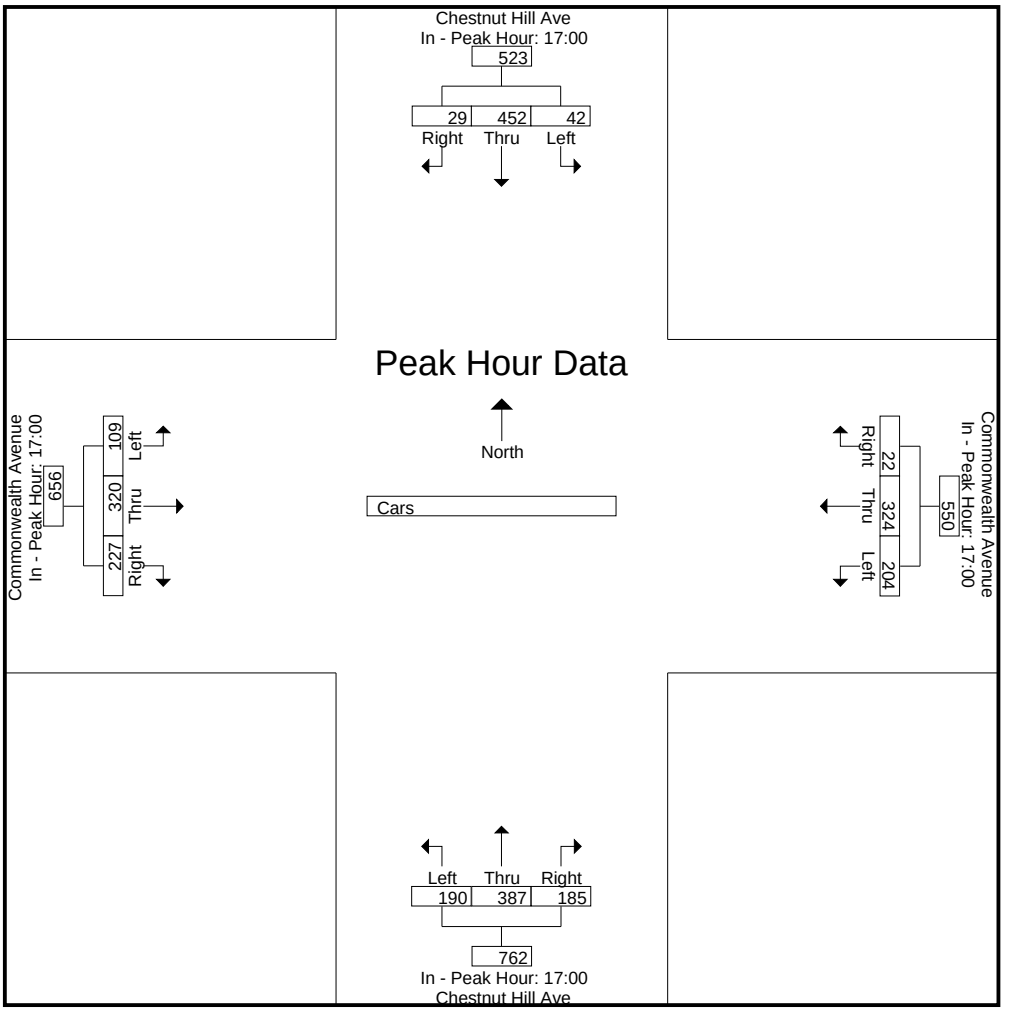
Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 3



N/S Street : Chestnut Hill Avenue
E/W Street: Commonwealth Avenue

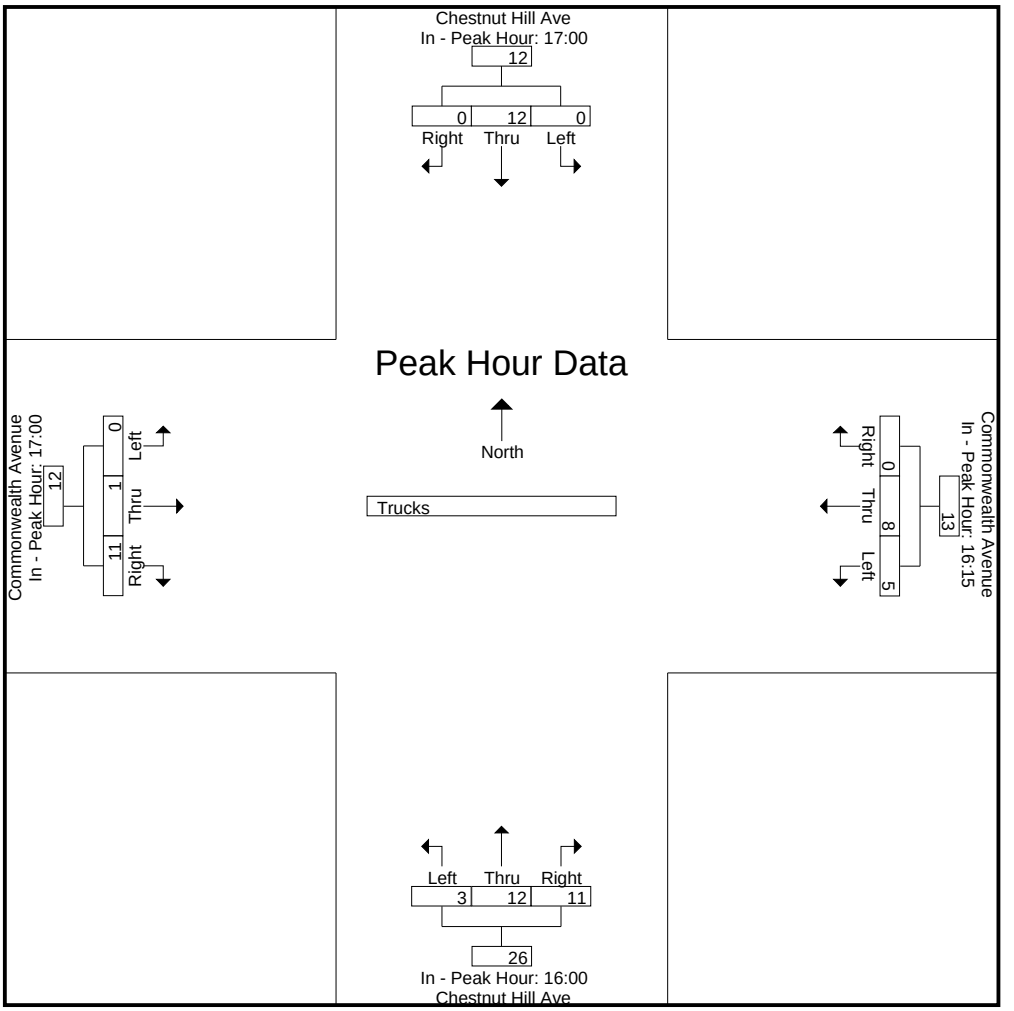
Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 1

File Name : 3900003
Site Code : 3900003

Accurate Counts
978-664-2565

File Name : 3900003
Site Code : 3900003
Start Date : 3/11/2008
Page No : 3



N/S Street : Old Colony Road
E/W Street: Commonwealth Avenue
City/State : Newton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 1

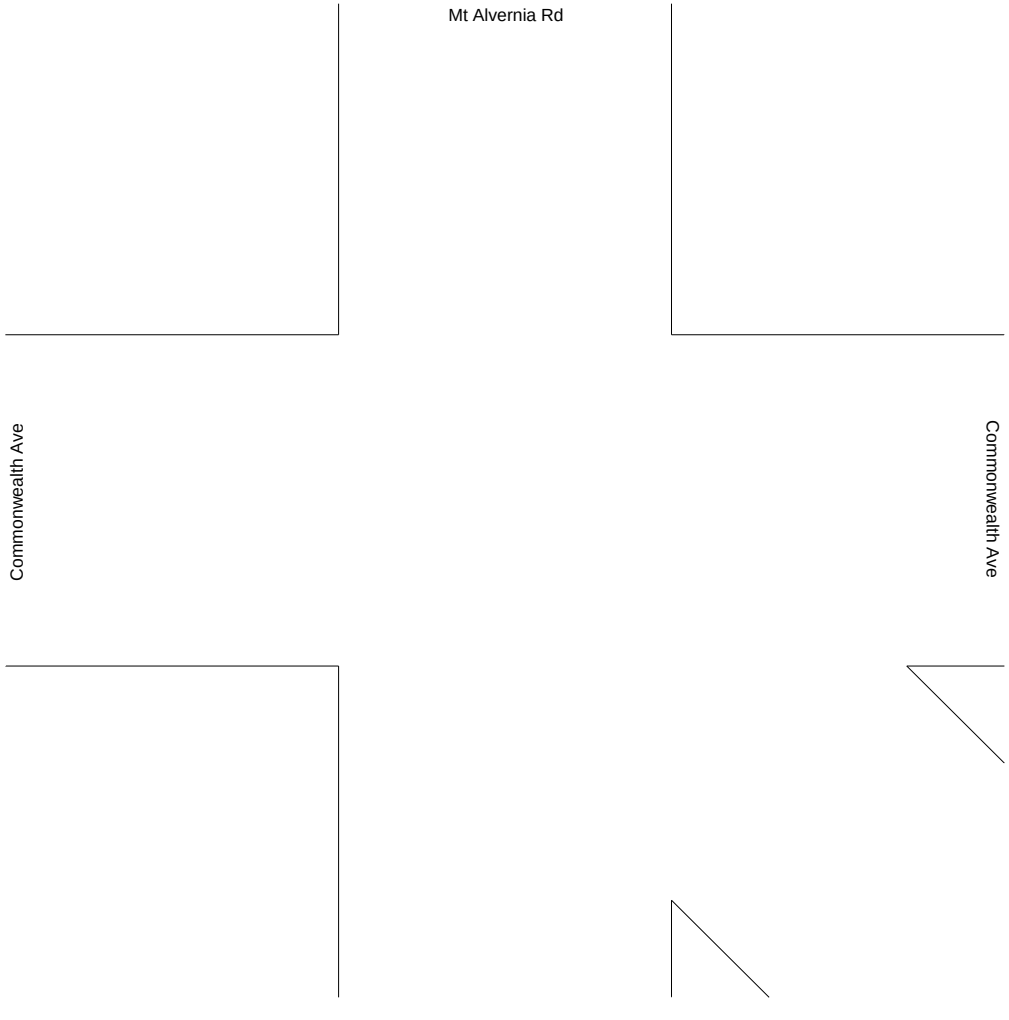
Groups Printed- Cars - Trucks

9

	Mt Alvernia Rd From North					Commonwealth Ave From East					College Rd From Southeast					Old Colony Rd From South					Commonwealth Ave From West							
Start Time	Left	Bear Left	Thru	Right	Peds	Hard Left	Left	Thru	Right	Peds	Hard Left	Bear Left	Bear Right	Hard Right	Peds	Left	Thru	Right	Hard Right	Peds	Left	Thru	Bear Right	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	1	4	0	0	8	43	0	0	0	3	0	35	1	0	0	4	0	1	2	60	0	0	0	2	160	162
07:15	3	0	1	3	0	0	14	84	0	0	0	9	0	44	3	0	1	9	0	4	1	84	0	0	2	9	253	262
07:30	9	0	2	4	1	0	11	113	1	0	0	10	5	37	5	0	0	1	0	5	11	132	0	0	1	12	336	348
07:45	8	0	0	8	0	0	11	122	5	0	0	5	4	52	2	0	2	6	0	2	18	218	0	0	0	4	459	463
Total	20	0	4	19	1	0	44	362	6																			

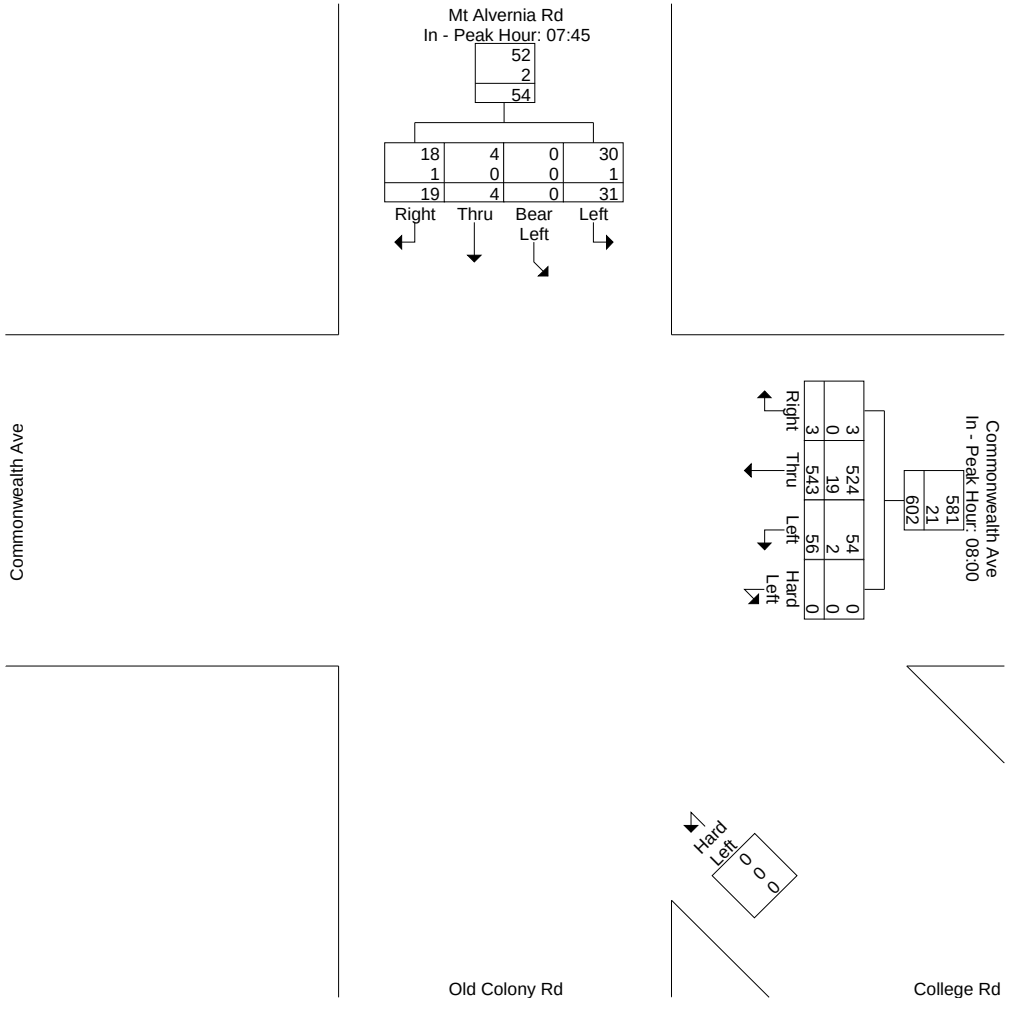
Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 3



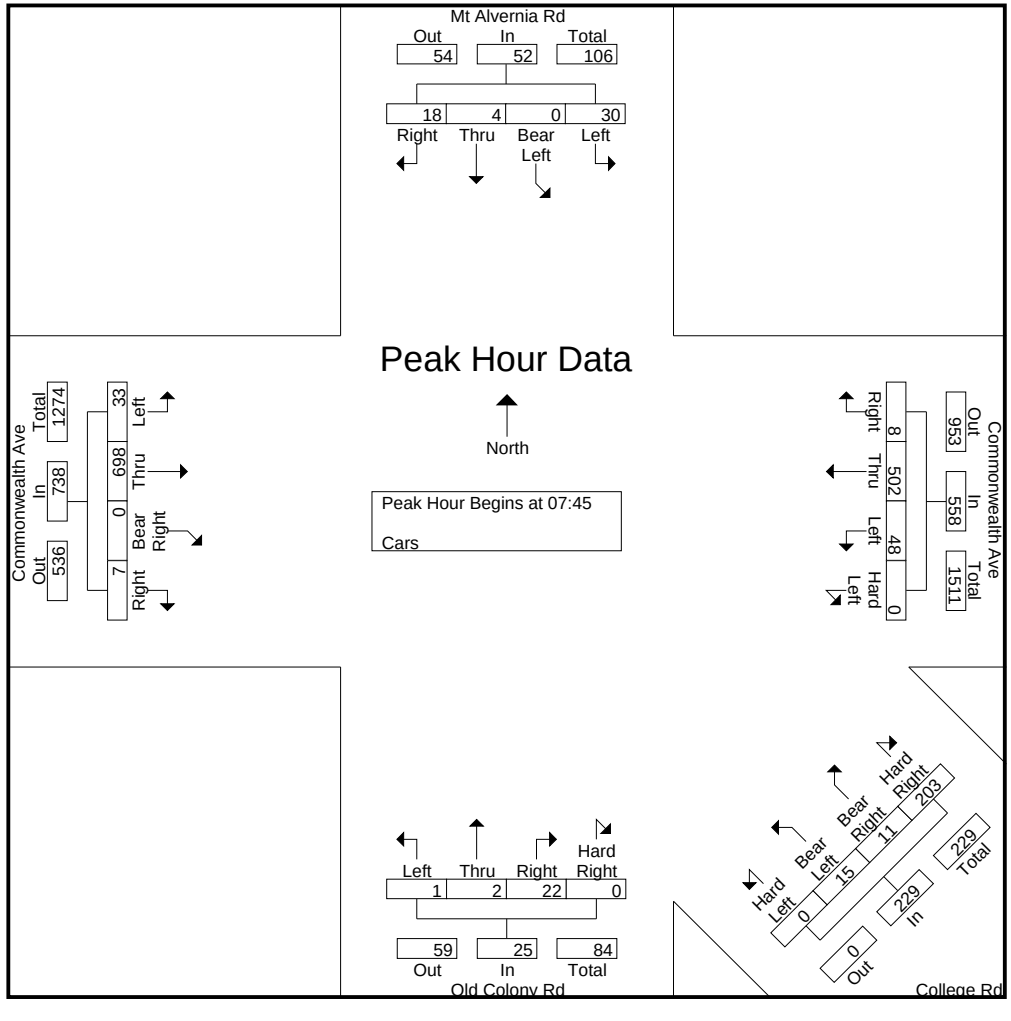
N/S Street : Old Colony Road
E/W Street: Commonwealth Avenue

Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 1

Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 2



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

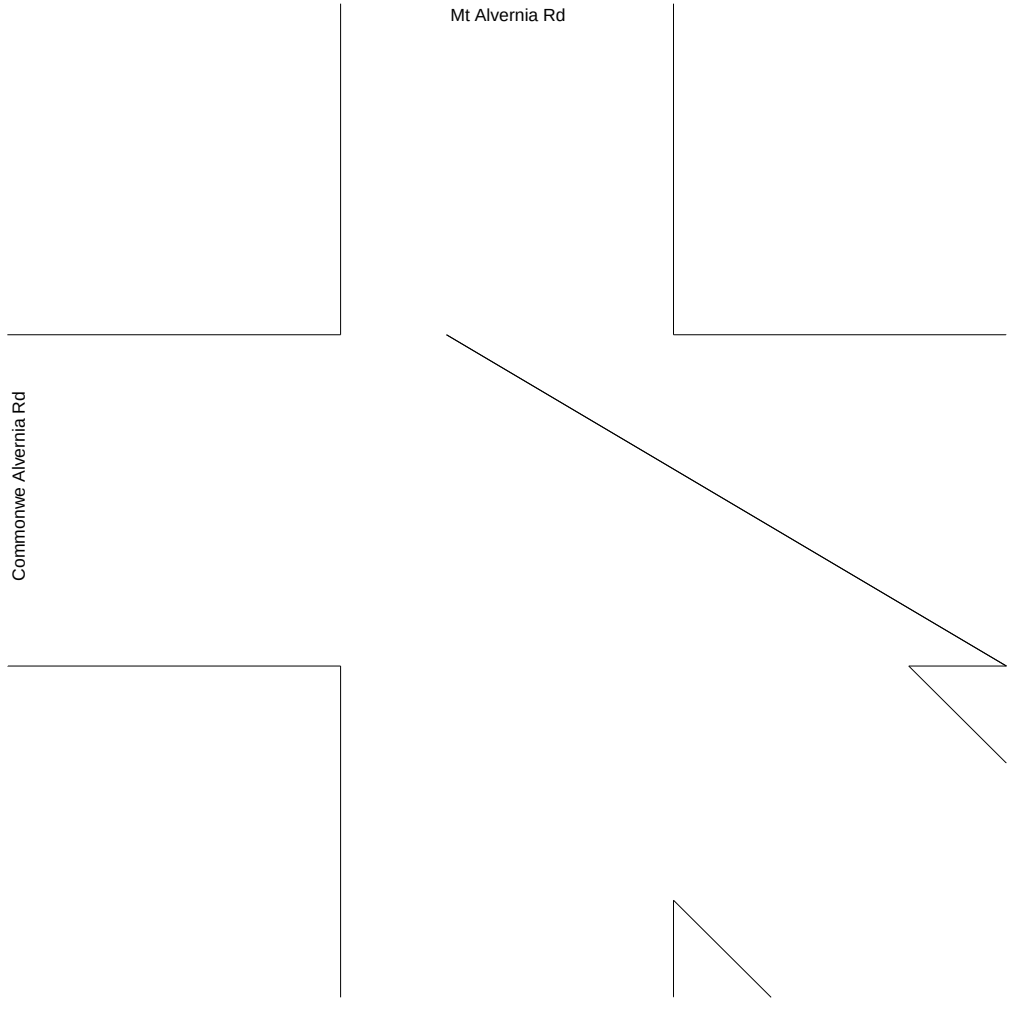
Peak Hour for Each Approach Begins at:

F15

	07:45					08:00					07:45					08:00					07:45				
+0 mins.	8	0	0	8	16	0	10	123	2	135	0	5	4	52	61	0	0	3	0	3	18	213	0	0	231
+15 mins.	5	0	0	3	8	0	15	129	0	144	0	3	2	47	52	0	0	5	0	5	5	165	0	5	175
+30 mins.	6	0	0	3	9	0	12	135	1	148	0	2	3	53	58	1	0	10	0	11	5	150	0	2	157
+45 mins.	11	0	4	4	19	0	17	137	0	154	0	5	2	51	58	4	1	32	0	37	5	170	0	0	175
Total Volume	30	0	4	18	52	0	54	524	3	581	0	15	11	203	229	5	1	50	0	56	33	698	0	7	738

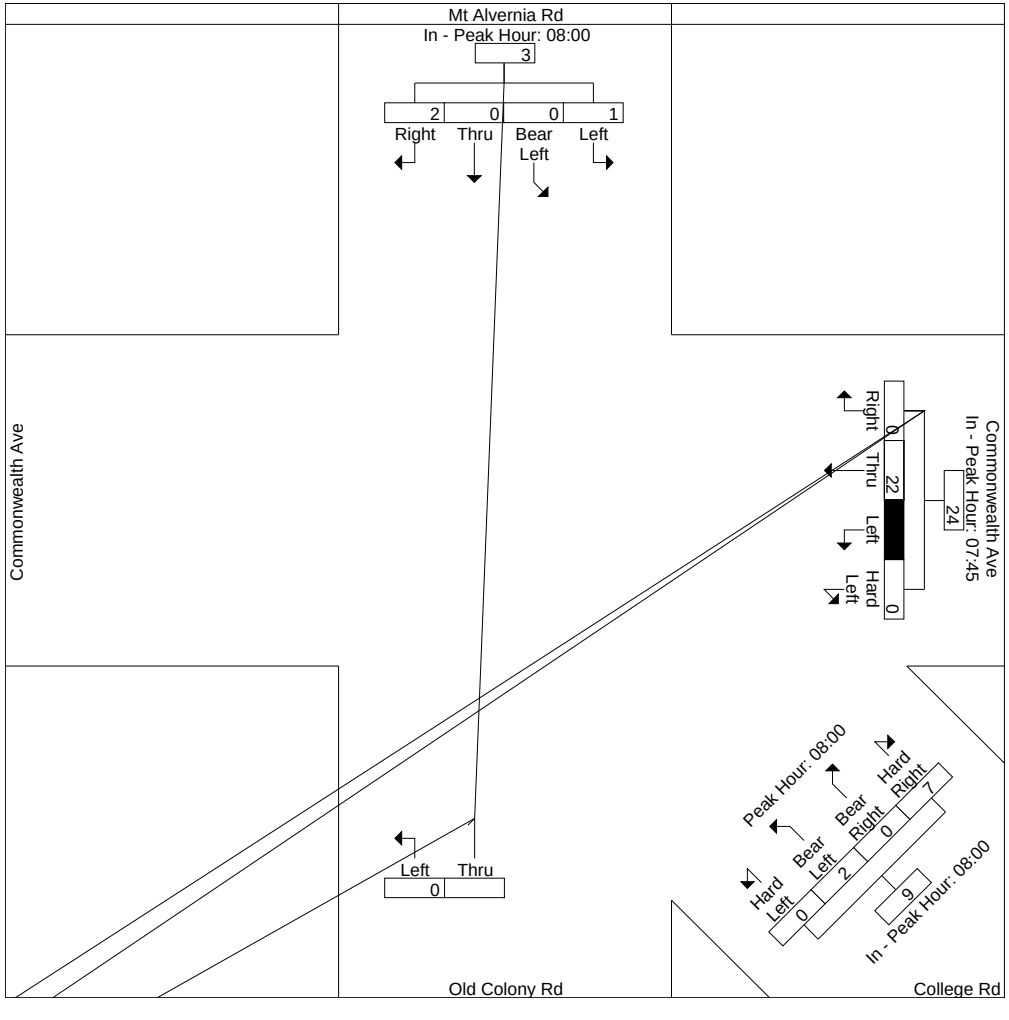
Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 3



N/S Street : Old Colony Road
E/W Street: Commonwealth Avenue
City/State : Newton, MA
Weather : Clear

Accurate Counts
978-664-2565

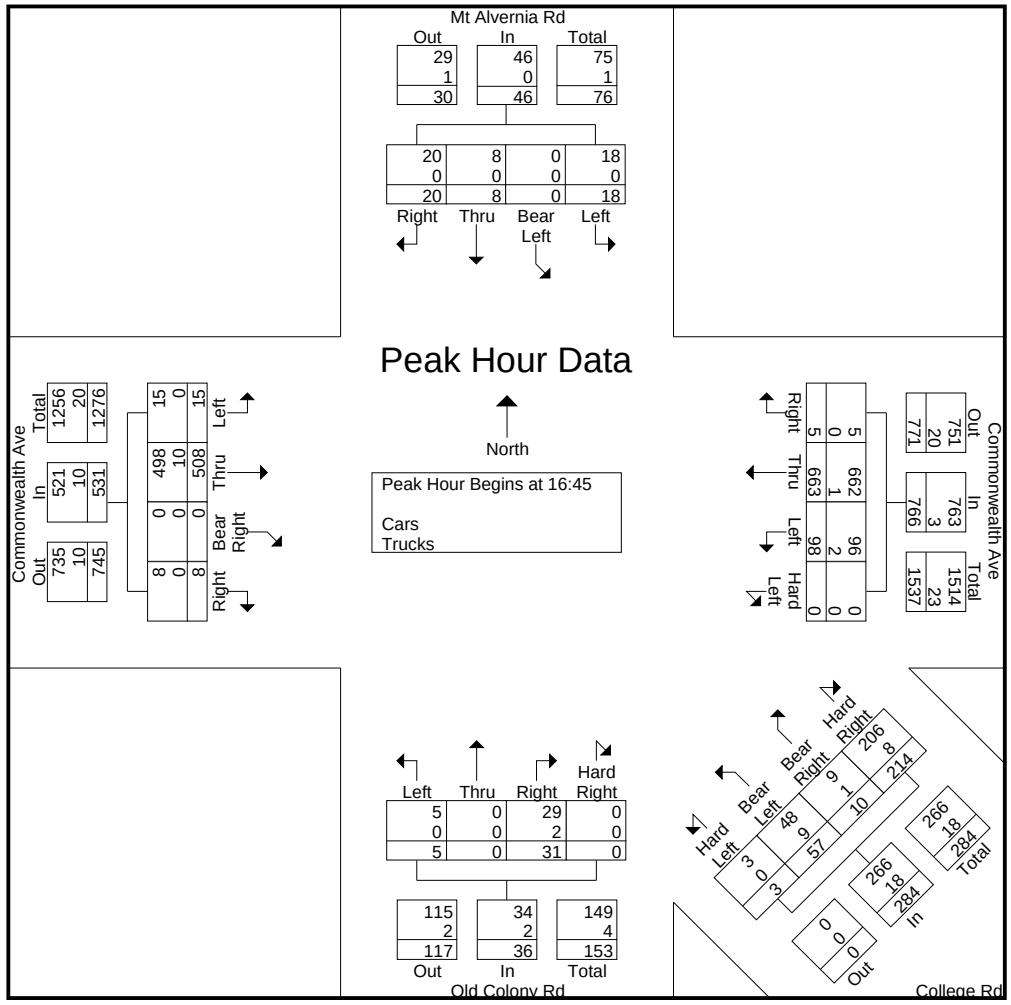
File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars - Trucks

	Mt Alvernia Rd From North					Commonwealth Ave From East		College Rd From Southeast	Old Colony Rd From South	Commonwealth Ave From West
Start Time	Left	Bear Left	Thru	Right	Peds	Hard Left				

Accurate Counts
978-664-2565

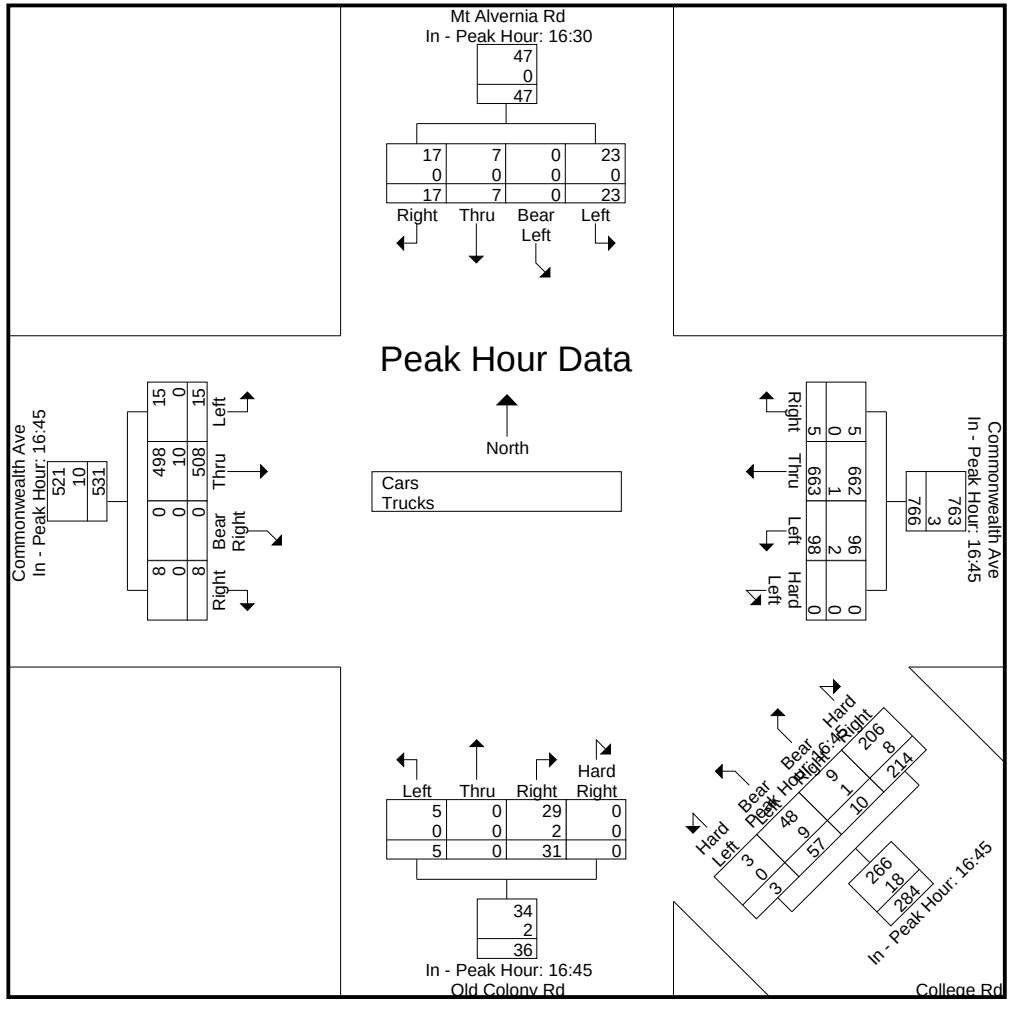
File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 2



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

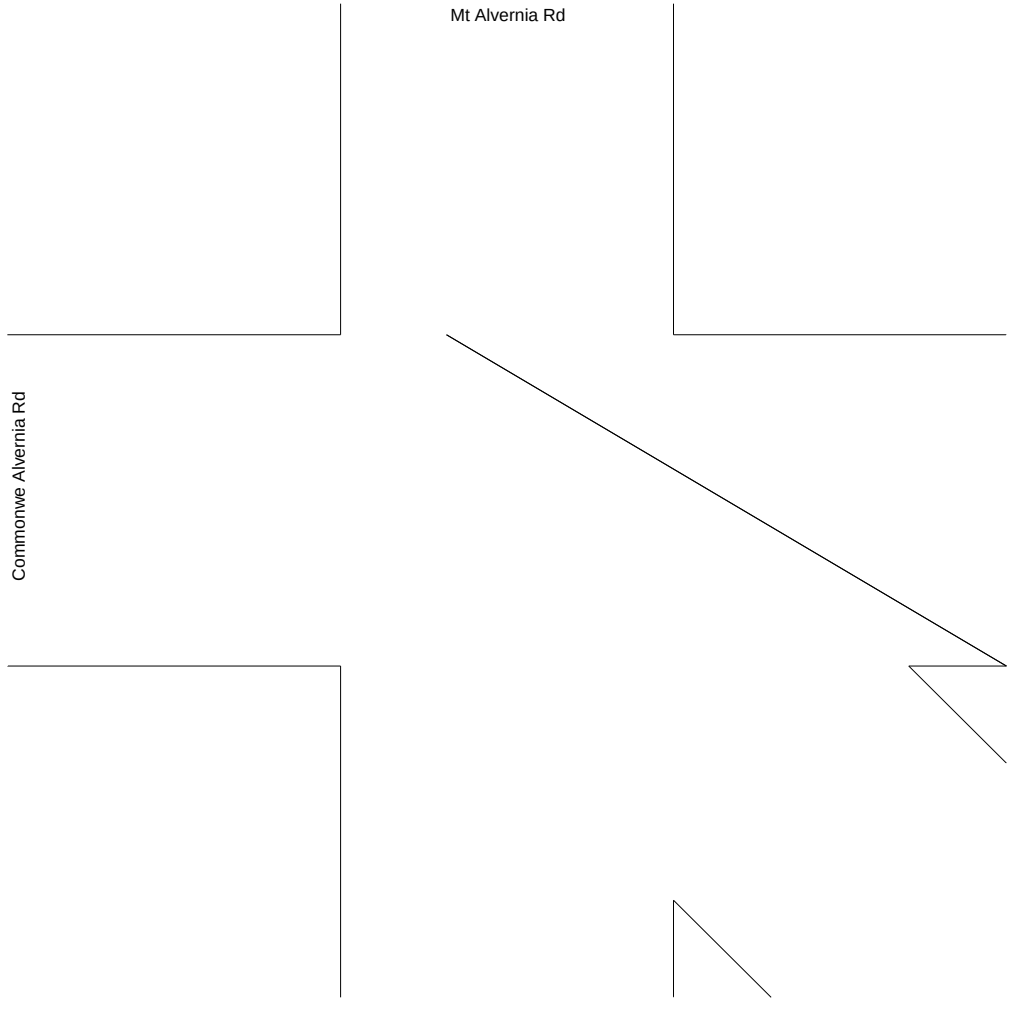
Peak Hour for Each Approach Begins at:

	16:30					16:45					16:45					16:45					16:45				
+0 mins.	9	0	2	4	15	0	29	126	2	157	1	10	1	50	62	3	0	8	0	11	8	123	0	5	136
+15 mins.	10	0	3	4	17	0	21	192	0	213	0	18	3	56	77	2	0	7	0	9	3	105	0	1	109
+30 mins.	2	0	2	8	12	0	26	185	2	213	2	13	3	58	76	0	0	1	0	1	2	137	0	2	141
+45 mins.	2	0	0	1	3	0	22	160	1	183	0	16	3	50	69	0	0	15	0	15	2	143	0	0	145
Total Volume	23	0	7	17	47	0	98	663	5	766	3	57	10	214	284	5	0	31	0	ET	BT 63418.64569.76 69.18 l S				BT 561.6 69 Td -8 T


Mt Alvernia Rd
In - Peak Hour: 16:30
47
0
47
17 7 0 23
0 0 0 0
17 7 0 23
Right Thru Bear Left Left
Peak Hour Data
North
Cars
Trucks
Commonwealth Ave
In - Peak Hour: 16:45
521 10 531
15 0 15 Left
498 10 508 Thru
0 0 0 Bear Right
8 0 8 Right
Commonwealth Ave
In - Peak Hour: 16:45
766 3 763
Right 5 0 5
Thru 663 1 662
Left 98 2 96
Hard Left 0 0 0
Left Thru Right Hard Right
5 0 29 0
0 0 2 0
5 0 31 0
34
2
36
In - Peak Hour: 16:45
Old Colony Rd
Hard Left 3 0 3
Bear Left 48 9 57
Peak Hour: 16:45 Right 9 1 10
Bear Right 206 8 214
Hard Right
266
18
284
In - Peak Hour: 16:45
College Rd

Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 3



N/S Street : Old Colony Road
E/W Street: Commonwealth Avenue
City/State : Newton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 1

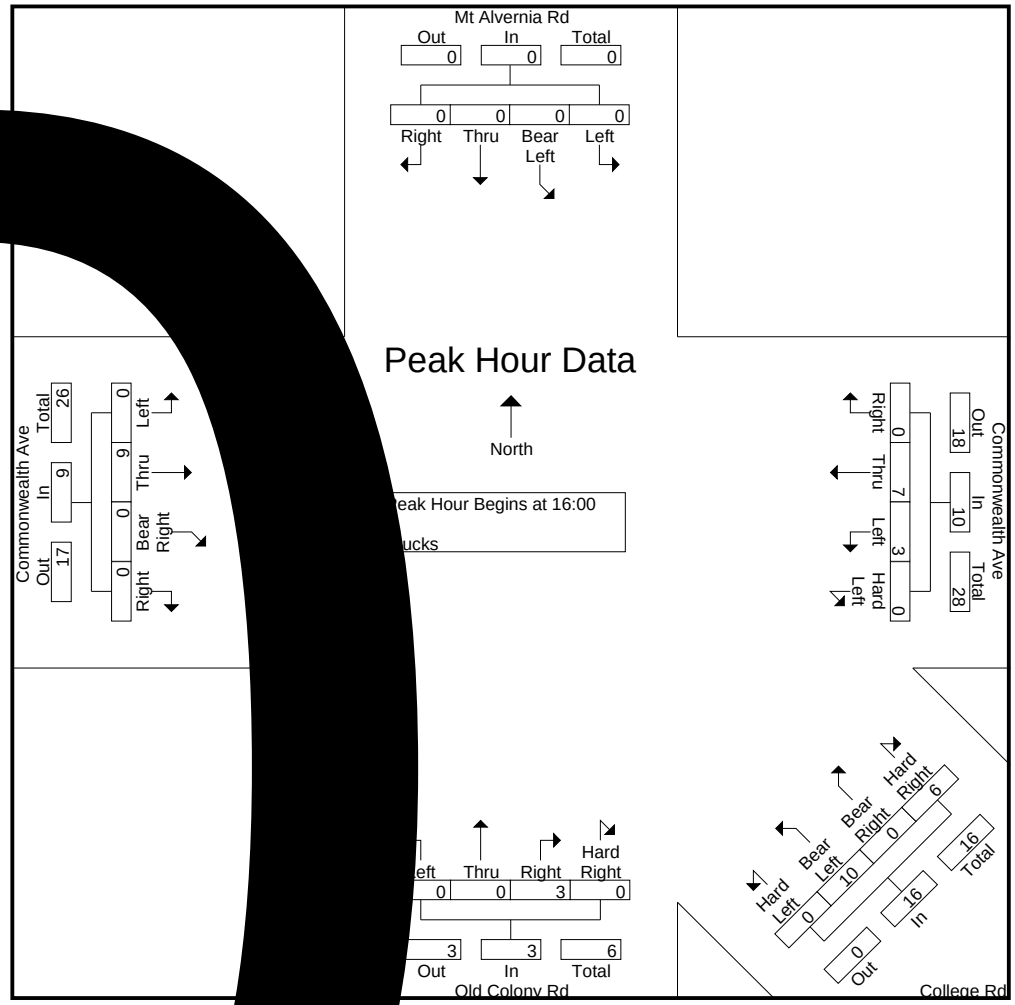
Groups Printed- Trucks

	Mt Alvernia Rd			Commonwealth Ave			College Rd			Old Colony Rd			Commonwealth Ave		
Start Time	Left	Bear Left	Thru	Left	Bear Left	Thru	Left	Bear Left	Thru	Left	Bear Left	Thru	Left	Bear Left	Thru

From 4.82 Td -8 Ts (Thr5.48 l S From North Ti7Pgh74.94 m 139Td 165.48 m 139 From East 1Ts (Bear Left)9Td 165.48 m 139 From Southeast Bear /vernia 7 Ts (From 4.82 Td -8 Ts (ThrTf 96 l S Td -8.27 m 139 From West m 310.32 493.848 l S /ver44 465.48 m 139 493.8

Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 2

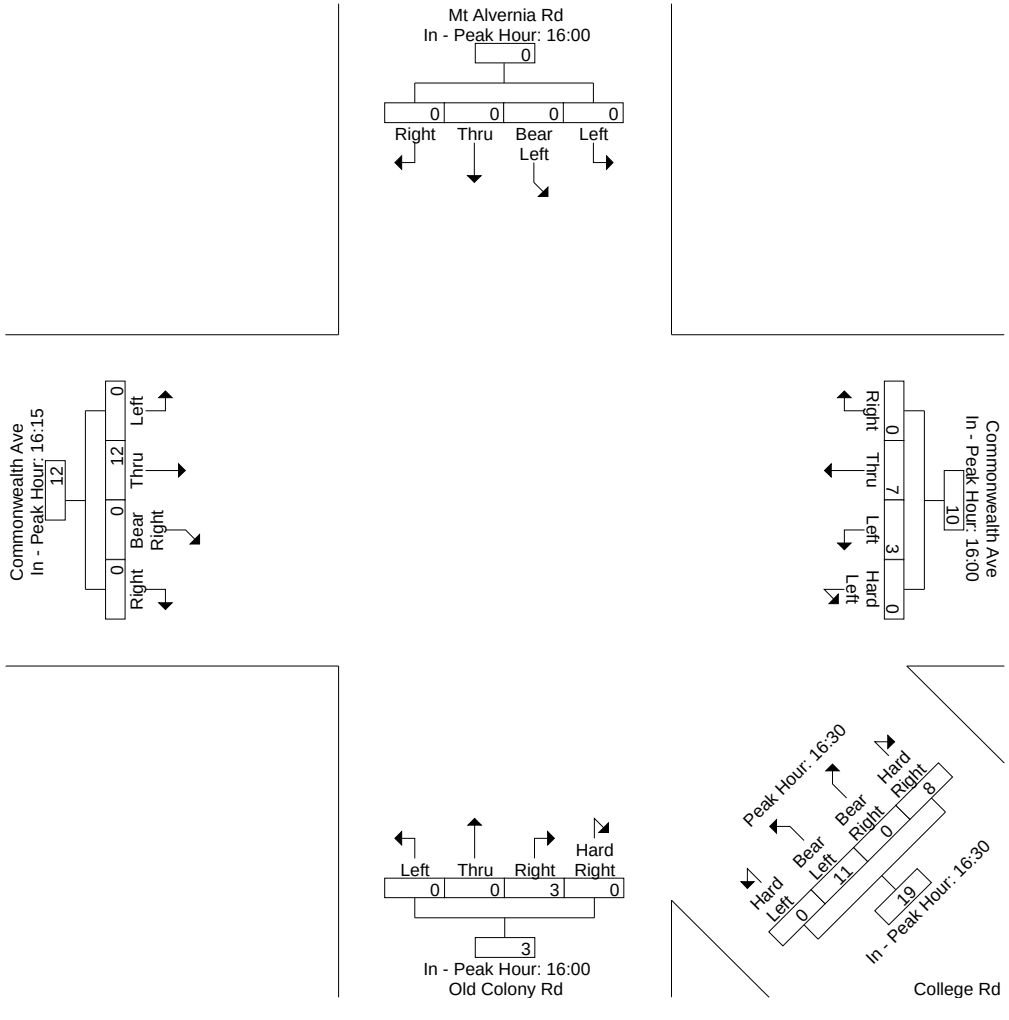


Peak ... m 16:00 to 17:45 - Peak 1 of 1
Peak ... pproach Begins at:

					16:00				:30					16:00					16:15				
+0	0	0	0	0	0	2	2		0	5	0	2	7	0	0	2	0	2	0	2	0	0	2
+15	0	0	0	0	0	0	2		0	2	0	2	4	0	0	0	0	0	0	3	0	0	3
+30	0	0	0	0	0	0	2		0	2	0	1	3	0	0	1	0	1	0	2	0	0	2
+45	0	0	0	0	0	1	2		0	2	0	3	5	0	0	0	0	0	0	5	0	0	5
Total Volum	0	0	0	0	0	3		0	0	11	0	8	19	0	0	3	0	3	0	12	0	0	12
% App. Total																							

Accurate Counts
978-664-2565

File Name : 39000004
Site Code : 39000004
Start Date : 3/11/2008
Page No : 3



N/S Street : South Street
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

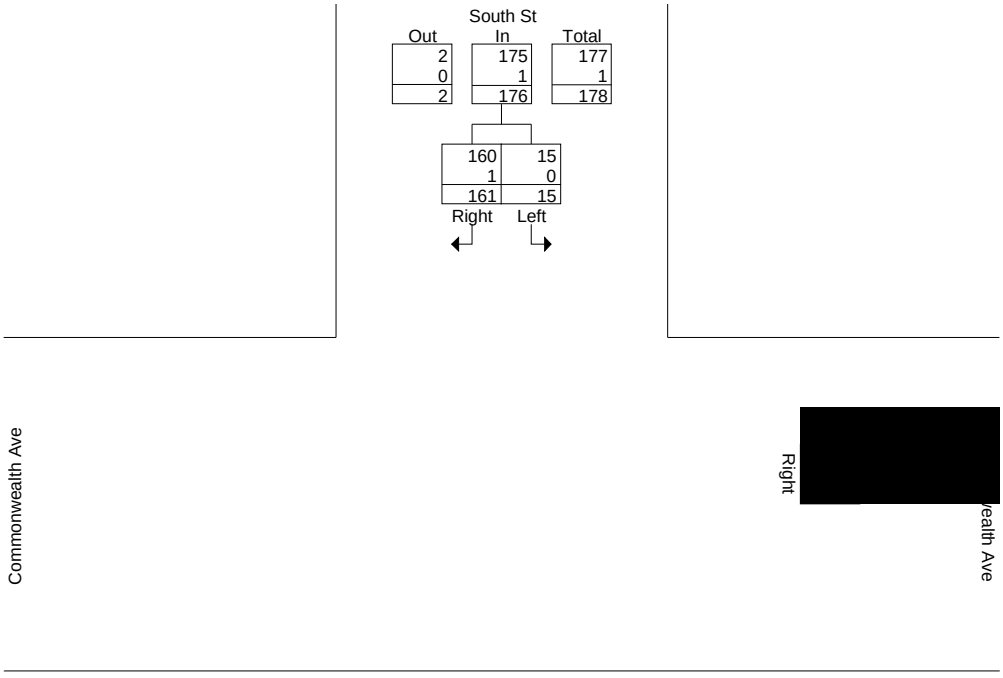
File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars - Trucks

	South St From North	Commonwealth Ave From East	Commonwealth Ave From West
Start Time	Left Left		

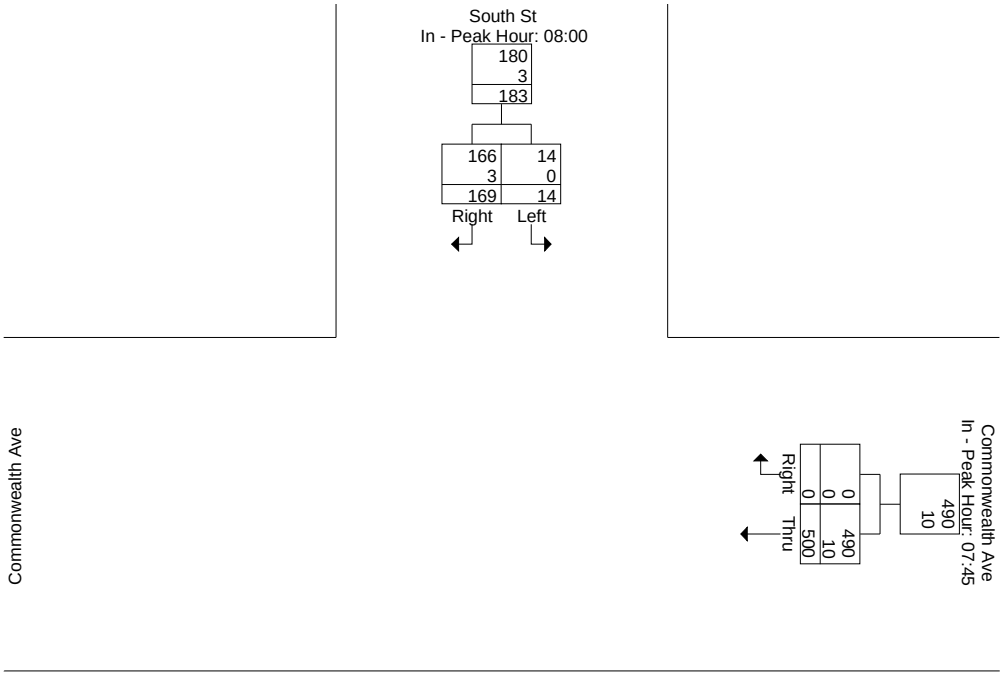
Accurate Counts
978-664-2565

File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
Page No : 2



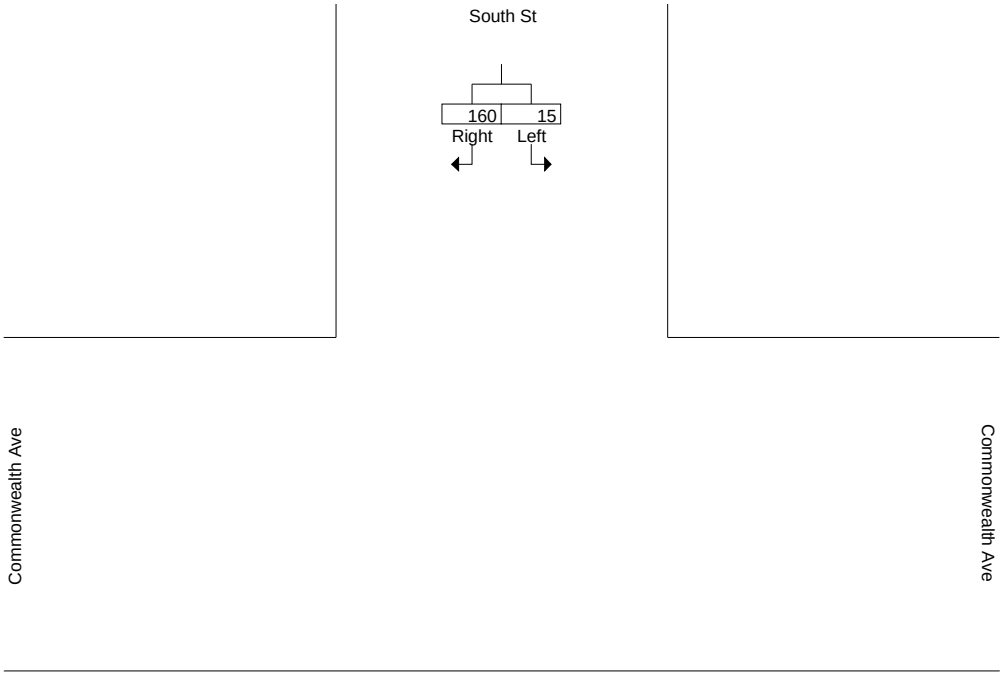
Accurate Counts
978-664-2565

File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
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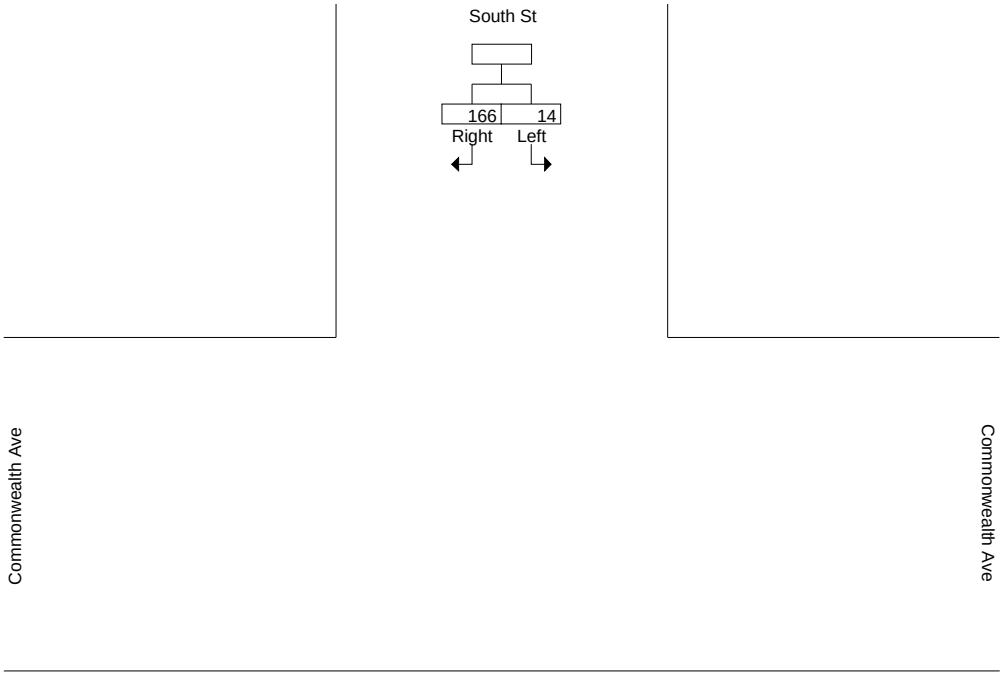

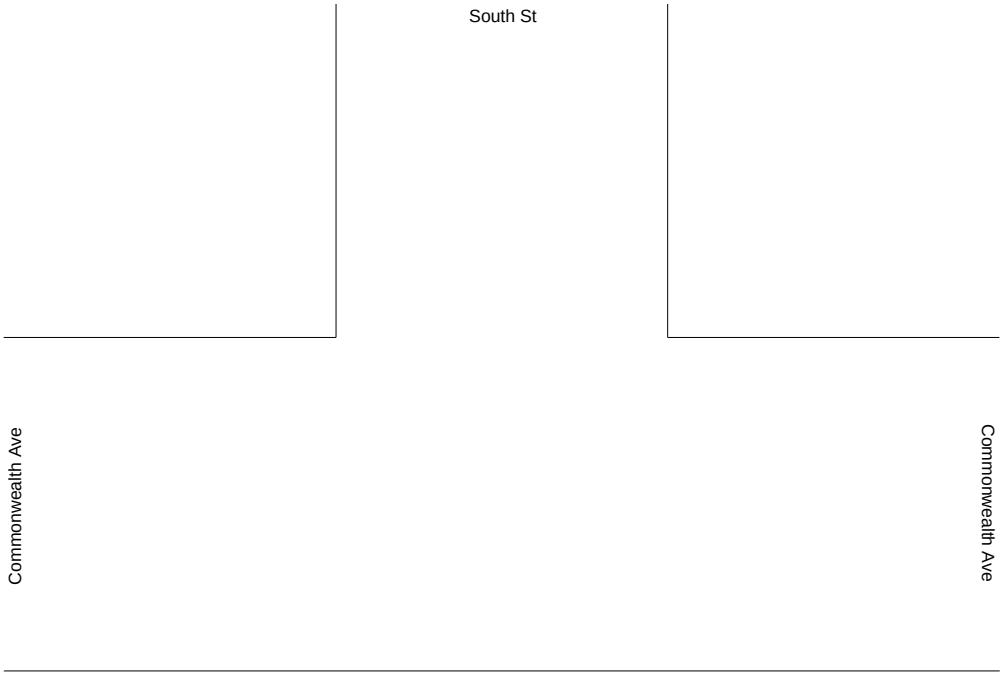
South St
Commonwealth Ave
Commonwealth Ave

N/S Street : South Street
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
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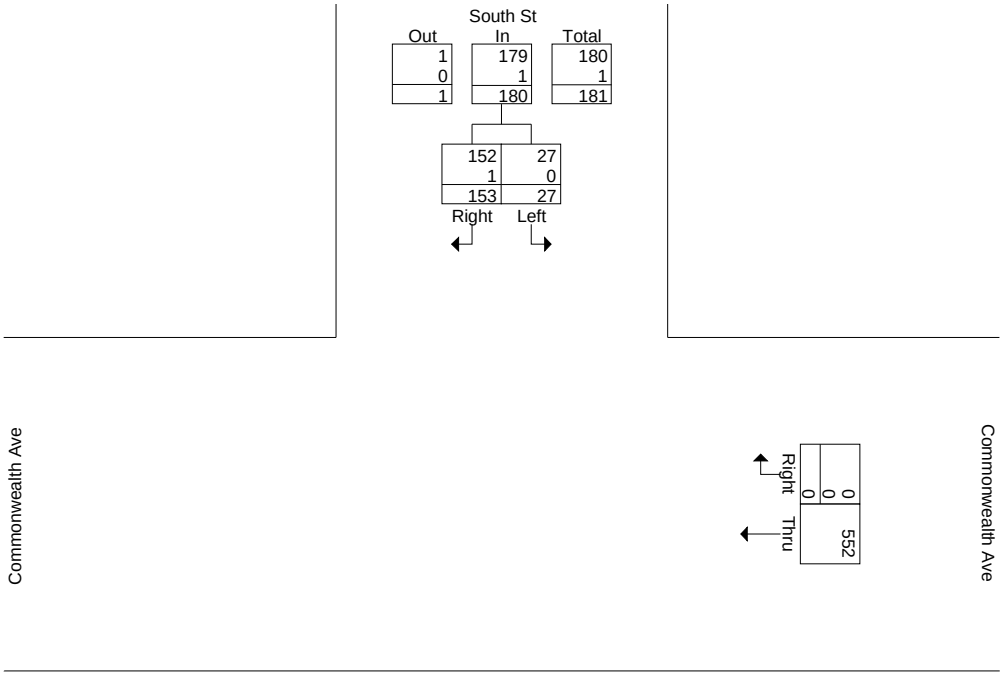
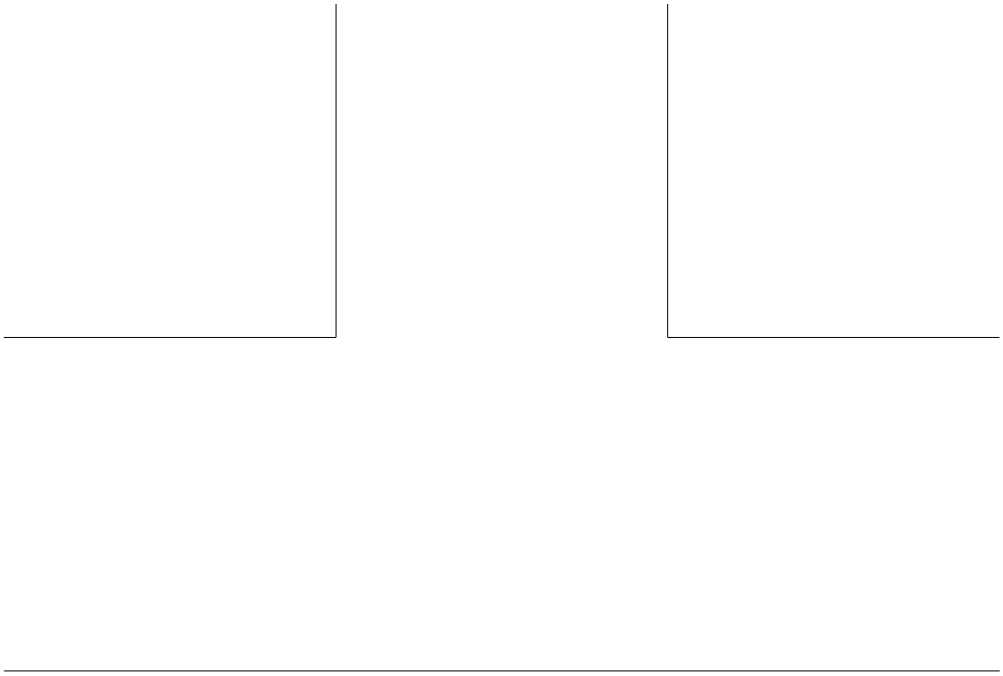
Groups Printed- Cars - Trucks

	South St From North	Commonwealth Ave From East	

Accurate Counts
978-664-2565

File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
Page No : 2





N/S Street : South Street
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
Page No : 1

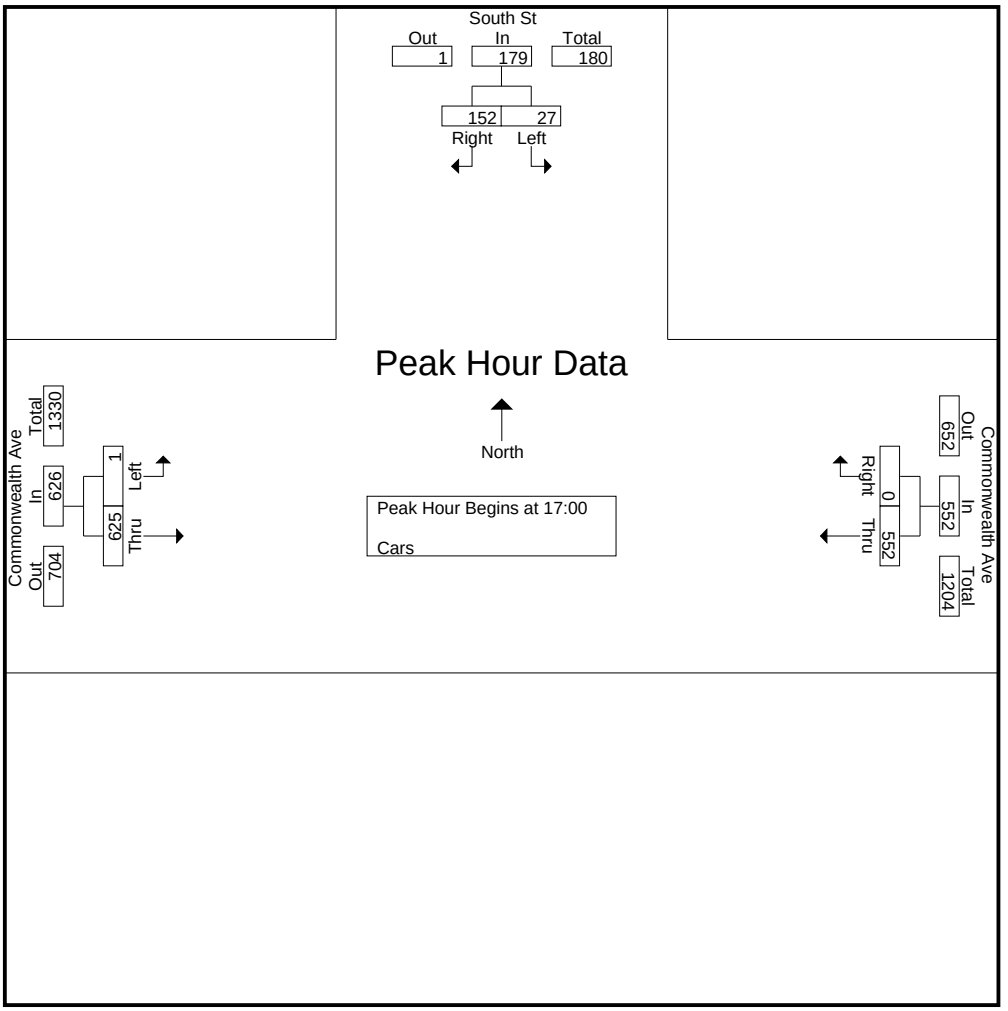
Groups Printed- Cars

	South St From North			Commonwealth Ave From East			Commonwealth Ave From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	5	30	4	105	0	7	0	103	3	14	243	257
16:15	5	52	1	119	0	12	0	113	12	25	289	314
16:30	5	43	4	89	0	4	0	133	11	19	270	289
16:45	2	41	0	112	0	5	0	145	8	13	300	313
Total	17	166	9	425	0	28	0	494	34	71	1102	1173
17:00	3	43	1	117	0	5	0	143	4	10	306	316
17:15	8	43	3	159	0	7	0	145	4	14	355	369
17:30	7	33	9	123	0	7	0	150	13	29	313	342
17:45	9	33	5	153	0	1	1	187	6	12	383	395
Total	27	152	18	552	0	20	1	625	27	65	1357	1422
Grand Total	44	318	27	977	0	48	1	1119	61	136	2459	2595
Apprch %	12.2	87.8		100	0		0.1	99.9				
Total %	1.8	12.9		39.7	0		0	45.5		5.2	94.8	

	South St From North			Commonwealth Ave From East			Commonwealth Ave From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. 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	3	43	46	117	0	117	0	143	143	306
17:15	8	43	51	159	0	159	0	145	145	355
17:30	7	33	40	123	0	123	0	150	150	313
17:45	9	33	42	153	0	153	1	187	188	383
Total Volume	27	152	179	552	0	552	1	625	626	1357
% App. Total	15.1	84.9		100	0		0.2	99.8		
PHF	.750	.884	.877	.868						

Accurate Counts
978-664-2565

File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
Page No : 2



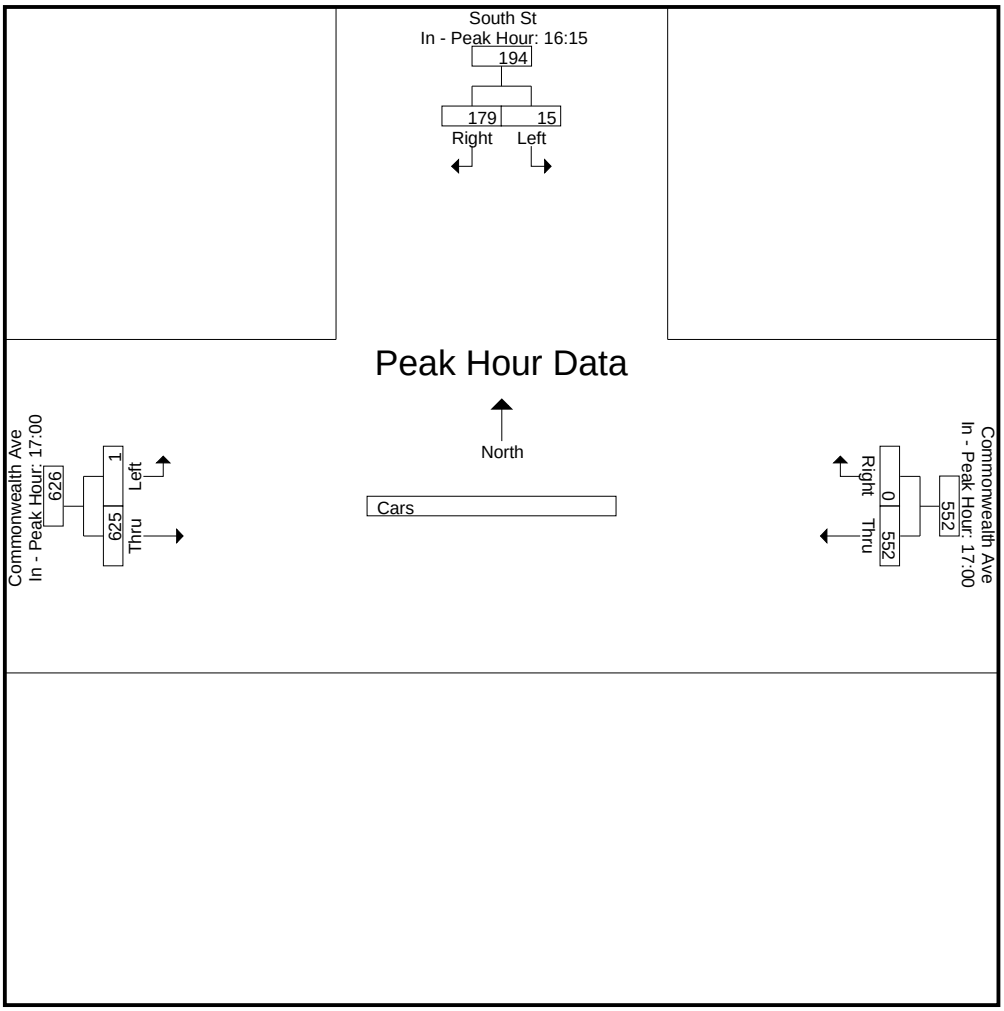
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:15			17:00			17:00		
+0 mins.	5	52	57	117	0	117	0	143	143
+15 mins.	5	43	48	159	0	159	0	145	145
+30 mins.	2	41	43	123	0	123	0	150	150
+45 mins.	3	43	46	153	0	153	1	187	188
Total Volume	15	179	194	552	0	552	1	625	626
% App. Total	7.7	92.3		100	0		0.2	99.8	
PHF	.750	.861	.851	.868	.000	.868	.250	.836	.832

Accurate Counts
978-664-2565

File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000005
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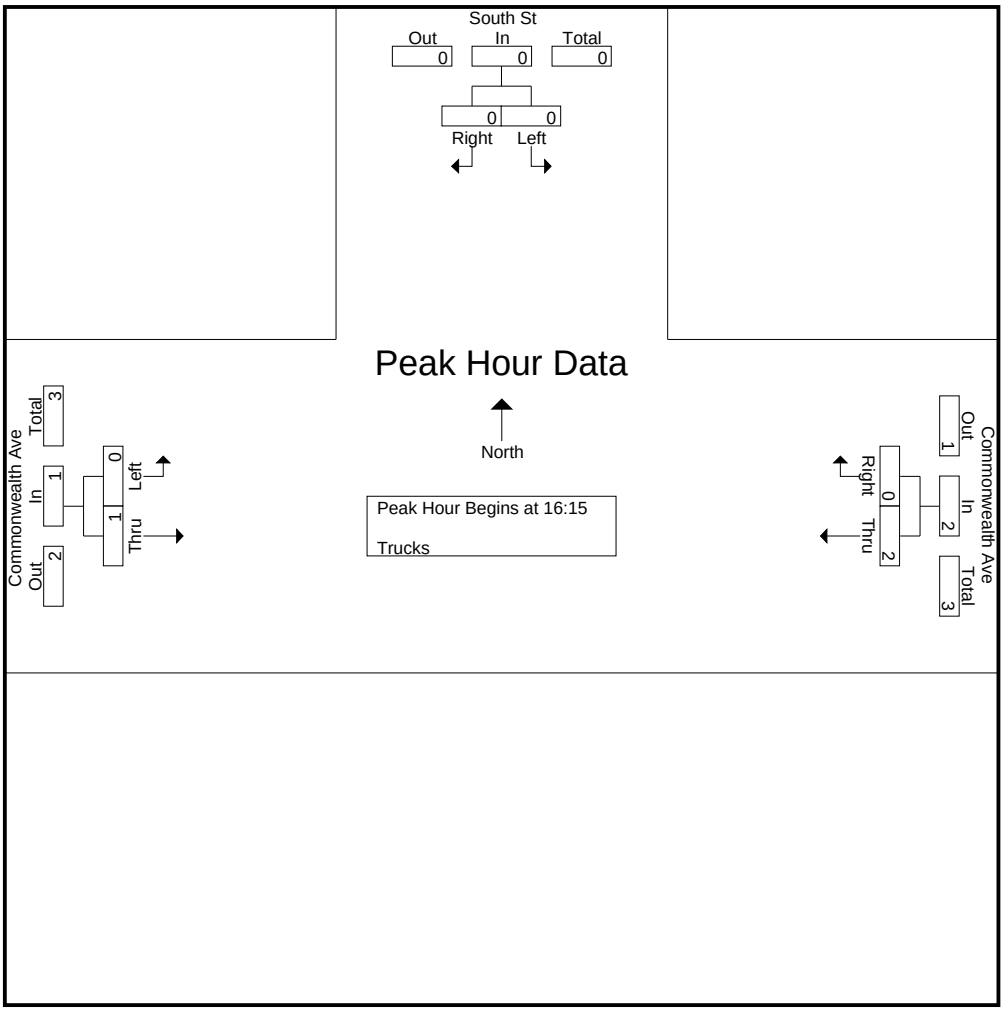
Start Date : 3/11/2008
Page No : 2



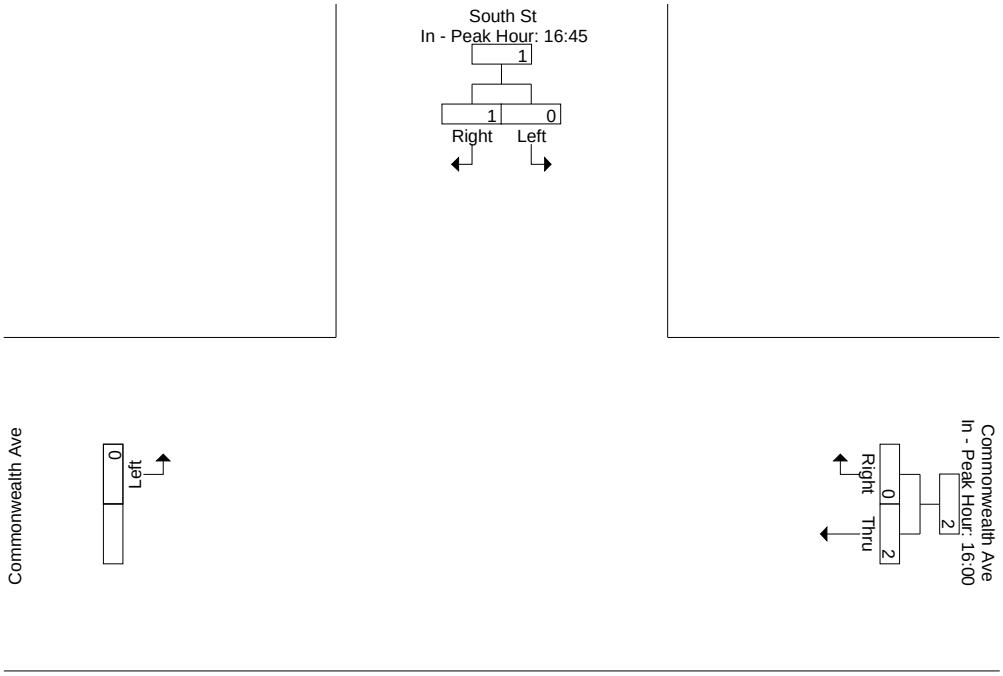
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:45			16:00			17:00		
+0 mins.	0	0	0	0	0	0	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	1	0	1	0	0	0
+45 mins.	0	1	1	1	0	1	0	1	1
Total Volume	0	1	1	2	0	2	0	2	2
% App. Total	0	100		100	0		0	100	
PHF	.000	.250	.250	.500	.000	.500	.000	.500	.500

Accurate Counts
978-664-2565

File Name : 39000005
Site Code : 39000005
Start Date : 3/11/2008
Page No : 3



N/S Street : St. Thomas Moore Road
E/W Street: Chestnut Hill Drive
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars - Trucks

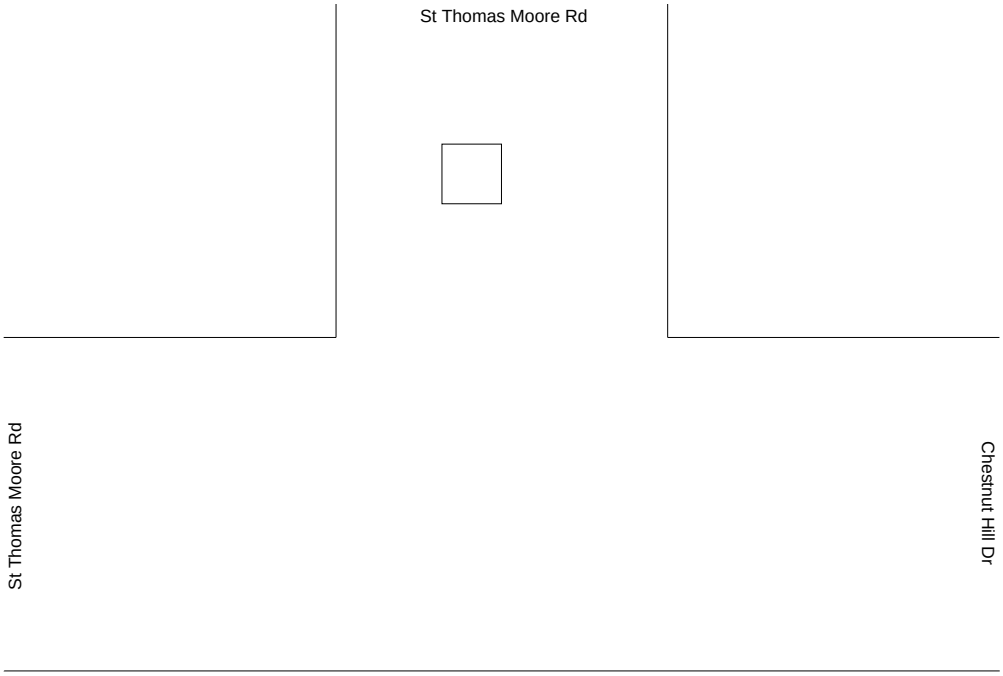
	St Thomas Moore Rd From North			Chestnut Hill Dr From East			St Thomas Moore Rd From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	18	17	1	12	52	1	1	3	2	4	103	107
07:15	21	15	0	24	63	2	5	4	1	3	132	135
07:30	30	17	1	17	53	2	4	13	2	5	134	139
07:45	34	23	1	14	81	0	7	8	6	7	167	174
Total	103	72	3	67	249	5	17	28	11	19	536	555
08:00	26	22	3	17	46	0	8	25	4	7	144	151
08:15	29	35	2	35	62	2	4	16	6	10	181	191
08:30	31	42	4	39	66	15	4	14	1	20	196	216
08:45	46	44	4	87	58	1	9	15	4	9	259	268
Total	132	143	13	178	232	18	25	70	15	46	780	826
Grand Total	235	215	16	245	481	23	42	98	26	65	1316	1381
Apprch %	52.2	47.8		33.7	66.3		30	70				
Total %	17.9	16.3		18.6	36.6		3.2	7.4		4.7	95.3	
Cars	227	196		217	450		23	95		0	0	1273
% Cars	96.6	91.2	100	88.6	93.6	100	54.8	96.9	100	0	0	92.2
Trucks	8	19		28	31		19	3		0	0	108
% Trucks	3.4	8.8	0	11.4	6.4	0	45.2	3.1	0	0	0	7.8

	St Thomas Moore Rd From North			Chestnut Hill Dr From East			St Thomas Moore Rd From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total

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

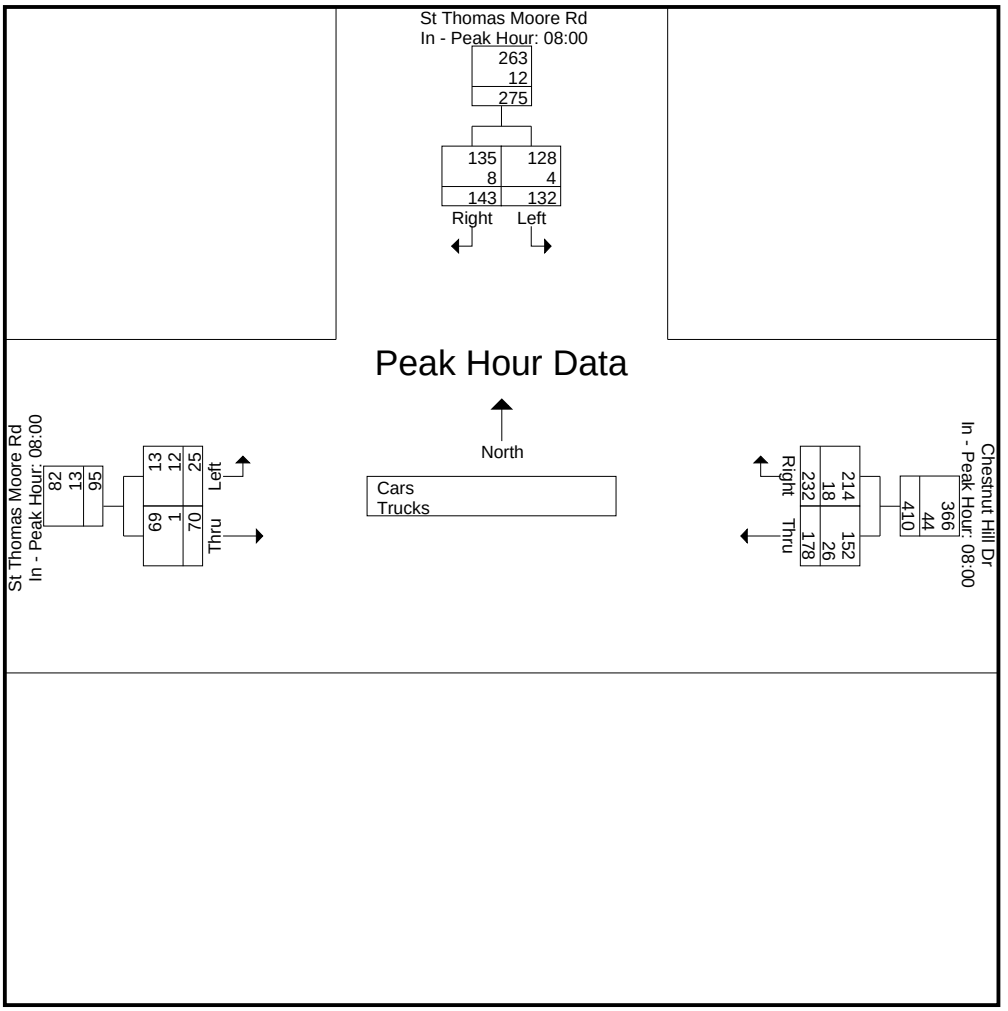
Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 3



N/S Street : St. Thomas Moore Road
E/W Street: Chestnut Hill Drive
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
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Groups Printed- Cars

	St Thomas Moore Rd

Accurate Counts
978-664-2565

File Name : 39000006
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Start Date : 3/11/2008
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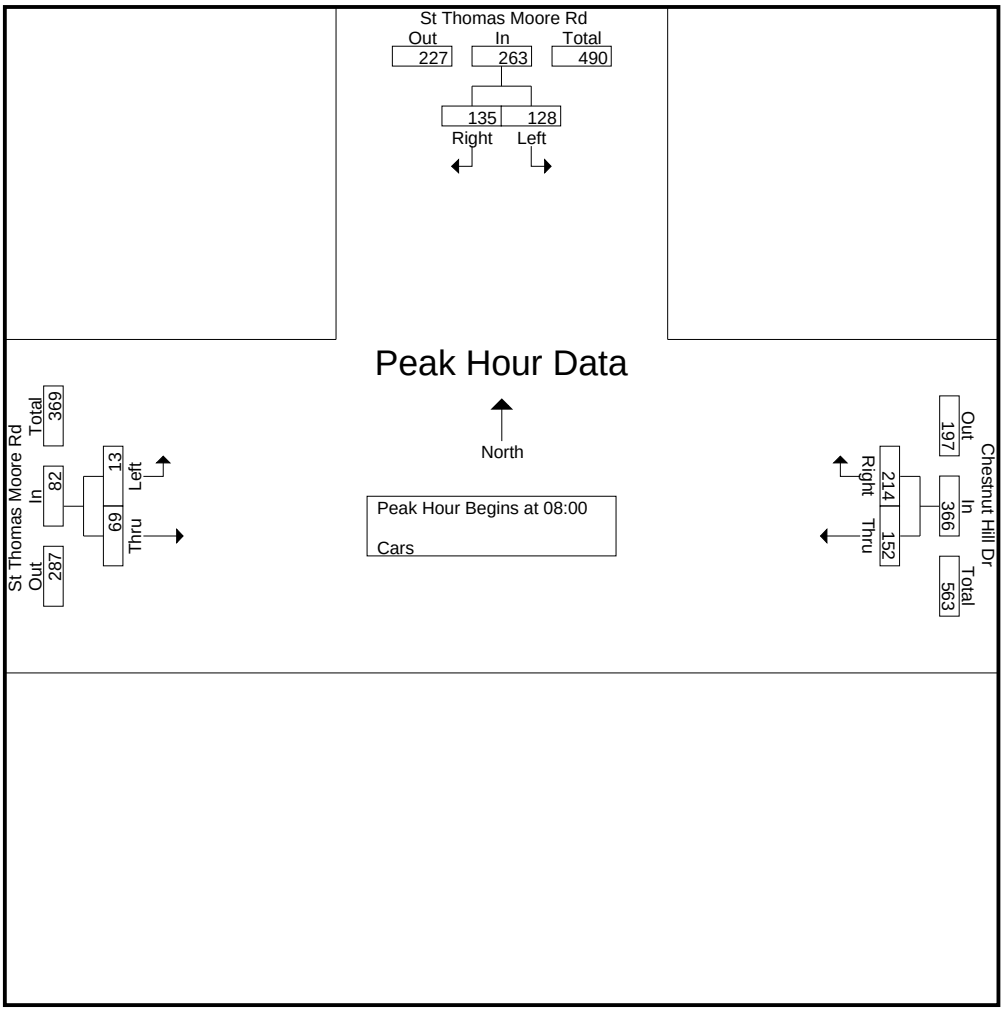


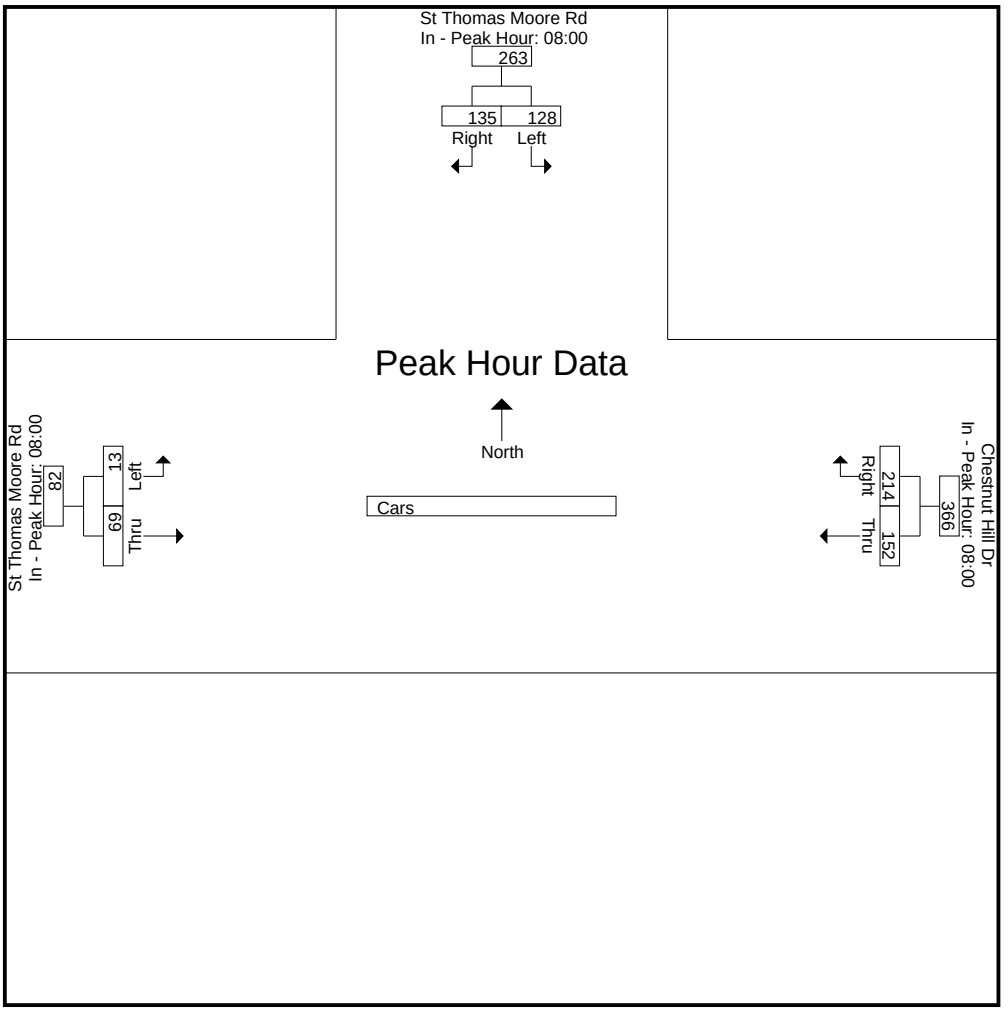
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00			08:00			08:00		
+0 mins.	26	21	47	17	43	60	5	24	29
+15 mins.	27	32	59	33	59	92	1	16	17
+30 mins.	30	39	69	38	59	97	1	14	15
+45 mins.	45	43	88	64	53	117	6	15	21
Total Volume	128	135	263	152	214	366	13	69	82
% App. Total	48.7	51.3		41.5	58.5		15.9	84.1	
PHF	.711	.785	.747	.594	.907	.782	.542	.719	.707

Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 3



N/S Street : St. Thomas Moore Road
E/W Street: Chestnut Hill Drive
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 1

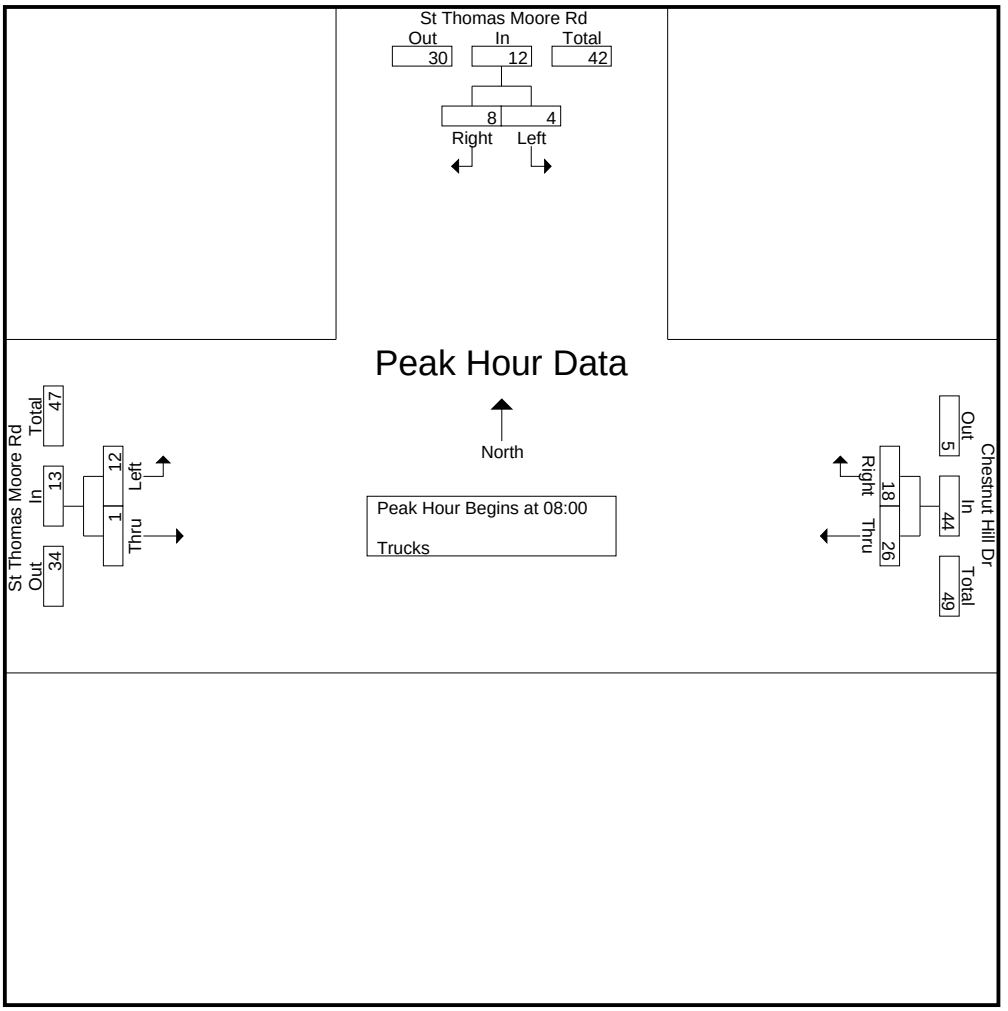
Groups Printed- Trucks

	St Thomas Moore Rd From North			Chestnut Hill Dr From East			St Thomas Moore Rd From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	1	3	0	0	5	0	1	0	0	0	10	10
07:15	0	2	0	1	1	0	2	0	0	0	6	6
07:30	1	4	0	1	2	0	3	1	0	0	12	12
07:45	2	2	0	0	5	0	1	1	0	0	11	11
Total	4	11	0	2	13	0	7	2	0	0	39	39
08:00	0	1	0	0	3	0	3	1	0	0	8	8
08:15	2	3	0	2	3	0	3	0	0	0	13	13
08:30	1	3	0	1	7	0	3	0	0	0	15	15
08:45	1	1	0	23	5	0	3	0	0	0	33	33
Total	4	8	0	26	18	0	12	1	0	0	69	69
Grand Total	8	19	0	28	31	0	19	3	0	0	108	108
Apprch %	29.6	70.4		47.5	52.5		86.4	13.6				
Total %	7.4	17.6		25.9	28.7		17.6	2.8		0	100	

	St Thomas Moore Rd From North			Chestnut Hill Dr From East			St Thomas Moore Rd From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total

Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 2



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

Peak Hour for Each Approach Begins at:

	07:00			08:00			07:30		
+0 mins.	1	3	4	0	3	3	3	1	4
+15 mins.	0	2	2	2	3	5	1	1	2
+30 mins.	1	4	5	1	7	8	3	1	4
+45 mins.	2	2	4	23	5	28	3	0	3
Total Volume	4	11	15	26	18	44	10	3	13
% App. Total	26.7	73.3		59.1	40.9		76.9	23.1	
PHF	.500	.688	.750	.283	.643	.393	.833	.750	.813

Accurate Counts
978-664-2565

N/S Street : St. Thomas Moore Road
E/W Street: Chestnut Hill Drive
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 1

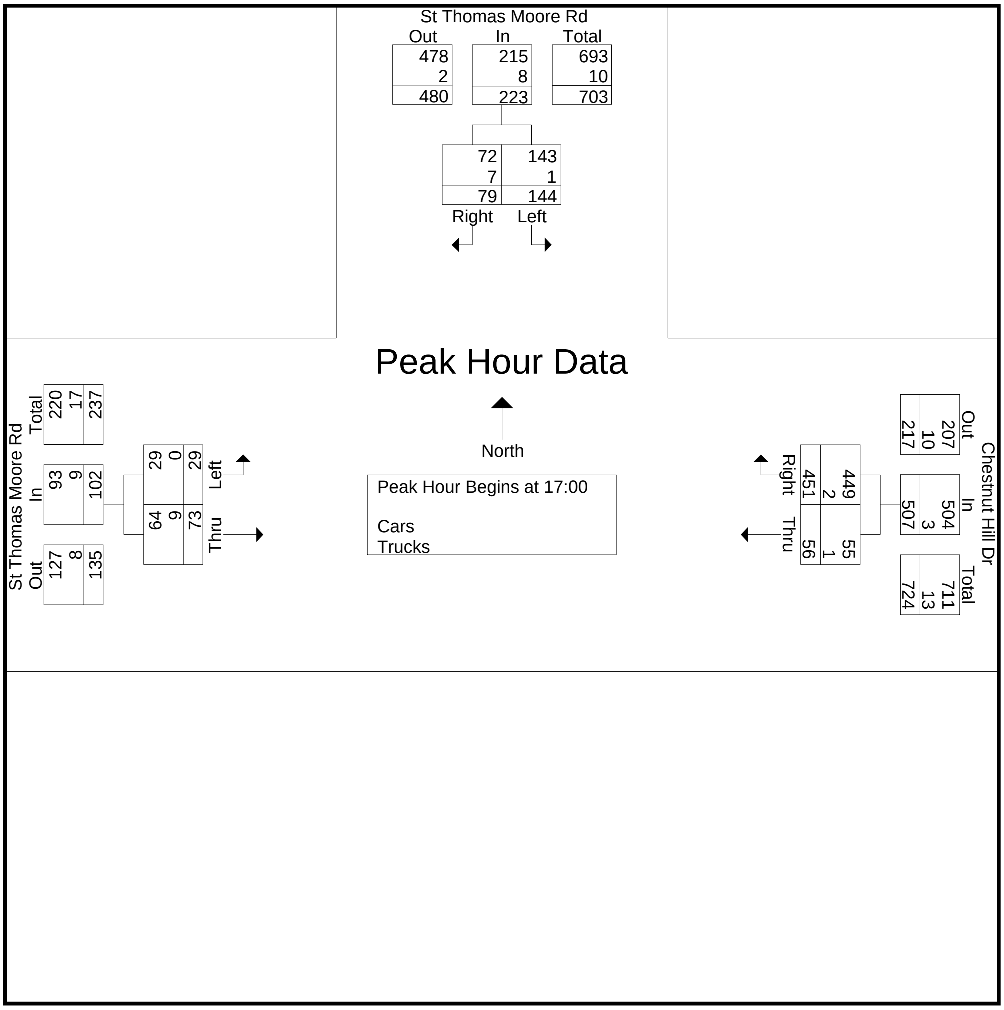
Groups Printed- Cars - Trucks

	St Thomas Moore Rd From North	Chestnut Hill Dr From East	St Thomas Moore Rd From West
Start Time	Left		

Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 2

1135.4



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

124	17:00			17:00			16:30		
+0 mins.	23	11	34	11	128	139	8	17	25
+15 mins.	36	25	61	11	108	119	8	11	19
+30 mins.	39	20	59	31 13	112	125	10	21	31
+45 mins.	46	23	69	21	103	124	8	19	27
Total Volume	144	79	223	56	451	507	34	68	102
% App. Total	64.6	35.4	8.29 68 218.9(35.4) T89ET 6674.96 238.44 Td-8329 Tss ( )1657 4						
PHF									

86.73354435.4

N/S Street : St. Thomas Moore Road
E/W Street: Chestnut Hill Drive
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

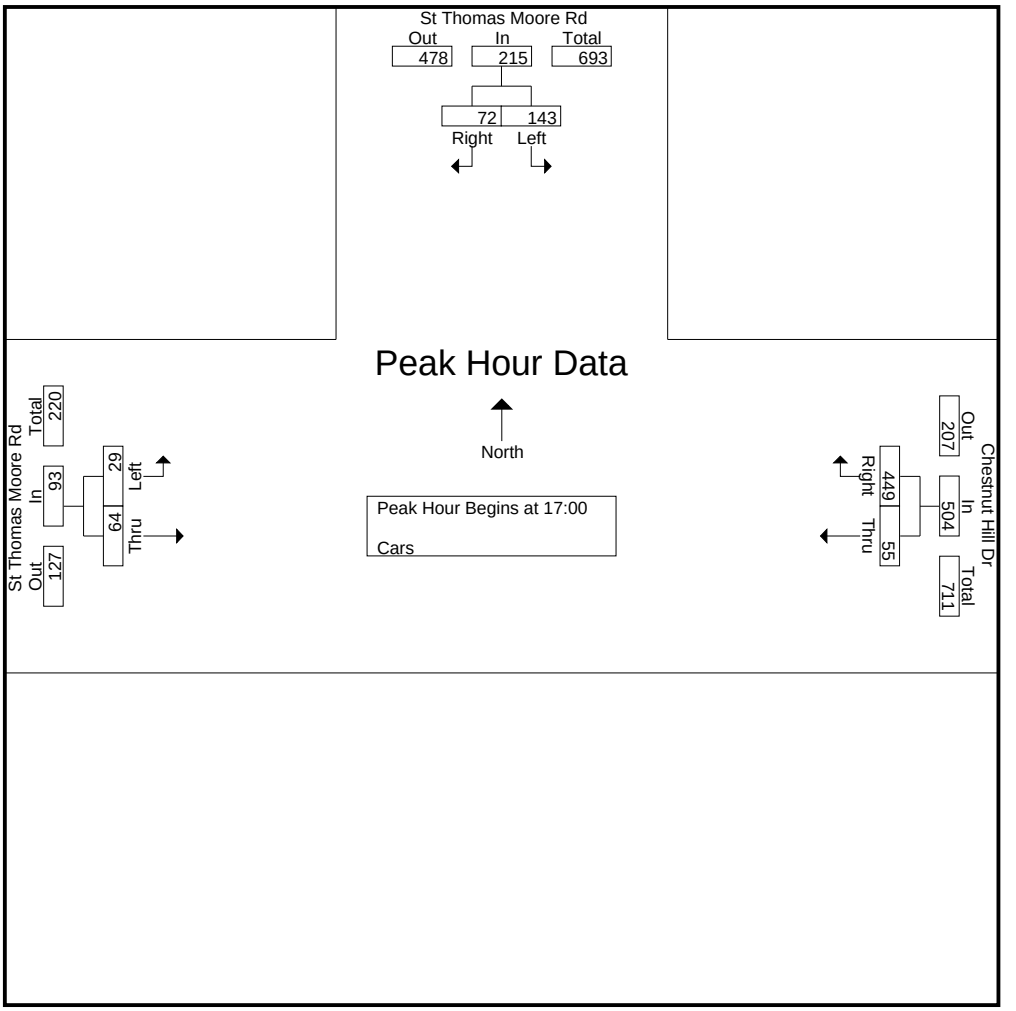
File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars

	St Thomas Moore Rd From North			Chestnut Hill Dr From East			St Thomas Moore Rd From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	39	15	5	26	125	14	4	16	10	29	225	254
16:15	30	26	5	21	101	27	4	18	11	43	200	243
16:30	30	13	6	14	82	19	8	15	18	43	162	205
16:45	27	14	6	13	89	23	8	9	11	40	160	200
Total	126	68	22	74	397	83	24	58	50	155	747	902
17:00	23	9	5	11	128	9	10	17	22	36	198	234
17:15	35	23	3	11	108	17	8	18	7	27	203	230
17:30	39	18	4	12	111	12	6	16	3	19	202	221
17:45	46	22	1	21	102	14	5	13	4	19	209	228
Total	143	72	13	55	449	52	29	64	36	101	812	913
Grand Total	269	140	35	129	846	135	53	122	86	256	1559	1815
Apprch %	65.8	34.2		13.2	86.8		30.3	69.7				
Total %	17.3	9		8.3	54.3		3.4	7.8		14.1	85.9	

	St Thomas Moore Rd From North			Chestnut Hill Dr From East			St Thomas Moore Rd From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. 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	23	9	32	11	128	139	10	17	27	198
17:15	35	23	58	11	108	119	8	18	26	203
17:30	39	18	57	12	111	123	6	16	22	202
17:45	46	22	68	21	102	123	5	13	18	209
Total Volume	143	72	215	55	449	504	29	64	93	812
% App. Total	66.5	33.5		10.9	89.1		31.2	68.8		
PHF	.777	.783	.790	.655	.877	.906	.725	.889	.861	.971

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 2



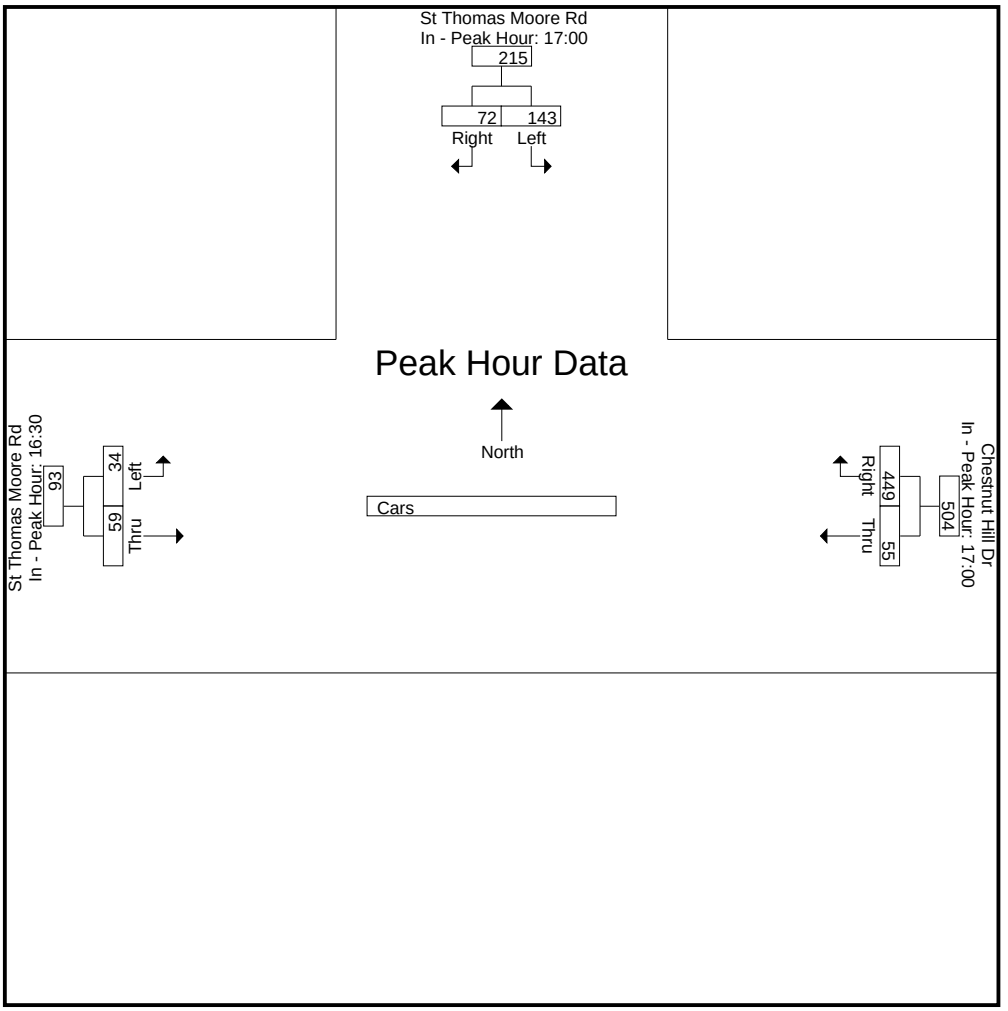
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

17:00

Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 3



N/S Street : St. Thomas Moore Road
E/W Street: Chestnut Hill Drive
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 1

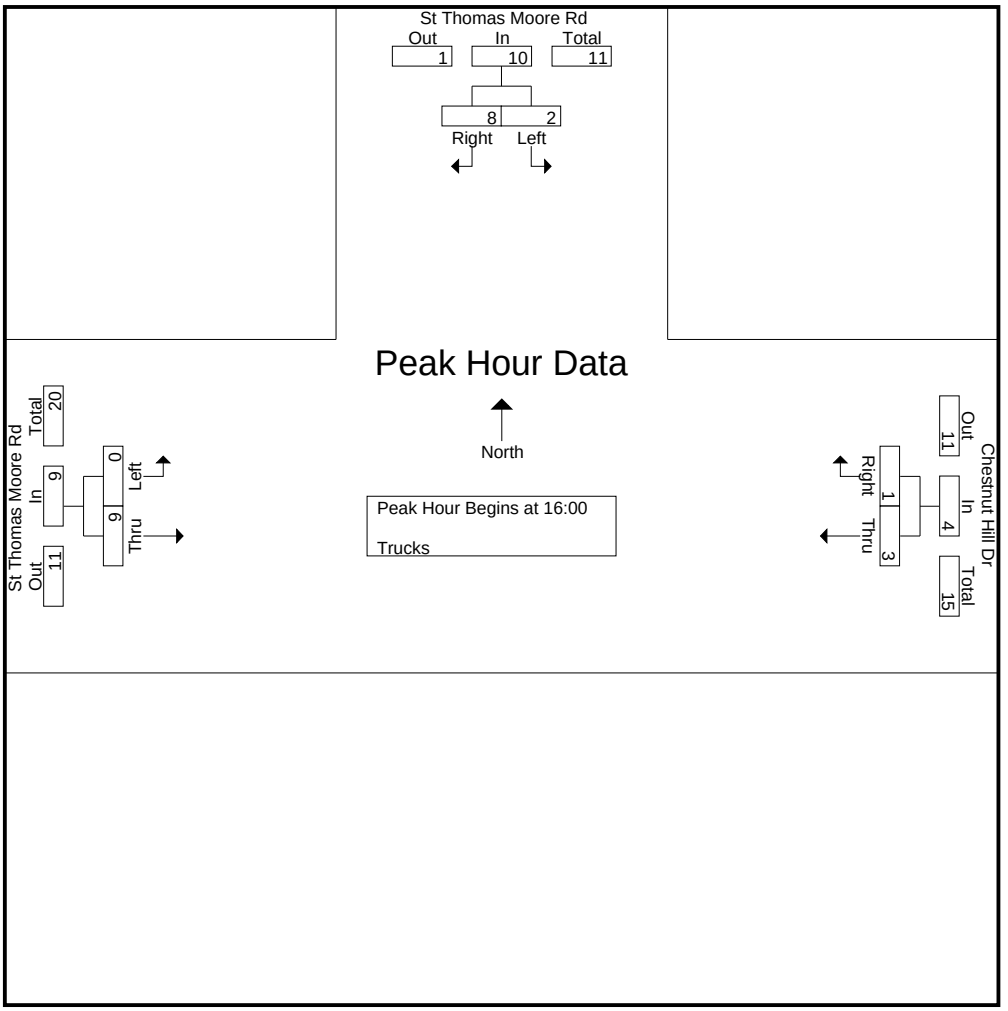
Groups Printed- Trucks

	St Thomas Moore Rd From North			Chestnut Hill Dr From East			St Thomas Moore Rd From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	0	2	0	1	0	0	0	3	0	0	6	6
16:15	0	2	0	0	0	0	0	2	0	0	4	4
16:30	2	2	0	1	1	0	0	2	0	0	8	8
16:45	0	2	0	1	0	0	0	2	0	0	5	5
Total	2	8	0	3	1	0	0	9	0	0	23	23
17:00	0	2	0	0	0	0	0	4	0	0	6	6
17:15	1	2	0	0	0	0	0	1	0	0	4	4
17:30	0	2	0	1	1	0	0	2	0	0	6	6
17:45	0	1	0	0	1	0	0	2	0	0	4	4
Total	1	7	0	1	2	0	0	9	0	0	20	20
Grand Total	3	15	0	4	3	0	0	18	0	0	43	43
Apprch %	16.7	83.3		57.1	42.9		0	100				
Total %	7	34.9		9.3	7		0	41.9		0	100	

	St Thomas Moore Rd From North			Chestnut Hill Dr From East			St Thomas Moore Rd From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. 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	2	1	0	1	0	3	3	6
16:15	0	2	2	0	0	0	0	2	2	4
16:30	2	2	4	1	1	2	0	2	2	8
16:45	0	2	2	1	0	1	0	2	2	5
Total Volume	2	8	10	3	1	4	0	9	9	23
% App. Total	20	80		75	25		0	100		
PHF	.250	1.000	.625	.750	.250	.500	.000	.750	.750	.719

Accurate Counts
978-664-2565

File Name : 39000006
Site Code : 39000006
Start Date : 3/11/2008
Page No : 2



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

Peak Hour for Each Approach Begins at:

	16:30			16:00			16:15		
+0 mins.	2	2	4	1	0	1	0	2	2
+15 mins.	0	2	2	0	0	0	0	2	2
+30 mins.	0	2	2	1	1	2	0	2	2
+45 mins.	1	2	3	1	0	1	0	4	4
Total Volume	3	8	11	3	1	4	0	10	10
% App. Total	27.3	72.7		75	25		0	100	
PHF	.375	1.000	.688	.750	.250	.500	.000	.625	.625

Accurate Counts
978-664-2565

N/S Street : Hammond Street
E/W Street: Beacon Street
City/State : Newton, MA
Weather : Clear

Accurate Counts
978-664-2565

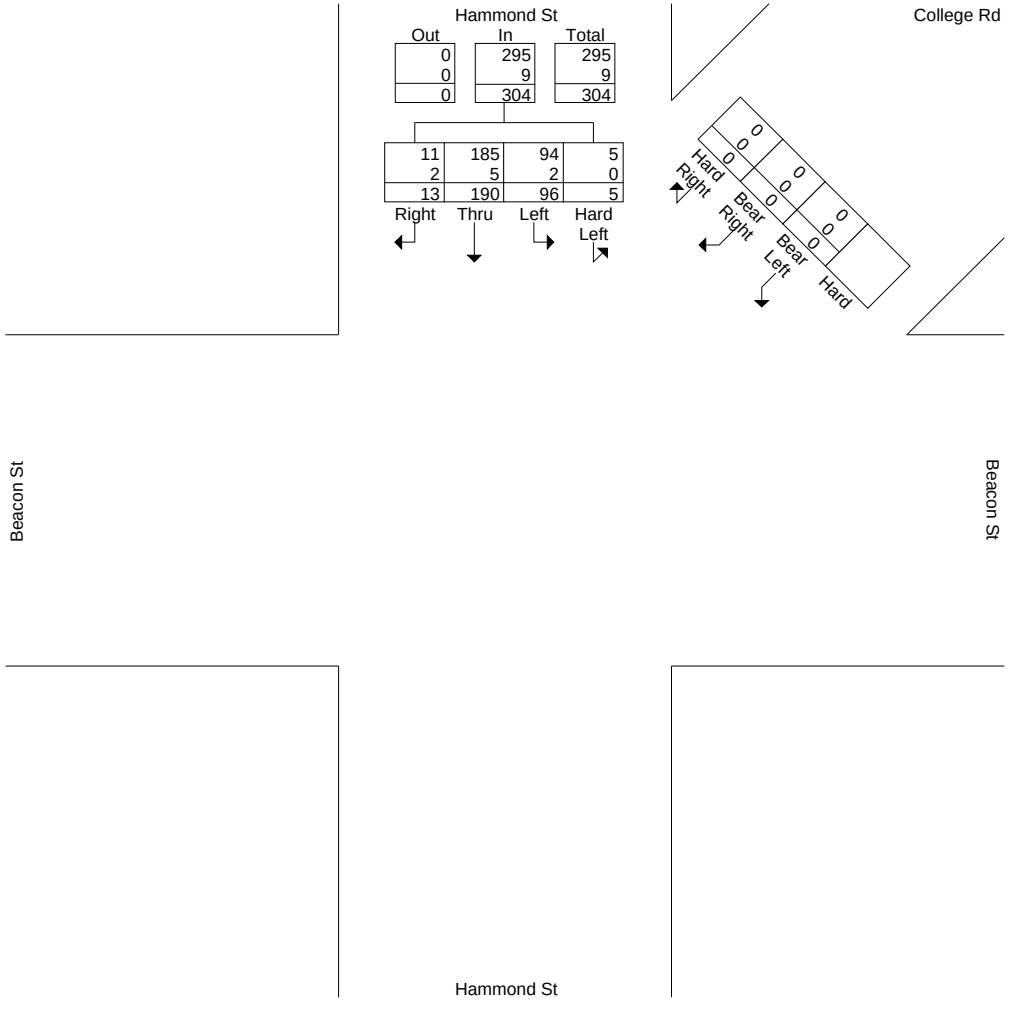
File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars - Trucks

	Hammond St From North					College Rd From Northeast					Beacon St From East					Hammond St From South					Beacon St From West				
Start Time	Hard Left	Left	Thru	Right	Peds	Hard Left	Bear Left	Bear Right	Hard Right	Peds	Left	Thru	Right	Hard Right	Peds	Left	Thru	Bear Right	Right	Peds	Left	Bear Left	Thru	Right	

Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

N/S Street : Hammond Street
E/W Street: Beacon Street
City/State : Newton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 1

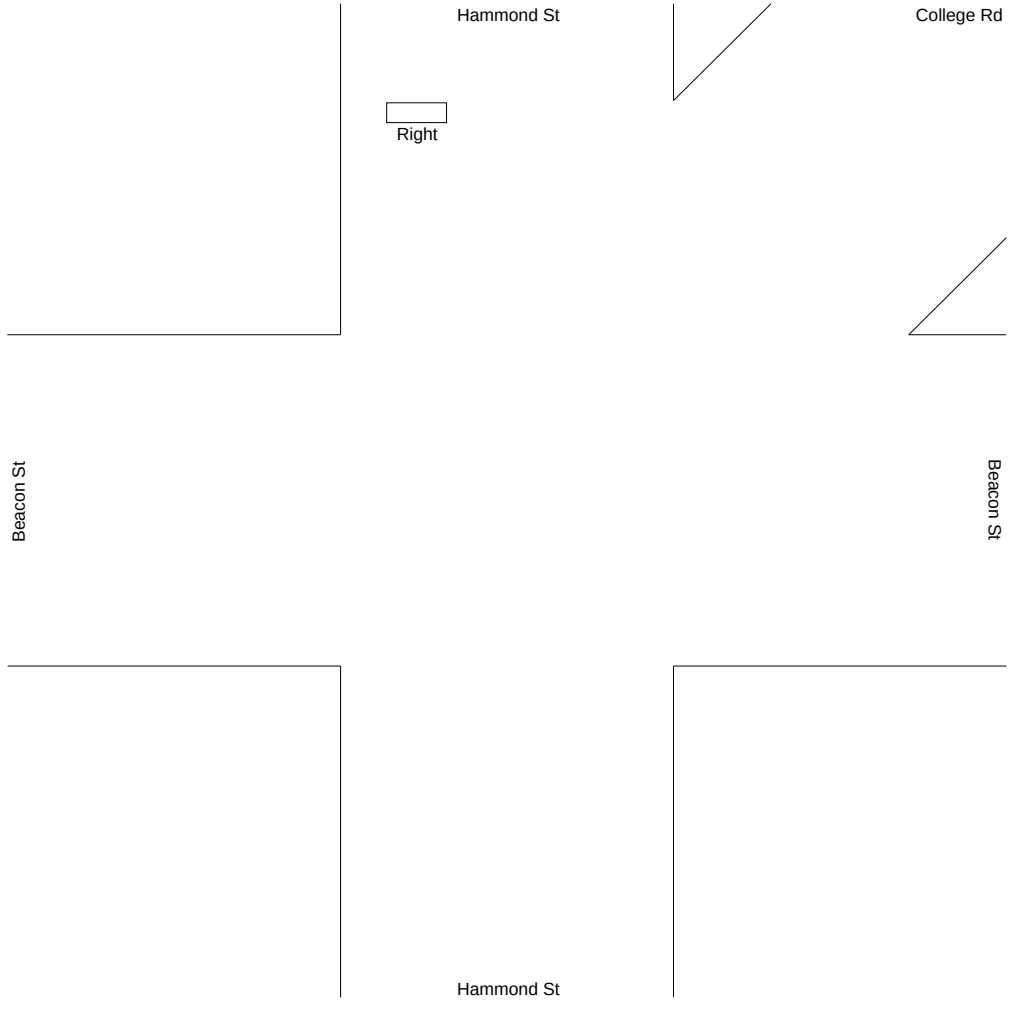
Groups Printed- Cars

	Hammond St From North					College Rd From Northeast					Beacon St From East					Hammond St From South					Beacon St From West							
Start Time	Hard Left	Left	Thru	Right	Peds	Hard Left	Bear Left	Bear Right	Hard Right	Peds	Left	Thru	Right	Hard Right	Peds	Left	Thru	Bear Right	Right	Peds	Left	Bear Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	10	23	2	11	0	0	0	0	7	20	53	0	1	4	4	0	16	10	0	0	31	81	4	0	22	255	277
07:15	0	12	39	3	12	0	0	0	0	14	28	92	0	1	4	16	0	25	6	0	0	28	105	16	0	30	371	401
07:30	0	20	50	5	9	0	0	0	0	12	60	95	0	4	6	26	0	22	6	0	0	23	130	20	0	27	461	488
07:45	2	26	60	1	5	0	0	0	0	6	56	93	0	3	1	28	0	35	18	4	0	38	166	23	0	16	549	565
Total	2	68	172	11	37	0	0	0	0	39	164	333	0	9	15	74	0	98	40	4	0	120	482	63	0	95	1636	1731
08:00	1	20	45	5	9	0	0	0	0	21	40	104	0	6	5	34	0	28	18	2	0	37	181	23	0	37	542	579
08:15	1	18	37	2	22	0	0	0	0	65	49	140	0	6	10	30	0	24	9	1	0	26	173	18	0	98	533	631
08:30	1	30	43	3	93	0	0	0	0	250	44	106	0	14	5	16	0	28	24	1	0	36	170	13	1	350	528	878
08:45	1	20	36	4	171	0	0	0	0	500	40	94	0	12	18	18	0	29	20	0	0	36	138	9	0	689	457	1146
Total	4	88	161	14	295	0	0	0	0	836	173	444	0	38	38	98	0	109	71	4	0	135	662	63	1	1174	2060	3234
Grand Total	6	156	333	25	332	0	0	0	0	875	337	777	0	47	53	172	0	207	111	8	0	255	1144	126	1	1269	3696	4965
Apprch %	1.2	30	64	4.8		0	0	0	0		29	66.9	0	4		35.1	0	42.2	22.7		0	16.7	75	8.3				
Total %	0.2	4.2	9	0.7		0	0	0	0		9.1	21	0	1.3		4.7	0	5.6	3		0	6.9	31	3.4		25.6	74.4	

	Hammond St From North					College Rd From Northeast					Beacon St From East					Hammond St From South					Beacon St From West					
Start Time	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	Int. 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	26	60	1	89	0	0	0	0	0	56	93	0	3	152	28	0	35	18	81	0	38	166	23	227	549
08:00	1	20	45	5	71	0	0	0	0	0	40	104	0	6	150	34	0	28	18	80	0	37	181	23	241	542
08:15	1	18	37	2	58	0	0	0	0	0	49	140	0	6	195	30	0	24	9	63	0	67	173	18	127	332
08300	1		43			0	0	0	0	0	49	106	0			10	0	28	49	664	0		170	23	197	528
	5	94				0	0	0	0	0		43	0				0					0				

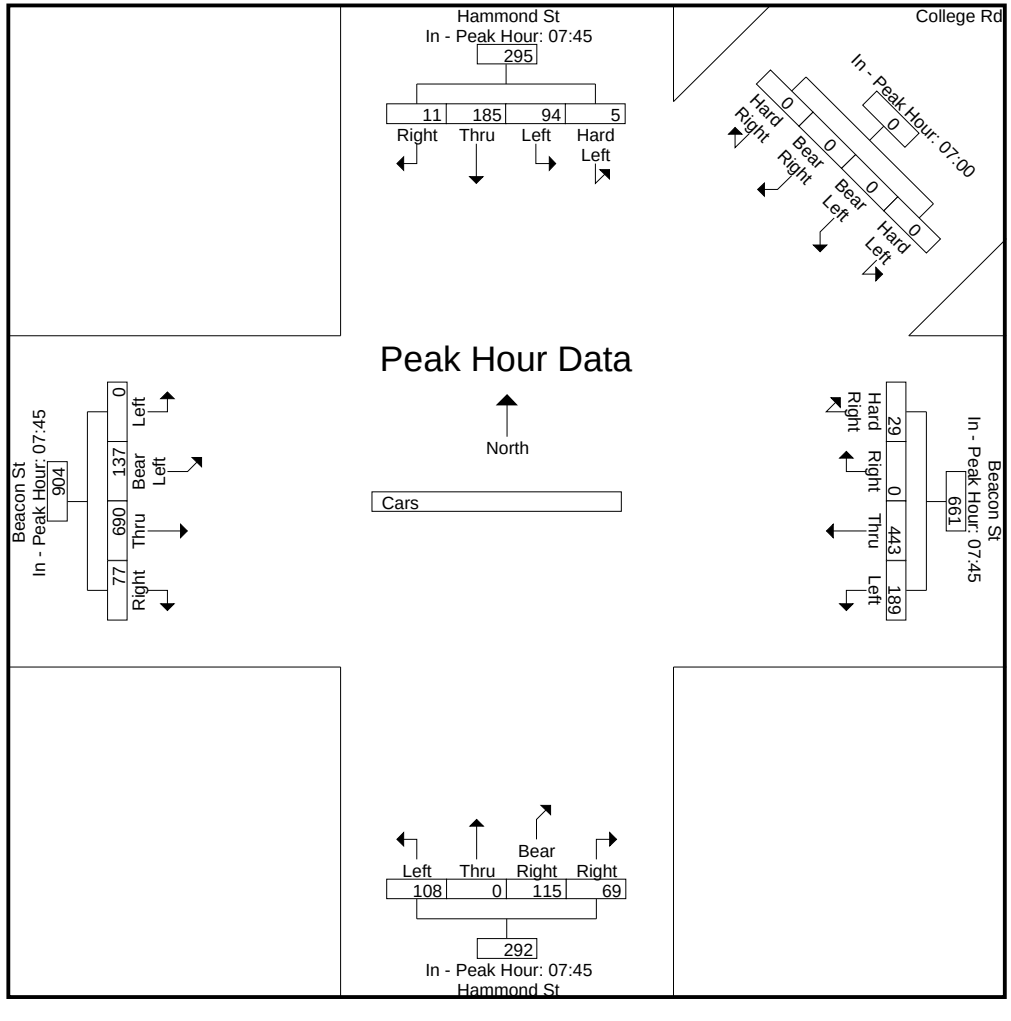
Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 2



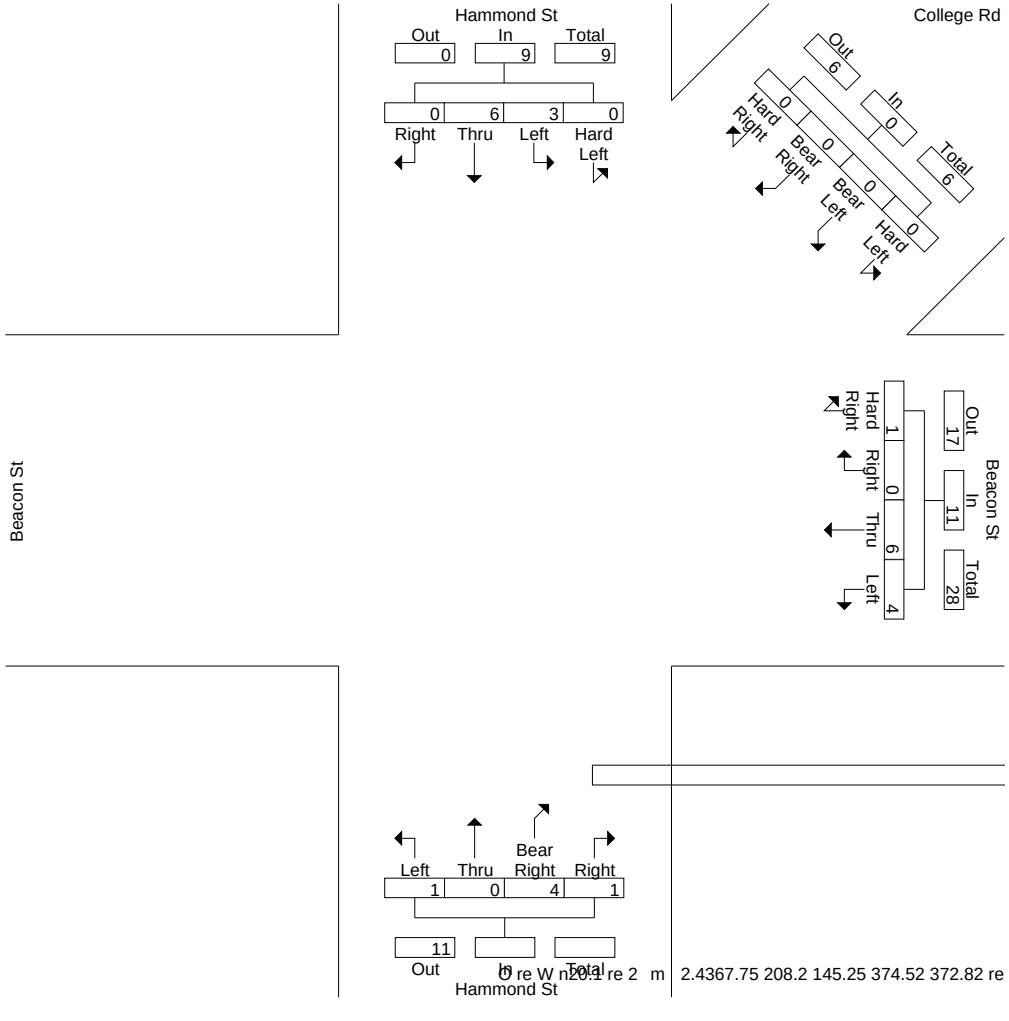
Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 3



Accurate Counts
978-664-2565

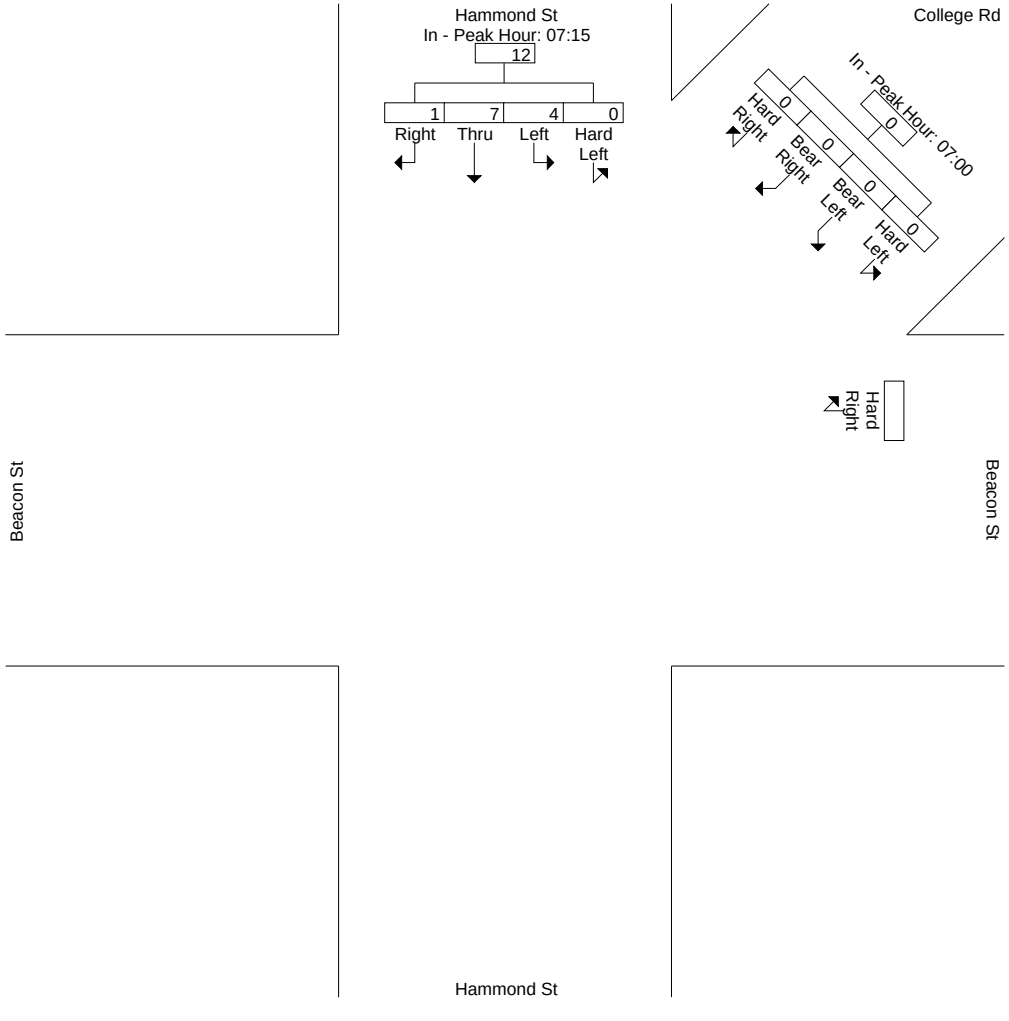
File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 2



O re W n20.1 re 2 m 2.4367.75 208.2 145.25 374.52 372.82 re

Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 3



N/S Street : Hammond Street
E/W Street: Beacon Street
City/State : Newton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 1

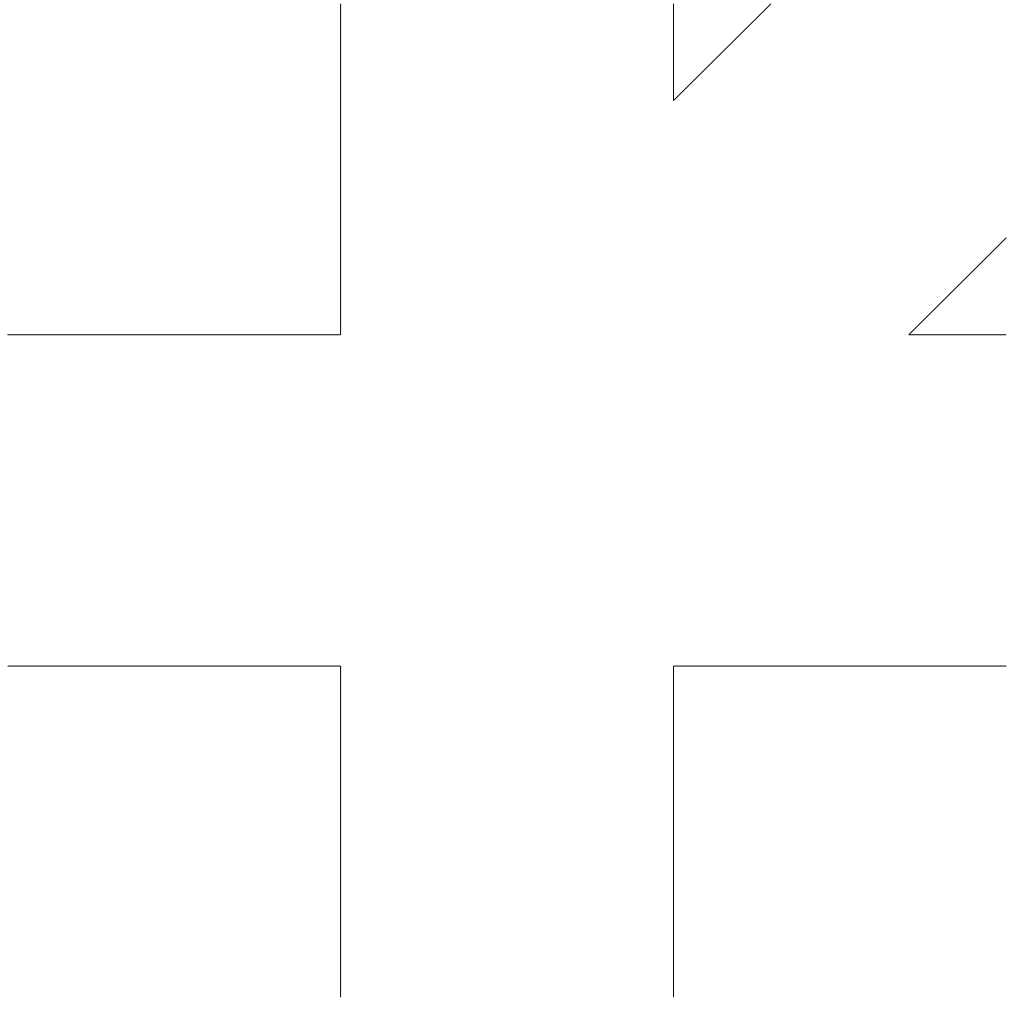
Groups Printed- Cars - Trucks

Accurate Counts
978-664-2565

N/S Street : Hammond Street
E/W Street: Beacon Street
City/State : Newton, MA

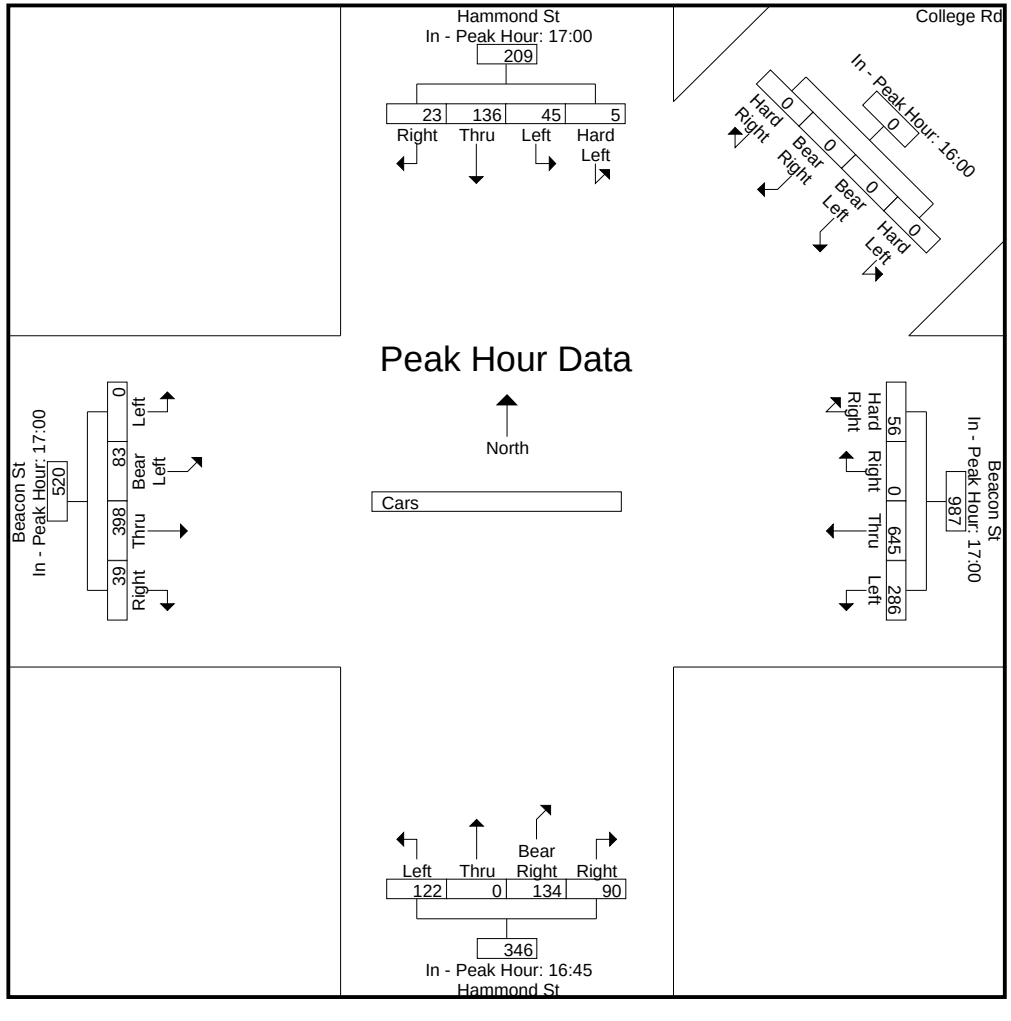
Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008



Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 3



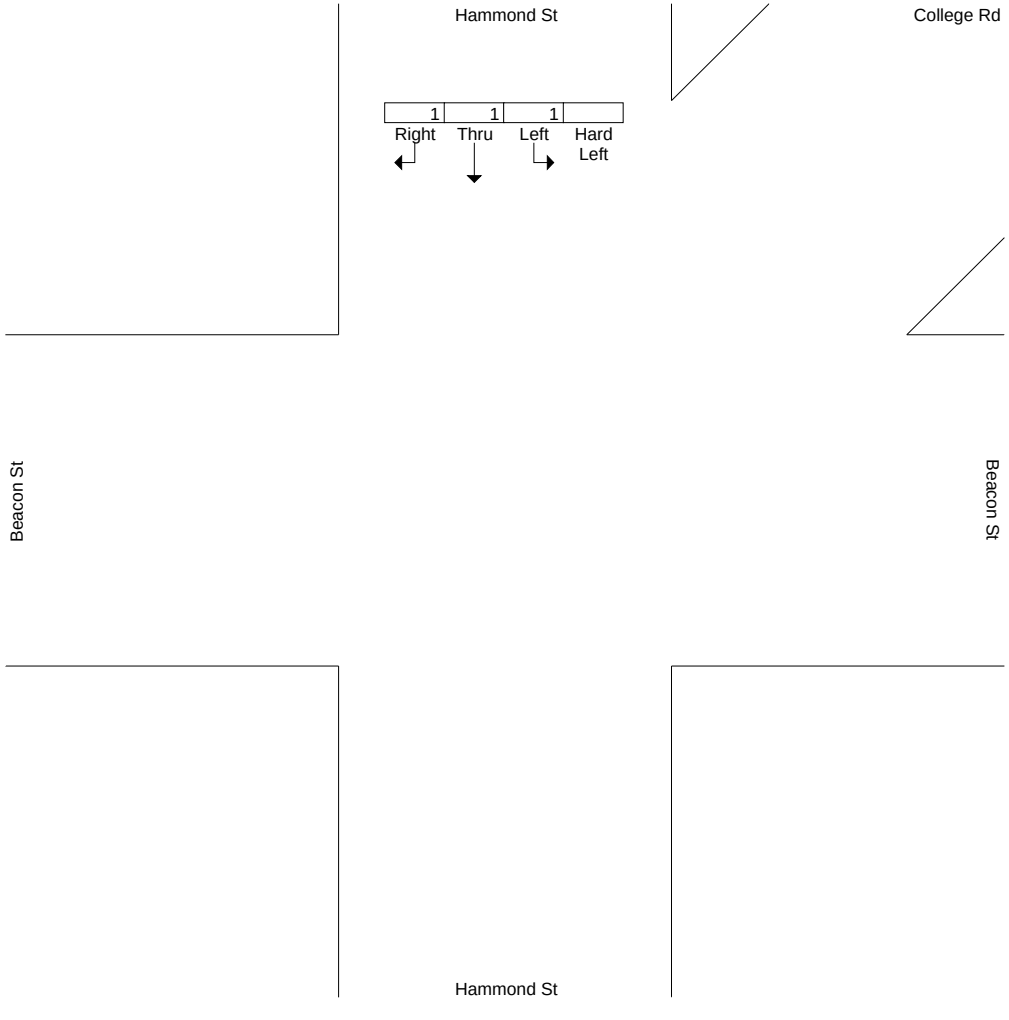
N/S Street : Hammond Street

Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 1

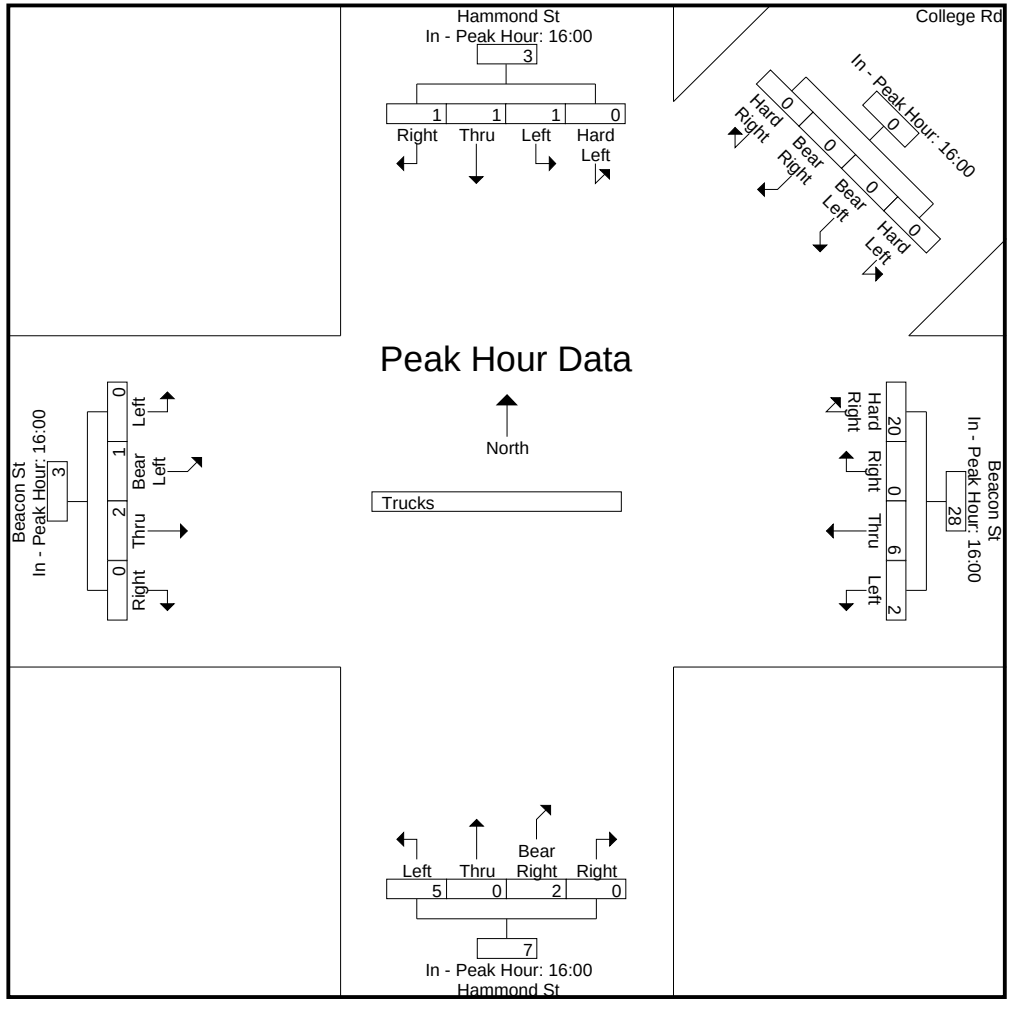
Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000007
Site Code : 39000007
Start Date : 3/11/2008
Page No : 3



N/S Street : Chestnut Hill Avenue
E/W Street: Beacon Street
City/State : Boston, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars - Trucks

	Chestnut Hill Ave From North				Beacon St From East				Chestnut Hill Ave From South				Beacon St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	30	82	17	9	33	49	27	39	3	126	22	8	10	60	10	2	58	469	527
07:15	34	137	26	12	41	72	26	64	9	153	12	2	14	81	15	2	80	620	700
07:30	61	165	18	7	39	83	21	100	9	159	9	4	16	89	18	3	114	687	801
07:45	42	141	28	19	42	96	35	83	12	170	25	4	12	134	13	6	112	750	862
Total	167	525	89	47	155	300	109	286	33	608	68	18	52	364	56	13	364	2526	2890
08:00	69	164	24	17	42	86	41	105	15	143	11	6	16	106	18	10	138	735	873
08:15	42	120	27	10	39	125	38	94	30	181	27	3	12	118	11	5	112	770	882
08:30	40	101	27	9	35	101	50	89	16	174	12	2	16	122	6	3	103	700	803
08:45	52	130	18	4	32	99	35	68	27	145	14	3	20	102	18	5	80	692	772
Total	203	515	96	40	148	411	164	356	88	643	64	14	64	448	53	23	433	2897	3330
Grand Total	370	1040	185	87	303	711	273	642	121	1251	132	32	116	812	109	36	797	5423	6220
Apprch %	23.2	65.2	11.6		23.5	55.2	21.2		8	83.2	8.8		11.2	78.3	10.5				
Total %	6.8	19.2	3.4		5.6	13.1	5		2.2	23.1	2.4		2.1	15	2		12.8	87.2	
Cars	361	976	183		293	702	266		120	1192	126		113	803	108		0	0	6040
% Cars	97.6	93.8	98.9	100	96.7	98.7	97.4	100	99.2	95.3	95.5	100	97.4	98.9	99.1	100	0	0	97.1
Trucks	9	64	2		10	9	7		1	59	6		3	9	1		0	0	180
% Trucks	2.4	6.2	1.1	0	3.3	1.3	2.6	0	0.8	4.7	4.5	0	2.6	1.1	0.9	0	0	0	2.9

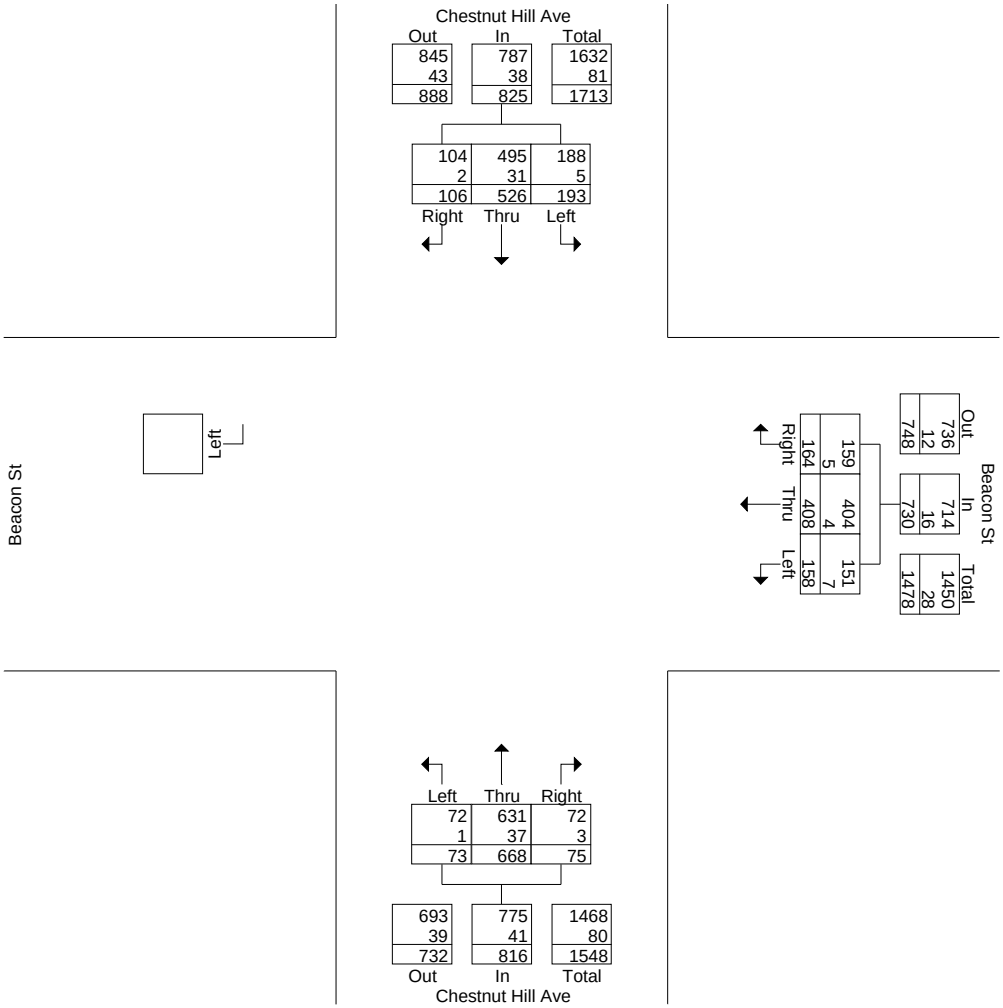
	Chestnut Hill Ave From North				Beacon St From East				Chestnut Hill Ave From South				Beacon St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

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

07:45	42	141	28	42

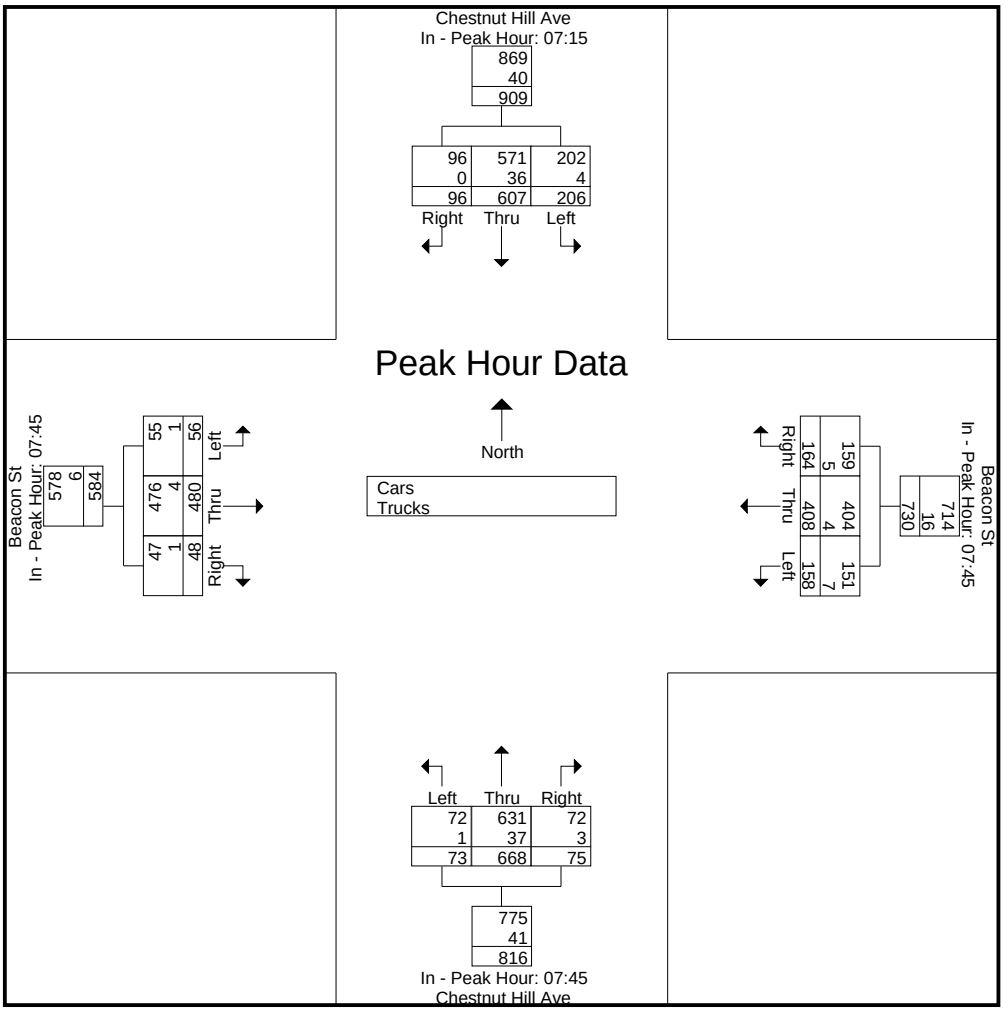
Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 2Out



Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 3



N/S Street : Chestnut Hill Avenue
E/W Street: Beacon Street
City/State : Boston, MA
Weather : Clear

Accurate Counts
978-664-2565

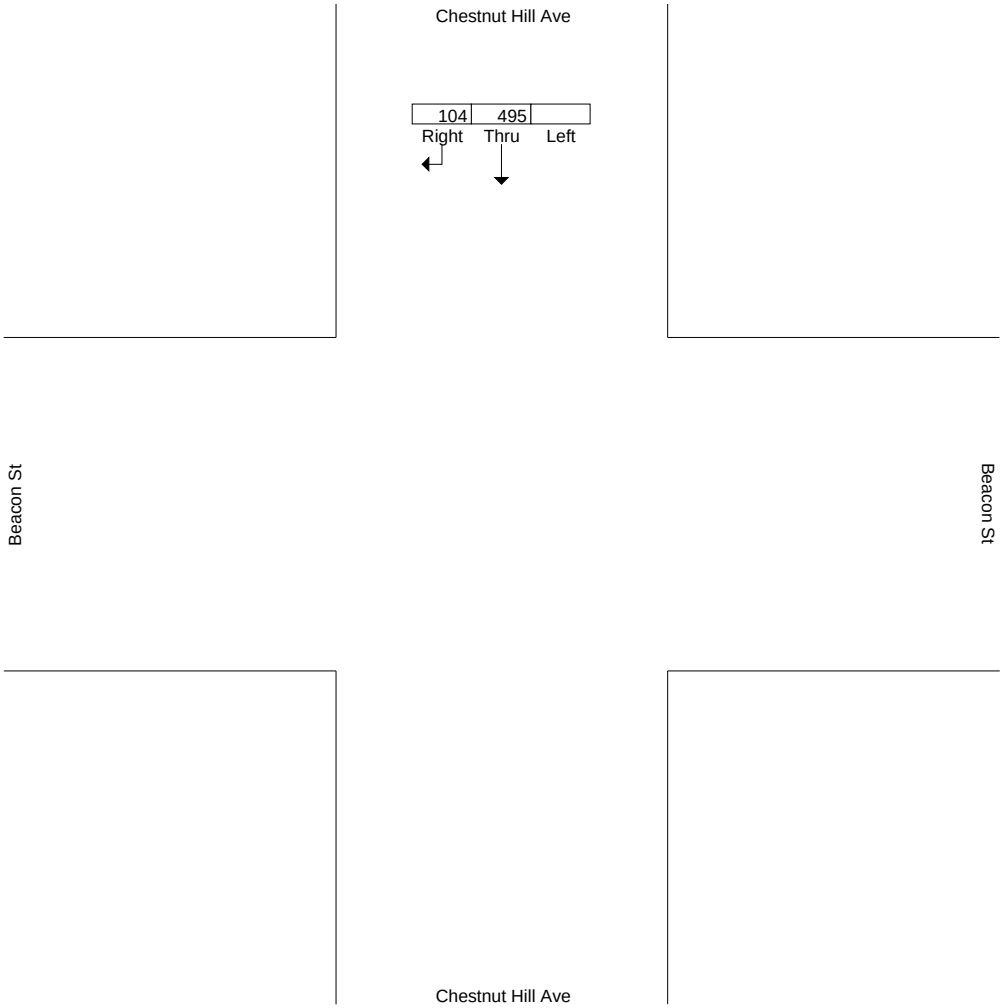
File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 1

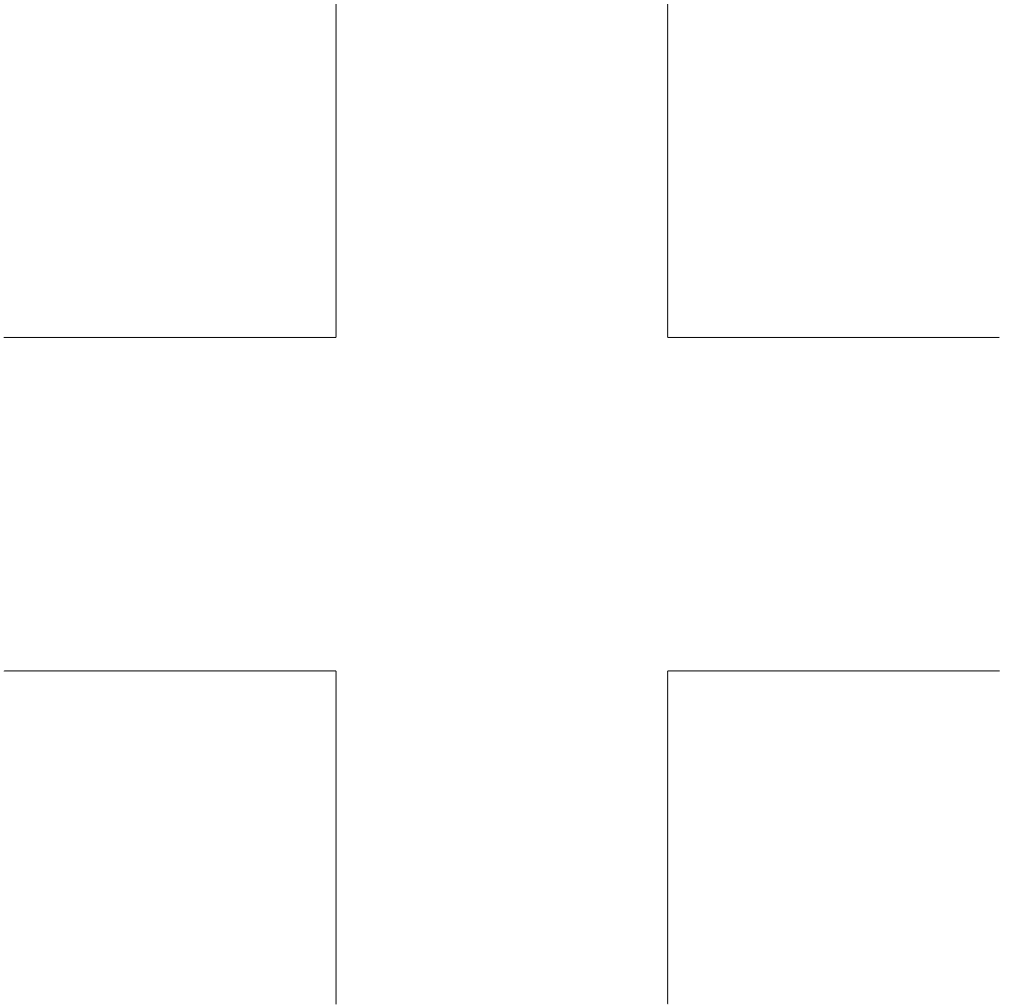
Groups Printed- Cars

	Chestnut Hill Ave From North				Beacon St From East				Chestnut Hill Ave From South				Beacon St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	29	77	17	9	32	48	27	39	3	119	22	8	10	59	10	2	58	453	511

Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 2





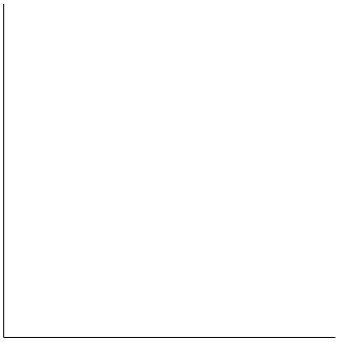
N/S Street : Chestnut Hill Avenue
E/W Street: Beacon Street
City/State : Boston, MA
Weather : Clear

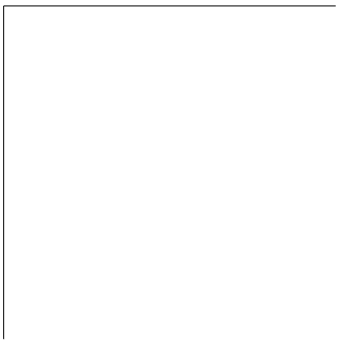
Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008

Groups Printed- Trucks

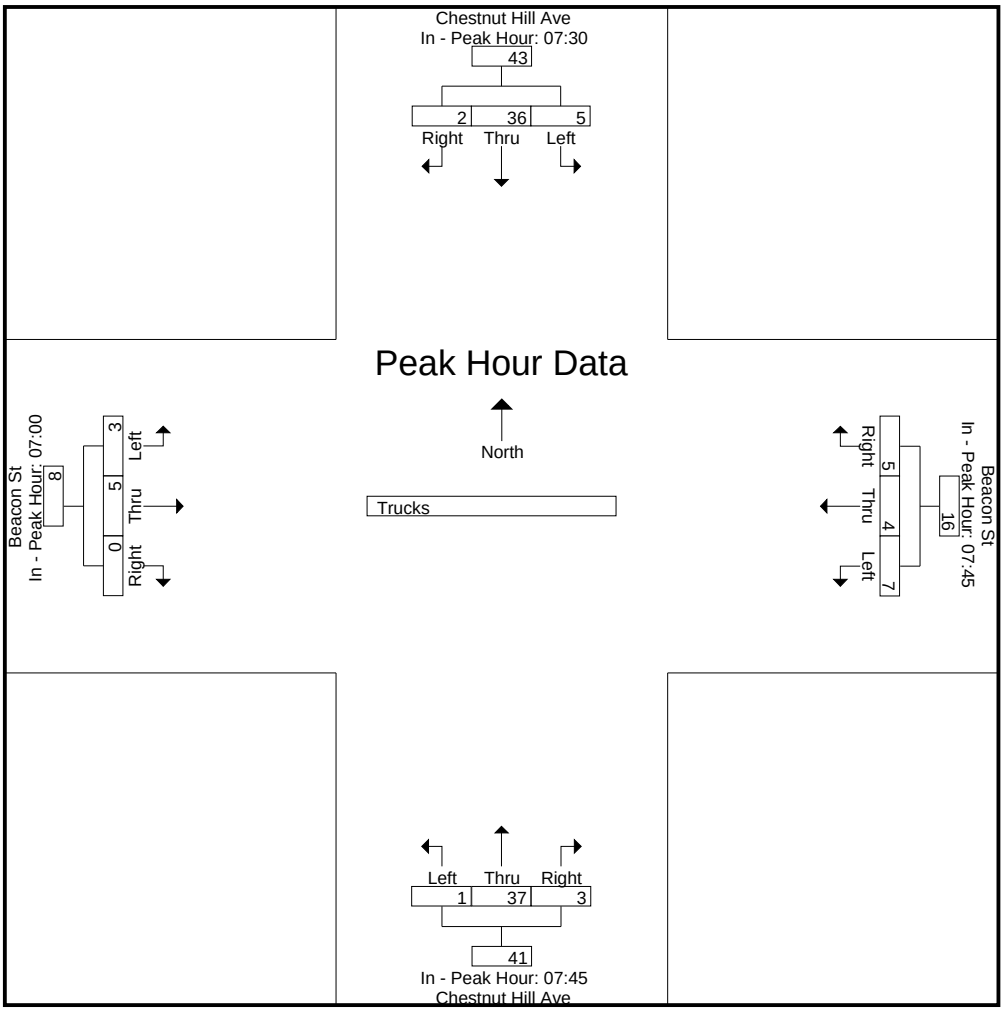
	Chestnut Hill Ave From North				Beacon St From East				Chestnut Hill Ave From South				Beacon St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	1	5	0	0	1	1	0	0	0	7	0	0	0	1	0	0	0	16	16
07:15	1	7	0	0	1	1	2	0	0	6	2	0	0	1	0	0	0	21	21
07:30	2	13	0	0	1	1	0	0	0	5	1	0	2	1	0	0	0	26	26
07:45	0	7	0	0	3	1	1	0	0	7	1	0	1	2	0	0	0	23	23
Total	4	32	0	0	6	4	3	0	0	25	4	0	3	5	0	0	0	86	86
08:00	1	9	0	0	1	0	2	0	0	9	1	0	0	0	0	0	0	23	23
08:15	2	7	2	0	0	2	1	0	1	12	1	0	0	1	1	0	0	30	30
08:30	2	8	0	0	3	1	1	0	0	9	0	0	0	1	0	0	0	25	25
08:45	0	8	0	0	0	2	0	0	0	4	0	0	0	2	0	0	0	16	16
Total	5	32	2	0	4	5	4	0	1	34	2	0	0	4	1	0	0	94	94
Grand Total	9	64	2	0	10	9	7	0	1	59	6	0	3	9	1	0	0	180	180
Apprch %	12	85.3	2.7												7.7				

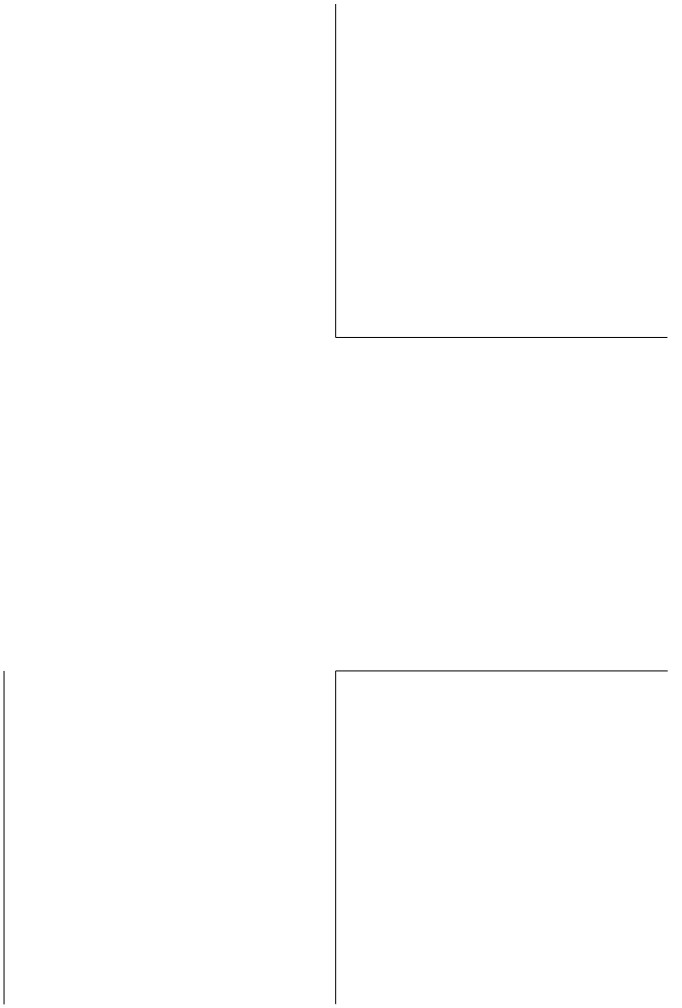


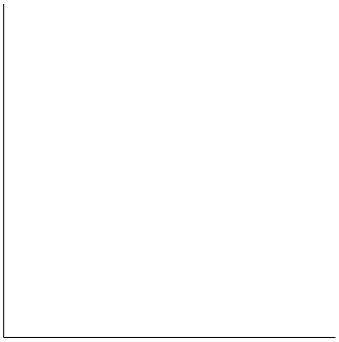


Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 3







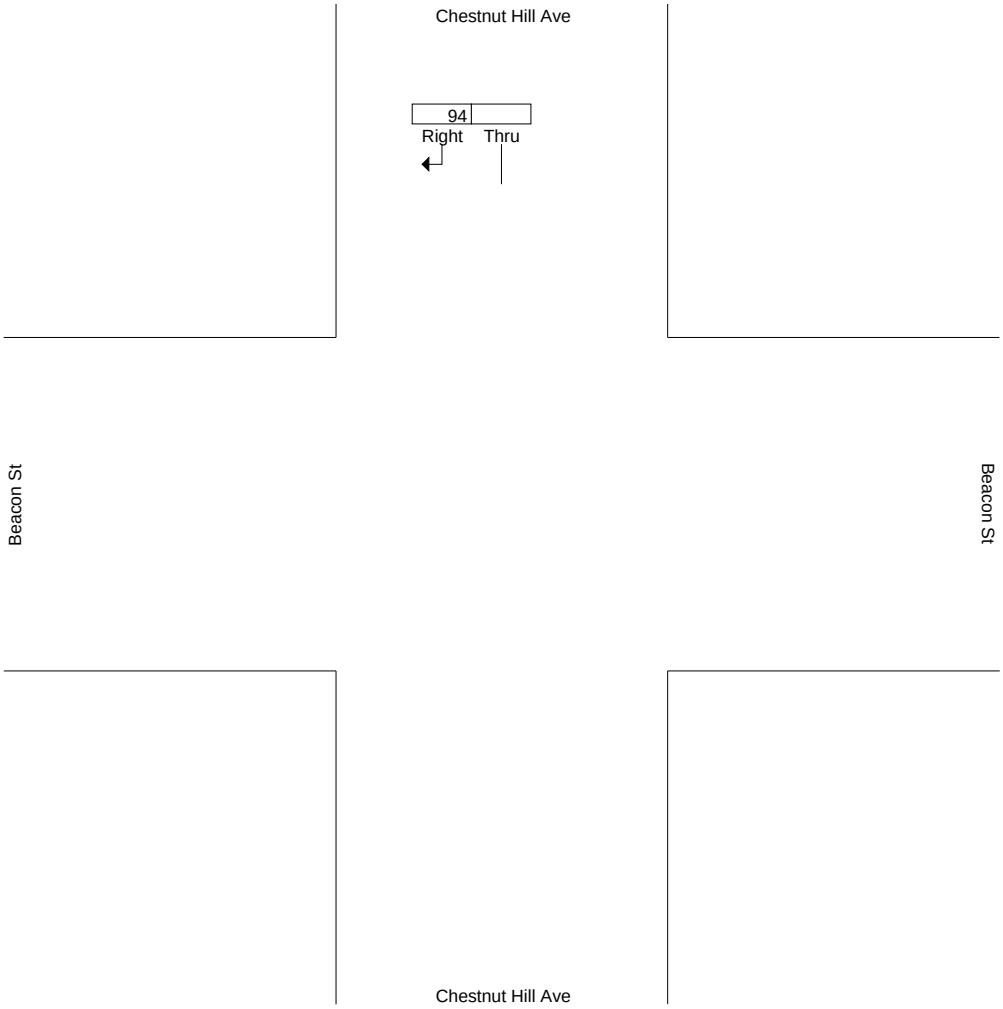
N/S Street : Chestnut Hill Avenue
E/W Street: Beacon Streetnue

Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 1

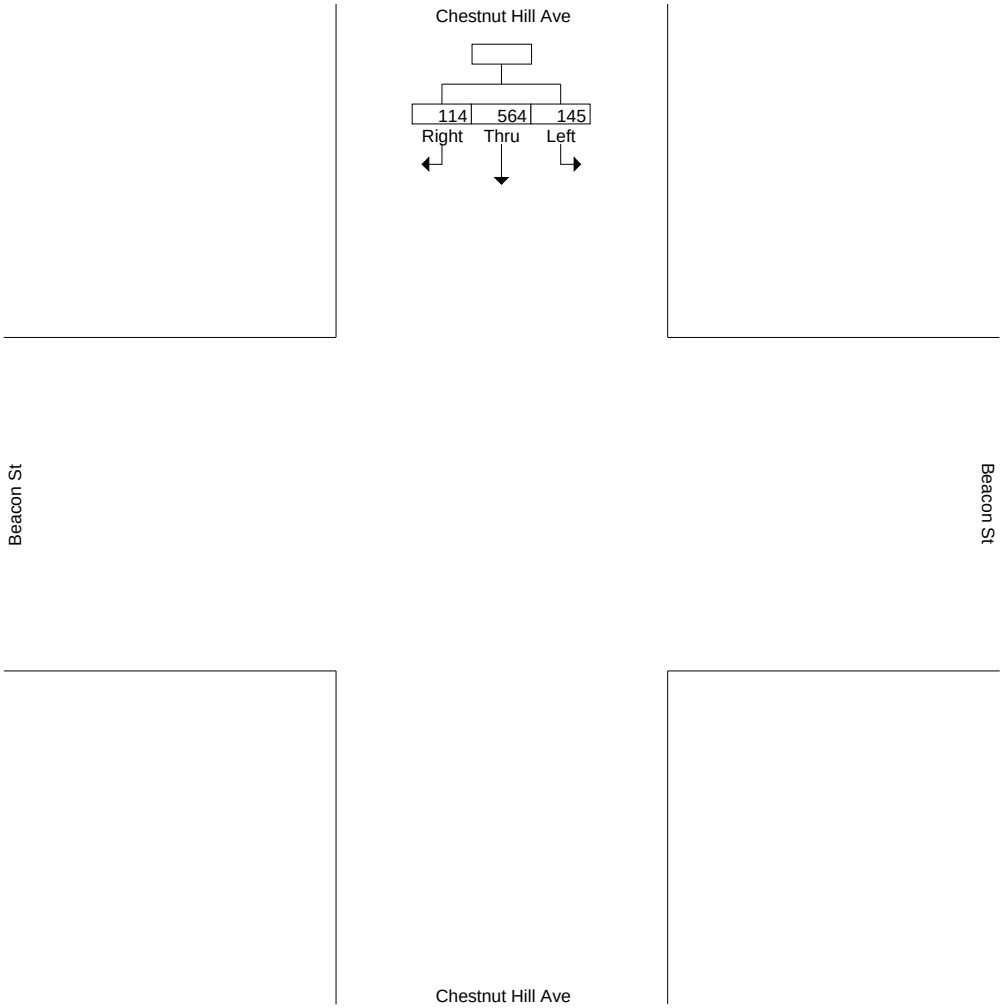
Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 3



N/S Street : Chestnut Hill Avenue
E/W Street: Beacon Street
City/State : Boston, MA
Weather : Clear

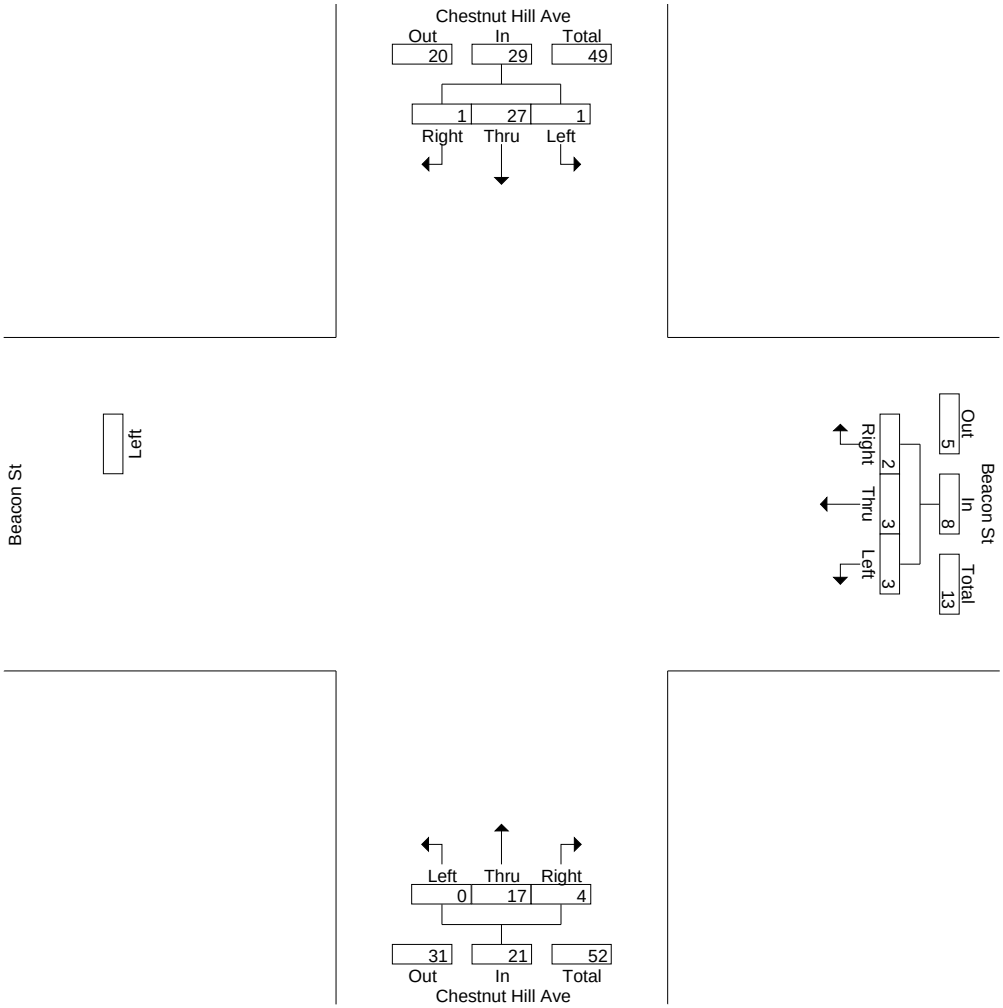
Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 1

Groups Printed- Trucks

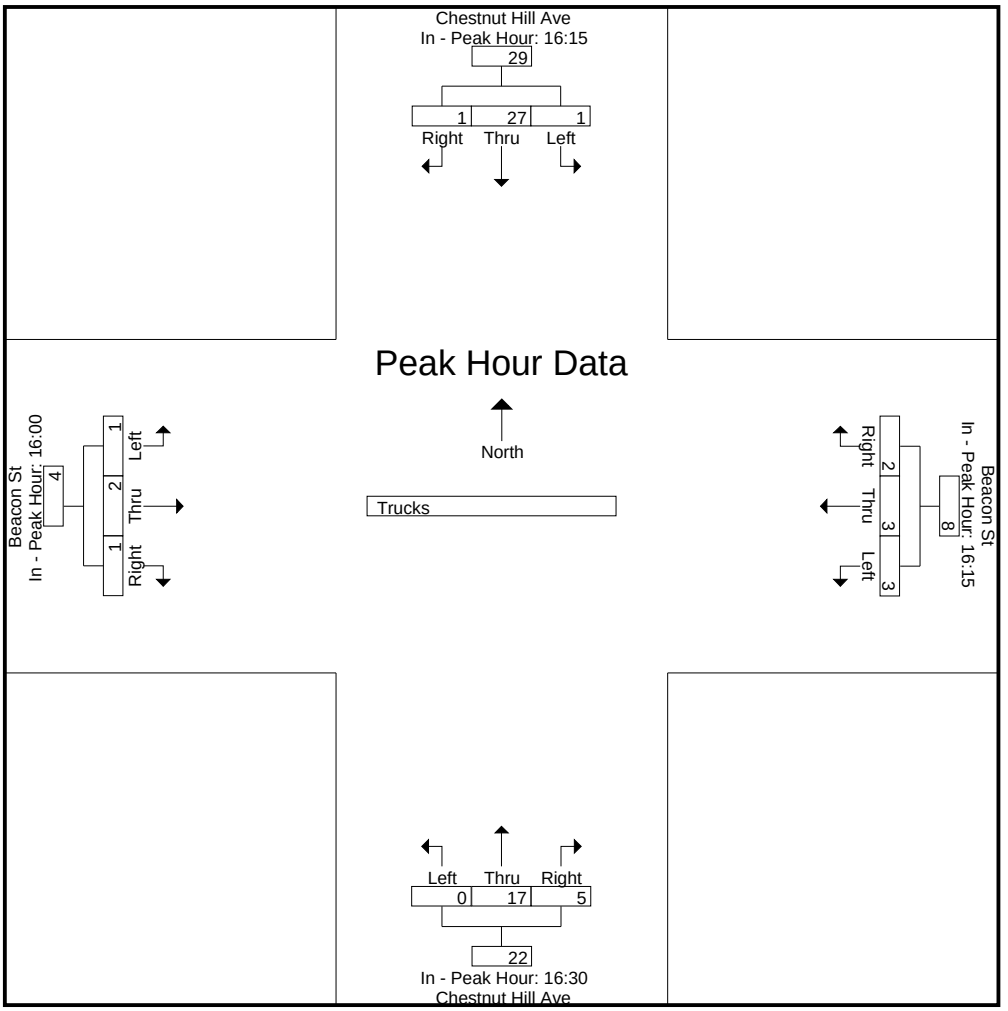
Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 2



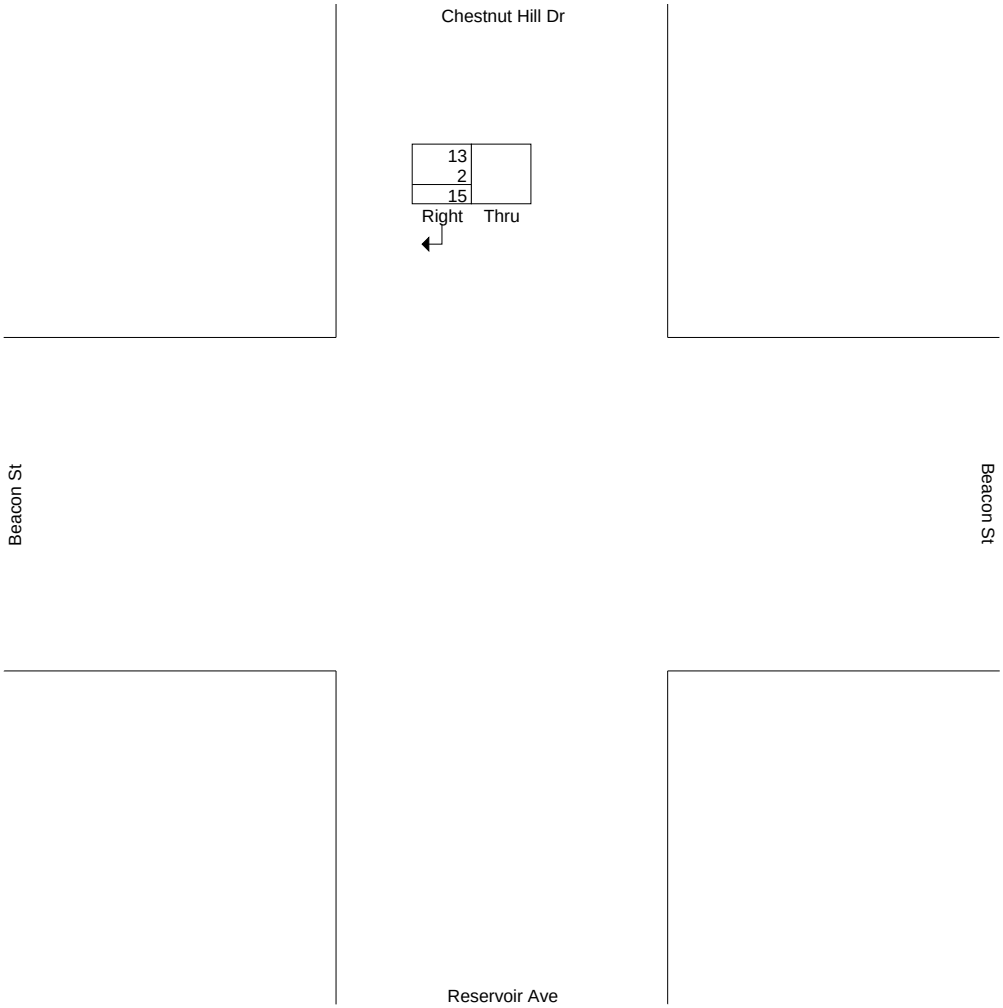
Accurate Counts
978-664-2565

File Name : 39000008
Site Code : 39000008
Start Date : 3/11/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000009
Site Code : 39000009
Start Date : 3/11/2008
Page No : 2



N/S Street : Reservoir Avenue
E/W Street: Beacon Street
City/State : Newton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000009
Site Code : 39000009
Start Date : 3/11/2008
Page No : 1

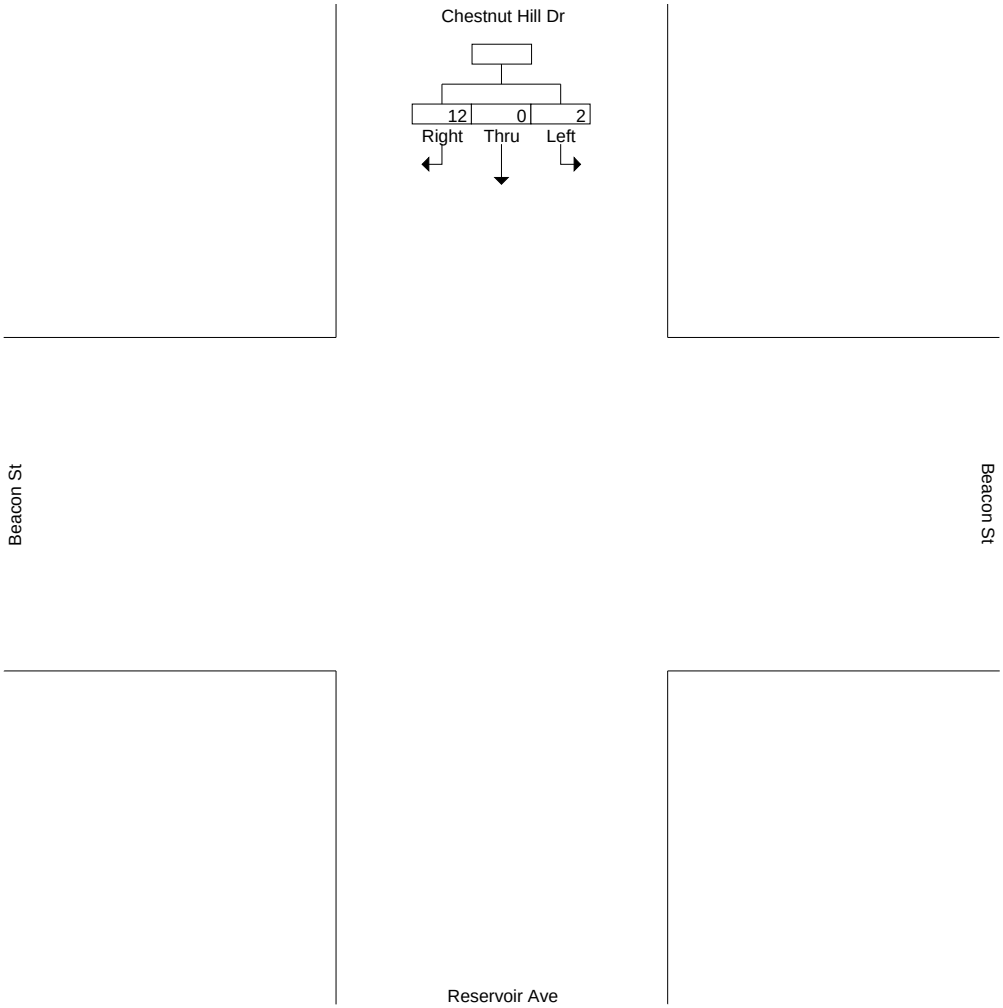
Groups Printed- Cars

	Chestnut Hill Dr From North				Beacon St From East				Reservoir Ave From South				Beacon St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	2	2	0	79	16	0	2	0	37	0	1	91	0	0	2	228	230
07:15	2	0	1	1	0	116	12	0	0	0	48	1	1	138	0	0	2	318	320
07:30	1	0	3	3	0	153	22	0	1	0	56	0	2	137	1	0	3	376	379
07:45	0	0	3	2	0	150	36	1	1	0	78	3	7	209	0	1	7	484	491
Total	3	0	9	8	0	498	86	1	4	0	219	4	11	575	1	1	14	1406	1420
08:00	0	0	2	6	0	139	40	2	3	0	55	1	16	180	0	0	9	435	444
08:15	1	0	4	7	0	186	38	1	5	1	56	0	9	187	0	0	8	487	495
08:30	0	0	3	2	0	157	50	0	4	0	62	0	14	193	1	1	3	484	487
08:45	0	0	4	1	0	136	69	1	2	0	76	1	17	186	0	1	4	490	494
Total																			

File Name : 39000009
Site Code

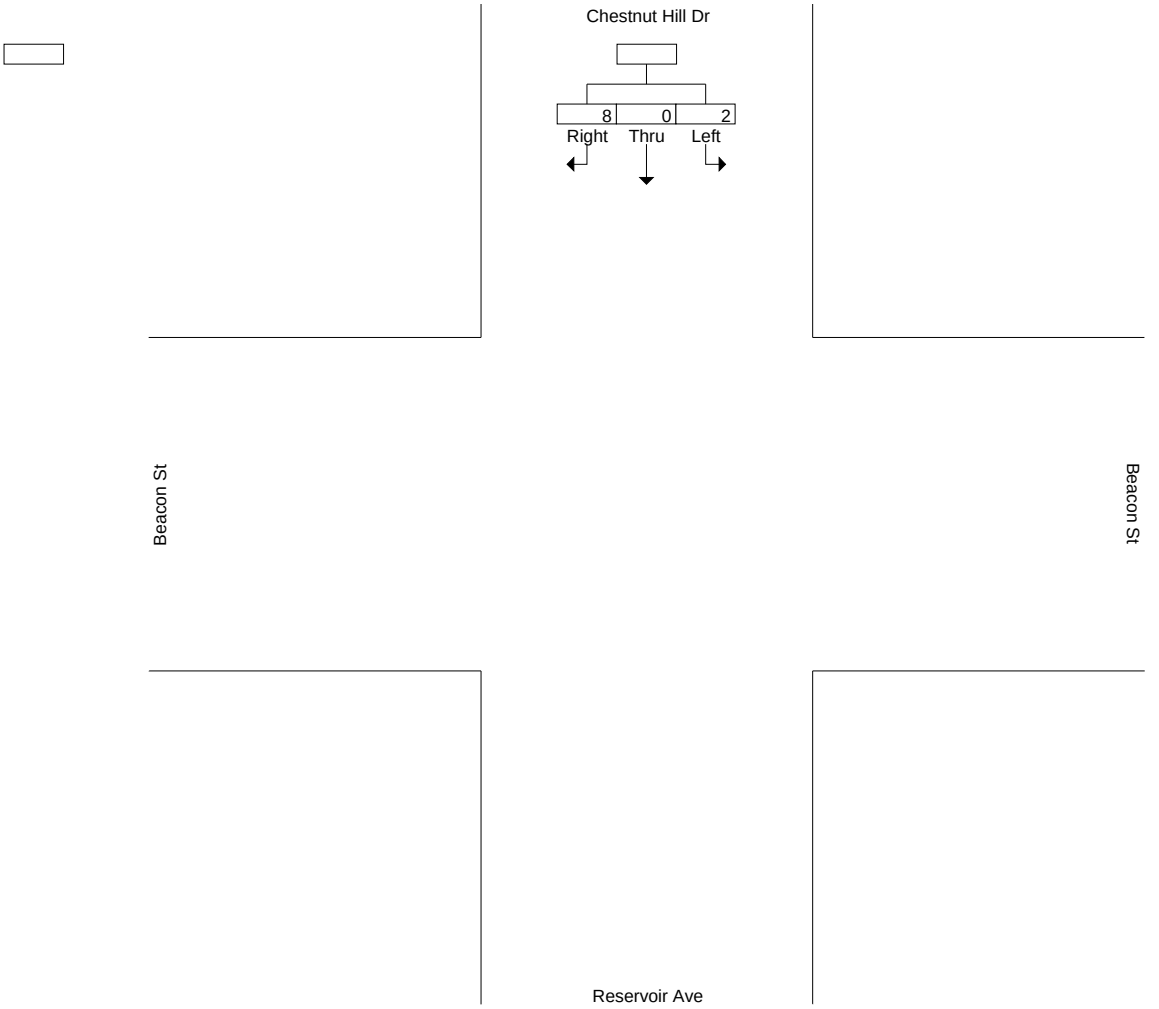
Accurate Counts
978-664-2565

File Name : 39000009
Site Code : 39000009
Start Date : 3/11/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000009
Site Code : 39000009
Start Date : 3/11/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000009
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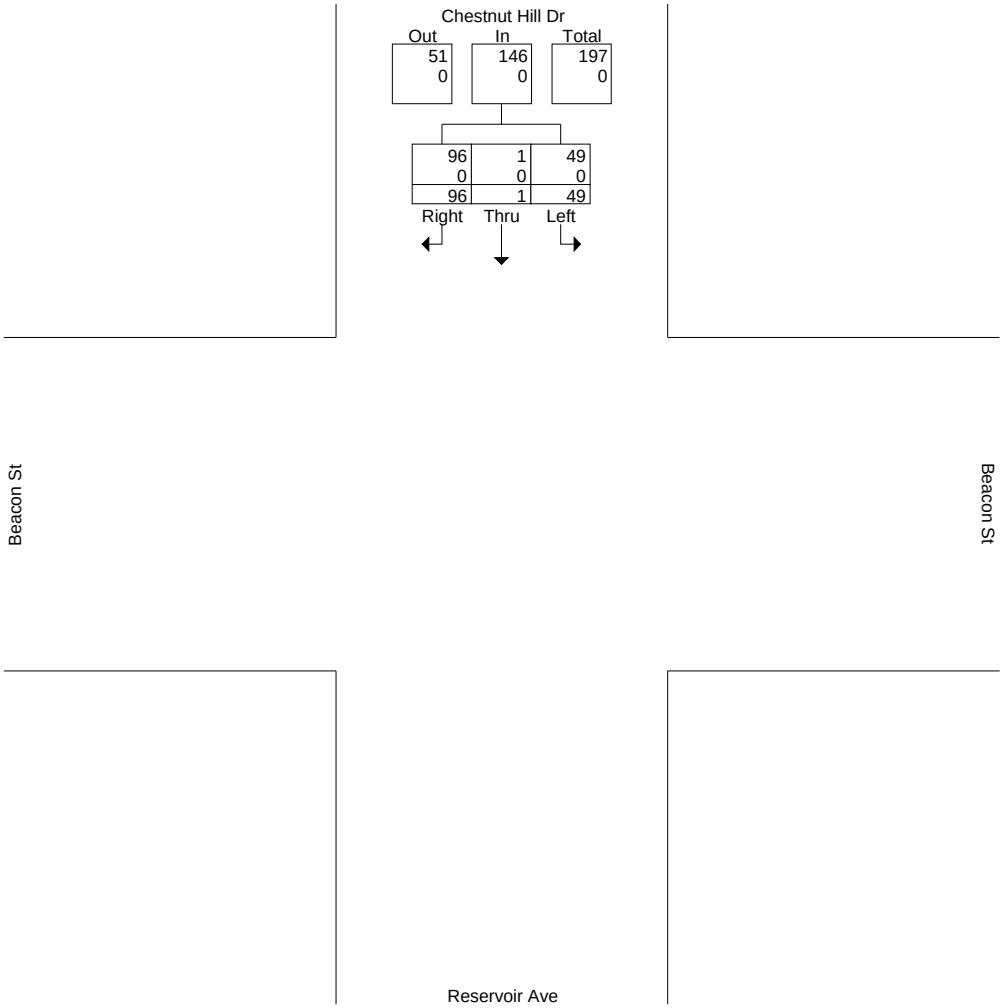
Start Date : 3/11/2008
Page No : 2



N/S Street : Reservoir Avenue
E/W Street: Beacon Street
City/State : Newton, MA
Weather : Clear

Accurate Counts
978-664-2565

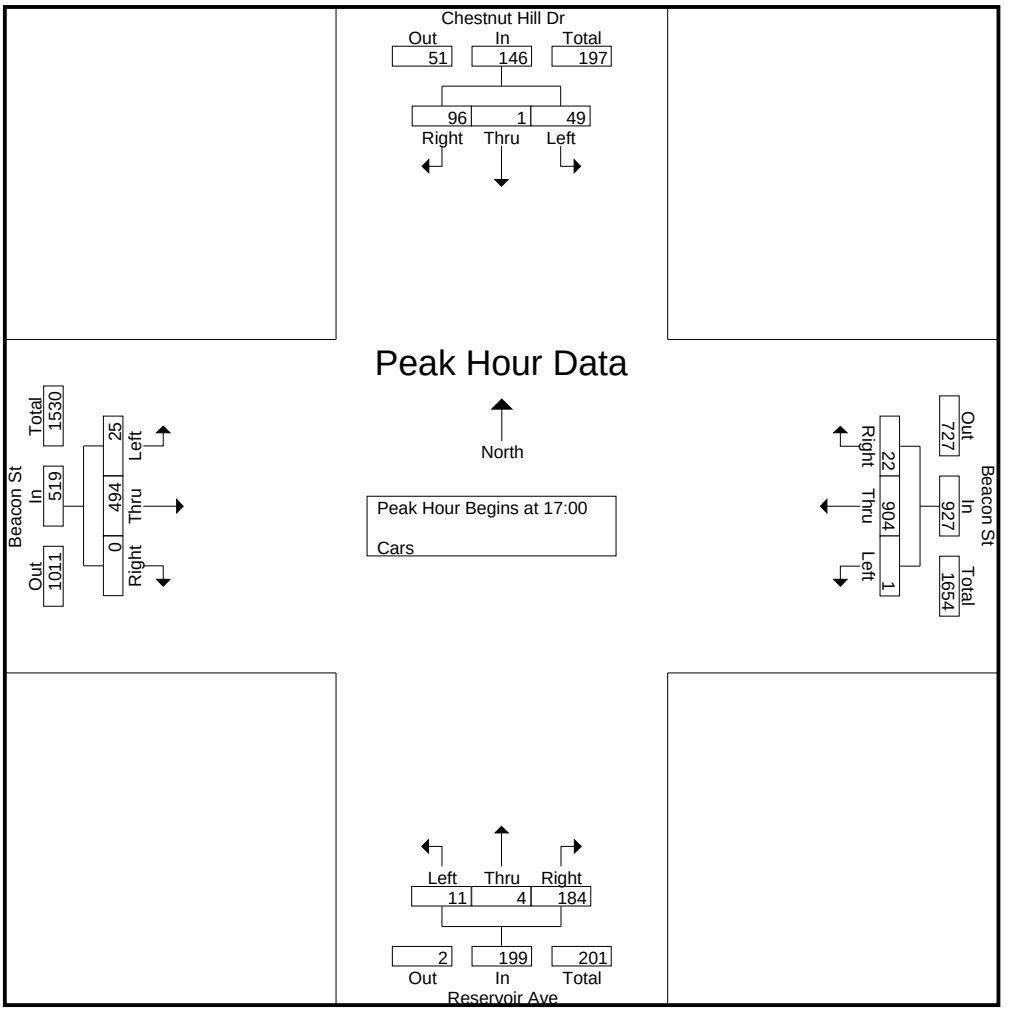
File Name : 39000009
Site Code : 39000009
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars

	Chestnut Hill Dr From North		Beacon St From East	Reservoir Ave From South	Beacon St From West
Start Time	Left	Thru			

Accurate Counts
978-664-2565

File Name : 39000009
Site Code : 39000009
Start Date : 3/11/2008
Page No : 2



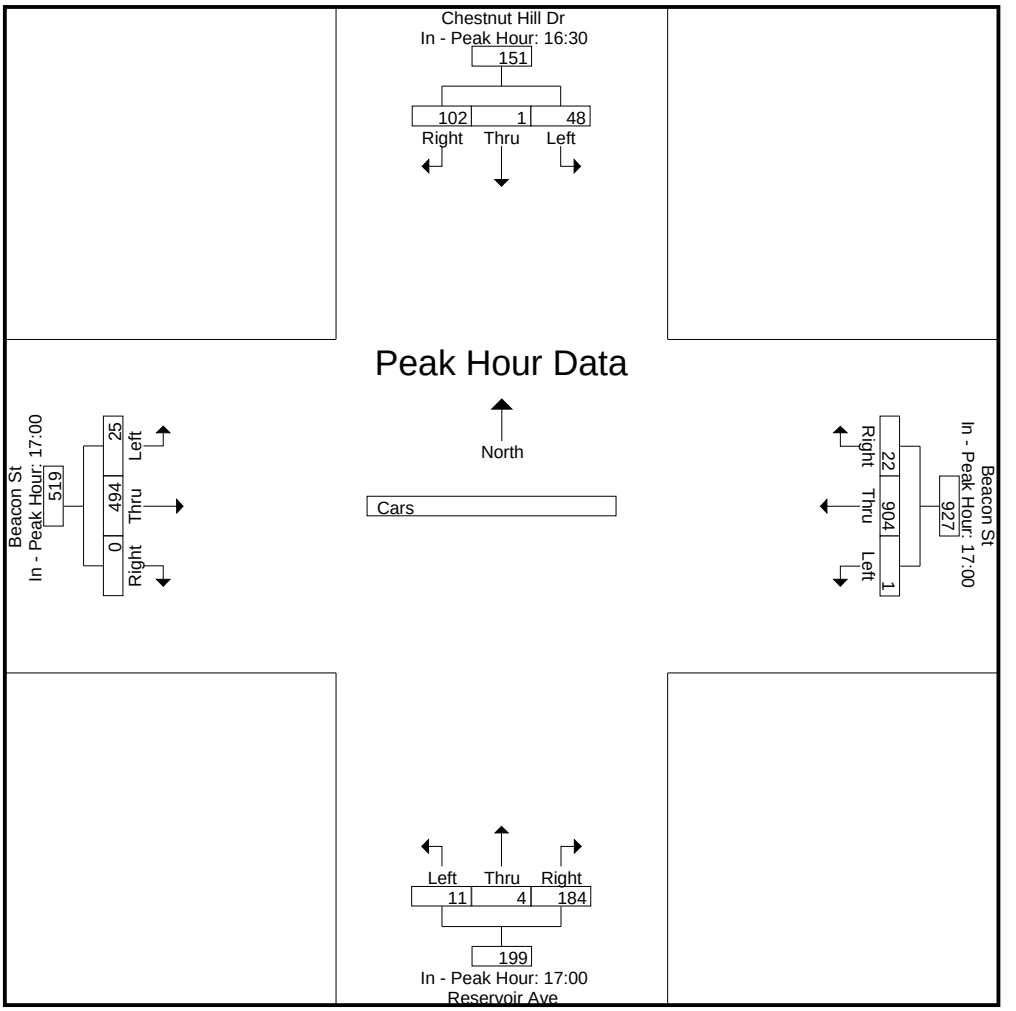
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:30				17:00				17:00				17:00			
+0 mins.	5	0	29	34	0	213	4	217	0	2	41	43	2	109	0	111
+15 mins.	9	0	20	29	0	246	7	253	7	1	43	51	8	136	0	144
+30 mins.	19	1	25	45	0	214	4	218	0	1	51	52	7	141	0	148
+45 mins.	15	0	28	43	1	231	7	239	4	0	49	53	8	108	0	116
Total Volume	48	1	102	151	1	904	22	927	11	4	184	199	25	494	0	519
% App. Total	31.8	0.7	67.5		0.1	97.5	2.4		5.5	2	92.5		4.8	95.2	0	
PHF	.632	.250	.879	.839	.250	.919	.786	.916	.393	.500	.902	.939	.781	.876	.000	.877

Accurate Counts
978-664-2565

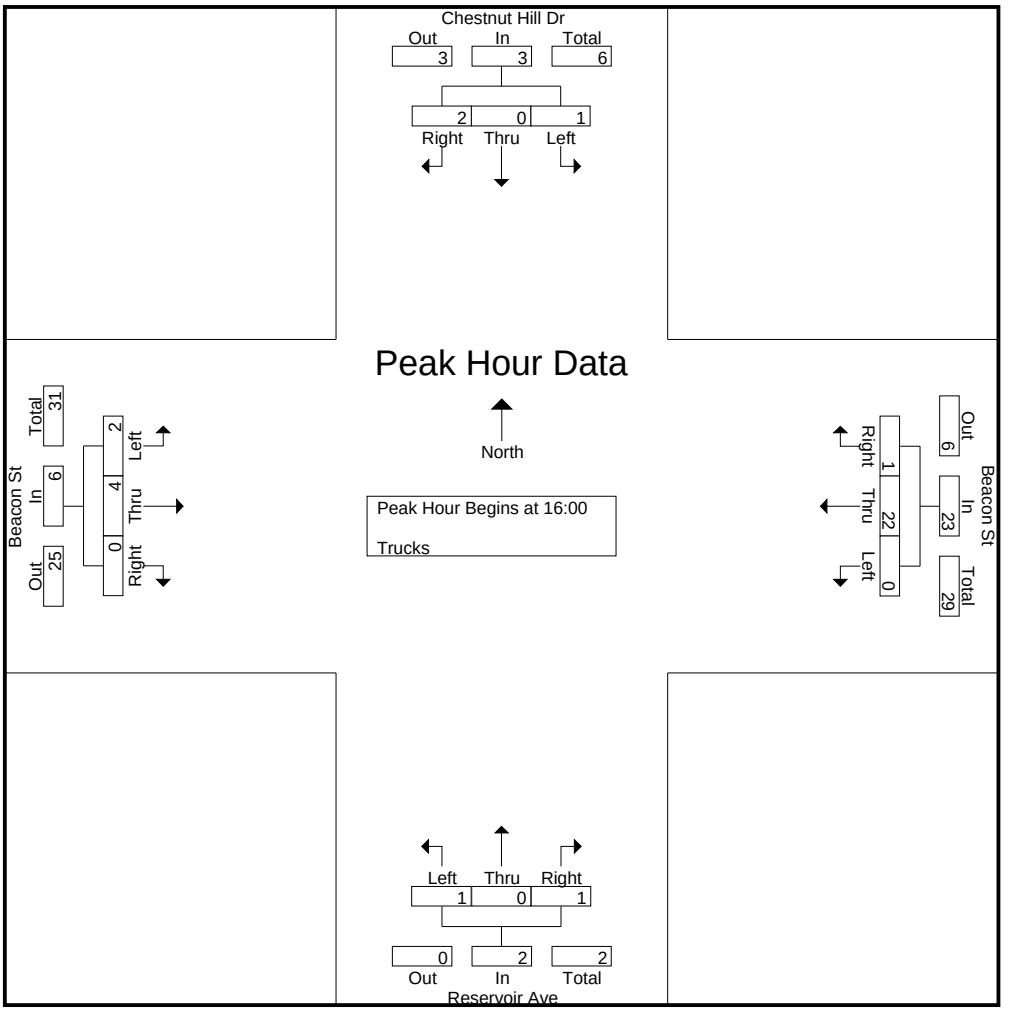
File Name : 39000009
Site Code : 39000009
Start Date : 3/11/2008
Page No : 3



File Name : 39000009
Site Code : 39000009

Accurate Counts
978-664-2565

File Name : 39000009
Site Code : 39000009
Start Date : 3/11/2008
Page No : 2



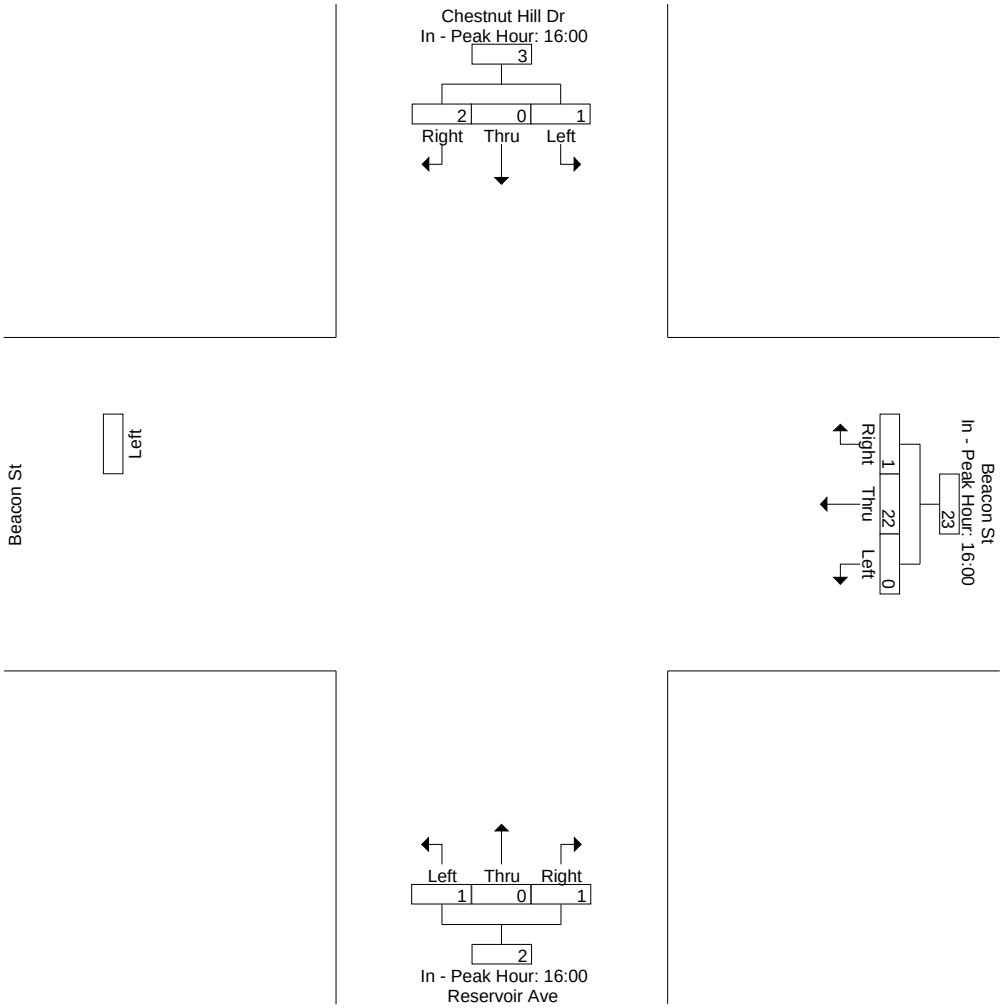
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:00				16:00				16:00			
+0 mins.	0	0	0	0	0	5	1	6								

Accurate Counts
978-664-2565

File Name : 39000009
Site Code : 39000009
Start Date : 3/11/2008
Page No : 3



N/S Street : St Thomas Moore Road
E/W Street: Beacon Street
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 1

Groups Printed- Cars - Trucks

	St Thomas Moore Rd From North				Beacon St From East				Gate House Rd From South				Beacon St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	2	1	32	2	1	66	8	0	0	0	0	3	49	81	1	1	6	241	247
07:15	6	0	36	0	0	89	9	0	2	3	1	0	72	120	1	0	0	339	339
07:30	5	2	56	2	0	113	14	1	1	1	0	0	66	141	1	0	3	400	403
07:45	4	0	52	3	0	131	20	0	1	1	2	2	100	189	3	0	5	503	508
Total	17	3	176	7	1	399	51	1	4	5	3	5	287	531	6	1	14	1483	1497
08:00	8	0	49	2	0	136	7	0	0	0	0	3	89	154	3	0	5	446	451
08:15	5	0	53	2	2	175	27	0	3	3	1	0	90	158	0	0	2	517	519
08:30	6	2	58	1	1	153	18	2	1	1	1	0	92	167	2	0	3	502	505
08:45	8	1	49	0	1	161	28	0	1	0	0	0	92	175	3	2	2	519	521
Total	27	3	209	5	4	625	80	2	5	4	2	3	363	654	8	2	12	1984	1996
Grand Total	44	6	385	12	5	1024	131	3	9	9	5	8	650	1185	14	3	26	3467	3493
Apprch %	10.1	1.4	88.5		0.4	88.3	11.3		39.1	39.1	21.7		35.2	64.1	0.8				
Total %	1.3	0.2	11.1		0.1	29.5	3.8		0.3	0.3	0.1		18.7	34.2	0.4		0.7	99.3	
Cars	42	6	343		3	1003	126		9	9	5		619	1160	9		0	0	3360
% Cars	95.5	100	89.1	100	60	97.9	96.2	100	100	100	100	100	95.2	97.9	64.3	100	0	0	96.2
Trucks	2	0	42		2	21	5		0	0	0		31	25	5		0	0	133
% Trucks	4.5	0	10.9	0	40	2.1	3.8	0	0	0	0	0	4.8	2.1	35.7	0	0	0	3.8

0Thru369.34 .9 (Thru360 70.56 616.8

5174Tj369.34 61

	St Thomas Moore Rd From North				Beacon St From East				Gate House Rd From South				Beacon St From West
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left

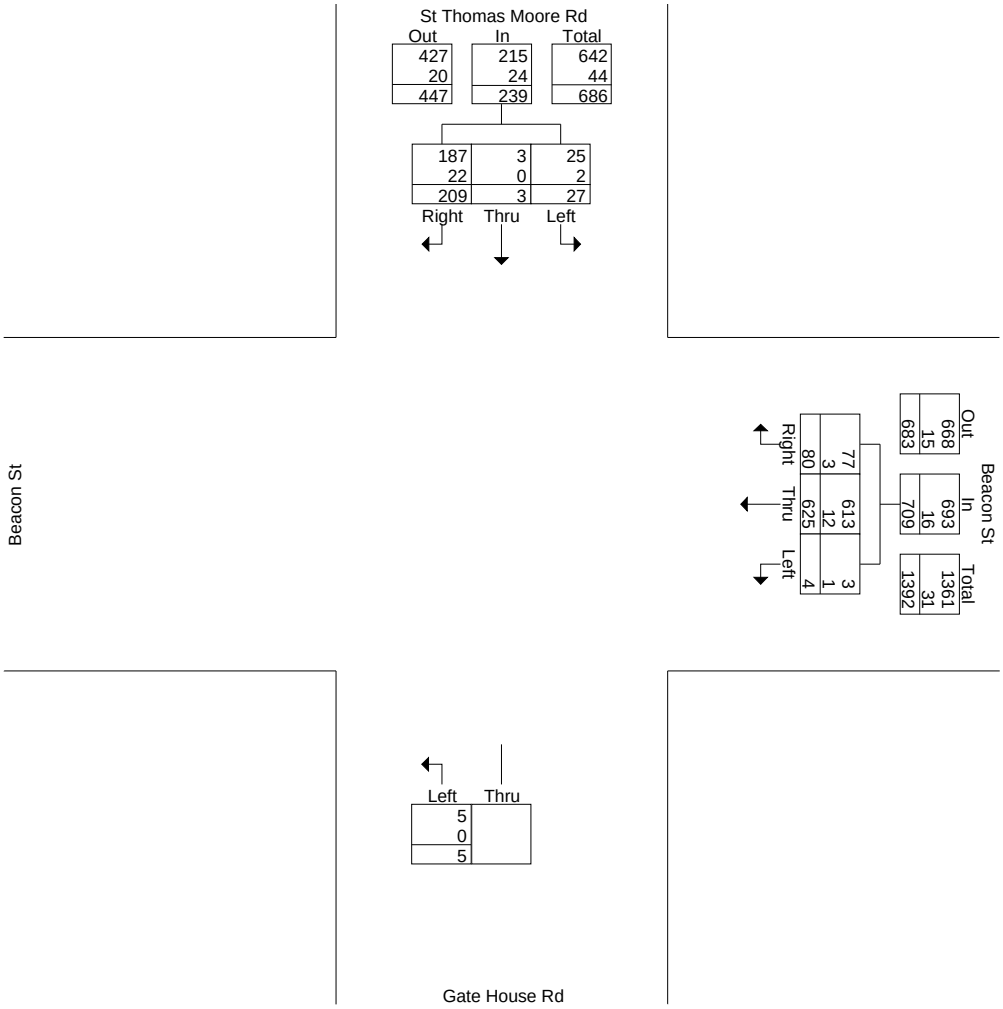
610 (Thru3 345m .9 (Thru369.34 70

Peak Hour 584 589.2 406 m 523.44 489.2lrucks Ts (Thru) Tj 1489.66 Td -8 Ts (0) Tj ET 306.72 489.1ET 278.88 415.61 Ts (0) Tj 53.8 415.61 m 589.2otal

6j S BT3 BT2 .967 /F8 3 BT2 (Right) T1 BT341T 56

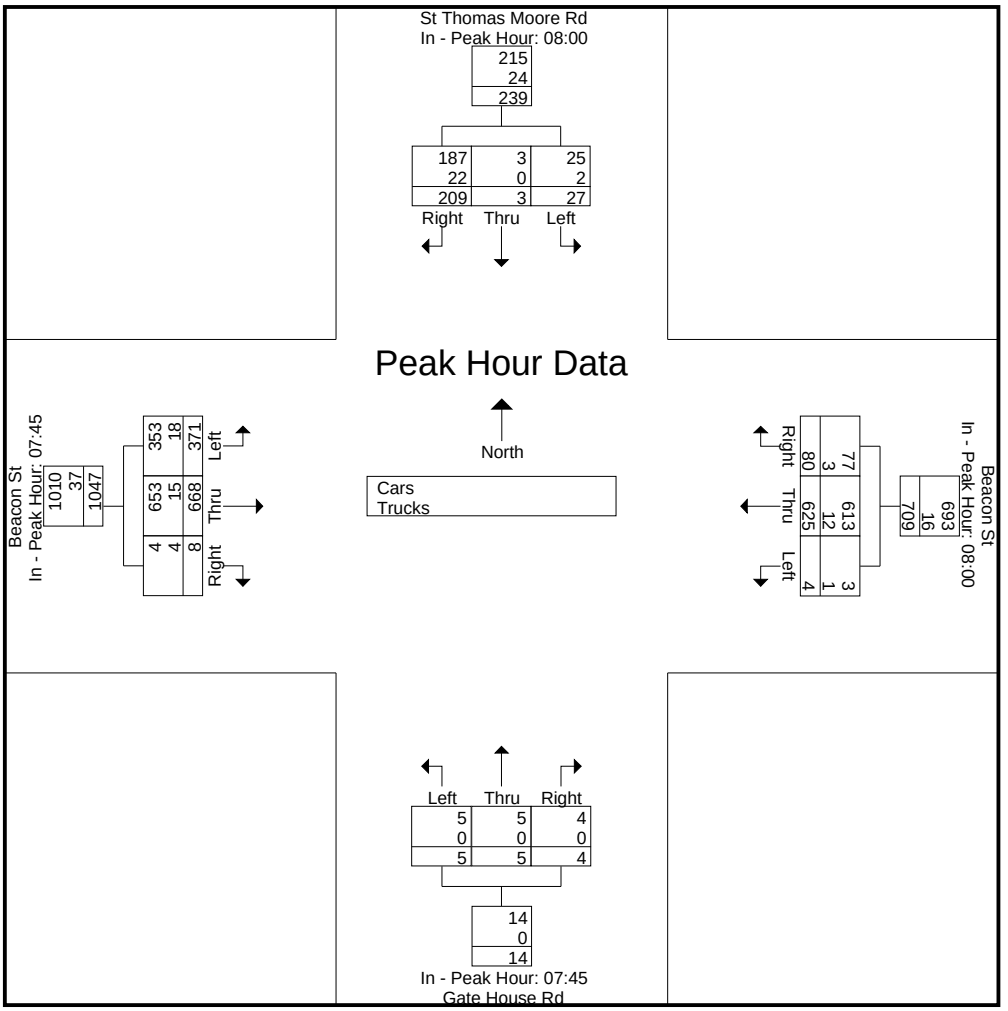
Accurate Counts
978-664-2565

File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 2



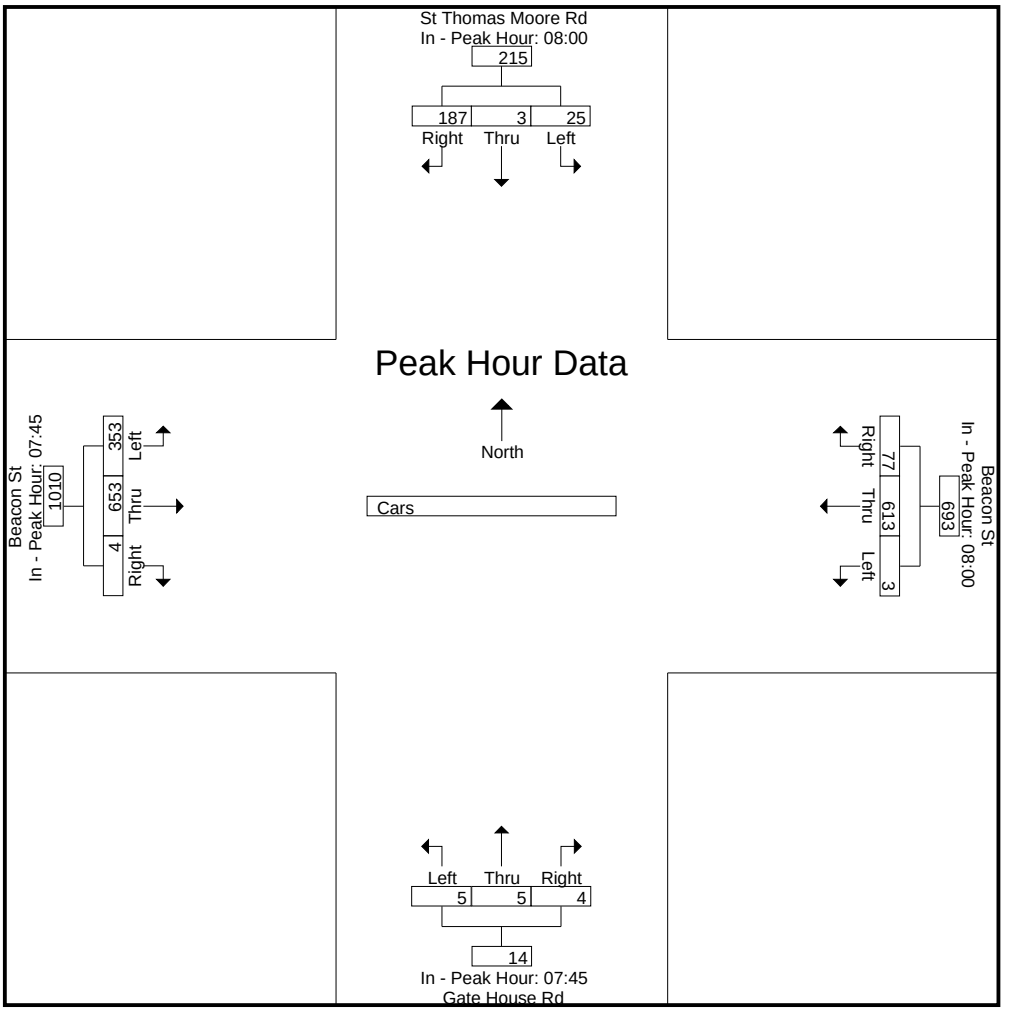
Accurate Counts
978-664-2565

File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 3



Accurate Counts
978-664-2565

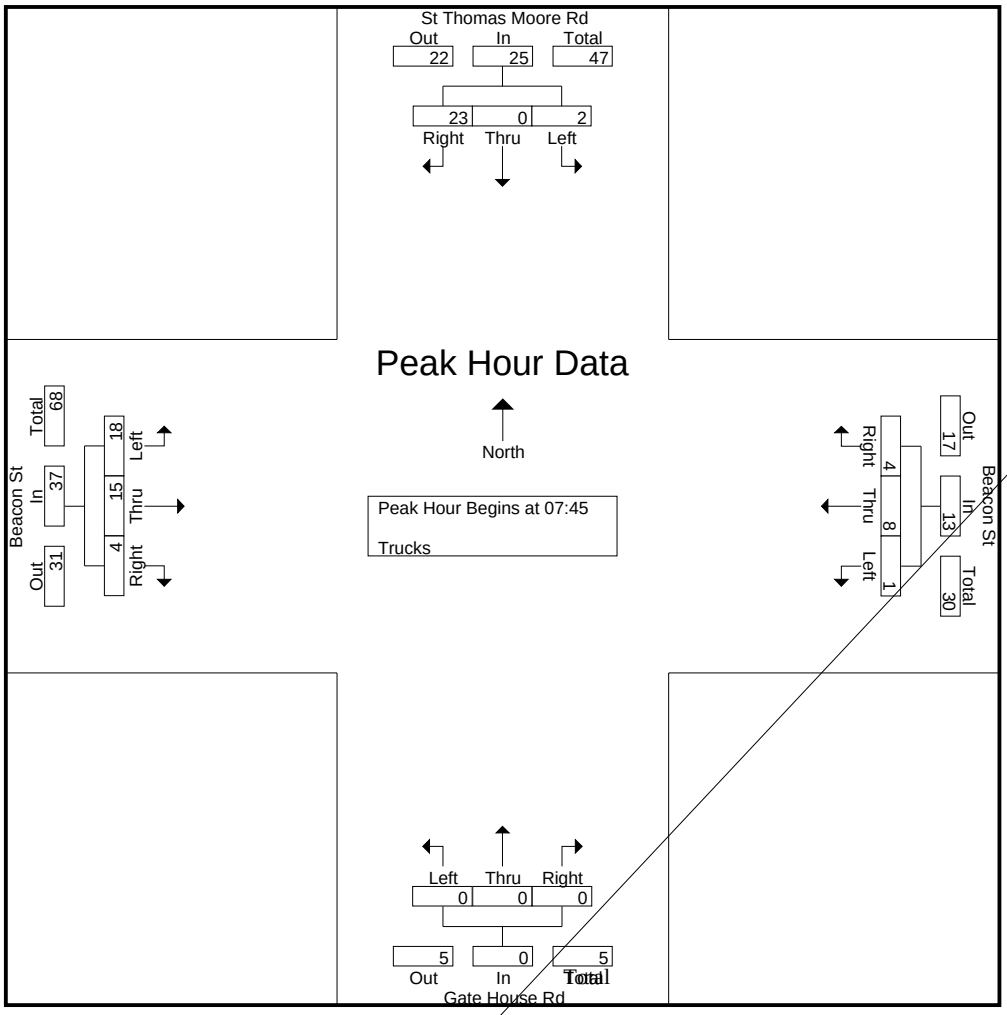
File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 3



Accurate Counts
978-664-2565

Accurate Counts
978-664-2565

File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 2

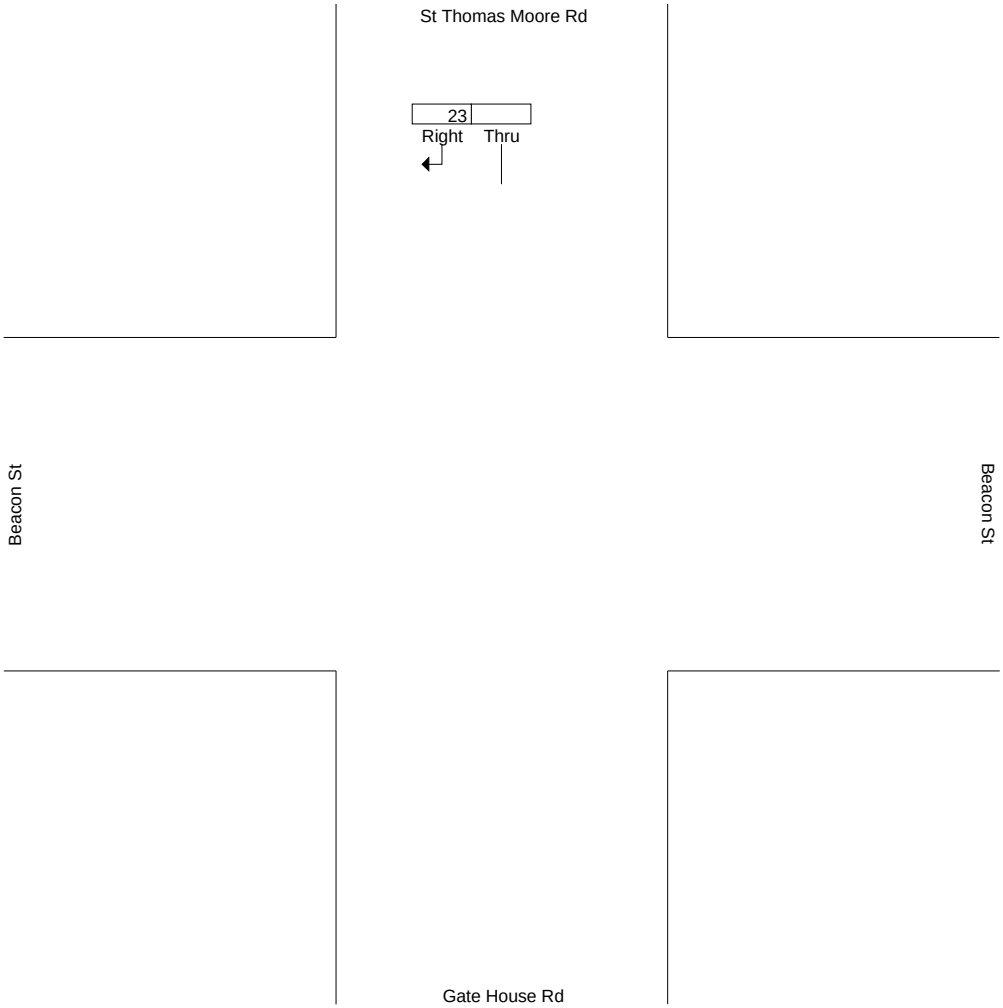


Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30	07:30	07:00	07:45
+0 mins.	0			

Accurate Counts
978-664-2565

File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 3



N/S Street : St Thomas Moore Road
E/W Street: Beacon Street

Accurate Counts
978-664-2565

File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 1

N/S Street : St Thomas Moore Road
E/W Street: Beacon Street
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 1

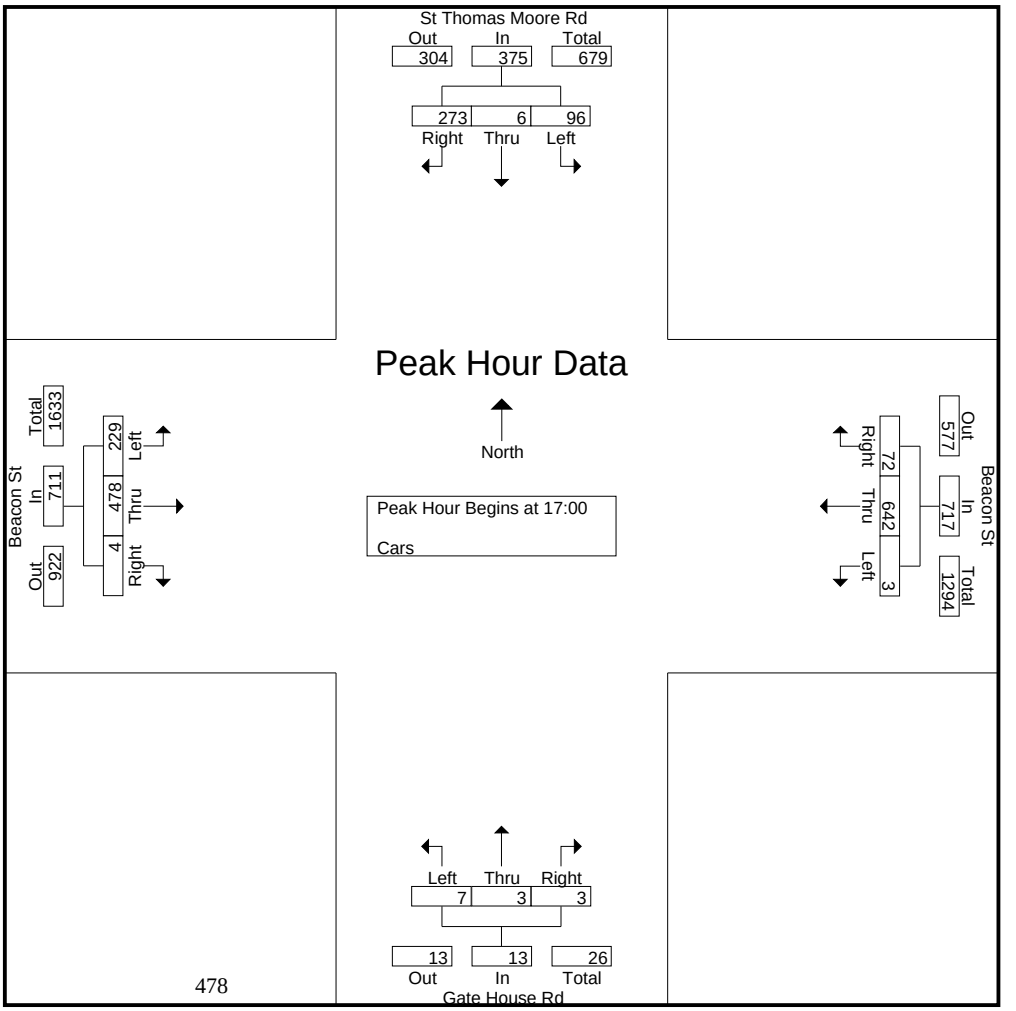
Groups Printed- Cars

	St Thomas Moore Rd From North				Beacon St From East				Gate House Rd From South				Beacon St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	19	0	71	4	0	114	22	1	0	1	0	0	64	77	2	0	5	370	375
16:15	17	4	76	8	3	131	20	0	0	2	3	4	51	79	1	0	12	387	399
16:30	23	1	65	3	0	151	16	1	3	0	2	2	43	95	0	0	6	399	405
16:45	10	3	57	8	3	146	13	3	1	0	1	0	59	90	1	0	11	384	395
Total	69	8	269	23	6	542	71	5	4	3	6	6	217	341	4	0	34	1540	1574
17:00	27	0	74	7	2	141	12	0	1	1	0	1	53	103	1	0	8	415	423
17:15	22	1	73	7	0	180	14	1	1	2	3	0	63	141	1	0	8	501	509
17:30	21	2	55	3	1	159	22	0	3	0	0	0	52	128	1	0	3	444	447
17:45	26	3	71	8	0	162	24	0	2	0	0	1	61	106	1	4	13	456	469
Total	96	6	273	25	3	642	72	1	7	3	3	2	229	478	4	4	32	1816	1848
Grand Total	165	14	542	48	9	1184	143	6	11	6	9	8	446	819	8	4	66	3356	3422
Apprch %	22.9	1.9	75.2		0.7	88.6	10.7		42.3	23.1	34.6		35	64.3	0.6				
Total %	4.9	0.4	16.2		0.3	35.3	4.3		0.3	0.2	0.3		13.3	24.4	0.2		1.9	98.1	

	St Thomas Moore Rd From North				Beacon St From East				Gate House Rd From South				Beacon St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. 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	27	0	74	101	2	141	12	155	1	1	0	2	53	103	1	157	415
17:15	22	1	73	96	0	180	14	194	1	2	3	6	63	141	1	205	501
17:30	21	2	55	78	1	159	22	182	3	0	0	3	52	128	1	181	444
17:45	26	3	71	100	0	162	24	186	2	0	0	2	61	106	1	168	456
Total Volume	96	6	273	375	3	642	72	717	7	3	3	13	229	478	4	711	1816
% App. Total	25.6	1.6	72.8		0.4	89.5	10		53.8	23.1	23.1		32.2	67.2	0.6		
PHF	.889	.500	.922	.928	.375	.892	.750	.924	.583	.375	.250	.542	.909	.848	1.000	.867	.906

Accurate Counts
978-664-2565

File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 2



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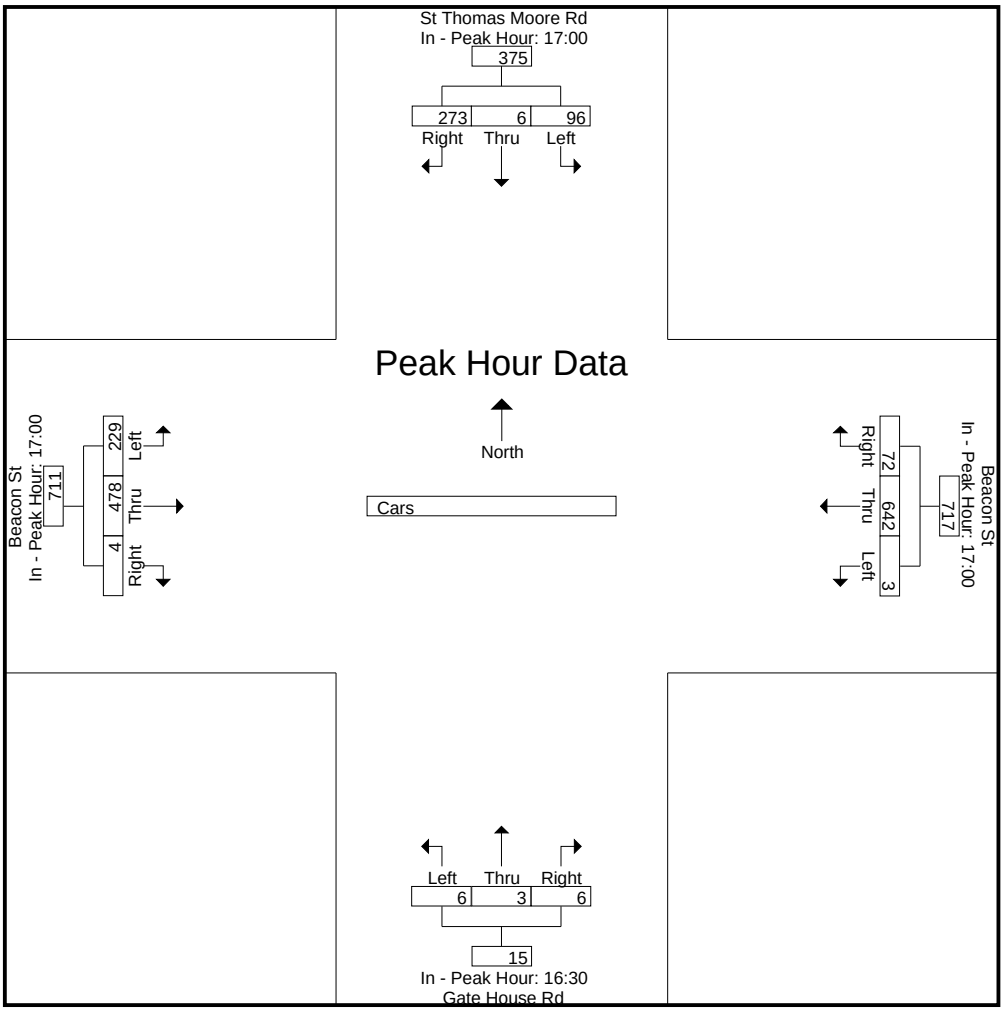
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	17:00				17:00				16:30				17:00			
+0 mins.	27	0	74	101	2	141	12	155	3	0	2	5	53	103	1	157
+15 mins.	22	1	73	96	0	180	14	194	1	0	1	2	63	141	1	205
+30 mins.	21	2	55	78	1	159	22	182	1	1	0	2	52	128	1	181
+45 mins.	26	3	71	100	0	162	24	186	1	2	3	6	61	106	1	168
Total Volume	96	6	273	375	3	642	72	717	6	3	6	15	229	478	4	711
% App. Total	25.6	1.6	72.8		0.4	89.5	10		40	20	40					

Accurate Counts
978-664-2565

File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 3



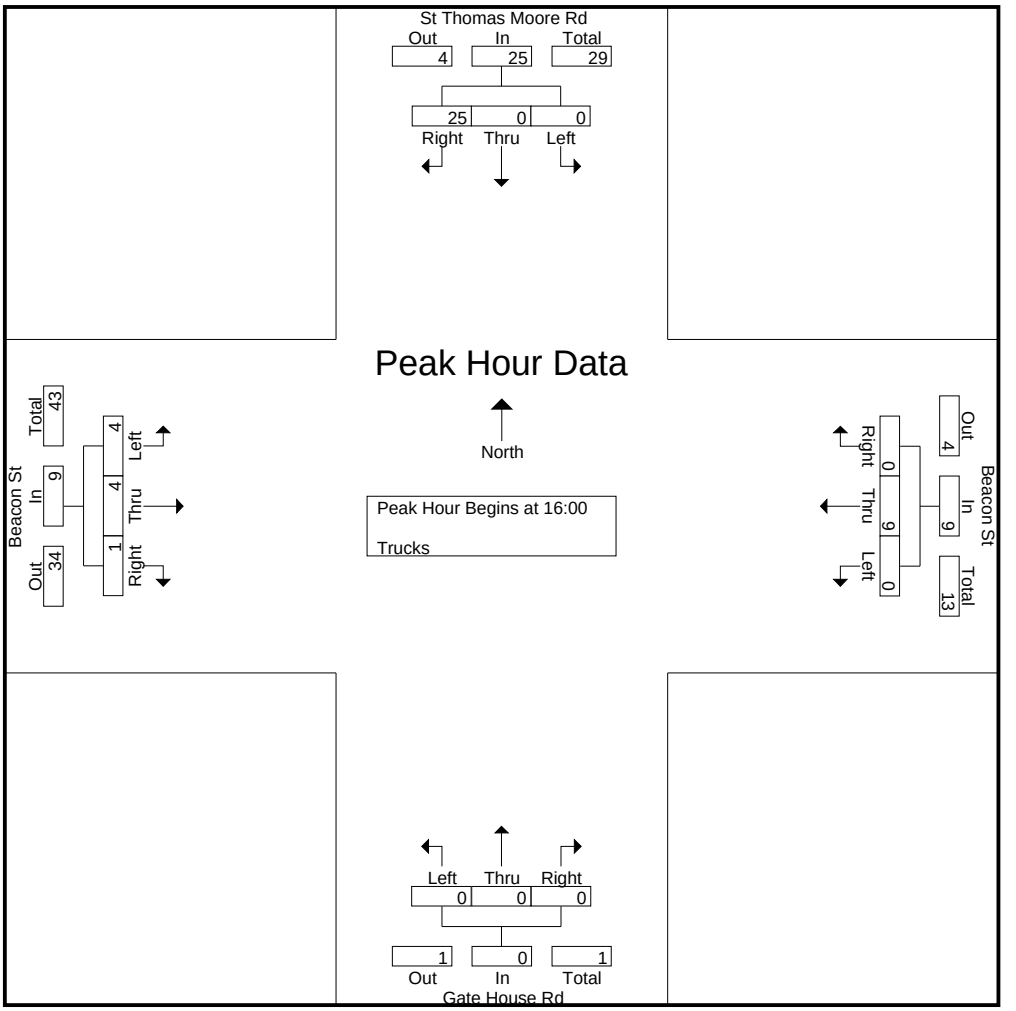
N/S Street : St Thomas Moore Road
E/W Street: Beacon Street

Accurate Counts
978-664-2565

File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 1

Accurate Counts
978-664-2565

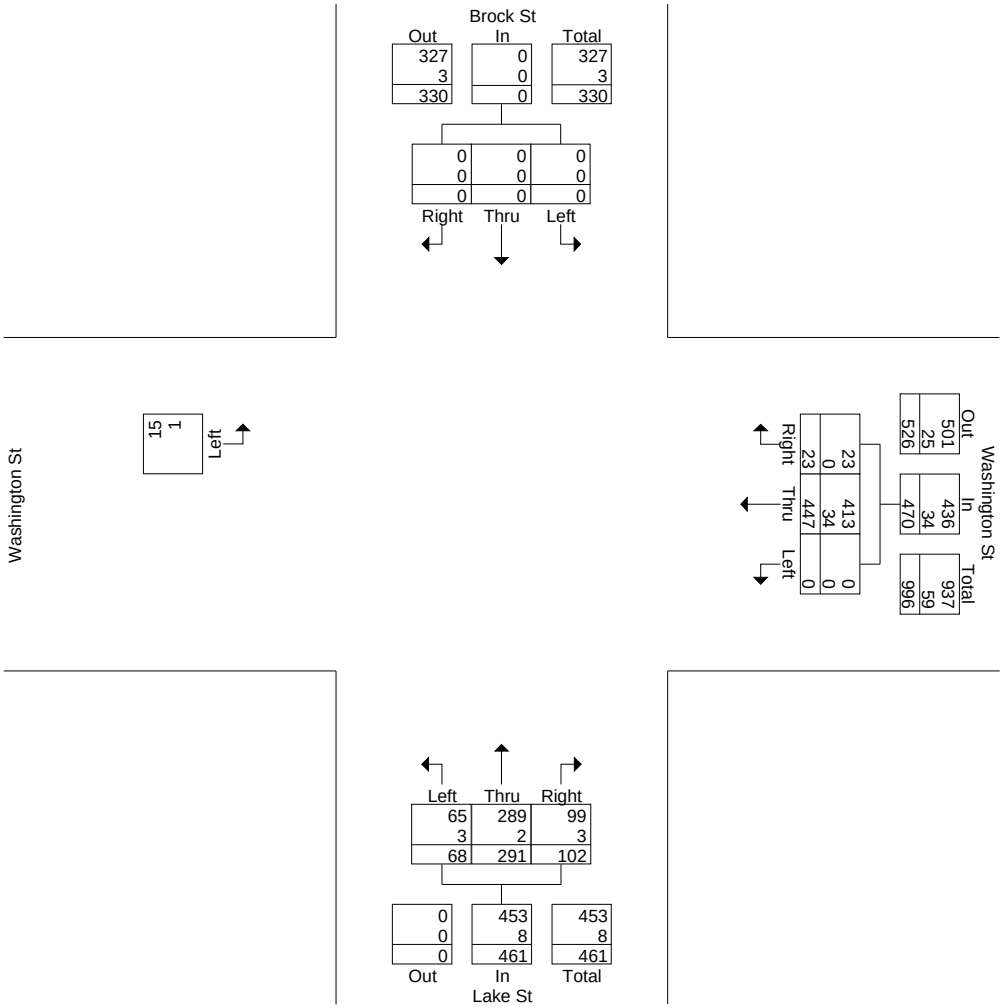
File Name : 39000015
Site Code : 39000015
Start Date : 3/11/2008
Page No : 2

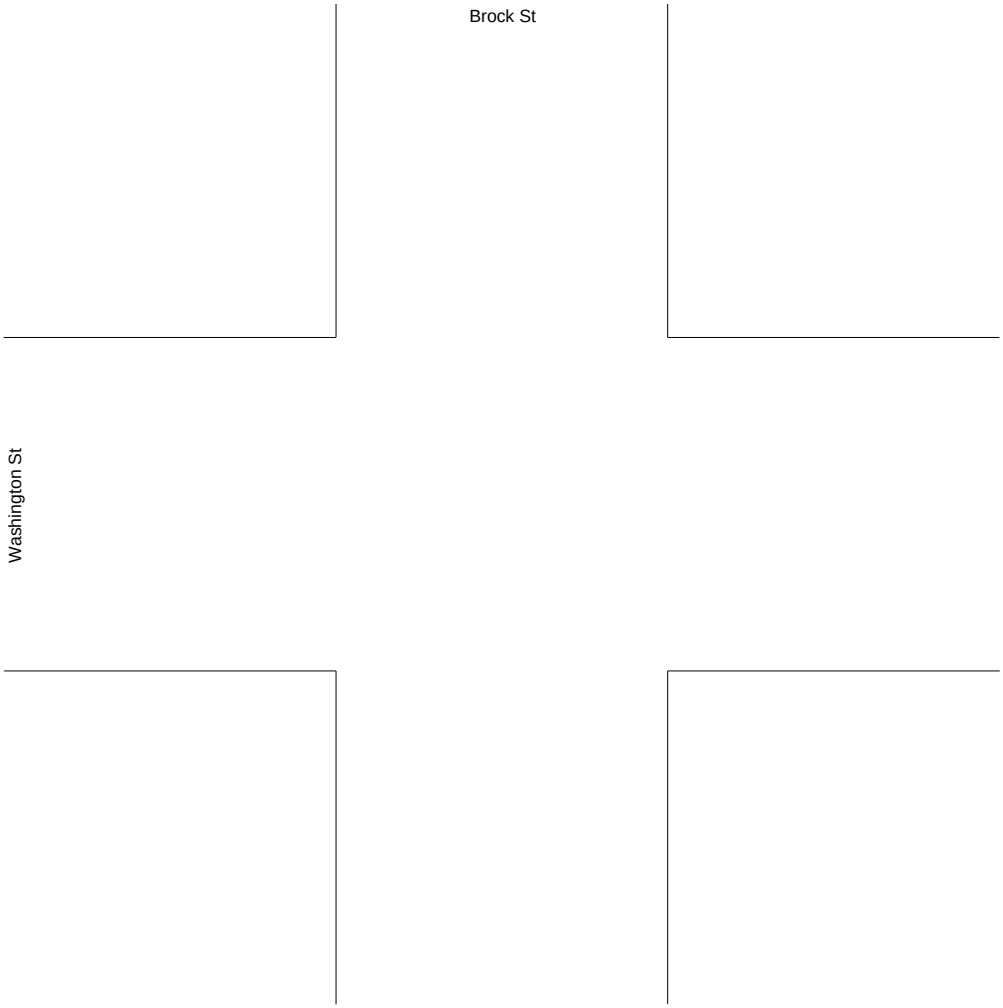


Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Accurate Counts
978-664-2565

File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 2




Brock St
Washington St

N/S Street : Brock St / Lake St
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

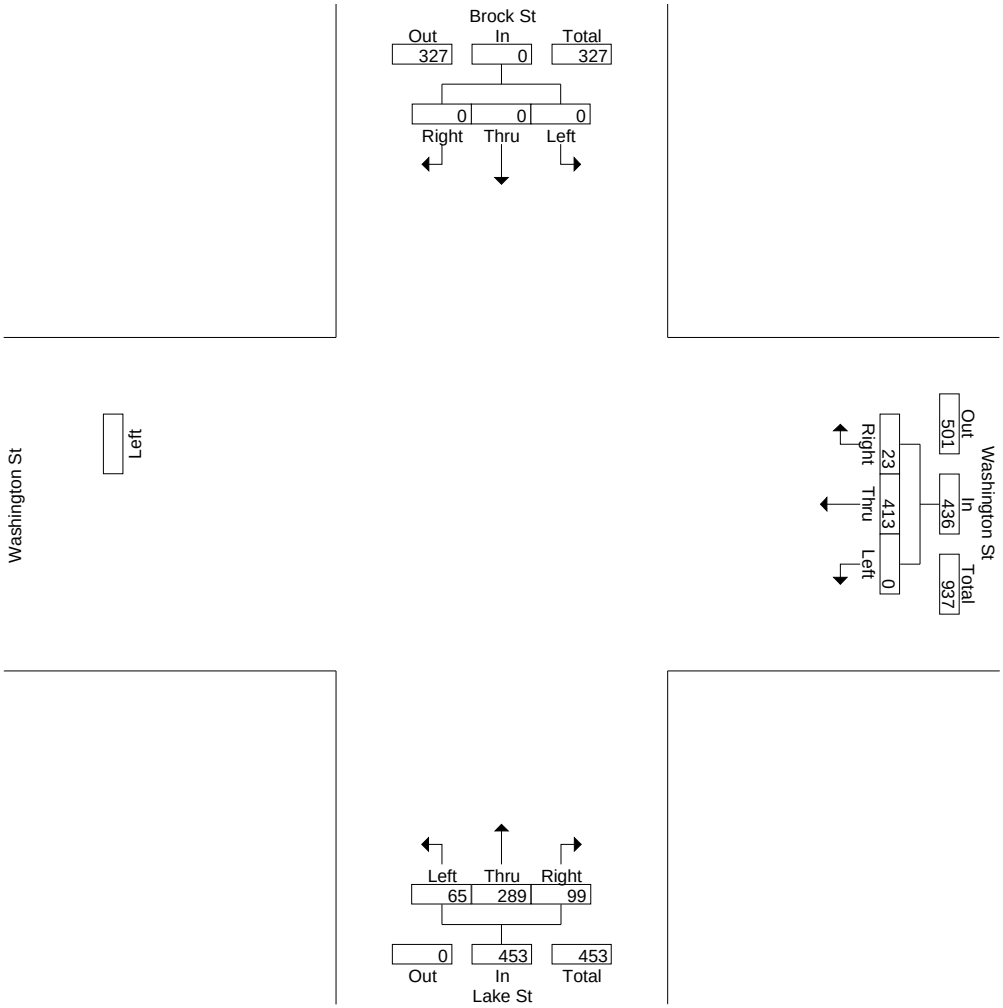
File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 1

Groups Printed- Cars

	Brock St From North				Washington St From East				Lake St From South				Washington St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	0	4	0	71	3	1	12	34	23	7	7	107	0	6	18	257	275
07:15	0	0	0	4	0	112	4	1	18	56	26	3	2	113	0	8	16	331	347
07:30	0	0	0	8	0	86	8	5	17	77	31	9	5	94	0	12	34	318	352
07:45	0	0	0	6	0	99	5	4	17	81	20	7	4	109	0	17	34	335	369
Total	0	0	0	22	0	368	20	11	64	248	100	26	18	423	0	22			

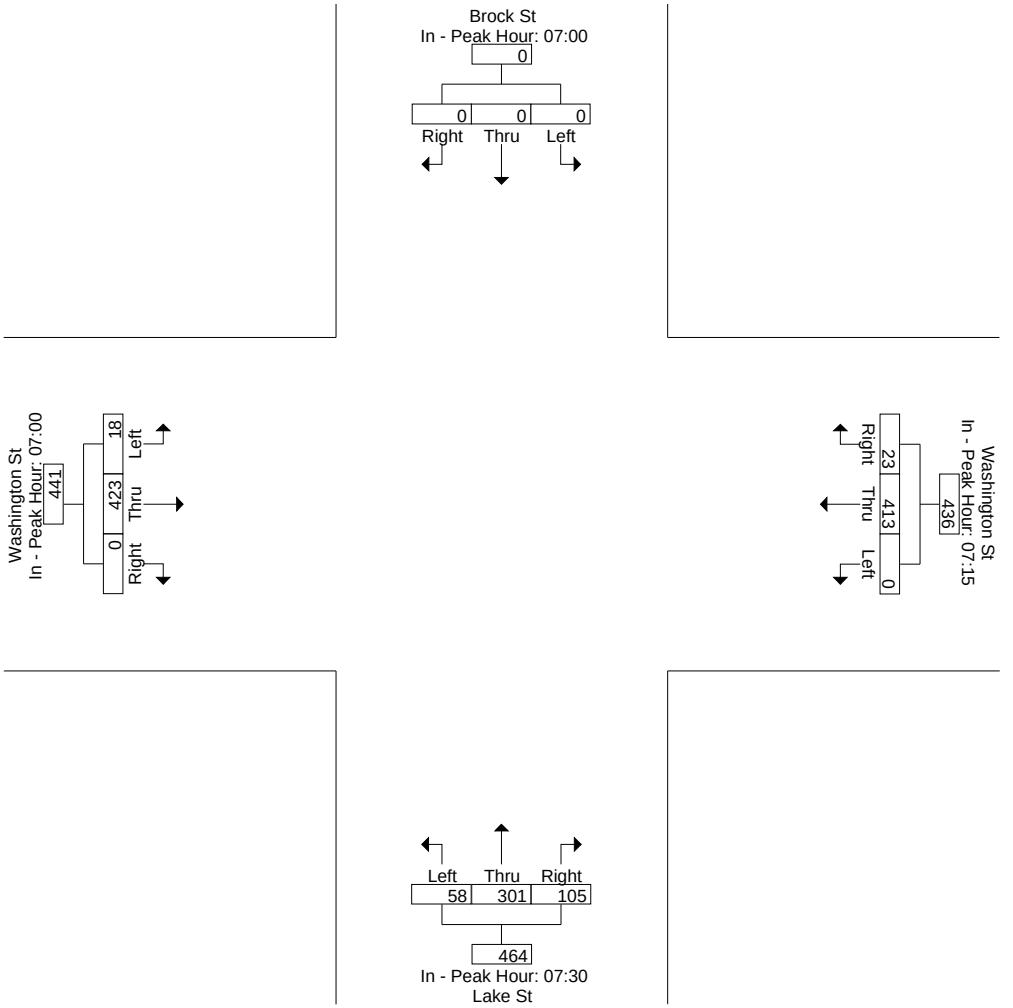
Accurate Counts
978-664-2565

File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 3



N/S Street : Brock St / Lake St
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

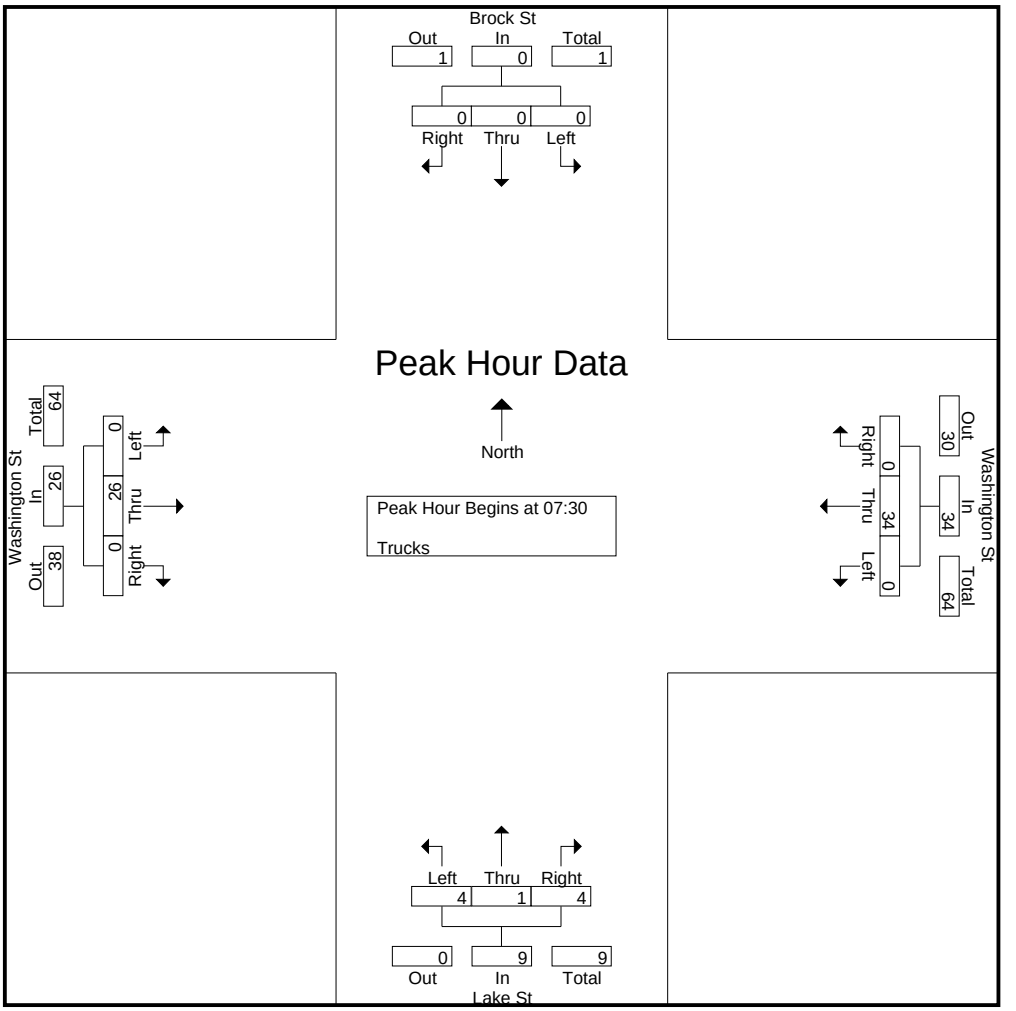
File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 1

Groups Printed- Trucks

	Brock St From North				Washington St From East				Lake St From South				Washington St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	0	0	0	7	1	0	1	0	0	0	0	6	0	0	0	15	15
07:15	0	0	0	0	0	8	0	0	0	1	0	0	1	4	0	0	0	14	14
07:30	0	0	0	0	0	8	0	0	2	1	2	0	0	9	0	0	0	22	22
07:45	0	0	0	0	0	11	0	0	0	0	0	0	0	4	0	0	0	15	15
Total	0	0	0	0	0	34	1	0	3	2	2	0	1	23					

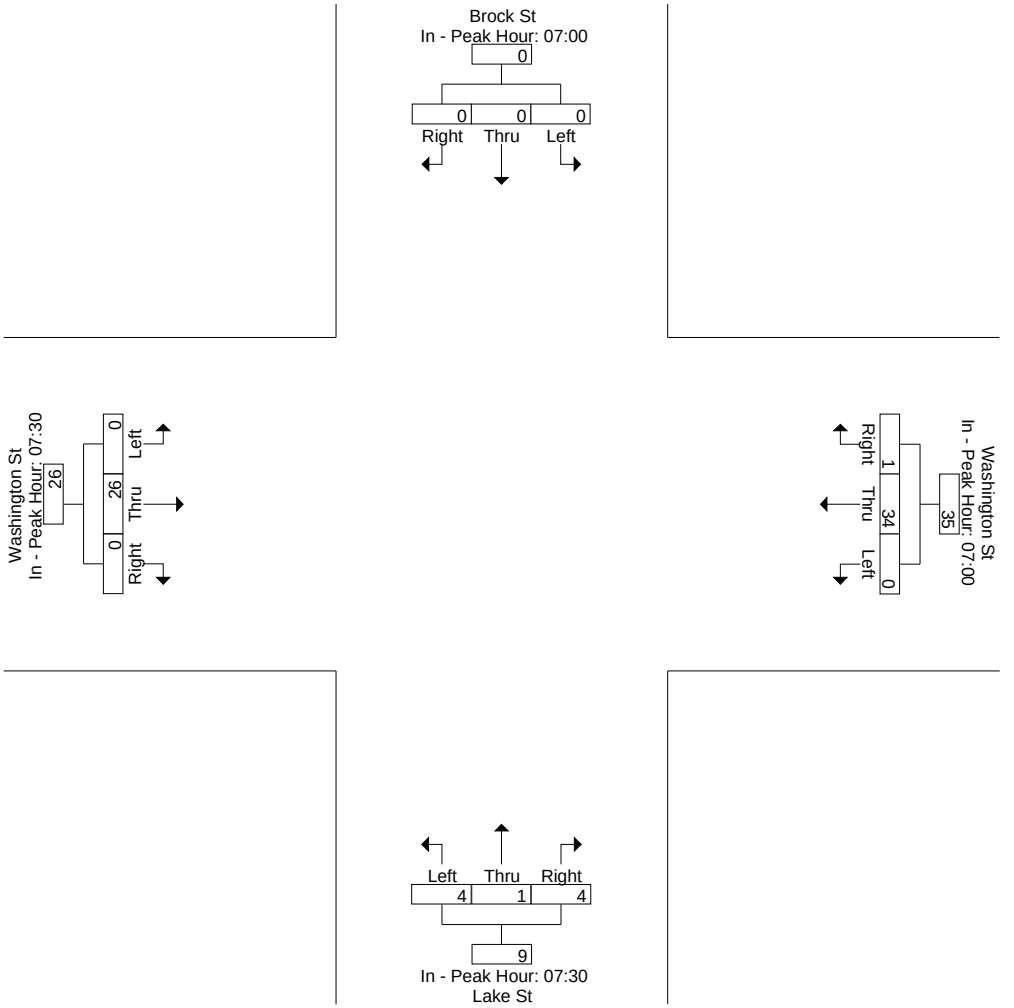
Accurate Counts
978-664-2565

File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 3



N/S Street : Brock St / s9 Ts (Site Code) Tj

Accurate Counts
978-664-2565

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File Name : 39000010
Site Code

Accurate Counts
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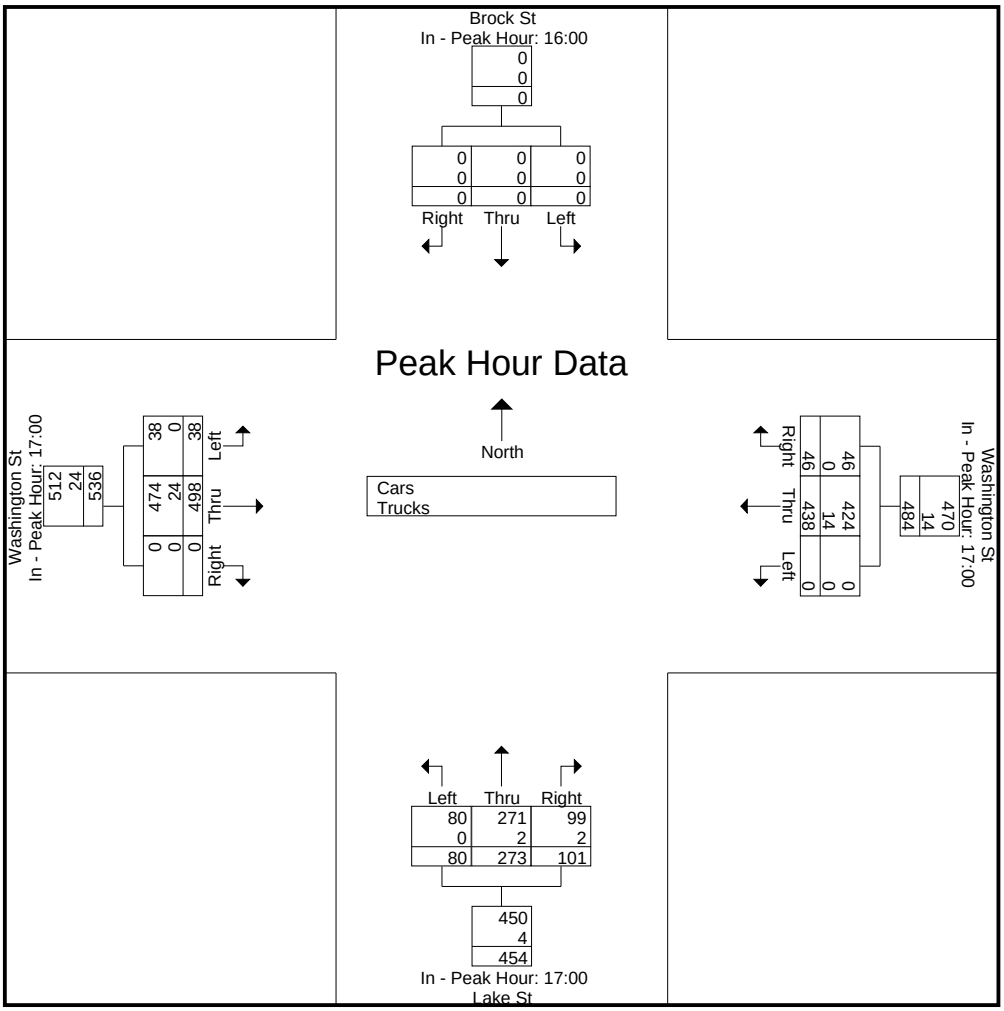
File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 3



N/S Street : Brock St / Lake St
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 1

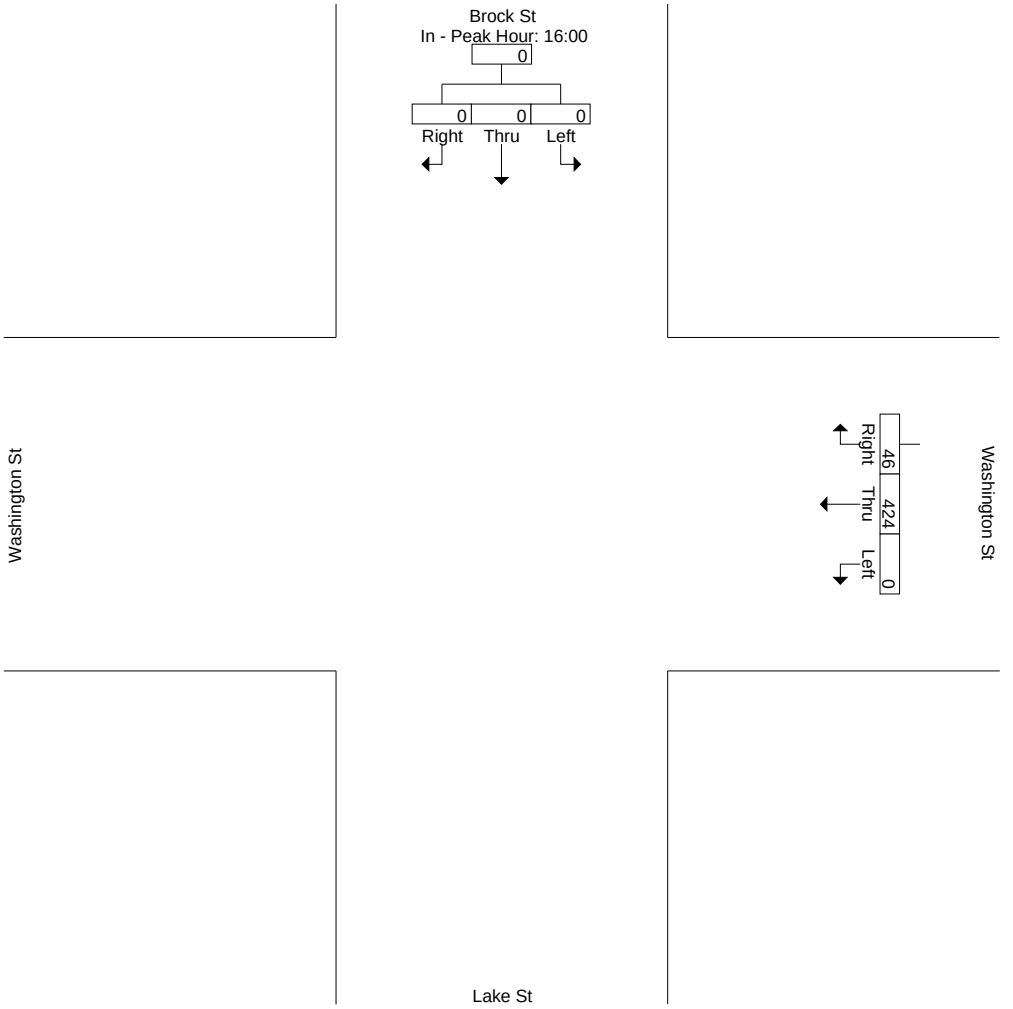
Groups Printed- Cars

	Brock St From North				Washington St From East				Lake St From South				Washington St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	0	0	0	7	0	94	4	2	22	64	33	9	2	89	0	0	18	293	311
16:15	0	0	0	7	0	91	6	1	16	55	33	7	1	91	0	8	23	293	316
16:30	0	0	0	7	0	106	14	0	20	48	25	15	11	119	0	16	38	343	381
16:45	0	0	0	4	0	79	8	1	18	60	25	9	12	122	0	13	27	324	351
Total	0	0	0	25	0	370	32	4	76	227	116	40	26	421	0	116			

658268 60BT 18 609.T 54.98 m 385 -8 Ts5268 60BT 18 609.T 54.98 m 82. Tsj 268 60T 82. Tsj 1 B2065ET 35. Tsl 268 60BT 18 609.T 54.98 m 385206591.268 60BT 1

Accurate Counts
978-664-2565

File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 3



N/S Street : Brock St / Lake St
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
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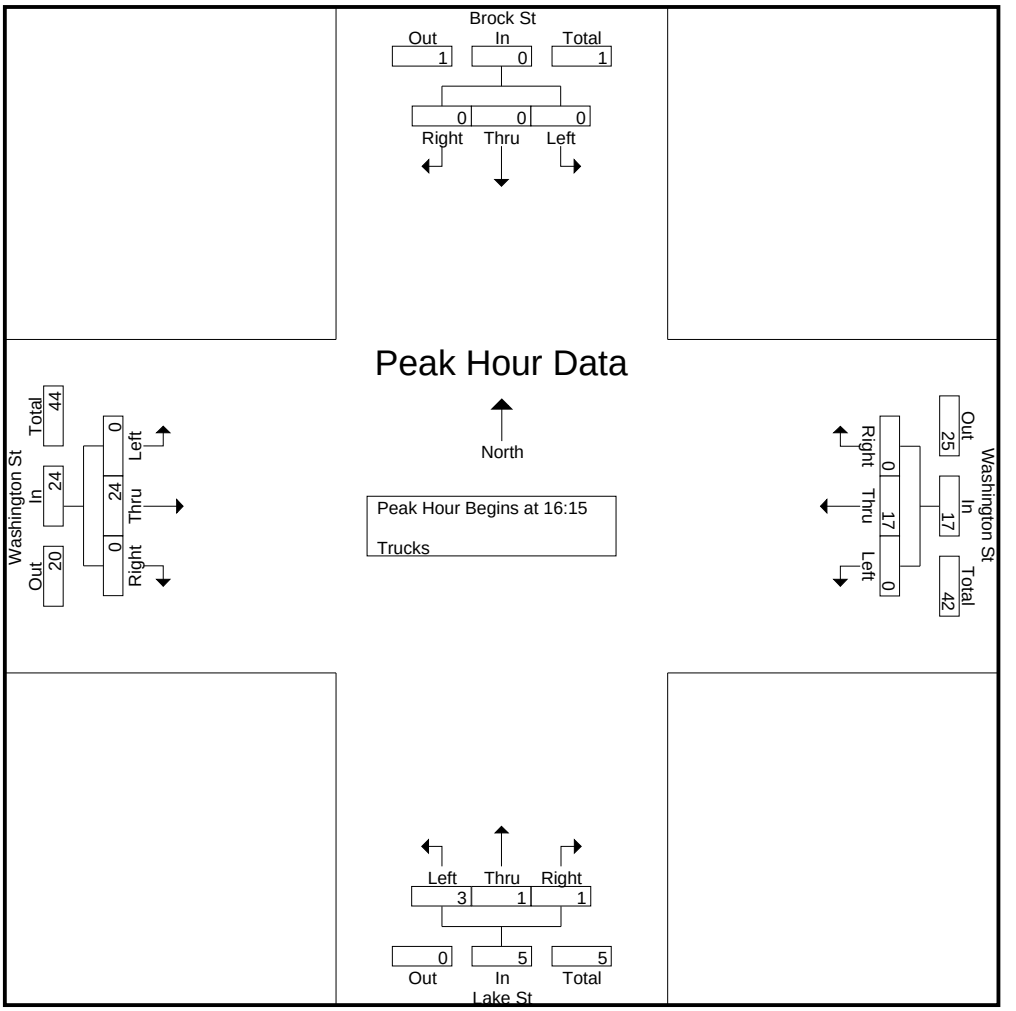
Groups Printed- Trucks

	Brock St From North				Washington St From East				Lake St From South				Washington St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	0	0	0	0	0	3	1	0	0	0	1	0	0	5	0	0	0	10	10
16:15	0	0	0	0	0	4	0	0	2	0	0	0	0	5	0	0	0	11	11
16:30	0	0	0	0	0	2	0	0	0	0	1	0	0	5	0	0	0	8	8
16:45	0	0	0	0	0	7	0	0	1	1	0	0	0	7	0	0	0	16	16
Total	0	0	0	0	0	16	1	0	3	1	2	0	0	22	0	0	0	45	45
17:00	0	0	0	0	0	4	0	0	0	0	0	0	0	7	0	0	0	11	11
17:15	0	0	0	0	0	2	0	0	0	1	0	0	0	6	0	0	0	9	9
17:30	0	0	0	0	0	4	0	0	0	1	0	0	0	5	0	0	0	10	10
17:45	0	0	0	0	0	4	0	0	0	0	2	0	0	6	0	0	0	12	12
Total	0	0	0	0	0	14	0	0	0	2	2	0	0	24	0	0	0	42	42
Grand Total	0	0	0	0	0	30	1	0	3	3	4	0	0	46	0	0	0	87	87
Apprch %	0	0	0		0	96.8	3.2		30	30	40		0	100	0				
Total %	0	0	0		0	34.5	1.1		3.4	3.4	4.6		0	52.9	0		0	100	

	Brock St From North				Washington St From East				Lake St From South				Washington St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Accurate Counts
978-664-2565

File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 2



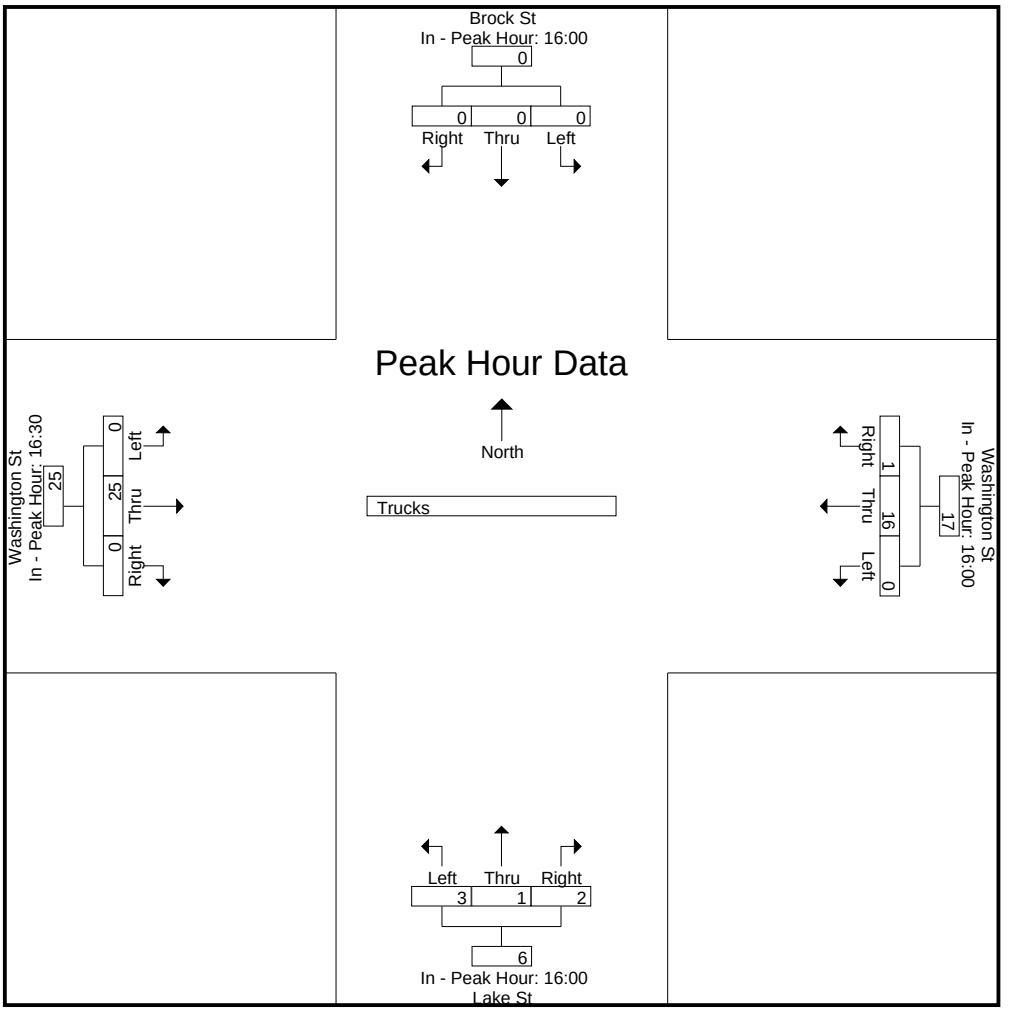
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00				16:00				16:00				16:30			
+0 mins.	0	0	0	0	0	3	1	4	0	0	1	1	0	5	0	5
+15 mins.	0	0	0	0	0	4	0	4	2	0	0	2	0	7	0	7
+30 mins.	0	0	0	0	0	2	0	2	0	0	1	1	0	7	0	7
+45 mins.	0	0	0	0	0	7	0	7	1	1	0	2	0	6	0	6
Total Volume	0	0	0	0	0	16	1	17	3	1	2	6	0	25	0	25
% App. Total	0	0	0		0	94.1	5.9		50	16.7	33.3		0	100	0	
PHF	.000	.000	.000	.000	.000	.571	.250	.607	.375	.250	.500	.750	.000	.893	.000	.893

Accurate Counts
978-664-2565

File Name : 39000010
Site Code : 39000010
Start Date : 3/12/2008
Page No : 3



Accurate Counts
978-664-2565

Accurate Counts
978-664-2565

File Name : 39000011
Site Code : 39000011
Start Date : 3/12/2008
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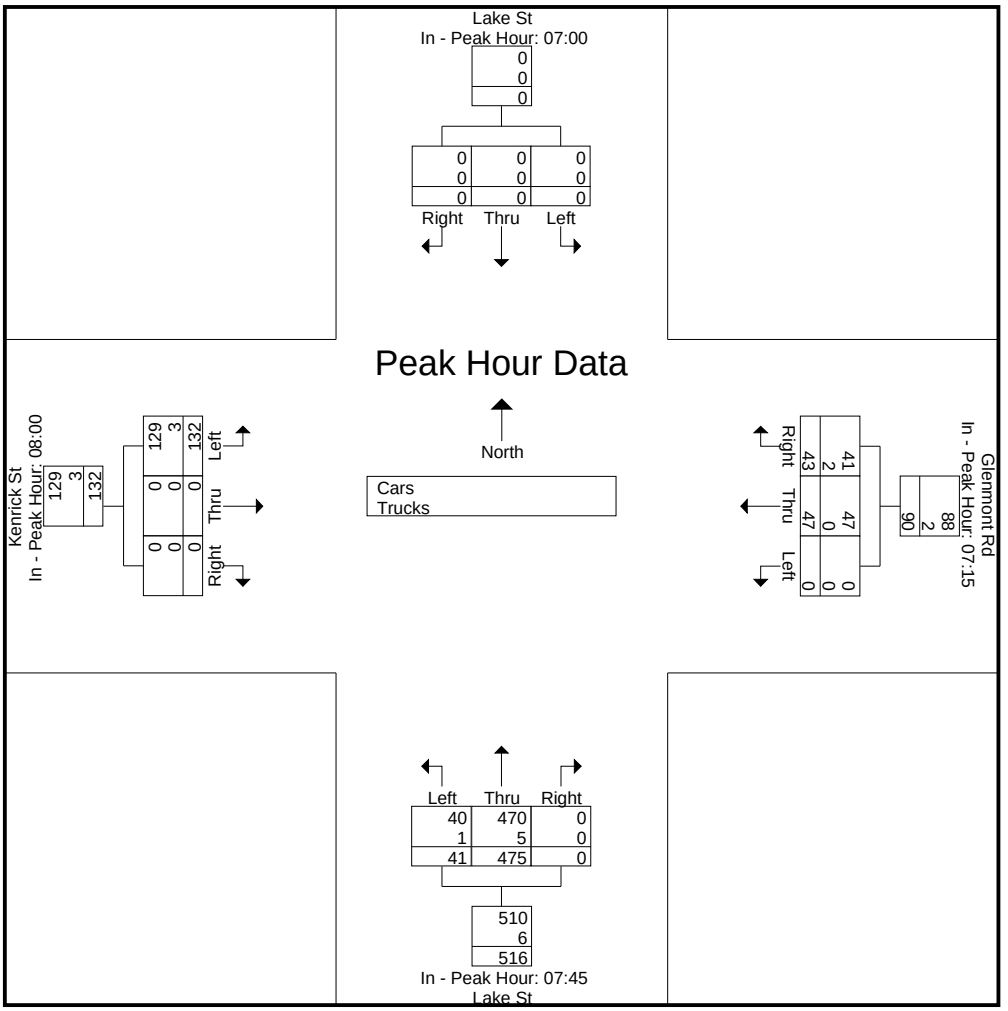


N/S Street : Lake Street
E/W Street: Kenrick St / Glenmont Rd
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

File Name : 39000011
Site Code : 39000011
Start Date : 3/12/2008
Page No : 1

Groups Printed- Cars

	Lake St From North				Glenmont Rd From East				Lake St From South				Kenrick St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	0	1	0	4	10	2	3	59	0	1	15	0	0	0	4	91	95
07:15	0	0	0	2	0	5	20	0	8	86	0	0	19	0	0	6	8	138	146
07:30	0	0	0	0	0	10	10	1	9	113	0	0	22	0	0	8	9	164	173
07:45	0	0	0	0	0	16	2	1	7	121	0	0	36	0	0	10	11	182	193
Total	0	0	0	3	0	35	42	4	27	379	0	1	92	0	0	24	32	575	607
08:00	0	0	0	0	0	16	9	1	14	114	0	1	37	0	0	11	13	190	203
08:15	0	0	0	0	0	12	7	1	10	106	0	0	25	0	0	9	10	160	170
08:30	0	0	0	2	0	12	5	1	9	129	0	2	29	0	0	5	10	184	194
08:45	0	0	0	0	0	9	5	0	4	99	0	0	38	0	0	8	8	155	163
Total	0	0	0	2	0	49	26	3	37	448	0	3	129	0	0	33	41	689	730
Grand Total	0	0	0	5	0	84	68	7	64										

File Name : 39000011
Site Code

N/S Street : Lake Street
E/W Street: Kenrick St / Glenmont Rd
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

File Name : 39000011
Site Code : 39000011
Start Date : 3/12/2008
Page No : 1

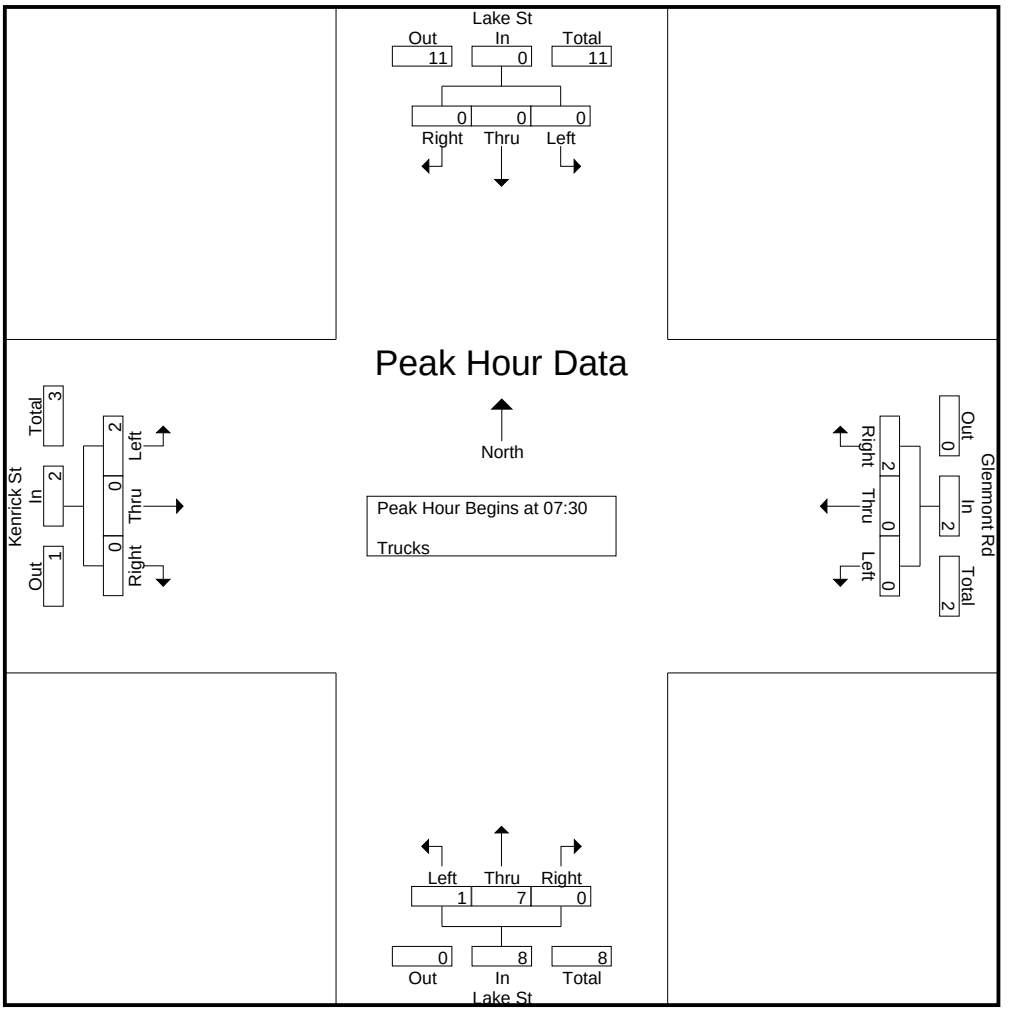
Groups Printed- Trucks

	Lake St From North				Glenmont Rd From East				Lake St From South				Kenrick St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	2
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	5	5
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	3	0	0	4	0	0	0	0	0	0	0	7	7
08:00	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2	2
08:15	0	0	0	0	0	0	0	0	1	3	0	0	1	0	0	0	0	5	5
08:30	0	0	0	0	0	1	1	0	0	1	0	0	1	0	0	0	0	4	4
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	1	5	0	0	3	0	0	0	0	11	11
Grand Total	0	0	0	0	0	1	4	0	1	9	0	0	3	0	0	0	0	18	18
Apprch %	0	0	0		0	20	80		10	90	0		100	0	0				
Total %	0	0	0		0	5.6	22.2		5.6	50	0		16.7	0	0		0	100	

	Lake St From North				Glenmont Rd From East				Lake St From South				Kenrick St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. 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	0	0	0	0	0	2	2	0	3	0	3	0	0	0	0	5
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
08:15	0	0	0	0	0	0	0	0	1	3	0	4	1	0	0	1	5
Total Volume	0	0	0	0	0	0	2	2	1	7	0	8	2	0	0	2	12
% App. Total	0	0	0		0	0	100		12.5	87.5	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.250	.583	.000	.500	.500	.000	.000	.500	.600

Accurate Counts
978-664-2565

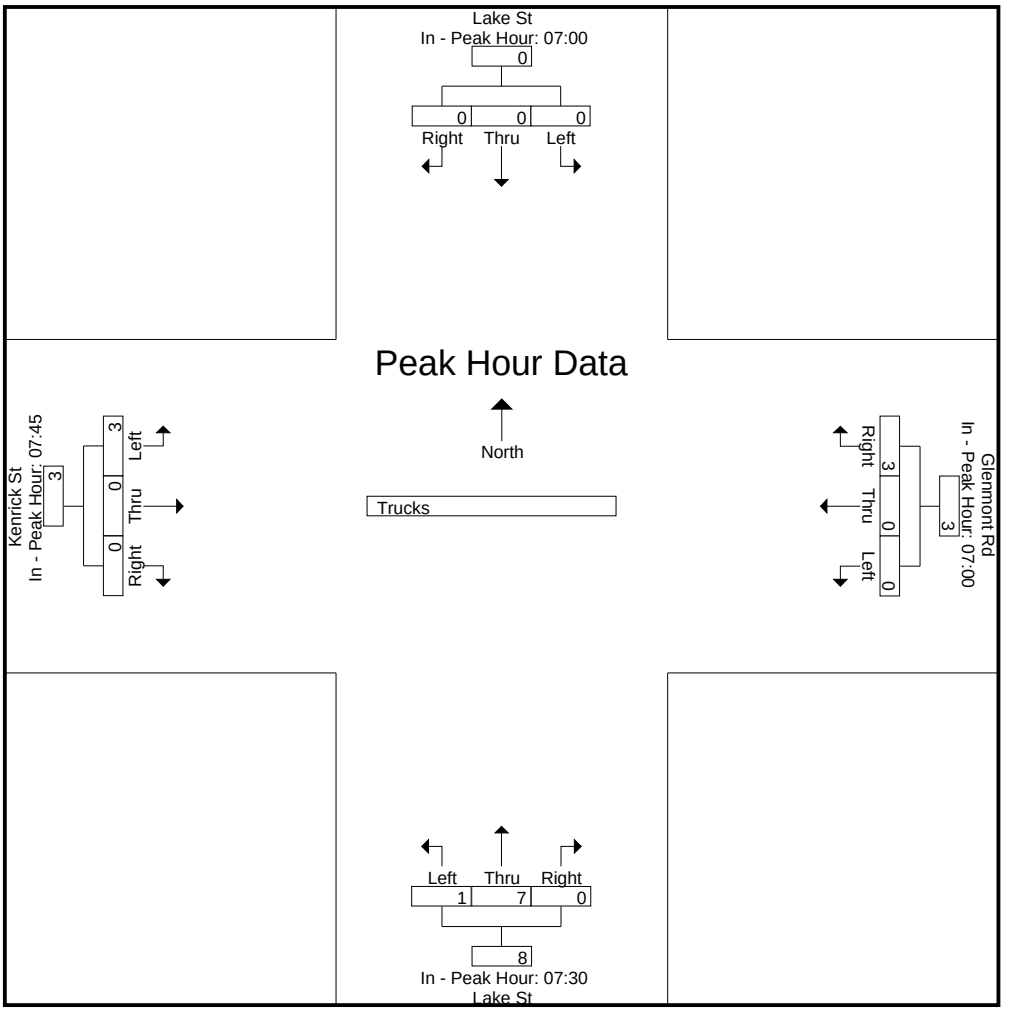
File Name : 39000011
Site Code : 39000011
Start Date : 3/12/2008
Page No : 2



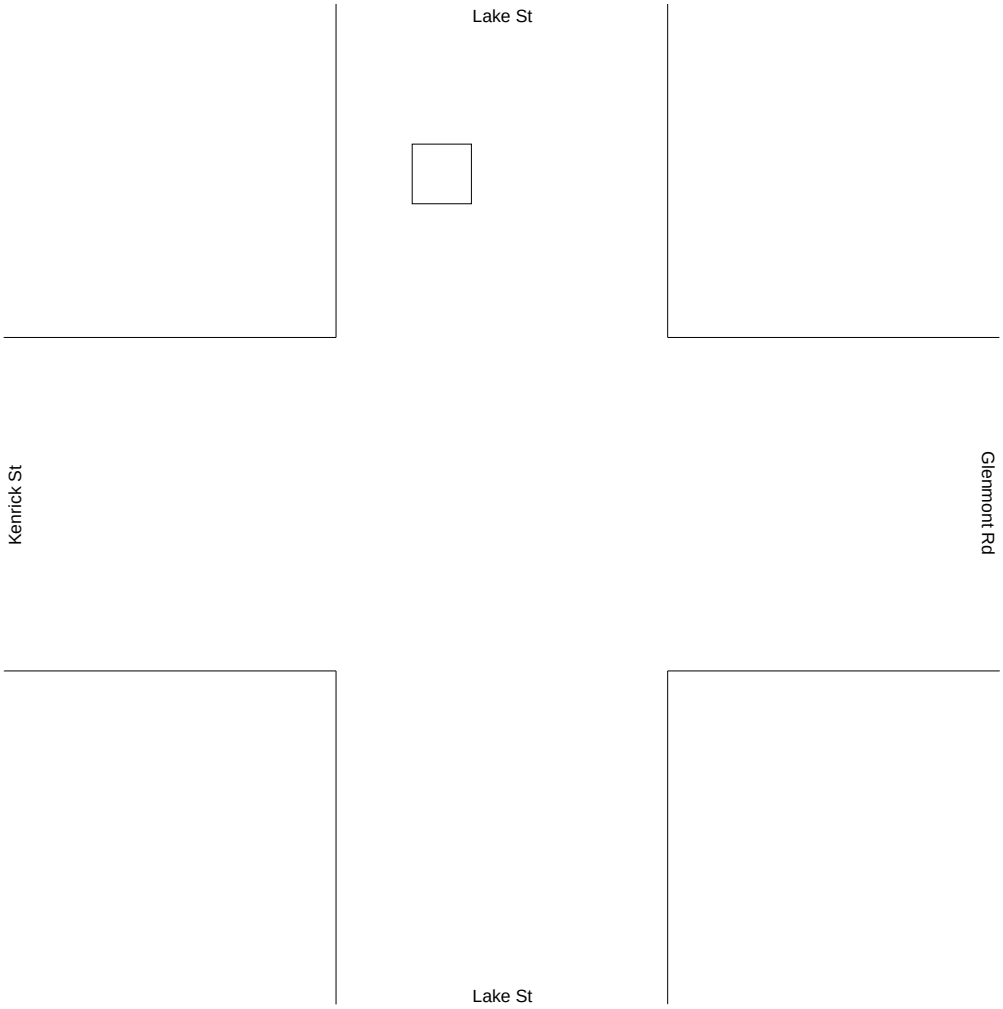
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1
Peak Hour for Each ApG Peak BT 17.88 314f0

Accurate Counts
978-664-2565

File Name : 39000011
Site Code : 39000011
Start Date : 3/12/2008
Page No : 3



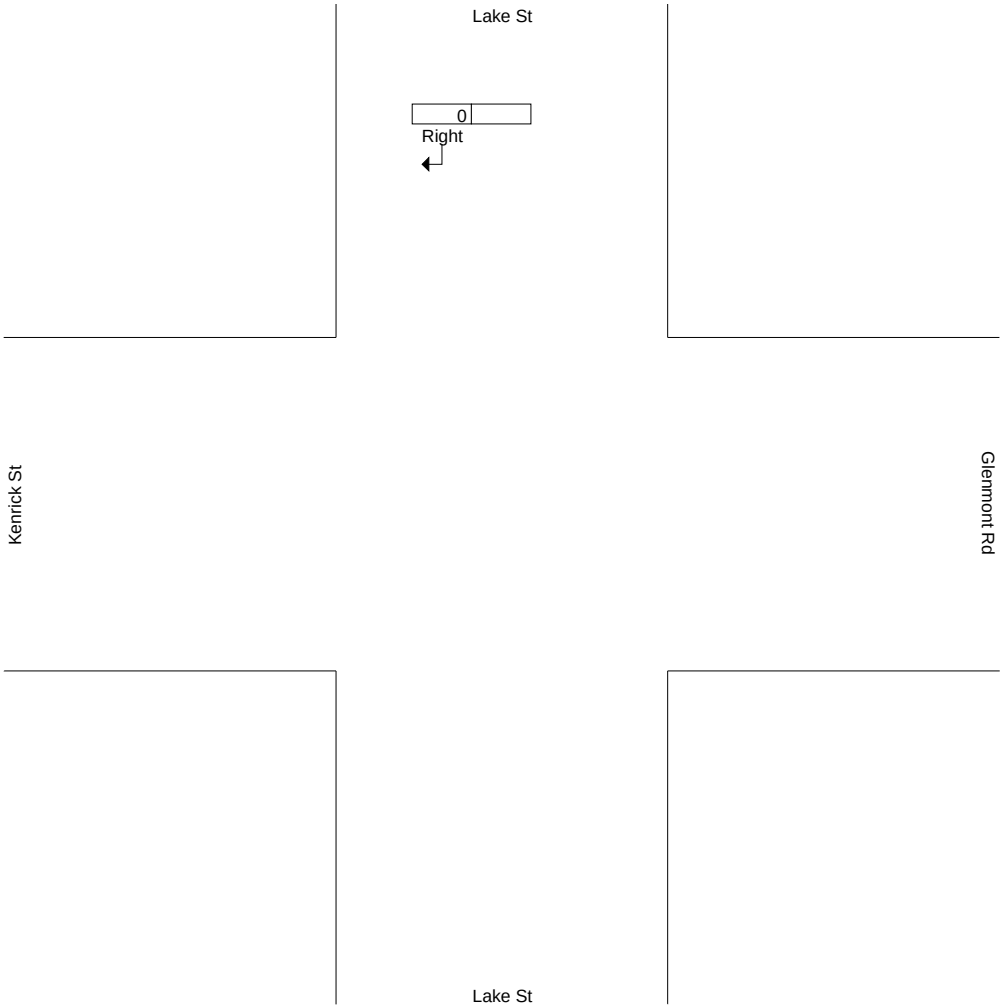
Accurate Counts


Lake St
Kenrick St
Glenmont Rd
Lake St

Accurate Counts
978-664-2565

Accurate Counts
978-664-2565

File Name : 39000011
Site Code : 39000011
Start Date : 3/12/2008
Page No : 3



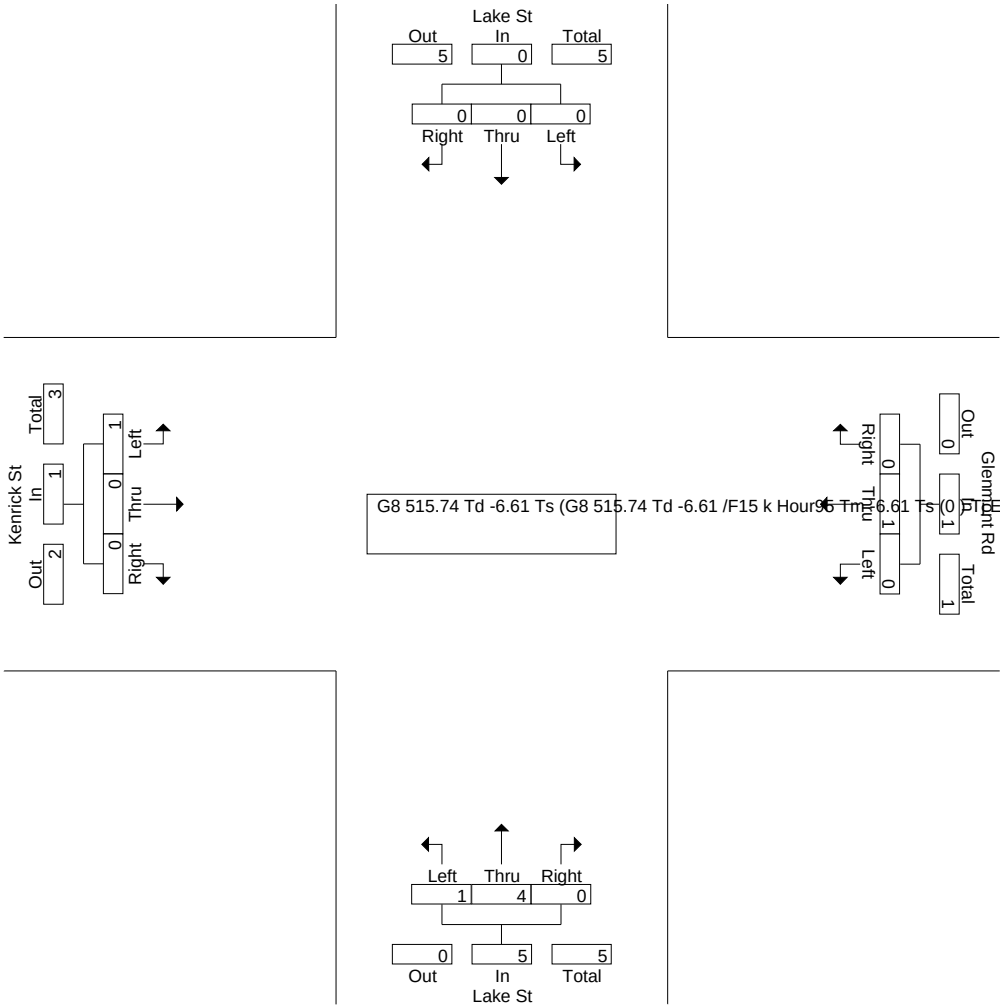
N/S Street : Lake Street
E/W Street: Kenrick St / Glenmont Rd

Accurate Counts
978-664-2565

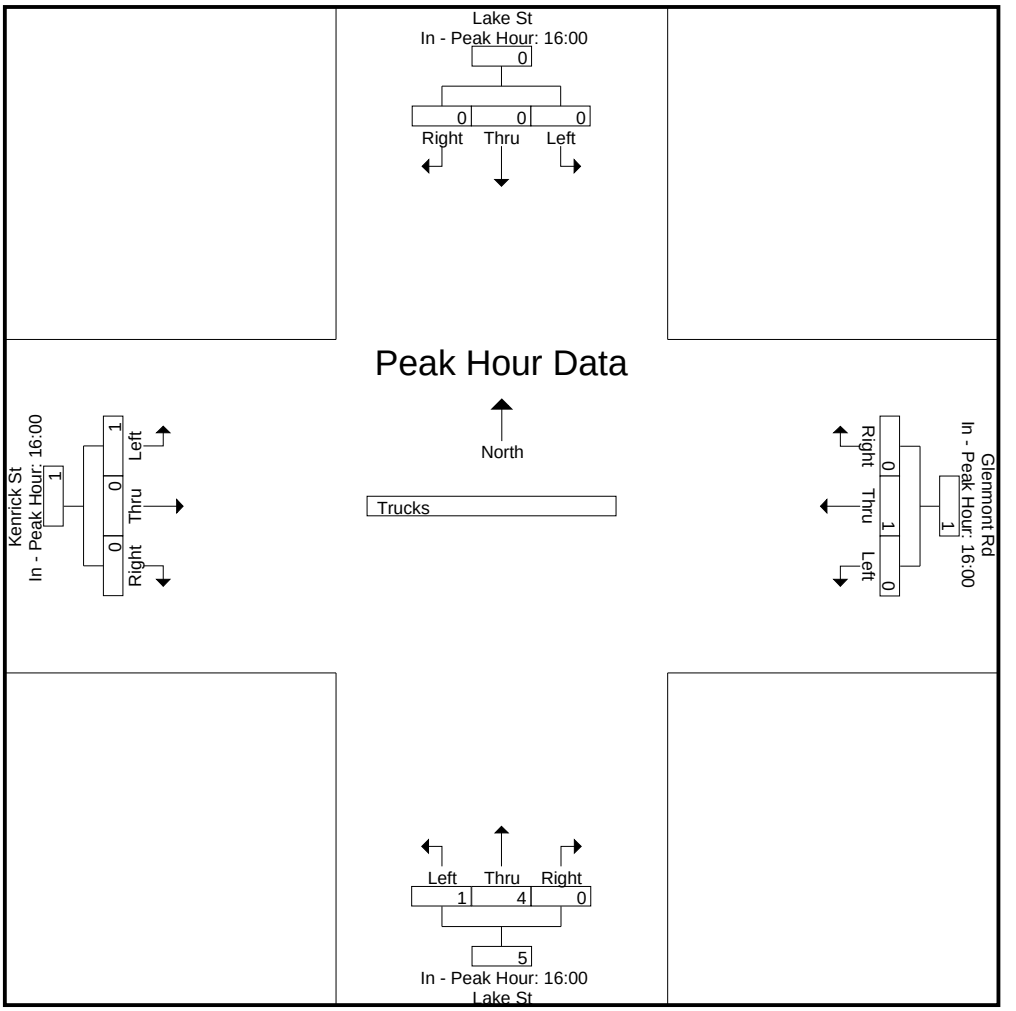
File Name : 39000011
Site Code : 39000011
Start Date : 3/12/2008
Page No : 1

Accurate Counts
978-664-2565

File Name : 39000011
Site Code : 39000011
Start Date : 3/12/2008
Page No : 2

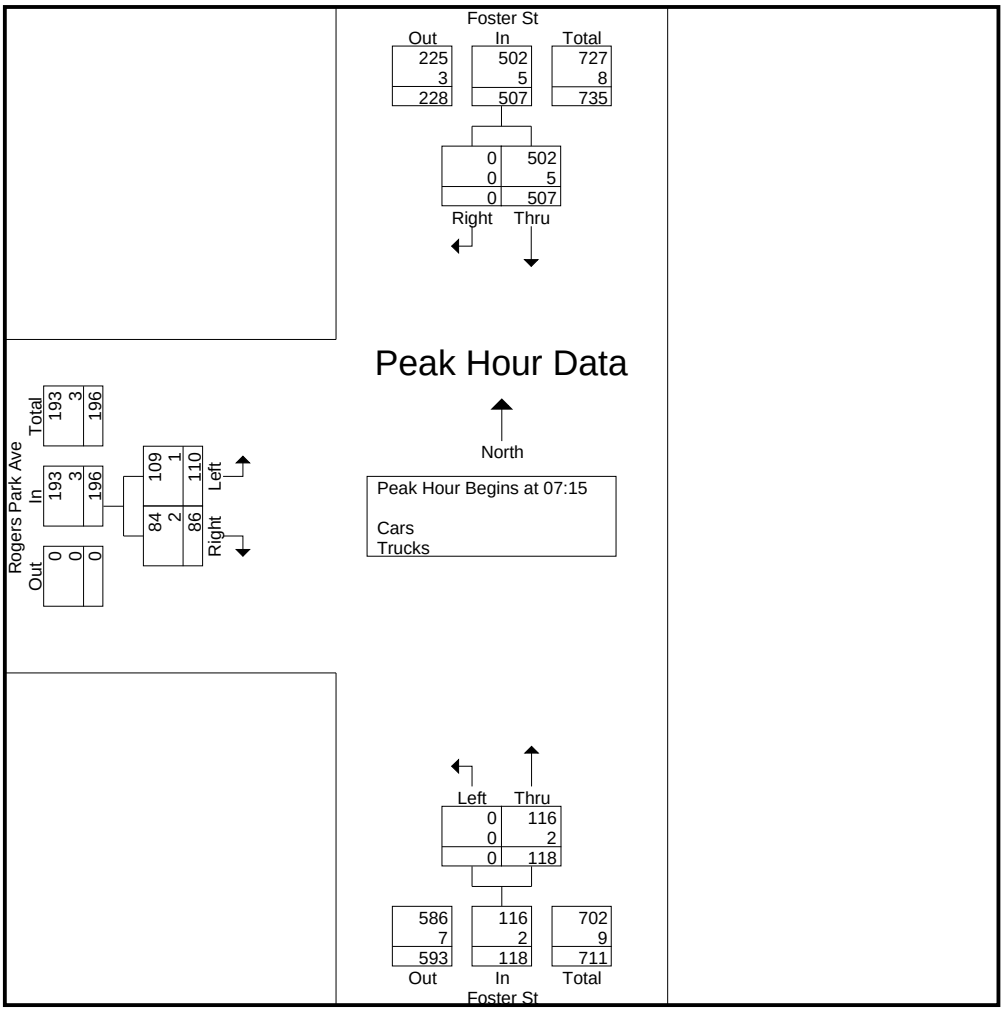


File Name : 39000011
Site Code : 39000011
Start Date : 3/12/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
Page No : 2



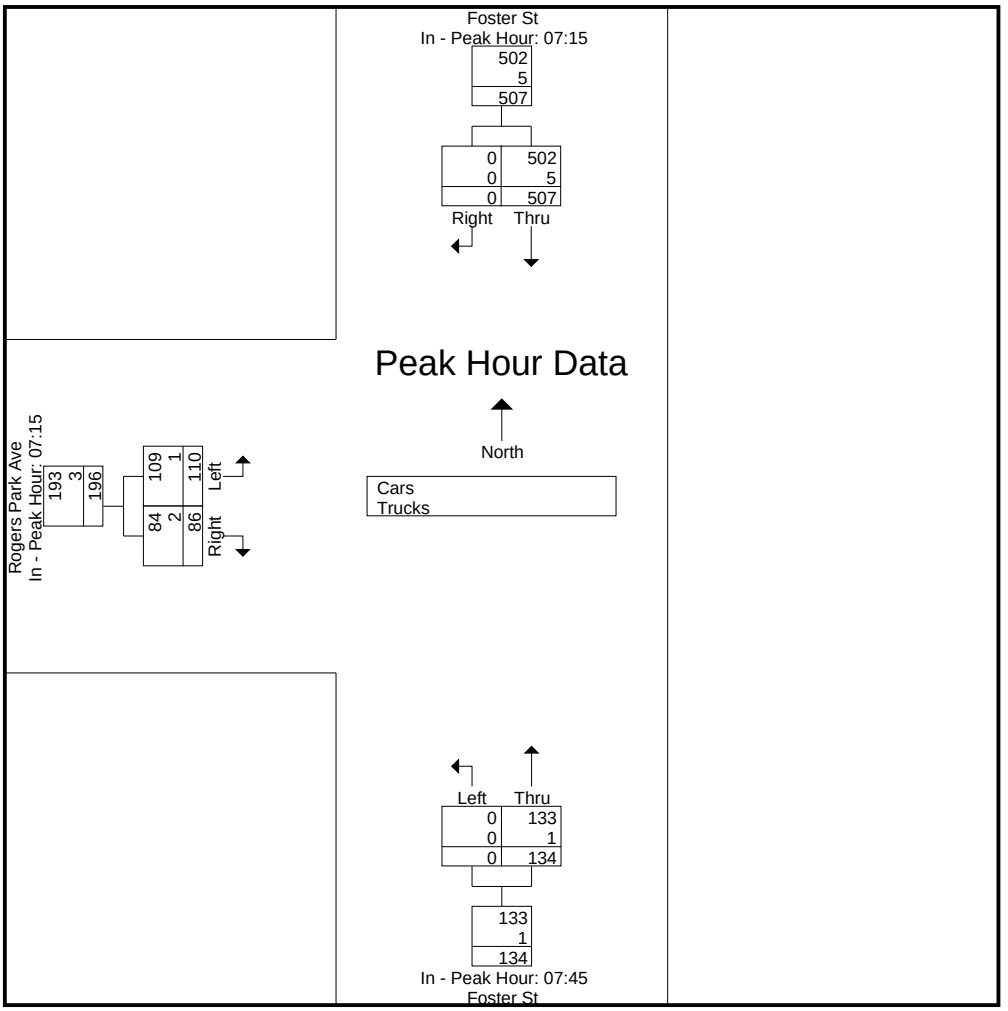
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15			07:45			07:15		
+0 mins.	132	0	132	0	34	34	32	22	54
+15 mins.	128	0	128	0	37	37	21	23	44
+30 mins.	115	0	115	0	33	33	24	23	47
+45 mins.	132	0	132	0	30	30	33	18	51
Total Volume	507	0	507	0	134	134	110	86	196
% App. Total	100	0		0	100		56.1	43.9	
PHF	.960	.000	.960	.000	.905	.905	.833	.935	.907
Cars	502	0	502	0	133	133	109	84	193
% Cars	99	0	99	0	99.3	99.3	99.1	97.7	98.5
Trucks	5	0	5	0	1	1	1	2	3
% Trucks	1	0	1	0	0.7	0.7	0.9	2.3	1.5

Accurate Counts
978-664-2565

File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
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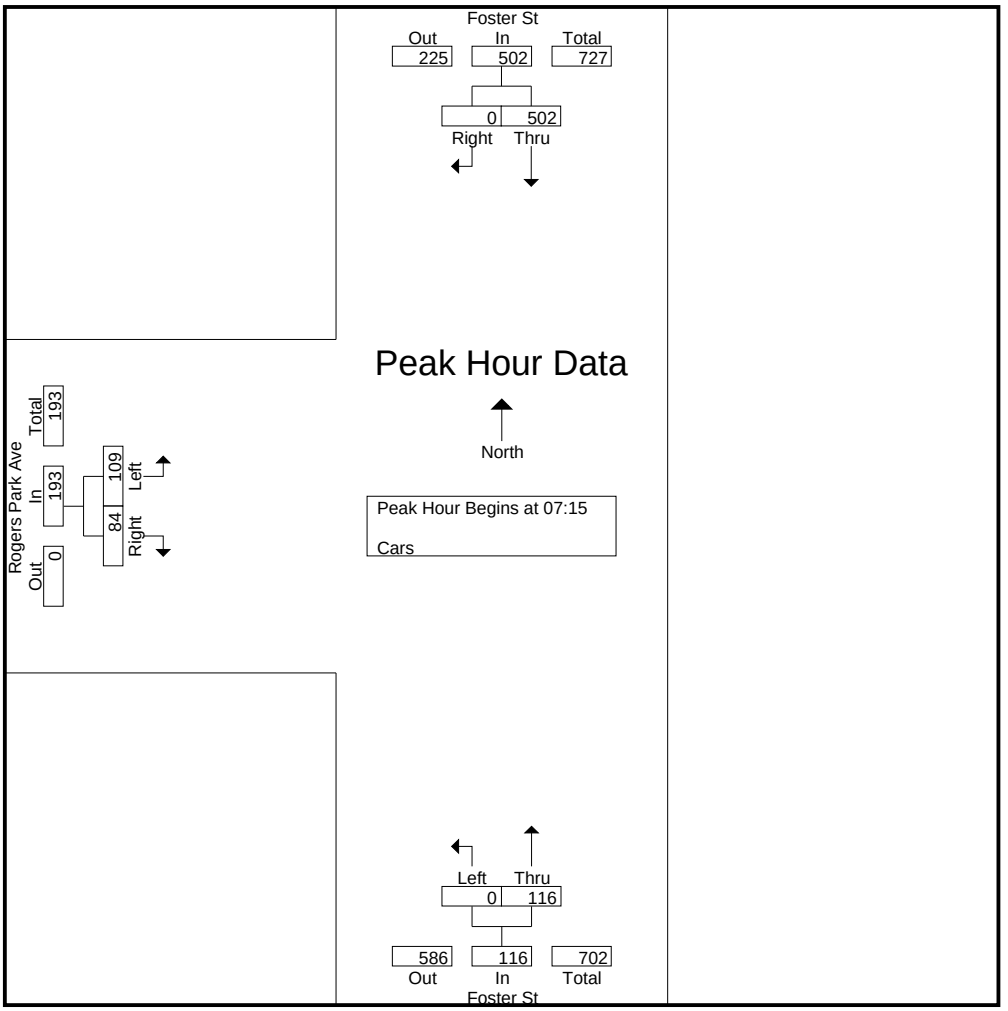
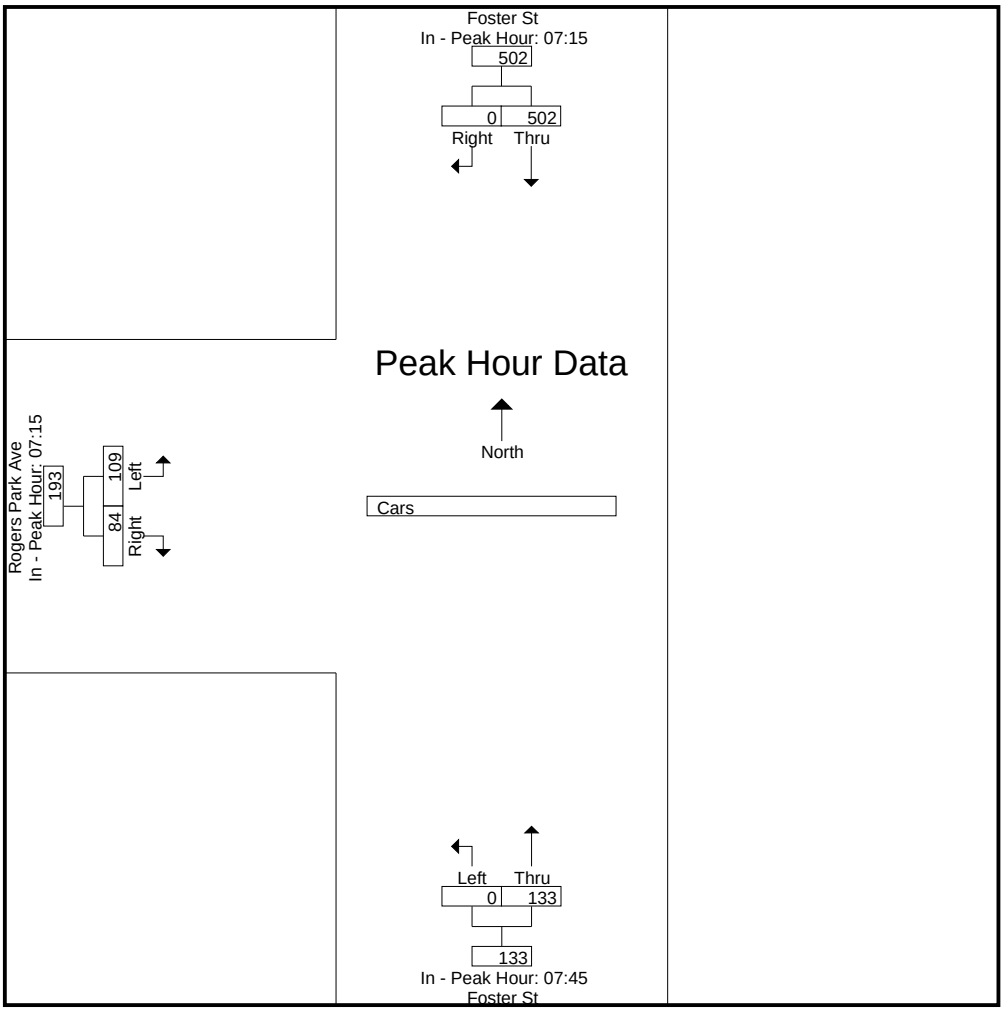


Accurate Counts
978-664-2565

File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
Page No : 3



N/S Street : Foster Street
E/W Street: Rogers Park Avenue
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

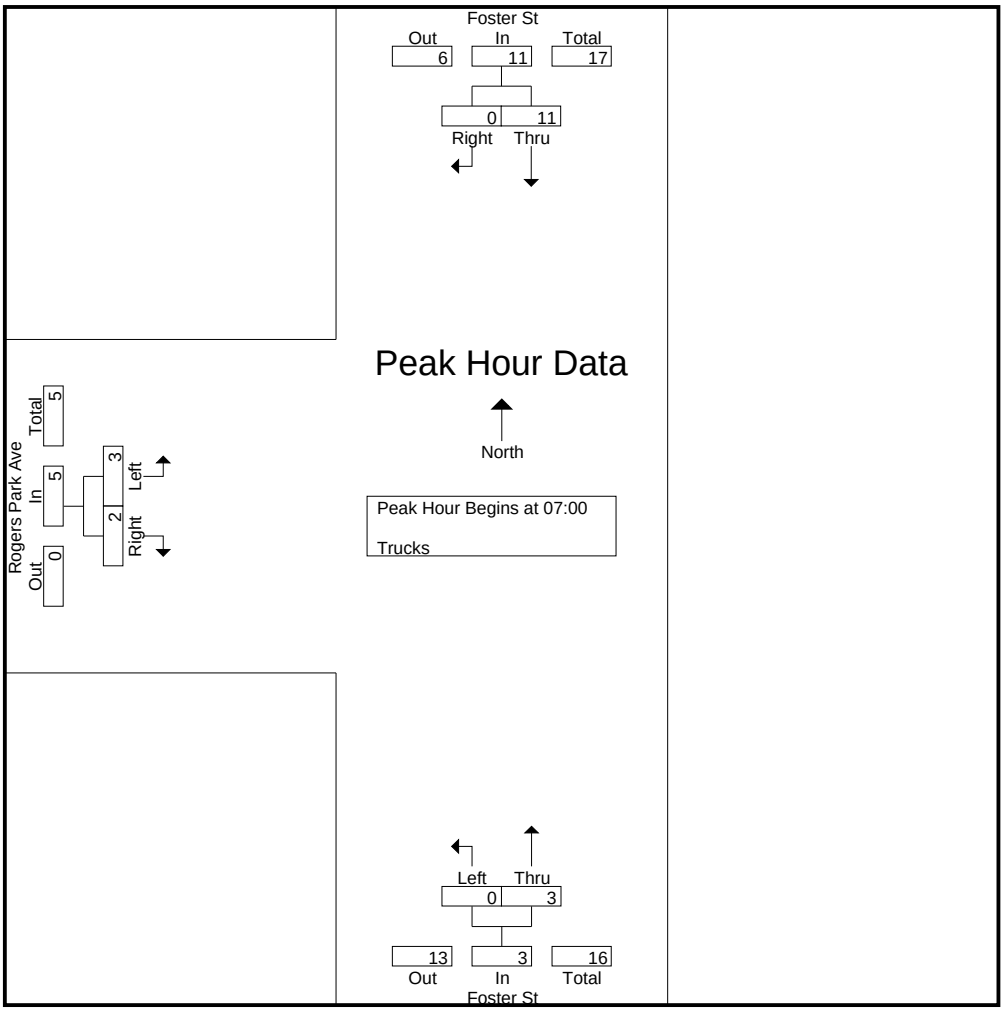
File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
Page No : 1

Groups Printed- Trucks

	Foster St From North			Foster St From South			Rogers Park Ave From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	7	0	0	0	2	0	2	0	0	0	11	11
07:15	3	0	0	0	1	0	1	2	0	0	7	7

Accurate Counts
978-664-2565

File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
Page No : 2



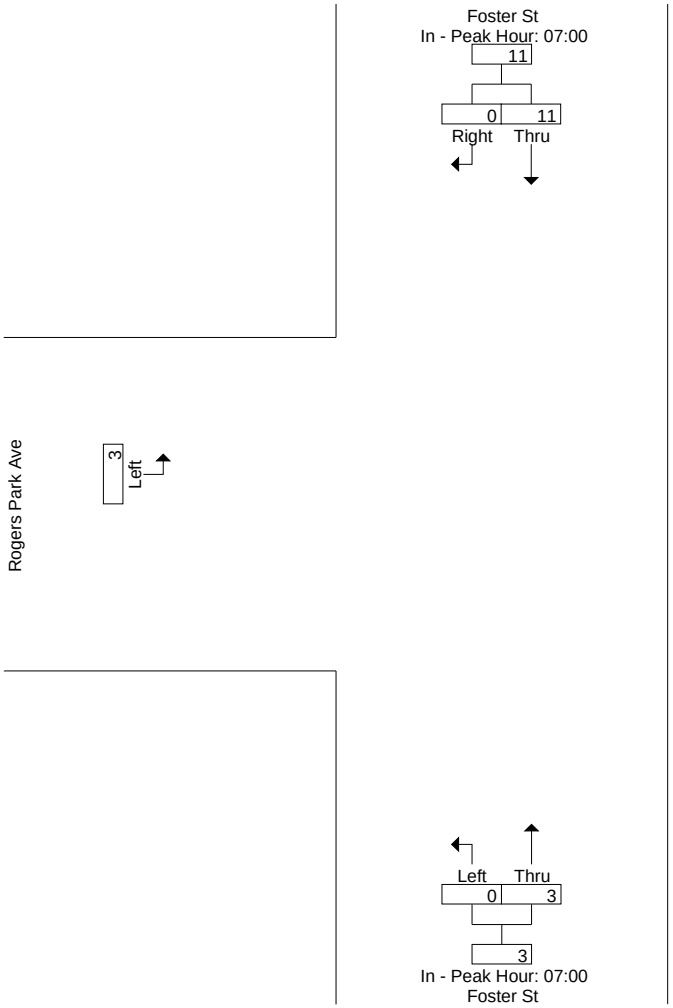
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00			07:00			07:00		
+0 mins.	7	0	7	0	2	2	2	0	2
+15 mins.	3	0	3	0	1	1	1	2	3
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	11	0	11	0	3	3	3	2	5
% App. Total	100	0		0	100		60	40	
PHF	.393	.000	.393	.000	.375	.375	.375	.250	.417

Accurate Counts
978-664-2565

File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000012
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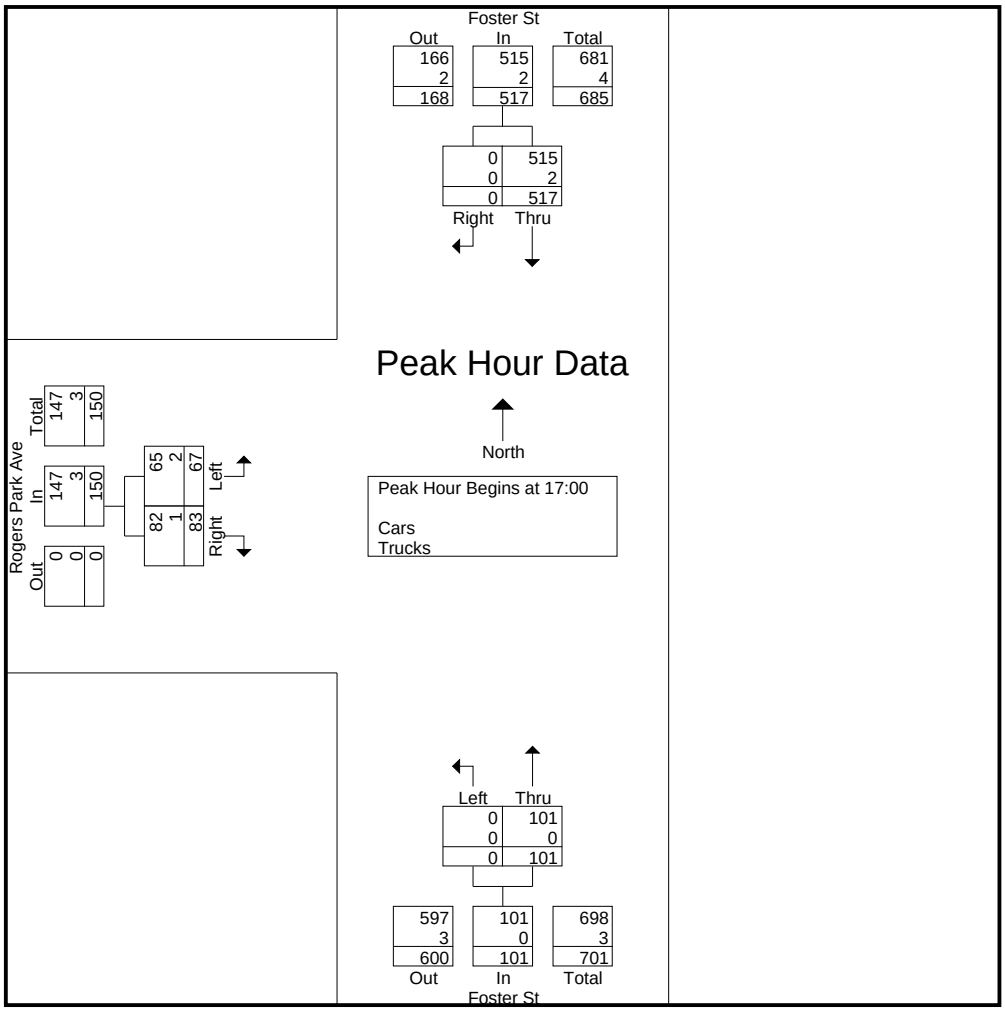
Start Date : 3/12/2008
Page No : 2

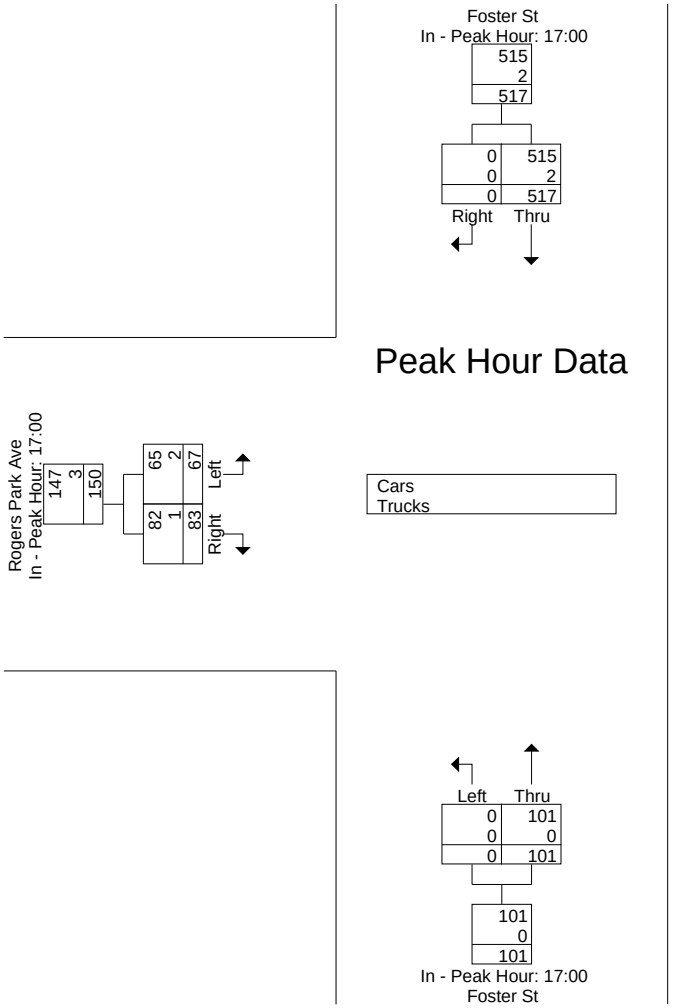


Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

12 322 73.44.2922 l76 2 322 r for Each Ap8 324.5 373.44390s5 32 322 Q 390s5 32q 18 73.44538 532 322 Q 538 532q 18 73.44390s5 32 322 Q 538 52

Accurate Counts
978-664-2565

File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
Page No : 3



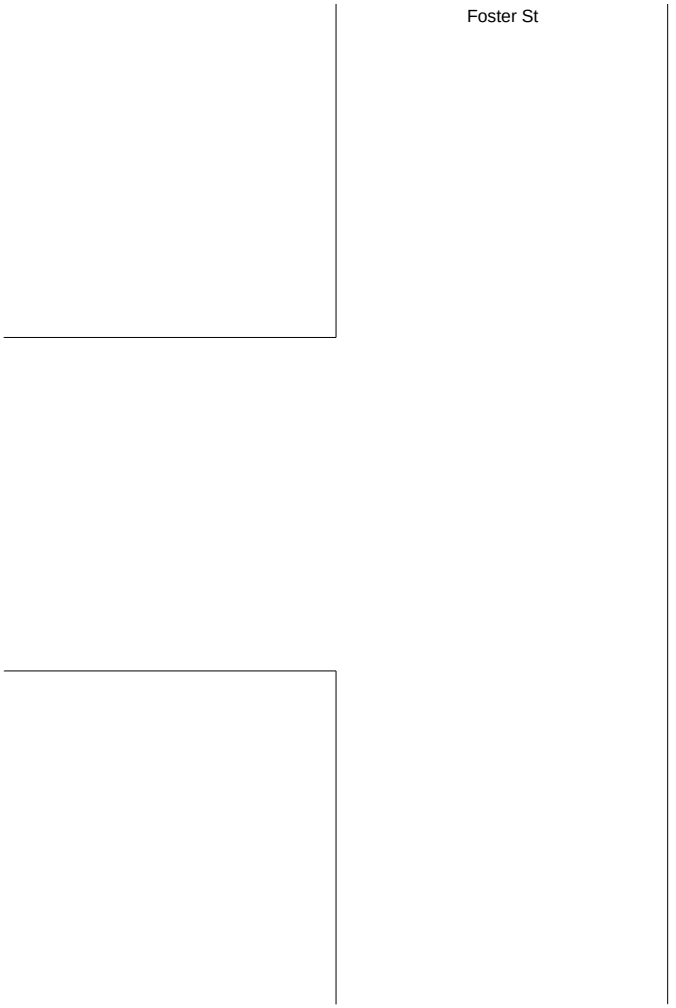
N/S Street : Foster Street
E/W Street: Rogers Park Avenue
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

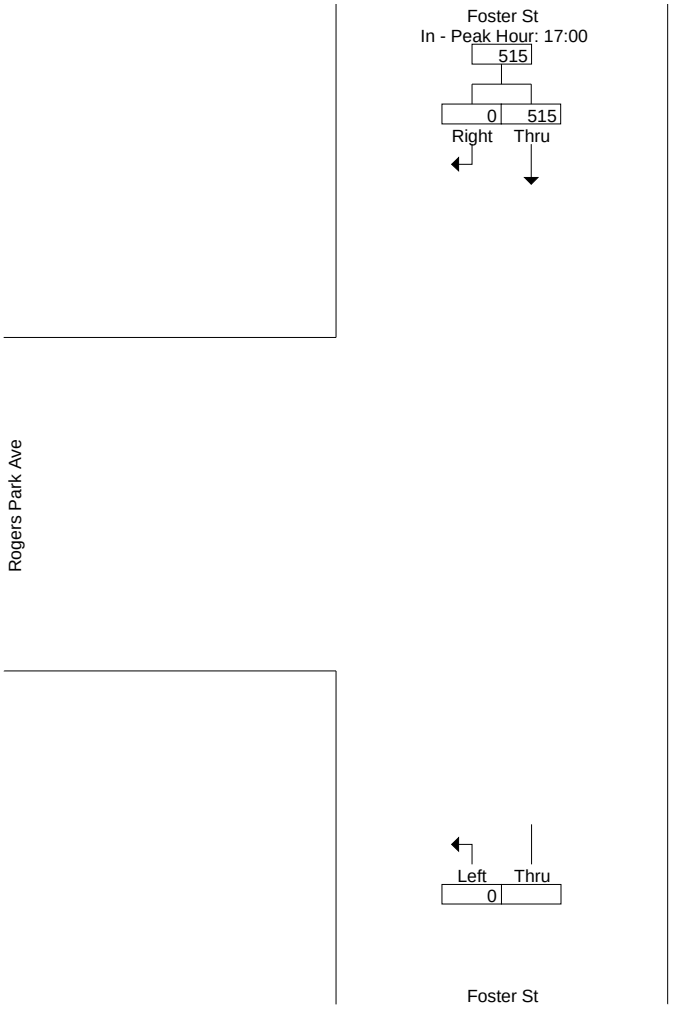
File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
Page No : 1

Groups Printed- Cars

	Foster St From North			Foster St From South			Rogers Park Ave From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	98	0	1	0	19	0	9	19	5	6	145	151
16:15	105	0	4	0	16	0	9	6	2	6	136	142
16:30	110	0	0	0	22	0	15	18	6	6	165	171
16:45	111	0	2	0	19	0	7	18	3	5	155	160
Total	424	0	7	0	76	0	40	61	16	23	601	624
17:00	124	0	3	0	26	0	11	19	5	8	180	188
17:15	132	0	0	0	27	0	21	22	7	7	202	209
17:30	116	0	5	0	20	0	15	21	13	18	172	190
17:45	143	0	0	0	28	0	18	20	13	13	209	222
Total	515	0	8	0	101	0	65	82	38	46	763	809
Grand Total	939	0	15	0								


Foster St

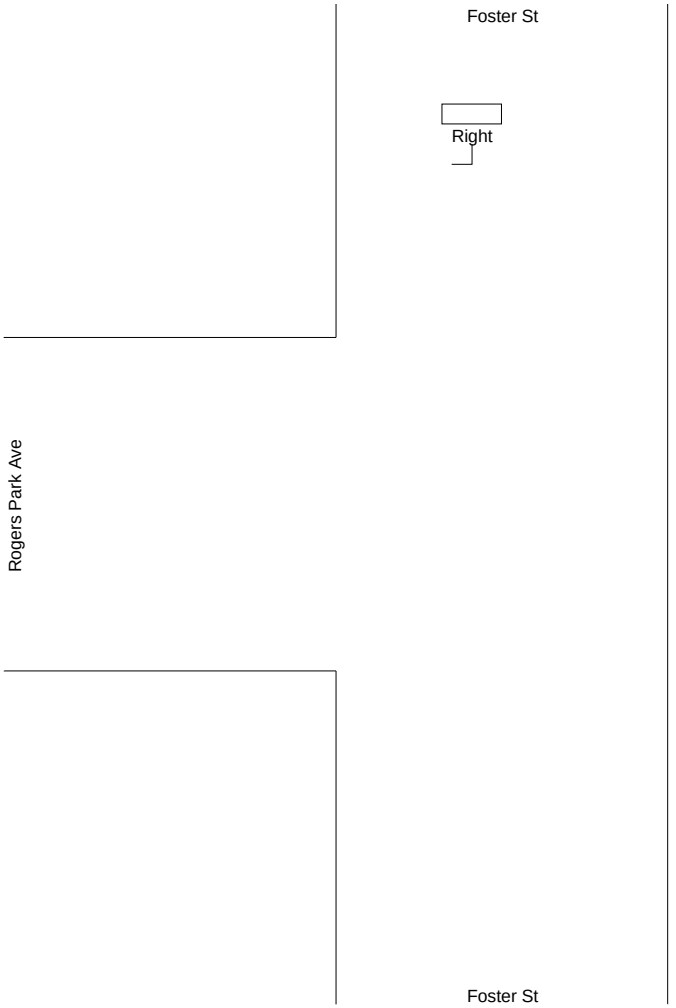
File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
Page No : 3

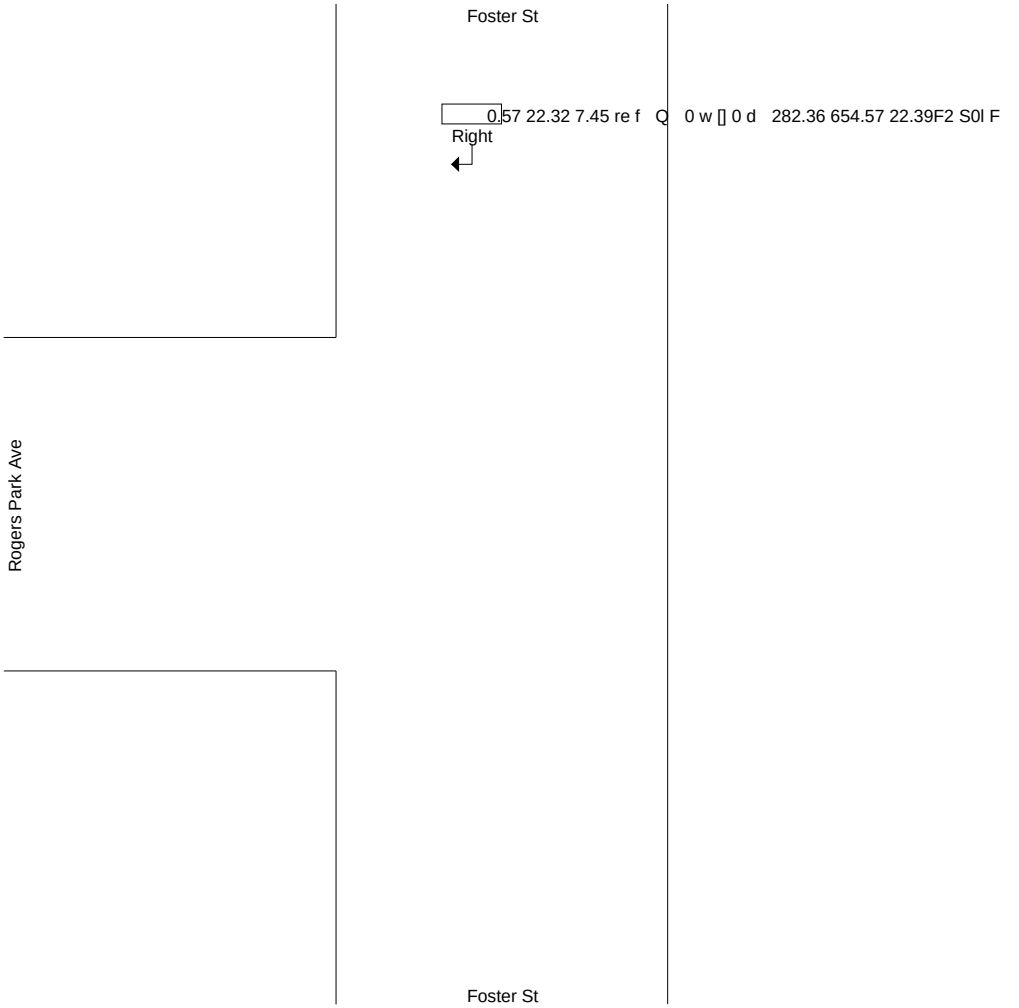


Accurate Counts
978-664-2565

File Name : 39000012
Site Code : 39000012
Start Date

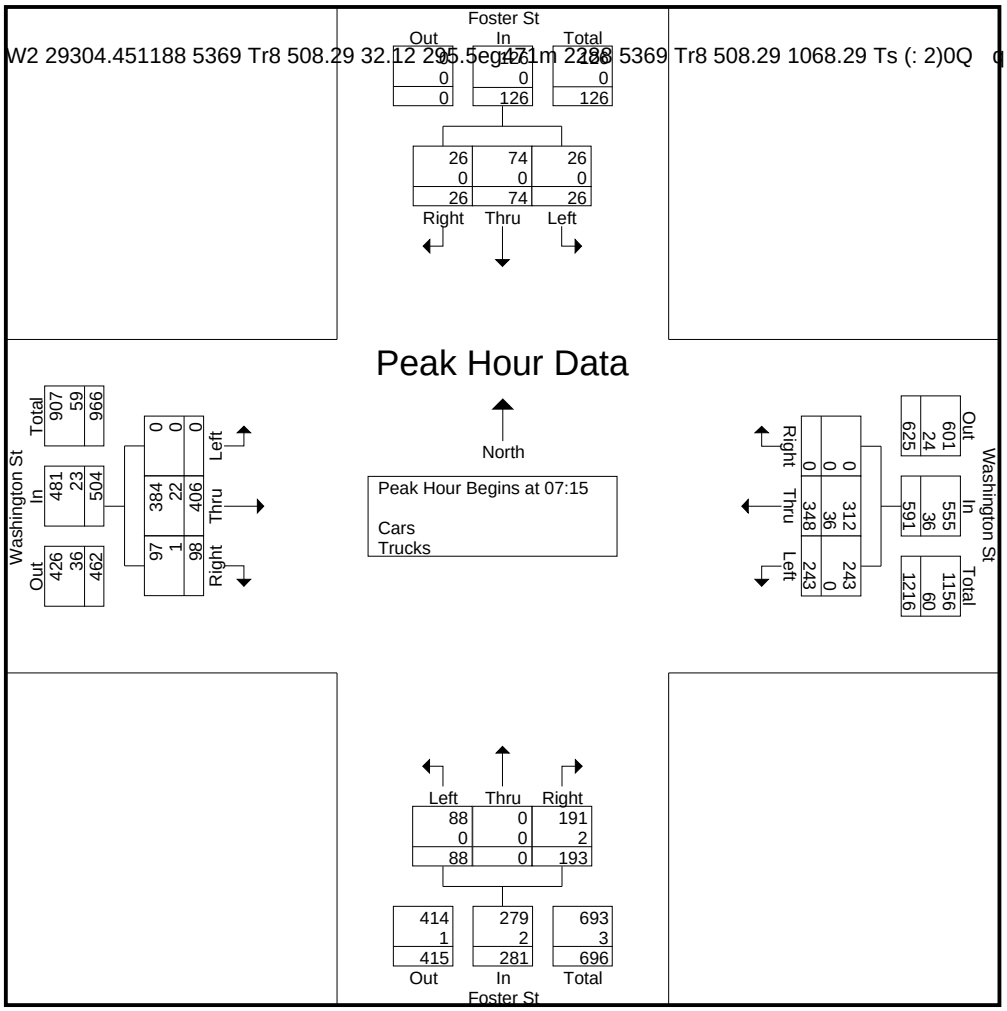
File Name : 39000012
Site Code : 39000012
Start Date : 3/12/2008
Page No : 2




Foster St
0.57 22.32 7.45 re f Q 0 w [] 0 d 282.36 654.57 22.39F2 S0l F
Right
Rogers Park Ave
Foster St

Accurate Counts
978-664-2565

File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 2



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

Peak Hour for Each Approach Begins at:

08:00	07:15	07:45	08:00

Accurate Counts
978-664-2565

N/S Street : Foster Street
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

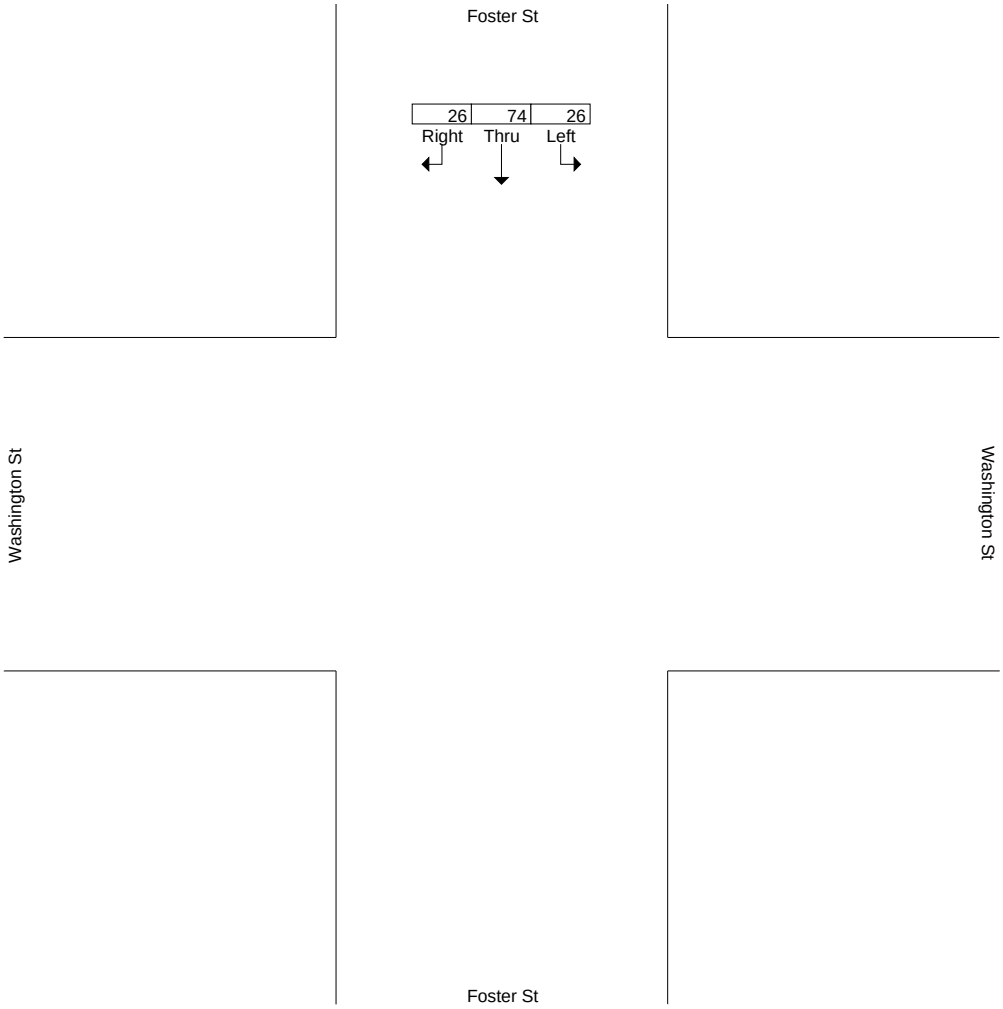
File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 1

Groups Printed- Cars

	Foster St From North				Washington St From East				Foster St From South				Washington St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	7	4	3	12															

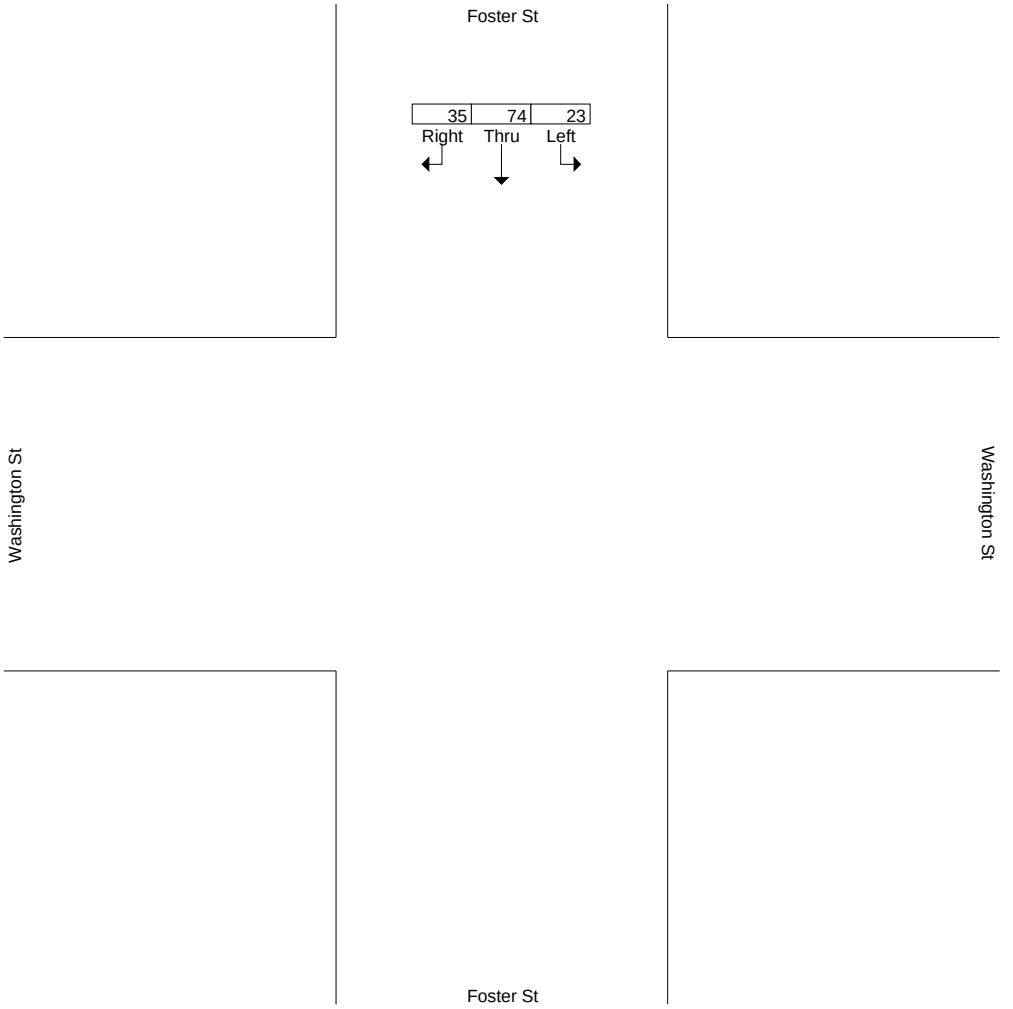
Accurate Counts
978-664-2565

File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 3



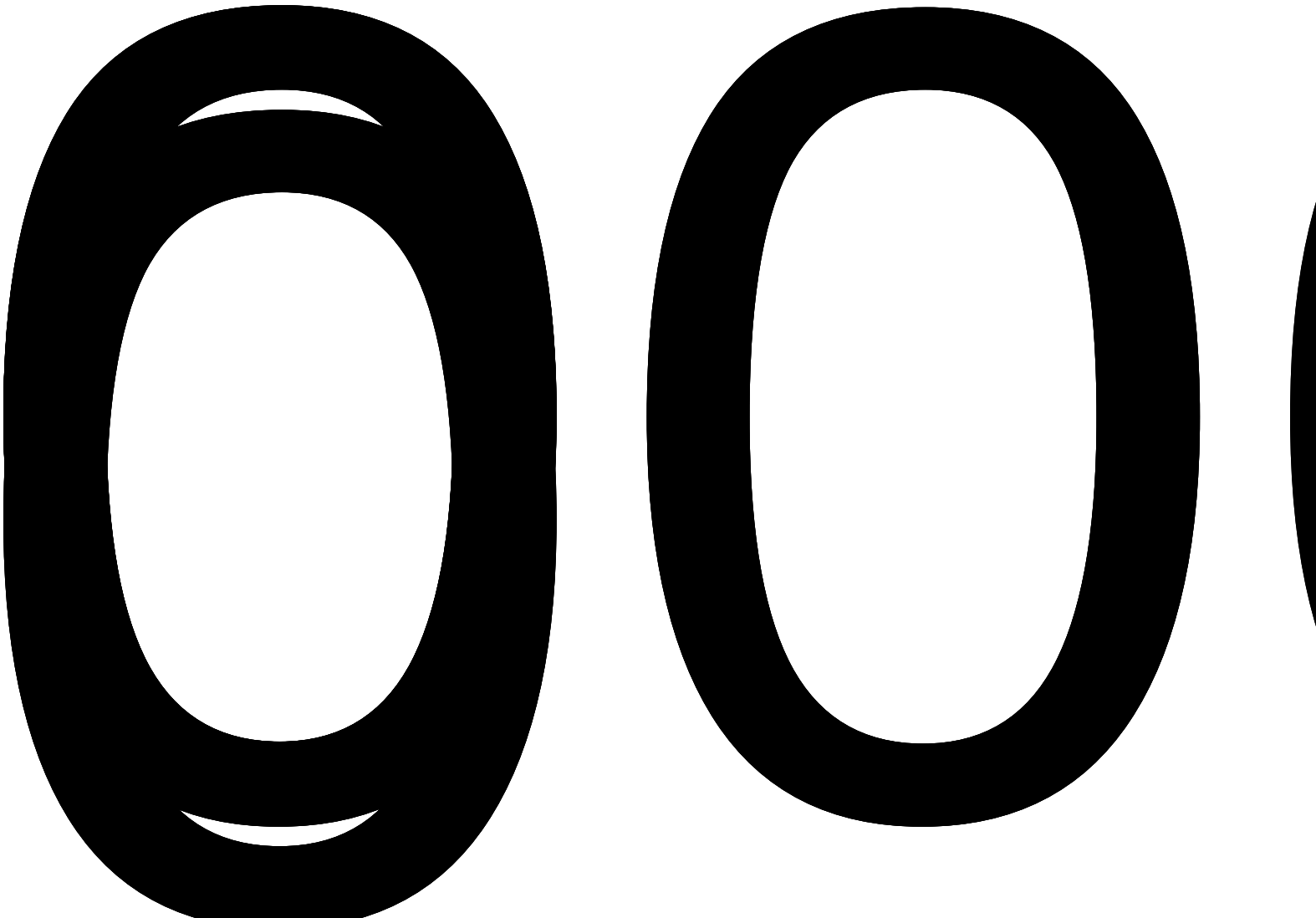
N/S Street : Foster Street
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 1

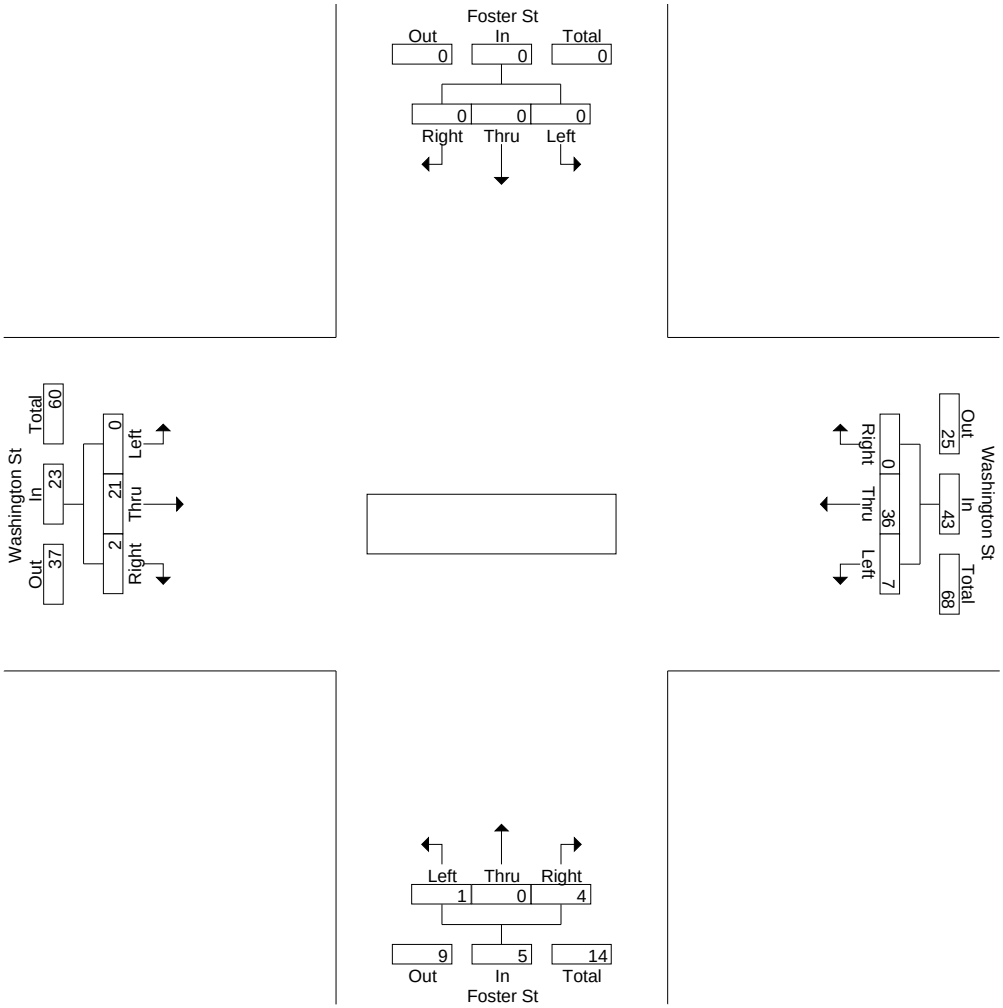
Groups Printed- Trucks

	Foster St From North				Washington St From East				Foster St From South				Washington St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	0	0	7	8	0	0	1	0	2	0	0	4	1	0	0	23	23
07:15	0	0	0	0	0	8	0	0	0	0	1	0	0	4	0	0	0	13	13
07:30	0	0	0	0	0	12	0	0	0	0	0	0	0	10	1	0	0	23	23
07:45	0	0	0	0	0	8	0	0	0	0	1	0	0	3	0	0	0	12	12
Total	0	0	0	0	7	36	0	0	1	0	4	0	0	21	2	0	0	71	71
08:00	0	0	0	0	0	8	0	0	0	0	0	0	0	5	0	0	0	13	13
08:15	0	0	0	0	0	6	0	0	0	0	0	0	0	7	0	0	0	13	13
08:30	0	0	0	0	0	7	0	0	0	0	0	0	0	5	1	0	0	13	13
08:45	0	0	0	0	0	6	0	0	0	0	1	0	0	6	0	0	0	13	13
Total	0	0	0	0	0	27	0	0	0	0	1	0	0	23	1	0	0	52	52
Grand Total	0	0	0	0	7	63	0	0	1	0	5	0	0	44	3	0	0	123	123
Apprch %	0	0	0		10	90	0		16.7	0	83.3		0	93.6	6.4				
Total %	0	0	0		5.7	51.2	0		0.8	0									



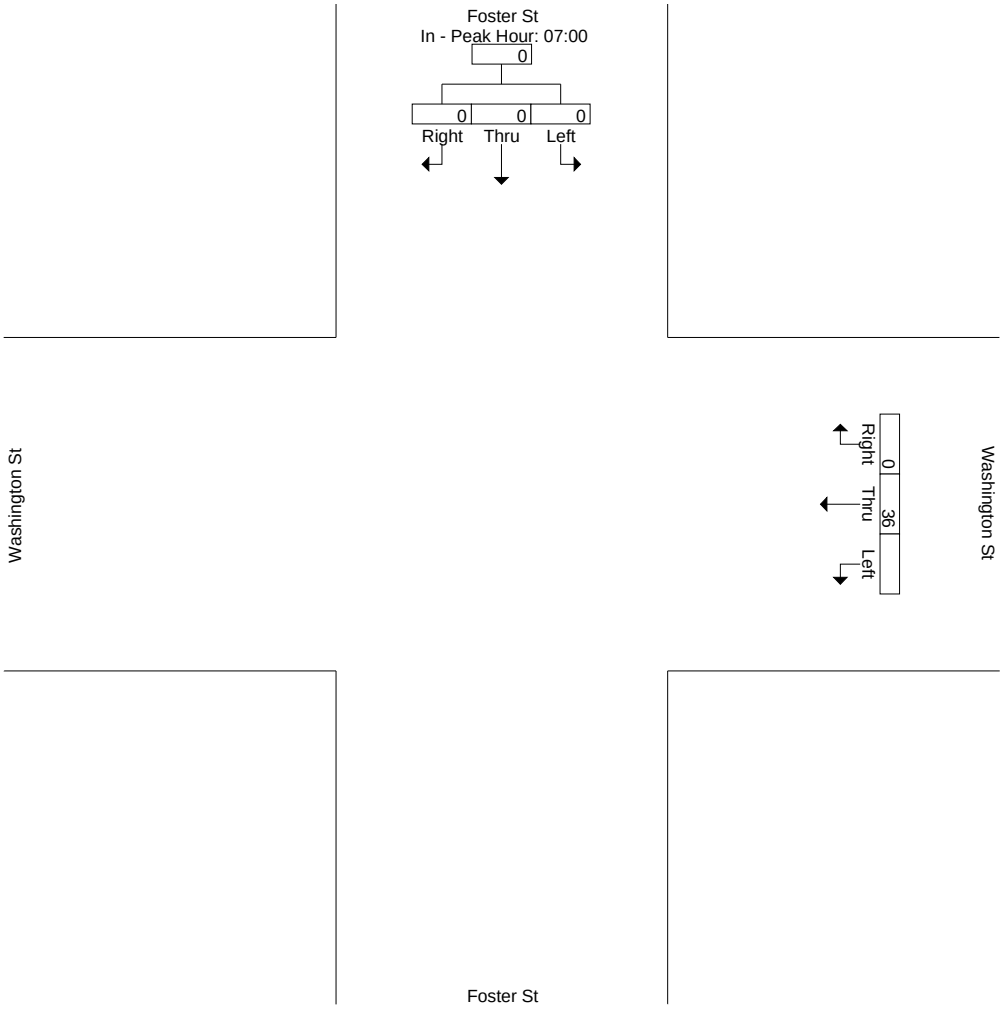
Accurate Counts
978-664-2565

File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 3



Accurate Counts
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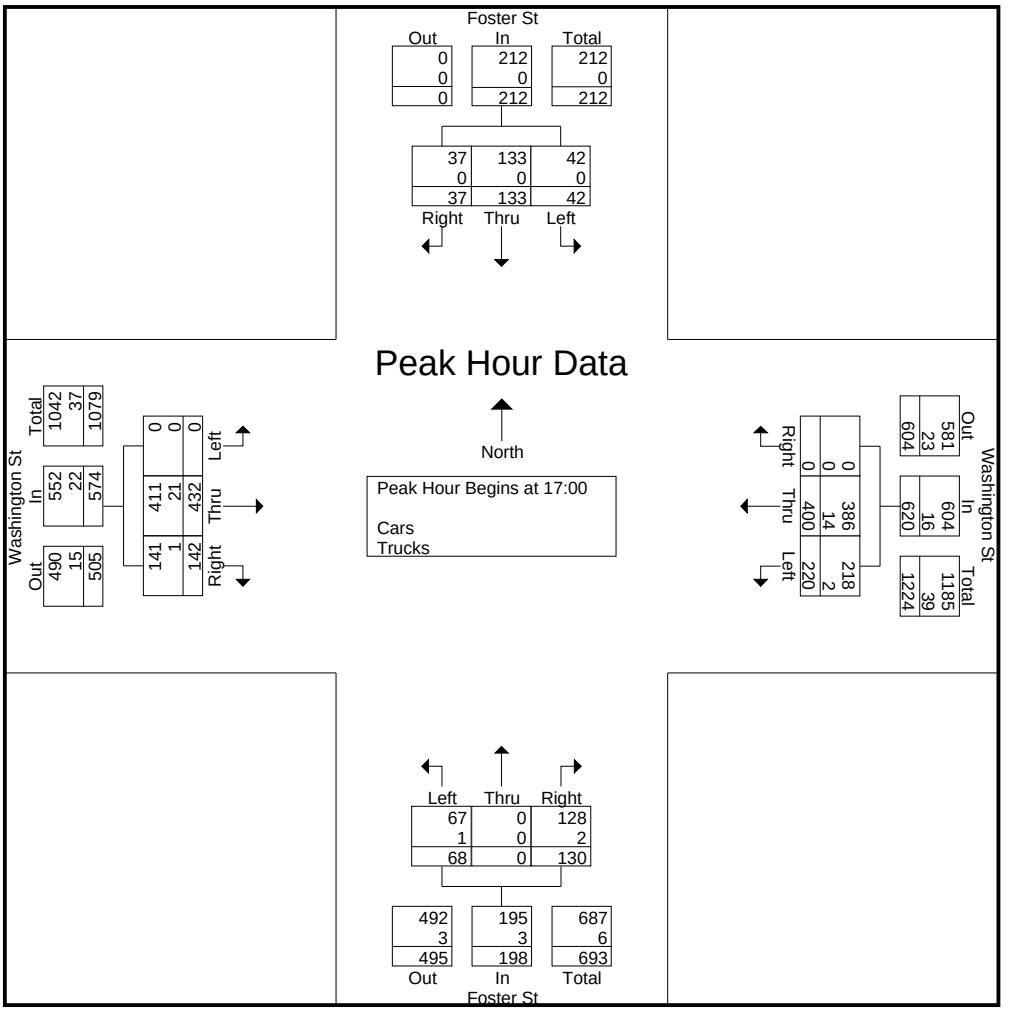
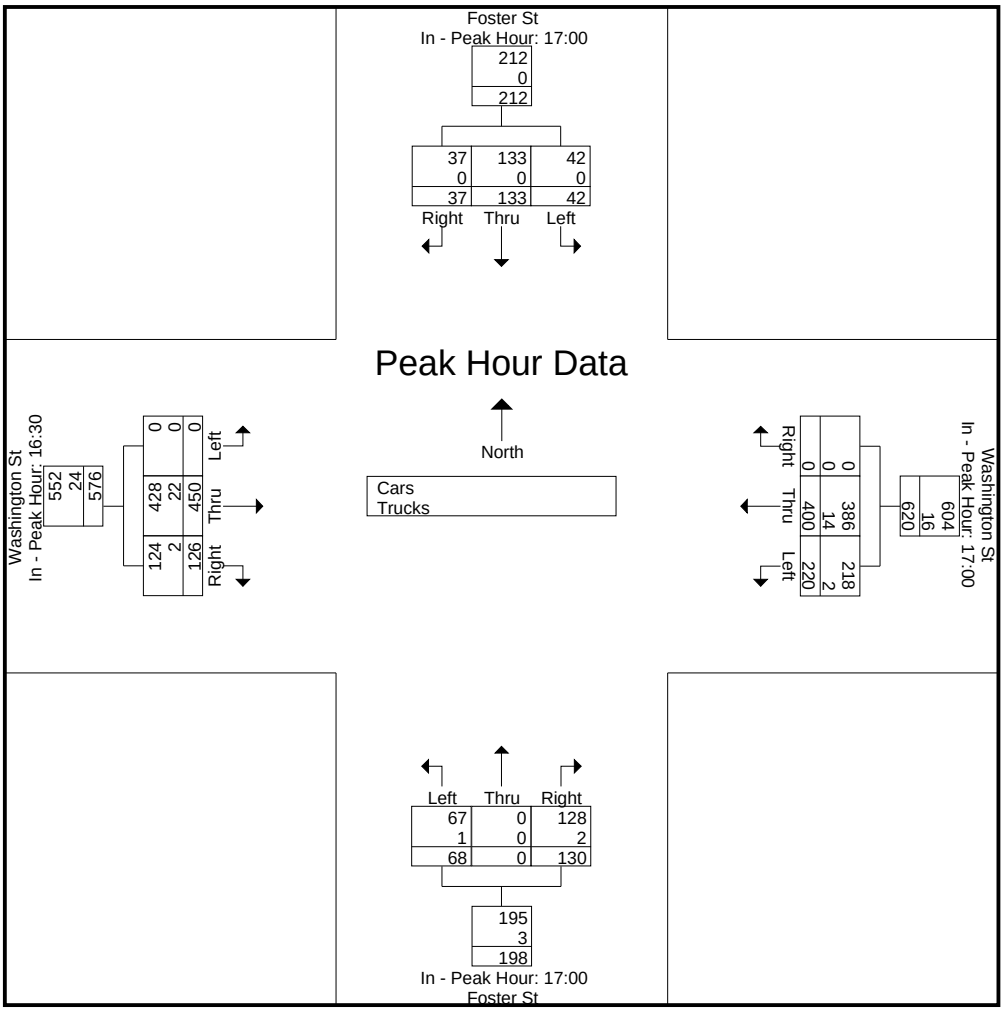
File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 2



Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:In3512.92 Tm -6.61 Ts (In) Tj ET Q q 118 473.44 375 re In

Accurate Counts
978-664-2565

File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 3



Accurate Counts
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File Name : 39000013
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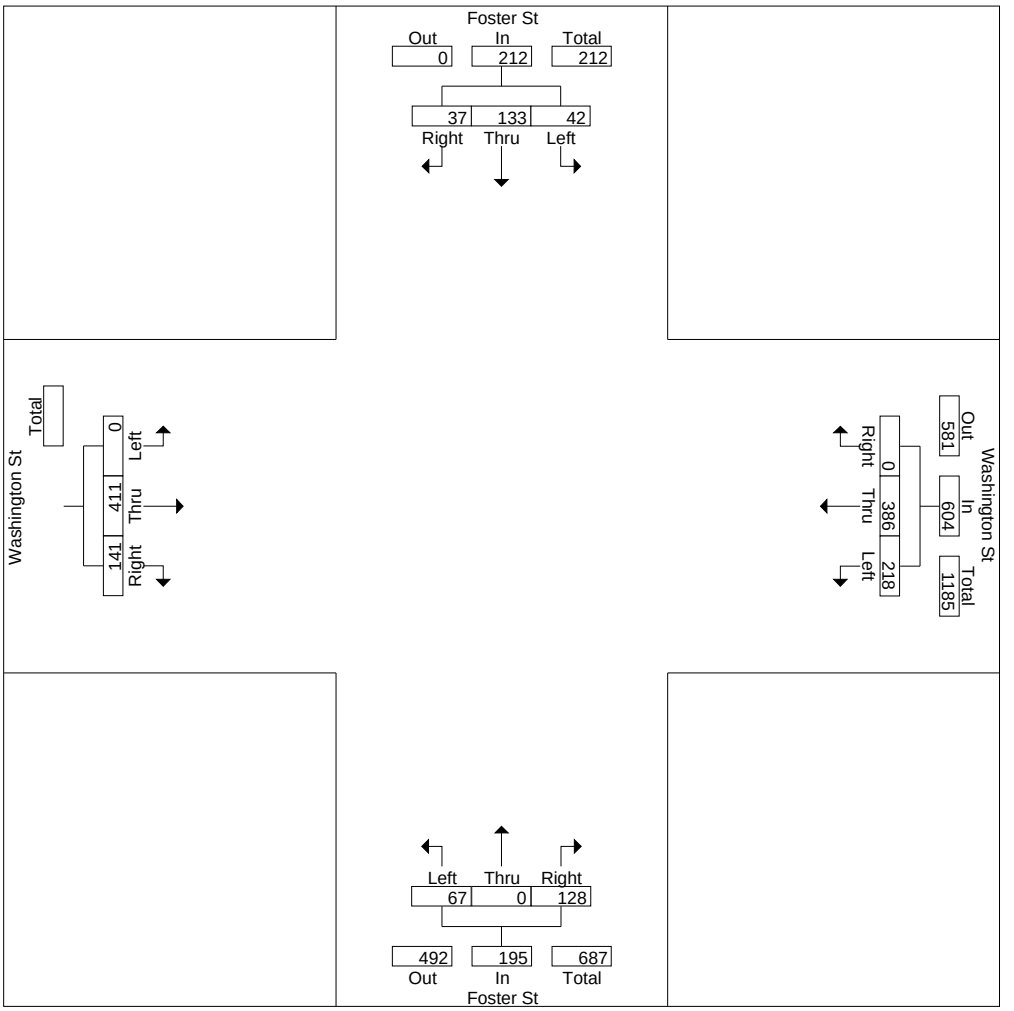
Start Date : 3/12/2008
Page No : 2Total



Accurate Counts
978-664-2565

File Name : 39000013
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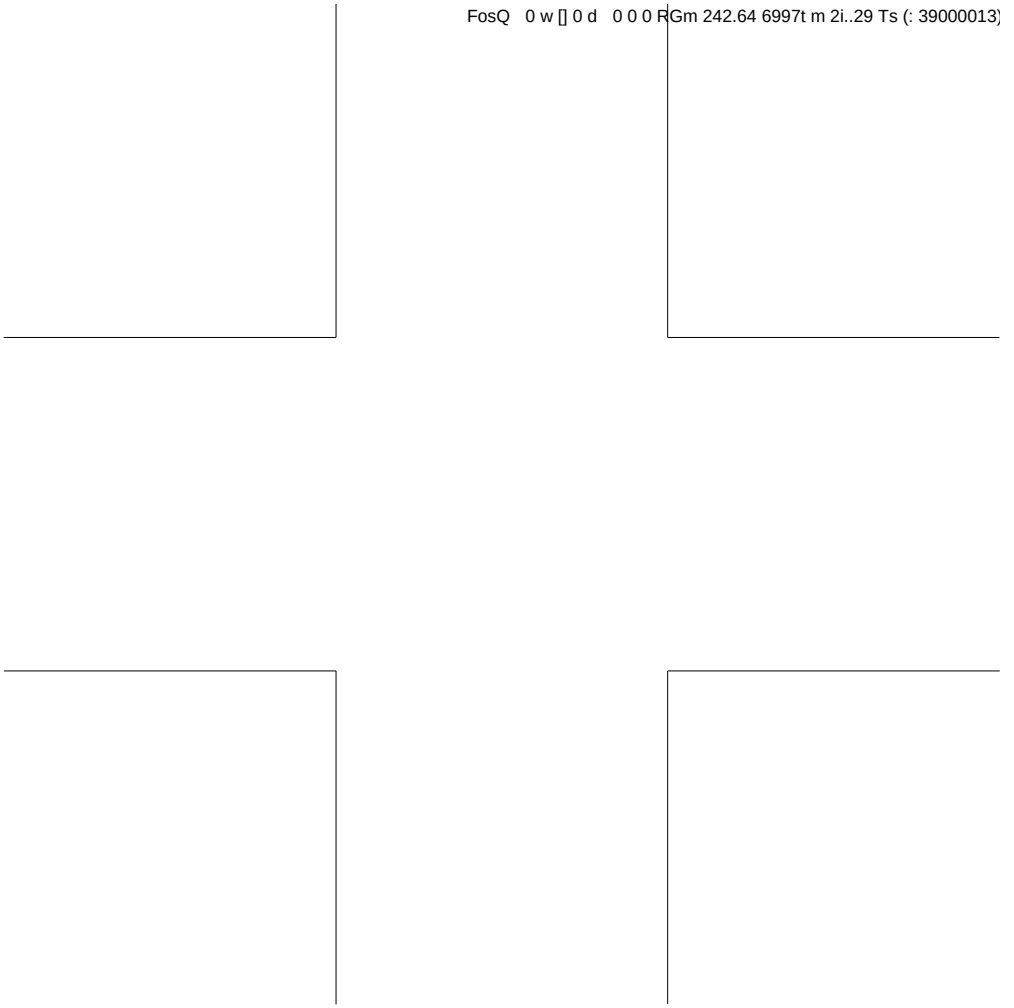
Start Date : 3/12/2008
Page No : 3

FosQ 0 w [] 0 d 0 0 0 RGm 242.64 6997t m 2i..29 Ts (: 39000013)



N/S Street : Foster Street
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 1

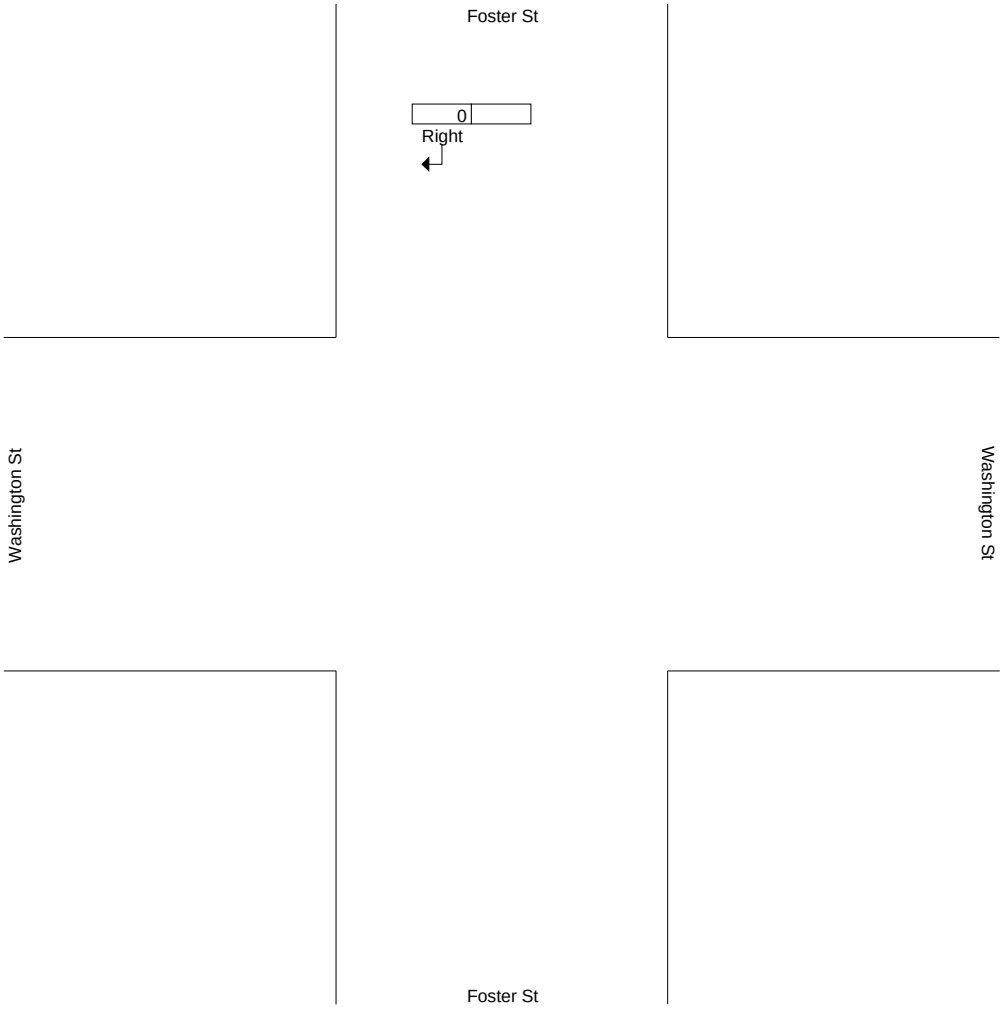
Groups Printed- Trucks

	Foster St From North				Washington St From East				Foster St From South				Washington St From West			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds

Accurate Counts
978-664-2565

Accurate Counts
978-664-2565

File Name : 39000013
Site Code : 39000013
Start Date : 3/12/2008
Page No : 3



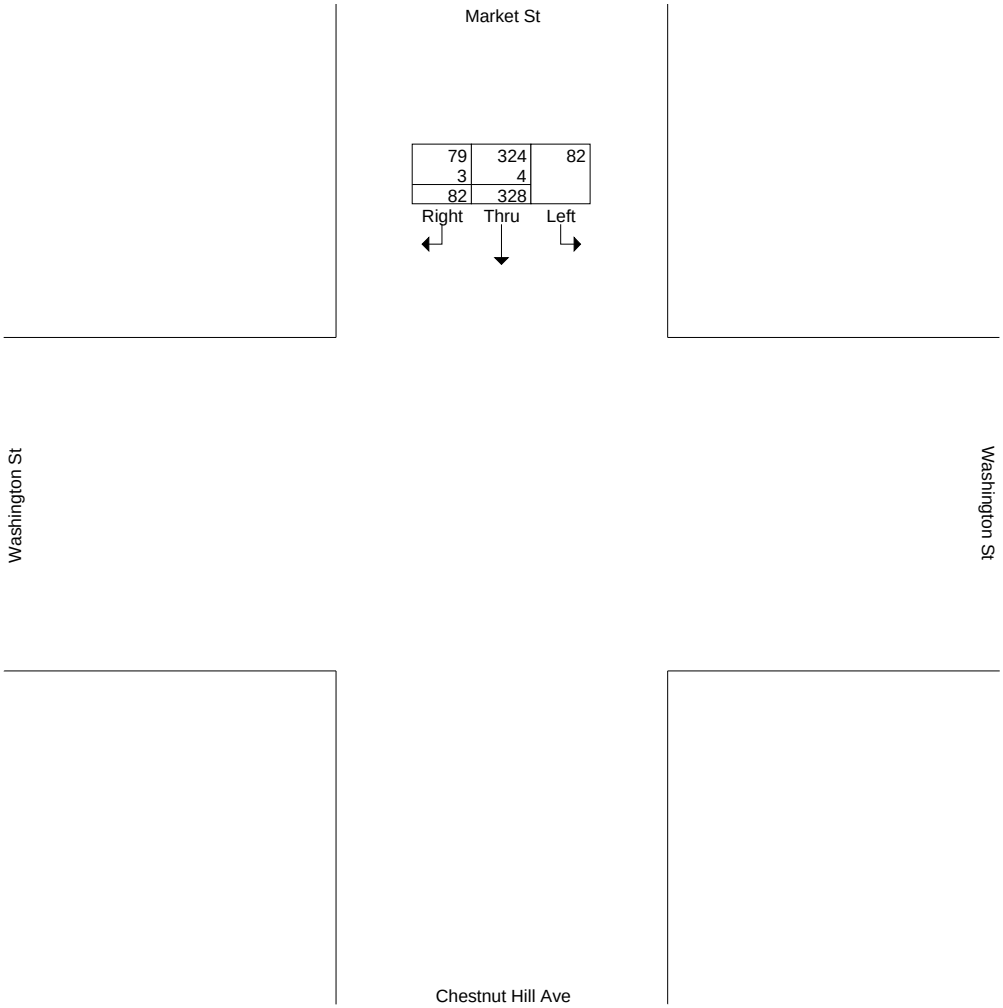
N/S Street : Market St / Chestnut Hill
E/W Street: Washington Street

Accurate Counts
978-664-2565

File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008

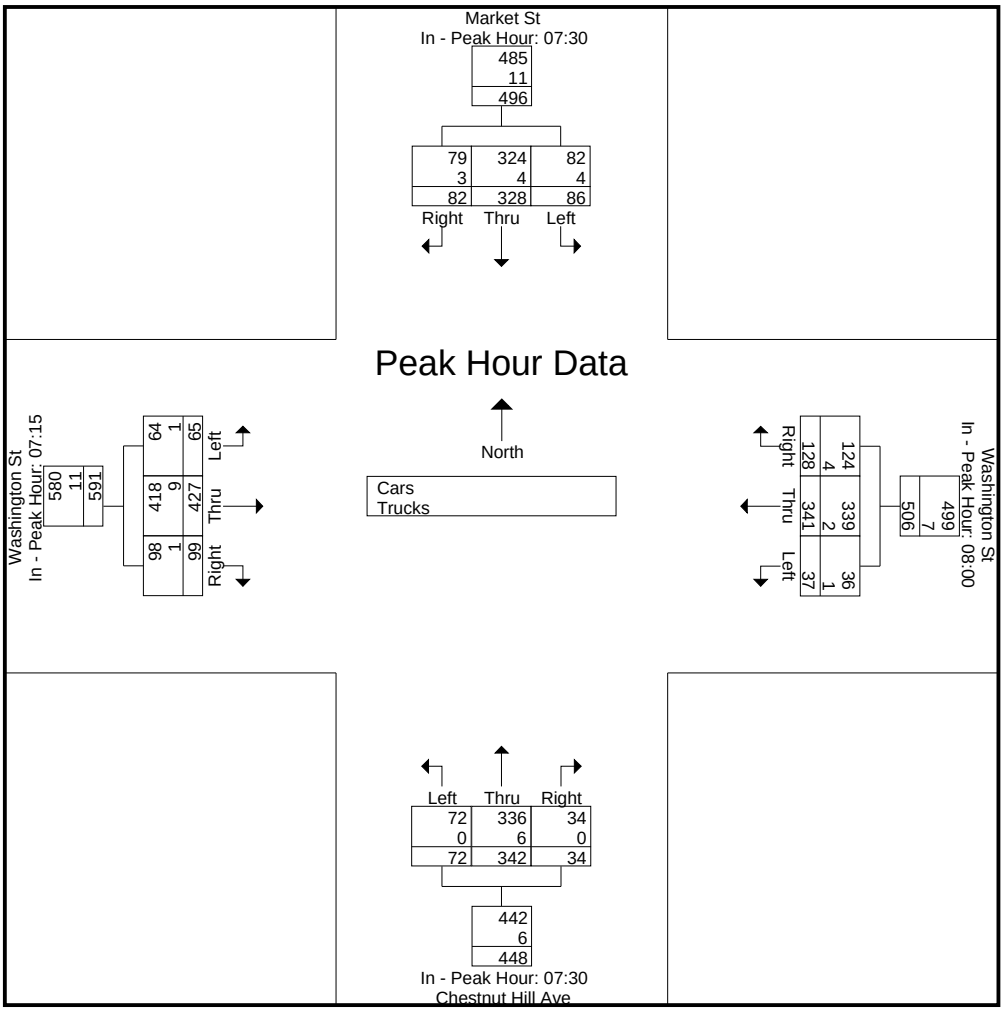
Accurate Counts
978-664-2565

File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 3



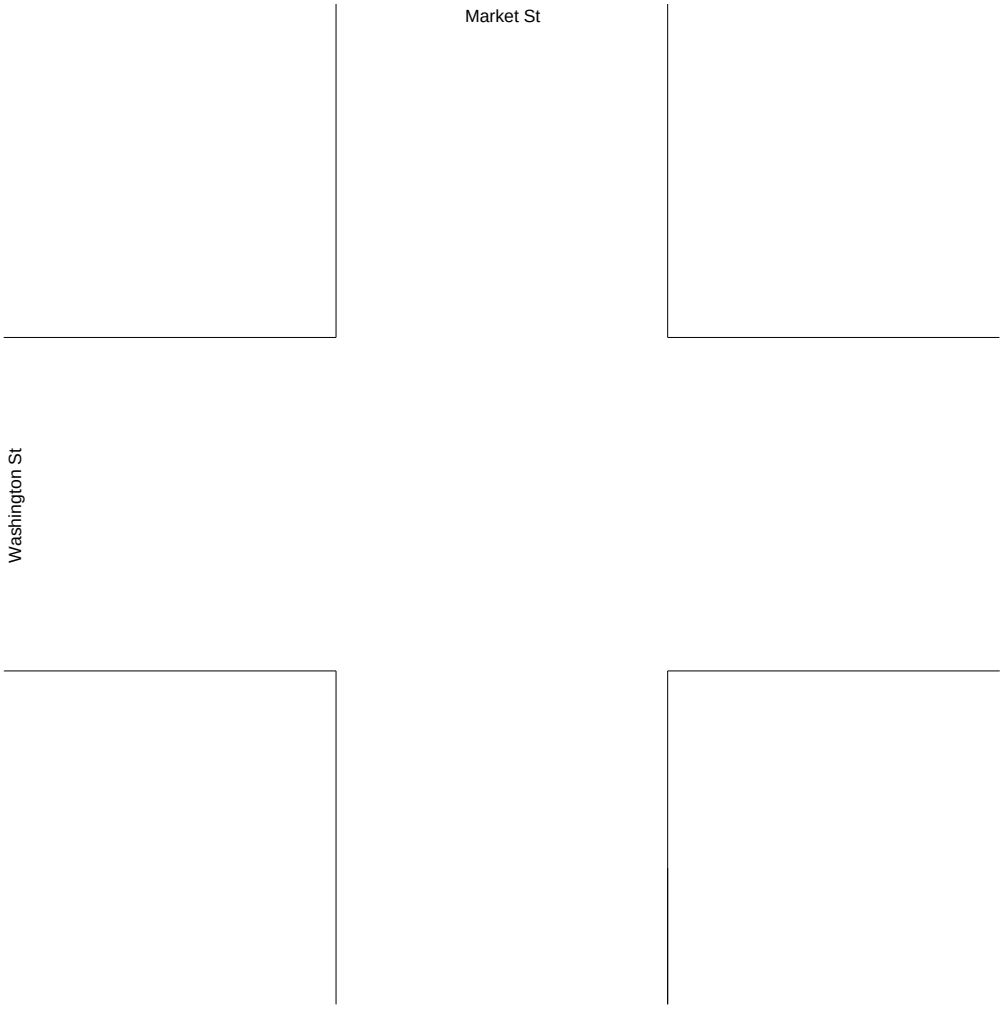
N/S Street : Market St / Chestnut Hill
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 1

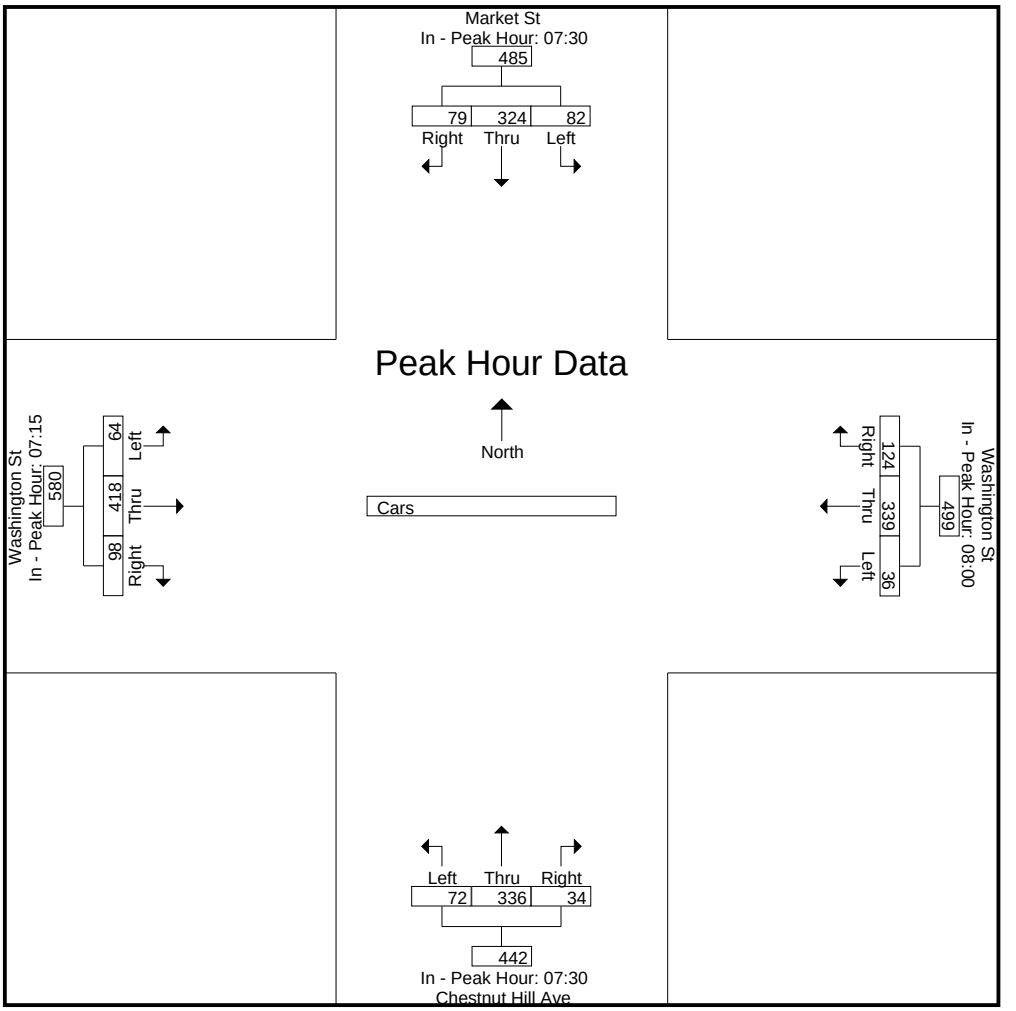
Groups Printed- Cars

	Market St From North				Washington St From East				Chestnut Hill Ave From South				Washington St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	17	51	13	0	3	97	17	3	21	71	6	1	9	90	31	2	6	426	432
07:15	17	69	29	0	4	102	9	7	21	54	8	2	26	109					


Market St
Washington St

Accurate Counts
978-664-2565

File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 3



N/S Street : Market St / Chestnut Hill
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

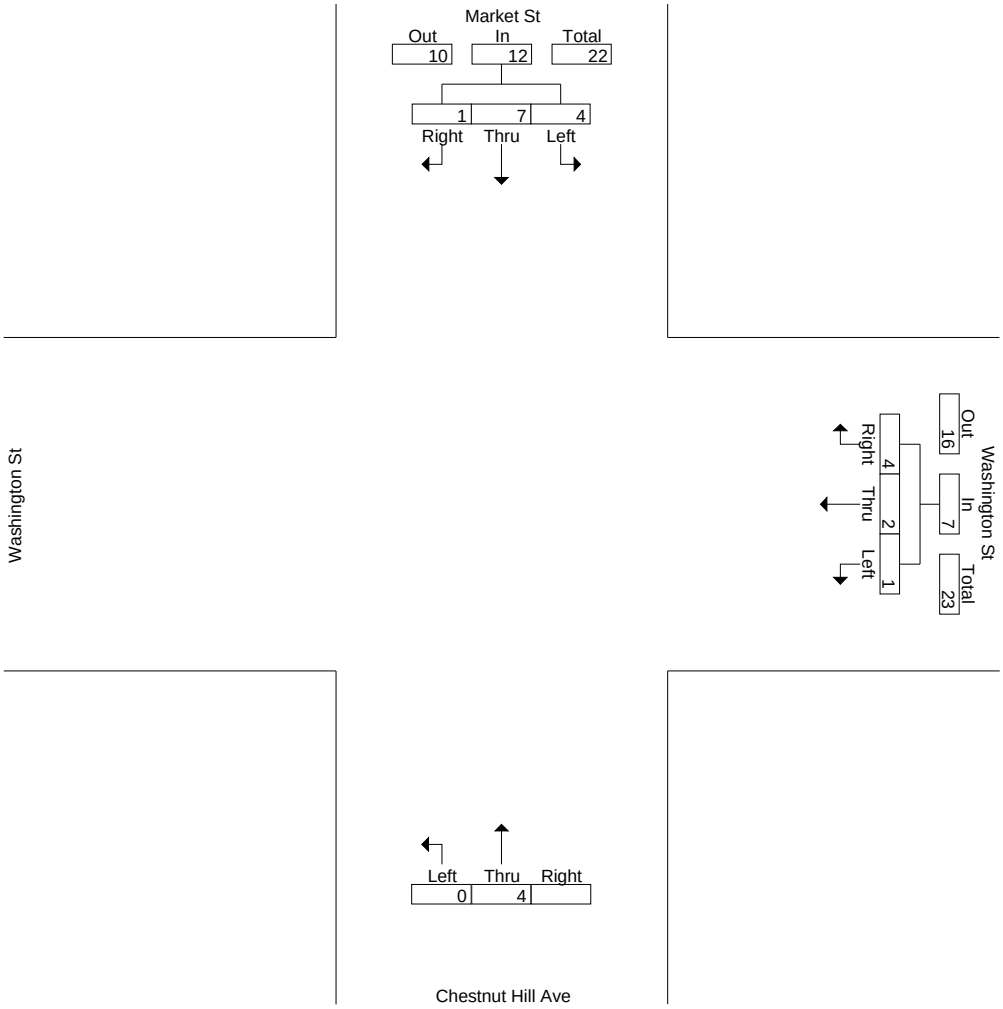
Accurate Counts
978-664-2565

File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 1

Groups Printed- Trucks

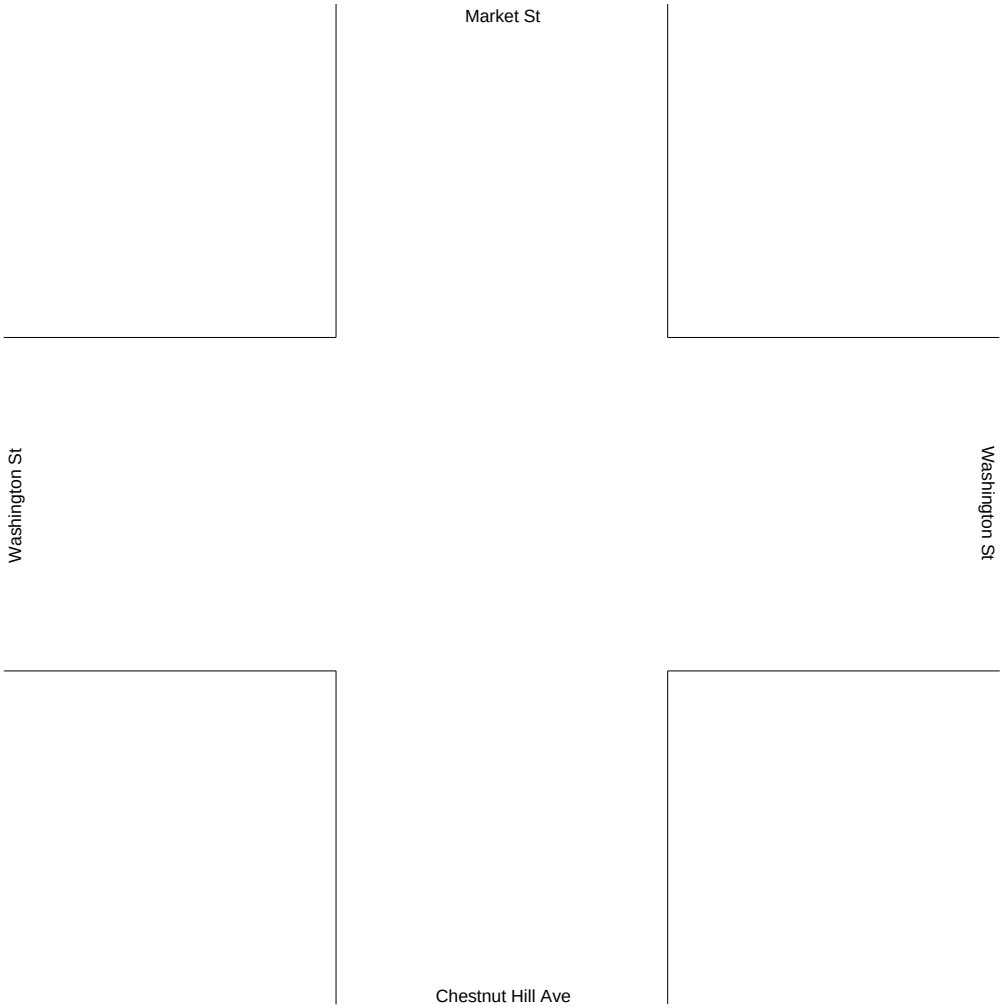
Accurate Counts
978-664-2565

File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 3



N/S Street : Market St / Chestnut Hill
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

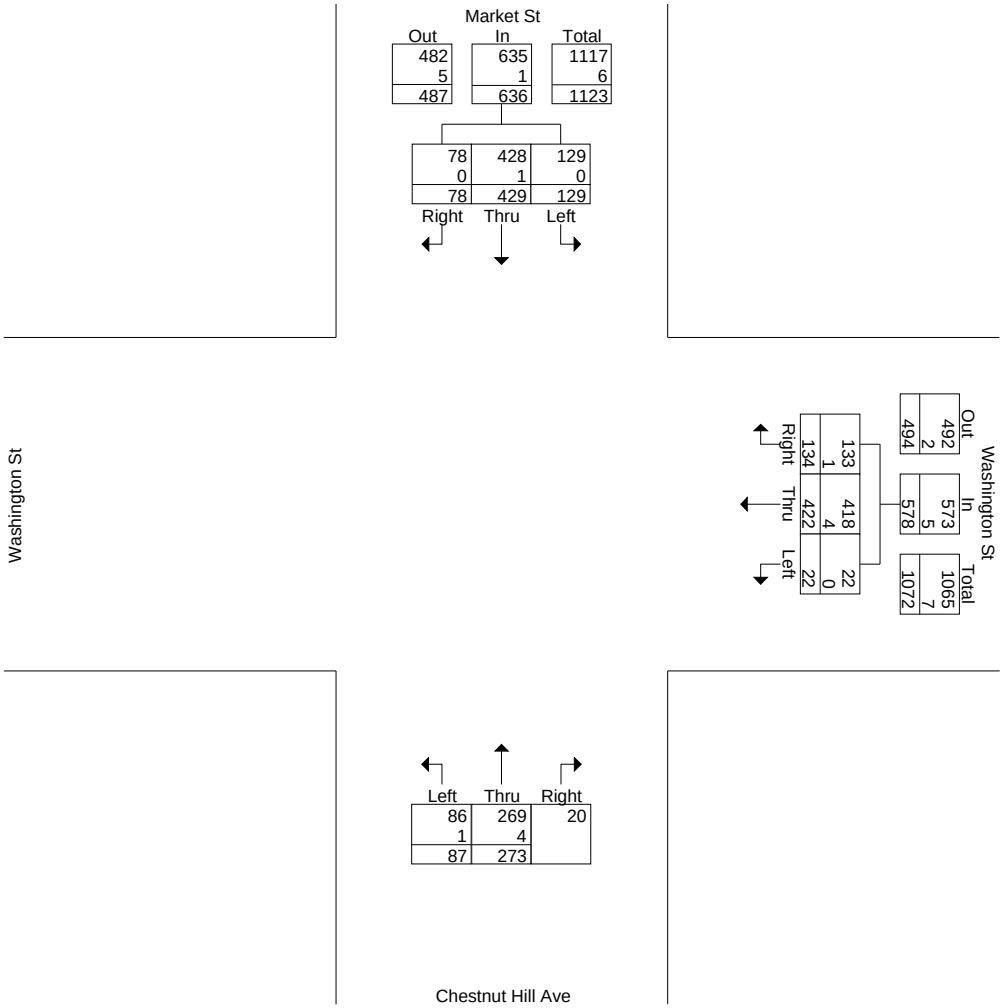
File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 1

Groups Printed- Cars - Trucks

	Market St From North	Washington St From East	Chestnut Hill Ave From South	Washington St From West
Start Time	Left			

Accurate Counts
978-664-2565

File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 2



N/S Street : Market St / Chestnut Hill
E/W Street: Washington Street
City/State : Brighton, MA
Weather : Rain

Accurate Counts
978-664-2565

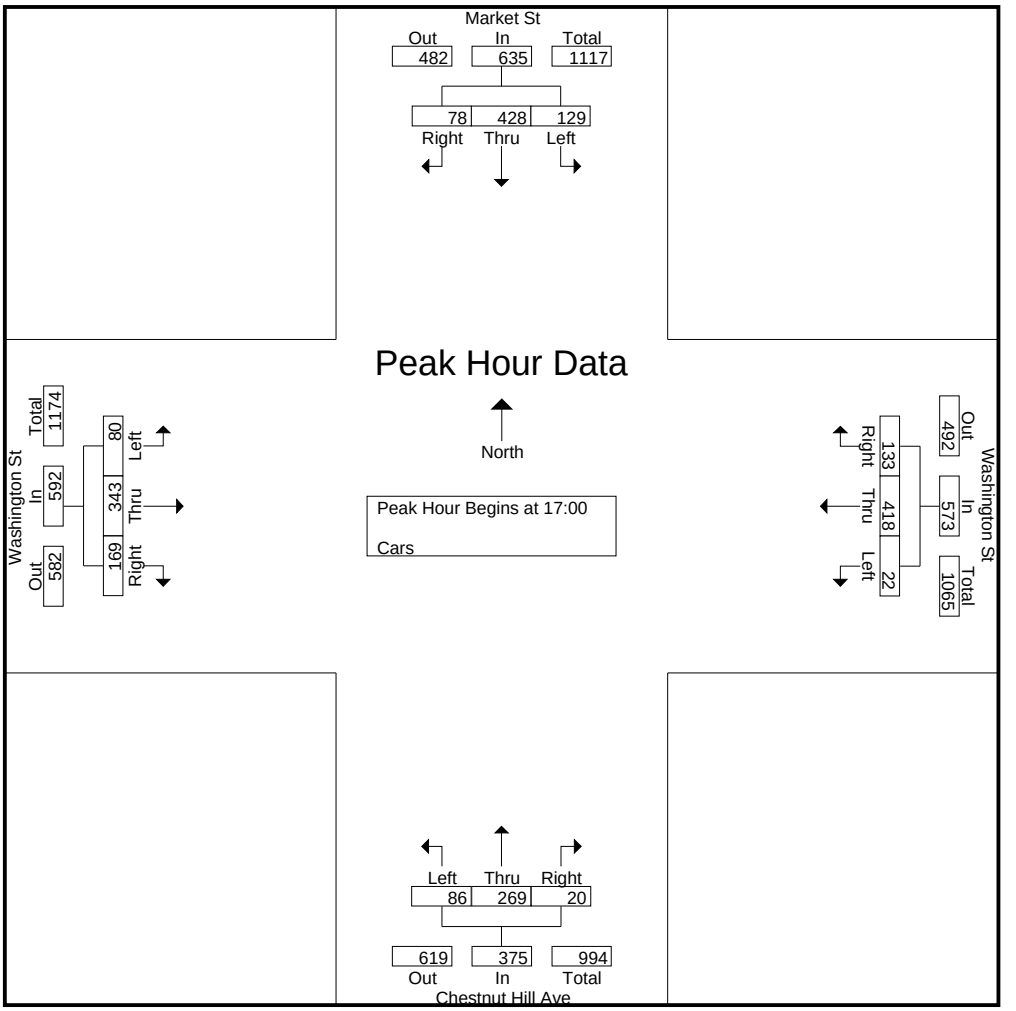
File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 1

Groups Printed- Cars

	Market St From North		Washington St From East	Chestnut Hill Ave From South	Washington St From West
Start Time	Left				

Accurate Counts
978-664-2565

File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 2



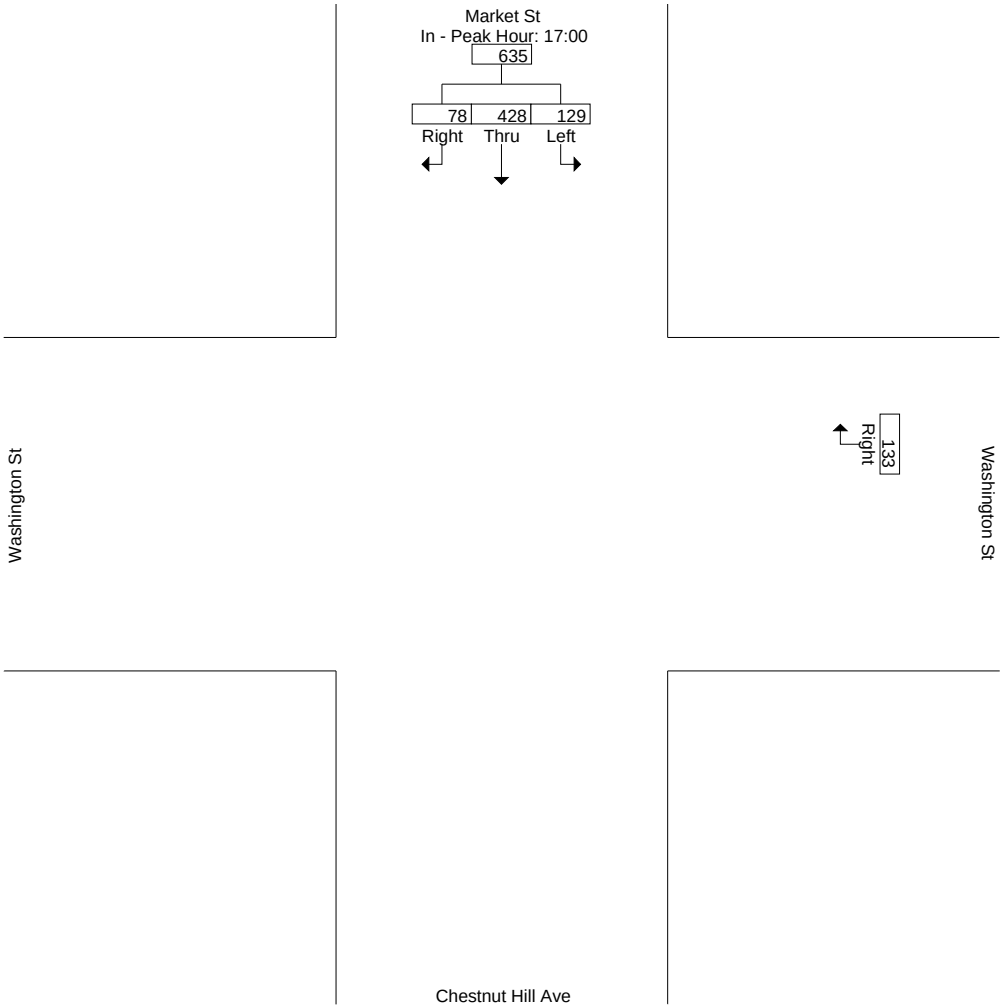
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00				17:00				16:00				17:00			
+0 mins.	37	104	12	153	7	91	30	128	27	67	10	104	20	86	38	144
+15 mins.	28	104	11	143	4	115	25	144	20	77	5	102	17	94	38	149
+30 mins.	31	111	26	168	3	111	46	160	13	57	9	79	16	71	46	133
+45 mins.	33	109	29	171	8	101	32	141	19	72	8	99	27	92	47	166
Total Volume	129	428	78	635	22	418	133	573	79	273	32	384	80	343	169	592
% App. Total	20.3	67.4	12.3		3.8	72.9	23.2		20.6	71.1	8.3		13.5	57.9	28.5	
PHF	.872	.964	.672	.928	.688	.909	.723	.895	.731	.886	.800	.923	.741	.912	.899	.892

Accurate Counts
978-664-2565

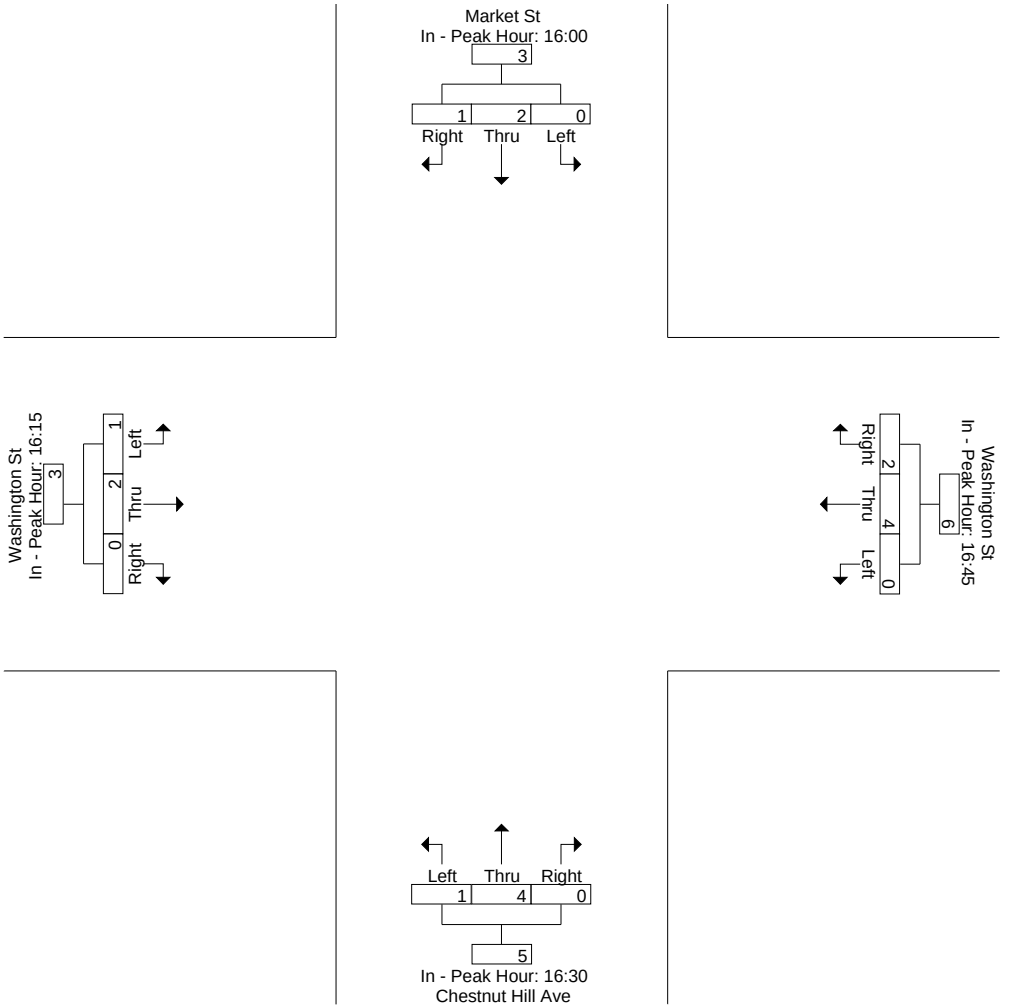
File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 3



Accurate Counts
978-664-2565

Accurate Counts
978-664-2565

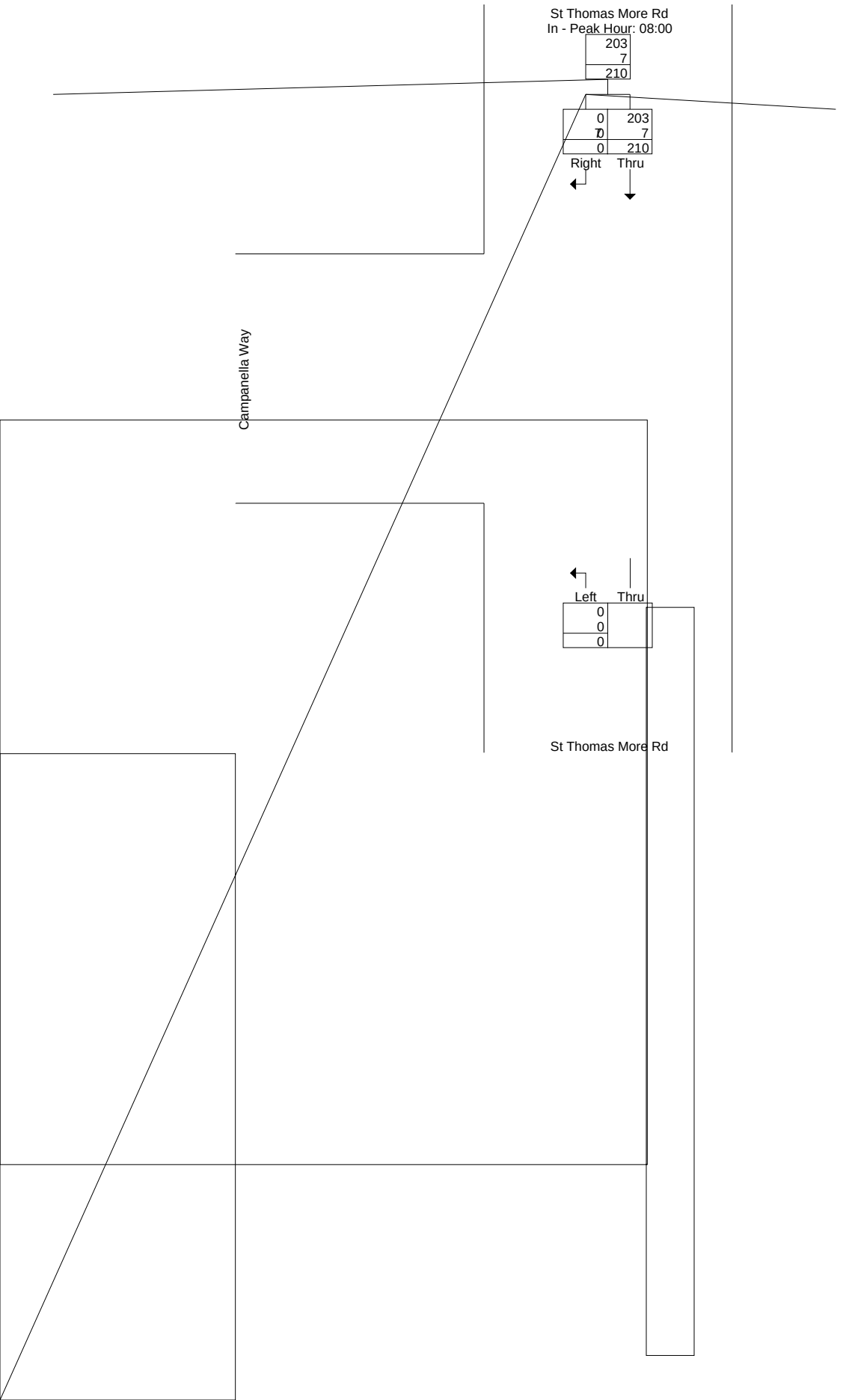
File Name : 39000014
Site Code : 39000014
Start Date : 3/12/2008
Page No : 3



Accurate Counts
978-664-2565

Accurate Counts
978-664-2565

File Name : 39000016
Site Code : 39000016
Start Date : 3/25/2008
Page No : 3



N/S Street : St. Thomas More Road
E/W Street: Campanella Way
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000016
Site Code : 39000016
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars

	St Thomas More Rd From North			St Thomas More Rd From South			Campanella Way From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	29	0	0	0	44	1	10	12	4	5	95	100
07:15	21	0	0	0	67	0	21	24	1	1	133	134
07:30	26	0	0	0	50	0	13	22	5	5	111	116
07:45	37	0	0	0	80	2	18	13	4	6	148	154
Total	113	0	0	0	241	3	62	71	14	17	487	504
08:00	43	0	0	0	80	0	17	8	1	1	148	149
08:15	44	0	0	0	98	4	15	10	4	8	167	175
08:30	52	0	0	0	94	2	14	9	5	7	169	176
08:45	64	0	0	0	107	4	17	23	6	10	211	221
Total	203	0	0	0	379	10	63	50	16	26	695	721
Grand Total	316	0	0	0	620	13	125	121	30	43	1182	1225
Apprch %	100	0		0	100		50.8	49.2				
Total %	26.7	0		0	52.5		10.6	10.2		3.5	96.5	

	St Thomas More Rd From North			St Thomas More Rd From South			Campanella Way From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. 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	43	0	43	0	80	80	17	8	25	148
08:15	44	0	44	0	98	98	15	10	25	167
08:30	52	0	52	0	94	94	14	9	23	169
08:45	64	0	64	0	107	107	17	23	40	211
Total Volume	203	0	203	0	379	379	63	50	113	695
% App. Total	100	0		0	100		55.8	44.2		
PHF	.793	.000	.793	.000	.886	.886	.926	.543	.706	.823

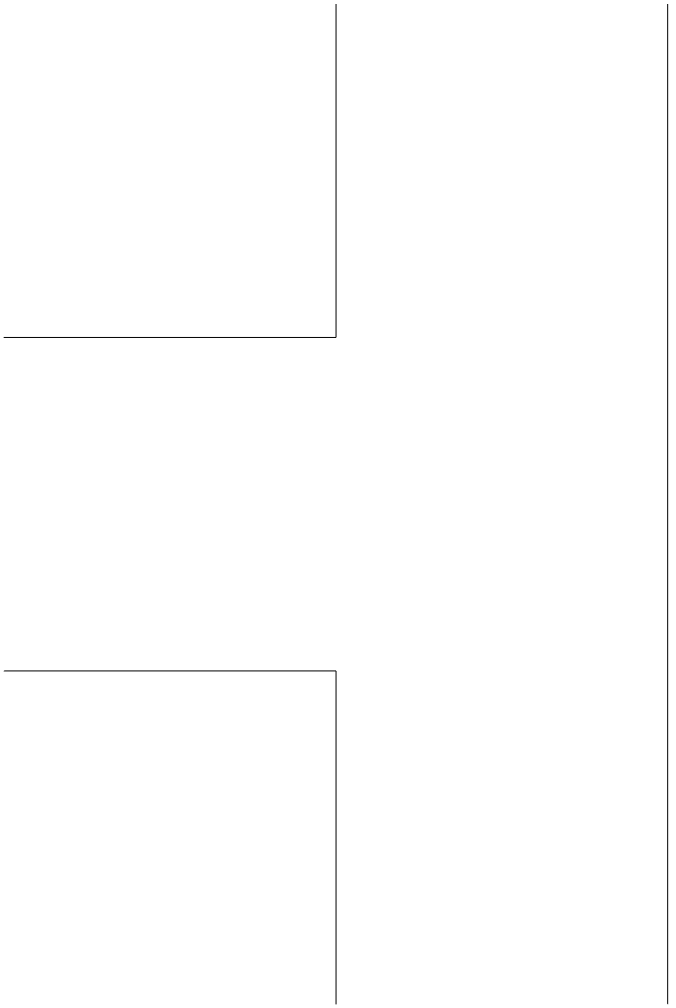
Accurate Counts
978-664-2565

Accurate Counts
978-664-2565

File Name : 39000016
Site Code : 39000016
Start Date : 3/25/2008

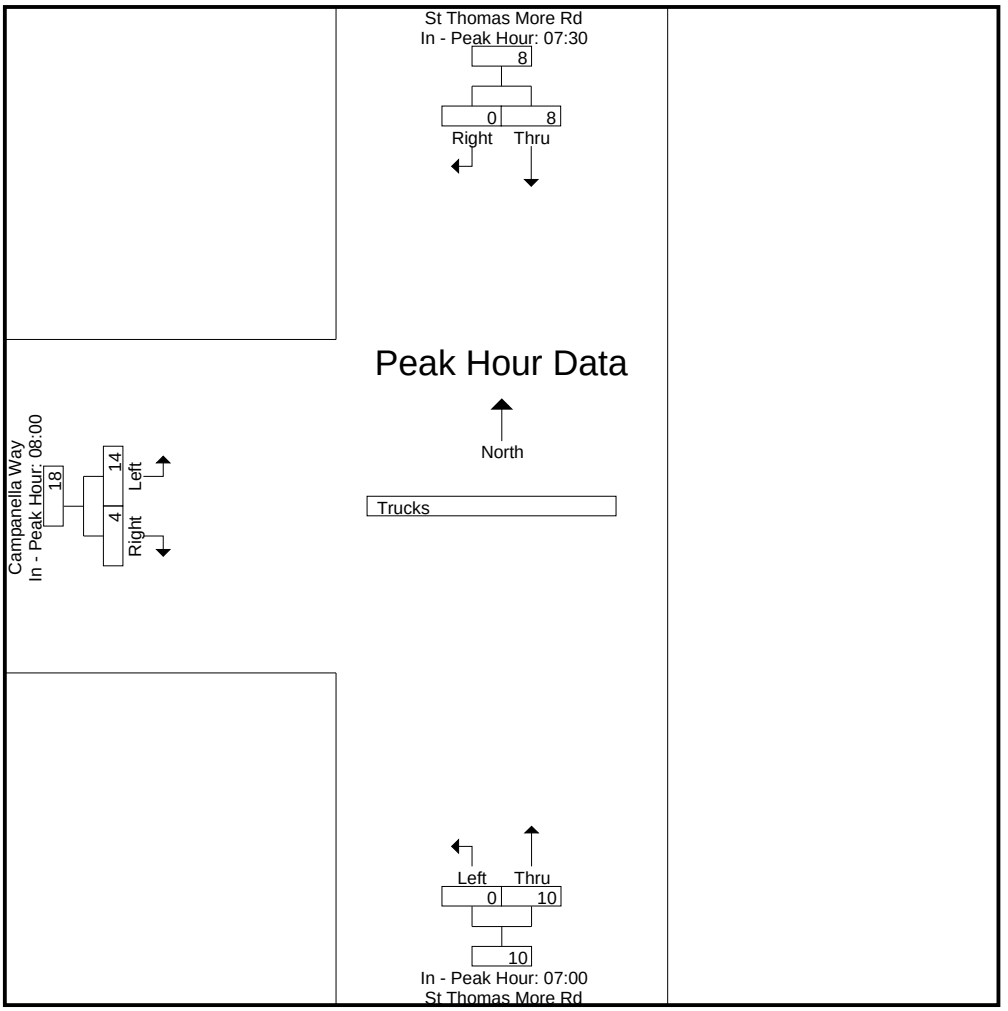
Accurate Counts
978-664-2565

File Name : 39000016
Site Code : 39000016
Start Date : 3/25/2008
Page No : 1



Accurate Counts
978-664-2565

File Name : 39000016
Site Code : 39000016
Start Date : 3/25/2008
Page No : 3



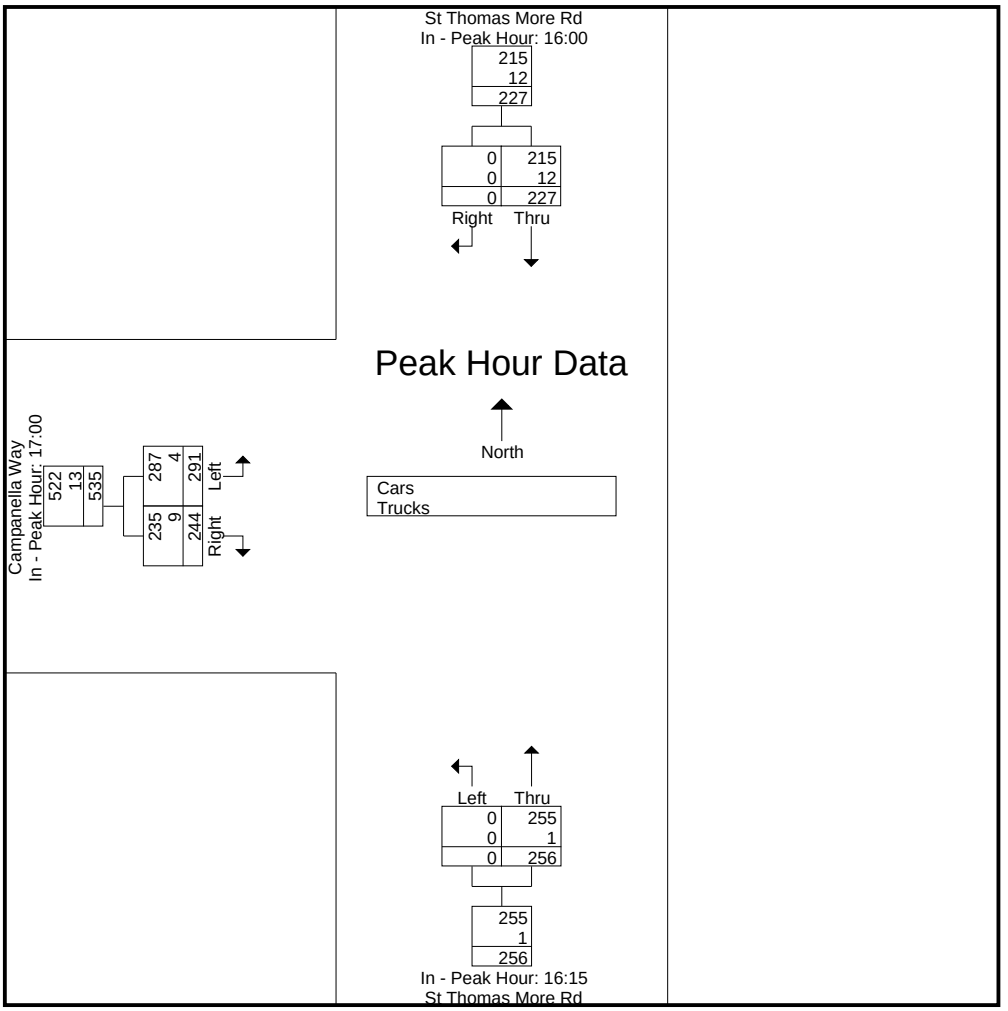
N/S Street : St. Thomas More Road
E/W Street: Campanella Way
City/State : Brighton, MA
Wea ET BT 517.56 -8.29 Ts (Page No) Tj ET BT 52on, MA

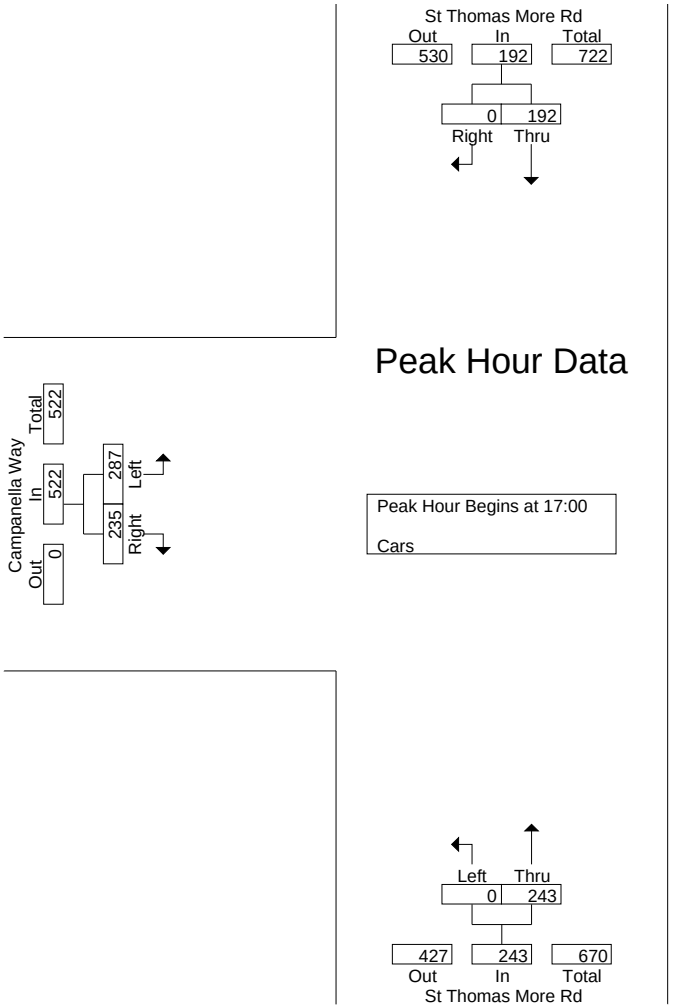
Accurate Counts
978-664-2565

File Name : 39000016
Site Code : 39000016
Start Date : 3/25/2008
Page No : 1

Accurate Counts
978-664-2565

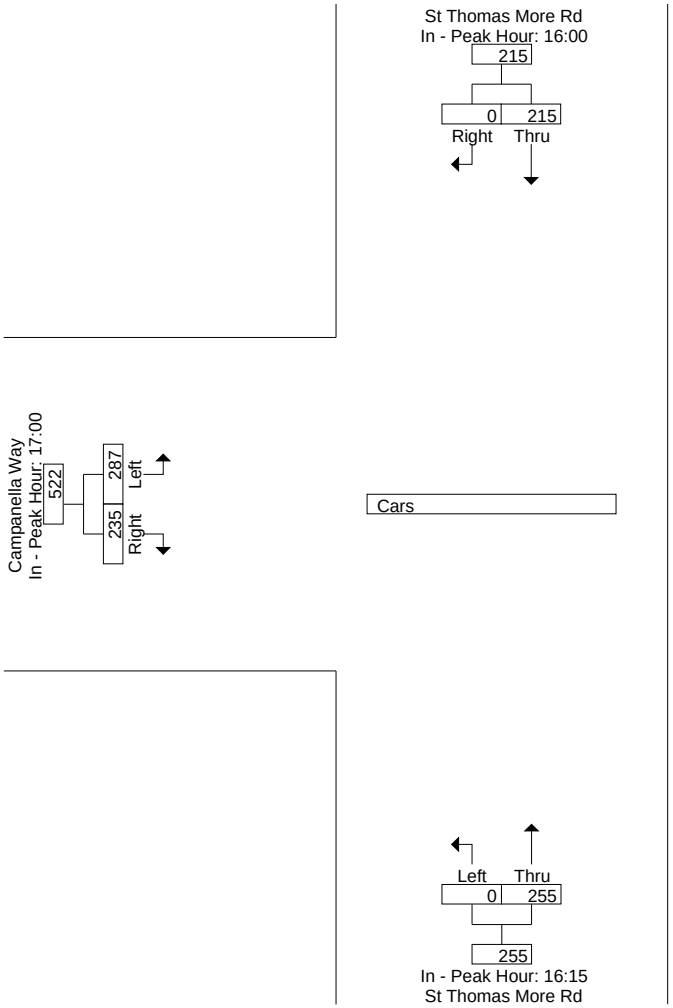
File Name : 39000016
Site Code : 39000016
Start Date : 3/25/2008
Page No : 3




St Thomas More Rd
Out
In
Total
530
192
722
0
192
Right
Thru
Peak Hour Data
Campanella Way
Total
522
In
522
287
Left
235
Right
Out
0
Peak Hour Begins at 17:00
Cars
Left
Thru
0
243
427
243
670
Out
In
Total
St Thomas More Rd

Accurate Counts
978-664-2565

File Name : 39000016
Site Code : 39000016
Start Date : 3/25/2008
Page No : 3



N/S Street : St. Thomas More Road
E/W Street: Campanella Way
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000016
Site Code : 39000016
Start Date : 3/25/2008
Page No : 1

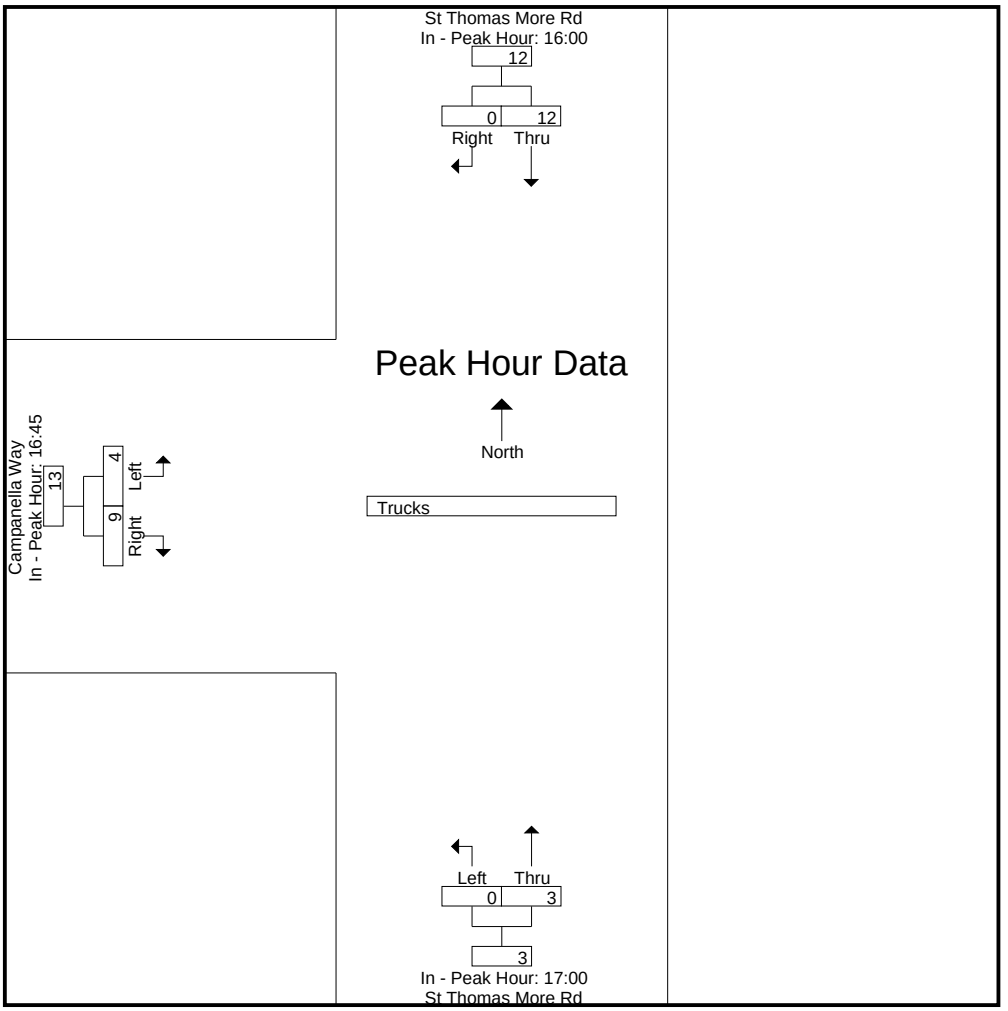
Groups Printed- Trucks

	St Thomas More Rd From North			St Thomas More Rd From South			Campanella Way From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	4	0	0	0	1	0	1	2	0	0	8	8
16:15	3	0	0	0	0	0	0	3	0	0	6	6
16:30	3	0	0	0	1	0	1	1	0	0	6	6
16:45	2	0	0	0	0	0	0	3	0	0	5	5
Total	12	0	0	0	2	0	2	9	0	0	25	25
17:00	3	0	0	0	0	0	1	3	0	0	7	7
17:15	1	0	0	0	0	0	0	1	0	0	2	2
17:30	2	0	0	0	2	0	3	2	0	0	9	9
17:45	1	0	0	0	1	0	0	3	0	0	5	5
Total	7	0	0	0	3	0	4	9	0	0	23	23
Grand Total	19	0	0	0	5	0	6	18	0	0	48	48
Apprch %	100	0		0	100		25	75				
Total %	39.6	0		0	10.4		12.5	37.5		0	100	

	St Thomas More Rd From North			St Thomas More Rd From South			Campanella Way From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. 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	4	0	4	0	1	1	1	2	3	8
16:15	3	0	3	0	0	0	0	3	3	6
16:30	3	0	3	0	1	1	1	1	2	6
16:45	2	0	2	0	0	0	0	3	3	5
Total Volume	12	0	12	0	2	2	2	9	11	25
% App. Total	100	0		0	100		18.2	81.8		
PHF	.750	.000	.750	.000	.500	.500	.500	.750	.917	.781

Accurate Counts
978-664-2565

File Name : 39000016
Site Code : 39000016
Start Date : 3/25/2008
Page No : 3



N/S Street : Foster Street
E/W Street: Driveway
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars - Trucks

	Foster St From North			Foster St From South			Driveway From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	67	3	0	4	34	0	0	1	3	3	109	112
07:15	72	9	0	0	35	0	0	2	4	4	118	122
07:30	106	4	0	1	33	0	0	1	1	1	145	146
07:45	109	9	0	0	47	0	1	3	0	0	169	169
Total	354	25	0	5	149	0	1	7	8	8	541	549
08:00	109	5	0	4	32	0	0	3	0	0	153	153
08:15	106	4	0	2	39	0	1	1	0	0	153	153
08:30	118	8	0	3	29	0	1	0	0	0	159	159
08:45	125	15	0	2	38	0	1	1	0	0	182	182
Total	458	32	0	11	138	0	3	5	0	0	647	647
Grand Total	812	57	0	16	287	0	4	12	8	8	1188	1196
Apprch %	93.4	6.6		5.3	94.7		25	75				
Total %	68.4	4.8		1.3	24.2		0.3	1		0.7	99.3	
Cars	802	57		15	284		3	12		0	0	1181
% Cars	98.8	100	0	93.8	99	0	75	100	100	0	0	98.7
Trucks	10	0		1	3		1	0		0	0	15
% Trucks	1.2	0	0	6.2	1	0	25	0	0	0	0	1.3

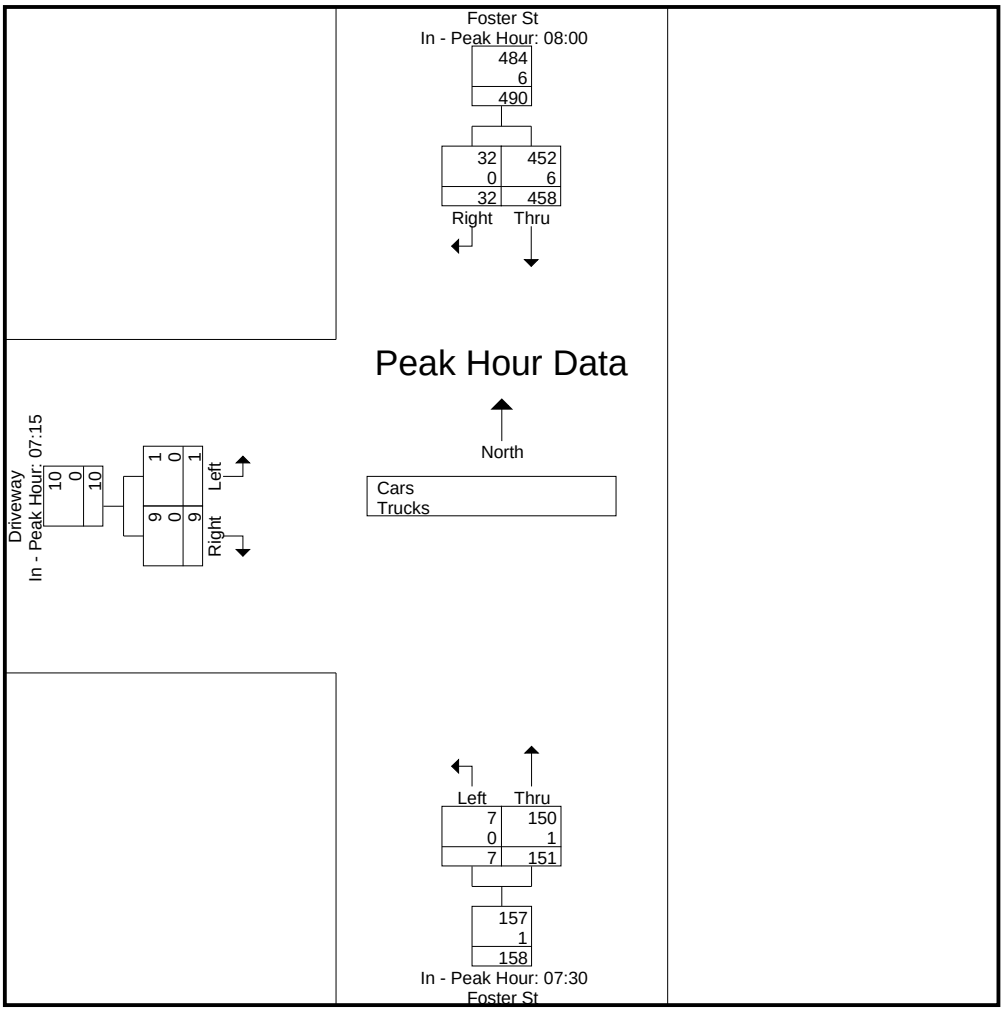
	Foster St From North			Foster St From South			Driveway From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 3



N/S Street : Foster Street
E/W Street: Driveway
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

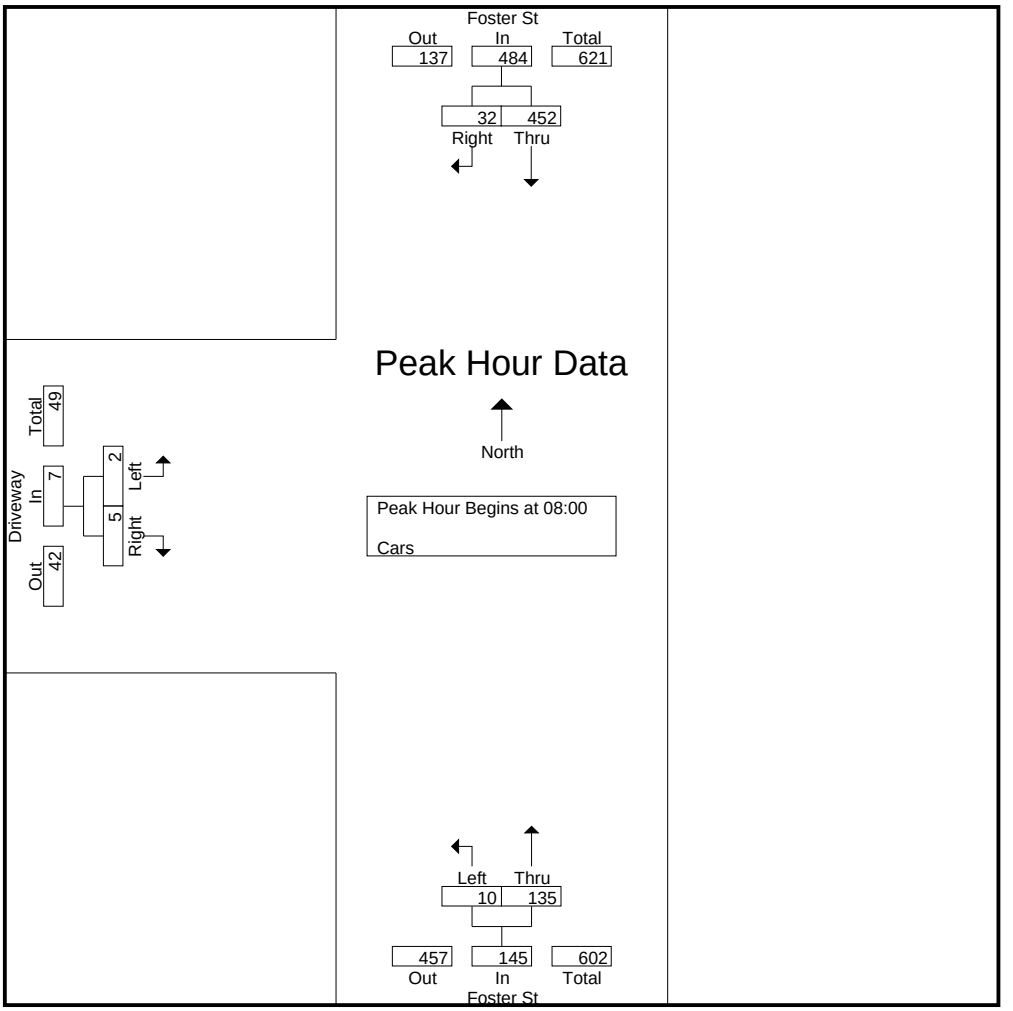
File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars

	Foster St From North			Foster St From South			Driveway From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	66	3	0	4	34	0	0	1	3	3	108	111
07:15	72	9	0	0	35	0	0	2	4	4	118	122
07:30	104	4	0	1	33	0	0	1	1	1	143	144
07:45	108	9	0	0	47	0	1	3	0	0	168	168
Total	350	25	0	5	149	0	1	7	8	8	537	545
08:00	108	5	0	4	32	0	0	3	0	0	152	152
08:15	105	4	0	2	38	0	1	1	0	0	151	151
08:30	118	8	0	3	29	0	1	0	0	0	159	159
08:45	121	15	0	1	36							

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 2



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

Peak Hour for Each Approach Begins at:

	08:00			07:30			07:15		
+0 mins.	108	5	113	1	33	34	0	2	2
+15 mins.	105	4	109	0	47	47	0	1	1
+30 mins.	118	8	126	4	32	36	1	3	4

N/S Street : Foster Street
E/W Street: Driveway
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 1

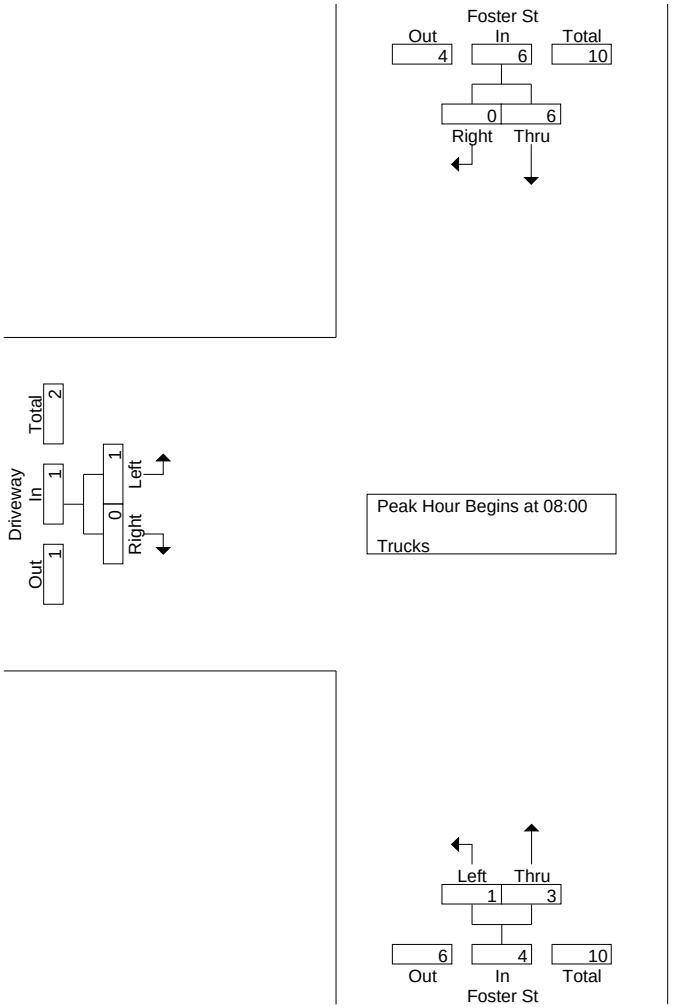
Groups Printed- Trucks

	Foster St From North			Foster St From South			Driveway From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	1	0	0	0	0	0	0	0	0	0	1	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0
07:30	2	0	0	0	0	0	0	0	0	0	2	2
07:45	1	0	0	0	0	0	0	0	0	0	1	1
Total	4	0	0	0	0	0	0	0	0	0	4	4
08:00	1	0	0	0	0	0	0	0	0	0	1	1
08:15	1	0	0	0	1	0	0	0	0	0	2	2
08:30	0	0	0	0	0	0	0	0	0	0	0	0
08:45	4	0	0	1	2	0	1	0	0	0	8	8
Total	6	0	0	1	3	0	1	0	0	0	11	11
Grand Total	10	0	0	1	3	0	1	0	0	0	15	15
Apprch %	100	0		25	75		100	0				
Total %	66.7	0		6.7	20		6.7	0		0	100	

	Foster St From North			Foster St From South			Driveway From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. 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	1	0	1	0	0	0	0	0	0	1
08:15	1	0	1	0	1	1	0	0	0	2
08:30	0	0	0	0	0	0	0	0	0	0
08:45	4	0	4	1	2	3	1	0	1	8
Total Volume	6	0	6	1	3	4	1	0	1	11
% App. Total	100	0		25	75		100	0		
PHF	.375	.000	.375	.250	.375	.333	.250	.000	.250	.344

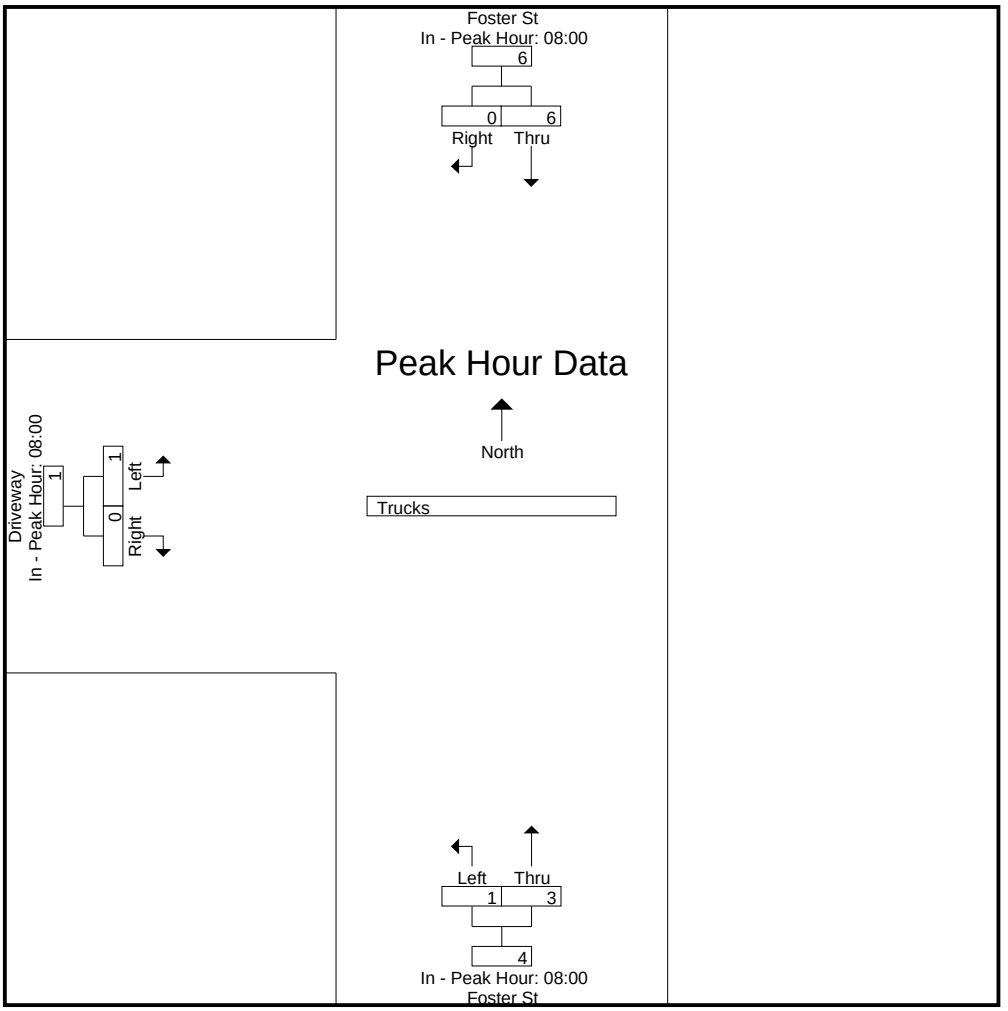
Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 3



N/S Street : Foster Street
E/W Street: Driveway
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars - Trucks

	Foster St From North			Foster St From South			Driveway From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	107	0	0	2	28	0	3	1	0	0	141	141
16:15	114	5	0	2	21	2	1	2	2	4	145	149
16:30	118	4	0	1	32	0	4	1	1	1	160	161
16:45	84	4	1	0	17	0	2	4	3	4	111	115
Total	423	13	1	5	98	2	10	8	6	9	557	566
17:00	108	2	0	2	29	1	6	2	6	7	149	156
17:15	127	1	0	1	38	0	4	2	3	3	173	176
17:30	117	2	0	1	24	0	1	1	1	1	146	147
17:45	136	4	1	0	22	0	3	5	2	3	170	173
Total	488	9	1	4	113	1	14	10	12	14	638	652
Grand Total	911	22	2	9	211	3	24	18	18	23	1195	1218
Apprch %	97.6	2.4		4.1	95.9		57.1	42.9				
Total %	76.2	1.8		0.8	17.7		2	1.5		1.9	98.1	
Cars	903	22		8	207		24	18		0	0	1205
% Cars	99.1	100	100	88.9	98.1	100	100	100	100	0	0	98.9
Trucks	8	0		1	4		0	0		0	0	13
% Trucks	0.9	0	0	11.1	1.9	0	0	0	0	0	0	1.1

	Foster St From North			Foster St From South			Driveway From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. 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	108	2	110	2	29	31	6	2	8	149
17:15	127	1	128	1	38	39	4	2	6	173
17:30	117	2	119	1	24	25	1	1	2	146
17:45	136	4	140	0	22	22	3	5	8	170
Total Volume	488	9	497	4	113	117	14	10	24	638
% App. Total	98.2	1.8		3.4	96.6		58.3	41.7		
PHF	.897	.563	.888	.500	.743	.750	.583	.500	.750	.922
Cars	485	9	494	3	112	115	14	10	24	633
% Cars	99.4	100	99.4	75.0	99.1	98.3	100	100	100	99.2
Trucks	3	0	3	1	1	2	0	0	0	5
% Trucks	0.6	0	0.6	25.0	0.9	1.7	0	0	0	0.8

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
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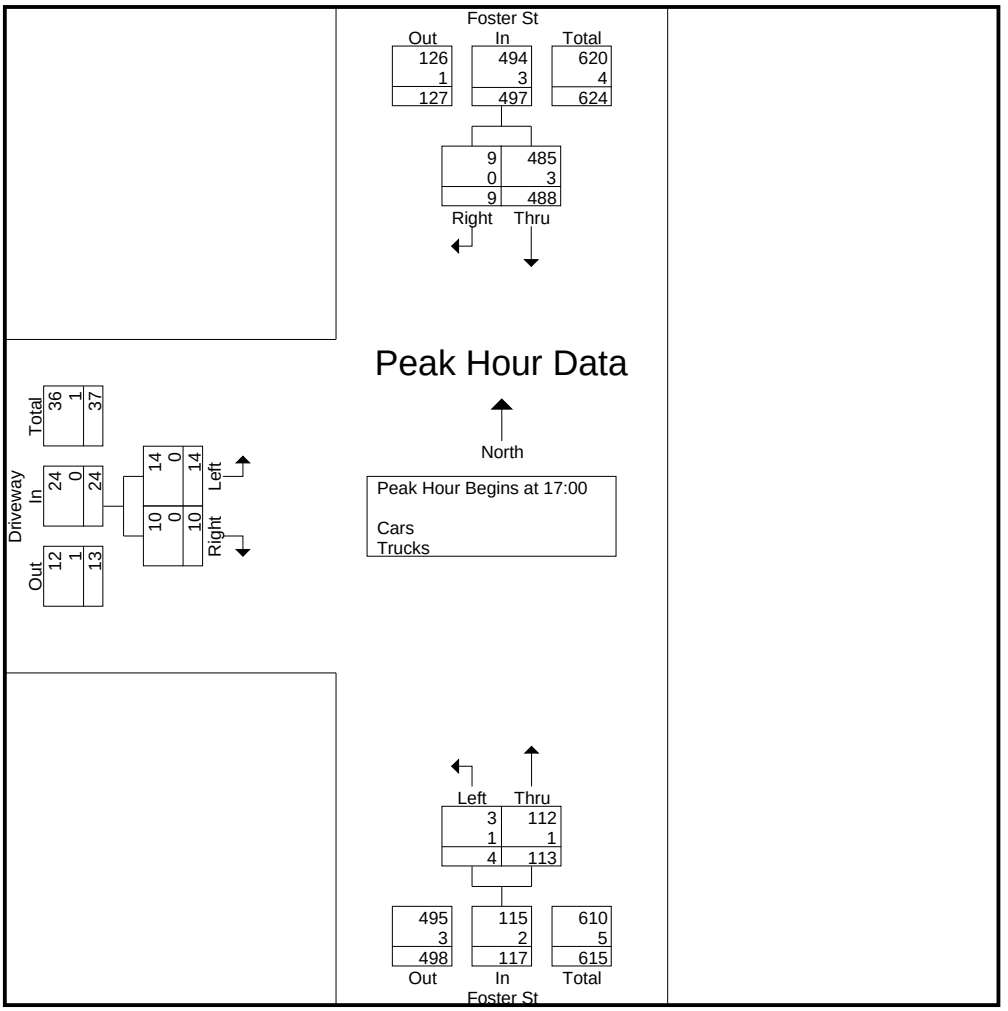

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00			16:30			16:30		
+0 mins.	108	2	110	1	32	33	4	1	5
+15 mins.	127	1	128	0	17	17	2	4	6
+30 mins.	117	2	119	2	29	31	6	2	8
+45 mins.	136	4	140	1	38	39	4	2	6
Total Volume	488	9	497	4	116	120	16	9	25
% App. Total	98.2	1.8		3.3	96.7		64	36	
PHF	.897	.563	.888	.500	.763	.769	.667	.563	.781
Cars	485	9	494	3	114	117	16	9	25
% Cars	99.4	100	99.4	75	98.3	97.5	100	100	100
Trucks	3	0	3	1	2	3	0	0	0
% Trucks	0.6	0	0.6	25	1.7	2.5	0	0	0

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
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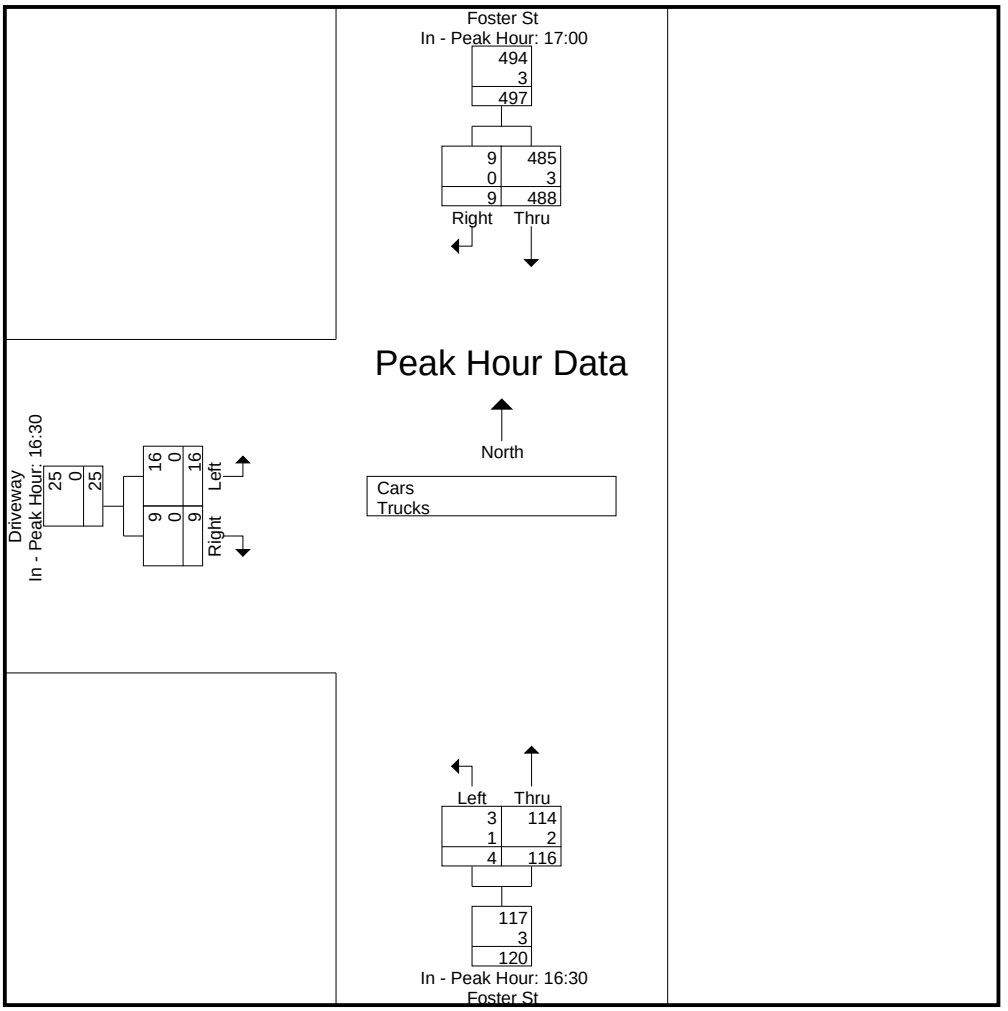


N/S Street : Foster Street
E/W Street: Driveway
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars

	Foster St From North			Foster St From South			Driveway From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	105	0	0	2	28	0	3	1	0	0	139	139
16:15	111	5	0	2	20	2	1	2	2	4	141	145
16:30	118	4	0	1	31	0	4	1	1	1	159	160
16:45	84	4	1	0	16	0	2	4	3	4	110	114
Total	418	13	1	5	95	2	10	8	6	9	549	558
17:00	106	2	0	1	29	1	6	2	6	7	146	153
17:15	127	1	0	1	38	0	4	2	3	3	173	176
17:30	117	2	0	1	24	0	1	1	1	1	146	147
17:45	135	4	1	0	21	0	3	5	2	3	168	171
Total	485	9	1	3	112	1	14	10	12	14	633	647
Grand Total	903	22	2	8	207	3	24	18	18	23	1182	1205
Apprch %	97.6	2.4		3.7	96.3		57.1	42.9				
Total %	76.4	1.9		0.7	17.5		2	1.5				

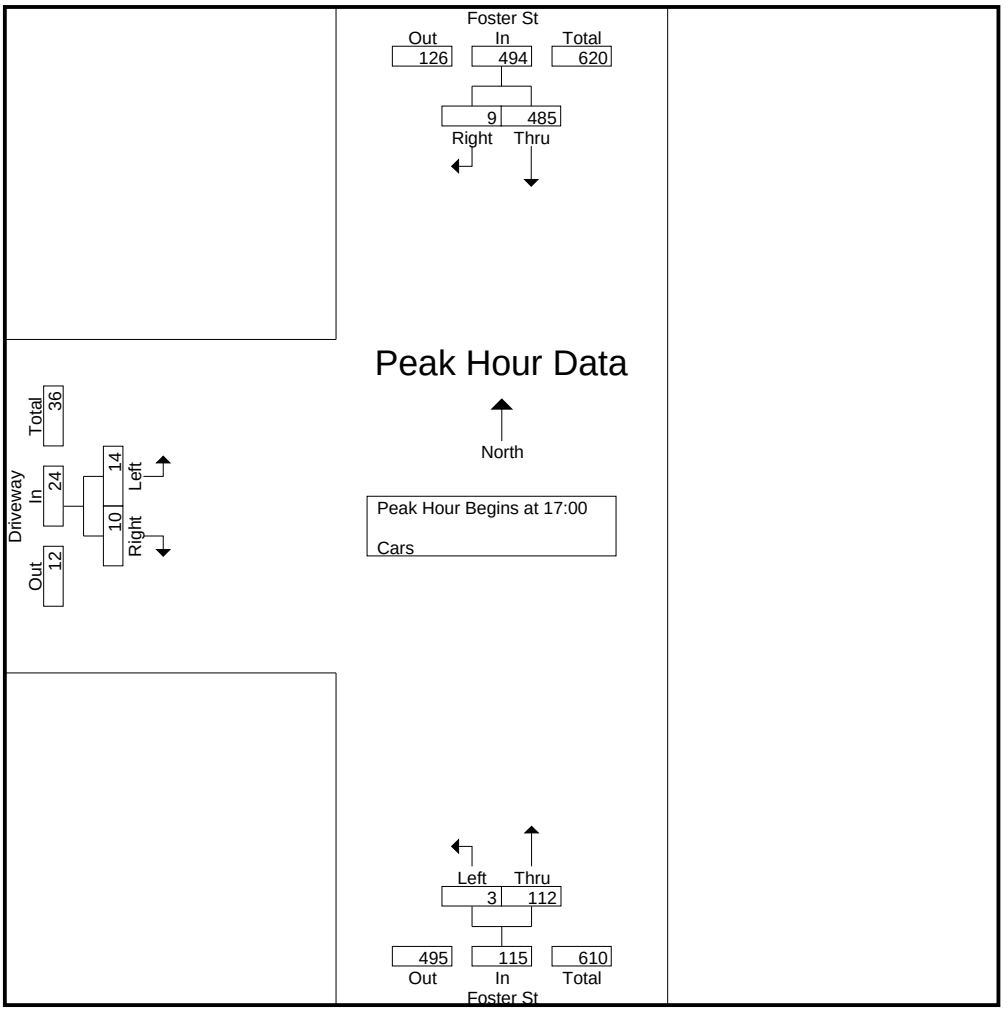
17:00

112

160

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 2



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		
+0 mins.	106	2	108	1	31	32	4	1	5
+15 mins.	127	1	128	0	16	16	2	4	6
+30 mins.	117	2	119	1	29	30	6	2	8
+45 mins.	135	4	139	1	38	39	4	2	6
Total Volume	485	9	494	3	114	117	16	9	25
% App. Total	98.2	1.8		2.6	97.4		64	36	
PHF	.898	.563	.888	.750	.750	.750	.667	.563	.781

Accurate Counts
978-664-2565

File Name : 39000017
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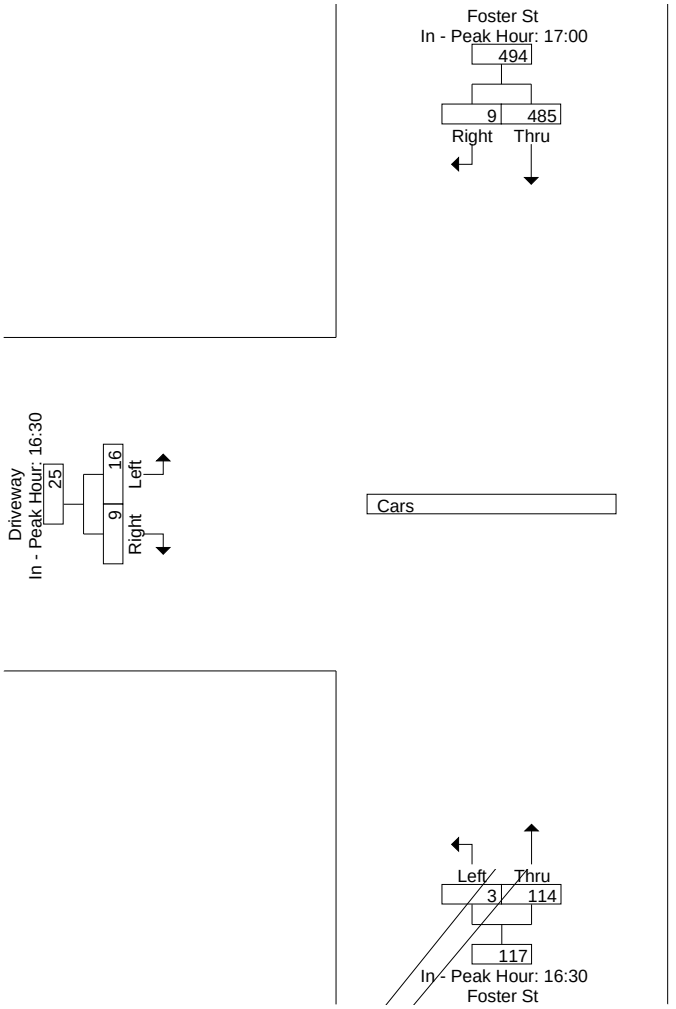
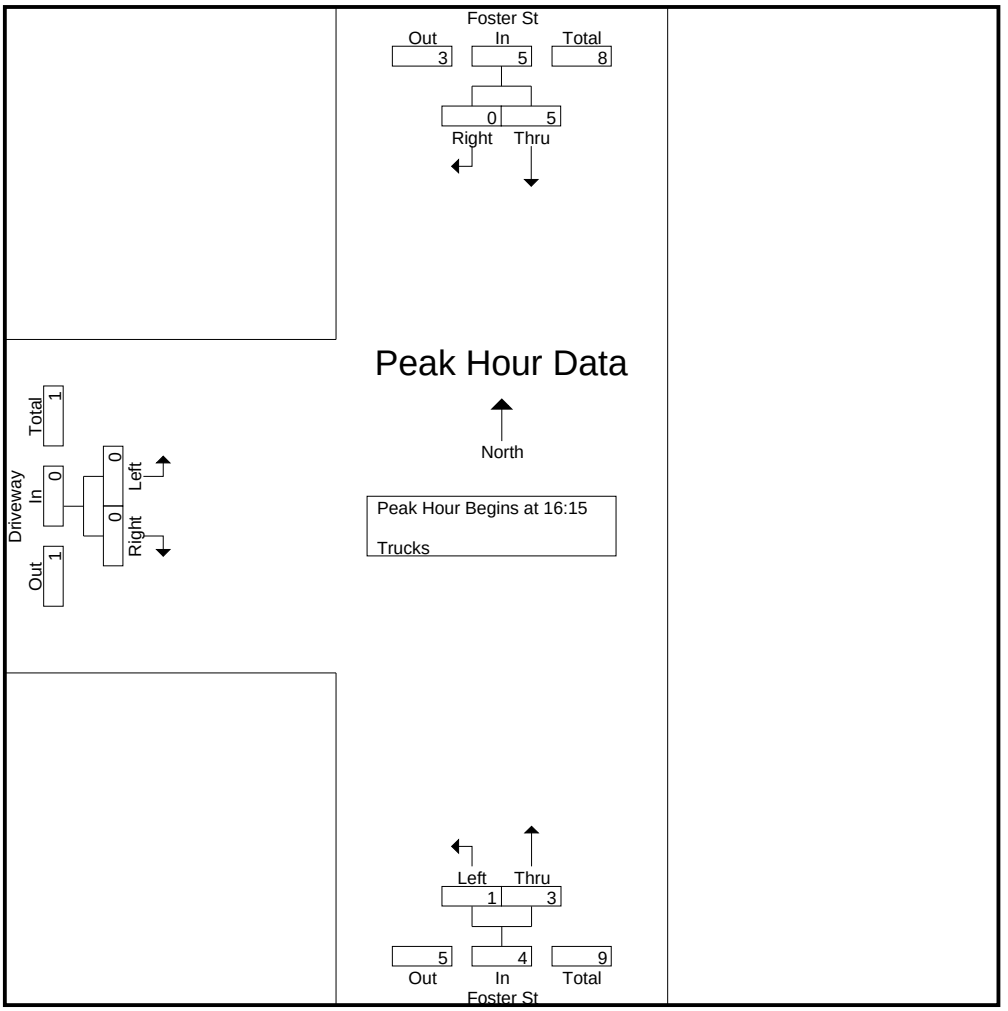


Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 2



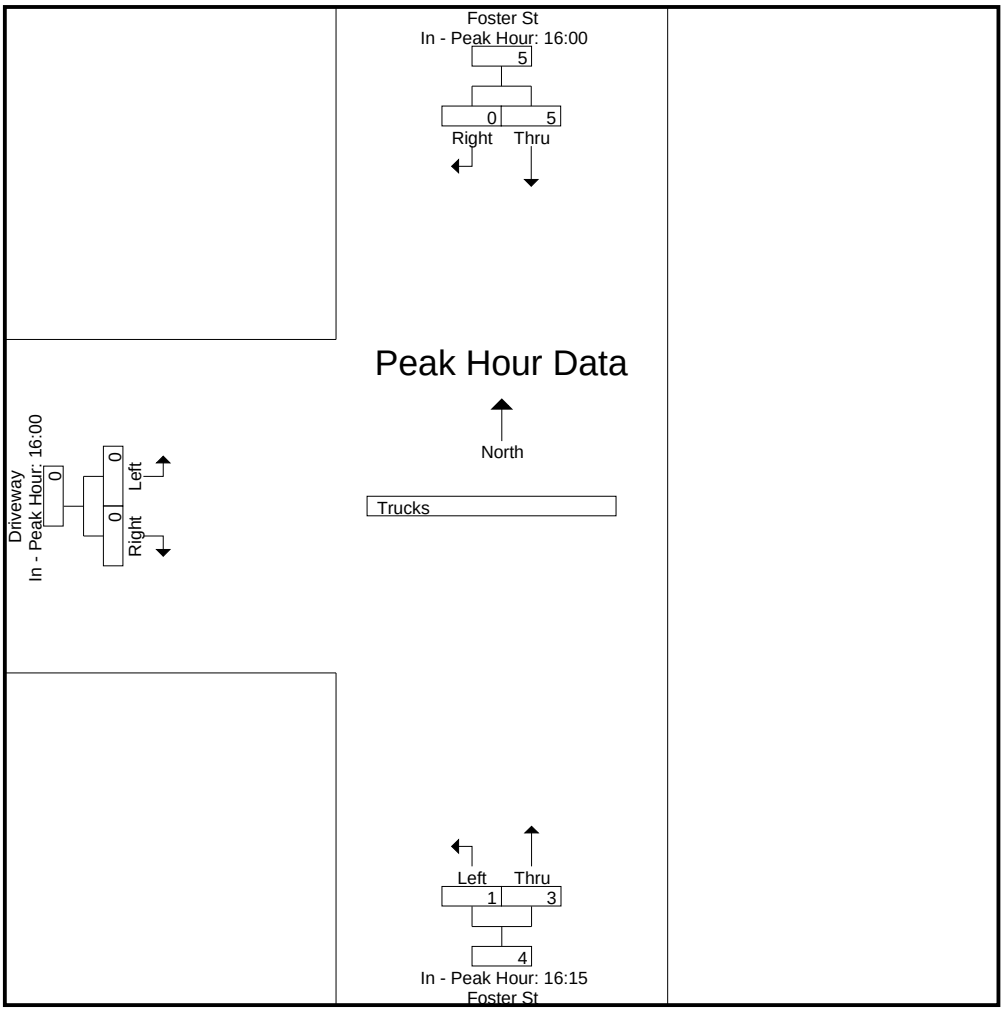
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00			16:15			16:00		
+0 mins.	2	0	2	0	1	1	0	0	0
+15 mins.	3	0	3	0	1	1	0	0	0
+30 mins.	0	0	0	0	1	1	0	0	0
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	5	0	5	1	3	4	0	0	0
% App. Total	100	0		25	75		0	0	
PHF	.417	.000	.417	.250	.750	1.000	.000	.000	.000

Accurate Counts
978-664-2565

File Name : 39000017
Site Code : 39000017
Start Date : 3/25/2008
Page No : 3



N/S Street : BC Driveway
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars - Trucks

	BC Drive From North			Commonwealth Ave From East			Commonwealth Ave From West		
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds

N/S Street : BC Driveway
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

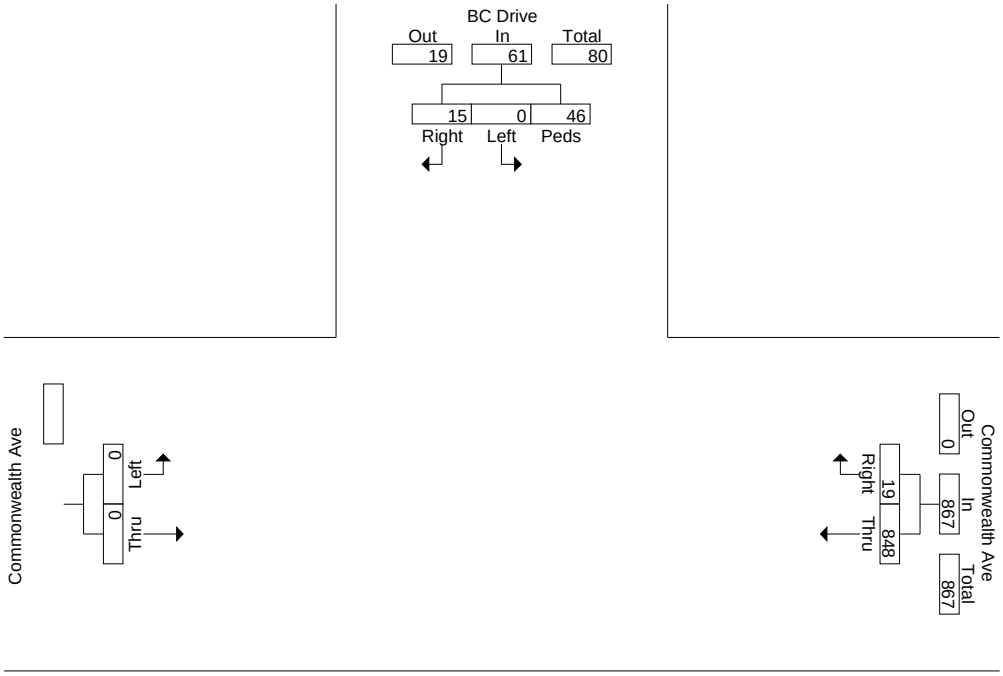
Accurate Counts
978-664-2565

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars

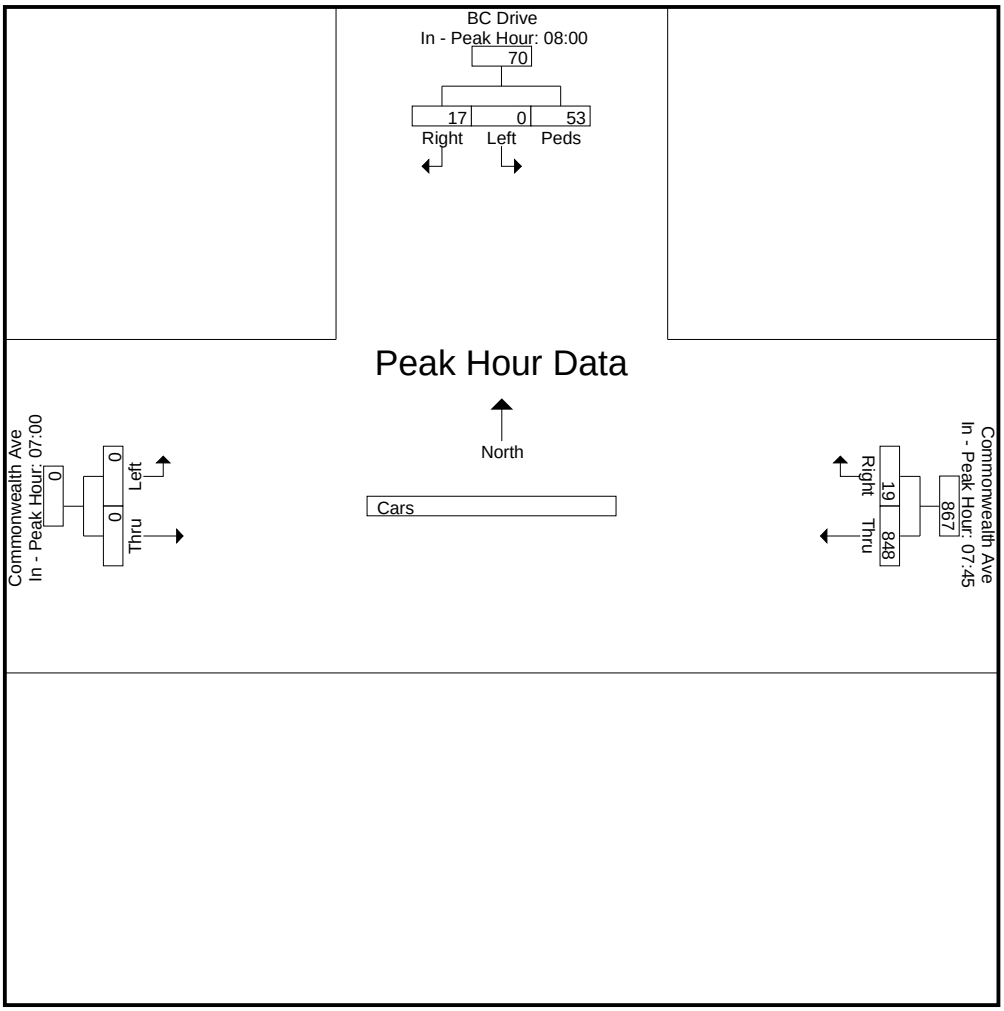
Accurate Counts
978-664-2565

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 3

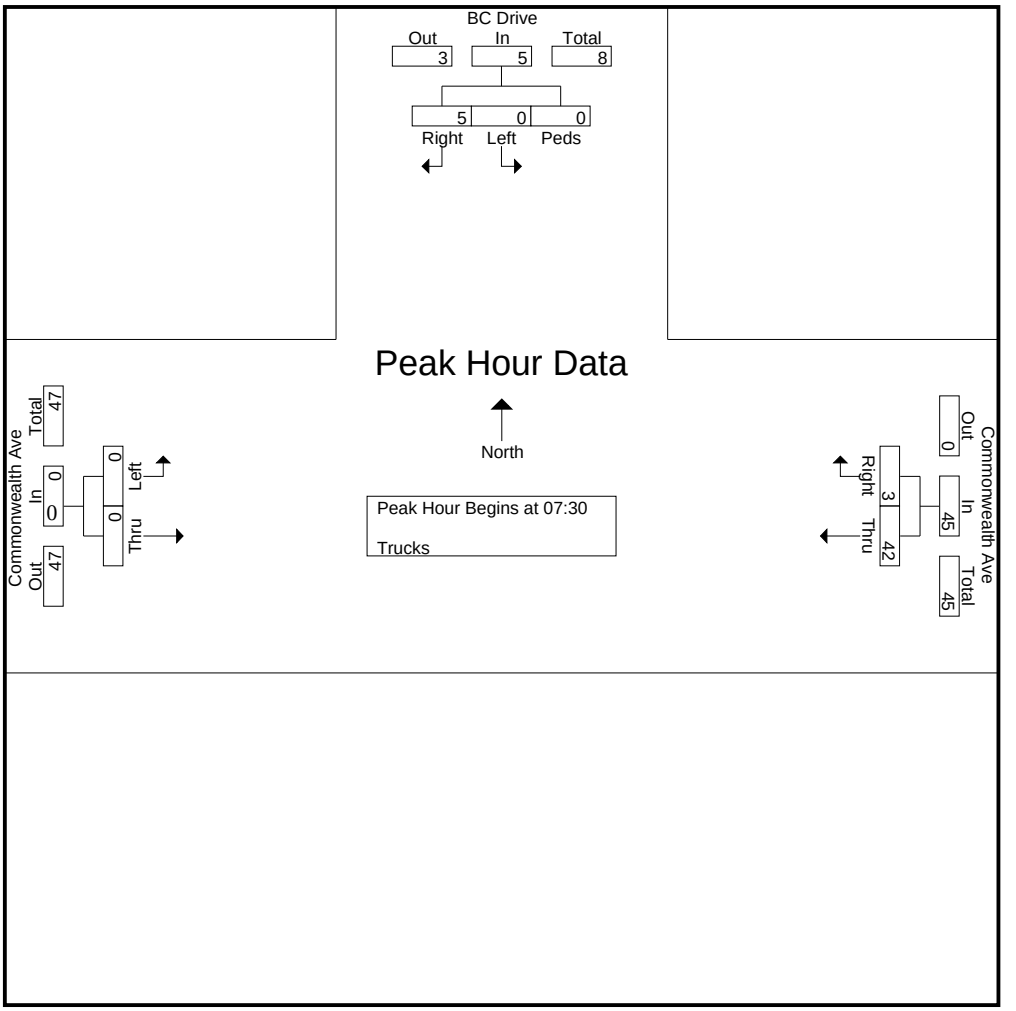


Accurate Counts
978-664-2565

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008

Accurate Counts
978-664-2565

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 2



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

Peak Hour for Each Approach Begins at:

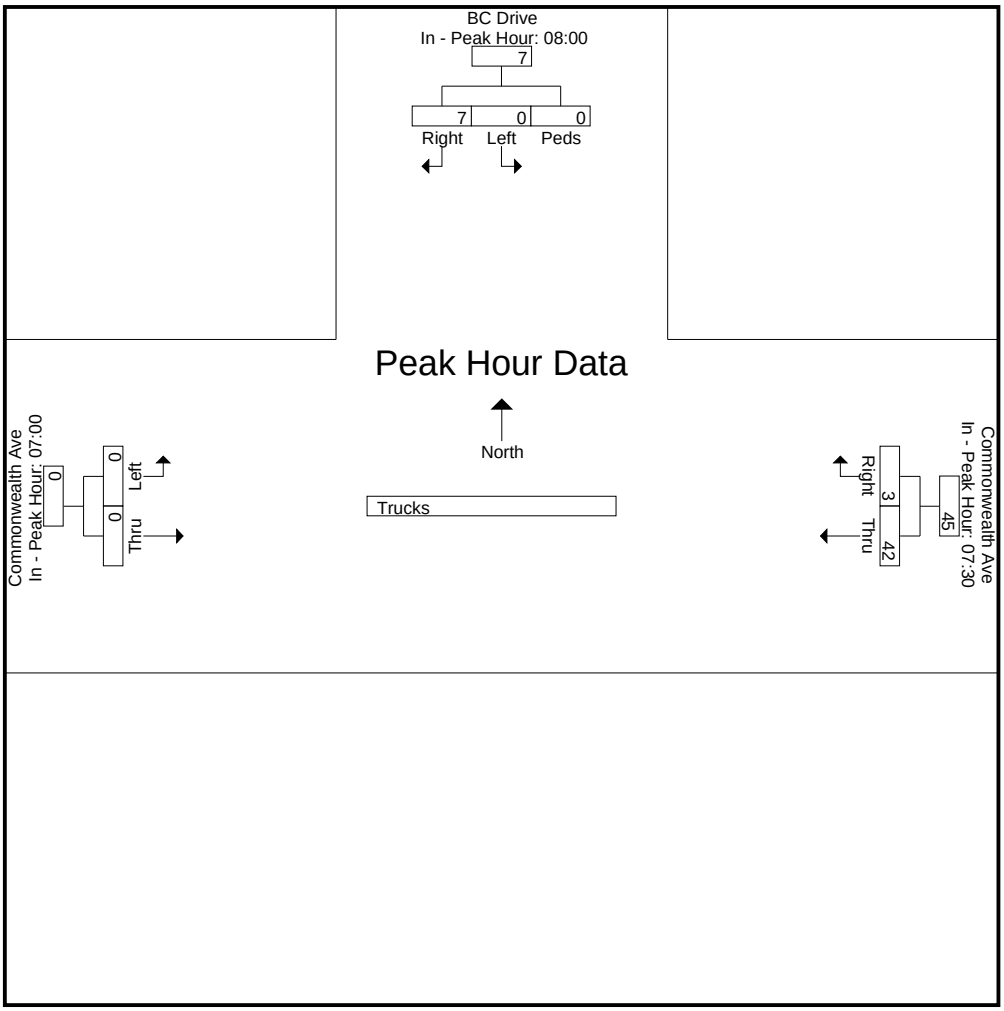
	08:00				07:30			07:00		
+0 mins.	0	2	0	2	9	0	9	0	0	0
+15 mins.	0	0	0	0	11	2	13	0	0	0
+30 mins.	0	1	0	1	02	0	12	0	0	0
+45 mins.	0									

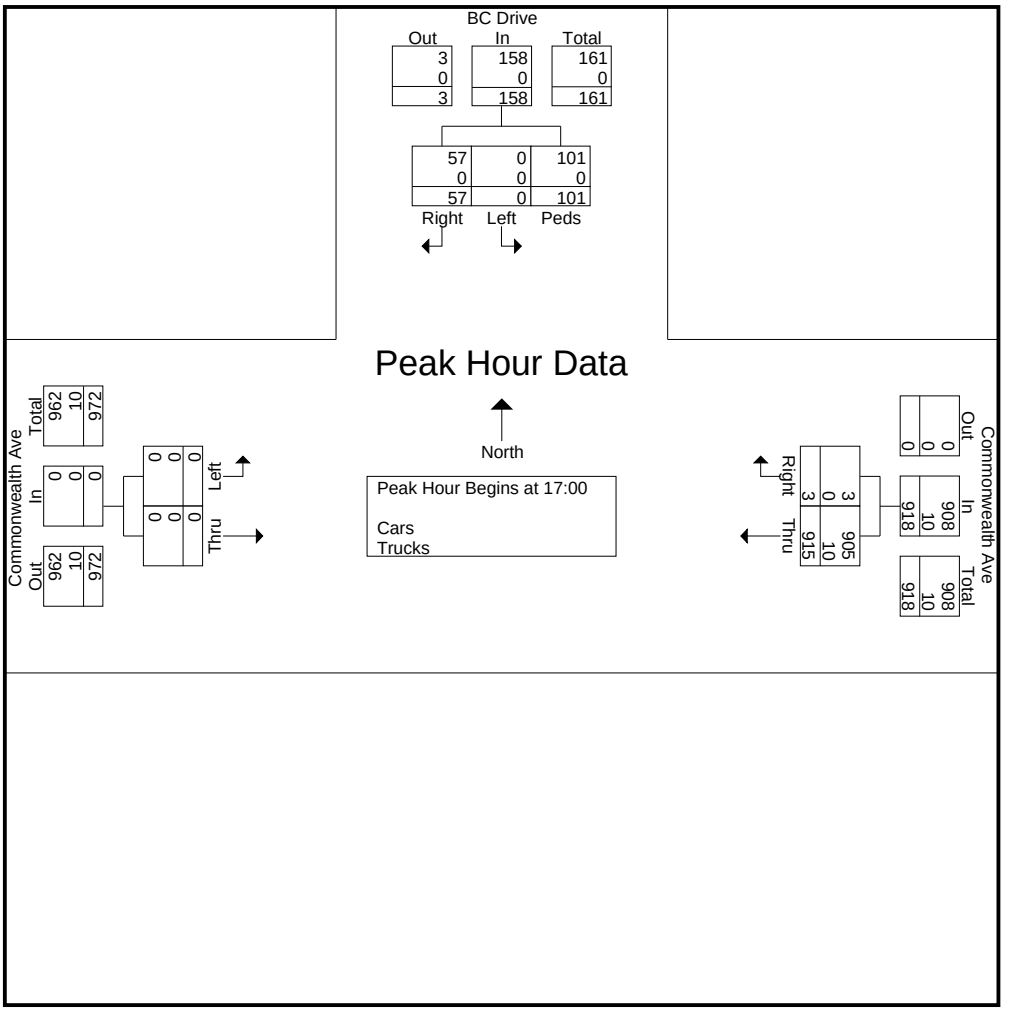
1

0

Accurate Counts
978-664-2565

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 3





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

Peak Hour for Each Approach Begins at:

	17:00				17:00			16:00		
+0 mins.	0	15	20	35	207	1	208	0	0	0
+15 mins.	0	11	33	44	227	0	227	0	0	0
+30 mins.	0	16	32	48	235	1	236	0	0	0
+45 mins.	0	15	16	31	246	1	247	0	0	0
Total Volume	0	57	101	158	915	3	918	0	0	0

101

3

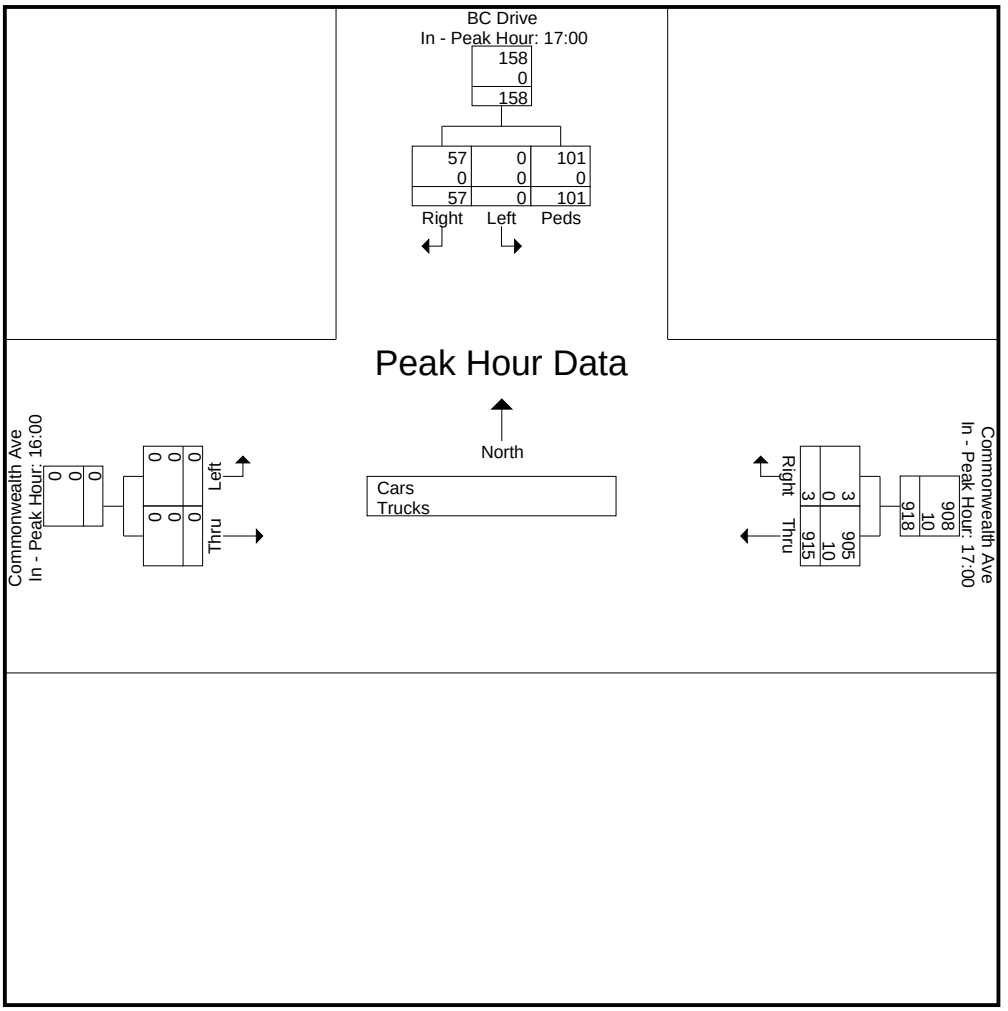
918

0

915

Accurate Counts
978-664-2565

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 3



N/S Street : BC Driveway
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

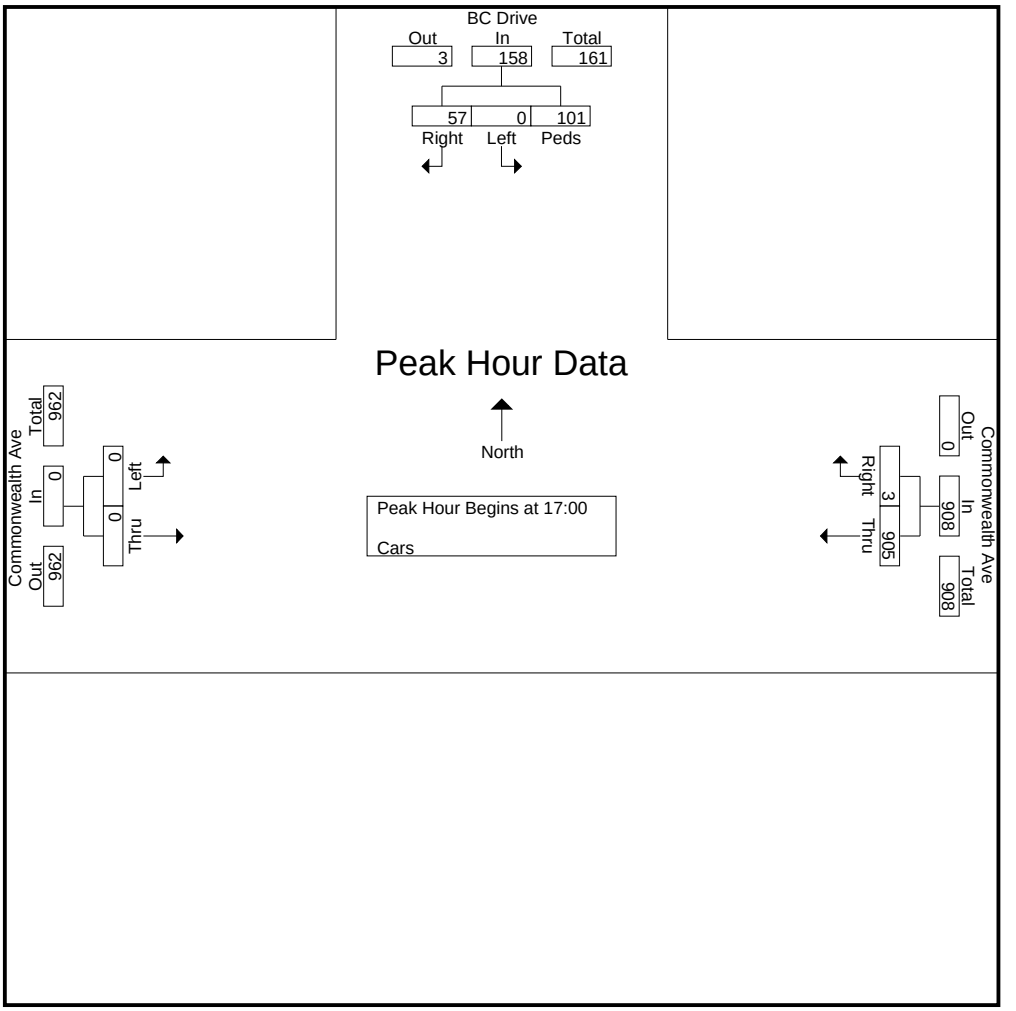
File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars

	BC Drive From North	Commonwealth Ave From East	Commonwealth Ave

Accurate Counts
978-664-2565

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 2



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

Peak Hour for Each Approach Begins at:

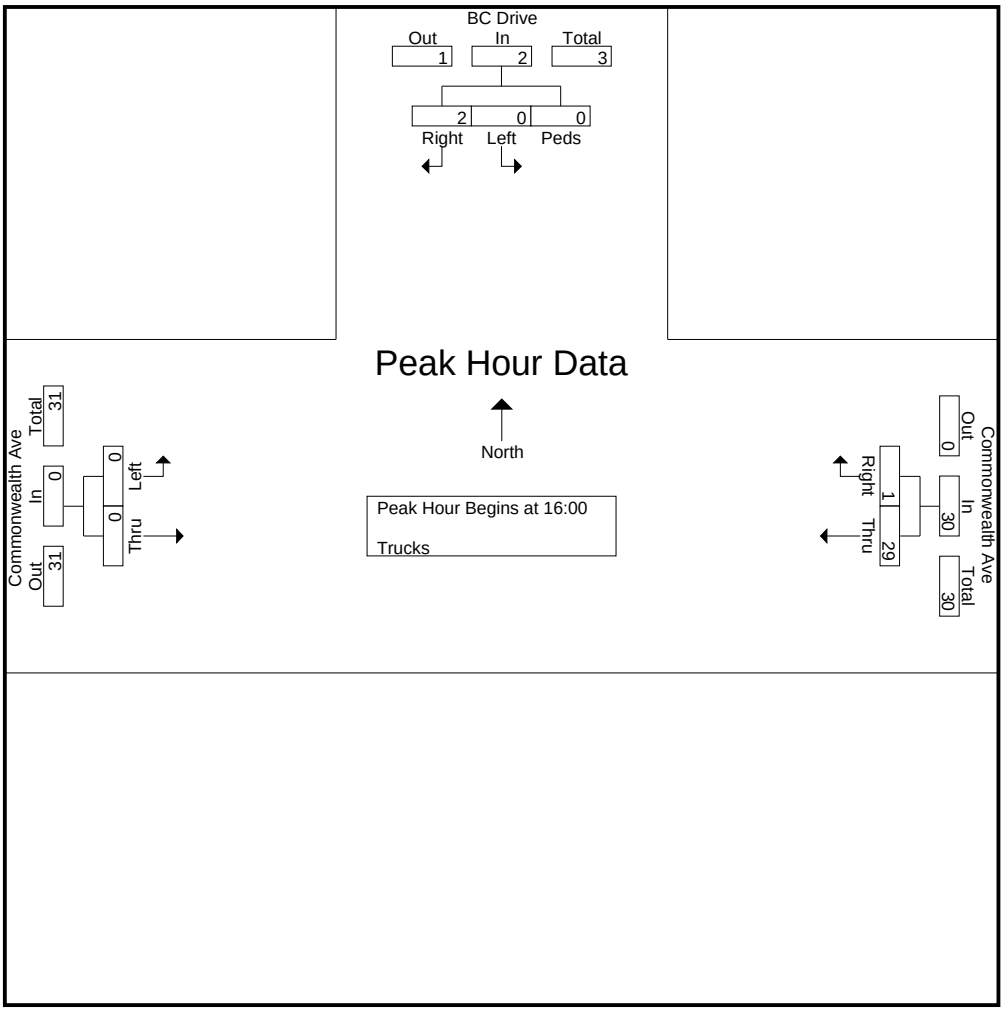
	17:00				17:00			16:00		
+0 mins.	0	15	20	35	204	1	205	0	0	0
+15 mins.	0	11	33	44	225	0	225	0	0	0
+30 mins.	0	16	32	48	232	1	233	0	0	0
+45 mins.	0	15	16	31	244	1	245	0	0	0
Total Volume	0	57	101	158	905	3	908	0	0	0
% App. Total	0	36.1	63.9		99.7	0.3		0	0	
PHF	.000	.891	.765	.823	.927	.750	.927	.000	.000	.000

Accurate Counts
978-664-2565

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008

Accurate Counts
978-664-2565

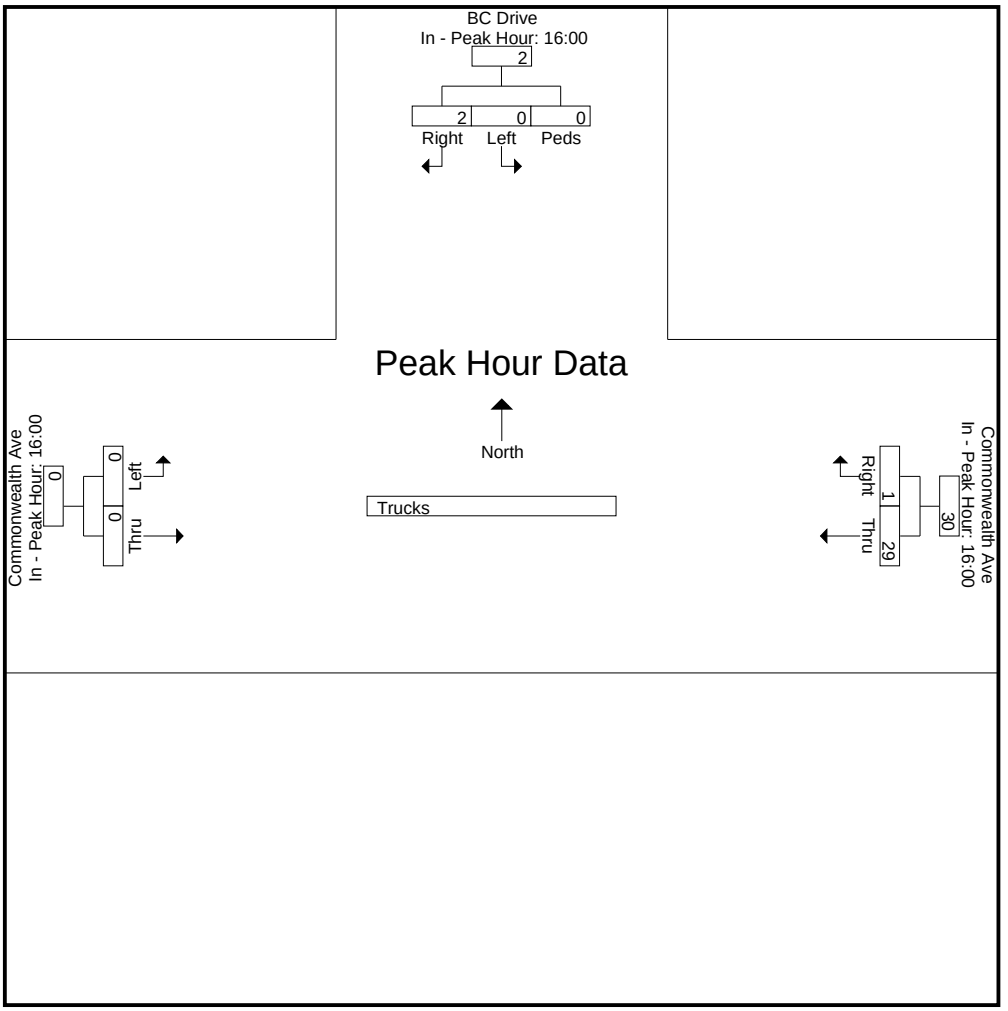
File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 2



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	6	0	6	0	0	0
+15 mins.	0	0	0	0	8	1	9	0	0	0
+30 mins.	0	2	0	2	8	0	8	0	0	0
+45 mins.	0	0	0	0	7	0	7	0	0	0
Total Volume	0	2	0	2	29	1	30	0	0	0
% App. Total	0	100	0		96.7	3.3		0	0	
PHF	.000	.250	.000	.250	.906	.250	.833	.000	.000	.000

File Name : 39000018
Site Code : 39000018
Start Date : 3/25/2008
Page No : 3



N/S Street : Father Herlihy Drive
E/W Street: St. Thomas More Way
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

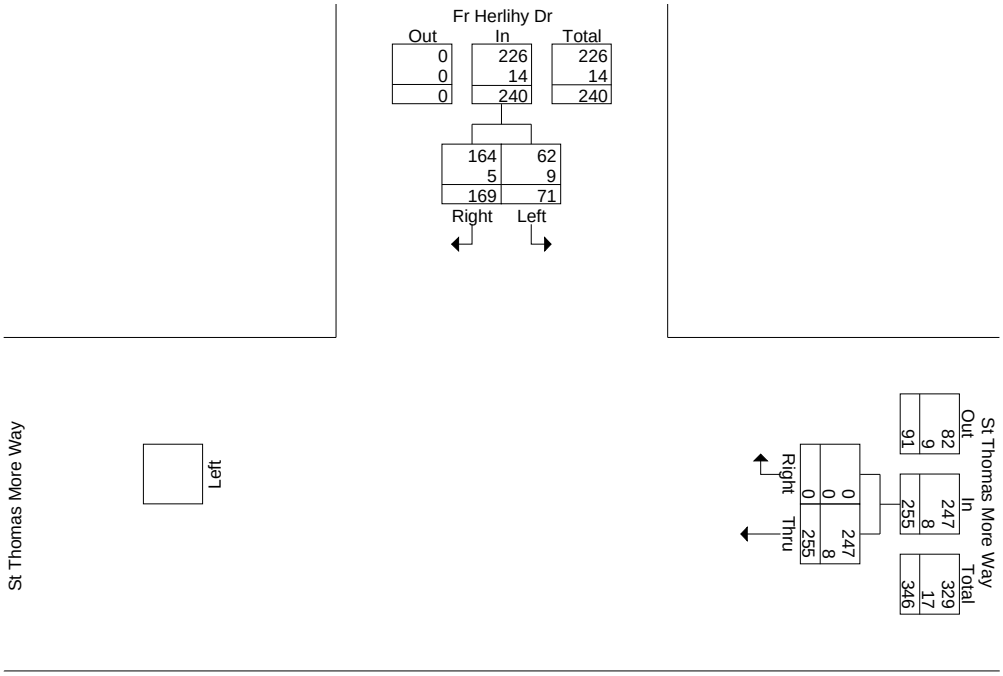
File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars - Trucks

	Fr Herlihy Dr From North			St Thomas More Way From East			St Thomas More Way From West		
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds

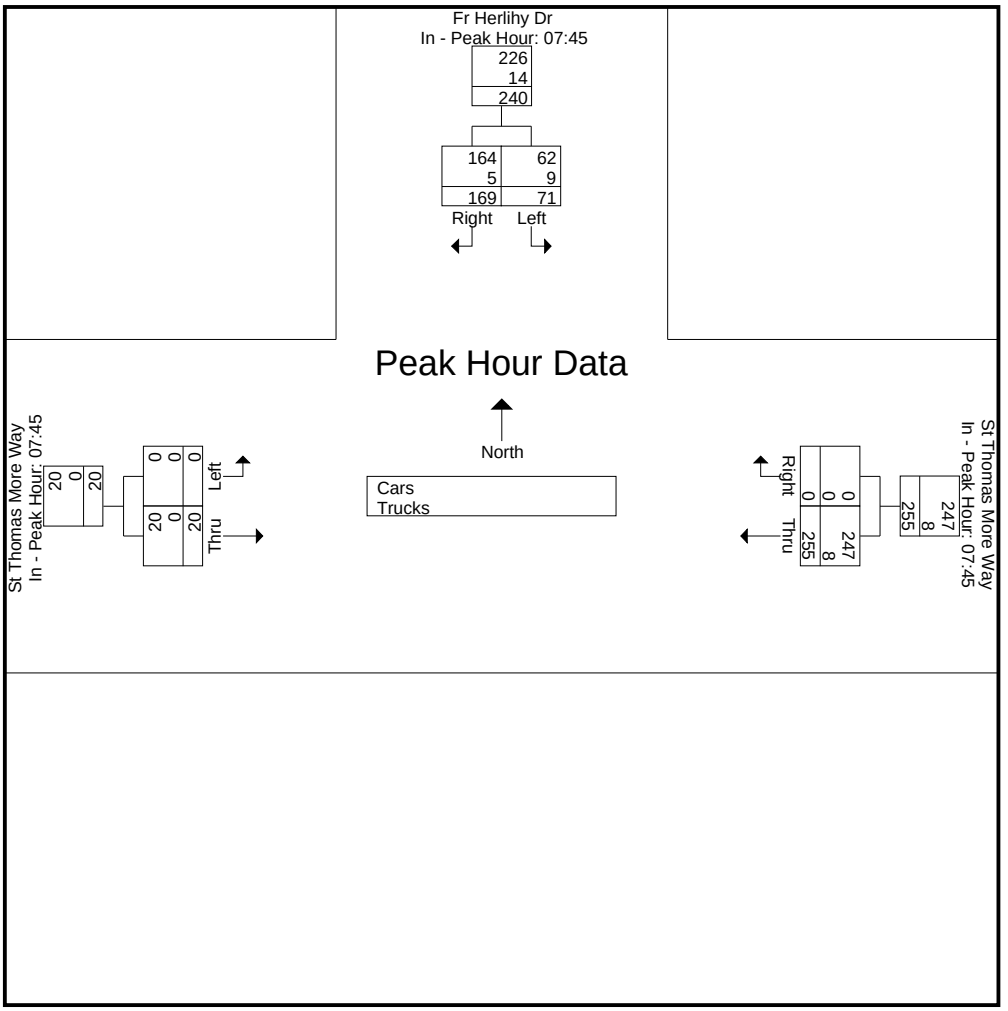
Accurate Counts
978-664-2565

File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 2



Accurate Counts
978-664-2565

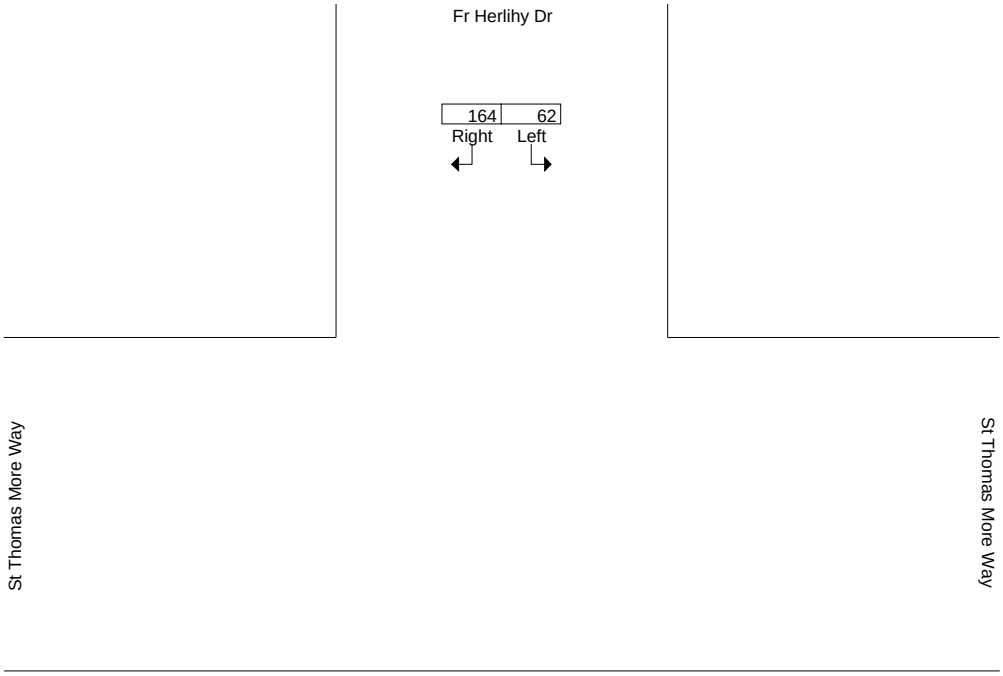
File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 3



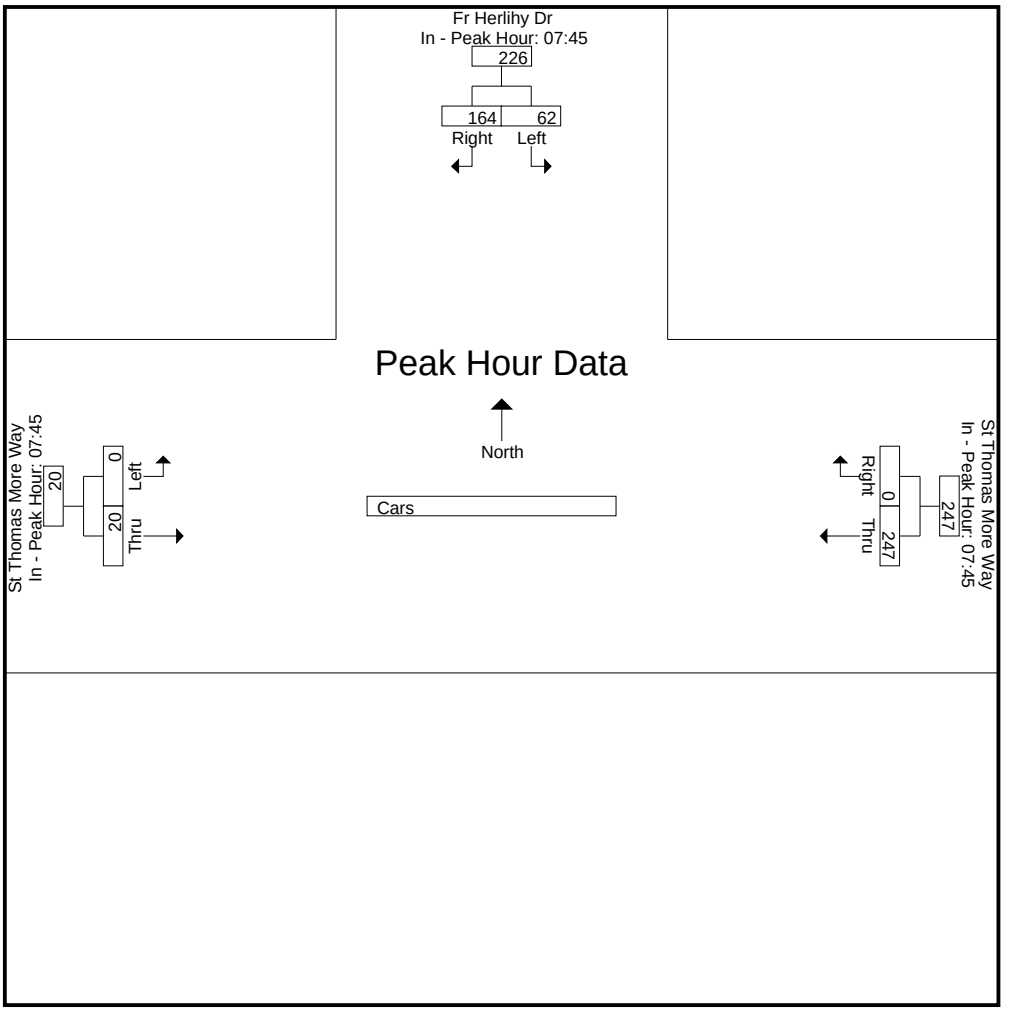
Accurate Counts
978-664-2565

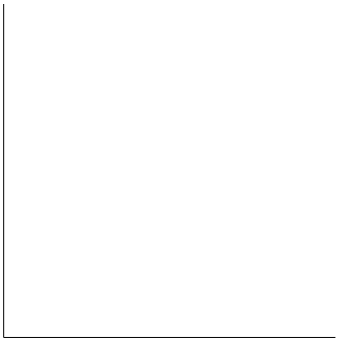
Accurate Counts
978-664-2565

File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 2



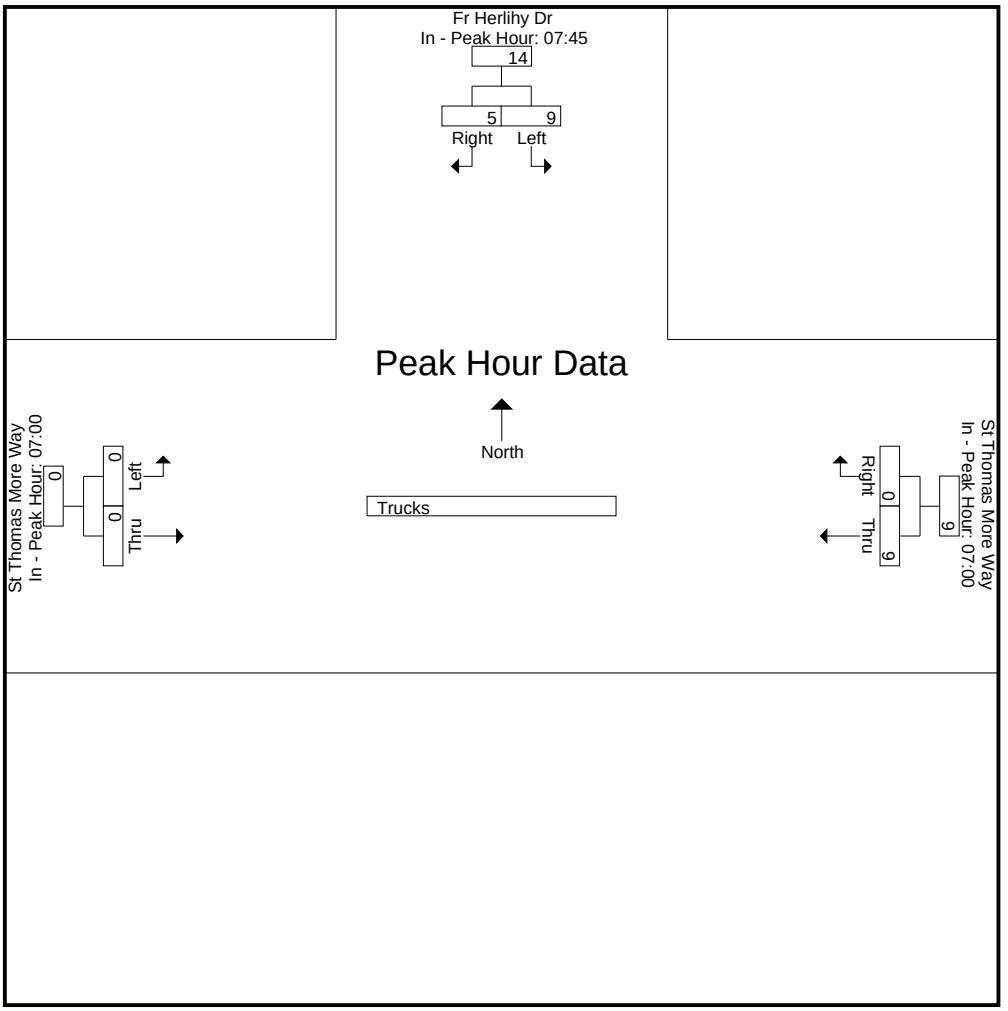
File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 3





Accurate Counts
978-664-2565

File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 3



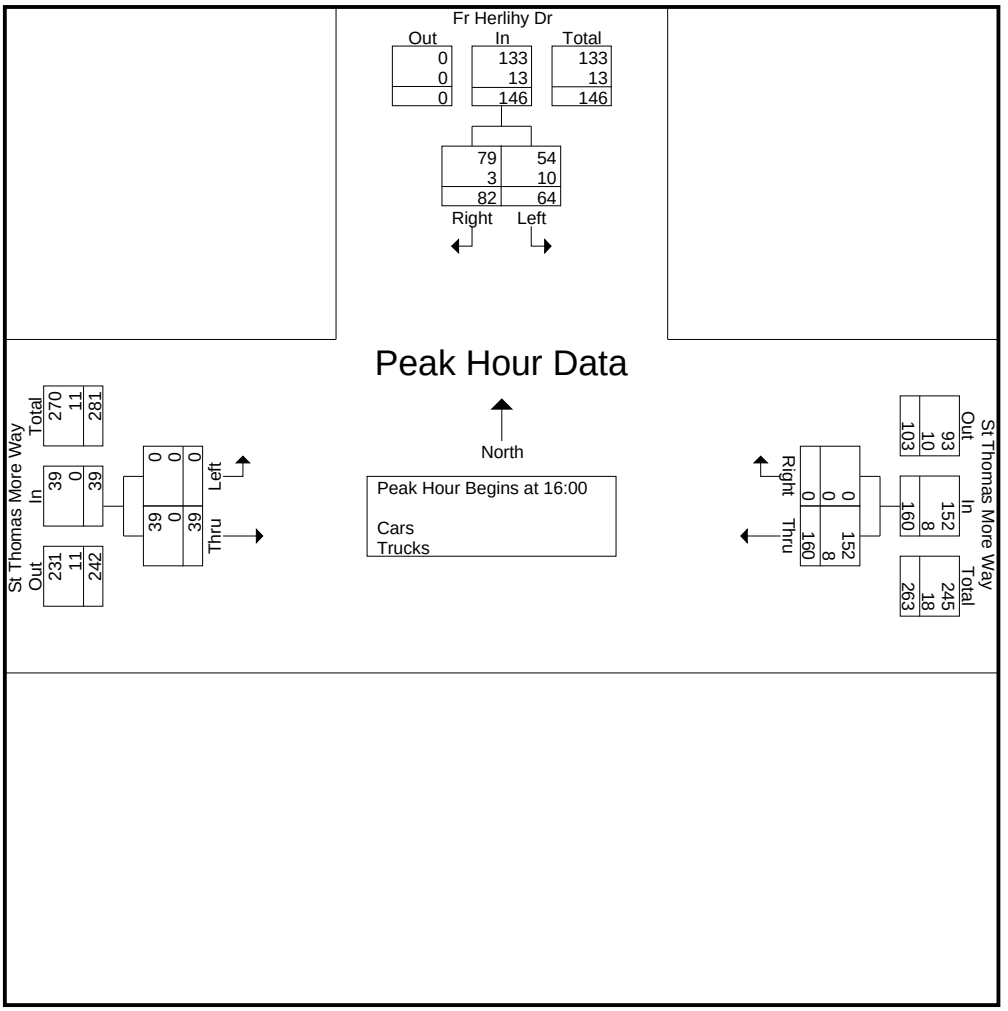
N/S Street : Father Herlihy Drive
E/W Street: St. Thomas More Way
City/State : Brighton, MA

Accurate Counts
978-664-2565

File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008

Accurate Counts
978-664-2565

File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 2

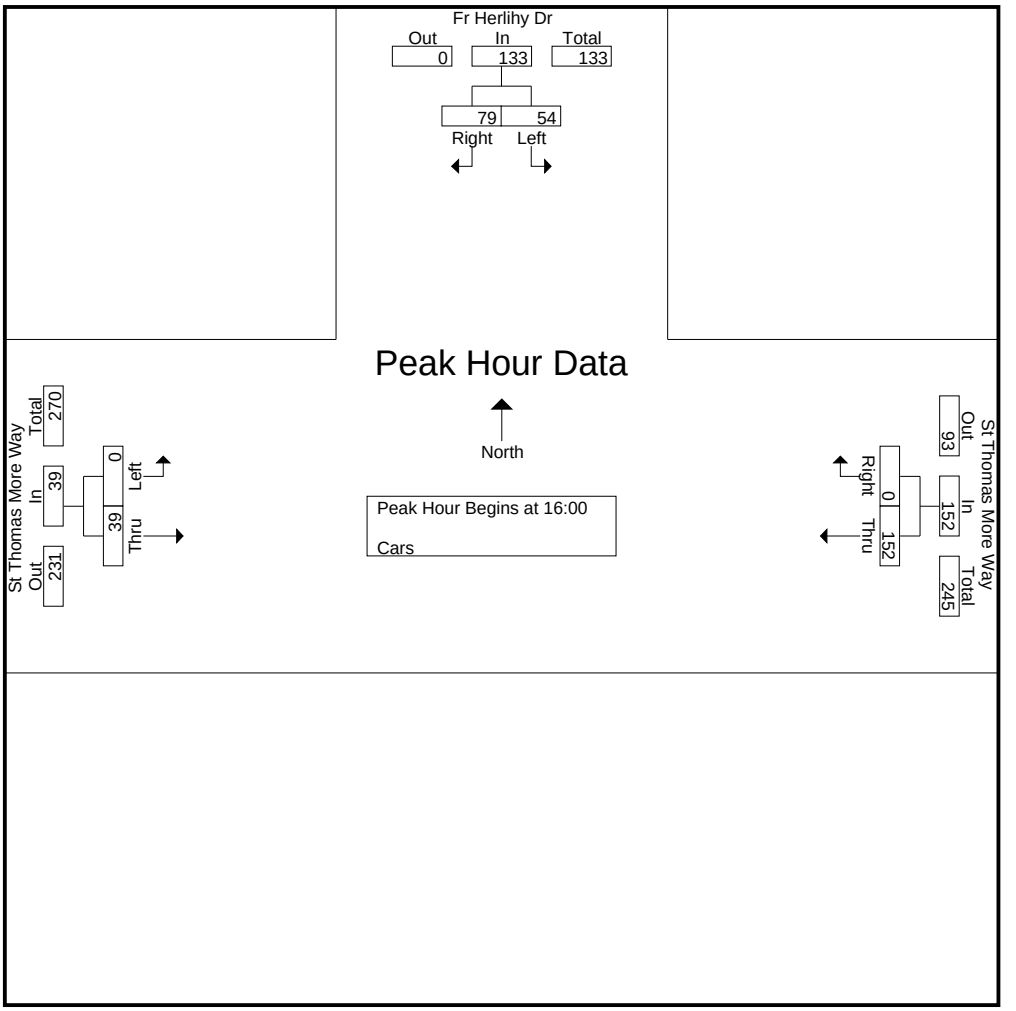


Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	16:00			16:00			16:00		
+0 mins.	22	25	47	43	0	43	0	16	16
+15 mins.	18	25	43	57	0	57	0	7	7
+30 mins.	9	16	25	23	0	23	0	10	10
+45 mins.	15	16	31	37	0	37	0	6	6
Total Volume	64	82	146	160	0	160	0	39	39
% App. Total	43.8	56.2		100	0		0	100	
PHF	.727	.820	.777	.702	.000	.702			

Accurate Counts
978-664-2565

File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 2

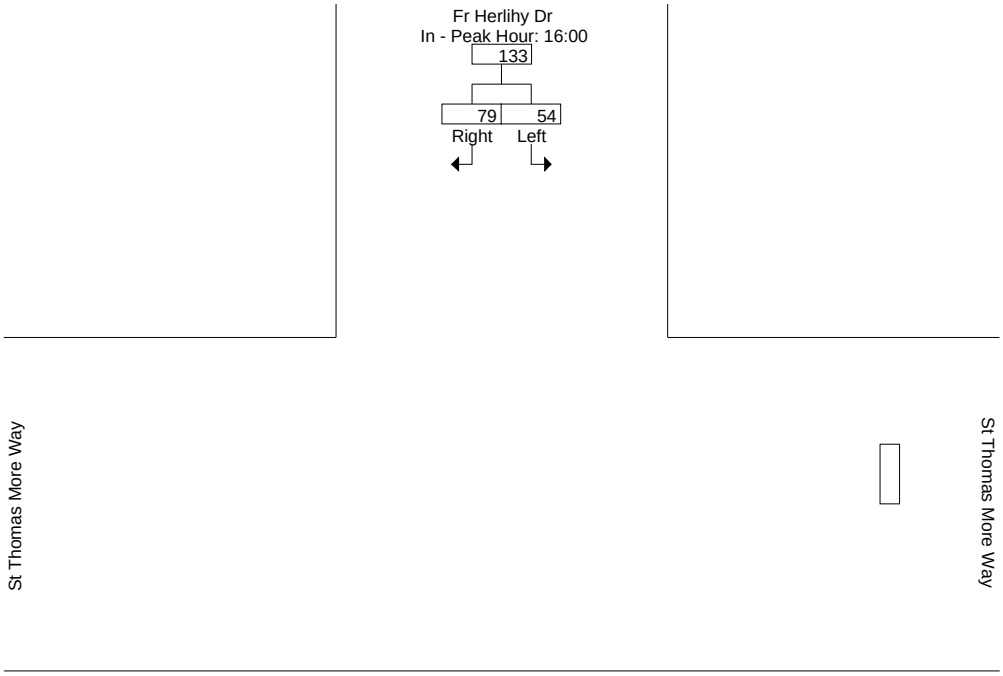


Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:
16:00

Accurate Counts
978-664-2565

File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 3



N/S Street : Father Herlihy Drive
E/W Street: St. Thomas More Way
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

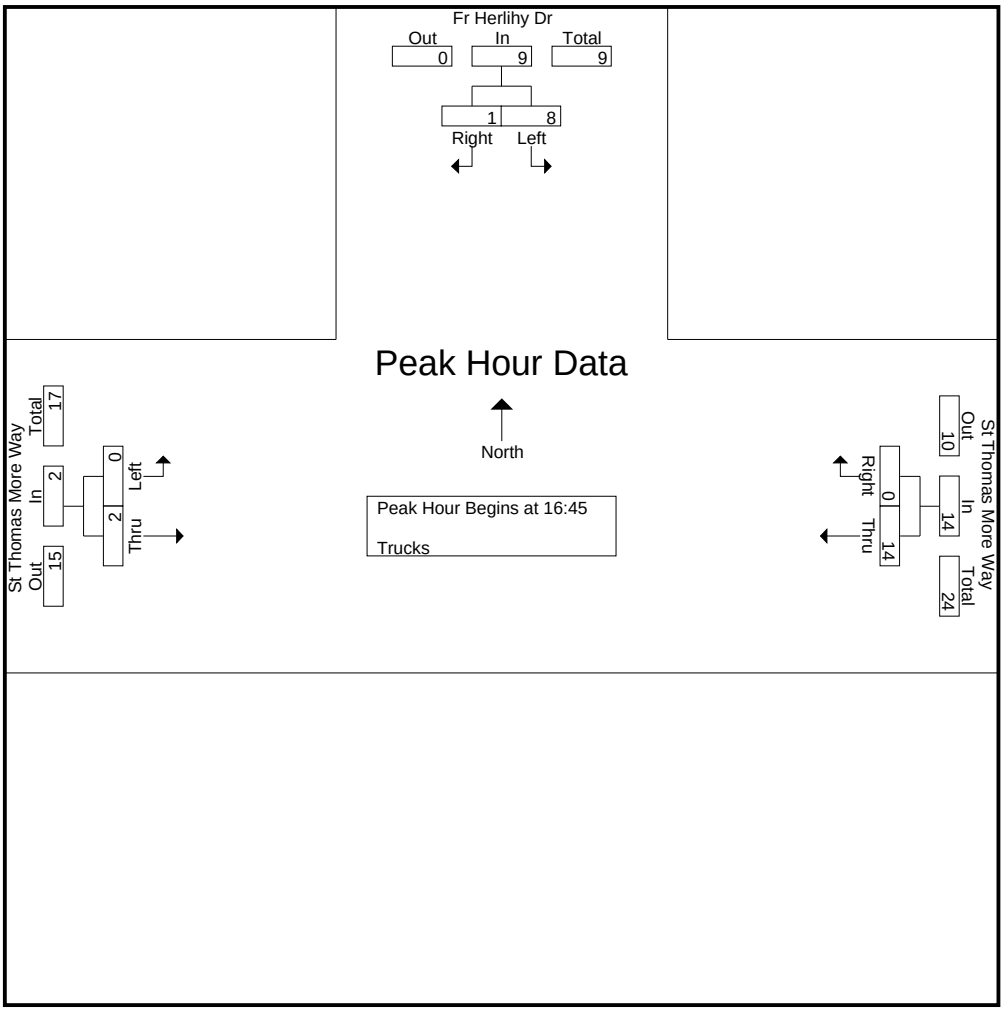
File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 1

Groups Printed- Trucks

	Fr Herlihy Dr From North			St Thomas More Way From East			St Thomas More Way From West		
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds

Accurate Counts
978-664-2565

File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 2



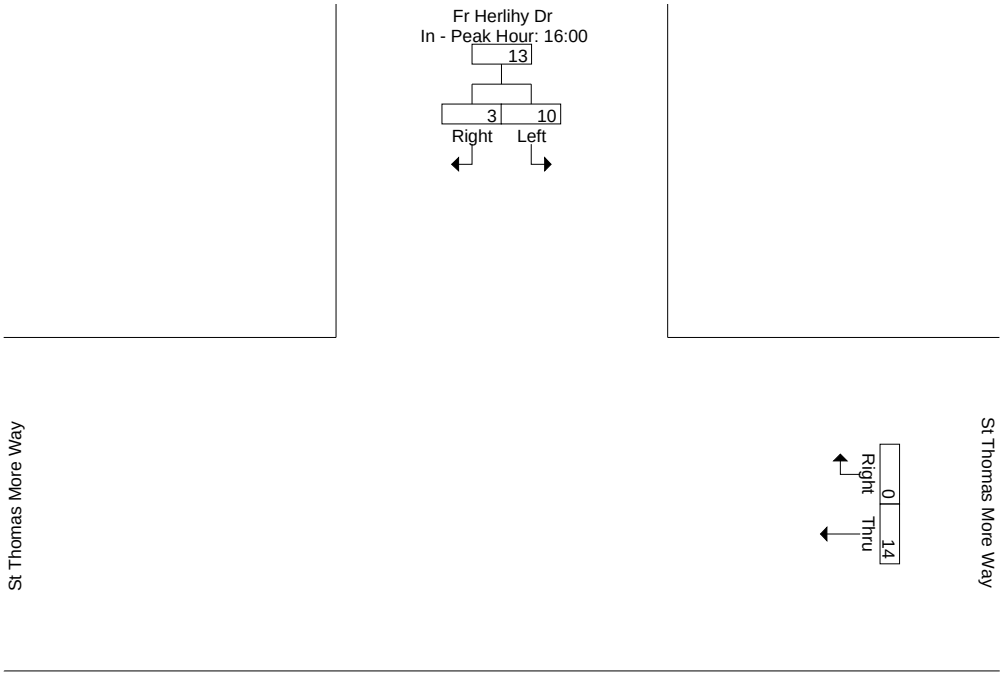
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:00			16:45			16:45		
+0 mins.	3	2	5	4	0	4	0	0	0
+15 mins.	3	1	4	5	0	5	0	1	1
+30 mins.	2	0	2	2	0	2	0	0	0
+45 mins.	2	0	2	3	0	3	0	1	1
Total Volume	10	3	13	14	0	14	0	2	2
% App. Total	76.9	23.1		100	0		0	100	
PHF	.833	.375	.650	.700	.000	.700	.000	.500	.500

Accurate Counts
978-664-2565

File Name : 39000019
Site Code : 39000019
Start Date : 3/25/2008
Page No : 3



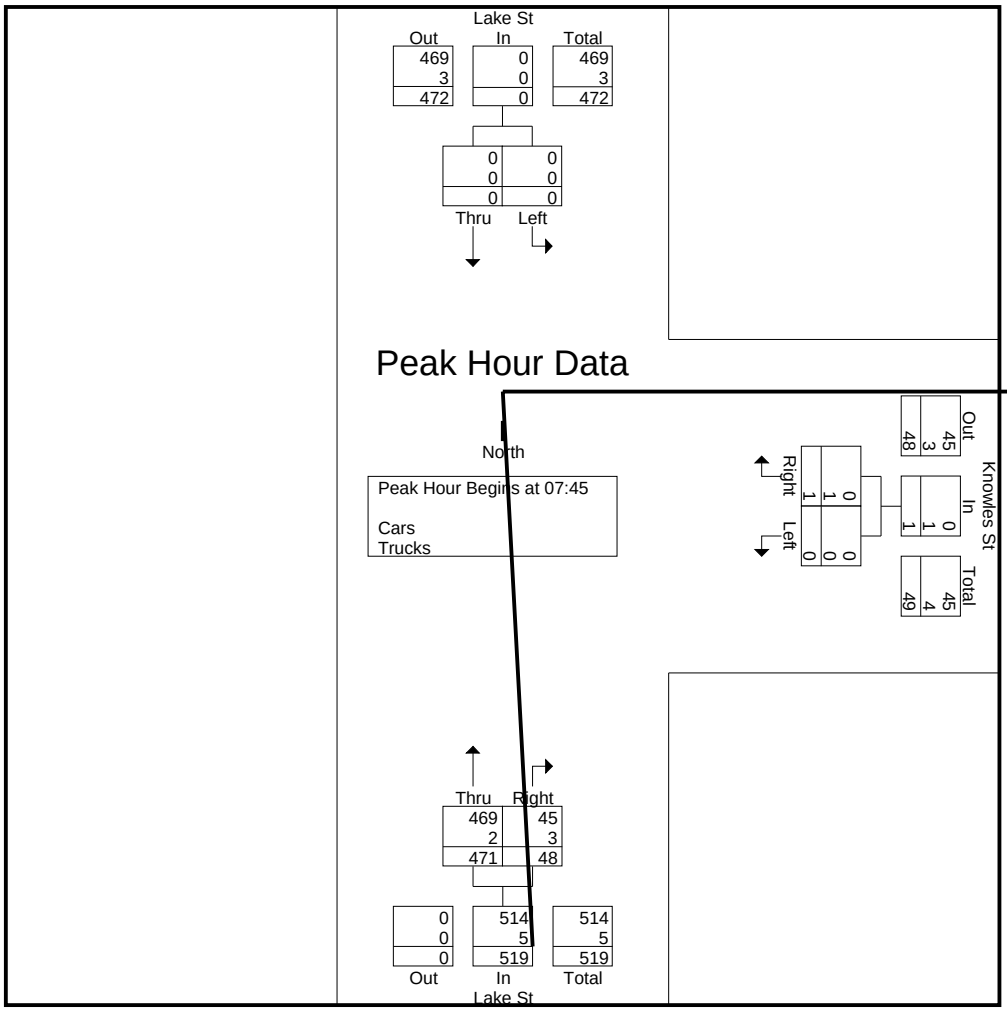
N/S Street : Lake Street
E/W Street: Knowles Street
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008
Page No : 1

Accurate Counts
978-664-2565

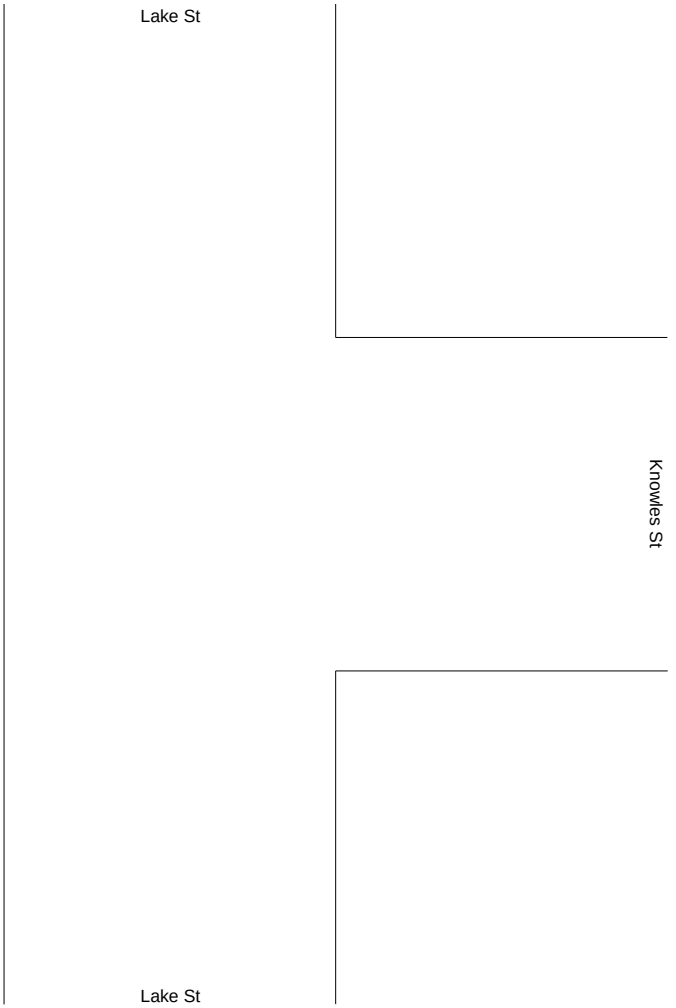
File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008
Page No : 2



N/S Street : Lake Street
E/W Street: Knowles Street

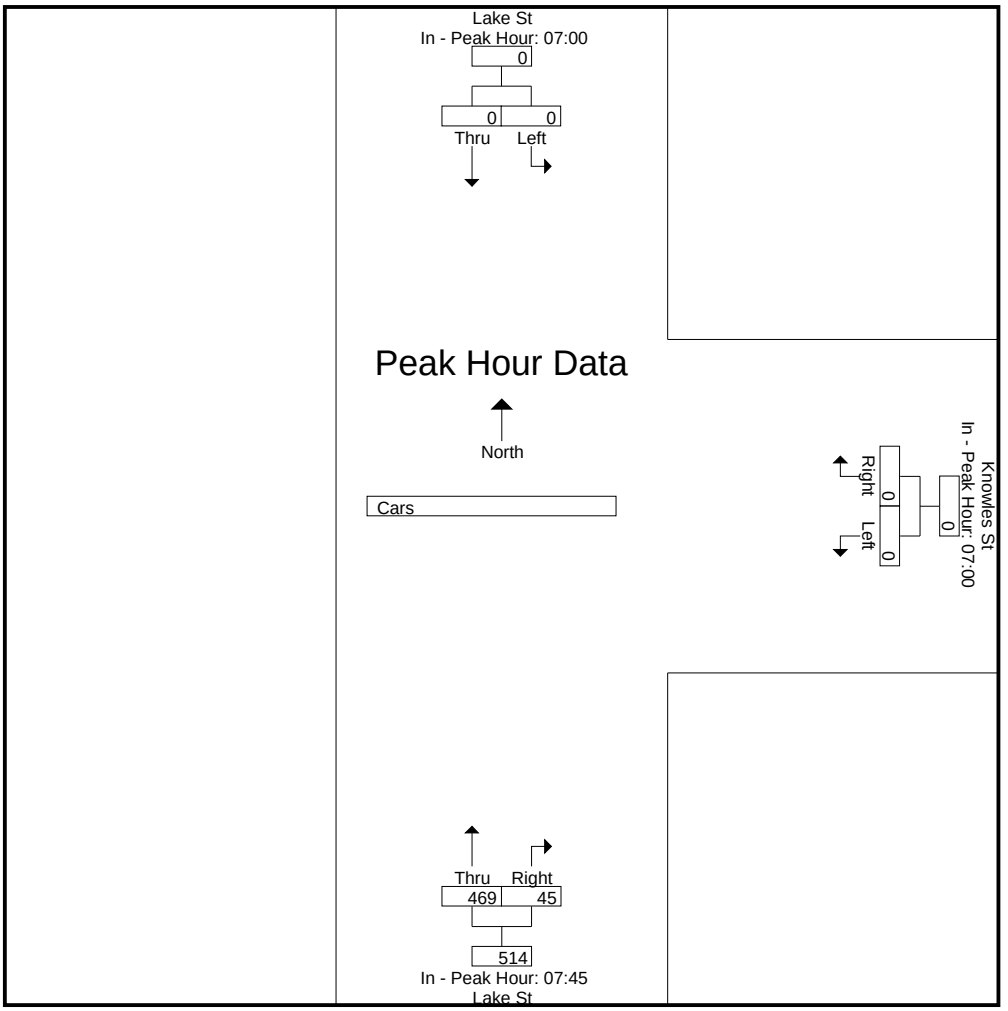
Accurate Counts
978-664-2565

File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008


Lake St
Knowles St
Lake St

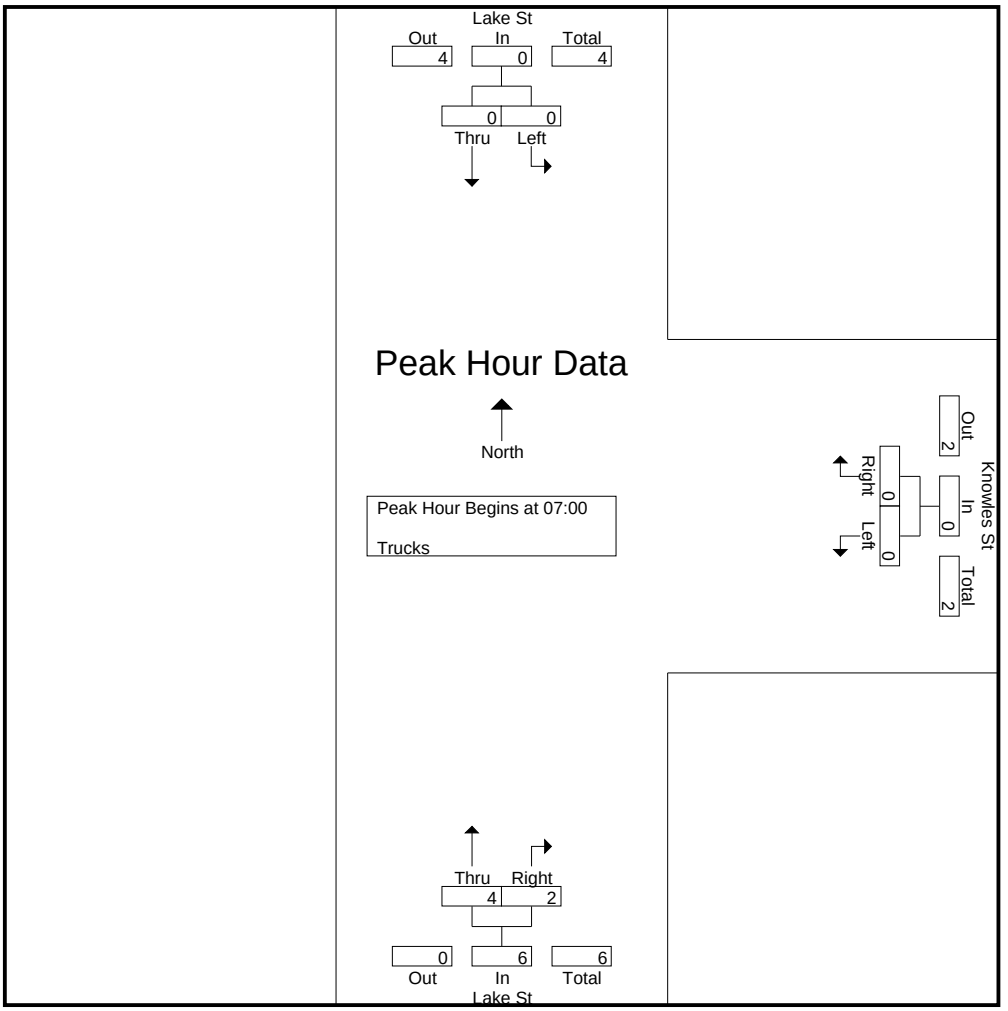
Accurate Counts
978-664-2565

File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008
Page No : 2



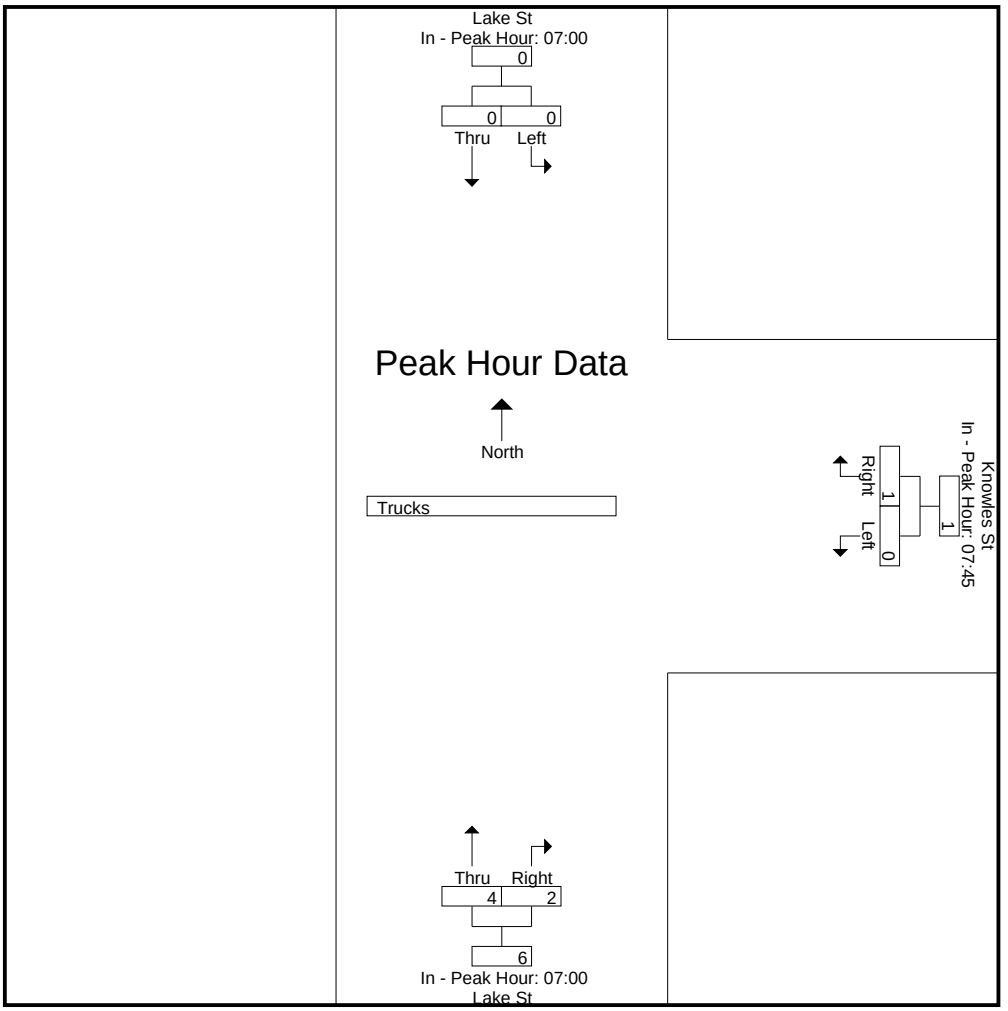
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00			07:45			07:00		
+0 mins.	0	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	1	1	0	1	1
Total Volume	0	0	0	0	1	1	4	2	6
% App. Total	0	0		0	100		66.7	33.3	
PHF	.000	.000	.000	.000	.250	.250	.500	.500	.750

Accurate Counts
978-664-2565

File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008
Page No : 3



N/S Street : Lake Street
E/W Street: Knowles Street
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008
Page No : 1

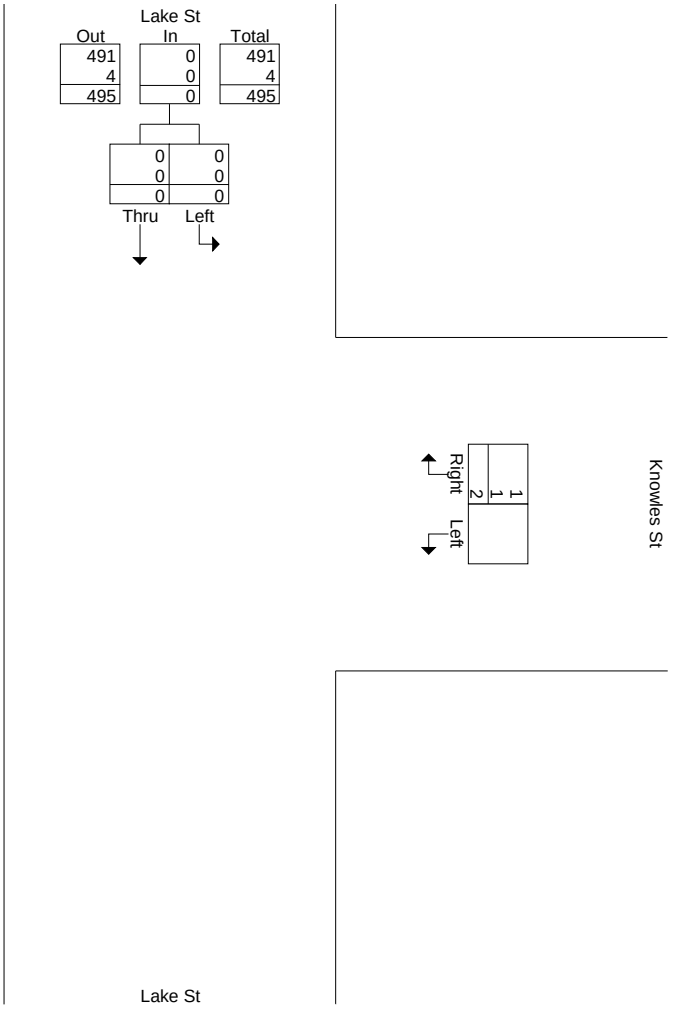
Groups Printed- Cars - Trucks

	Lake St From North			Knowles St From East			Lake St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	0	0	0	0	2	15	114	4	0	15	120	135
16:15	0	0	0	0	1	18	116	7	0	18	124	142
16:30	0	0	0	0	2	13	119	4	0	13	125	138
16:45	0	0	0	0	0	20	116	3	0	20	119	139
Total	0	0	0	0	5	66	465	18	0	66	488	554
17:00	0	0	0	0	0	13	108	1	0	13	109	122
17:15	0	0	0	0	0	22	150	3	0	22	153	175
17:30	0	0	0	0	0	39	110	2	0	39	112	151
17:45	0	0	0	0	0	13	109	0	0	13	109	122
Total	0	0	0	0	0	87	477	6	0	87	483	570
Grand Total	0	0	0	0	5	153	942	24	0	153	971	1124
Apprch %	0	0		0	100		97.5	2.5				
Total %	0	0		0	0.5		97	2.5		13.6	86.4	
Cars	0	0		0	4		936	23		0	0	1116
% Cars	0	0	0	0	80	100	99.4	95.8	0	0	0	99.3
Trucks	0	0		0	1		6	1		0	0	8
% Trucks	0	0	0	0	20	0	0.6	4.2	0	0	0	0.7

	Lake St From North			Knowles St From East			Lake St From South	
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	5.61 Td -8 Ts . 194.16 406.36 l63.7 Td -8 Ts (

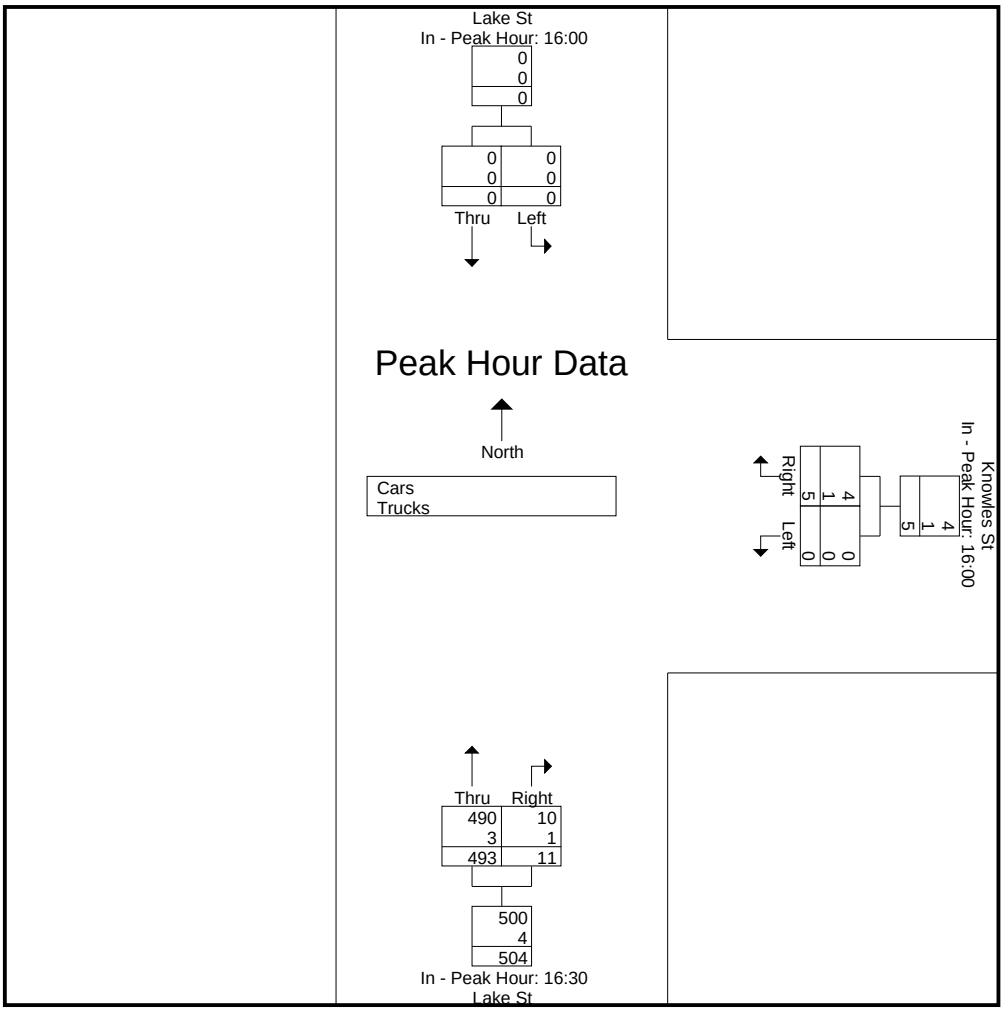
Accurate Counts
978-664-2565

File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008
Page No : 2



Accurate Counts
978-664-2565

File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008
Page No : 3



N/S Street : Lake Street
E/W Street: Knowles Street
City/State : Brighton, MA

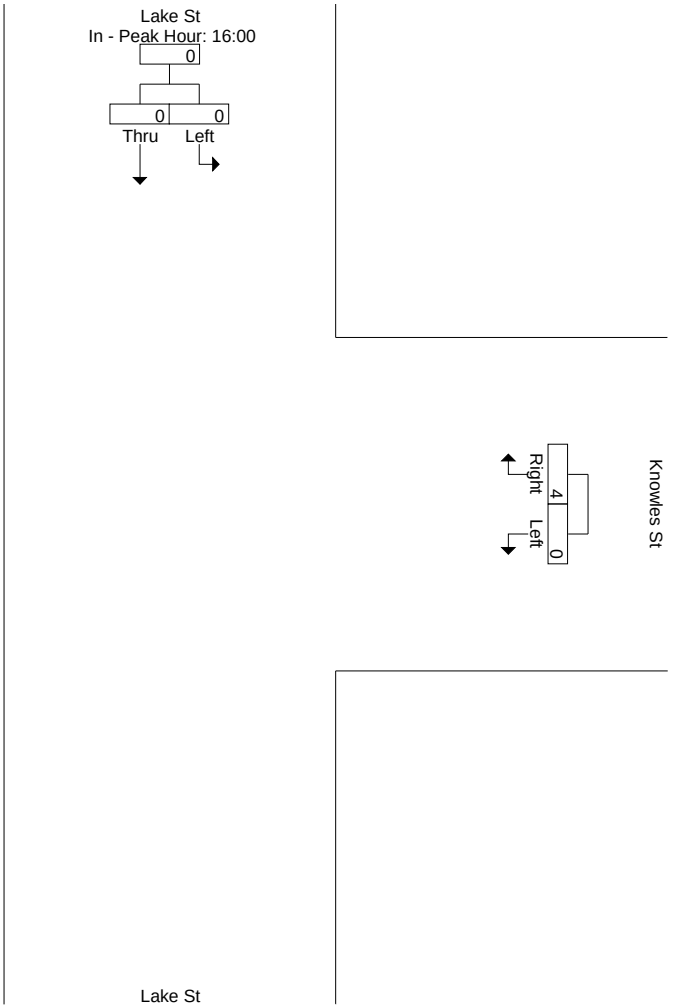
Accurate Counts
978-664-2565

File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008

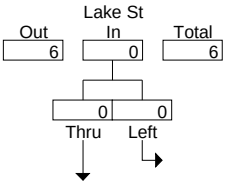
Accurate Counts

Accurate Counts
978-664-2565

File Name : 39000020
Site Code : 39000020
Start Date : 3/25/2008
Page No : 3



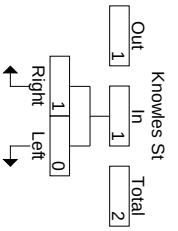
Accurate Counts
978-664-2565

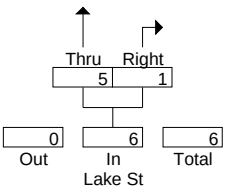


Peak Hour Data

Peak Hour Begins at 16:00

Trucks





Accurate Counts
978-664-2565

File Name : 39000020
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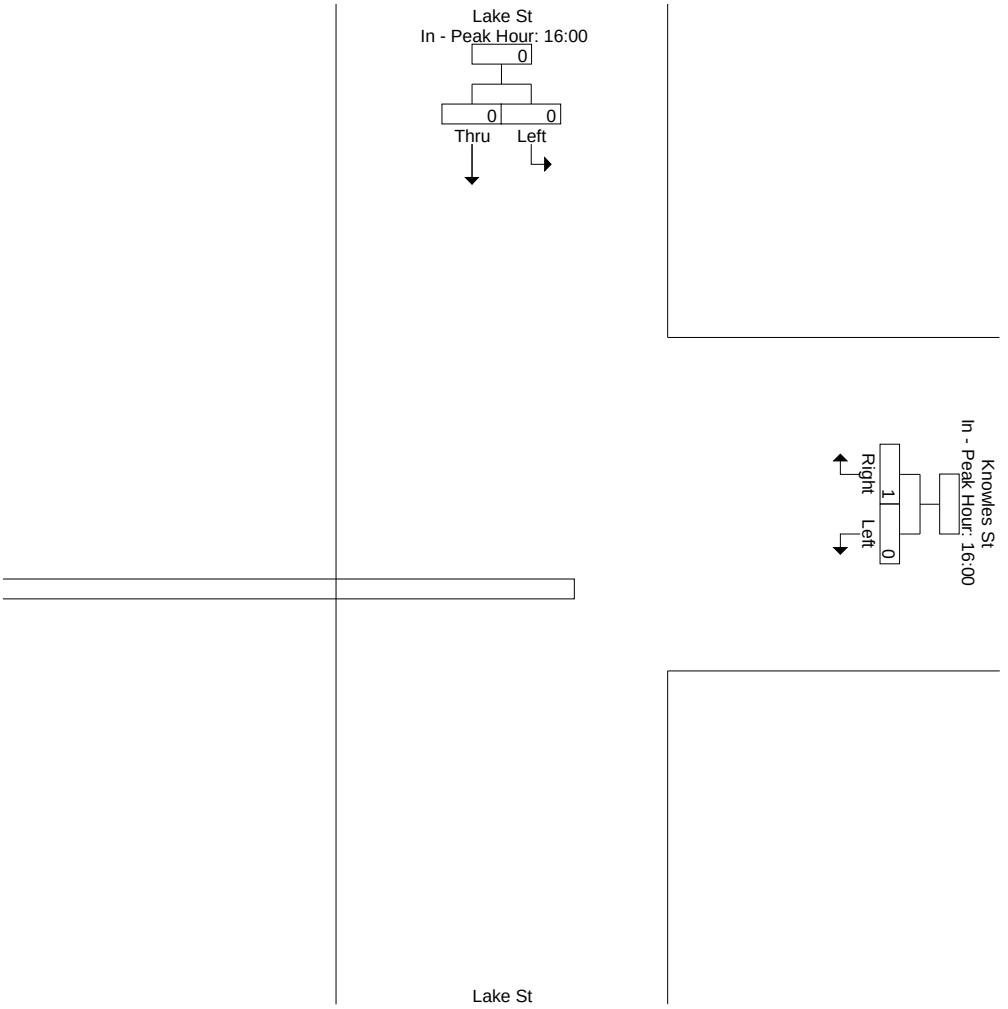
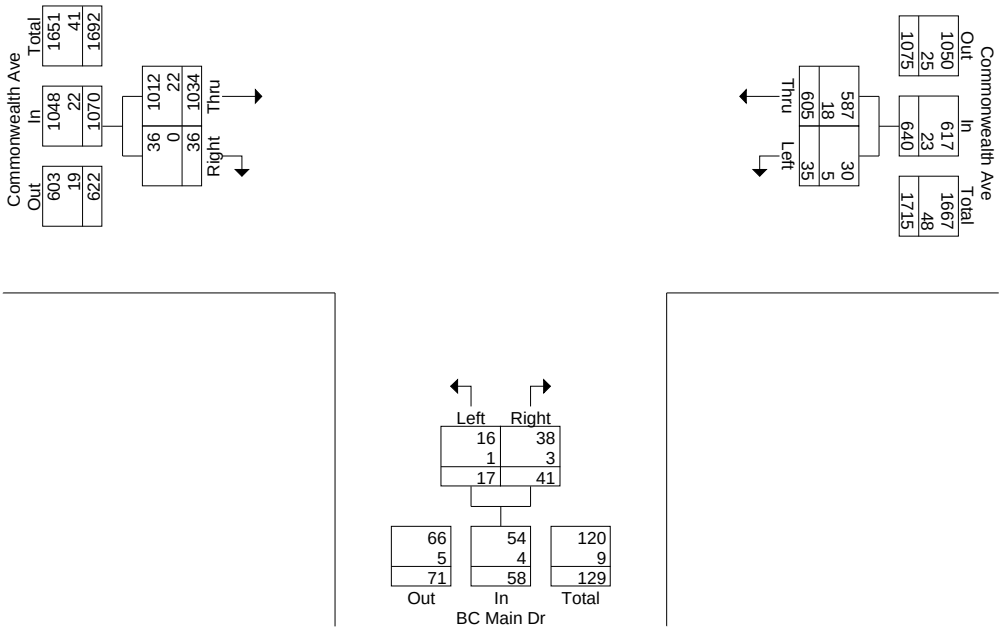
Start Date : 3/25/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000021
Site Code : 39000021
Start Date : 3/25/2008
Page No : 2



Accurate Counts
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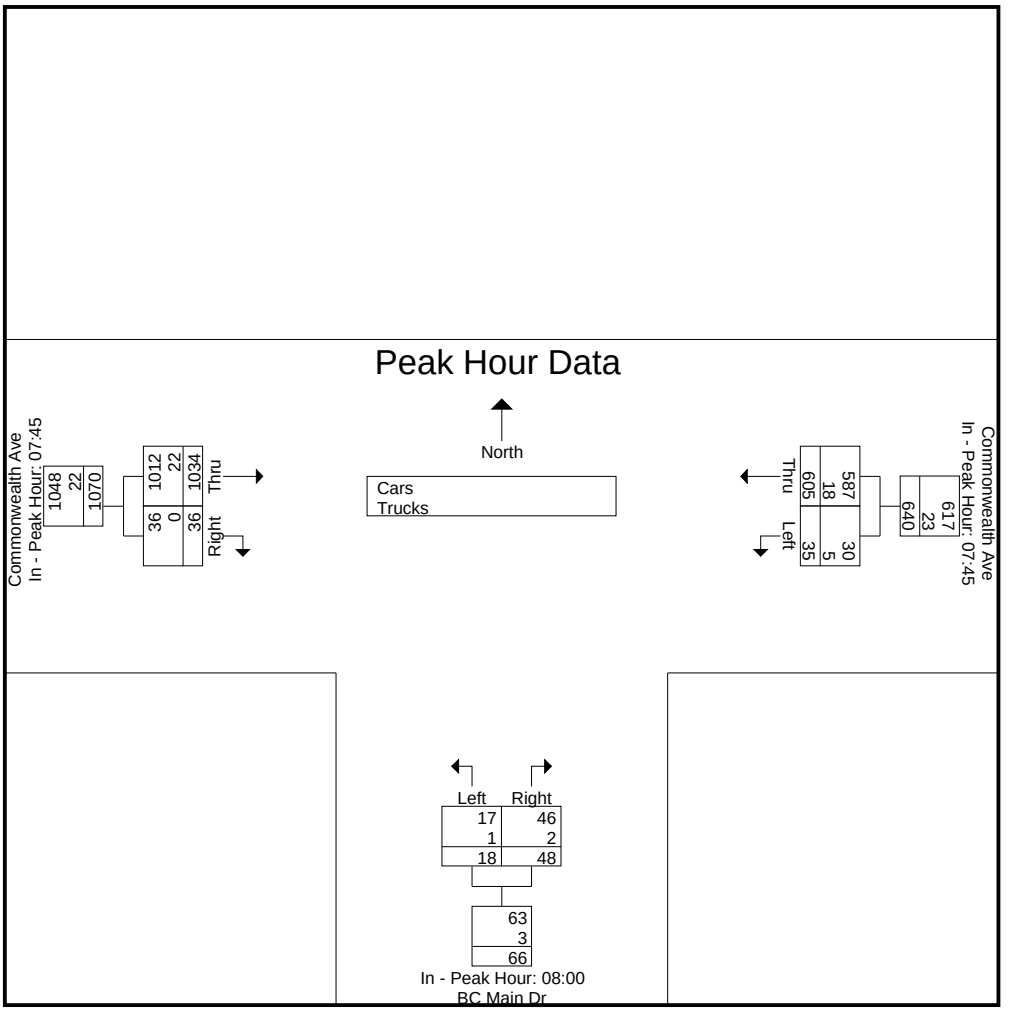
File Name : 39000021
Site Code : 39000021
Start Date : 3/25/2008
Page No : 3



N/S Street : BC Main Drive
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

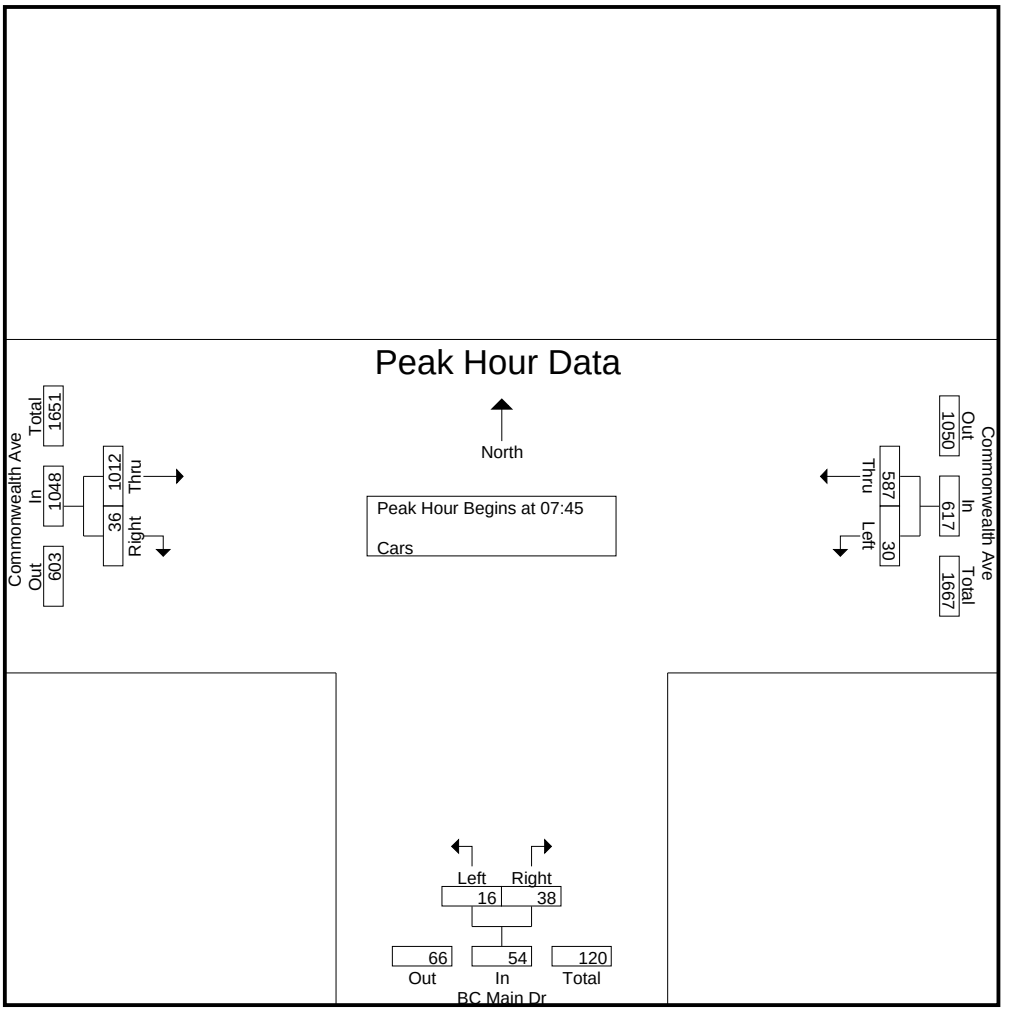
File Name : 39000021
Site Code : 39000021
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars

	Commonwealth Ave From East		BC Main Dr From South	Commonwealth Ave From West
Start Time	Left	Thru		

Accurate Counts
978-664-2565

File Name : 39000021
Site Code : 39000021
Start Date : 3/25/2008
Page No : 2



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

	08:00			08:00			07:45		
+0 mins.	7	159	166	1	4	5	253	14	267
+15 mins.	7	149	156	2	8	10	252	7	259
+30 mins.	9	140	149	12	20	32	262	8	270
+45 mins.	8	140	148	2	14	16	245	7	252
Total Volume	31	588	619	17	46	63	1012	36	1048
% App. Total	5	95		27	73		96.6	3.4	
PHF	.861	.925	.932	.354	.575	.492	.966	.643	.970

N/S Street : BC Main Drive
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000021
Site Code : 39000021
Start Date : 3/25/2008
Page No : 1

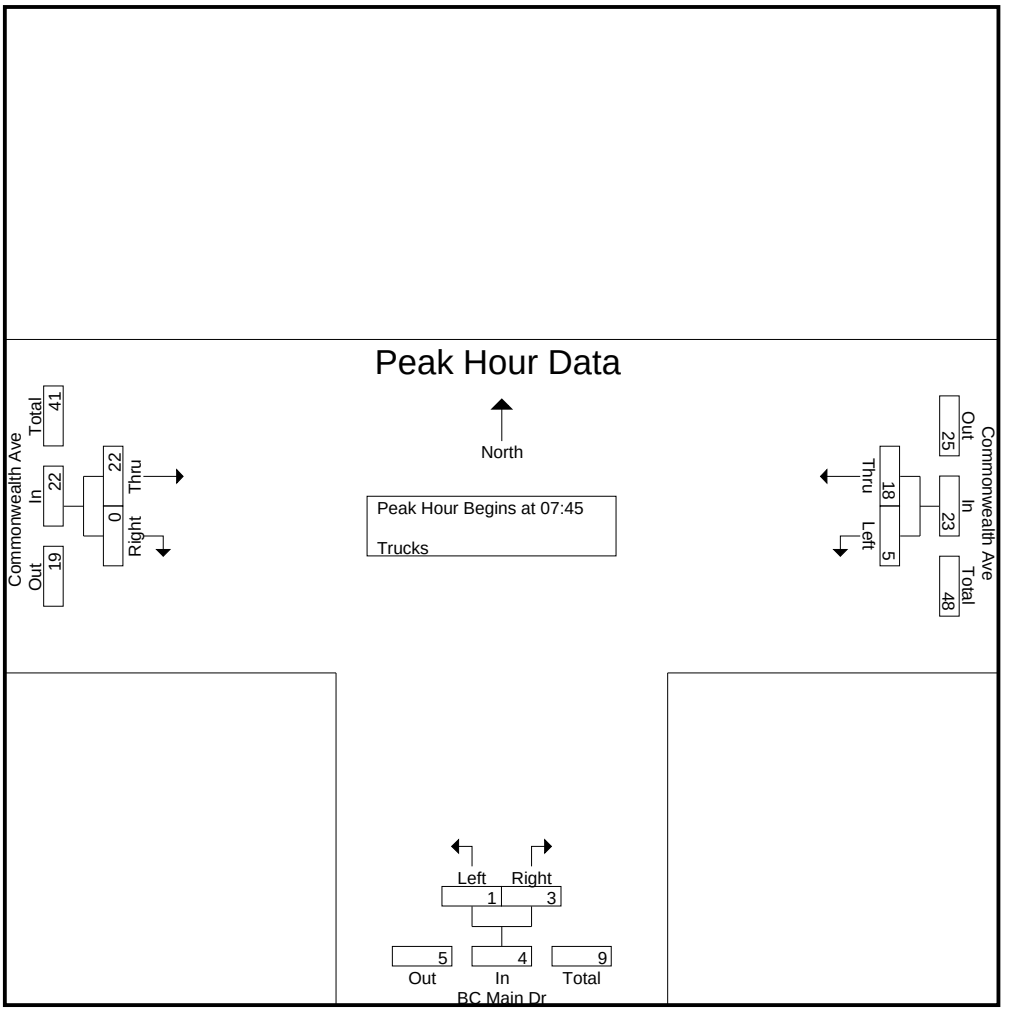
Groups Printed- Trucks

	Commonwealth Ave From East			BC Main Dr From South			Commonwealth Ave From West					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00	0	4	0	1	0	0	4	1	0	0	10	10
07:15	0	3	0	0	1	0	3	0	0	0	7	7
07:30	0	5	0	0	1	0	6	0	0	0	12	12
07:45	2	4	0	0	1	0	3	0	0	0	10	10
Total	2	16	0	1	3	0	16	1	0	0	39	39
08:00	1	4	0	0	1	0	8	0	0	0	14	14
08:15	0	6	0	0	0	0	5	0	0	0	11	11
08:30	2	4	0	1	1	0	6	0	0	0	14	14
08:45	0	3	0	0	0	0	7	0	0	0	10	10
Total	3	17	0	1	2	0	26	0	0	0	49	49
Grand Total	5	33	0	2	5	0	42	1	0	0	88	88
Apprch %	13.2	86.8		28.6	71.4		97.7	2.3				
Total %	5.7	37.5		2.3	5.7		47.7	1.1		0	100	

	Commonwealth Ave From East			BC Main Dr From South			Commonwealth Ave From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. 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	4	6	0	1	1	3	0	3	10
08:00	1	4	5	0	1	1	8	0	8	14
08:15	0	6	6	0	0	0	5	0	5	11
08:30	2	4	6	1	1	2	6	0	6	14
Total Volume	5	18	23	1	3	4				

Accurate Counts
978-664-2565

File Name : 39000021
Site Code : 39000021
Start Date : 3/25/2008
Page No : 2



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

	07:45			07:00			08:00		
+0 mins.	2	4	6	1	0	1	8	0	8
+15 mins.	1	4	5	0	1	1	5	0	5
+30 mins.	0	6	6	0	1	1	6	0	6
+45 mins.	2	4	6	0	1	1	7	0	7
Total Volume	5	18	23	1	3	4	26	0	26
% App. Total	21.7	78.3		25	75		100	0	
PHF	.625	.750	.958	.250	.750	1.000	.813	.000	.813

N/S Street : BC Main Drive
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

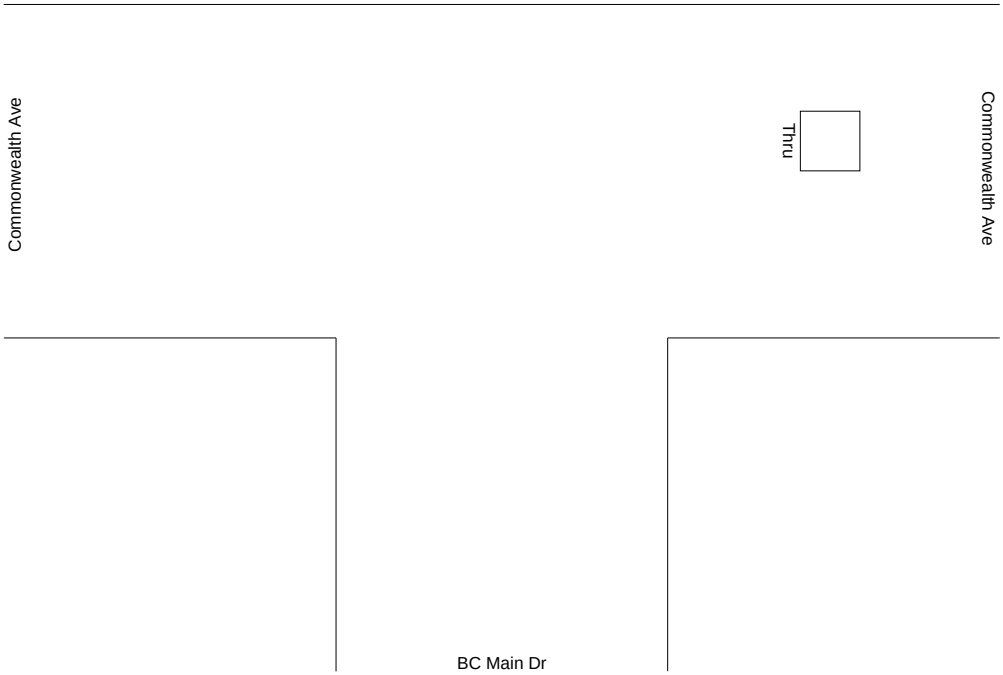
File Name : 39000021
Site Code : 39000021
Start Date : 3/25/2008
Page No : 1

Groups Printed- Cars - Trucks

	Commonwealth Ave From East			BC Main Dr From South			Commonwealth Ave From West					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	8	148	0	7	9	16	154	10	1	17	336	353
16:15	12	155	2	4	16	10	165	9	1	13	361	374
16:30	9	166	0	3	4	15	168	10	2	17	360	377
16:45	5	142	0	4	10	10	152	9	3	13	322	335
Total	34	611	2	18	39	51	639	38	7	60	1379	1439
17:00	10	173	0	10	13	32	204	15	0	32	425	457
17:15	7	170	2	7	11	16	170	8	2	20	373	393
17:30	6	198	1	6	8	18	208	1	0	19	427	446
17:45	5	172	0	7	17	9	162	7	3	12	370	382
Total	28	713	3	30	49	75	744	31	5	83	1595	1678
Grand Total	62	1324	5	48	88	126	1383	69	12	143	2974	3117
Apprch %	4.5	95.5		35.3	64.7		95.2	4.8				
Total %	2.1	44.5		1.6	3		46.5	2.3		4.6	95.4	
Cars	62	1319		48	88		1353	68		0	0	3081
% Cars	100	99.6	100	100	100	100	97.8	98.6	100	0	0	98.8
Trucks	0	5		0	0		30	1		0	0	36
% Trucks	0	0.4	0	0	0	0	2.2	1.4	0	0	0	1.2

	Commonwealth Ave From East			BC Main Dr From South			Commonwealth Ave From West	
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right

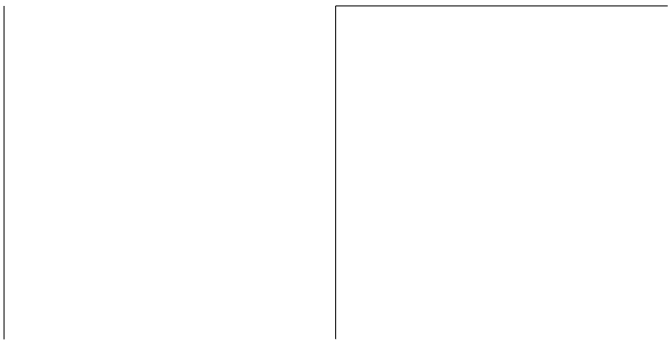
File Name : 39000021
Site Code


Commonwealth Ave
Thru
Commonwealth Ave
BC Main Dr

N/S Street : BC Main Drive
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

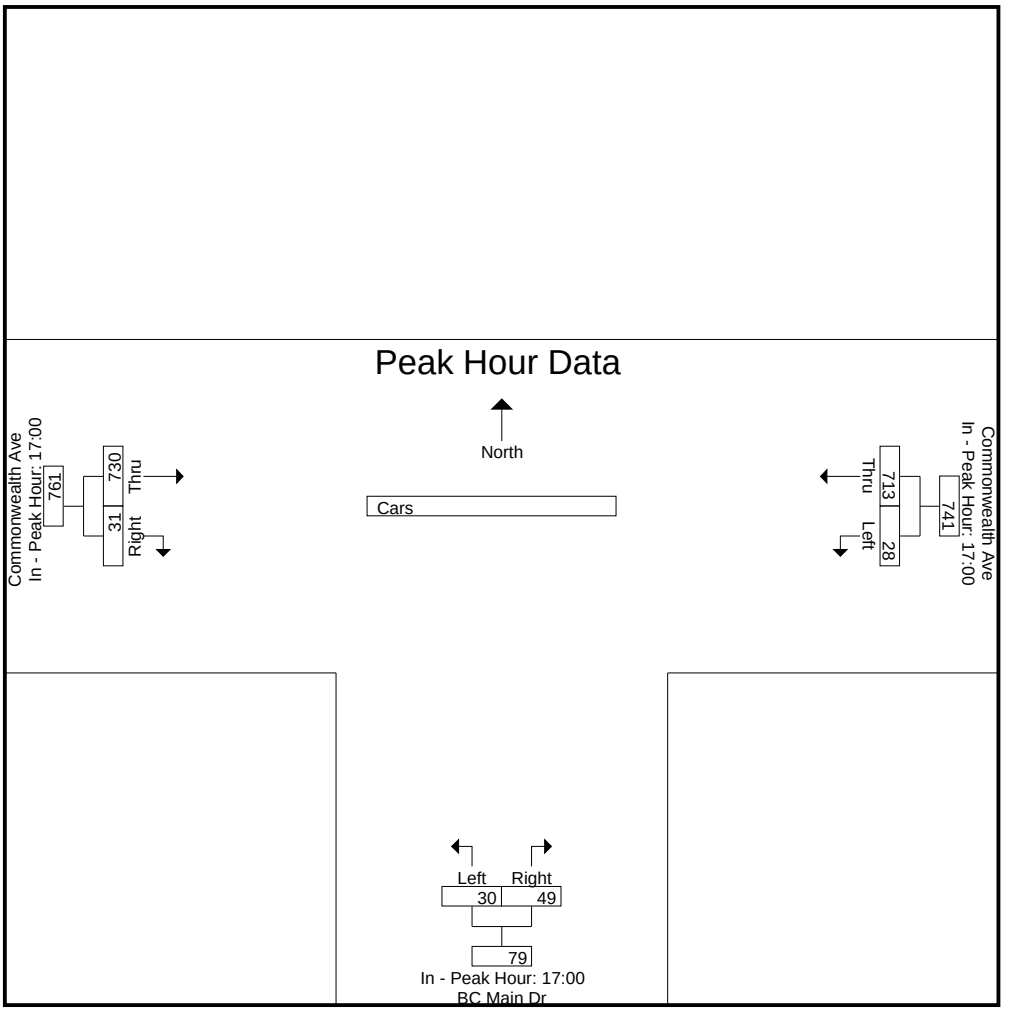
Accurate Counts
978-664-2565

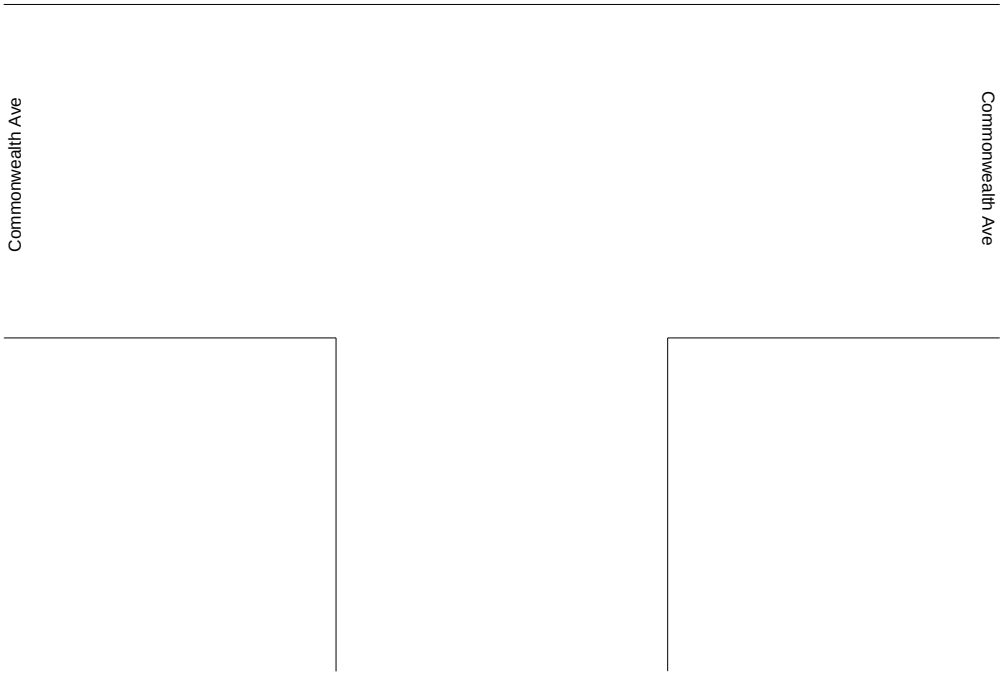
File Name : 39000021
Site Code : 39000021
Start Date : 3/25/2008
Page No : 1



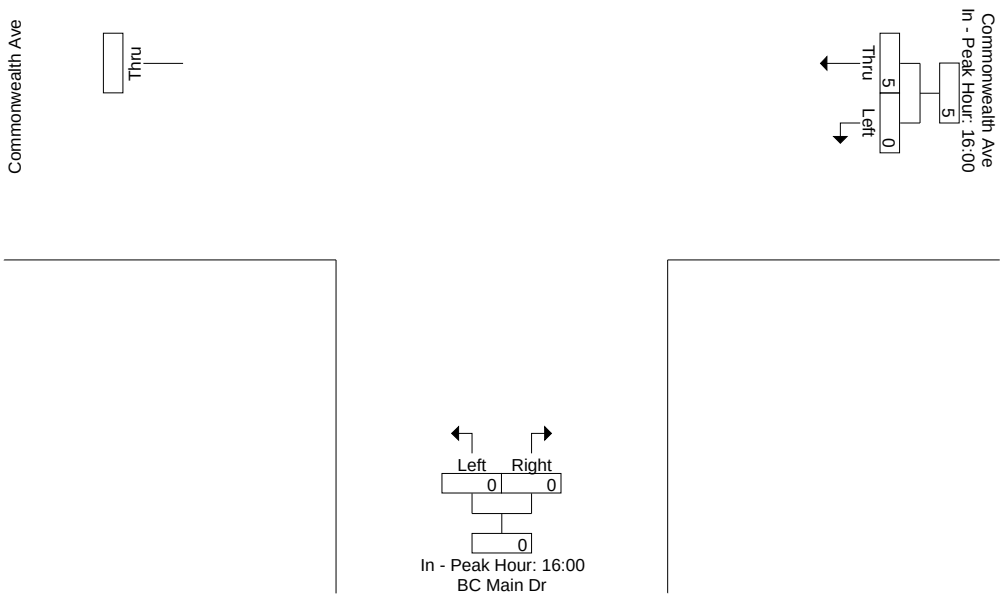
Accurate Counts
978-664-2565

File Name : 39000021
Site Code : 39000021
Start Date : 3/25/2008
Page No : 3




Commonwealth Ave
Commonwealth Ave

File Name : 39000021
Site Code : 39000021
Start Date : 3/25/2008
Page No : 3



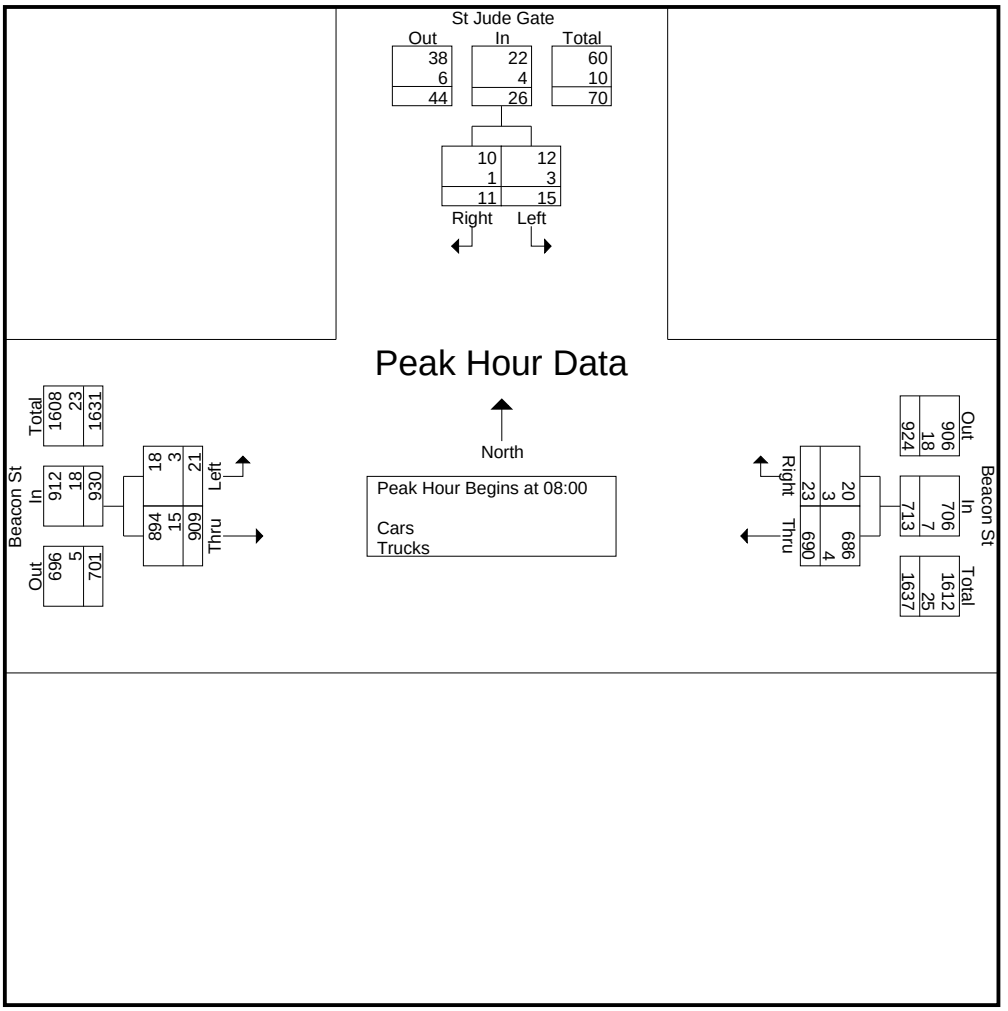
N/S Street : St. Jude Gate

Accurate Counts
978-664-2565

File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 1

Accurate Counts
978-664-2565

File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 2



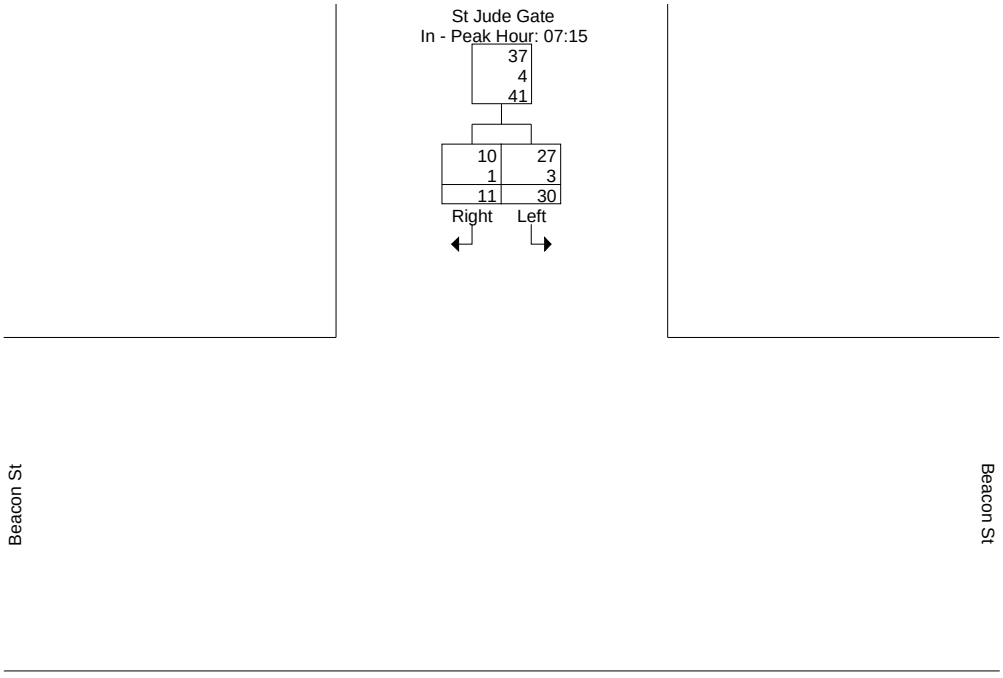
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15			08:00			08:00		
+0 mins.	19	7	26	171	6	177	3	229	232
+15 mins.	5	1	6	164	4	168	4	208	212
+30 mins.	4	1	5	177	7	184	7	242	249
+45 mins.	2	2	4	178	6	184	7	230	237
Total Volume	30	11	41	690	23	713	21	909	930
% App. Total	73.2	26.8		96.8	3.2		2.3	97.7	
PHF	.395	.393	.394	.969	.821	.969	.750	.939	.934
Cars	27	10	37	686	20	706	18	894	912
% Cars	90	90.9	90.2	99.4	87	99	85.7	98.3	98.1
Trucks	3	1	4	4	3	7	3	15	18
% Trucks	10	9.1	9.8	0.6	13	1	14.3	1.7	1.9

Accurate Counts
978-664-2565

File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 3



File Name : 39000022
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Accurate Counts
978-664-2565

File Name : 39000022
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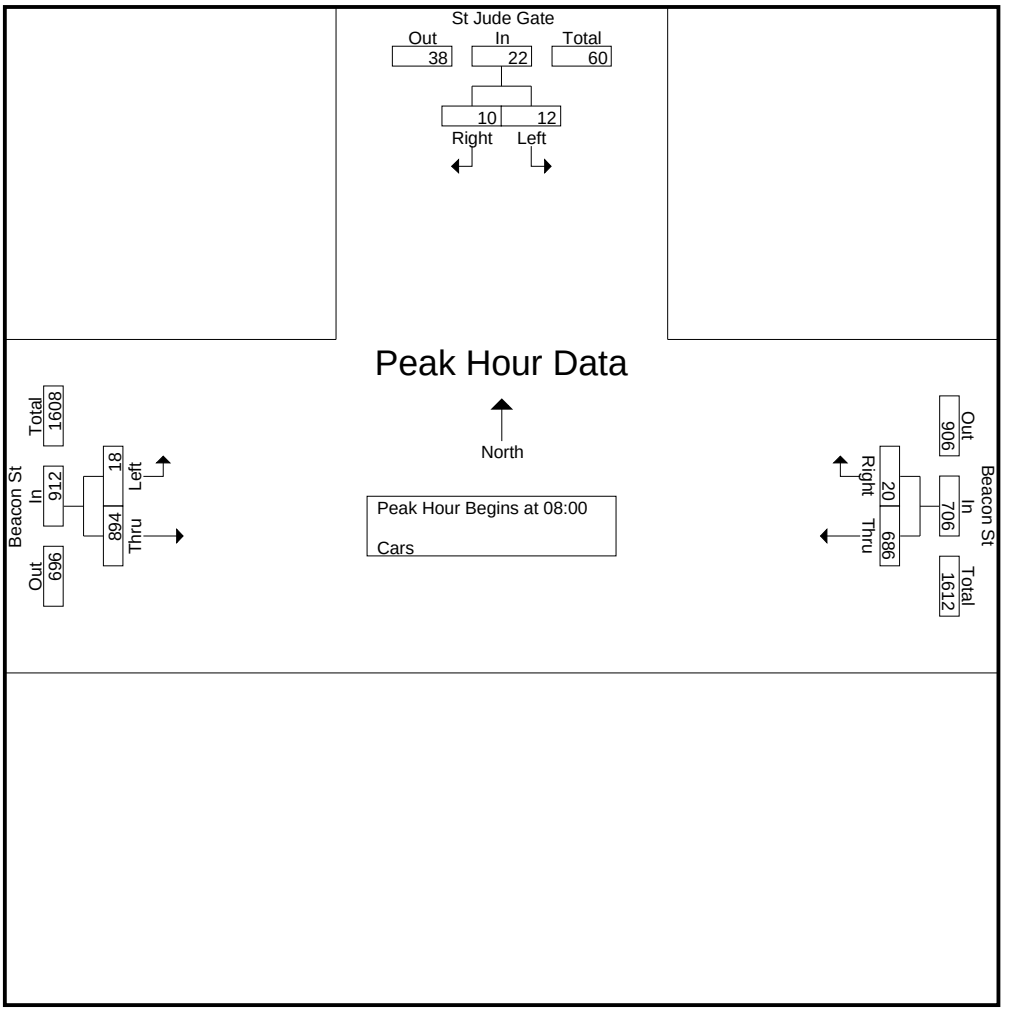
Start Date : 3/25/2008
Page No : 2



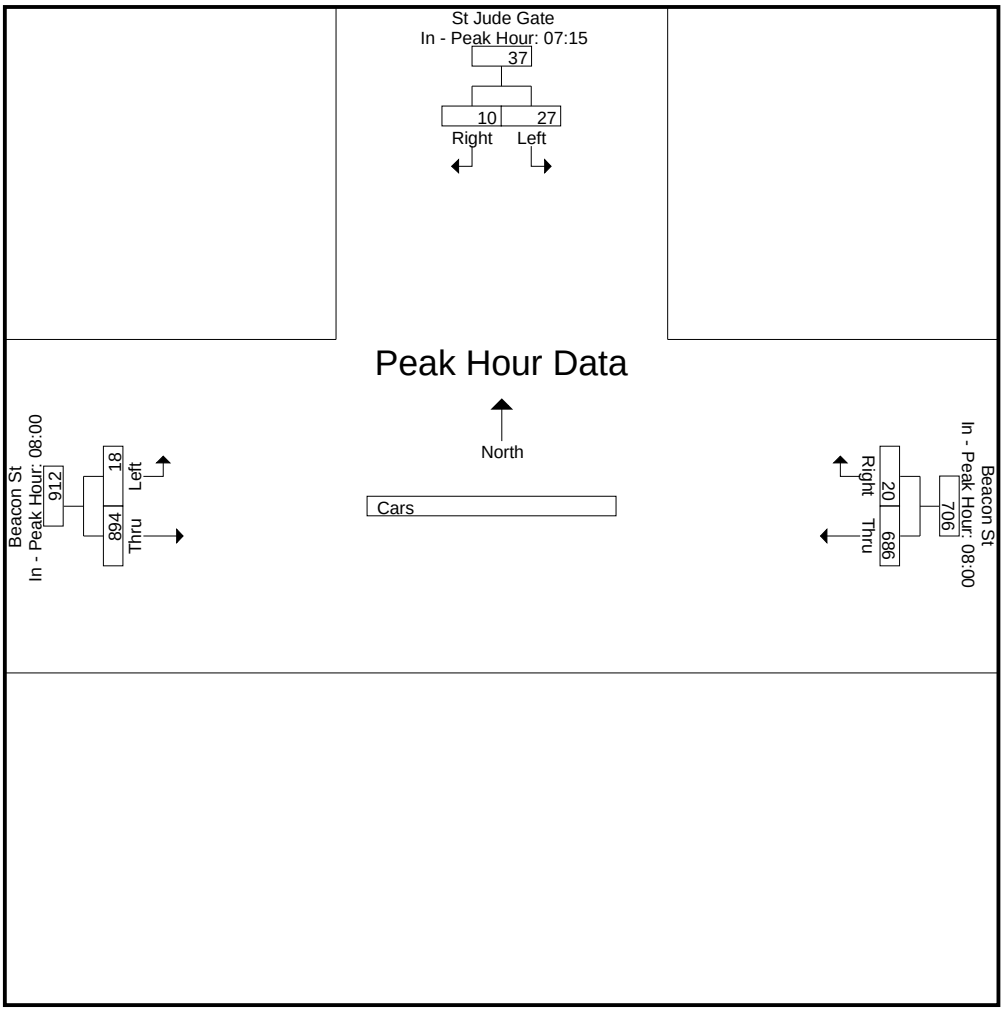
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15			08:00			08:00		
+0 mins.	19	7	26	171	5	176	2	227	229
+15 mins.	3	1	4	164	4	168	4	206	210
+30 mins.	4	0	4	175	5	180	5	238	243
+45 mins.	1	2	3	176	6	182	7	223	230
Total Volume	27	10	37	686	20	706	18	894	912
% App. Total	73	27		97.2	2.8		2	98	
PHF	.355	.357	.356	.974	.833	.970	.643	.939	.938

Accurate Counts
978-664-2565

File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 3



N/S Street : St. Jude Gate
E/W Street: Beacon Street
City/State : Brookline, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 1

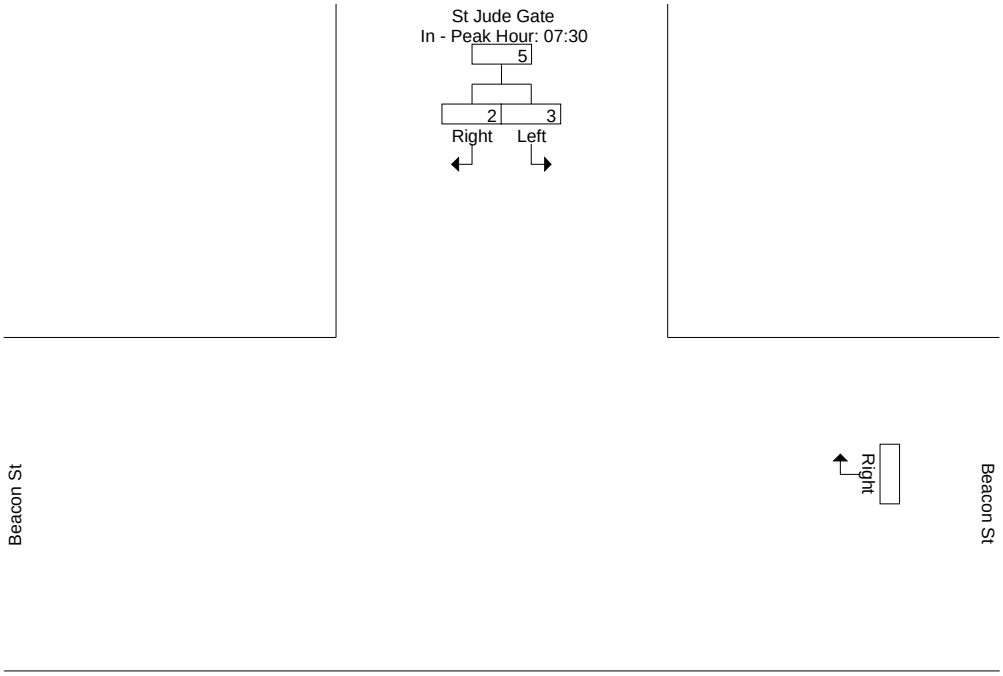
Groups Printed- Trucks

	St Jude Gate

Accurate Counts
978-664-2565

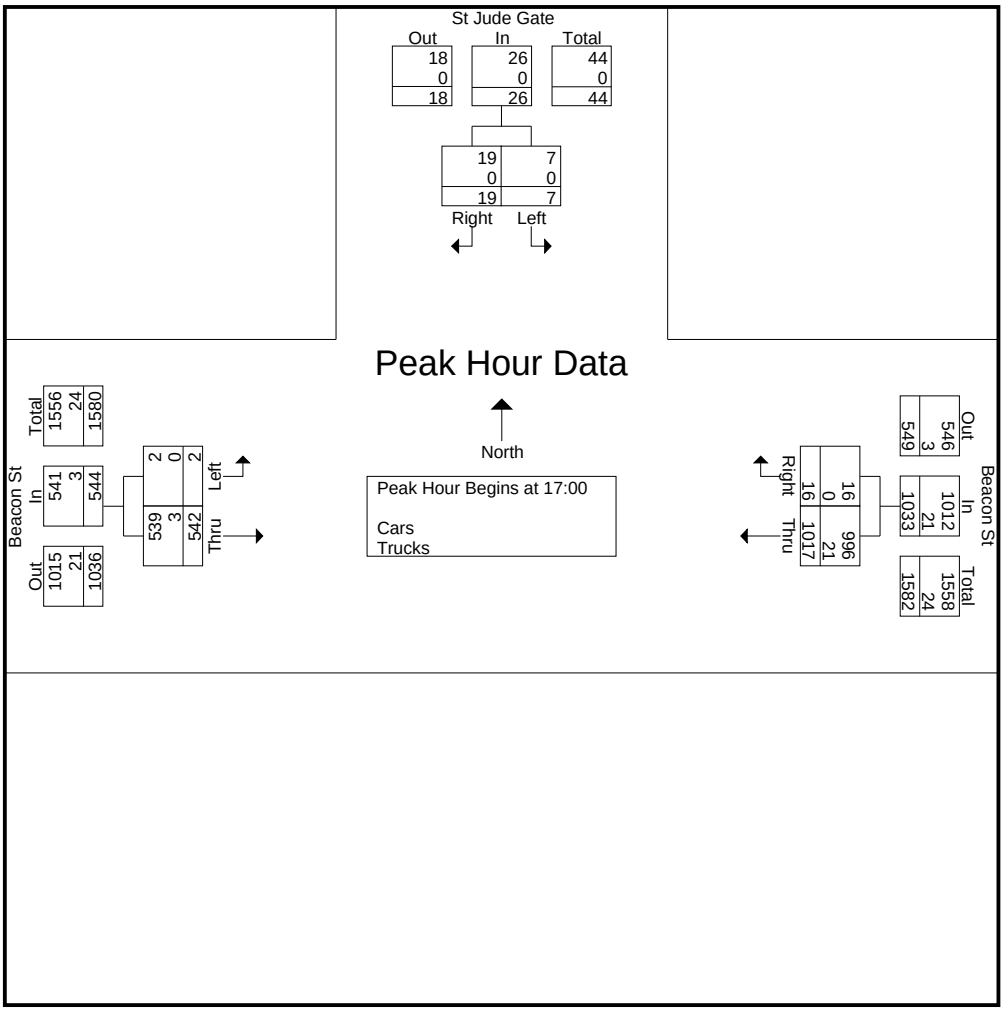
Accurate Counts
978-664-2565

File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 3



Accurate Counts
978-664-2565

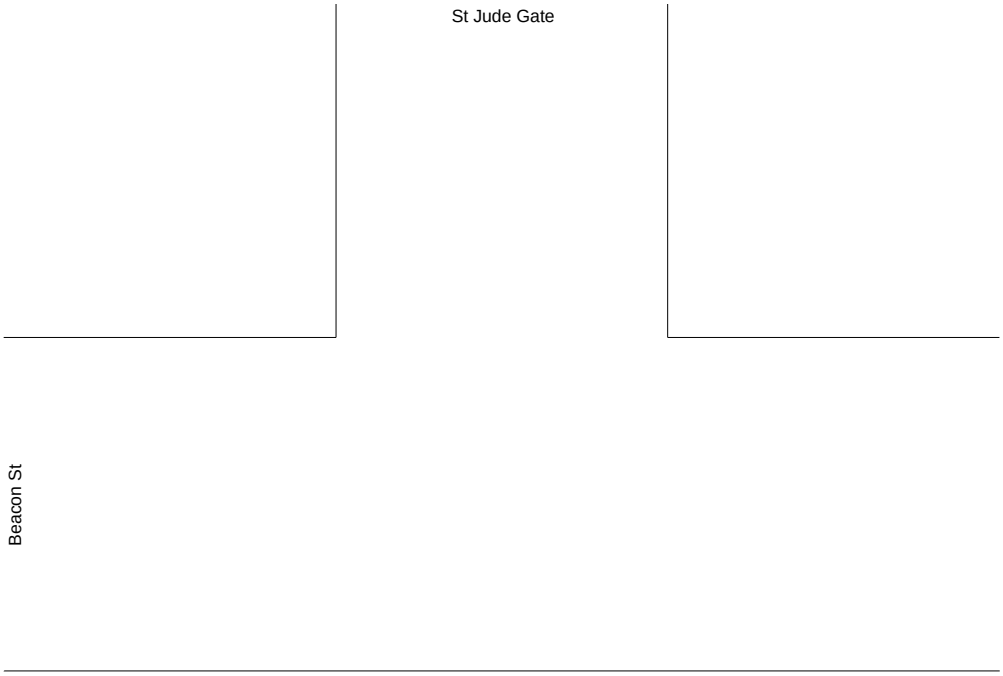
File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 2



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

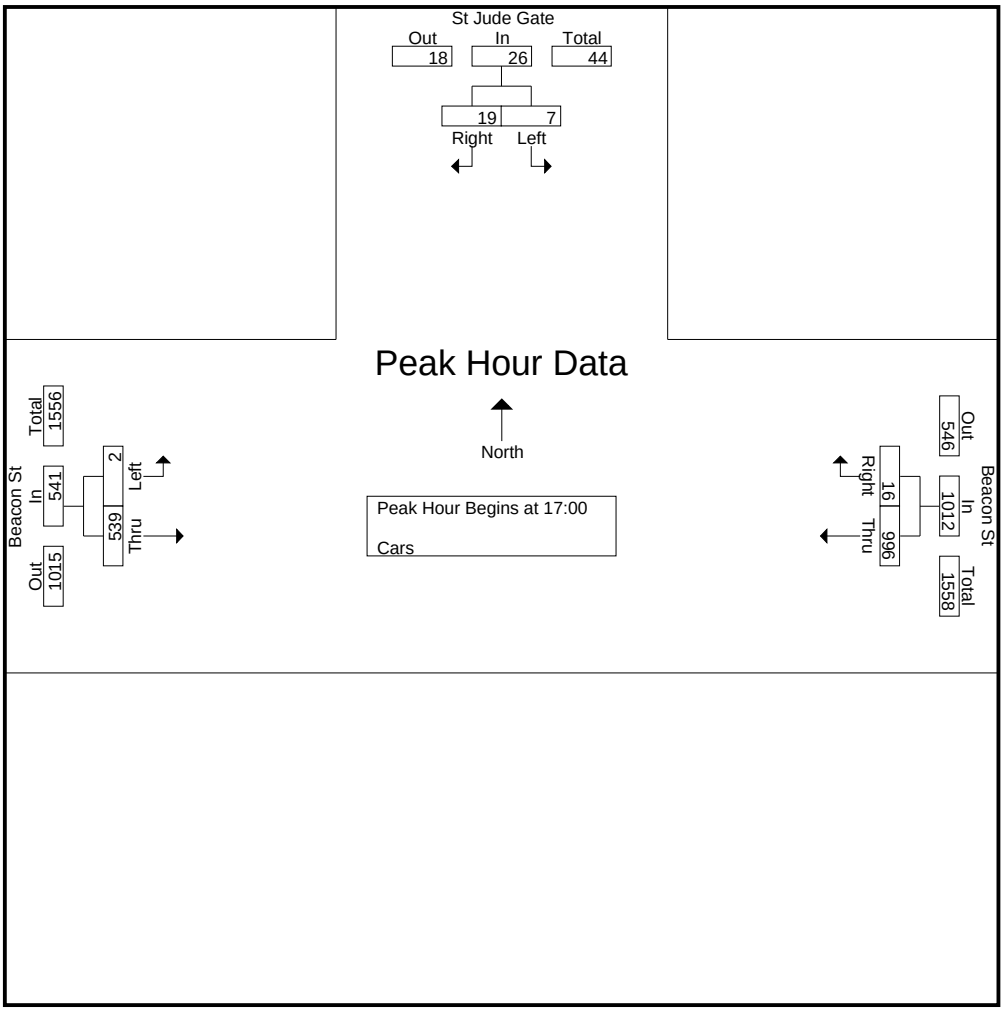
Peak Hour for Each Approach Begins at:

	16:00			17:00			17:00		
+0 mins.	6	6	12	244	3	247	0	127	127
+15 mins.	8	6	14	248	5	253	0	155	155
+30 mins.	9	8	17	248	6	254	1	127	128
+45 mins.	1	3	4	277	2	279	1	133	134
Total Volume	24	23	47	1017	16	1033	2	542	544
% App. Total									


St Jude Gate
Beacon St

Accurate Counts
978-664-2565

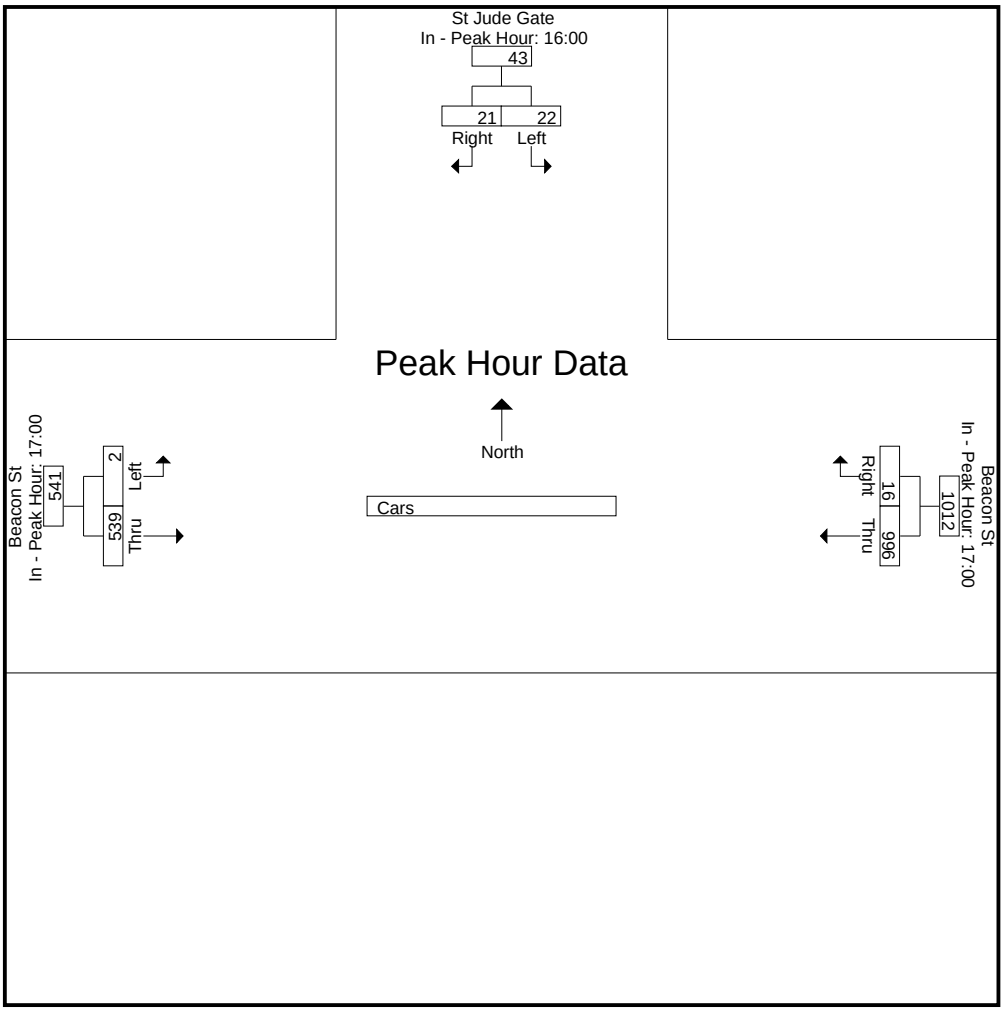
File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 2



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

Accurate Counts
978-664-2565

File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 3



N/S Street : St. Jude Gate
E/W Street: Beacon Street
City/State : Brookline, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 1

Groups Printed- Trucks

	St Jude Gate From North			Beacon St From East			Beacon St From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	0	1	0	11	1	0	0	1	0	0	14	14
16:15	1	0	0	7	0	0	0	1	0	0	9	9
16:30	1	1	0	7	0	0	0	0	0	0	9	9
16:45	0	0	0	6	0	0	1	0	0	0	7	7
Total	2	2	0	31	1	0	1	2	0	0	39	39

ST87.856 591.47 Td -2.6T87.856l %ST87.856 l48 -89T87.856 591.47 47 -8 TT87.856l %ST6S 64 591.47 Td -56TT78.55 l %

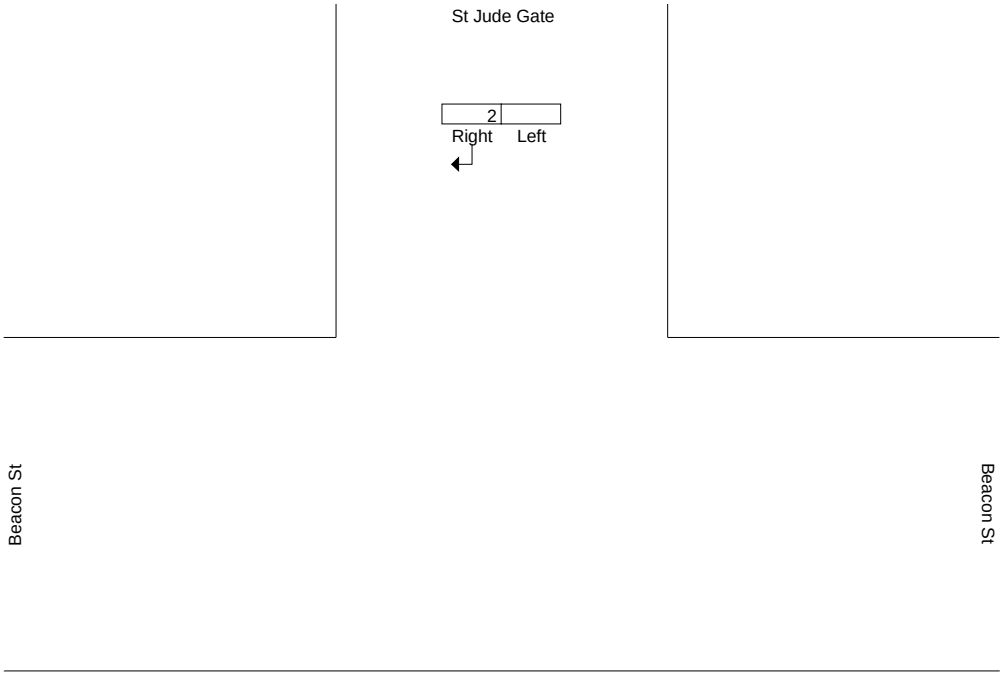
17:00	0	0	0	6	0	0	0	0	0	0	6	6
17:15	0	0	0	3	0	0	0	1	0	0	4	4
17:30	0	0	0	7	0	0	0	2	0	0	9	9
17:45	0	0	0	5	0	0	0	0	0	0	5	5
Total	0	0	0	21	0	0	0	3	0	0	24	24
Grand Total	2	2	0	52	1	0	1	5	0	0	63	63
Apprch %	50	50		98.1	1.9		16.7	83.3				
Total %	3.2	3.2		82.5	1.6		1.6	7.9		0	100	

	St Jude Gate From North			Beacon St From East	Beacon St From West
Start Time	Left	Right	App. Total		

Start7l S 1Ts (Start7l S 3.38 8 Ts 38 8 Ts (Start7l S 1Ts (Star94.2.l S 3.38.24 443.38 8 TsE5Gt7l S 1Ts (Star94.2.l S 3.384 m 194.28 452.03s24 443.38 4art7l444.84 554..384 m 19 (Sta38 4ar

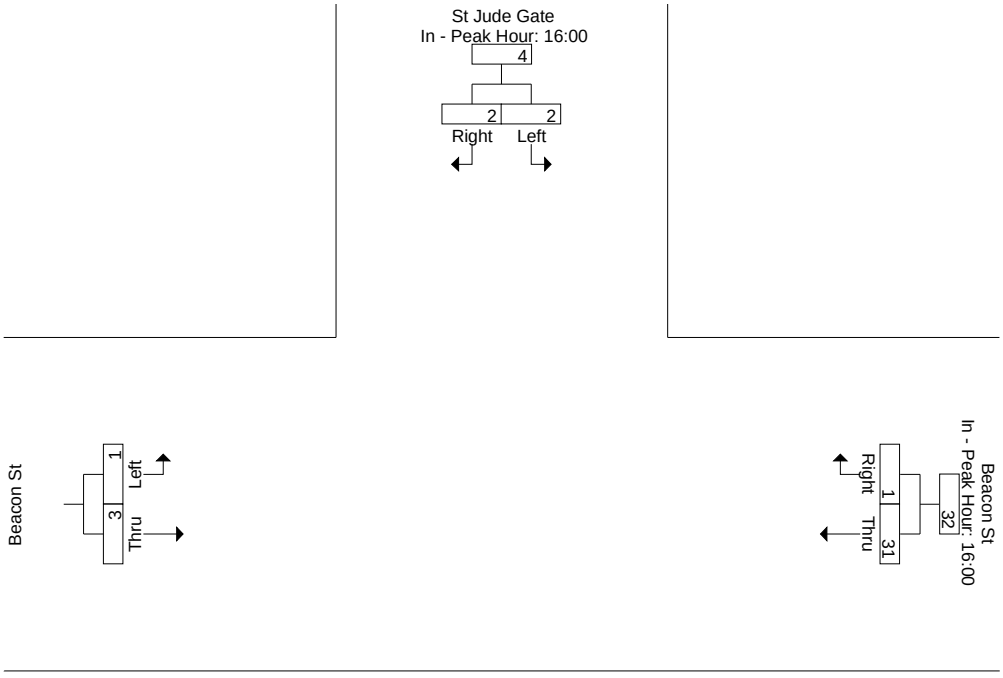
Accurate Counts
978-664-2565

File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 2



Accurate Counts
978-664-2565

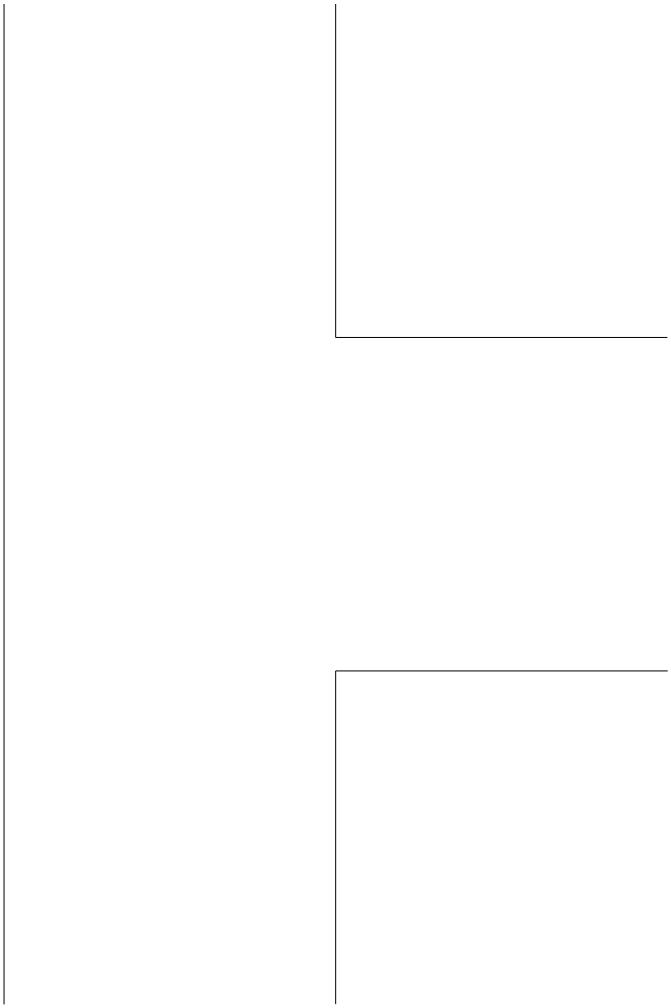
File Name : 39000022
Site Code : 39000022
Start Date : 3/25/2008
Page No : 3



N/S Street : St. Thomas More Road
E/W Street: Chestnut Hill Driveway
City/State : Brighton, MA

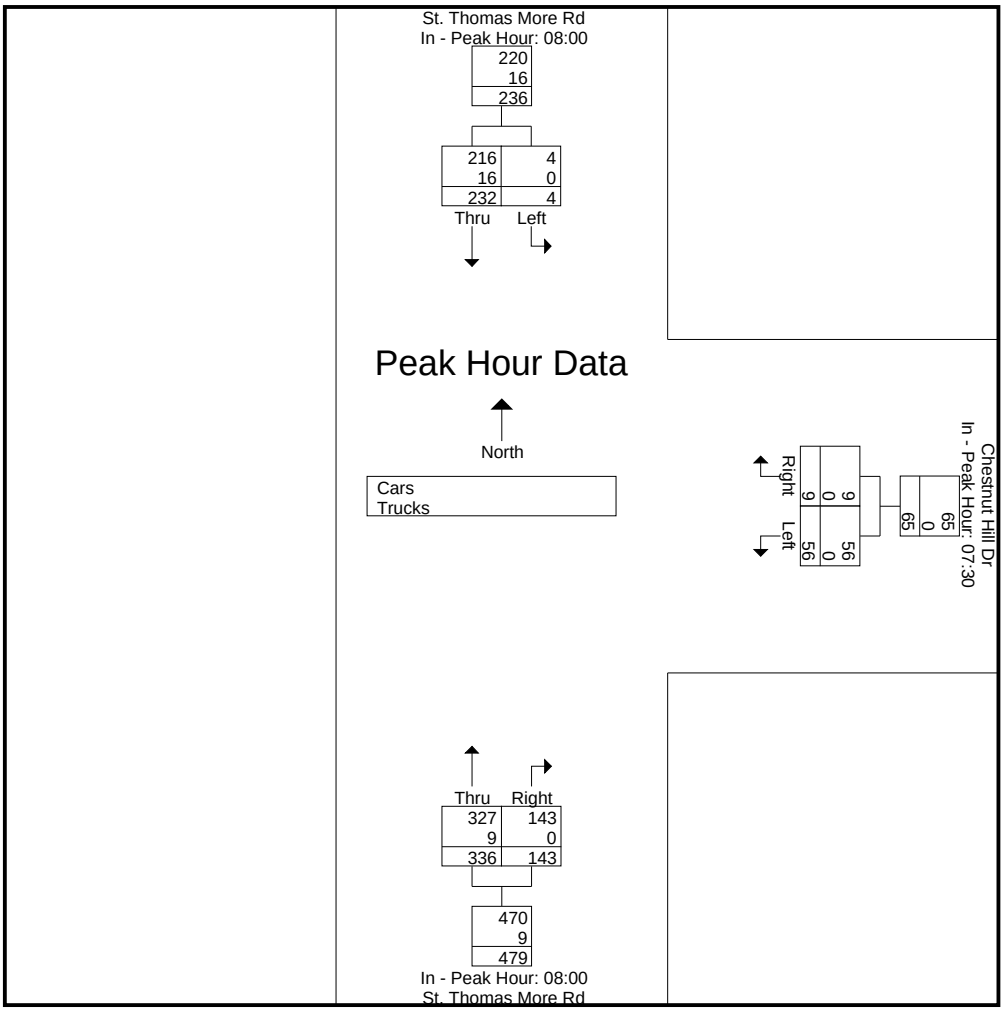
Accurate Counts
978-664-2565

File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008



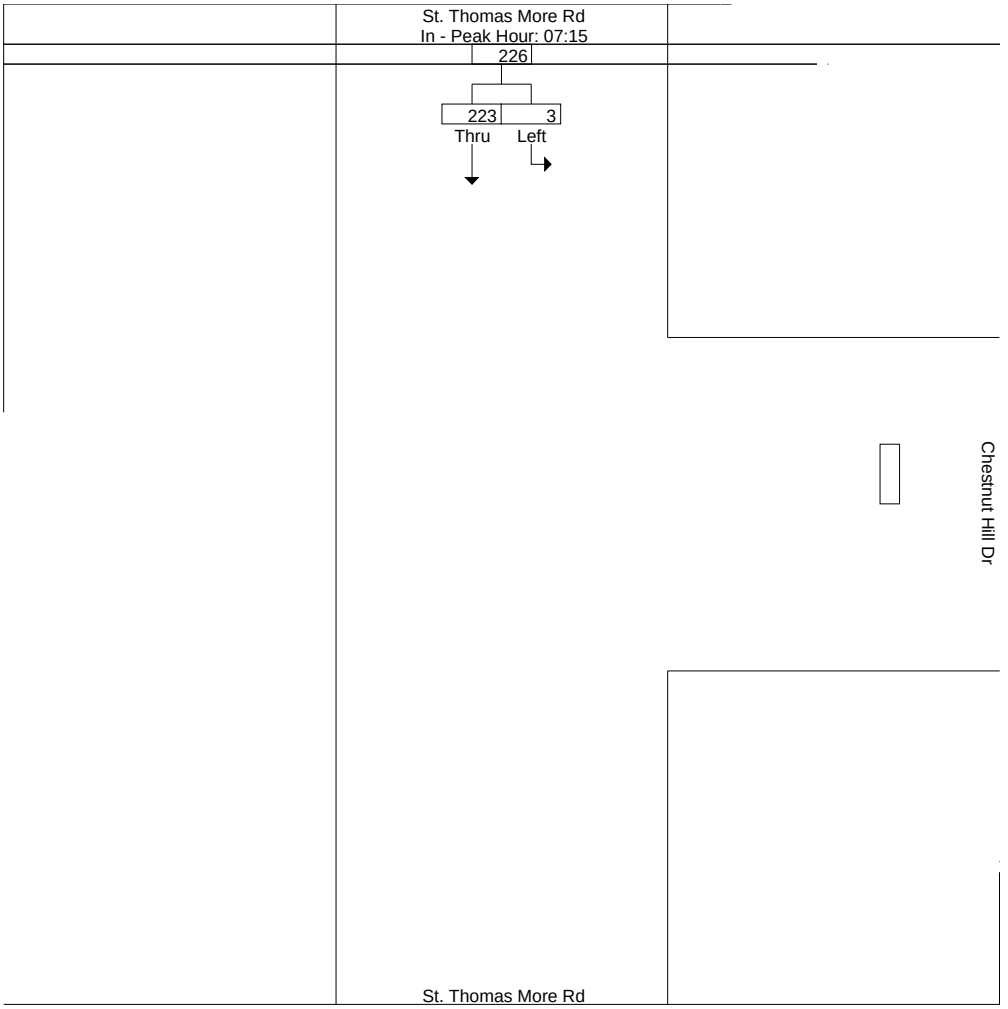
Accurate Counts
978-664-2565

File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008
Page No : 3



N/S Street : St. Thomas More Road
E/W Street: Chestnut Hill Driveway
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

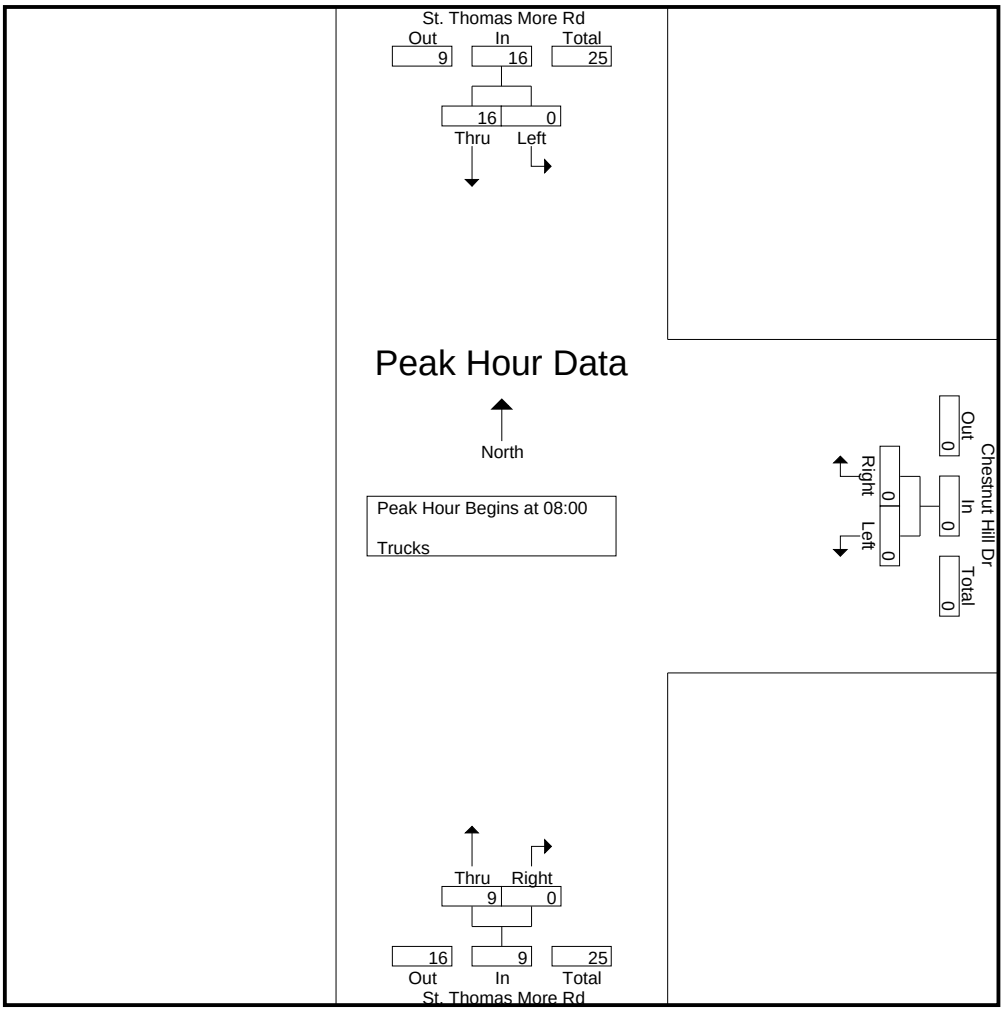
File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008

Groups Printed- Trucks

	St. Thomas More Rd From North			Chestnut Hill Dr From East		St. Thomas More Rd From South
Start Time	Left	Thru	Peds	Left	Right	

Accurate Counts
978-664-2565

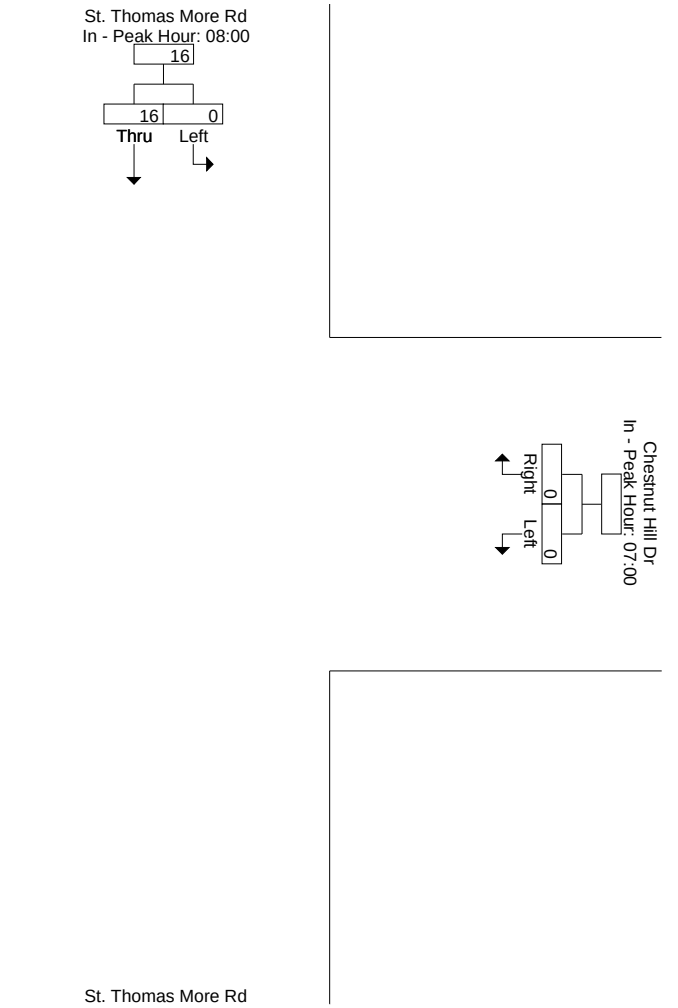
File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008
Page No : 2



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

	08:00			07:00			07:45		
+0 mins.	0	4	4	0	0	0	2	0	2
+15 mins.	0	2	2	0	0	0	2	0	2
+30 mins.	0	6	6	0	0	0	3	0	3
+45 mins.	0	4	4	0	0	0	3	0	3
Total Volume	0	16	16	0	0	0	10	0	10
% App. Total	0	100		0	0		100	0	
PHF	.000	.667	.667	.000	.000	.000	.833	.000	.833

File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008
Page No : 3



N/S Street : St. Thomas More Road
E/W Street: Chestnut Hill Driveway
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

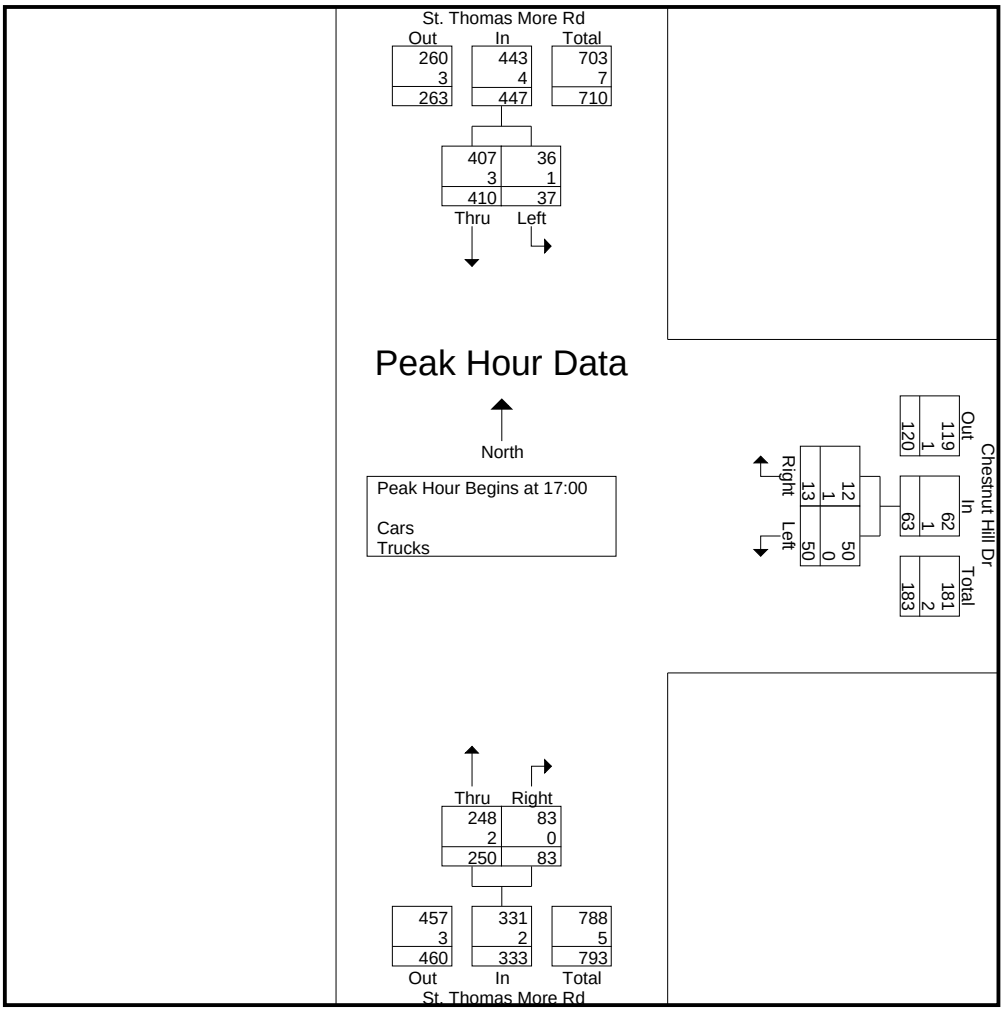
File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008
Page No : 1

Groups Printed- Cars - Trucks

	St. Thomas More Rd From North			Chestnut Hill Dr From East			St. Thomas More Rd From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	9	98	0	15	2	3	59	19	0	3	202	205
16:15	6	117	0	16	1	4	58	22	1	5	220	225
16:30	9	92	0	23	2	3	60	15	2	5	201	206
16:45	8	96	0	14	3	5	46	12	0	5	179	184
Total	32	403	0									

Accurate Counts
978-664-2565

File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008
Page No : 2



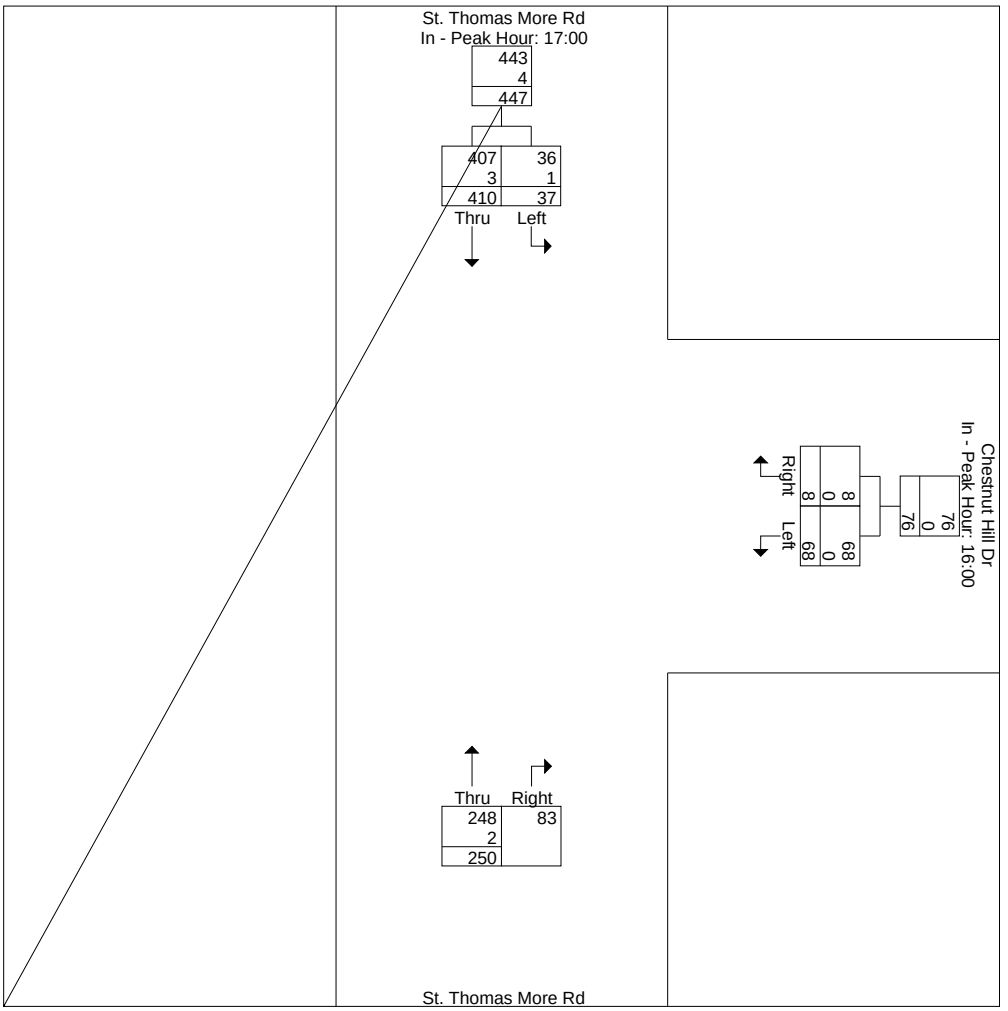
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	17:00			16:00			17:00		
+0 mins.	11	96	107	15	2	17	55	15	70
+15 mins.	8	108	116	16	1	17	75	20	95
+30 mins.	5	102	107	23	2	25	56	27	83
+45 mins.	13	104	117	14	3	17	64	21	85
Total Volume	37	410	447	68	8	76	250	83	333
% App. Total	8.3	91.7		89.5	10.5		75.1	24.9	
PHF	.712	.949	.955	.739	.667	.760	.833	.769	.876
Cars	36	407	443	68	8	76	248	83	331
% Cars	97.3	99.3	99.1	100	100	100	99.2	100	99.4
Trucks	1	3	4	0	0	0	2	0	2
% Trucks	2.7	0.7	0.9	0	0	0	0.8	0	0.6

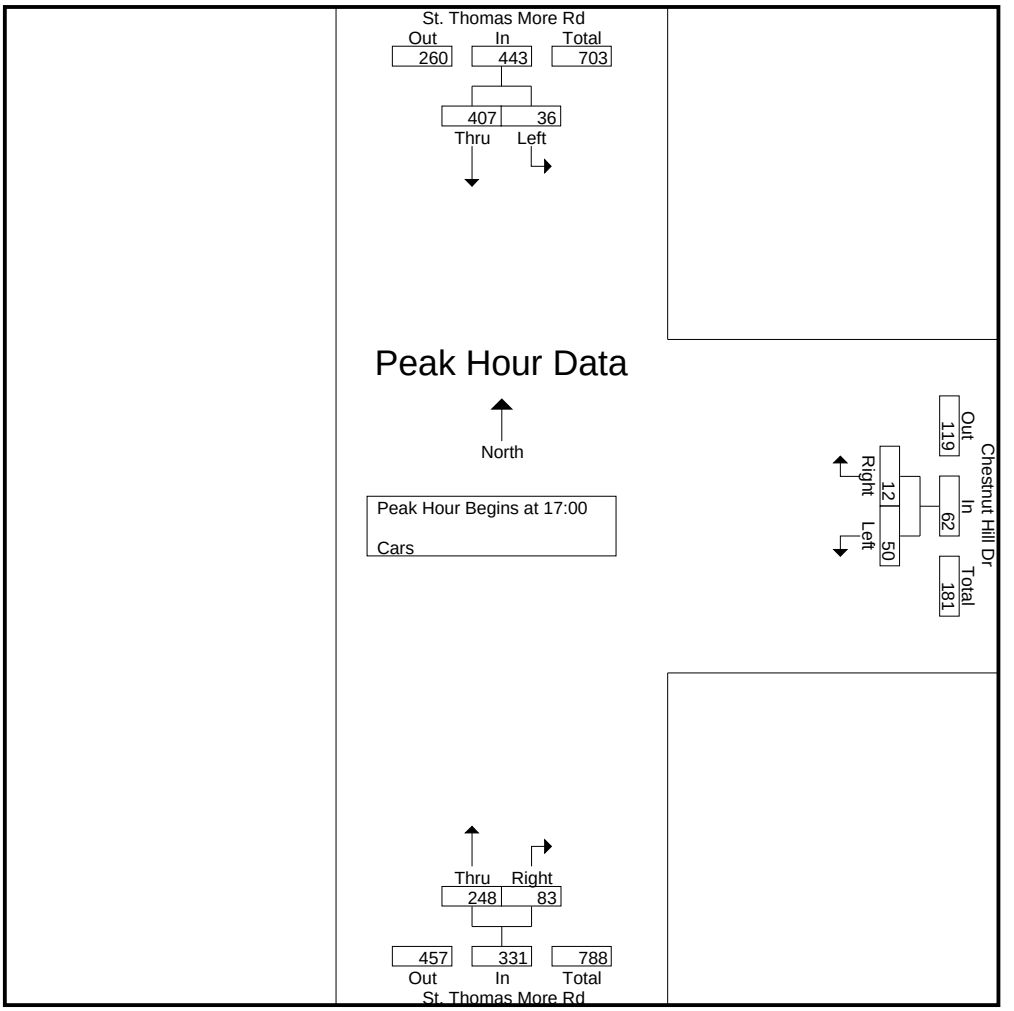
Accurate Counts
978-664-2565

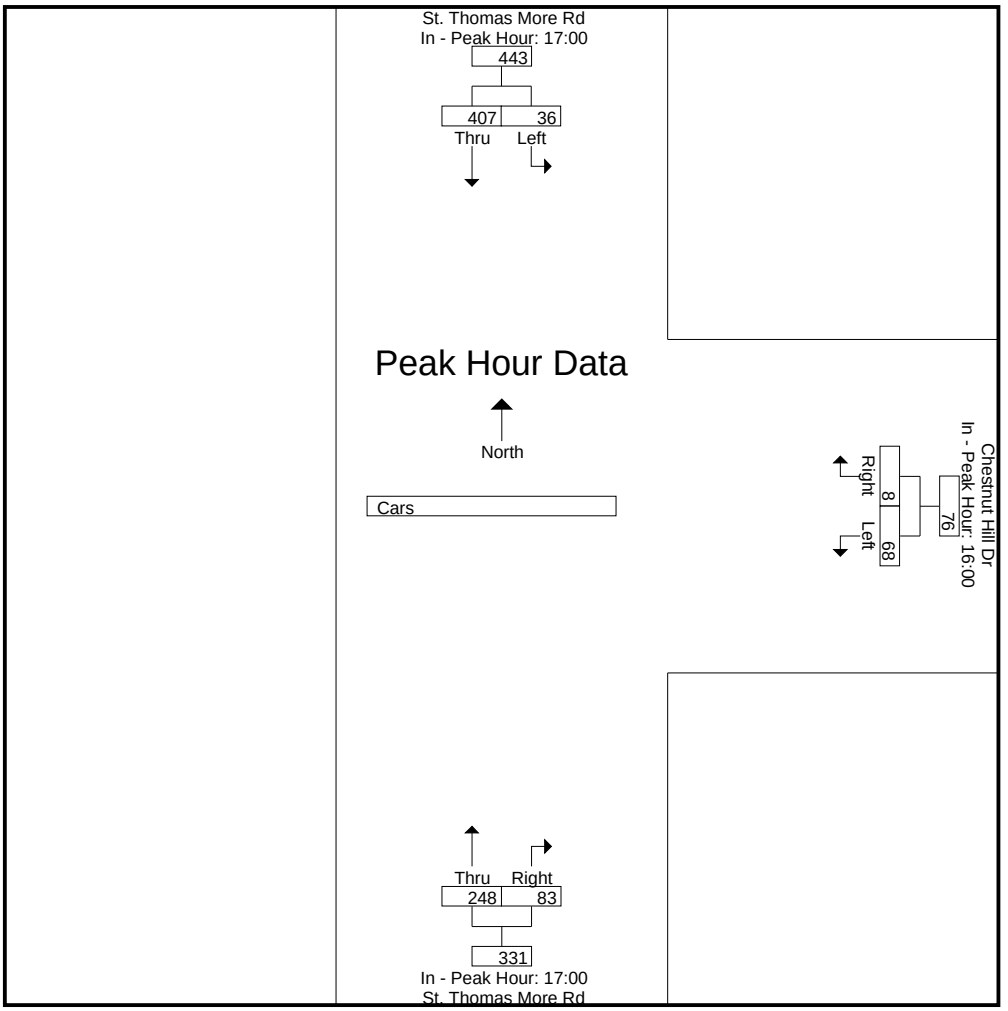
File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008
Page No : 3



Accurate Counts
978-664-2565

File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008
Page No : 2




St. Thomas More Rd
In - Peak Hour: 17:00
443
407
36
Thru
Left
Peak Hour Data
North
Cars
Chestnut Hill Dr
In - Peak Hour: 16:00
76
8
68
Right
Left
Thru
Right
248
83
331
In - Peak Hour: 17:00
St. Thomas More Rd

N/S Street : St. Thomas More Road
E/W Street: Chestnut Hill Driveway
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

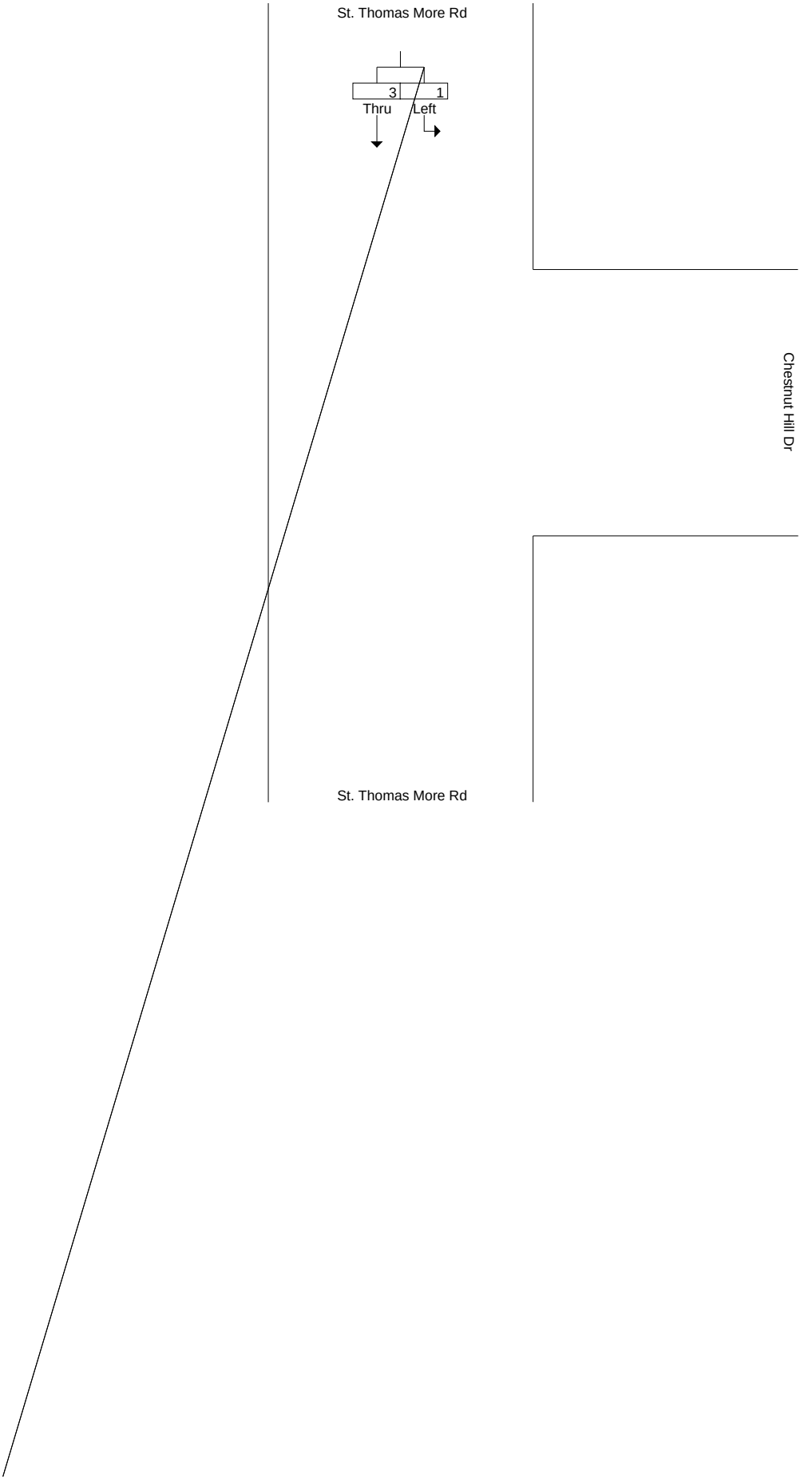
File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008
Page No : 1

Groups Printed- Trucks

	St. Thomas More Rd From North			Chestnut Hill Dr From East			St. Thomas More Rd From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	1	0	0	0	0	0	0	0	0	1	1
16:45	0	1	0	0	0	0	0	0	0	0	1	1
Total	0	2	0	0	0	0	0	0	0	0	2	2
17:00	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	1	0	0	0	0	1	0	0	0	2	2
17:45	1	2	0	0	1	0	1	0	0	0	5	5
Total	1	3	0	0	1	0	2	0	0	0	7	7
Grand Total	1	5	0	0	1	0	2	0	0	0	9	9
Apprch %	16.7	0 s6 535-9..76	- s6 535-08.17.64 517.434f	- s6 516 554.45	l SS	Bd -8 Ts (2) Tj E- s6 516 554.45	0	08 m9ET5E- s6 5.98	m9ET5E08.17.64			

Accurate Counts
978-664-2565

File Name : 39000023
Site Code : 39000023
Start Date : 4/9/2008
Page No : 2



N/S Street : Lake St / St Thomas Moore
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 390000B1
Site Code : 39000001
Start Date : 5/1/2008
Page No : 1

Groups Printed- Cars

	Lake St From North			Commonwealth Ave From East			St Thomas Moore Rd From South			Commonwealth Ave From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00	0	0	0	0	1	0	0	0	0	0	1	0	2
07:15	0	0	0	0	1	0	0	1	0	0	2	0	4
07:30	0	0	0	0	0	0	0	0	0	0	1	0	1
07:45	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	2	0	0	2	0	0	4	0	8
08:00	0	0	0	0	0	0	0	1	0	0	1	0	2
08:15	0	2	0	0	0	0	0	0	0	0	0	0	2
08:30	0	0	0	2	0	0	0	0	0	0	0	0	2
08:45	0	0	0	1	4	0	0	0	0	0	3	0	8
Total	0	2	0	3	4	0	0	1	0	0	4	0	14
Grand Total	0	2	0	3	6	0	0	3	0	0	8	0	22
Apprch %	0	100	0	33.3	66.7	0	0	100	0	0	100	0	
Total %	0	9.1	0	13.6	27.3	0	0	13.6	0	0	36.4	0	

	Lake St From North	Commonwealth Ave From East	St Thomas Moore Rd From South	Commonwealth Ave From West

13.8 447.59 l S t 3.8 447.3 4 m 553.8 447.59 l

36.4

13.8 4473 183T4 3.8 44736466.58 3.8 4473646584628255364 66.58 m 145553 183Tj ET m 74.B8 8.29 Tf362805.364658490 45536466.58 m 1473 4S 183Tj ET m 74.4 Td -8.29 T39

36.4

N/S Street : Lake St / St Thomas Moore
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 390000B1
Site Code : 39000001
Start Date : 5/1/2008

Groups Printed- Cars

	Lake St From North			Commonwealth Ave From East			St Thomas Moore Rd From South			Commonwealth Ave From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
16:00	0	0	0	1	2	0	0	0	0	0	0	0	3
16:15	0	0	0	1	1	0	0	0	2	0	2	0	6
16:30	0	0	0	0	2	0	0	0	0	0	0	0	2
16:45	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	2	6	0	0	0	2	0	2	0	12
17:00	0	0	0	2	0	0	0	0	0	0	3	0	5
17:15	0	0	1	2	0	0	0	0	0	0	7	0	10
17:30	0	1	0	0	1	1	0	0	1	0	0	0	4
17:45	0	1	0	1	0	0	0	0	1	1	3	1	8
Total	0	2	1	5	1	1	0	0	2	1	13	1	27
Grand Total	0	2	1	7	7	1	0	0	4	1	15	1	

Accurate Counts
978-664-2565

File Name : 390000B2
Site Code : 39000002
Start Date : 5/1/2008
Page No : 1

N/S Street : St. Thomas Moore Road
E/W Street: Chestnut Hill Drive
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 390000b6
Site Code : 39000006
Start Date : 5/1/2008
Page No : 1

Groups Printed- Bikes

	St Thomas Moore Rd From North		Chestnut Hill Dr From East		St Thomas Moore Rd From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
16:00	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	
Total %							

	St Thomas Moore Rd From North			Chestnut Hill Dr From East	St Thomas Moore Rd From West
Start Time	Left	Right	App. Total		

N/S Street : Hammond Street
E/W Street: Beacon Street

Accurate Counts
978-664-2565

File Name : 390000B7
Site Code : 39000007
Start Date : 5/1/2008
Page No : 1

N/S Street : Hammond Street
E/W Street: Beacon Street
City/State : Newton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 390000B7
Site Code : 39000007
Start Date : 5/1/2008
Page No : 1

Groups Printed- Bikes

	Hammond St From North				College Rd From Northeast				Beacon St From East				Hammond St From South				Beacon St From West			
Start Time	Hard Left	Left	Thru	Right	Hard Left	Bear Left	Bear Right	Hard Right	Left	Thru	Right	Hard Right	Left	Thru	Bear Right	Right	Left	Bear Left	Thru	Right

N/S Street : St Thomas Moore Road
E/W Street: Beacon Street
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000B15
Site Code : 39000015
Start Date : 5/1/2008

Groups Printed- Bikes

Accurate Counts
978-664-2565

File Name : 39000B15
Site Code : 39000015

N/S Street : BC Main Drive
E/W Street: Commonwealth Avenue
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000B21
Site Code : 39000021
Start Date : 5/1/2008
Page No : 1

Groups Printed- Bikes

	Commonwealth Ave From East		BC Main Dr From South		Commonwealth Ave From West		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00	0	1	0	1	1	0	3
07:15	0	0	0	0	0	2	2
07:30	0	2	0	0	0	0	2
07:45	0	1	0	0	0	0	1
Total	0	4	0	1	1	2	8
08:00	0	0	0	0	0	0	0
08:15	0	2	0	0	0	0	2
08:30	0	0	0	0	1	0	1
08:45	0	1	0	0	3	0	4
Total	0	3	0	0	4	0	7
Grand Total	0	7	0	1	5	2	15
Apprch %	0	100	0	100	71.4	28.6	
Total %	0	46.7	0	6.7	33.3	13.3	

	Commonwealth Ave From East

Accurate Counts
978-664-2565

N/S Street : St Thomas More Road
E/W Street: BC Gate
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000B24
Site Code : 39000B24
Start Date : 5/1/2008
Page No : 1

Groups Printed- Bikes

	St Thomas More Rd From North		St Thomas More Rd From South			BC Gate From West		
Start Time	Thru	Right	Left	Thru	Peds	Left	Right	Int. Total
07:00	0	0	1	1	0	0	0	2
07:15	0	0	0	0	0	0	0	0
07:30	0	0	1	1	0	1	0	3
07:45	0	0	0	1	0	0	0	1
Total	0	0	2	3	0	1	0	6
08:00	0	1	0	0	0	0	1	2
08:15	0	1	0	0	0	0	0	1
08:30	0	1	1	0	0	0	1	3
08:45	0	1	0	1	0	0	0	2
Total	0	4	1	1	0	0	2	8
Grand Total	0	4	3	4	0	1	2	14
Apprch %	0	100	42.9	57.1	0	33.3	66.7	
Total %	0	28.6	21.4	28.6	0	7.1	14.3	

	St Thomas More Rd From North			St Thomas More Rd From South				BC Gate From West			
Start Time	Thru	Right	App. Total	Left	Thru	Peds	App. Total	Left	Right	App. Total	Int. 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	0	0	0	0	0	1	1	2
08:15	0	1	1	0	0	0	0	0	0	0	1
08:30	0	1	1	1	0	0	1	0	1	1	3
08:45	0	1	1	0	1	0	1	0	0	0	2
Total Volume	0	4	4	1	1	0	2	0	2	2	8

N/S Street : St Thomas More Road
E/W Street: BC Gate
City/State : Brighton, MA

Accurate Counts
978-664-2565

File Name : 39000B24
Site Code : 39000B24
Start Date : 5/1/2008

N/S Street : Father Herlihy Way
E/W Street: BC Gate
City/State : Brighton, MA
Weather : Clear

Accurate Counts
978-664-2565

File Name : 39000B25
Site Code : 39000B25
Start Date : 5/1/2008
Page No : 1

Groups Printed- Bikes

Automatic Traffic Recorder (ATR) Counts

Accurate Counts
978-664-2565

Location : Commonwealth Avenue
Location : West of Lake Street
City/State: Brighton, MA
Counter : 116193

39000001
Site Code: 39000001

Start	11-Mar-0	WB		Hour Totals		EB		Hour Totals		Combined Totals	
Time	Tue	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		22	90			24	169				
12:15		19	74			26	106				
12:30		21	72			21	111				
12:45		6	91	68	327	23	131	94	517	162	844
01:00		10	77			12	132				
01:15		6	84			10	131				
01:30		6	106			12	115				
01:45		9	100	31	367	7	151	41	529	72	896
02:00		4	81			13	112				
02:15		1	110			6	119				
02:30		12	83			8	165				
02:45		2	85	19	359	5	174	32	570	51	929
03:00		4	96			3	153				
03:15		1	93			5	153				
03:30		11	87			4	194				
03:45		1	88	17	364	2	164	14	664	31	1028
04:00		5	118			3	147				
04:15		1	158			5	145				
04:30		4	122			6	160				
04:45		3	126	13	524	12	164	26	616	39	1140
05:00		1	161			6	149				
05:15		6	143			12	153				
05:30		11	122			30	180				
05:45		25	134	43	560	28	177	76	659	119	1219
06:00		18	113			35	185				
06:15		21	104			58 re f	0 0 0 rg	395.76 467.42 0.36 38 re f		0 0 0 rg	B29.30493

Accurate Counts
978-664-2565

Accurate Counts
978-664-2565

Location : Commonwealth Avenue
Location : West of Lake Street
City/State: Brighton, MA
Counter : 116193

39000001
Site Code: 39000001

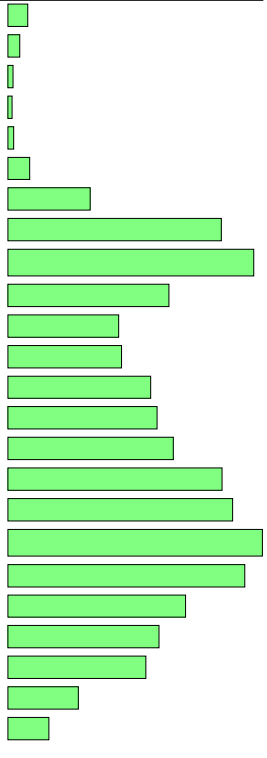
Start Time	10-Mar-08		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	*	*	68	94	70	94	*	*	*	*	*	*	*	*	69	94
01:00	*	*	31	41	37	68	*	*	*	*	*	*	*	*	34	54
02:00	*	*	19	32	24	31	*	*	*	*	*	*	*	*	22	32
03:00	*	*	17	14	12	25	*	*	*	*	*	*	*	*	14	20
04:00	*	*	13	26	12	27	*	*	*	*	*	*	*	*	12	26
05:00	*	*	43	76	39	81	*	*	*	*	*	*	*	*	41	78
06:00	*	*	153	285	128	251	*	*	*	*	*	*	*	*	140	268
07:00	*	*	344	587	311	653	*	*	*	*	*	*	*	*	328	620
08:00	*	*	**360**	**833**												

Accurate Counts
978-664-2565

Location : Lake Street NB North of
Location : Undine Street
City/State: Brighton, MA
Counter : 16427

39000002
Site Code: 39000002

Start ime	Mon 10-Mar-08	Tue 11-Mar-08	Wed 12-Mar-08	Thu 13-Mar-08	Fri 14-Mar-08	Average Day	Sat 15-Mar-08	Sun 16-Mar-08	Week Average
12:00 AM	*	40	41	*	*	40	*	*	40
[redacted] 01:00	[redacted]	23	26	*	*	24			



Accurate Counts
978-664-2565

Location : Foster Street North of
Location : Rose Garden
City/State: Brighton, MA
Counter : 11660

39000004
Site Code: 39000004

Start	11-Mar-0	SB		Hour Totals		NB		Hour Totals		Combined Totals	
Time	Tue	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		10	86			2	16				
12:15		13	75			2	19				
12:30		12	66			0	22				
12:45		3	62	38	289	2	24	6	81	44	370
01:00		5	64			0	23				
01:15		1	60			2	22				
01:30		6	78			1	17				
01:45		3	81	15	283	0	14	3	76	18	359
02:00		2	95			0	20				
02:15		2	86			2	19				
02:30		1	83			1	10				
02:45		4	82	9	[redacted]	1	29	4	78	13	424
03:00		3	69			0	20				
03:15		0	88			1	24				
03:30		3	106			1	21				
		[redacted]									

Accurate Counts
978-664-2565

Location : Foster Street North of
Location : Rose Garden
City/State: Brighton, MA
Counter : 11660

39000004
Site Code: 39000004

Start	12-Mar-0	SB		Hour Totals		NB		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		17	68			4	17				
12:15		11	60			4	16				
12:30		11	78			4	25				
12:45		8	79	47	285	4	19	16	77	63	362
01:00		7	57			4	16				
01:15		6	58			0	25				
01:30		6	92			4	22				
01:45		3	80	22	287	0	14	8	77	30	364
02:00		5	74			4	27				
02:15		7	87			4	22				
02:30		4	94			2	22				
02:45		6	84	22	339	0	29	10	100	32	439
03:00		1	88			0	17				
03:15		1	95			1	18				
03:30		3	123			1	18				
03:45		0	106	5	412	0	28	2	81	7	493
04:00		2	107			1	22				
04:15		1	119			2	15				
04:30		3	123			2	21				
04:45		6	124	12	473	2	28	7	86	19	559
05:00		6	147			2	29				
05:15		2	135			2	33				
05:30		14	130			3	15				
05:45		11	149	33	561	6	16	13	93	46	654
06:00		17	130			5	27				
06:15		34	127			9	30				
06:30		39	108								
06:45		48	97								

9580 Tj ET

Accurate Counts
978-664-2565

Location : Foster Street North of
Location : Rose Garden
City/State: Brighton, MA
Counter : 11660

39000004
Site Code: 39000004

Start Time	10-Mar-08 SB	NB	Tue SB	NB	Wed SB	NB	Thu SB	NB	Fri SB	NB	Sat SB	NB	Sun SB	NB	Week Average SB	NB
12:00 AM	*	*	38	6	47	16	*	*	*	*	*	*	*	*	42	11
01:00	*	*	15	3	22	8	*	*	*	*	*	*	*	*	18	6
02:00	*	*	9	4	22	10	*	*	*	*	*	*	*	*	16	7
03:00	*	*	8	2	5	2	*	*	*	*	*	*	*	*	6	2
04:00	*	*	10	9	12	7	*	*	*	*	*	*	*	*	11	8
05:00	*	*	40	13	33	13	*	*	*	*	*	*	*	*	36	13
06:00	*	*	150	61	138	49	*	*	*	*	*	*	*	*	144	55
07:00	*	*	366	157	354	148	*	*	*	*	*	*	*	*	360	152
08:00	*	*	**483**	**190**	**505**	**165**	*	*	*	*	*	*	*	*	**494**	**178**
09:00	*	*	358	115	348	115	*	*	*	*	*	*	*	*	353	115
10:00	*	*	258	67	235	59	*	*	*	*	*	*	*	*	246	63
11:00	*	*	253	73	277	67	*	*	*	*	*	*	*	*	265	70
12:00 PM	*	*	289	81	285	77	*	*	*	*	*	*	*	*	287	79
01:00	*	*	283	76	287	77	*	*	*	*	*	*	*	*	285	76
02:00	*	*	346	78	339	100	*	*	*	*	*	*	*	*	342	89
03:00	*	*	358	92	412	81	*	*	*	*	*	*	*	*	385	86
04:00	*	*	469	96	473	86	*	*	*	*	*	*	*	*	471	91
05:00	*	*	**563**	105	**561**	93	*	*	*	*	*	*	*	*	**562**	99
06:00	*	*	518	**110**	462	**118**	*	*	*	*	*	*	*	*	490	**114**
07:00	*	*	353	90	331	88	*	*	*	*	*	*	*	*	342	89
08:00	*	*	260	58	245	67	*	*	*	*	*	*	*	*	252	62
09:00	*	*	188	38	220	55	*	*	*	*	*	*	*	*	204	46
10:00	*	*	133	43	142	39	*	*	*	*	*	*	*	*	138	41
11:00	*	*	57	33	90	33	*	*	*	*	*	*	*	*	74	33

49.82e f 0 0 0 rg BT27 Ts (33) Tj ET 0.94 0.94 0.94 s (33) Tj Tj ET 72.36 26 0.369.34 re f BT 6 0 0 0 rg 67ET 72.36 2f /F14 36 26 0.369.4 9.7*

*7rgre f 5 Td -39.8T 0.94 0 0 0 0 r502.30.36 73e f 9.36 9.34 re f BT 239.8T 0.94 0 -35

89 BT 20085.57T 72.36 2f /P74

Accurate Counts
978-664-2565

Location : St Thomas Moore Way South
Location : of Commonwealth Avenue
City/State: Brighton, MA
Counter : 10110

39000005
Site Code: 39000005

Start Time	11-Mar-0 Tue	NB Morning	NB Afternoon	Hour Totals Morning	Hour Totals Afternoon	SB Morning	SB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	72				4	25				
12:15		3	93				2	52				[redacted]
12:30		3	77				3	34				
12:45		3	82	17	324	[redacted]		33	11	144	2[redacted]	8
01:00		1	82				3	40				
01:15		11	67				2	28				[redacted]
01:30		5	80				1	34				
01:45		4	100	21	329		2	50	8	152	2[redacted]	1
02:00		2	110				1	34				
02:15		2	96				1	38				[redacted]
02:30	[redacted]	4	97				3	45				
0[redacted]		1	98	9	401	[redacted]		49	5	166	1[redacted]	7
03:00		3	145				0	58				
[redacted]		[redacted]	115				3	55				
			84			2	3	50				

Accurate Counts
978-664-2565

Location : St Thomas Moore Way South
Location : of Commonwealth Avenue
City/State: Brighton, MA
Counter : 10110

39000005

Location : St Thomas Moore Way South

Accurate Counts
978-664-2565

Accurate Counts
978-664-2565

Location : Beacon Street West of
Location : St. Thomas Moore Way
City/State: Brighton, MA
Counter : 192

3900006
Site Code: 39000006

Start Time	13-Mar-0 Thu	EB Morning	EB Afternoon	Hour Totals Morning	Hour Totals Afternoon	WB Morning	WB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		12	137			21	168				
12:15		11	137			20	171				
12:30		10	148			28	168				
12:45		12	126	45	548	24	173	93	680	138	1228
01:00		7	128			18	156				
01:15		9	134			15	152				
01:30		7	115			6	171				
01:45		3	131	26	508	10	177	49	656	75	1164
02:00		5	122			11	177				
02:15		4	102			4	162				
02:30		5	116			4	161				
02:45		2	146	16	486	4	172	23	[redacted]	39	1158
03:00		4	153			4	181				
03:15		0	165			7	178				
03:30		0	151			3	183				
03:45		3	157	7	626	5	213	19	755	26	1381
04:00		1	161			2	222				
04:15		3	168			10	232				
04:30		5	148			2	221				
04:45		10	171	19	648	11	216	25	891	44	1539
05:00		11	169	[redacted]							
05:15		12	186			10	212				
05:30		23	185			17	222				
05:45		22	187	68	727	20	268	52	933	120	1660
06:00		34	184			31	253				
06:15		42	216			39	228				
06:30		82	187			58	214				
06:45		103	176	261	763	72	154	200	849	461	1612
07:00		131	169			99	138				
07:15		190	151			140	133				
07:30		199	109			174	111				
07:45		258	90	778	519	202	125	615	507	1393	1026
08:00		237	110			201	131				
08:15		229	97			210	106				
08:30		245	91			200	99				
08:45		203	106	914	404	206	109	817	445	1731	849
09:00		201	108			141	84				
09:15		184	84			134	85				
09:30		154	79			154	95				
09:45		144	65	683	336	107	82	536	346	1219	682
10:00		111	48			141	78				
10:15		111	42			92	73				
10:30		112	53			134	63				
10:45											

[redacted]

168 0.3634396.12 258.39 44.94 0.9.94 rg 81.12 239.4 4.88 9.38 re f 0 0 0 rg 395..12 258.Tj ET 395.76 249 0.36 9.38 re f 485-8.29 re f 126.12

Accurate Counts
978-664-2565

Location : College Road North of
Location : Beacon Street
City/State: Newton, MA
Counter : 5864

39000007
Site Code: 39000007

Start Time	Mon 10-Mar-08	Tue 11-Mar-08	Wed 12-Mar-08	Thu 13-Mar-08	Fri 14-Mar-08	Average Day	Sat 15-Mar-08	Sun 16-Mar-08	Week Average
12:00 AM	*	30	36	*	*	33	*	*	33
01:00	*	33	36	*	*	34	*	*	34
02:00	*	10	9	*	*	10	*	*	10
03:00	*	11	11	*	*	11	*	*	11
04:00	*	27	13	*	*	20	*	*	20
05:00	*	82	34	*	*	58	*	*	58
06:00	*	155	109	*	*	132	*	*	132
07:00	*	230	229	*	*	230	*	*	230
08:00	*	**289**	**285**	*	*	**287**	*	*	**287**
09:00	*	221	211	*	*	216	*	*	216
10:00	*	162	176	*	*	169	*	*	169
11:00	*	187	156	*	*	172	*	*	172
12:00 PM	*	207	184	*	*	196	*	*	196
01:00	*	211	193	*	*	202	*	*	202
02:00	*	251	204	*	*	228	*	*	228
03:00	*	263	229	*	*	246	*	*	246
04:00	*	256	**280**	*	*	**268**	*	*	**268**
05:00	*	**268**	251	*	*	260	*	*	260
06:00	*	255	273	*	*	264	*	*	264
07:00	*	201	182	*	*	192	*	*	192
08:00	*	155	169	*	*	162	*	*	162
09:00	*	145	140	*	*	142	*	*	142
10:00	*	94	111	*	*	102	*	*	102
11:00	*	45	62	*	*	54	*	*	54
Day Total	0	3788	3583	0	0	3688	0	0	3688
% Avg. WkDay	0.0%	102.7%	97.2%	0.0%	0.0%				
% Avg. Week	0.0%	102.7%	97.2%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak		08:00	08:00			08:00			08:00
Vol.		289	285			287			287
PM Peak		17:00	16:00			16:00			16:00
Vol.		268	280			268			268
Grand Total	0	3788	3583	0	0	3688	0	0	3688
ADT		Not Calculated							

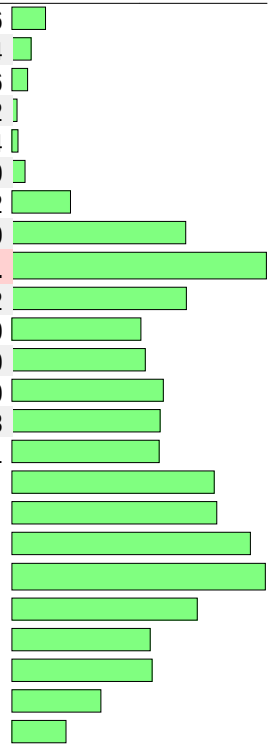
Accurate Counts
978-664-2565

Accurate Counts
978-664-2565

Location : Commonwealth Avenue EB
Location : East of Lake Street
City/State: Brighton, MA
Counter : 13865

39000EB3
Site Code: 39000003

						Average Day	Sat 15-Mar-08	Sun 16-Mar-08	Week Average
						76	*	*	76
						44	*	*	44
02:00	*	23	48	*	*	36	*	*	36
03:00	*	8	17	*	*	12	*	*	12
04:00	*	15	13	*	*	14	*	*	14
05:00	*	32	28	*	*	30	*	*	30
06:00	*	140	123	*	*	132	*	*	132
07:00	*	384	395	*	*	390	*	*	390
08:00	*	**563**	**579**	*	*	**571**	*	*	**571**
09:00	*	419	366	*	*	392	*	*	392
10:00	*	303	277	*	*	290	*	*	290
				*	*	300	*	*	300
				*	*	340	*	*	340
				*	*	333	*	*	333
				*	*	331	*	*	331



Accurate Counts

Location : Commonwealth Avenue WB West
Location : of Lake Street
City/State: Brighton, MA
Counter : 18143

978-664-2565

39000WB3
Site Code: 39000003

Start	Tue	11-Mar-08	Wed	12-Mar-08	Thu	13-Mar-08	Daily Average

Accurate Counts
978-664-2565

Location : Commonwealth Avenue WB West
Location : of Lake Street
City/State: Brighton, MA
Counter : 18143

39000WB3
Site Code: 39000003

Start Time	Mon 10-Mar-08	Tue 11-Mar-08	Wed 12-Mar-08	Thu 13-Mar-08	Fri 14-Mar-08	9090 Average Day	Sat 15-Mar-08	Sun 16-Mar-08	Week Average
12:00 AM	*	102	105	*	*	104	*	*	104
01:00	*	63	77	*	*	70	*	*	70
02:00	*	30	72	*	*	51	*	*	51
03:00	*	20	25	*	*	22	*	*	22
04:00	*	25	34	*	*	30	*	*	30
05:00	*	97	83	*	*	90	*	*	90
06:00	*	313	273	*	*	293	*	*	293
07:00	*	763	738	*	*	750	*	*	750
08:00	*	**1052**	**1068**	*	*	**1060**	*	*	**1060**
09:00	*	738	668	*	*	703	*	*	703
10:00	*	545	498	*	*	522	*	*	522
11:00	*	582	595	*	*	588	*	*	588
12:00 PM	*	557	597	*	*	577	*	*	577
01:00	*	658	619	*	*	638	*	*	638
02:00	*	714	709	*	*	712	*	*	712
03:00	*	758	787	*	*	772	*	*	772
04:00	*	920	930	*	*	925	*	*	925
05:00	*	**1067**	**1059**	*	*	**1063**	*	*	**1063**
06:00	*	990	826	*	*	908	*	*	908
07:00	*	667	606	*	*	636	*	*	636
08:00	*	465	505	*	*	485	*	*	485
09:00	*	458	435	*	*	446	*	*	446
10:00	*	270	325	*	*	298	*	*	298
11:00	*	160	180	*					

% Avg.06.88 233.67 9 -8.164 T 1 BT BT 6399(W22.2 508.97 Td -8.157 Ts 7 Tj ET 157 Ts Tj ET 3110 1f 0Ts (90) Tj ET .0%00) Tj ET.27 Ts 157 Ts 7 Tj ET 157 Ts Tj ET 3148 Ts 1f 0Ts (90) Tj ET 100.8%.48 327.3.2

12062.48 327.3.27 Ts 47.4 17 Tj ET 0.94 0.T 274.92 T13Ts 0.94 0 BT BT 6399(1 Td .48 327.3.27 Ts 47.4 17 Tj ET 0.94T 274.9266 -8. 47.4 1 BT BT 6399(:00) Tj ET.27 Ts 47.4 17 446) Tj ET 0 T 370.3214 Ts 47.4 1

:00
Day Total00
180
180

Trip Generation

4/21/2008

BC IMP Trip Generation DRAFT

Net-New Trips

	Size	Trip Rate	Less Capture	Unadjusted Vehicle Trips	VOR	Person Trips	Transit Share	Walk/Bike/ Other Share	Bike Share	Vehicle Share	Local VOR	Transit Trips	Walk Trips	Bike Trips	Adjusted Vehicle Trips
AM Grad Residents		0.51										12	22	1	0
In	75	0.10		8	1.2	9	26%	48%	2%	0%	1.25	2	4	0	0
Out	beds	0.41		31	1.2	37	26%	48%	2%	0%	1.25	10	18	1	0
AM Staff/Faculty												7	16	1	93
In	350	0.29				102	6%	13%	1%	80%	1.05	6	13	1	77
Out	persons	0.06				21	6%	13%	1%	80%	1.05	1	3	0	16
AM Undergrad Beds		0.51												7	0
In	610	0.10		62	1.2	75	26%	48%	2%	0%	1.05		36	1	0
Out	beds	0.41		249	1.2	299	26%	48%	2%	0%	1.05		143	6	0
AM Graduate Commuters												24	45	2	21
In	267	0.29				77	26%	48%	2%	24%	1.05	20	37	2	18
Out	persons	0.06				16	26%	48%	2%	24%	1.05	4	8	0	4
Total AM Peak Hour												**44**	**262**	**11**	**115**
In												**29**	**91**	**4**	**95**
Out												**15**	**171**	**7**	**20**
PM Grad Residents		0.62										15	27	1	0
In	75	0.40		30	1.2	36	26%	48%	2%	0%	1.25	9	17	1	0
Out	beds	0.22		16	1.2	20	26%	48%	2%	0%	1.25	5	9	0	0
PM Staff/Faculty												9	20	2	120
In	350														

Synchro (LOS) Analysis

Table 9-37 A.M. Peak Hour LOS Summary

Signalized Intersections	Existing A.M. Peak Hour				No Build A.M. Peak Hour				Build A.M. Peak Hour			
	LOS	Delay (sec/veh)	Max V/C Ratio*	Max 95th% Queue (ft)*	LOS	Delay (sec/veh)	Max V/C Ratio*	Max 95th% Queue (ft)*	LOS	Delay (sec/veh)	Max V/C Ratio*	Max 95th% Queue (ft)*
Commonwealth Ave at Lake St/ St. Thomas More Rd	E	68.0	0.83		F	>80.0			F	>80.0	0.94	
EB Commonwealth Ave	C	22.6	0.67	248	C	23.2	0.71	#271	C	25.7	0.80	#340
WB Commonwealth Ave	F	>80.0	>1.0	#316	F	>80.0	>1.0	#339	F	>80.0	>1.0	#387
NB St. T More Rd	F	>80.0	>1.0	#162	F	>80.0	>1.0	#176	F	>80.0	>1.0	#213
Commonwealth Ave at Chestnut Hill Ave	F	>80.0	>1.0		F	>80.0			F	>80.0		

Table 9-37 A.M. Peak Hour LOS Summary (Continued)

	Existing A.M. Peak Hour				No Build A.M. Peak Hour				Build A.M. Peak Hour		
Signalized Intersections	**LOS**	**Delay (sec/veh)**	**Max V/C Ratio***	**Max 95th% Queue (ft)***	**LOS**	**Delay (sec/veh)**	**Max V/C Ratio***	**Max 95th% Queue (ft)***	**LOS**	**Delay (sec/veh)**	**Max V/C Ratio***	**Max 95th% Queue (ft)***
Foster St at Washington St	B	19.2	0.68		C	28.7			E	61.4	0.85	
EB Washington St	B	15.5	0.70	370	C	24.8	0.91	#473	F	>80.0	>1.0	#452
WB Washington St	A	9.8	0.52	206	B	19.5	0.59	m157	C	25.6	0.71	m161
NB Foster Street	D	37.2	0.71	#125	D	48.3	0.77	#123	D	48.5	0.77	#126
SB Foster St	C	29.4	0.58	141	D	36.1	0.58	129	D	36.2	0.59	132
Washington St/Chestnut Hill Avenue /Market St	F	>80.0	>1.0		F	>80.0			F	>80.0	>1.0	
EB Washington St	F	>80.0	>1.0	#740	F	>80.0	>1.0	#682	F	>80.0	>1.0	#580
WB Washington St	F	>80.0	>1.0	#526	F	>80.0	>1.0	#564	F	>80.0	>1.0	#588
NB Chestnut Hill Ave	B	15.3	0.44	#341	B	15.5	0.46	#367	B	15.5	0.47	#370
SB Market St	B	15.6	0.48	#327	B	15.9	0.50	#348	B	15.9	0.50	#347
Unsignalized Intersections												
Commonwealth Ave at Foster St												
SB Foster St	D	30.2	0.75	163	E	35.4	0.81	193	E	36.9	0.82	198
Commonwealth Ave at Old Colony/College Rd												
NB College Rd	F	>50.0	>1.0	365	F	>50.0	>1.0	687	F	>50.0	>1.0	774
SB Old Colony	F	>50.0	>1.0									
Commonwealth Ave at SB Old Colo. Unsignalized												

Table 9-37 A.M. Peak Hour LOS Summary (Continued)

	Existing A.M. Peak Hour				No Build A.M. Peak Hour	Build A.M. Peak Hour
Signalized Intersections	LOS	Delay (sec/veh)	Max V/C Ratio*	Max 95th% Queue (ft)*	LOS	

Table 9-38 P.M. Peak Hour LOS Summary

Signalized Intersections	Existing P.M. Peak Hour LOS	Existing P.M. Peak Hour Delay (sec/veh)	Existing P.M. Peak Hour Max V/C Ratio*	Existing P.M. Peak Hour Max 95th% Queue (ft)*	No Build P.M. Peak Hour LOS	No Build P.M. Peak Hour Delay (sec/veh)	No Build P.M. Peak Hour Max V/C Ratio*	No Build P.M. Peak Hour Max 95th% Queue (ft)*	Build P.M. Peak Hour LOS	Build P.M. Peak Hour Delay (sec/veh)	Build P.M. Peak Hour Max V/C Ratio*	Build P.M. Peak Hour Max 95th% Queue (ft)*
Commonwealth Ave at Lake St/St. Thomas More Rd	E	77.3	0.91		F	>80.0			F	>80.0	>1.0	

ft0
ft0

Table 9-38 P.M. Peak Hour LOS Summary (Continued)

	Existing P.M. Peak Hour				No Build P.M. Peak Hour				Build P.M. Peak Hour		
Signalized Intersections	**LOS**	**Delay (sec/veh)**	**Max V/C Ratio***	**Max 95th% Queue (ft)***	**LOS**	**Delay (sec/veh)**	**Max V/C Ratio***	**Max 95th% Queue (ft)***	**LOS**	**Delay (sec/veh)**	**Max V/C Ratio***	**Max 95th% Queue (ft)***
Washington St at Lake St/ Brock St	D	40.7	0.92		F	>80.0			F	>80.0	>1.0	
EB Washington St	C	27.3	0.85	#681	F	>80.0	>1.0	#837	F	>80.0	>1.0	#889
WB Washington St	B	15.6	0.62	389	D	53.8	0.89	m#435	E	61.9	0.92	m#402
NB Lake St	F	>80.0	>1.00	#590	C	25.4	0.72	#569	C	27.2	0.78	#659
Foster St at Washington St	C	26.0	0.89		E	69.9			F	>80.0	0.93	
EB Washington St	B	19.7	0.83	#419	F	>80.0	>1.0	m144	F	>80.0	>1.0	m137
WB Washington St	C	32.7	>1.00	212	C	28.6	0.80	m214	D	36.6	0.83	m220
NB Foster Street	C	26.3	0.39	#97	D	39.2	0.56	#119	D	47.1	0.55	#136
SB Foster St	C	24.5	0.67	140	D	50.0	0.79	220	D	47.9	0.79	222
Washington St/Chestnut Hill Avenue /Market St	F	>80.0	>1.0		F	>80.00			F	>80.0	>1.0	
EB Washington St	F	>80.0	>1.0	#1094	F	>80.0	>1.0	#827	F	>80.0	>1.0	#875
WB Washington St	F	>80.0	>1.0	#817	F	>80.0	>1.0	#873	F	>80.0	>1.0	#898
NB Chestnut Hill Ave	C	27.5	0.59	244	C	25.4	0.56	255	C	24.5	0.55	251
SB Market St	D	38.1	0.84	#419	C	34.8	0.70	#453	C	32.8	0.82	#460
Unsignalized Intersections Commonwealth Aveat Foster St												
SB Foster St	C	22.2	0.67	125	D	25.1	0.72	148	D	27.6	0.75	165
Commonwealth Ave at Old Colony/College Rd												

NB C TD5.1m> 1 47.1 Tc(Common4.9398 3.4962 TD.0014 Tc[NB C TD5.1m>)Tj1C5175ck014 Tc[ )92( )5B0e18 Tc3e227 436 E458(1)-98)4030.199 .1t HB0e
O

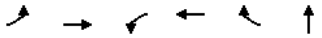
Table 9-38 P.M. Peak Hour LOS Summary (Continued)

Signalized Intersections	Existing P.M. Peak Hour LOS	Existing P.M. Peak Hour Delay (sec/veh)	Existing P.M. Peak Hour Max V/C Ratio*	Existing P.M. Peak Hour Max 95th% Queue (ft)*	No Build P.M. Peak Hour LOS	No Build P.M. Peak Hour Delay (sec/veh)	No Build P.M. Peak Hour Max V/C Ratio*	No Build P.M. Peak Hour Max 95th% Queue (ft)*	Build P.M. Peak Hour LOS	Build P.M. Peak Hour Delay (sec/veh)	Build P.M. Peak Hour Max V/C Ratio*	Build P.M. Peak Hour Max 95th% Queue (ft)*
St. Thomas More Rd at Campanella Way												
EB Fr. Herlihy Dr	B	14.3	0.24	23	B	15.0	0.26	26	C	17.2	0.30	32
Fr Herilihy Dr at Campanella Way												
SB Fr Herilihy Dr	A	7.7	0.13	n/a	A	8.9	0.24	n/a	A	9.7	0.32	n/a
St. Thomas More Rd at Chestnut Hill Driveway												
WB Chestnut Hill Driveway	E	36.6	0.45	53	E	44.6	0.54	70	F	>50.0	0.58	78
Lake St at Kenrick St												
EB Kenrick St	E	43.6	0.62	91	F	>50.0	0.70	112	F	>50.0	0.75	125
Lake St at Glenmont Rd												
WB Glenmont Rd	C	18.7	0.34	37	C	19.8	0.37	41	C	21.5	0.40	46
Foster St at Rogers Park Ave												
EB Rogers Park Ave	C	19.7	0.42	51	C	22.7	0.48	62	D	33.1	0.60	91
Beacon St/Beacon Garage												
SB Driveway	F	>50.0	>1.0	604	F	>50.0	>1.0	692	F	>50.0	>1.0	1078

Existing 2008

Queues

2: Commonwealth Ave & Lake Street 6/3/2008



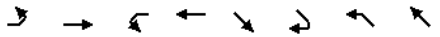
Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	320	631	284	622	108	379
v/c Ratio	0.68	0.45	1.09	1.11	0.34	1.04
Control Delay	34.5	17.9	117.8	106.7	10.1	90.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	17.9	117.8	106.7	10.1	90.4
Queue Length 50th (ft)	149	120	~174	~203	0	~110
Queue Length 95th (ft)	248	158	#310	#316	38	#162

HCM Signalized Intersection Capacity Analysis
2: Commonwealth Ave & Lake Street 6/3/2008

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	0
Peak-hour factor, PHF	0.25
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

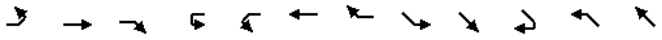
Queues
3: Commonwealth Ave & Chestnut Hill 6/3/2008

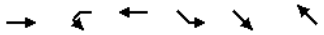


Lane Group	EBL	EBT	WBL	WBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	163	717	215	341	540	57	172	850
v/c Ratio	0.47	0.95	0.82	0.52	1.41	0.16	0.60	1.36
Control Delay	28.5	62.2	40.8	43.4	234.7	24.4	68.3	208.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	62.2	40.8	43.4	234.7	24.4	68.3	208.3
Queue Length 50th (ft)	85	257	116	119	~295	20	137	~864
Queue Length 95th (ft)	100	#346	#211	175	#409	38	m106	m478
Internal Link Dist (ft)		1348		1135	4158			919
Turn Bay Length (ft)	200		100			50		
Base Capacity (vph)	394	757	311	658	383	356	288	627
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.95	0.69	0.52	1.41	0.16	0.60	1.36

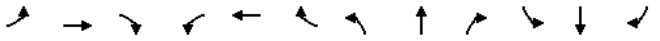
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.





Lane Group	EBT	WBL	WBT	SEL	SET	NWT
Lane Group Flow (vph)	726	n	WT			



HCM Signalized Intersection Capacity Analysis
13: Washington St & Chestnut Hill 6/3/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	16	10	11	16	16	16	16	12	12	10
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt		0.98		1.00	0.95		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1369		1189	1218		1841	1863		1354	1481	1141
Flt Permitted		0.25		0.16	1.00		0.47	1.00		0.42	1.00	1.00
Satd. Flow (perm)		342		205	1218		908	1863		593	1481	1141
Volume (vph)	55	412	97	32	322	127	61	335	42	76	320	84
Peak-hour factor, PHF	0.86	0.96	0.89	0.61	0.88	0.81	0.78	0.99	0.71	0.67	0.94	0.76
Adj. Flow (vph)	64	429	109	52	366	157	78	338	59	113	340	111
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	602	0	52	523	0	78	397	0	113	340	111
Heavy Vehicles (%)	2%	3%	1%	0%	1%	3%	0%	2%	0%	5%	1%	4%
Bus Blockages (#/hr)	0	0	0	26	26	26	0	0	0	0	0	0
Parking (#/hr)	5	5	5	5	5	5				5	5	5
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		3
Actuated Green, G (s)		25.2		25.2	25.2		43.4	43.4		43.4	43.4	43.4
Effective Green, g (s)		25.2		25.2	25.2		43.4	43.4		43.4	43.4	43.4
Actuated g/C Ratio		0.28		0.28	0.28		0.48	0.48		0.48	0.48	0.48
Clearance Time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		96		57	341		438	898		286	714	550
v/s Ratio Prot					0.43			0.21			c0.23	
v/s Ratio Perm		c1.76		0.25			0.09			0.19		0.10
v/c Ratio		6.27		0.91	1.53		0.18	0.44		0.40	0.48	0.20
Uniform Delay, d1		32.4		31.3	32.4		13.2	15.3		14.9	15.7	13.4
Progression Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		2394.0		95.8	254.5		0.2	0.3		0.9	0.5	0.2
Delay (s)		2426.4		127.2	286.9		13.4	15.7		15.8	16.2	13.5
Level of Service		F		F	F		B	B		B	B	B
Approach Delay (s)		2426.4			272.4			15.3			15.6	
Approach LOS		F			F			B			B	

Intersection Summary				
HCM Average Control Delay	737.1	HCM Level of Service	F	
HCM Volume to Capacity ratio	2.61			
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	21.4	
Intersection Capacity Utilization	101.9%	ICU Level of Service	G	
Analysis Period (min)	15			
c Critical Lane Group				

HCM Unsignalized Intersection Capacity Analysis
15: Campanella Way & St. T Moore 6/3/2008

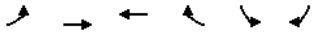
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	23	63	105	255	120	121
Peak Hour Factor	0.69	0.70	0.51	0.88	0.72	0.81
Hourly flow rate (vph)	33	90	206	290	167	149
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)					366	
pX, platoon unblocked						
vC, conflicting volume	943	241	316			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	943	241	316			
tC, single (s)	6.9	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.9	3.3	2.3			
p0 queue free %	83	89	82			
cM capacity (veh/h)	200	800	1174			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	123	496	316
Volume Left	33	206	0
Volume Right	90	0	149
cSH	441	1174	1700
Volume to Capacity	0.28	0.18	0.19
Queue Length 95th (ft)	28	16	0
Control Delay (s)	16.3	4.7	0.0
Lane LOS	C	A	
Approach Delay (s)	16.3	4.7	0.0
Approach LOS	C		

Intersection Summary				
Average Delay	4.6			
Intersection Capacity Utilization	52.3%	ICU Level of Service	A	
Analysis Period (min)	15			

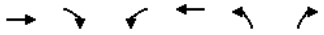
Lane Group	EBT	WBT	NBT

Lane Group	EBT	WBT	SWL
Lane Group Flow (vph)	714	526	212
v/c Ratio	0.43	0.32	0.39
Control Delay	12.5	11.4	7.1
Queue Delay	0.0	0.0	0.0



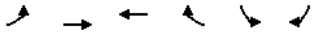
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	616	613	80	0	351
Peak Hour Factor	0.25	0.89	0.96	0.77	0.25	0.90
Hourly flow rate (vph)	0	692	639	104	0	390
Pedestrians		59			59	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		5			5	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			504			
pX, platoon unblocked	0.94				0.94	0.94
vC, conflicting volume	801				1096	489
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	724				1037	392
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	25
cM capacity (veh/h)	793				206	518

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	55	8	312	148	4	200
Peak Hour Factor	0.69	0.70	0.51	0.88	0.69	0.70
Hourly flow rate (vph)	80	11	612	168	6	286
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						

HCM Unsignalized Intersection Capacity Analysis
51: Campanella Way & Fr. Herlihy Drive 6/3/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Yield		Stop	
Volume (vph)	0	15	226	0	71	169
Peak Hour Factor	0.25	0.71	0.70	0.25	0.89	0.83
Hourly flow rate (vph)	0	21	323	0	80	204

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	21	323	80	204
Volume Left (vph)	0	0	80	0
Volume Right (vph)	0	0	0	204
Hadj (s)	0.00	0.05	0.72	-0.65
Departure Headway (s)	5.0	4.7	6.1	4.7
Degree Utilization, x	0.03	0.42	0.13	0.27
Capacity (veh/h)	663	739	566	726
Control Delay (s)	8.2	11.0	8.8	8.2
Approach Delay (s)	8.2	11.0	8.4	
Approach LOS	A	B	A	

Intersection Summary			
Delay	9.7		
HCM Level of Service	A		
Intersection Capacity Utilization	31.6%	ICU Level of Service	A
Analysis Period (min)	15		

Queues
2: Commonwealth Ave & Lake Street 6/3/2008

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT
Lane Configurations						
Queue Length 50th (ft)	110	177	148	222	0	~257
Internal Link Dist (ft)		1877		667		202
Base Capacity (vph)	324	1247	459	976	437	424
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.51	0.60	0.76	0.30	1.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

HCM Signalized Intersection Capacity Analysis
2: Commonwealth Ave & Lake Street 6/3/2008

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1000	1900	1900	1900
Lane Width	11	12	12	12	11	12	12	10	10	10	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00		0.95			
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.82		1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	1.00	0.85		0.97			
Flt Protected	0.95	1.00			0.95	1.00	1.00		0.98			
Satd. Flow (prot)	1570	3177			1528	3249	1179		1521			
Flt Permitted	0.95	1.00			0.95	1.00	1.00		0.98			
Satd. Flow (perm)	1570	3177			1528	3249	1179		1521			
Volume (vph)	164	494	7	19	212	674	115	158	243	78	0	0
Peak-hour factor, PHF	0.87	0.80	0.58	0.92	0.83	0.91	0.87	0.84	0.84	0.75	0.25	0.25
Adj. Flow (vph)	189	618	12	21	255	741	132	188	289	104	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	95	0	16	0	0	0
Lane Group Flow (vph)	189	629	0	0	276	741	37	0	565	0	0	0
Confl. Peds. (#/hr)							54					
Heavy Vehicles (%)	0%	2%	0%	0%	3%	0%	1%	1%	0%	1%	0%	0%
Turn Type	Prot			Split	Split		Perm	Split				
Protected Phases	1	1 2		3	3	3		4	4			
Permitted Phases							3					
Actuated Green, G (s)	20.1	32.0			27.1	27.1	27.1		26.1			
Effective Green, g (s)	20.1	32.0			27.1	27.1	27.1		26.1			
Actuated g/C Ratio	0.21	0.33			0.28	0.28	0.28		0.27			
Clearance Time (s)	4.0				4.0	4.0	4.0		4.0			
Vehicle Extension (s)	3.0				3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	325	1046			426	906	329		408			
v/s Ratio Prot	0.12	c0.20			0.18	c0.23			c0.37			
v/s Ratio Perm							0.03					

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	0
Peak-hour factor, PHF	0.25
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT
Lane Configurations												

Queues
7: Beacon St & Chestnut Hill Ave 6/3/2008

Lane Group	EBT	WBL	WBT	SET	NWT
Lane Group Flow (vph)	654	192	781	937	719
v/c Ratio	1.89	1.32	0.57	0.59	0.92
Control Delay	440.6	214.6	39.8	23.4	40.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	440.6	214.6	39.8	23.4	40.8
Queue Length 50th (ft)	~443	~162	202	189	307
Queue Length 95th (ft)	#494	#255	248	229	#427
Internal Link Dist (ft)	3431		1419	919	239
Turn Bay Length (ft)		100			
Base Capacity (vph)	346	146	1368	1597	785
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.89	1.32	0.57	0.59	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

HCM Signalized Intersection Capacity Analysis
7: Beacon St & Chestnut Hill Ave 6/3/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12	10	11	10	14	16	16
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	0.91			0.91			0.95	
Frt		0.98		1.00	0.96			0.98			0.98	
Flt Protected		0.99		0.95	1.00			0.99			1.00	
Satd. Flow (prot)		3055		1555	4447			4246			3470	
Flt Permitted		0.52		0.15	1.00			0.66			0.75	
Satd. Flow (perm)		1612		241	4447			2816			2618	
Volume (vph)	69	394	76	150	505	213	162	565	98	53	496	88
Peak-hour factor, PHF	0.86	0.81	0.86	0.78	0.92	0.92	0.77	0.92	0.87	0.83	0.90	0.85
Adj. Flow (vph)	80	486	88	192	549	232	210	614	113	64	551	104
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	654	0	192	781	0	0	937	0	0	719	0
Heavy Vehicles (%)	1%	0%	0%	1%	0%	1%	1%	4%	3%	2%	3%	6%
Turn Type	Perm			D.P+P			D.P+P			Perm		
Protected Phases		1		11	1 11		8	8 9			9	
Permitted Phases	1			1			9			9		
Actuated Green, G (s)		27.2		35.2	39.2			64.0			39.0	
Effective Green, g (s)		27.2		35.2	39.2			62.0			39.0	
Actuated g/C Ratio		0.21		0.27	0.30			0.48			0.30	
Clearance Time (s)		4.0		4.0							4.0	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		337		146	1341			1596			785	
v/s Ratio Prot				c0.08	0.18			c0.10				
v/s Ratio Perm		c0.41		0.28				0.18			c0.27	
v/c Ratio		1.94		1.32	0.58			0.59			0.92	
Uniform Delay, d1		51.4		43.4	38.5			24.7			43.9	
Progression Factor		1.00		1.00	1.00			1.00			0.53	
Incremental Delay, d2		434.0		181.9	0.6			1.6			16.2	
Delay (s)		485.4		225.3	39.1			26.3			39.6	
Level of Service		F		F	D			C			D	
Approach Delay (s)		485.4			75.8			26.3			39.6	
Approach LOS		F			E			C			D	

Intersection Summary

HCM Average Control Delay	135.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	32.8
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT

Queues
18: Commonwealth Ave & South St 6/3/2008

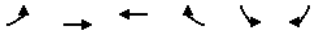
Lane Group	EBT	WBT	SWL
Lane Group Flow (vph)	755	634	208
v/c Ratio	0.45	0.38	0.39
Control Delay	12.7	11.9	8.1
Queue Delay	0.0	0.0	0.0
Total Delay	12.7	11.9	8.1
Queue Length 50th (ft)	82	66	9
Queue Length 95th (ft)	187	164	43
Internal Link Dist (ft)	424	1348	723
Turn Bay Length (ft)			
Base Capacity (vph)	1669	1669	538
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.45	0.38	0.39

Intersection Summary

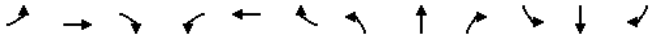
HCM Signalized Intersection Capacity Analysis
18: Commonwealth Ave & South St 6/3/2008

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	
Lane Util. Factor		0.95	0.95		1.00	
Frt		1.00	1.00		0.89	
Flt Protected		1.00	1.00		0.99	
Satd. Flow (prot)		3249	3249		1329	
Flt Permitted		1.00	1.00		0.99	
Satd. Flow (perm)		3249	3249		1329	
Volume (vph)	0	627	552	0	27	153
Peak-hour factor, PHF	0.25	0.83	0.87	0.25	0.75	0.89
Adj. Flow (vph)	0	755	634	0	36	172
RTOR Reduction (vph)	0	0	0	0	120	0
Lane Group Flow (vph)	0	755	634	0	88	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%
Parking (#/hr)					2	2
Turn Type						
Protected Phases		1	1		3	
Permitted Phases						
Actuated Green, G (s)		34.4	34.4		21.3	
Effective Green, g (s)		34.4	34.4		21.3	
Actuated g/C Ratio		0.49	0.49		0.30	
Clearance Time (s)		4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		1590	1590		403	
v/s Ratio Prot		c0.23	0.20		c0.07	
v/s Ratio Perm						
v/c Ratio		0.47	0.40		0.22	
Uniform Delay, d1		11.9	11.4		18.3	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		1.0	0.7		1.2	
Delay (s)		13.0	12.1		19.5	
Level of Service		B	B		B	
Approach Delay (s)		13.0	12.1		19.5	
Approach LOS		B	B		B	

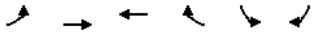
Intersection Summary			
HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	70.3	Sum of lost time (s)	14.6
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	618	666	50	0	357
Peak Hour Factor	0.25	0.83	0.94	0.74	0.25	0.89



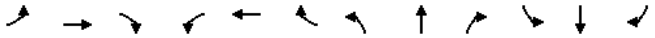
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	12	12	10	10	10	12	10	10
Total Lost time (s)		4.0		4.0	4.0		4.0		4.0		4.0	
Lane Util. Factor		1.00		1.00	1.00		1.00		1.00		1.00	
Frt		0.97		1.00	1.00		1.00		0.85		0.98	
Flt Protected		1.00		0.95	1.00		0.95		1.00		0.99	
Satd. Flow (prot)		1590		1501	1605		1486		1184		1541	
Flt Permitted		1.00		0.23	1.00		0.50		1.00		0.99	
Satd. Flow (perm)		1590		356	1605		785		1184		1541	
Volume (vph)	0	432	142	220	400	0	68	0	130	42	133	37
Peak-hour factor, PHF	0.25	0.86	0.87	0.87	0.94	0.25	0.90	0.25	0.88	0.70	0.88	0.84



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	601	953	3	0	57
Peak Hour Factor	0.25	0.83	0.93	0.75	0.25	0.89
Hourly flow rate (vph)	0	724	1025	4	0	64
Pedestrians		101			101	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		8			8	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		747				
pX, platoon unblocked					0.87	
vC, conflicting volume	1130				1490	716
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1130				1416	716
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	80
cM capacity (veh/h)	573				104	316

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	362	362	683	346	64
Volume Left	0	0	0	0	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR



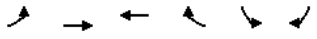
HCM Unsignalized Intersection Capacity Analysis
46: Chestnut Hill Driveway & T. Moore 6/3/2008

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	50	13	230	83	37	368
Peak Hour Factor	0.69	0.70	0.51	0.88	0.69	0.70
Hourly flow rate (vph)	72	19	451	94	54	526
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1131	498			545	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1131	498			545	
tC, single (s)	6.9	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.9	3.3			2.3	
p0 queue free %	58	97			94	
cM capacity (veh/h)	173	574			962	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	91	545	579
Volume Left	72	0	54
Volume Right	19	94	0
cSH	202	1700	962
Volume to Capacity	0.45	0.32	0.06
Queue Length 95th (ft)	53	0	4
Control Delay (s)	36.6	0.0	1.5
Lane LOS	E		A
Approach Delay (s)	36.6	0.0	1.5
Approach LOS	E		

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
49: Beacon St Garage & 6/3/2008

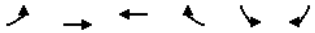


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	25	656	927	22	49	96
Peak Hour Factor	0.78	0.88	0.93	0.79	0.64	0.25
Hourly flow rate (vph)	32	745	997	28	77	384
Pedestrians		50	47		42	
Lane Width (ft)		14.0	14.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		5	5		4	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1067				1909	1103
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1067				1909	1103
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				0	0
cM capacity (veh/h)	638				66	238

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	778	1025	77	384
Volume Left	32	0	77	0
Volume Right	0	28	0	384
cSH	638	1700	66	238
Volume to Capacity	0.05	0.60	1.15	1.61
Queue Length 95th (ft)	4	0	151	604
Control Delay (s)	1.4	0.0	264.6	330.6
Lane LOS	A		F	F
Approach Delay (s)	1.4	0.0	319.7	
Approach LOS			F	

Intersection Summary			
Average Delay	65.5		
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
51: Campanella Way & Fr. Herlihy Drive 6/3/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Yield		Stop	
Volume (vph)	0	45	135	0	56	64
Peak Hour Factor	0.25	0.61	0.70	0.25	0.73	0.82
Hourly flow rate (vph)	0	74	193	0	77	78

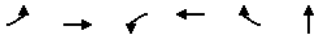
Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	74	193	77	78
Volume Left (vph)	0	0	77	0
Volume Right (vph)	0	0	0	78
Hadj (s)	0.00	0.09	0.77	-0.63
Departure Headway (s)	4.5	4.5	5.9	4.5
Degree Utilization, x	0.09	0.24	0.13	0.10
Capacity (veh/h)	763	772	583	757
Control Delay (s)	8.0	8.9	8.5	6.8
Approach Delay (s)	8.0	8.9	7.7	
Approach LOS	A	A	A	

Intersection Summary			
Delay	8.3		
HCM Level of Service	A		
Intersection Capacity Utilization	26.0%	ICU Level of Service	A
Analysis Period (min)	15		

No-Build 2018

Queues

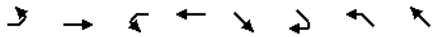
2: Commonwealth Ave & Lake Street 6/3/2008



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	335	678	302	656	112	402
v/c Ratio	0.71	0.49	1.16	1.17	0.35	1.11
Control Delay	36.2	18.4	140.7	128.9	10.0	110.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	18.4	140.7	128.9	10.0	110.9
Queue Length 50th (ft)	159	132	~195	~224	0	~125

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	0
Peak-hour factor, PHF	0.25
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary



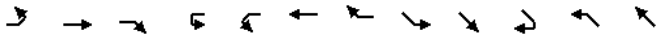
Lane Group	EBL	EBT	WBL	WBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	176	772	223	359	566	58	180	895
v/c Ratio	0.51	1.04	0.84	0.55	1.48	0.16	0.64	1.43
Control Delay	29.4	84.2	42.7	44.5	262.6	25.1	70.0	237.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	84.2	42.7	44.5	262.6	25.1	70.0	237.8
Queue Length 50th (ft)	92	~316	121	127	~317	21	144	~938
Queue Length 95th (ft)	107	#395	#227	185	#433	40	m105	m498
Internal Link Dist (ft)		1348		1135	4158			919
Turn Bay Length (ft)	200		100			50		
Base Capacity (vph)	386	742	310	649	383	355	280	627
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	1.04	0.72	0.55	1.48	0.16	0.64	1.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.



Queues
7: Beacon St & Chestnut Hill Ave 6/3/2008

Lane Group	EBT	WBL	WBT	SEL	SET	NWT
Lane Group Flow (vph)	767	176	731	293	810	1000
v/c Ratio	1.92	0.98	0.44	1.31	0.65	1.66
Control Delay	451.2	94.5	29.2	179.1	20.3	323.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	451.2	94.5	29.2	179.1	20.3	323.8
Queue Length 50th (ft)	~481	95	153	~299	182	~598
Queue Length 95th (ft)	#606	#243	171	m#233	m155	#706
Internal Link Dist (ft)	3431		1419		919	239
Turn Bay Length (ft)		100				
Base Capacity (vph)	399	179	1651	223	1239	602
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.92	0.98	0.44	1.31	0.65	1.66

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
7: Beacon St & Chestnut Hill Ave 6/3/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12	10	11	10	14	16	16

HCM Unsignalized Intersection Capacity Analysis
8: Beacon St & Gate House Road 6/3/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	390	700	10	5	625	75	5	5	5	25	5	225
Peak Hour Factor	0.99	0.93	0.67	0.50	0.89	0.71	0.42	0.33	0.50	0.84	0.38	0.90
Hourly flow rate (vph)	394	753	15	10	702	106	12	15	10	30	13	250
Pedestrians		8			10			5			8	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	816			773			2593	2389	775	2351	2344	771
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	816			773			2593	2389	775	2351	2344	771
tC, single (s)	4.1			4.4			7.1	6.5	6.2	7.2	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.6	4.0	3.4
p0 queue free %	50			99			0	10	97	0	27	34
cM capacity (veh/h)	793			746			2	17	396	4	18	381

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	394	768	818	37	293
Volume Left	394	0	10	12	30
Volume Right	0	15	106	10	250
cSH	793	1700	746	4	30
Volume to Capacity	0.50	0.45	0.01	8.76	9.85
Queue Length 95th (ft)	70	0	1	Err	Err
Control Delay (s)	13.9	0.0	0.4	Err	Err
Lane LOS	B		A	F	F
Approach Delay (s)	4.7		0.4	Err	Err
Approach LOS				F	F

Intersection Summary				
Average Delay	1431.2			
Intersection Capacity Utilization	112.6%	ICU Level of Service	H	
Analysis Period (min)	15			

Queues
13: Washington St & Chestnut Hill 6/3/2008

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	635	57	553	83	417	119	356	118
v/c Ratio	2.39	0.46	1.20	0.31	0.46	0.89	0.50	0.21
Control Delay	650.0	35.7	138.5	22.8	20.7	81.8	22.4	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	650.0	35.7	138.5	22.8	20.7	81.8	22.4	18.0
Queue Length 50th (ft)	~594	24	~386	25	135	52	117	33
Queue Length 95th (ft) m	#682	39	#564	76	#367	#139	#348	85
Internal Link Dist (ft)	985		930		4158		1061	
Turn Bay Length (ft)		50		50		75		50
Base Capacity (vph)	266	124	460	266	898	134	714	551
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.39	0.46	1.20	0.31	0.46	0.89	0.50	0.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

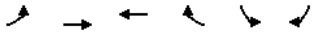
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	16	10	11	16	16	16	16	12	12	10
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt		0.98		1.00	0.95		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1369		1189	1218		1841	1862		1354	1481	1141
Flt Permitted		0.15		0.16	1.00		0.45	1.00		0.40	1.00	1.00
Satd. Flow (perm)		209		199	1218		879	1862		568	1481	1141
Volume (vph)	60	435	100	35	340	135	65	350	45	80	335	90
Peak-hour factor, PHF	0.86	0.96	0.89	0.61	0.88	0.81	0.78	0.99	0.71	0.67	0.94	0.76
Adj. Flow (vph)	70	453	112	57	386	167	83	354	63	119	356	118
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	635	0	57	553	0	83	417	0	119	356	118
Heavy Vehicles (%)	2%	3%	1%	0%	1%	3%	0%	2%	0%	5%	1%	4%
Bus Blockages (#/hr)	0	0	0	26	26	26	0	0	0	0	0	0
Parking (#/hr)	5	5	5	5	5	5				5	5	5
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		1			1			3			3	
Permitted Phases	1			1			3			3		3

Queues

Queues

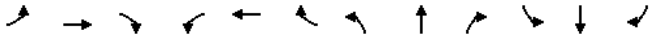
18: Commonwealth Ave & South St 6/3/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	660	645	85	0	370
Peak Hour Factor	0.25	0.89	0.96	0.77	0.25	0.90
Hourly flow rate (vph)	0	742	672	110	0	411
Pedestrians		59			59	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		5			5	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			504			
pX, platoon unblocked	0.93				0.93	0.93
vC, conflicting volume	841				1157	509
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	754				1093	396
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	19
cM capacity (veh/h)	765				187	509

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	371	371	448	334	411
Volume Left	0	0	0	0	0
Volume Right	0	0	0	110	411
cSH	1700	1700	1700	1700	509
Volume to Capacity	0.22	0.22	0.26	0.20	0.81
Queue Length 95th (ft)	0	0	0	0	193
Control Delay (s)	0.0	0.0	0.0	0.0	35.4
Lane LOS					E
Approach Delay (s)	0.0		0.0		35.4
Approach LOS					E

Intersection Summary	
Average Delay	7.5



Queues
35: Beacon St & College Rd 6/3/2008

Lane Group	EBL	EBT	WBL	WBT	NBL	NBR	SBT	SBR
Lane Group Flow (vph)	159	866	247	670	146	255	389	28
v/c Ratio	0.63	1.07	1.13	0.65	1.40	9.11	0.64	0.02
Control Delay	33.5	75.1	124.3	15.8	258.2	3724.9	38.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	75.1	124.3	15.8	258.2	3724.9	38.0	0.0
Queue Length 50th (ft)	46	363	~80	138	~88	~224	86	0
Queue Length 95th (ft)	#189	#888	#254	337	#211	#407	143	0
Internal Link Dist (ft)		679		1940			600	
Turn Bay Length (ft)	200		200		40			75
Base Capacity (vph)	252	812	218	1037	104	28	608	1264
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	1.07	1.13	0.65	1.40	9.11	0.64	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

HCM Signalized Intersection Capacity Analysis
35: Beacon St & College Rd 6/3/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR2	NBL	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	10	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0				4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00				0.95
Frt	1.00	0.98		1.00	0.98		1.00	0.85				1.00
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00				0.98
Satd. Flow (prot)	1555	1652		1593	1658		1516	1419				3113
Flt Permitted	0.36	1.00		0.10	1.00		0.36	1.00				0.98
Satd. Flow (perm)	589	1652		166	1658		582	1419				3113
Volume (vph)	145	740	80	200	470	35	115	125	75	5	100	200
Peak-hour factor, PHF	0.91	0.96	0.84	0.81	0.78	0.52	0.79	0.84	0.71	0.62	0.80	0.78
Adj. Flow (vph)	159	771	95	247	603	67	146	149	106	8	125	256
RTOR Reduction (vph)	0	5	0	0	4	0	0	28	0	0	0	0
Lane Group Flow (vph)	159	861	0	247	666	0	146	227	0	0	0	389
Heavy Vehicles (%)	1%	2%	0%	2%	1%	7%	0%	2%	3%	0%	2%	3%
Turn Type	Perm			D.P+P			D.Pm	NA			Perm	
Protected Phases		3		2	2 3							1
Permitted Phases	3			3			1				1	
Actuated Green, G (s)	39.5	39.5		47.6	50.6		15.2	0.0				15.2
Effective Green, g (s)	40.5	40.5		47.6	51.6		16.2	0.0				16.2
Actuated g/C Ratio	0.47	0.47		0.56	0.60		0.19	0.00				0.19
Clearance Time (s)	5.0	5.0		3.0			5.0					5.0
Vehicle Extension (s)	3.0	3.0		3.0			3.0					3.0
Lane Grp Cap (vph)	279	783		211	1002		110	0				591
v/s Ratio Prot		0.52		c0.10	0.40							
v/s Ratio Perm	0.27			c0.56			c0.25					0.12
v/c Ratio	0.57	1.10		1.17	0.66		1.33	no cap				0.66
Uniform Delay, d1	16.2	22.5		23.2	11.2		34.6	Error				32.0
Progression Factor	1.00	1.00		1.00	1.00		1.00					1.00
Incremental Delay, d2	2.7	63.0		115.6	1.7		196.9	Error				2.7
Delay (s)	18.8	85.5		138.9	12.9		231.5	Error				34.7
Level of Service	B	F		F	B		F	F				C
Approach Delay (s)		75.1			46.8							32.4
Approach LOS		E			D							C

Intersection Summary

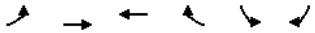
HCM Average Control Delay	Error	HCM Level of Service	F
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	85.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	60	10	330	155	5	210
Peak Hour Factor	0.69	0.70	0.51	0.88	0.69	0.70
Hourly flow rate (vph)	87	14	647	176	7	300
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1050	735			823	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1050	735			823	
tC, single (s)	6.9	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.9	3.3			2.3	
p0 queue free %	58	97			99	
cM capacity (veh/h)	205	421			753	

Direction, Lane #	WB 1	NB 1	SB 1



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Yield		Stop	
Volume (vph)	0	15	225	0	75	170
Peak Hour Factor	0.25	0.71	0.70	0.25	0.89	0.83
Hourly flow rate (vph)	0	21	321	0	84	205
Direction, Lane #	EB 1	SBR				

Queues
2: Commonwealth Ave & Lake Street 6/3/2008

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	195	665	293	791	138	607
v/c Ratio	0.62	0.63	0.67	0.85	0.33	1.46
Control Delay	46.8	30.2	39.3	41.8	7.7	248.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	30.2	39.3	41.8	7.7	248.5
Queue Length 50th (ft)	114	190	160	242	2	~276
Queue Length 95th (ft)	196	213	247	#374	45	#384
Internal Link Dist (ft)		1877		667		202
Turn Bay Length (ft)	200		300		200	
Base Capacity (vph)	317	1234	455	968	436	416
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.54	0.64	0.82	0.32	1.46

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

HCM Signalized Intersection Capacity Analysis
2: Commonwealth Ave & Lake Street 6/3/2008

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	12	12	10	10	10	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00		0.95			
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.82		1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	1.00	0.85		0.97			
Flt Protected	0.95	1.00			0.95	1.00	1.00		0.98			
Satd. Flow (prot)	1570	3180			1528	3249	1174		1522			
Flt Permitted	0.95	1.00			0.95	1.00	1.00		0.98			
Satd. Flow (perm)	1570	3180			1528	3249	1174		1522			
Volume (vph)	170	525	5	20	225	720	120	165	255	80	0	0
Peak-hour factor, PHF	0.87	0.80	0.58	0.92	0.83	0.91	0.87	0.84	0.84	0.75	0.25	0.25
Adj. Flow (vph)	195	656	9	22	271	791	138	196	304	107	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	96	0	16	0	0	0
Lane Group Flow (vph)	195	664	0	0	293	791	42	0	591	0	0	0
Confl. Peds. (#/hr)							54					
Heavy Vehicles (%)	0%	2%	0%	0%	3%	0%	1%	1%	0%	1%	0%	0%
Turn Type	Prot			Split	Split		Perm	Split				
Protected Phases	1	1 2		3	3	3		4	4			
Permitted Phases							3					
Actuated Green, G (s)	20.1	32.8			28.3	28.3	28.3		26.1			
Effective Green, g (s)	20.1	32.8			28.3	28.3	28.3		26.1			
Actuated g/C Ratio	0.20	0.33			0.29	0.29	0.29		0.26			
Clearance Time (s)	4.0				4.0	4.0	4.0		4.0			
Vehicle Extension (s)	3.0				3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	318	1051			436	927	335		400			
v/s Ratio Prot	0.12	c0.21			0.19	c0.24			c0.39			
v/s Ratio Perm							0.04					
v/c Ratio	0.61	0.63			0.67	0.85	0.13		1.48			
Uniform Delay, d1	36.0	28.1			31.3	33.5	26.3		36.6			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	8.6	1.2			4.1	7.7	0.2		227.8			
Delay (s)	44.6	29.3			35.4	41.2	26.5		264.3			
Level of Service	D	C			D	D	C		F			
Approach Delay (s)		32.8				38.1			264.3			0.0
Approach LOS		C				D			F			A

Intersection Summary

HCM Average Control Delay	87.5	HCM Level of Service	F
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	99.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

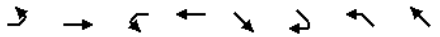
c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
2: Commonwealth Ave & Lake Street 6/3/2008

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	0
Peak-hour factor, PHF	0.25
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Queues
3: Commonwealth Ave & Chestnut Hill 6/3/2008

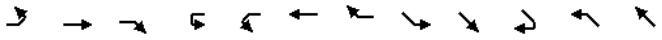


Lane Group	EBL	EBT	WBL	WBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	144	664	247	464	598	42	227	716
v/c Ratio	0.46	0.88	0.85	0.72	1.54	0.12	0.79	1.10
Control Delay	28.1	50.4	41.5	50.9	288.9	25.7	62.4	101.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	50.4	41.5	50.9	288.9	25.7	62.4	101.4
Queue Length 50th (ft)	74	214	136	174	~342	16	121	~622
Queue Length 95th (ft)	107	#358	#245	#253	#460	34	#213	#797
Internal Link Dist (ft)		1348		1135	4158			919
Turn Bay Length (ft)	200		100			50		
Base Capacity (vph)	366	758	344	642	388	364	286	648
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.88	0.72	0.72	1.54	0.12	0.79	1.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



Queues

7: Beacon St & Chestnut Hill Ave 6/3/2008

Lane Group	EBT	WBL	WBT	SET	NWT
Lane Group Flow (vph)	692	205	821	989	756
v/c Ratio	1.99	1.40	0.60	0.62	0.98
Control Delay	482.9	248.9	40.4	24.2	51.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	482.9	248.9	40.4	24.2	51.8

HCM Unsignalized Intersection Capacity Analysis
8: Beacon St & Gate House Road 6/3/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	245	505	5	5	680	75	5	5	5	105	5	310
Peak Hour Factor	0.92	0.85	1.00	0.38	0.90	0.75	0.58	0.38	0.25	0.84	0.50	0.93
Hourly flow rate (vph)	266	594	5	13	756	100	9	13	20	125	10	333
Pedestrians		29			26			2			25	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		2			2			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	881			601			2330	2038	625	2036	1991	860
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	881			601			2330	2038	625	2036	1991	860
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	65			99			0	63	96	0	74	0
cM capacity (veh/h)	756			984			0	36	477	20	38	333

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	266	599	869	42	468
Volume Left	266	0	13	9	125
Volume Right	0	5	100	20	333
cSH	756	1700	984	0	62
Volume to Capacity	0.35	0.35	0.01	Err	7.52
Queue Length 95th (ft)	40	0	1	Err	Err
Control Delay (s)	12.3	0.0	0.4	Err	Err
Lane LOS	B		A	F	F
Approach Delay (s)	3.8		0.4	Err	Err
Approach LOS				F	F

Intersection Summary					
Average Delay			Err		
Intersection Capacity Utilization			120.9%	ICU Level of Service	H
Analysis Period (min)			15		

Queues
13: Washington St & Market Street 6/3/2008

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	712	36	692	107	343	155	464	119
v/c Ratio	14.83	0.27	1.13	0.60	0.49	0.71	0.82	0.27
Control Delay	6232.5	28.5	106.5	38.2	25.5	42.5	38.1	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6232.5	28.5	106.5	38.2	25.5	42.5	38.1	22.2
Queue Length 50th (ft)	~920	13	~514	50	151	76	242	48
Queue Length 95th (ft)	m#837	37	#873	#122	255	#185	#453	70
Internal Link Dist (ft)	985		930		4158		1061	
Turn Bay Length (ft)		50		50		75		50
Base Capacity (vph)	48	133	611	188	747	230	598	474
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	14.83	0.27	1.13	0.57	0.46	0.67	0.78	0.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	16	10	11	16	16	16	16	12	12	10
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt		0.96		1.00	0.96		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1373		1189	1228		1823	1871		1421	1496	1187
Flt Permitted		0.22		0.27	1.00		0.26	1.00		0.40	1.00	1.00
Satd. Flow (perm)		311		344	1228		505	1871		594	1496	1187
Volume (vph)	85	365	180	25	450	140	90	285	20	135	450	80
Peak-hour factor, PHF	0.74	0.92	0.90	0.69	0.91	0.71	0.84	0.94	0.50	0.87	0.97	0.67
Adj. Flow (vph)	115	397	200	36	495	197	107	303	40	155	464	119

Queues
16: Washington St & Brock St 6/3/2008

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	646	564	538
v/c Ratio	1.74	0.82	0.72
Control Delay	367.9	46.1	30.2
Queue Delay	0.0	0.0	0.0
Total Delay	367.9	46.1	30.2
Queue Length 50th (ft)	~615	262	241
Queue Length 95th (ft)	#837	m#436	#569
Internal Link Dist (ft)	966	802	965
Turn Bay Length (ft)			
Base Capacity (vph)	371	684	744
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.74	0.82	0.72

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
16: Washington St & Brock St 6/3/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900

Queues
18: Commonwealth Ave & South St 6/3/2008

Lane Group	EBT	WBT	SWL
Lane Group Flow (vph)	821	684	220
v/c Ratio	1.11	0.41	0.40
Control Delay	86.4	12.2	8.3
Queue Delay	0.0	0.0	0.0
Total Delay	86.4	12.2	8.3
Queue Length 50th (ft)	~185	72	10
Queue Length 95th (ft)	#371	178	45
Internal Link Dist (ft)	424	1348	723
Turn Bay Length (ft)			
Base Capacity (vph)	742	1669	545
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.11	0.41	0.40

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

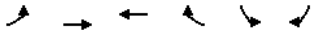
HCM Signalized Intersection Capacity Analysis
18: Commonwealth Ave & South St 6/3/2008

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	
Lane Util. Factor		0.95	0.95		1.00	
Frt		1.00	1.00		0.89	
Flt Protected		1.00	1.00		0.99	
Satd. Flow (prot)		3245	3249		1331	
Flt Permitted		0.93	1.00		0.99	
Satd. Flow (perm)		3032	3249		1331	
Volume (vph)	5	665	595	0	30	160
Peak-hour factor, PHF	0.25	0.83	0.87	0.25	0.75	0.89
Adj. Flow (vph)	20	801	684	0	40	180
RTOR Reduction (vph)	0	0	0	0	125	0
Lane Group Flow (vph)	0	821	684	0	95	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%
Parking (#/hr)					2	2
Turn Type						
Protected Phases		1	1		3	
Permitted Phases						
Actuated Green, G (s)		34.4	34.4		21.3	
Effective Green, g (s)		34.4	34.4		21.3	
Actuated g/C Ratio		0.49	0.49		0.30	
Clearance Time (s)		4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		1484	1590		403	
v/s Ratio Prot			0.21		c0.07	
v/s Ratio Perm		c0.27				
v/c Ratio		0.55	0.43		0.23	
Uniform Delay, d1		12.6	11.6		18.4	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		1.5	0.9		1.4	
Delay (s)		14.1	12.5		19.7	
Level of Service		B	B		B	
Approach Delay (s)		14.1	12.5		19.7	
Approach LOS		B	B		B	

Intersection Summary

HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	70.3	Sum of lost time (s)	14.6
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



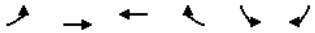
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	660	715	55	0	375
Peak Hour Factor	0.25	0.83	0.94	0.74	0.25	0.89
Hourly flow rate (vph)	0	795	761	74	0	421
Pedestrians					65	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					5	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			504			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	900				1260	482
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	774				1176	309
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	28
cM capacity (veh/h)	722				159	588

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	398	398	507	328	421
Volume Left	0	0	0	0	0
Volume Right	0	0	0	74	421
cSH	1700	1700	1700	1700	588
Volume to Capacity	0.23	0.23	0.30	0.19	0.72
Queue Length 95th (ft)	0	0	0	0	148
Control Delay (s)	0.0	0.0	0.0	0.0	25.1
Lane LOS					D
Approach Delay (s)	0.0		0.0		25.1
Approach LOS					D

Intersection Summary	
Average Delay	5.1

HCM Signalized Intersection Capacity Analysis
20: Washington St & Foster St 6/3/2008

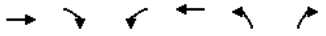
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	12	12	10	10	10	12	10	10
Total Lost time (s)		4.0		4.0	4.0		4.0		4.0		4.0	
Lane Util. Factor		1.00		1.00	1.00		1.00		1.00		1.00	
Frt		0.97		1.00	1.00		1.00		0.85		0.98	
Flt Protected		1.00		0.95	1.00		0.95		1.00		0.99	
Satd. Flow (prot)		1589		1501	1605		1486		1184		1540	
Flt Permitted		1.00		0.11	1.00		0.40		1.00		0.99	
Satd. Flow (perm)		1589		179	1605		630		1184		1540	
Volume (vph)	0	455	150	230	425	0	70	0	135	45	140	40
Peak-hour factor, PHF	0.25	0.86	0.87	0.87	0.94	0.25	0.90	0.25	0.88	0.70	0.88	0.84
Adj. Flow (vph)	0	529	172	264	452	0	78	0	153	64	159	48
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	153	0	0	0
Lane Group Flow (vph)	0	689	0	264	452	0	78	0	0	0	271	0
Heavy Vehicles (%)	0%	5%	1%	1%	4%	0%	2%	0%	2%	0%	0%	0%
Bus Blockages (#/hr)	0	0	6	0	6	0	0	0	0	0	0	0
Parking (#/hr)									2	2		2
Turn Type				pm+pt			D.Pm		NA	Perm		
Protected Phases		1		9	1						3	
Permitted Phases				1			3			3		
Actuated Green, G (s)		35.4		67.7	35.4		22.3		0.0		22.3	
Effective Green, g (s)		35.4		65.7	35.4		22.3		0.0		22.3	
Actuated g/C Ratio		0.35		0.66	0.35		0.22		0.00		0.22	
Clearance Time (s)		4.0		2.0	4.0		4.0				4.0	



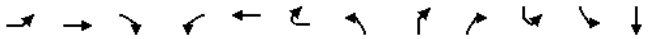
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	635	1020	5	0	55
Peak Hour Factor	0.25	0.83	0.93	0.75	0.25	0.89
Hourly flow rate (vph)	0	765	1097	7	0	62
Pedestrians		101			101	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		8			8	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		747				
pX, platoon unblocked					0.86	
vC, conflicting volume	1204				1584	754
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1204				1515	754
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	79
cM capacity (veh/h)	537				88	299

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	383	383	731	372	62
Volume Left	0	0	0	0	0
Volume Right	0	0	0	7	62
cSH	1700	1700	1700	1700	299
Volume to Capacity	0.23	0.23	0.43	0.22	0.21
Queue Length 95th (ft)	0	0	0	0	19
Control Delay (s)	0.0	0.0	0.0	0.0	20.2
Lane LOS					C
Approach Delay (s)	0.0		0.0		20.2
Approach LOS					C

Intersection Summary	
Average Delay	0.6



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						



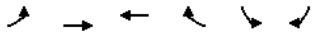
HCM Unsignalized Intersection Capacity Analysis
46: Chestnut Hill Driveway & T. Moore 6/3/2008

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	55	15	240	85	40	385
Peak Hour Factor	0.69	0.70	0.51	0.88	0.69	0.70
Hourly flow rate (vph)	80	21	471	97	58	550
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1185	519			567	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1185	519			567	
tC, single (s)	6.9	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.9	3.3			2.3	
p0 queue free %	50	96			94	
cM capacity (veh/h)	159	559			943	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	101	567	608
Volume Left	80	0	58
Volume Right	21	97	0
cSH	188	1700	943
Volume to Capacity	0.54	0.33	0.06
Queue Length 95th (ft)	70	0	5
Control Delay (s)	44.6	0.0	1.6
Lane LOS	E		A
Approach Delay (s)	44.6	0.0	1.6
Approach LOS	E		

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

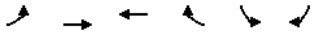
HCM Unsignalized Intersection Capacity Analysis
49: Beacon St Garage & 6/3/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	25	690	975	25	50	100
Peak Hour Factor	0.78	0.88	0.93	0.79	0.64	0.25
Hourly flow rate (vph)	32	784	1048	32	78	400
Pedestrians		50	47		42	
Lane Width (ft)		14.0	14.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		5	5		4	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1122				2001	1156
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1122				2001	1156
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				0	0
cM capacity (veh/h)	608				58	222

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	816	1080	78	400
Volume Left	32	0	78	0
Volume Right	0	32	0	400
cSH	608	1700	58	222
Volume to Capacity	0.05	0.64	1.35	1.80
Queue Length 95th (ft)	4	0	170	692
Control Delay (s)	1.5	0.0	353.8	416.3
Lane LOS	A		F	F
Approach Delay (s)	1.5	0.0	406.0	
Approach LOS			F	

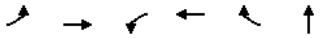
Intersection Summary			
Average Delay	82.3		
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Yield		Stop	
Volume (vph)	0	45	135	0	60	65
Peak Hour Factor	0.25	0.61	0.70	0.25	0.73	0.82
Hourly flow rate (vph)	0	74	193	0	82	79

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	74	193	82	79
Volume Left (vph)	0	0	82	0
Volume Right (vph)	0	0	0	79
Hadj (s)	0.00	0.09	0.77	-0.63
Departure Headway (s)	4.5	4.5	5.9	4.5
Degree Utilization, x	0.09	0.24	0.13	0.10
Capacity (veh/h)	759	768	583	757

Build 2018



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	10	10	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0			4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			1.00	0.95			0.95	1.00	1.00	1.00
Frt	1.00	0.95			1.00	0.99			1.00	0.85	1.00	0.96
Flt Protected	0.95	1.00			0.95	1.00			0.99	1.00	0.95	1.00
Satd. Flow (prot)	1577	2940			1578	2803			3057	1398	1533	1541
Flt Permitted	0.38	1.00			0.14	1.00			0.52	1.00	0.23	1.00
Satd. Flow (perm)	637	2940			241	2803			1584	1398	366	1541
Volume (vph)	123	399	230	5	205	318	15	35	450	40	142	540
Peak-hour factor, PHF	0.68	0.81	0.81	0.92	0.94	0.92	0.46	0.49	0.91	0.69	0.75	0.82
Adj. Flow (vph)	181	493	284	5	218	346	33	71	495	58	189	659
RTOR Reduction (vph)	0	65	0	0	0	5	0	0	0	17	0	11
Lane Group Flow (vph)	181	712	0	0	223	374	0	0	566	41	189	884
Heavy Vehicles (%)	3%	3%	7%	2%	3%	4%	36%	3%	6%	4%	6%	5%
Turn Type	pm+pt				pm+pt			Perm		Perm	D.P+P	
Protected Phases	9	1			9	1			3		4	3 4
Permitted Phases	1				1			3		3	3	
Actuated Green, G (s)	45.0	27.6			45.0	27.6			29.0	29.0	44.0	48.0
Effective Green, g (s)	43.0	27.6			43.0	27.6			29.0	29.0	44.0	48.0
Actuated g/C Ratio	0.36	0.23			0.36	0.23			0.24	0.24	0.37	0.40
Clearance Time (s)	2.0	4.0			2.0	4.0			4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0			3.0	3.0	3.0	
Lane Grp Cap (vph)	349	676			258	645			383	338	280	616
v/s Ratio Prot	0.07	c0.24			c0.11	0.13					0.08	c0.57
v/s Ratio Perm	0.12				0.20				0.36	0.03	0.16	
v/c Ratio	0.52	1.05			0.86	0.58			1.48	0.12	0.68	1.44
Uniform Delay, d1	28.2	46.2			31.4	41.0			45.5	35.5	40.9	36.0
Progression Factor	1.00	1.00			1.00	1.00			1.00	1.00	1.75	1.86
Incremental Delay, d2	1.3	49.3			24.6	3.8			228.7	0.7	0.6	196.8
Delay (s)	29.5	95.5			56.0	44.8			274.2	36.3	72.2	263.9
Level of Service	C	F			E	D			F	D	E	F
Approach Delay (s)		83.0				48.9			252.1			230.4
Approach LOS		F				D			F			F

Intersection Summary			
HCM Average Control Delay	157.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	105.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

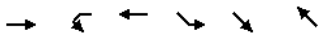
HCM Signalized Intersection Capacity Analysis
3: Commonwealth Ave & Chestnut Hill 6/3/2008

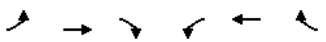
Movement	NWR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	175
Peak-hour factor, PHF	0.74
Adj. Flow (vph)	236
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	11%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Queues
7: Beacon St & Chestnut Hill Ave

6/3/2008





Queues
16: Washington St & Brock St 6/3/2008

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	563	531	557
v/c Ratio	1.07	0.88	0.71
Control Delay	88.4	59.3	26.4
Queue Delay	0.0	0.0	0.0
Total Delay	88.4	59.3	26.4
Queue Length 50th (ft)	~360	292	208
Queue Length 95th (ft)	#571	#504	#546
Internal Link Dist (ft)	966	802	965
Turn Bay Length (ft)			
Base Capacity (vph)	527	604	782
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.07	0.88	0.71

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

HCM Signalized Intersection Capacity Analysis
16: Washington St & Brock St 6/3/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0				
Lane Util. Factor		1.00			1.00			1.00				
Frpb, ped/bikes		1.00			0.99			0.99				
Flpb, ped/bikes		1.00			1.00			1.00				
Frt		1.00			0.99			0.97				
Flt Protected		1.00			1.00			0.99				
Satd. Flow (prot)		1625			1565			1603				
Flt Permitted		0.79			1.00			0.99				
Satd. Flow (perm)		1282			1565			1603				
Volume (vph)	15	495	0	0	445	30	67	316	102	0	0	0
Peak-hour factor, PHF	0.80	0.91	0.25	0.25	0.91	0.72	0.90	0.90	0.77	0.25	0.25	0.25
Adj. Flow (vph)	19	544	0	0	489	42	74	351	132	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	9	0	0	0	0
Lane Group Flow (vph)	0	563	0	0	528	0	0	548	0	0	0	0
Confl. Peds. (#/hr)	23					23			9			
Heavy Vehicles (%)	6%	5%	0%	0%	8%	0%	4%	1%	3%	0%	0%	0%
Turn Type	Perm						Perm					
Protected Phases		1			1			4				
Permitted Phases	1						4					
Actuated Green, G (s)		31.4			31.4			43.4				
Effective Green, g (s)		31.4			31.4			43.4				
Actuated g/C Ratio		0.35			0.35			0.48				
Clearance Time (s)		4.0			4.0			4.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		447			546			773				
v/s Ratio Prot					0.34							
v/s Ratio Perm		c0.44						0.34				
v/c Ratio		1.26			0.97			0.71				
Uniform Delay, d1		29.3			28.8			18.3				
Progression Factor		1.00			1.77			1.00				
Incremental Delay, d2		133.8			26.3			3.0				
Delay (s)		163.1			77.2			21.3				
Level of Service		F			E			C				
Approach Delay (s)		163.1			77.2			21.3			0.0	
Approach LOS		F			E			C			A	

Intersection Summary

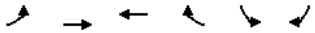
HCM Average Control Delay	87.7	HCM Level of Service	F
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.2
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Queues

18: Commonwealth Ave & South St 6/3/2008

HCM Unsignalized Intersection Capacity Analysis
19: Commonwealth Ave & Foster St 6/3/2008

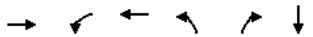


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	664	681	85	0	368
Peak Hour Factor	0.25	0.89	0.96	0.77	0.25	0.90
Hourly flow rate (vph)	0	746	709	110	0	409
Pedestrians		59			59	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		5			5	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			504			
pX, platoon unblocked	0.92				0.92	0.92
vC, conflicting volume	879				1197	528
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	783				1128	402
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	18
cM capacity (veh/h)	739				176	500

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	373	373	473	347	409
Volume Left	0	0	0	0	0
Volume Right	0	0	0	110	409
cSH	1700	1700	1700	1700	500
Volume to Capacity	0.22	0.22	0.28	0.20	0.82
Queue Length 95th (ft)	0	0	0	0	198
Control Delay (s)	0.0	0.0	0.0	0.0	36.9
Lane LOS					E
Approach Delay (s)	0.0		0.0		36.9
Approach LOS					E

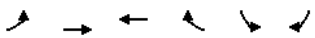
Intersection Summary			
Average Delay	7.6		
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

Queues
20: Washington St & Foster St 6/3/2008



Lane Group	EBT	WBL	WBT	NBL	NBR	SBT
Lane Group Flow (vph)	681	291	378	119	236	174
v/c Ratio	1.19	0.53	0.71	0.70	1.00	0.59
Control Delay	111.3	21.4	30.9	41.0	67.5	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.3	21.4	30.9	41.0	67.5	35.1
Queue Length 50th (ft)	~421	126	153	64	0	91
Queue Length 95th (ft)	m#452	m101	m161	105	#126	132
Internal Link Dist (ft)	802		985			367
Turn Bay Length (ft)		75			80	
Base Capacity (vph)	572	551	533	224	236	390
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.19	0.53	0.71	0.53	1.00	0.45

Intersection Summary
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	825	0	0	695	15	266
Peak Hour Factor	0.96	0.25	0.25	0.83	0.70	0.82
Hourly flow rate (vph)	859	0	0	837	21	324
Pedestrians	6			8		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	0			1		
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			859		1703	867
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			859		1703	867
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		79	8
cM capacity (veh/h)			790		101	353

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	859	837	346
Volume Left	0	0	21
Volume Right	0	0	324
cSH	1700	1700	306
Volume to Capacity	0.51	0.49	1.13
Queue Length 95th (ft)	0	0	354
Control Delay (s)	0.0	0.0	129.0
Lane LOS			F
Approach Delay (s)	0.0	0.0	129.0
Approach LOS			F

Intersection Summary			
Average Delay	21.8		
Intersection Capacity Utilization	74.9%	ICU Level ofe	F

0653

HCM Signalized Intersection Capacity Analysis
35: Beacon St & College Rd 6/3/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR2	NBL	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	10	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0				4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00				0.95
Frt	1.00	0.98		1.00	0.98		1.00	0.85				1.00
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00				0.98
Satd. Flow (prot)	1555	1652		1593	1656		1516	1420				3113
Flt Permitted	0.36	1.00		0.10	1.00		0.36	1.00				0.98
Satd. Flow (perm)	583	1652		166	1656		582	1420				3113
Volume (vph)	149	740	80	203	471	37	115	140	74	5	100	200
Peak-hour factor, PHF	0.91	0.96	0.84	0.81	0.78	0.52	0.79	0.84	0.71	0.62	0.80	0.78
Adj. Flow (vph)	164	771	95	251	604	71	146	167	104	8	125	256
RTOR Reduction (vph)	0	5	0	0	4	0	0	24	0	0	0	0
Lane Group Flow (vph)	164	861	0	251	671	0	146	247	0	0	0	389
Heavy Vehicles (%)	1%	2%	0%	2%	1%	7%	0%	2%	3%	0%	2%	3%
Turn Type	Perm			D.P+P			D.Pm	NA			Perm	
Protected Phases		3		2	2 3							1
Permitted Phases	3			3			1				1	
Actuated Green, G (s)	39.5	39.5		47.6	50.6		15.2	0.0				15.2
Effective Green, g (s)	40.5	40.5		47.6	51.6		16.2	0.0				16.2
Actuated g/C Ratio	0.47	0.47		0.56	0.60		0.19	0.00				0.19
Clearance Time (s)	5.0	5.0		3.0			5.0					5.0
Vehicle Extension (s)	3.0	3.0		3.0			3.0					3.0
Lane Grp Cap (vph)	276	783		211	1001		110	0				591
v/s Ratio Prot		0.52		c0.10	0.41							
v/s Ratio Perm	0.28			c0.57			c0.25					0.12
v/c Ratio	0.59	1.10		1.19	0.67		1.33	no cap				0.66
Uniform Delay, d1	16.4	22.5		23.2	11.2		34.6	Error				32.0
Progression Factor	1.00	1.00		1.00	1.00		1.00					1.00
Incremental Delay, d2	3.4	63.0		122.6	1.8		196.9	Error				2.7
Delay (s)	19.8	85.5		145.8	13.0		231.5	Error				34.7
Level of Service	B	F		F	B		F	F				C
Approach Delay (s)		75.0			49.0							32.4
Approach LOS		E			D							C

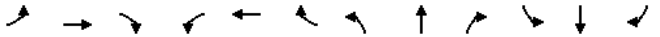
Intersection Summary			
HCM Average Control Delay	Error	HCM Level of Service	F
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	85.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
35: Beacon St & College Rd 6/3/2008

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1264
Flt Permitted	1.00
Satd. Flow (perm)	1264
Volume (vph)	15
Peak-hour factor, PHF	0.54
Adj. Flow (vph)	28
RTOR Reduction (vph)	0
Lane Group Flow (vph)	28
Heavy Vehicles (%)	15%
Turn Type	Free
Protected Phases	
Permitted Phases	Free
Actuated Green, G (s)	85.4
Effective Green, g (s)	85.4
Actuated g/C Ratio	1.00
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	1264
v/s Ratio Prot	
v/s Ratio Perm	c0.02
v/c Ratio	0.02
Uniform Delay, d1	0.0
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	0.0
Level of Service	A
Approach Delay (s)	
Approach LOS	

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
38: Commonwealth Ave & Mt Alvernia Road 6/3/2008

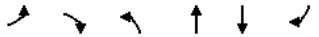


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	35	786	5	55	566	10	27	15	264	35	5	20
Peak Hour Factor	0.46	0.83	0.35	0.83	0.91	0.40	0.71	0.69	0.94	0.65	0.25	0.59
Hourly flow rate (vph)	76	947	14	66	622	25	38	22	281	54	20	34
Pedestrians		9			9			10				
Lane Width (ft)		12.0			12.0			14.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		1			1			1				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	647			971			1936	1896	973	2174	1890	643
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	647			971			1936	1896	973	2174	1890	643
tC, single (s)	4.1			4.1			7.2	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			90			0	63	7	0	66	93
cM capacity (veh/h)	948			695			27	58	301	1	58	464

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	1037	713	341	108
Volume Left	76	66	38	54
Volume Right	14	25	281	34
cSH	948	695	126	3
Volume to Capacity	0.08	0.10	2.71	40.47
Queue Length 95th (ft)	7	8	774	Err
Control Delay (s)	2.2	2.5	845.2	Err
Lane LOS	A	A	F	F
Approach Delay (s)	2.2	2.5	845.2	Err
Approach LOS			F	F

Intersection Summary				
Average Delay	622.7			
Intersection Capacity Utilization	85.3%	ICU Level of Service	E	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
41: Rogers Park & Foster St 6/3/2008



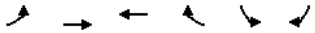
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	120	85	0	148	589	0
Peak Hour Factor	0.83	0.94	0.25	0.80	0.96	0.25
Pedestrians				29	30	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				2	2	
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)					946	
pX, platoon unblocked	0.92	0.92	0.92			
vC, conflicting volume	829	643	614			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	813	611	579			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	54	80	100			
cM capacity (veh/h)	313	443	922			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	235	185	614
Volume Left	145	0	0
Volume Right	90	0	0
cSH	352	1700	1700
Volume to Capacity	0.67	0.11	0.36
Queue Length 95th (ft)	114	0	0
Control Delay (s)	33.5	0.0	0.0
Lane LOS	D		
Approach Delay (s)	33.5	0.0	0.0
Approach LOS	D		

Intersection Summary	
Average Delay	7.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	60	10	319	156	7	300
Peak Hour Factor	0.69	0.70	0.51	0.88	0.69	0.70
Hourly flow rate (vph)	87	14	625	177	10	429
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC,545588 317.471 refBT0 -6.3116 6.3116 0 361T.i scNone						

HCM Unsignalized Intersection Capacity Analysis
51: Campanella Way & Fr. Herlihy Drive 6/3/2008



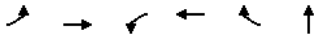
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Yield		Stop	
Volume (vph)	0	1	181	0	107	138
Peak Hour Factor	0.25	0.71	0.70	0.25	0.89	0.83
Hourly flow rate (vph)	0	1	259	0	120	166

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	1	259	120	166
Volume Left (vph)	0	0	120	0
Volume Right (vph)	0	0	0	166
Hadj (s)	0.00	0.05	0.72	-0.65
Departure Headway (s)	4.9	4.6	5.9	4.5
Degree Utilization, x	0.00	0.33	0.20	0.21
Capacity (veh/h)	676	741	591	766
Control Delay (s)	7.9	9.9	9.1	7.5
Approach Delay (s)	7.9	9.9	8.1	
Approach LOS	A	A	A	

Intersection Summary			
Delay	9.0		
HCM Level of Service	A		
Intersection Capacity Utilization	28.4%	ICU Level of Service	A
Analysis Period (min)	15		

Queues

2: Commonwealth Ave & Lake Street 6/3/2008



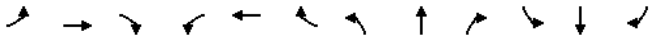
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	10	10	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0			4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			1.00	0.95			0.95	1.00	1.00	1.00
Frt	1.00	0.94			1.00	0.98			1.00	0.85	1.00	0.95
Flt Protected	0.95	1.00			0.95	1.00			1.00	1.00	0.95	1.00
Satd. Flow (prot)	1624	2987			1609	2909			3148	1454	1624	1585
Flt Permitted	0.27	1.00			0.15	1.00			0.51	1.00	0.20	1.00
Satd. Flow (perm)	459	2987			259	2909			1605	1454	345	1585
Volume (vph)	117	363	250	5	220	377	25	45	490	30	205	415
Peak-hour factor, PHF	0.80	0.90	0.89	0.92	0.91	0.87	0.50	0.75	0.91	0.72	0.88	0.86
Adj. Flow (vph)	146	403	281	5	242	433	50	60	538	42	233	483
RTOR Reduction (vph)	0	101	0	0	0	7	0	0	0	12	0	14
Lane Group Flow (vph)	146	583	0	0	247	476	0	0	598	30	233	702
Heavy Vehicles (%)	0%	0%	5%	0%	1%	2%	8%	0%	3%	0%	0%	2%
Turn Type	pm+pt				pm+pt			Perm		Perm	D.P+P	
Protected Phases	9	1			9	1			3		4	3 4
Permitted Phases	1				1			3		3	3	
Actuated Green, G (s)	45.0	26.2			45.0	26.2			29.0	29.0	44.0	48.0
Effective Green, g (s)	43.0	26.2			43.0	26.2			29.0	29.0	44.0	48.0
Actuated g/C Ratio	0.36	0.22			0.36	0.22			0.24	0.24	0.37	0.40
Clearance Time (s)	2.0	4.0			2.0	4.0			4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0			3.0	3.0	3.0	
Lane Grp Cap (vph)	328	652			282	635			388	351	286	634
v/s Ratio Prot	0.06	c0.20			c0.12	0.16					0.10	c0.44
v/s Ratio Perm	0.10				0.19				c0.37	0.02	0.20	
v/c Ratio	0.45	0.89			0.88	0.75			1.54	0.09	0.81	1.11
Uniform Delay, d1	27.8	45.6			31.3	43.8			45.5	35.2	42.7	36.0
Progression Factor	1.00	1.00			1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	17.2			24.7	7.9			256.1	0.5	16.1	68.6
Delay (s)	28.8	62.7			56.0	51.8			301.6	35.7	58.8	104.6
Level of Service	C	E			E	D			F	D	E	F
Approach Delay (s)		56.8				53.2			284.2			93.4
Approach LOS		E				D			F			F

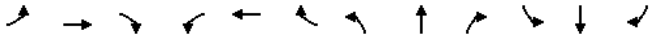
Intersection Summary			
HCM Average Control Delay	113.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	101.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
3: Commonwealth Ave & Chestnut Hill 6/3/2008

Movement	NWR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	205
Peak-hour factor, PHF	0.88
Adj. Flow (vph)	233
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	4%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	16	10	11	16	16	16	16	12	12	10
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt		0.97		1.00	0.96		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1375		1189	1230		1823	1871		1421	1496	1187
Flt Permitted		0.11		0.27	1.00		0.27	1.00		0.41	1.00	1.00

Queues
16: Washington St & Brock St 6/3/2008

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	683	564	599
v/c Ratio	1.89	0.85	0.78
Control Delay	434.9	50.9	32.4
Queue Delay	0.0	0.0	0.0
Total Delay	434.9	50.9	32.4
Queue Length 50th (ft)	~670	302	278
Queue Length 95th (ft)	#889	m#402	#659
Internal Link Dist (ft)	966	802	965
Turn Bay Length (ft)			
Base Capacity (vph)	361	662	767
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.89	0.85	0.78

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
16: Washington St & Brock St 6/3/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0				

Lane Group	EBT	WBT	SWL
Lane Group Flow (vph)	862	709	233
v/c Ratio	1.16	0.42	0.42
Control Delay	107.5	12.4	8.2

HCM Unsignalized Intersection Capacity Analysis
19: Commonwealth Ave & Foster St 6/3/2008

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	694	749	55	0	386
Peak Hour Factor	0.25	0.83	0.94	0.74	0.25	0.89
Hourly flow rate (vph)	0	836	797	74	0	434
Pedestrians					65	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					5	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			504			
pX, platoon unblocked	0.89				0.89	0.89
vC, conflicting volume	936				1317	501
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	804				1232	315
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	25
cM capacity (veh/h)	697				145	578

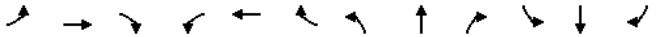
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	418	418	531	340	434
Volume Left	0	0	0	0	0
Volume Right	0	0	0	74	434
cSH	1700	1700	1700	1700	578
Volume to Capacity	0.25	0.25	0.31	0.20	0.75
Queue Length 95th (ft)	0	0	0	0	165
Control Delay (s)	0.0	0.0	0.0	0.0	27.6
Lane LOS					D
Approach Delay (s)	0.0		0.0		27.6
Approach LOS					D

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		

Queues
20: Washington St & Foster St 6/3/2008

Lane Group	EBT	WBL	WBT	NBL	NBR	SBT
Lane Group Flow (vph)	737	315	452	78	218	274
v/c Ratio	1.34	0.59	0.83	0.48	1.00	0.79
Control Delay	177.5	29.9	33.2	37.3	69.8	41.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	177.5	29.9	33.2	37.3	69.8	41.9
Queue Length 50th (ft)	~588	123	258	44	0	166
Queue Length 95th (ft)	m137	m168	m220	82	#136	222
Internal Link Dist (ft)	802		985			367
Turn Bay Length (ft)		75			80	
Base Capacity (vph)	552	536	546	206	218	442
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.34	0.59	0.83	0.38	1.00	0.62

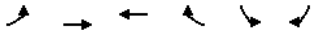
Intersection Summary
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	12	12	10	10	10	12	10	10
Total Lost time (s)		4.0		4.0	4.0		4.0		4.0		4.0	
Lane Util. Factor		1.00		1.00	1.00		1.00		1.00		1.00	
Frt		0.96		1.00	1.00		1.00		0.85		0.98	
Flt Protected		1.00		0.95	1.00		0.95		1.00		0.99	

HCM Unsignalized Intersection Capacity Analysis
26: Commonwealth Ave & Campus Driveway

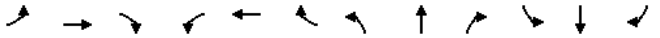
6/3/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	515	0	0	1121	10	198
Peak Hour Factor	0.88	0.25	0.25	0.93	0.39	0.89
Hourly flow rate (vph)	585	0	0	1205	26	222
Pedestrians	10			7		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	1			1		
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			585		1801	592
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			585		1801	592
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		71	56

Movement	EBL	EBT	EBR	WBL	WBT	WBR2	NBL	NBR	NBR2	SBL2	SBL	SBT

HCM Unsignalized Intersection Capacity Analysis
38: Commonwealth Ave & Mt Alvernia Road 6/3/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	579	5	95	700	5	89	15	244	10	5	20
Peak Hour Factor	0.47	0.89	0.40	0.84	0.86	0.62	0.79	0.83	0.92	0.45	0.67	0.62
Hourly flow rate (vph)	11	651	12	113	814	8	113	18	265	22	7	32
Pedestrians		63			51			46			4	
Lane Width (ft)		12.0			12.0			14.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		5			4			4			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	826			709			1867	1776	754	2052	1779	885
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	826			709			1867	1776	754	2052	1779	885
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	99			87			0	73	28	0	89	90
cM capacity (veh/h)	811			850			36	68	367	8	68	328

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	674	935	396	62
Volume Left	11	113	113	22
Volume Right	12	8	265	32
cSH	811	850	96	20
Volume to Capacity	0.01	0.13	4.11	3.15
Queue Length 95th (ft)	1	11	Err	Err
Control Delay (s)	0.4	3.4	Err	Err
Lane LOS	A	A	F	F
Approach Delay (s)	0.4	3.4	Err	Err
Approach LOS			F	F

Intersection Summary				
Average Delay	2217.0			
Intersection Capacity Utilization	123.9%	ICU Level of Service	H	
Analysis Period (min)	15			

HCM Unsignalized Intersection Capacity Analysis
41: Rogers Park & Foster St 6/3/2008

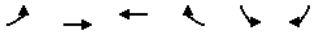
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	70	85	0	162	628	0
Peak Hour Factor	0.76	0.94	0.25	0.90	0.90	0.25
Hourly flow rate (vph)	92	90	0	180	698	0
Pedestrians				38	46	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				3	4	
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)					946	
pX, platoon unblocked	0.88	0.88	0.88			
vC, conflicting volume	924	736	698			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	914	700	657			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	64	76	100			
cM capacity (veh/h)	256	376	829			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	183	180	698
Volume Left	92	0	0
Volume Right	90	0	0
cSH	304	1700	1700
Volume to Capacity	0.60	0.11	0.41
Queue Length 95th (ft)	91	0	0
Control Delay (s)	33.1	0.0	0.0
Lane LOS	D		
Approach Delay (s)	33.1	0.0	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	5.7		
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	55	15	279	92	19	422
Peak Hour Factor	0.69	0.70	0.51	0.88	0.69	0.70
Hourly flow rate (vph)	80	21	547	105	28	603
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1257	599			652	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1257	599			652	
tC, single (s)	6.9	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.9	3.3			2.3	
p0 queue free %	46	96			97	
cM capacity (veh/h)	148	503			876	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	101	652	630
Volume Left	80	0	28
Volume Right	21	105	0
cSH	174	1700	876
Volume to Capacity	0.58	0.38	0.03
Queue Length 95th (ft)	78	0	2



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Yield		Stop	
Volume (vph)	0	45	178	0	66	73
Peak Hour Factor	0.25	0.61	0.70	0.25	0.73	0.82
Hourly flow rate (vph)	0	74	254	0	90	89

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total (vph)	74	254	90	89
Volume Left (vph)	0	0	90	0
Volume Right (vph)	0	0	0	89
Hadj (s)	0.00	0.09	0.77	-0.63
Departure Headway (s)	4.7	4.5	6.1	4.6
Degree Utilization, x	0.10	0.32	0.15	0.11
Capacity (veh/h)	734	760	566	728
Control Delay (s)	8pl52.5115		0.11	

Queues
2: Commonwealth Ave & Lake Street 6/3/2008

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	290	1021	382	622	120	473
v/c Ratio	1.07	0.90	1.08	0.82	0.31	1.07
Control Delay	118.8	42.5	111.8	49.8	8.5	96.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	118.8	42.5	111.8	49.8	8.5	96.7
Queue Length 50th (ft)	~229	340	~305	220	0	~177
Queue Length 95th (ft)	#399	#411	#459	#305	40	#221
Internal Link Dist (ft)		1877		667		286
Turn Bay Length (ft)	200		300		200	
Base Capacity (vph)	271	1149	353	758	391	441
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.89	1.08	0.82	0.31	1.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

HCM Signalized Intersection Capacity Analysis
2: Commonwealth Ave & Lake Street 6/3/2008

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1000	1900	1900	1900
Lane Width	11	12	12	12	11	12	12	10	10	10	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00		0.95			
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.91		1.00			

HCM Signalized Intersection Capacity Analysis
2: Commonwealth Ave & Lake Street 6/3/2008

Queues
2: Commonwealth Ave & Lake Street 6/3/2008

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	290	1021	375	622	120	473
v/c Ratio	1.02	0.93	1.04	0.81	0.31	1.03
Control Delay	106.2	50.5	104.4	52.1	8.6	86.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	106.2	50.5	104.4	52.1	8.6	86.4
Queue Length 50th (ft)	~233	385	~316	240	0	~187
Queue Length 95th (ft)	#413	#486	#472	311	41	#229
Internal Link Dist (ft)		1877		667		286
Turn Bay Length (ft)	200		300		200	
Base Capacity (vph)	285	1105	359	771	393	458
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.92	1.04	0.81	0.31	1.03

Intersection Summary

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Queue shown is maximum after two cycles.

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

HCM Signalized Intersection Capacity Analysis
2: Commonwealth Ave & Lake Street 6/3/2008

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1000	1900	1900	1900
Lane Width	11	12	12	12	11	12	12	10	10	10	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00		0.95			
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.90		1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	0.96			1.00	1.00	0.85		0.95			
Flt Protected	0.95	1.00			0.95	1.00	1.00		0.99			
Satd. Flow (prot)	1555	3083			1482	3185	1250		1333			
Flt Permitted	0.95	1.00			0.95	1.00	1.00		0.99			
Satd. Flow (perm)	1555	3083			1482	3185	1250		1333			
Volume (vph)	264	671	215	1	322	578	102	63	181	95	0	0
Peak-hour factor, PHF	0.91	0.87	0.86	0.92	0.86	0.93	0.85	0.70	0.78	0.63	0.25	0.25
Adj. Flow (vph)	290	771	250	1	374	622	120	90	232	151	0	0
RTOR Reduction (vph)	0	26	0	0	0	0	91	0	46	0	0	0
Lane Group Flow (vph)	290	995	0	0	375	622	29	0	427	0	0	0

HCM Signalized Intersection Capacity Analysis
2: Commonwealth Ave & Lake Street 6/3/2008

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	0
Peak-hour factor, PHF	0.25
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

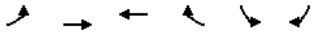
Intersection Summary

Queues
26: Commonwealth Ave & Campus Driveway 6/3/2008

Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	104	746	1085	76
v/c Ratio	0.34	0.37	0.71	0.42
Control Delay	9.7	6.4	17.8	12.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.7	6.4	17.8	12.5
Queue Length 50th (ft)	6	29	127	2
Queue Length 95th (ft)	61	170	#427	40
Internal Link Dist (ft)		667	961	372
Turn Bay Length (ft)	75			
Base Capacity (vph)	310	2021	1545	294
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	0.37	0.70	0.26

Intersection Summary

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR

Queues
2: Commonwealth Ave & Lake Street 6/3/2008

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	190	854	401	798	192	653
v/c Ratio	0.98	0.95	1.10	1.03	0.51	1.07
Control Delay	117.6	64.8	123.2	88.4	16.3	93.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	117.6	64.8	123.2	88.4	16.3	93.9
Queue Length 50th (ft)	162	365	~384	~378	28	~308
Queue Length 95th (ft)	#302	384	#515	#508	96	#384
Internal Link Dist (ft)		1877		667		202
Turn Bay Length (ft)	200		300		200	
Base Capacity (vph)	193	899	364	775	377	608
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.95	1.10	1.03	0.51	1.07

Intersection Summary

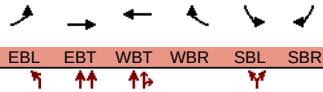
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

HCM Signalized Intersection Capacity Analysis
2: Commonwealth Ave & Lake Street 6/3/2008

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1000	1900	1900	1900
Lane Width	11	12	12	12	11	12	12	10	10	10	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00		0.95			

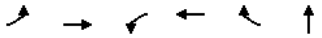
Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	



Movement	EBL	EBT	WBT	WBR	SBL	SBR

Queues

2: Commonwealth Ave & Lake Street 6/3/2008



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	290	1021	153	622	120	419
v/c Ratio	1.03	0.83	0.54	1.01	0.35	1.01
Control Delay	100.4	28.8	40.7	77.4	9.4	77.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.4	28.8	40.7	77.4	9.4	77.1
Queue Length 50th (ft)	~181	251	79	~202	0	~120
Queue Length 95th (ft)	#337	316	135	#309	39	#172

Queues

26: Commonwealth Ave & Campus Driveway

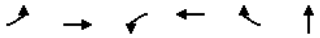
6/3/2008

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	157	708	180	912	42	76
v/c Ratio	0.58	0.28	0.48	0.39	0.23	0.41
Control Delay	21.6	5.4	14.5	6.1	25.4	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	5.4	14.5	6.1	25.4	17.6
Queue Length 50th (ft)	20	34	20	48	15	14
Queue Length 95th (ft)	88	156	#186	223	46	54
Internal Link Dist (ft)		667		961	983	372
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	272	2489	376	2322	305	284
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	

Queues

2: Commonwealth Ave & Lake Street 6/3/2008



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	190	854	163	798	192	621
v/c Ratio	0.91	0.90	0.46	1.05	0.50	1.07
Control Delay	93.8	52.8	44.3	91.4	13.9	93.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.8	52.8	44.3	91.4	13.9	93.3
Queue Length 50th (ft)	147	326	109	~355	19	~271
Queue Length 95th (ft)	#271	347	163	#482	82	#349
Internal Link Dist (ft)		1877		667		202
Turn Bay Length (ft)	200		300		200	
Base Capacity (vph)	209	949	357	759	386	579
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.90	0.46	1.05	0.50	1.07

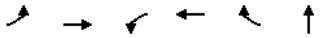
Queues
26: Commonwealth Ave & Campus Driveway 6/3/2008

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frt (prot)	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	117

Peak-hour factor, PHF Volume (vph) 0 -10 627.26 -371(0m0 0 0 Pc158 T27-Group 988)]52.5153 T20.2(0m0 0 0 cn 9394.249 435.045 7.5588 31764cnrefBT0 -6.3116 6.3116 0 427.1302 752.5153 Tm0 0 n(4337Peak-hour factor, PHF7yhoHeavy VehiclesT9%1976 T45(0%m0 0cn cm 0 0 m764cnre71 ISQBT0 -6

Queues

2: Commonwealth Ave & Lake Street 6/3/2008

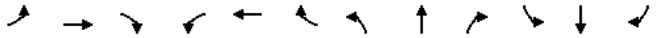


Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	290	1020	152	622	120	419
v/c Ratio	1.03	0.83	0.53	1.02	0.35	1.01
Control Delay	101.2	29.8	40.6	78.1	9.4	77.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.2	29.8	40.6	78.1	9.4	77.8
Queue Length 50th (ft)	~181	259	79	~202	0	~120
Queue Length 95th (ft)	#337	324	134	#309	39	#172
Internal Link Dist (ft)		1877		667		286
Turn Bay Length (ft)	200		300		200	
Base Capacity (vph)	281	1265	285	612	342	415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.81	0.53	1.02	0.35	1.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



Queues
26: Commonwealth Ave & Campus Driveway 6/3/2008

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	157	825	165	926	42	76
v/c Ratio	0.69	0.52	0.48	0.40	0.18	0.34
Control Delay	37.3	13.5	14.7	6.7	21.5	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	13.5	14.7	6.7	21.5	18.8
Queue Length 50th (ft)	34	78	12	43	10	14
Queue Length 95th (ft)	#108	242	#124	224	42	56
Internal Link Dist (ft)		667		961	381	372
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	228	1597	347	2328	418	393
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.52	0.48	0.40	0.10	0.19

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis
26: Commonwealth Ave & Campus Driveway 6/3/2008

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	10	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0			4.0			4.0
Lane Util. Factor	1.00	0.95			1.00	0.95			1.00			1.00
Frt	1.00	0.98			1.00	0.98			0.98			0.96
Flt Protected	0.95	1.00			0.95	1.00			0.99			1.00
Satd. Flow (prot)	1516	3168			1486	3022			1640			1477
Flt Permitted	0.31	1.00			0.27	1.00			0.97			0.96
Satd. Flow (perm)	492	3168			415	3022			1600			1426
Volume (vph)	96	626	112	1	151	800	57	5	29	5	6	40
Peak-hour factor, PHF	0.61	0.89	0.92	0.92	0.92	0.96	0.61	0.92	0.92	0.92	0.88	0.88
Adj. Flow (vph)	157	703	122	1	164	833	93	5	32	5	7	45
RTOR Reduction (vph)	0	14	0	0	0	6	0	0	5	0	0	22
Lane Group Flow (vph)	157	811	0	0	165	920	0	0	37	0	0	54
Heavy Vehicles (%)	0%	0%	2%	2%	2%	5%	14%	2%	2%	2%	0%	2%
Turn Type	Perm			pm+pt	pm+pt			Perm			Perm	
Protected Phases		2		1	1	2 1			3			3
Permitted Phases	2			1 2	1 2			3			3	
Actuated Green, G (s)	24.4	24.4			31.7	35.7			4.8			4.8
Effective Green, g (s)	25.4	25.4			32.7	36.7			4.8			4.8
Actuated g/C Ratio	0.46	0.46			0.59	0.66			0.09			0.09
Clearance Time (s)	5.0	5.0			4.0				4.0			4.0
Vehicle Extension (s)	3.0	3.0			3.0				3.0			3.0
Lane Grp Cap (vph)	224	1445			384	1991			138			123
v/s Ratio Prot		0.26			0.06	c0.30						
v/s Ratio Perm	c0.32				0.20				0.02			c0.04
v/c Ratio	0.70	0.56			0.43	0.46			0.27			0.44
Uniform Delay, d1	12.1	11.1			5.8	4.7			23.8			24.2
Progression Factor	1.00	1.00			1.00	1.00			1.00			1.00
Incremental Delay, d2	9.5	0.5			0.8	0.2			1.1			2.5
Delay (s)	21.6	11.6			6.5	4.8			24.9			26.7
Level of Service	C	B			A	A			C			C

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	

Queues
2: Commonwealth Ave & Lake Street 6/3/2008

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	190	858	163	798	192	621
v/c Ratio	0.91	0.90	0.46	1.05	0.50	1.07
Control Delay	94.0	53.8	44.4	91.6	13.9	93.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.0	53.8	44.4	91.6	13.9	93.5
Queue Length 50th (ft)	147	333	109	~355	19	~271
Queue Length 95th (ft)	#271	354	163	#482	82	#349
Internal Link Dist (ft)		1877		667		202
Turn Bay Length (ft)	200		300		200	
Base Capacity (vph)	209	951	356	759	386	579
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.90	0.46	1.05	0.50	1.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

HCM Signalized Intersection Capacity Analysis
2: Commonwealth Ave & Lake StreetVHB, Inc.

Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.78		1.00				
Frt	1.00	0.99		1.00	1.00	0.85		0.96				
Satd. Flow (prot)	1570	3151		1525	3249	1125		1511				
Satd. Flow (perm)	1570	3151		1525	3249	1125		1511				
Volume (vph)	165	630	58	135	726	167	144	256	109	0	0	0
Peak-hour factor, PHF	0.87	0.80	0.83	0.83	0.91	0.87	0.84	0.84	0.75	0.25	0.25	0.25
RTOR Reduction (vph)	0	6	0	0	0	123	0	24	0	0	0	0
Lane Group Flow (vph)	190	852	0	163	798	69	0	597	0	0	0	0
Confl. Peds. (#/hr)						54						
Heavy Vehicles (%)	0%	2%	0%	3%	0%	1%	1%	0%	1%	0%	0%	0%
Turn Type	Prot			Split		Perm	Split					
Protected Phases	1	1 2		3	3		4	4				
Permitted Phases						3						
Actuated Green, G (s)	16.0	35.9		28.0	28.0	28.0		44.0				
Effective Green, g (s)	16.0	35.9		28.0	28.0	28.0		44.0				
Actuated g/C Ratio	0.13	0.30		0.23	0.23	0.23		0.37				
Clearance Time (s)	4.0			4.0	4.0	4.0		4.0				
Vehicle Extension (s)	3.0			3.0	3.0	3.0		3.0				
Lane Grp Cap (vph)	210	943		356	759	263		554				
v/s Ratio Prot	0.12	c0.27		0.11	c0.25			c0.39				
v/s Ratio Perm						0.06						
v/c Ratio	0.90	0.90		0.46	1.05	0.26		1.08				
Uniform Delay, d1	51.2	40.3		39.4	45.9	37.5		38.0				
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00				
Incremental Delay, d2	41.4	11.8		0.9	47.0	0.5		60.8				
Delay (s)	92.6	52.2		40.4	92.9	38.0		98.7				
Level of Service	F	D		D	F	D		F				
Approach Delay (s)		59.5			76.4			98.7			0.0	
Approach LOS		E			E			F			A	

Intersection Summary

HCM Average Control Delay	75.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	119.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Queues
26: Commonwealth Ave & Campus Driveway 6/3/2008

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	65	835	134	1022	31	225
v/c Ratio	0.42	0.42	0.59	0.52	0.10	0.64
Control Delay	23.4	9.0	27.5	10.2	20.3	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	9.0	27.5	10.2	20.3	21.5
Queue Length 50th (ft)	9	57	21	78	7	48
Queue Length 95th (ft)	#64	191	#164	286	34	#151
Internal Link Dist (ft)		667		961	528	372
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	156	1971	226	1969	403	428
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.42	0.59	0.52	0.08	0.53

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis
26: Commonwealth Ave & Campus Driveway 6/3/2008

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	10	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0			4.0			4.0
Lane Util. Factor	1.00	0.95			1.00	0.95			1.00			1.00
Frt	1.00	0.99			1.00	0.99			0.99			0.93
Flt Protected	0.95	1.00			0.95	1.00			0.99			0.99
Satd. Flow (prot)	1516	3198			1486	3201			1641			1571
Flt Permitted	0.22	1.00			0.29	1.00			0.95			0.96
Satd. Flow (perm)	355	3198			459	3201			1579			1519
Volume (vph)	49	629	71	12	111	916	28	5	21	3	25	76
Peak-hour factor, PHF	0.75	0.83	0.92	0.92	0.92	0.93	0.75	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	758	77	13	121	985	37	5	23	3	27	83
RTOR Reduction (vph)	0	7	0	0	0	3	0	0	2	0	0	48
Lane Group Flow (vph)	65	828	0	0	134	1019	0	0	29	0	0	177
Heavy Vehicles (%)	0%	0%	2%	2%	2%	1%	0%	2%	2%	2%	0%	2%
Turn Type	Perm			Perm	Perm			Perm			Perm	
Protected Phases		1				1			2			2
Permitted Phases	1			1	1			2			2	
Actuated Green, G (s)	36.1	36.1			36.1	36.1			11.0			11.0
Effective Green, g (s)	37.1	37.1			37.1	37.1			12.0			12.0
Actuated g/C Ratio	0.58	0.58			0.58	0.58			0.19			0.19
Clearance Time (s)	5.0	5.0			5.0	5.0			5.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0			3.0			3.0
Lane Grp Cap (vph)	204	1839			264	1841			294			283
v/s Ratio Prot		0.26				c0.32						
v/s Ratio Perm	0.18				0.29				0.02			c0.12
v/c Ratio	0.32	0.45			0.51	0.55			0.10			0.63
Uniform Delay, d1	7.1	7.9			8.2	8.5			21.8			24.2
Progression Factor	1.00	1.00			1.00	1.00			1.00			1.00
Incremental Delay, d2	0.9	0.2			1.5	0.4			0.1			4.3
Delay (s)	8.0	8.0			9.8	8.9			21.9			28.4
Level of Service	A	A			A	A			C			C
Approach Delay (s)		8.0				9.0			21.9			28.4
Approach LOS		A				A			C			C

Intersection Summary

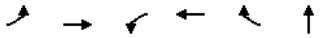
HCM Average Control Delay	10.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	64.5	Sum of lost time (s)	15.4
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	

Queues

2: Commonwealth Ave & Lake Street 6/3/2008

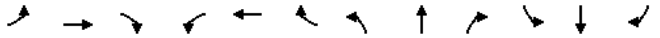


Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	290	1020	152	644	279	158
v/c Ratio	0.83	0.72	0.46	0.90	0.55	0.67
Control Delay	51.8	19.0	31.8	47.7	8.6	29.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	19.0	31.8	47.7	8.6	29.6
Queue Length 50th (ft)	129	184	61	153	0	27
Queue Length 95th (ft)	#290	261	120	#285	51	50
Internal Link Dist (ft)		1877		667		256
Turn Bay Length (ft)	200		300		200	
Base Capacity (vph)	349	1507	332	714	504	301
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.68	0.46	0.90	0.55	0.52

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis



Queues
26: Commonwealth Ave & Campus Driveway 6/3/2008

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	133	797	165	926	108	144	76
v/c Ratio	0.78	0.52	0.67	0.48	0.36	0.30	0.43
Control Delay	59.5	19.5	31.0	13.8	24.9	21.6	31.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	19.5	31.0	13.8	24.9	21.6	31.8
Queue Length 50th (ft)	52	132	32	119	40	48	26
Queue Length 95th (ft)	#131	322	#193	349	104	125	81
Internal Link Dist (ft)		667		961		381	372
Turn Bay Length (ft)	75		75				
Base Capacity (vph)	170	1545	246	1938	375	628	290
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.52	0.67	0.48	0.29	0.23	0.26

Intersection Summary

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

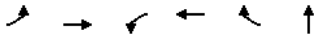
HCM Signalized Intersection Capacity Analysis
26: Commonwealth Ave & Campus Driveway 6/3/2008

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	10	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			1.00	0.95		0.95	0.95			1.00
Frt	1.00	0.98			1.00	0.98		1.00	0.96			0.96
Flt Protected	0.95	1.00			0.95	1.00		0.95	0.98			1.00
Satd. Flow (prot)	1516	3165			1486	3022		1513	1504			1477
Flt Permitted	0.31	1.00			0.26	1.00		0.72	0.92			0.96
Satd. Flow (perm)	492	3165			408	3022		1141	1417			1421
Volume (vph)	81	601	112	1	151	800	57	156	44	31	6	40

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	

Queues

2: Commonwealth Ave & Lake Street 6/3/2008

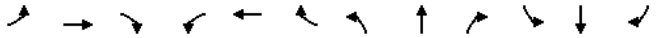


Lane Group	EBL	EBT	WBL	WBT	WBR	NBT
Lane Group Flow (vph)	190	858	163	851	364	337
v/c Ratio	0.65	0.71	0.40	0.97	0.62	0.98
Control Delay	44.9	24.9	30.2	58.1	8.4	78.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	24.9	30.2	58.1	8.4	78.6
Queue Length 50th (ft)	97	199	73	241	0	88
Queue Length 95th (ft)	#180	223	124	#393	64	#170
Internal Link Dist (ft)		1877		667		202
Turn Bay Length (ft)	200		300		200	
Base Capacity (vph)	294	1303	410	873	588	343
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.66	0.40	0.97	0.62	0.98

Intersection Summary

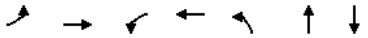
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis



Queues

26: Commonwealth Ave & Campus Driveway 6/3/2008



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	45	783	134	1022	215	96	225
v/c Ratio	0.52	0.48	0.79	0.63	0.56	0.17	0.51
Control Delay	45.1	15.8	55.6	18.6	25.1	10.1	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.1	15.8	55.6	18.6	25.1	10.1	18.8
Queue Length 50th (ft)	12	108	46	160	71	11	24
Queue Length 95th (ft)	#69	247	#216	398	171	53	71
Internal Link Dist (ft)		667		961		528	372
Turn Bay Length (ft)	75		75				
Base Capacity (vph)	87	1633	170	1633	419	680	639
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	102
Peak-hour factor, PHF	0.89
Adj. Flow (vph)	115
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Boston College Parking Supply Inventory

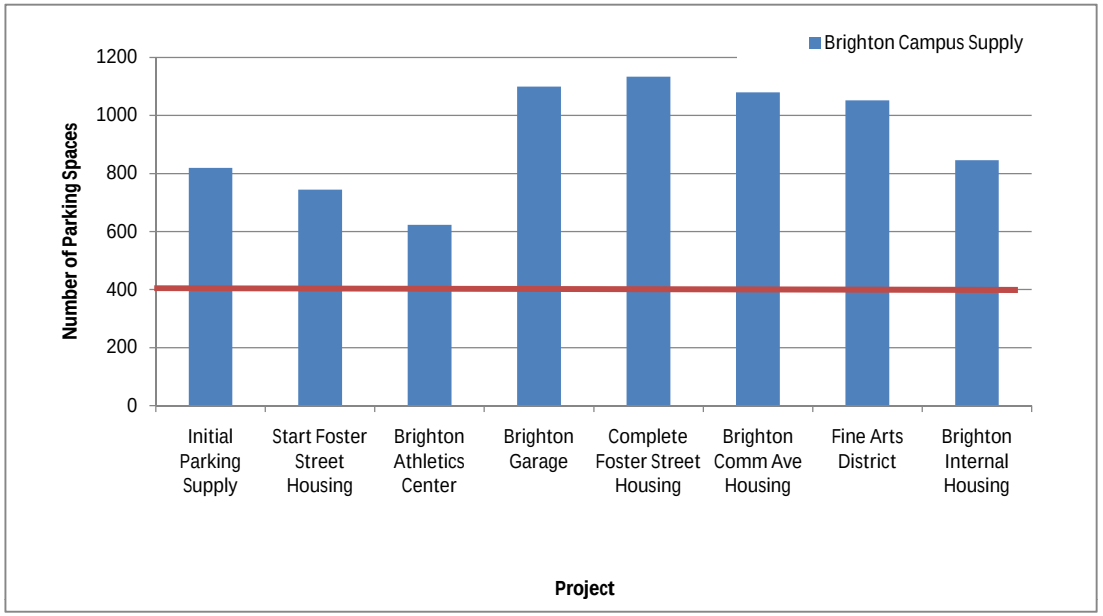
BOSTON COLLEGE PARKING SUPPLY

	Number of Spaces							
		Existing Utilization		Lost				
Facility	Existing	Number of Vehicles Parked	Percent	# of Spaces	IMP Project	Added	Net Changes	Future
Brighton Campus								
St. Clement's -- Across Foster	74	58	78%	74	Grad Housing (1)	34	-40	34
St. Clement's Front	27	19	70%	0		0	0	27
St. Clement's Upper	31	27	87%	0		0	0	31
St. Clement's Lower	29	26	90%	0		0	0	29
			81%				-	
Garage Front	23	10	43%	23	Garage (5)	500	477	500
Tennis Lower	38	0	0%	38	Athletics Center (2)	0	-38	0
Tennis Middle	42	20	48%	42	Athletics Center (2)	0	-42	0
Tennis Upper	42	33	79%	42	Athletics Center (2)	0	-42	0
Bishop Peterson (Front)	61	31	51%	0		0	0	61
Bishop Peterson (Rear Lower)	6	6	100%	0		0	0	6
Bishop Peterson (Rear Upper)	17	7	41%	0		0	0	17
Bishop Peterson (Across from Garage)	4	4	100%	0		0	0	4
Bishop Peterson (Lake St. Side)	25	22	88%	0		0	0	25
			52%					
3 Lake Street	17	16	94%	0		0	0	17
Library Lot	163	20	12%	163	Internal Housing (7)	0	-163	0
Facing Library -- row parallel Lake	21	8	38%	21	Internal Housing (7)	0	-21	0
St. William's	31	11	35%	0		0	0	31
St. William's (Rear)	4	0	0%	4	Internal Housing (7)	0	-4	0
St. William's (Rear Row Behind Bldg.)	22	9	41%	22	Internal Housing (7)	0	-22	0
Chancery (Rear close to Library Lot)	36	33	92%	36	Internal Housing (7)	0	-36	0
Chancery Arc	16	12	75%	0		0	0	16
Chancery (Perpendicular to Comm)	32	16	50%	14	Internal Housing (7)	0	-14	18
Gymnasium Lot	22	10	45%	22	Fine Arts District (10)	0	-22	0
Cardinal's Residence (along road)	26	0	0%	0		0	0	26
Cardinal's Residence Lot East	4	0	0%	0		0	0	4
Cardinal's Residence Lot West	6	0	0%	6	Fine Arts District (10)	0	-6	0
			34%				-	
Brighton Campus Total	**819**	**398**	49%	507		534	27	846

Chestnut Hill Campus								
More Hall Rear	85	72	85%	85	Housing (12)	100	15	100
More Hall arc (2 + 9 unlined)	2	4	200%	2	Housing (12)	0	-2	0
110/Walsh	25	23	92%	25	Recreation Center (13)	0	-25	0
St. Ignatius	18	10	56%	0		0	0	18
Vanderslice	22	18	82%	0		0	0	22
Southwell	4	4	100%	0		0	0	4
66 Comm Ave	9	2	22%	0		0	0	9
Rubenstein/66	10	7	70%	0		0	0	10
Rubenstein Rear/Gabelli	7	3	43%	0		0	0	7
Rubenstein Wall	14	12	86%	0		0	0	14
Rubenstein								

Remainder Triangle and Beacon St.	75		0	0	0	75

Added	Utilization	Brighton Campus Supply
	398	819
0	398	745
0	398	623
500	398	1100
34	398	1134
0	398	1080
0	398	1052
0	398	846
534	398	846



Added	Utilization	Chestnut Hill Campus Supply
	2091	3011
0	2091	2902
0	2091	2815
200	2091	3015
100	2091	3115
90	2091	3205
0	2091	3061
350	2091	3382
0	2091	3332
0	2091	3038
740	2091	3038