

Boston University Charles River Campus

2012–2022 Transportation Master Plan

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Submitted by **Trustees of Boston University**

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BOSTON UNIVERSITY

Boston University
Charles River Campus
2012 - 2022 Transportation Master Plan

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Executive Summary

This Transportation Master Plan is a companion document to Boston University's 2012 – 2022 Institutional Master (IMP) for the Charles River Campus. The Transportation Master Plan provides a comprehensive analysis and inventory of the current transportation conditions and characteristics at the University's Charles River Campus. The Master Plan also provides projections on what the future transportation conditions may be at the end of the Master Plan period. The previous Transportation Master Plan was for the period of 2003 – 2010, and was extended from 2010 to 2012. This Master Plan builds upon that foundation and examines many of the same aspects that were considered in the previous Master Plan.

The following Master Plan also evaluates the topics that were outlined by the Boston Transportation Department, The Boston Environmental Department and the Boston Redevelopment Authority in the comment letters or scoping documents related to the IMP Notification Form (IMPNF) filed by Boston University. In addition, this Master Plan describes the transportation goals that the University will strive to meet over the course of this Master Plan period, and the policies and programs the University intends to implement in order to realize the goals.

Following is an overview of the current transportation system serving the campus, the basic characteristics of the Charles River Campus and their influence on transportation, and an analysis of how proposed institutional projects could impact the transport infrastructure in the future.

Transportation Goals

During the course of its past two institutional master plans, Boston University has implemented changes to its own infrastructure and policies and has been a leading supporter and financial partner with the city and state to improve the safety and efficiency of the area's public transportation infrastructure. The University's role in projects such as the Kenmore Square improvements and the Commonwealth Avenue Phase I and Phase II improvements is strong evidence of its commitment to enhancing the area's transportation system. These projects benefited both the University and its neighbors in Boston, Brookline, and Cambridge.

The University has identified three transportation goals for the forthcoming decade that will shape its policies and programs. These goals and the actions or strategies that the University may employ to achieve each of them are summarized below. Specific areas of focus or concern that the University intends to address are also identified.

Transportation Goal #1: Improve safety and efficiency for all modes with particular emphasis on pedestrian and bicycle safety

Actions or Strategies:

- Provide separate pedestrian or bicycle facilities within the campus where feasible (i.e., pedestrian ways, bike lanes)
- Provide financial and technical support for the Commonwealth Avenue Phase 2A and 2B projects
- Provide financial and technical support for the Commonwealth Avenue Phase 1A project.
- Incorporate the principles of the Boston Transportation Department's Complete Streets initiative into the design of institutional projects where feasible
- Continue to provide incoming freshman with pedestrian and bicycle safety training
- Shorten pedestrian crossing distances and/or construct other features to enhance pedestrian safety in crosswalks

Areas of Focus:

- Intersection of Commonwealth Avenue and the BU Bridge
- Intersection of Commonwealth Avenue and University Road
- Cummington Street, Hinsdale Street, Blandford Street area
- Private alley from Granby Street to Silber Way
- Bay State Road/George Hart Way in the vicinity of the Admissions Reception Center
- Babcock Street adjacent to the proposed New Balance Field

Transportation Goal #2: Increase the use of sustainable modes by employees and students currently commuting to the Charles River Campus in single occupancy vehicles.

Actions or Strategies:

- Maintain or increase the proportion of undergraduates living on campus
- Restrict the availability of parking permits issued to undergraduate
- Maintain appropriate parking fees for employees to discourage them from driving alone to campus
- Provide incentives, such as permit fee discounts or preferential parking spaces, for employees to join existing car/van pool programs
- Promote use of public transportation through pre-tax, payroll purchasing of MBTA passes.

Areas of Focus:

- John Hancock Student Village Phase III residence hall
- Parking availability and management in central campus area
- Leveraging improvements to the Yawkey Commuter Rail Station

Transportation Goal #3: Minimize the University's traffic and parking impacts on adjacent communities.

Actions or Strategies:

- Continue to refine existing traffic and parking management plans for special events at the campus, as needed
- Develop traffic and parking management plans for new facilities as they come online
- Develop parking management plans during construction of institutional projects to ensure parking demands are met on campus
- Ensure that an appropriate amount of parking is provided on campus to accommodate typical daily demands

Areas of Focus:

- Harry Agganis Arena events
- Commencement, move-in/move-out periods, etc.
- New Balance Field events
- New Balance Field site (during construction)
- Campus-wide parking management plan

Campus Demographic Characteristics

Enrollment. Boston University has approximately 15,600 undergraduate students; the most recent incoming freshman class (2011) included 4,025 students. The University projects that enrollment will stabilize at an estimated 15,500 students with incoming freshman classes of approximately 3,800 students.

Housing. Some 76 percent of undergraduates are housed on campus. The University's projections indicate that 75 percent of students will reside on campus in the future.

Employment. The University employs approximately 5,400 full-time faculty, professional staff, and tradespeople at the Charles River Campus. An additional 1,225 people (primarily faculty) are employed on a part-time basis. Future employment at the campus is not expected to change

significantly in the future (i.e., employment levels will be stable or have a modest amount of growth).

Campus Commuting Characteristics

Travel Modes. The most recent statistics collect by the University (December 2010) indicate that around 44 percent of those who commute to the Charles River Campus (employees and students) do so in single occupancy vehicles, while 31.5 percent arrive by public transportation. Other modes used by commuters to the campus include walking (13.5 percent), cycling (6 percent), car or van pools (2.3 percent), and other miscellaneous modes (2.5 percent).

Traffic Distribution. Based on a review of existing traffic data in relation to the local roadway network, it is estimated that about 37 percent of the campus's traffic is oriented to/from the east of campus, 26 percent to the north/northwest, 19 percent to the west and 18 percent toward the south.

Existing Transportation System

The transportation system serving the Charles River Campus comprises several components: the local roadway network (with Commonwealth Avenue as the primary urban artery serving the entire length of the campus); the pedestrian network of sidewalks and walkways; bicycle lanes on Commonwealth Avenue and Beacon Street; the Massachusetts Bay Transportation Authority (MBTA); and the University-operated shuttle bus service (the BUS). Other important elements include Boston University owned and operated parking facilities (and the parking policies administered by the University to regulate the use of its facilities), on-street public parking in the area, and on-campus bicycle storage installed and maintained by the University.

Traffic Volumes. The long-term traffic volume trend along Commonwealth Avenue and adjacent streets has been downward since 1987. Daily volumes west of the BU Bridge are approximately 17 to 18 percent lower in 2012 than in 1987. East of the BU Bridge, 2012 daily traffic volumes are lower than 2001 volumes by 18 to 32 percent, depending upon the location. On Bay State Road, daily volumes are down nearly 23 percent during this same time period. Peak hour traffic is also down throughout the campus: since the 2003 Master Plan (2002 data), peak hour traffic has decreased between 9 percent and 25 percent.

Traffic Operations. During peak periods on a typical weekday, the roadway network in the vicinity of the Boston University campus functions reasonably well. Most of the intersections with traffic signals along Commonwealth Avenue function at LOS D (overall) or better during both the morning and afternoon peaks. The exception is the intersection at Kenmore Square, which functions at LOS E (at capacity) during the afternoon peak. (Level of service [LOS] is a measure used by traffic engineers to determine the effectiveness of elements of transportation infrastructure. LOS standards use the letters A through F, with A being the best and F being the worst).

Safety. Crash data from the Massachusetts Department of Transportation (MassDOT) indicate that none of the intersections in the area of the campus have crash rates that exceed the statewide or district average rates. However, a limited review of available Boston Police Department (BPD) crash data show that the MassDOT data underreport the actual number of crashes; it is therefore likely that intersections such as Commonwealth Avenue/BU Bridge and Kenmore Square would exceed the average rates if BPD data were considered.

Pedestrian Volumes. Safe pedestrian circulation is critically important for an urban campus, and walking is the most popular mode of transportation on the Charles River Campus. Pedestrian volumes are extremely high along Commonwealth Avenue and have continued to grow steadily since pedestrian volumes were first measured in 1987. Since 2001/2002, pedestrian volumes have increased by as much as 80 percent at the BU Bridge intersection (afternoon peak). This is a result of the increased travel between West Campus and Central Campus; more students now live in West Campus and travel to classes in Central Campus. Conversely, with the construction of the Fitness & Recreation Center in 2004, many students who live in Central or East Campus now walk to West Campus for recreation opportunities.

Pedestrian Facilities. Sidewalks are available along all public and private ways in the campus area. An inventory of sidewalk conditions indicates that the sidewalks are of sufficient width to accommodate the pedestrian demands in most areas. The physical conditions of the sidewalks are generally good throughout the campus, with only a few areas where the conditions were observed to be fair or poor.

Bicycle Volumes. Bicycling is the second most important mode of travel for students within the campus, and use on campus is growing faster than any other mode. Bicycle use along Commonwealth Avenue has grown by 47 percent in the morning peak and by 135 percent in the afternoon peak since 2007 (the first year bicycle use was measured on Commonwealth Avenue). Currently, between 500 and 600 bicyclists per hour use the bicycle lanes on Commonwealth Avenue during the peak commuting periods.

Bicycle Storage. The increase in bicycle use has required the University to dramatically increase bicycle storage on campus (bike racks and bike rooms). Since 2003, on-campus bike storage capacity has been increased from 1,295 bikes to 3,930 bikes, a 205 percent increase

Public Transportation. The Massachusetts Bay Transportation Authority (MBTA) has three service modes with stops or stations within or near the University's Charles River Campus. Those service modes are:

- Green Line Trolley Service
- Bus Service
- Commuter Rail Service

Although the two service lines that run along Commonwealth Avenue (Green Line B Branch and Route 57 bus) are crowded during peak periods, review of MBTA data indicates there is still available capacity during the morning and afternoon peak periods. The University views the MBTA's proposed improvements at the Yawkey Commuter Rail Station as having the potential to reduce vehicle travel to the campus.

Boston University Shuttle. Boston University operates Boston University Shuttle (BUS), a service that connects the Charles River Campus and the Boston University Medical Campus to facilitate travel and collaboration for students and faculty at both campuses. The BUS service was instituted in 2004. Because of its popularity with students, the BUS service has expanded to operate six buses on 10-minute headways during peak periods Monday through Friday. To satisfy the peak period demands, the University increased the hourly carrying capacity of the service in 2011 by using larger articulated buses instead of standard city bus–type vehicles during the those periods. Passenger data for the BUS collected in the fall of 2011 indicate that it provides service to over 5,800 passengers per day, which translates to approximately 1.6 million passenger trips per year.

On-Campus Parking Facilities. Boston University owns and operates nine major off-street surface parking lots and four parking garages. In addition, the University regulates on-street parking along several private alleyways and a variety of small miscellaneous off-street parking areas located throughout the campus. In total, the University manages 3,709 parking spaces.

Parking Regulations and Policies. University-owned parking facilities are regulated by the University through a parking permit program administered by Boston University Parking & Transportation Services. The University issues two sets of permits, one to Boston University faculty and staff and the other to students. The number of student permits is severely limited, and students are strongly discouraged from bringing cars onto campus. In the 2011 Fall Semester, the University issued only 205 permits to students for overnight parking and only 216 parking permits for daytime commuters.

The University charges fees for the parking permits issued to employees or students. For the 2011–2012 academic year, the annual fee for daily employee commuters is $1,155. For the few students who are allowed to bring a car onto campus and park overnight, permits are sold on a semester basis and the fee for both the fall and spring semesters is $1,206.

Traffic Management for Special Events. The University has developed traffic and parking management plans for a number of special events at the Charles River Campus. Some events are annual occurrences such as “move-in/move-out periods” or Commencement; others occur more frequently, such as spring and fall open houses, athletic events at the Track & Tennis Center, or events at the Agganis Arena. A special events logistics plan was developed for the Agganis Arena with input from the Boston Transportation Department (BTD) and BPD prior to the opening of the venue in early 2005. Since then, the procedures have been refined through hands-on experience to handle the various transportation issues associated with events as efficiently as possible. The current version of the management plan works well, and the impact on adjacent neighborhoods has been minimal.

Future Transportation System

The evaluation of how the University’s proposed institutional projects may affect the future transportation system at the Charles River Campus examined conditions at the end of the 10-year Master Plan period (2022). The future analysis also considered the impact of public infrastructure projects that are expected to be completed by 2022.

Institutional/Public Realm Projects. A total of nine institutional development projects and six public realm projects were included in the Institutional Master Plan analysis of the year 2022. The nine includes four previously approved projects that have not yet been constructed or on which construction has not been completed. As the precise academic programming is not known for many of the institutional projects for which planning has not started, or is very preliminary, a campus-wide growth assumption was made to account for potential "new" commuting trips to the Charles River Campus. For strictly analytical purposes, a 2.5 percent increase in employment was assumed, although the University does expect employment levels to remain relatively stable over the next 10 years

Roadway Network. The transportation infrastructure network in the vicinity of the Charles River Campus is expected to undergo several changes over the period covered by this master plan. The most dramatic changes are anticipated along Commonwealth Avenue, both west of the BU Bridge (Commonwealth Avenue Phase 2A project) and at the BU Bridge/Essex Street/Carleton Street/Mountfort Street/University Road nexus (Commonwealth Avenue Phase 2B). In total, six major public infrastructure projects are expected to occur in the next 10 years, and the impact of these projects was taken into account in the Institutional Master Plan analysis..

Traffic Operations. Future traffic operations (in the year 2022) are forecast to be similar to conditions in 2012. The University's institutional projects will not add an appreciable number of vehicles to the area's roadways, even when using the current campus mode split to project future traffic associated with the University. Congestion is expected to improve at the BU Bridge area because of the Commonwealth Avenue Phase 2B project. Traffic safety is expected to be enhanced along Commonwealth Avenue due to the Phase 2A improvements, particularly in the westbound direction. Congestion is expected at Kenmore Square in the afternoon peak hour (not unlike current conditions), but this congestion has as much to do with other developments in the area as it does with Boston University. The University's Transportation Demand Management (TDM) programs, which are expected to be expanded/enhanced over the life of this master plan, are projected to reduce vehicle trips to the campus and congestion at Kenmore Square and along the Commonwealth Avenue corridor.

Pedestrians. Boston University has made, and will continue to make, improvement of pedestrian circulation and safety its foremost transportation priority. Indeed, the primary focus of several Institutional Master Plan public realm projects is the improvement of the future pedestrian environment. These projects include the Cummington Pedestrian Mall, Granby Street to Silber Way pedestrian way, and sidewalk improvements on the north side of Commonwealth Avenue between University Road and the BU Bridge.

The University is also committed to enhancing pedestrian circulation and safety at proposed institutional development projects, such as the New Balance Field and the Admissions Reception Center, where pedestrian roadway crossings will be shortened and physical features incorporated into the designs of the crosswalk areas to improve pedestrian visibility and provide drivers with visual alerts.

Finally, Boston University has partnered with BTD and MassDOT for the advancement of public infrastructure projects, including the Commonwealth Avenue Phase 2A and 2B projects, which will vastly improve pedestrian safety in the crosswalks at the BU Bridge and University Road

intersections (Phase 2B), as well as at each of the intersections between the BU Bridge and Alcorn Street (Phase 2A).

Bicycles. The University has a strong appreciation of the importance of safe and convenient bicycle facilities and is committed to working with the City of Boston and its own community to ensure the continued improvement of the cycling environment. For its part, Boston University will continue to incorporate an appropriate amount of bicycle storage into the design of each of its proposed facilities, just as it has in the past decade. In addition, the University will work with the BTD to identify opportunities to improve bicycle safety and circulation in the areas adjacent to institutional project sites in a manner consistent with the city's Complete Streets approach to enhancing the Boston's transportation network. A good example of this cooperative effort is the bicycle accommodations that will be implemented along Babcock Street as part of the mitigation for the proposed New Balance Field project.

Public Transportation. Use of public transportation as a means of commuting is critical to the sustainability of the Charles River Campus over the life of this master plan. The most recent data show that nearly one in three commuters travel to the campus via the MBTA, and boosting this proportion over the next 10 years is one of Boston University's three primary transportation goals. Converting auto trips to public transit trips helps to improve the environment and relieve pressure on the future traffic infrastructure in the city and region.

The MBTA's plan to expand the nearby Yawkey Commuter Rail Station to a full-service station provides an excellent opportunity to increase the use of commuter rail services by those living west of Boston. Taking advantage of the new Yawkey Station is an important element in the University's overall program to reduce vehicle trips to the Charles River Campus.

Boston University Shuttle (BUS). The University anticipates that the BUS will continue to be an important part of its overall transportation strategy over the life of this Institutional Master Plan, as it has been since 2004. It is difficult to predict ridership levels over the period covered by this master plan, but ridership has historically increased during each year of operation and the University does not expect this trend to change, although the rates of increase may not be as high as in previous years. In the past, the University has added capacity to the service in order to satisfy passenger demand and BUS usage will continue to be monitored and operational refinements made if necessary. Potential enhancements include adding more capacity to the service, modifying hours of operation, and changing routes or stop locations.

Parking. It is anticipated that the on-campus parking supply owned and operated by the University will remain at approximately the same levels as today, and that these facilities will continue to be regulated by a parking permit program administered by Parking & Transportation Services. Boston University has determined that several of the proposed institutional projects will impact the on-campus parking supply; three examples are the Admissions Reception Center and the School of Law projects (-24 spaces combined) and the Granby Street to Silber Way Pedestrian Way (-74 spaces).

In the short term, the vehicles that were using these spaces will need to shift to another on-campus parking facility. There is available capacity within the University's parking system, although users will likely find themselves parked at a less convenient location. In the longer

term, the potential reduction in the parking supply underscores the importance of reducing commuter vehicle trips to campus.

The potential loss of parking will also require Transportation & Parking Services to be more efficient and forceful in its management of the University's parking facilities. This may require changes to the parking permit program to ensure that surrounding communities are not affected; measures could include more aggressive permit fee increases, further limiting the ability of students to bring vehicles on campus, or restricting the ability of employees to purchase parking permits.

The most recent institutional projects developed by the University include little or no parking as part of the project (e.g., East Campus Student Services Center and JHSV Phase II residence hall at 33 Harry Agganis Way). In general, this development philosophy is expected to continue throughout this master plan period. However, at sites where significant existing parking could be lost, the University may include replacement parking in the project design. An example is the development site located at 645–665 Commonwealth Avenue, where potential future academic buildings could displace 126 existing parking spaces. The final determination on whether parking is included at a site will be made as the building programs are advanced to a higher level of design and through consultation with the city and the BU Task Force.

In addition to anticipated permanent impacts on parking, the University has identified temporary impacts that will occur during project construction. The New Balance Field project is the best example of this: During much of the project's construction period, the existing 361 parking spaces at the site will not be available. Parking & Transportation Services has developed a mitigation plan that will accommodate that parking demand elsewhere in the University's system, minimizing impacts on the adjacent communities. A parking mitigation plan will be developed for each institutional project, if applicable, and that plan would be reviewed with the city and the BU Task Force.

Building Services. Consistent with city requirements, the designs of recently constructed institutional projects have incorporated off-street service bays and loading docks. Institutional projects constructed during the term of this master plan will also provide for off-street servicing. Details of how loading and servicing will be accommodated at the proposed facilities will be provided to the city and BU Task Force for review as the design of each proposed project is advanced.

Mitigation/Measures to Achieve Transportation Goals

Boston University has developed three transportation objectives that seek to: (1) improve pedestrian and bicycle safety and circulation on campus, (2) reduce the number of vehicle trips to campus, and (3) minimize impacts on adjacent residential neighborhoods. The strategies developed by the University to achieve transportation goals two and three serve as the basis for the University's campus transportation mitigation program for the 2012–2022 Institutional Master Plan. The mitigation program for the Charles River Campus has two basic components:

- Transportation Demand Management (TDM) measures / Sustainability Initiatives
- Traffic and Parking Management for Special Events

Travel Demand Management/Sustainability. Boston University Parking & Transportation Services has established a set of initiatives and programs with the goal of reducing the number of vehicles on campus and increasing use of sustainable modes of transportation. Many of these were instituted during the last master plan period and include:

- Ride matching program for University employees (web-based car or van pool matching service)
- MBTA pass program for University employees (pre-tax, payroll purchasing of MBTA passes)
- Student MBTA semester pass program (discounted purchasing of MBTA passes)
- Boston University Shuttle (BUS)
- Bicycle facilities (safe and secure bike storage provided at all major BU facilities)
- Bicycle safety programs (cosponsored by Boston University Police Department and Parking & Transportation Services)
- Car-sharing (seven Zipcar vehicles are located within the campus and 15 more within short walking distance)
- On-campus housing for undergraduates (approximately 75 percent of undergraduates are expected to be housed on campus)

In addition, there are several strategies employed by the University to manage parking supply and demand on the Charles River Campus, including:

- Parking permit program fees for employees and students who bring vehicles to campus
- Restrict the availability of parking permits issued to undergraduate students
- Limits on the construction of new parking spaces

New TDM/Parking Strategies. The University is considering a number of additional measures to meet its goal of reducing the number of single occupancy vehicle commuters. These will also assist in the management of future parking demand in light of expected supply reductions resulting from institutional and public realm projects during the life of this master plan. The strategies being considered include:

- Deterring single occupancy vehicle commuting through employees parking fees
- Provision of a parking permit discount for employees who are in a current car/van pool or who either join an existing car pool or form a new car pool
- Set aside spaces for car/van pools at highly desirable parking locations; this preferential parking initiative will likely have the most influence on driver behavior if implemented in the central campus area
- Provide preferential parking for drivers who drive to campus in hybrid or electric vehicles
- Develop a tiered system for daily parking permits with higher charges for central campus lots and garages than those in West Campus
- Institute a policy that makes employees living within a certain radius of the campus (one mile, for example) ineligible for parking permits

- Start a "Try the T" program giving single vehicle occupancy commuters a free 30-day MBTA pass

Special Event Management

Agganis Arena Events. When the Agganis Arena facility was opened in early 2005, a comprehensive traffic and parking management plan was developed by Boston University and reviewed and approved by the Boston Transportation Department and Boston Police Department. The Agganis Arena Special Events Logistics Plan (AASELP) underwent some initial refinements, but has functioned very well over the past seven years and minimized impacts on adjacent neighborhoods. The University does not expect significant departures from the current event management procedures during the life of this master plan.

However, there will be adjustments to the parking management plan for Agganis Arena during the construction of the New Balance Athletic Field. When the New Balance Field is under construction (summer 2012 through summer 2013), the existing Babcock Street surface parking lot located at that site will be offline. The Babcock Street and University-owned 808 Commonwealth Avenue surface lots offer parking overflow for events at Agganis Arena when event parking demand exceeds the capacity at the garage and surface lots at the JHSV site. During construction of the New Balance Field, event attendees who would normally have been directed to the Babcock Street lot will be directed to the parking lot at 808 Commonwealth Avenue. When construction of the New Balance Field is complete, parking operations associated with events at the Arena will return to the current system.

New Balance Field Events. The University has developed a traffic and parking management plan for events that will be held at the proposed New Balance Field facility. A plan has also been established for the construction period, portions of which have been described in the management of events at Agganis Arena (above). The traffic and parking management plans developed by the University for the construction and post-construction periods include the following.

<u>Construction Period</u>

- Overflow parking from the Agganis area (when needed) will be directed to the University-owned surface lot at 808 Commonwealth Avenue
- Buses parking for events at the Track & Tennis Center that currently use the Babcock Street Lot will be directed to park at the following locations instead (in order of preference:

    1. The loading dock area at Agganis Arena.
    2. Curbside along Harry Agganis Way adjacent to the Nickerson Field fence (private portion of the street owned by Boston University)
    3. Rented parking meters along Ashford Street
    4. Leased spaces at an off-site location

Post Construction

- Vehicle (automobile) parking will be accommodated on site by a total of 348 parking spaces; additional parking will be available at the Agganis Arena garage
- Buses arriving for events at the New Balance Field will be directed to park at the following locations (in order of preference):

    1. On site in the surface parking area located at the western end of the site adjacent to Alcorn Street; an area has been designed to accommodate 8 to 10 buses for events and the parking spaces will be cordoned off early on event days to ensure automobiles are not parked in the spaces when the buses arrive

    2. The portion of Babcock Street north of Ashford Street (owned by Boston University)

    3. The loading dock area at Agganis Arena

    4. Curbside along Harry Agganis Way adjacent to the Nickerson Field fence (private portion of the street owned by Boston University)

    5. Rented parking meters along Ashford Street

    6. Leased spaces at an off-site location

- Traffic (attendee and bus) approaching the site on Babcock Street from Commonwealth Avenue will be directed west onto Gardner Street to access the on-site parking, reducing the pedestrian/vehicular conflicts along Babcock Street adjacent to the field.

Because of the proposed limited spectator capacity at New Balance Field, the University does not anticipate that police details will be needed to handle traffic before or after events. However, if issues do arise and it is determined through experience that details are needed to manage traffic flows, the BU Police Department will coordinate with the Boston Police Department. If police details are required, they would likely be limited to the intersection of Commonwealth Avenue and Babcock Street and the intersection of Babcock Street and Gardner Street.

Other Charles River Campus Events. Boston University Parking & Transportation Services has developed operating procedures for other events and venues on the Charles River Campus. These procedures have been refined over the years to minimize impacts on local neighborhoods. Examples of events that have to be managed by the University from a transportation perspective include:

- Commencement
- Orientation
- Move-in and move-out periods
- Athletic events at the Track & Tennis Center
- Athletic events at Nickerson Field

- Spring and fall open houses
- Snow emergencies

Information pertaining to the procedures for these events is conveyed through the Parking & Transportation Services website.

1.0 Introduction

Boston University is the fourth-largest private university in the nation, home each year to more than 33,000 students from all 50 states and 135 countries, and is a major research university that offers a wide range of undergraduate and graduate degrees. The Charles River Campus (CRC) is comprised of approximately 112 acres and 274 buildings, which contain approximately 11.8 million square feet of space. The Campus is situated along Commonwealth Avenue, approximately between Massachusetts Avenue to the east and Packard's Corner (Brighton Avenue) to the west. Storrow Drive, the Massachusetts Turnpike and the CONRAIL rail yard are along the northern edge of the Campus, while Commonwealth Avenue, Massachusetts Turnpike and Beacon Street are the approximate southern edge of the Campus.

For internal planning purposes, Boston University has defined four districts or areas within the CRC. Those districts are:

- East Campus
- Central Campus
- West Campus
- South Campus

The West Campus area is located along Commonwealth Avenue between the Boston University Bridge and Packard's Corner. The Central Campus is also located along Commonwealth Avenue and is approximately bounded by the Boston University Bridge, Storrow Drive, the Massachusetts Turnpike and Silber Way. East Campus area is located approximately between Silber Way and Massachusetts Avenue, includes the Kenmore Square area and is north of the Massachusetts Turnpike. The South Campus area is primarily located between Beacon Street/Audubon Circle and the Massachusetts Turnpike.

Figure 1 illustrates the footprint of the Charles River Campus and show the buildings owned by the University as well as the approximate borders of the four planning districts.

1.1 Guiding Principles/Transportation Objectives

Boston University has demonstrated over the course of the past two Master Plans that making the area's transportation system safer and more efficient for all users has been one of its primary focuses. The University has not only implemented changes to its own infrastructure and policies, it has been a leading supporter and financial partner with the City and State to ensure that the area's public transportation infrastructure is also made safer and more efficient for all modes. The University's role in projects like the Kenmore Square improvements and the Commonwealth Avenue Phase 1 and 2 improvements is strong evidence of its commitment to improving the area's transportation system. These projects not only benefit the University, they also benefit its neighbors in Boston, Brookline and Cambridge.

Looking forward through this Master Plan period, the University has identified three transportation goals that will shape University policies and programs as well as guide the University's focus related to transportation matters. The goals are:

1. Improve safety and efficiency for all modes with particular emphasis on pedestrian and bicycle safety

2. Increase the use of sustainable modes for employees and students currently commuting to the Charles River Campus in single occupancy vehicles.

3. Minimize the University's traffic and parking impacts on adjacent communities.

Following is a summary of actions and strategies that the University may employ to achieve each of its transportation goals. Specific areas of focus or concern that the University intends to address through the actions/strategies have also been identified.

Transportation Goal #1: Improve safety and efficiency for all modes

Actions or Strategies:

- Provide separate pedestrian or bicycle facilities within the campus where feasible (i.e., pedestrian ways, bike lanes)
- Provide financial and technical support for the Commonwealth Avenue Phase 2A and 2B projects
- Provide financial and technical support for the Commonwealth Avenue Phase 1A project
- Incorporate the principles of the Boston Transportation Department's Complete Streets initiative into the design of institutional projects where feasible
- Continue to provide incoming freshman with pedestrian and bicycle safety training.
- Shorten pedestrian crossing distances and/or construct other features to enhance pedestrian safety in crosswalks

Areas of Focus:

- Intersection of Commonwealth Avenue and the BU Bridge
- Intersection of Commonwealth Avenue and University Road
- Cummington Street, Hinsdale Street, Blandford Street area
- Private alley from Granby Street to Silber Way
- Bay State Road/George Hart Way in the vicinity of the Boston University Admissions Reception Center
- Babcock Street adjacent to the proposed New Balance Field

Transportation Goal #2: Increase use of sustainable modes

Actions or Strategies:

- Maintain or increase the proportion of undergraduates living on campus
- Restrict the availability of parking permits issued to undergraduate students
- Maintain appropriate parking fees for employees to discourage them from driving alone to campus
- Provide incentives, such as permit fee discounts or preferential parking spaces, for employees to join existing car/van pool programs
- Promote use of public transportation through pre-tax, payroll purchasing of MBTA passes

Areas of Focus:

- John Hancock Student Village Phase III residence hall
- Parking availability and management in central campus area
- Leveraging improvements to the Yawkey Commuter Rail Station

Transportation Goal #3: Minimize Impacts on adjacent neighborhoods

Actions or Strategies:

- Continue to refine existing traffic and parking management plans for special events at the campus as needed
- Develop traffic and parking management plans for new facilities as they come online
- Develop parking management plans during construction of institutional projects to ensure parking demands are met on-campus
- Ensure that an appropriate amount of parking is provided on campus to accommodate typical daily demands

Areas of Focus:

- Harry Agganis Arena events
- Commencement, move-in/move-out periods, etc.
- New Balance Field events
- New Balance Field site (during construction)
- Campus-wide parking management plan

2.0 Charles River Campus Characteristics

The following sections describe some of the fundamental characteristics of Boston University's Charles River Campus such as enrollment, employment and on-campus residences. The information provided below describes the existing profiles of these various attributes as well as the historic and expected future trends.

2.1 Student Enrollment

The current Boston University undergraduate enrollment (2011-2012 academic year) is 15,540 students, which is slightly higher than expected or desired. At the time of the last two Master Plans the undergraduate enrollment was approximately 14,976 (2003) and 14,571 (1997). Thus, undergraduate student enrollment has only fluctuated by six percent over this 15-year period.

Looking ahead within the Master Plan period, the University is projecting a stabilized undergraduate enrollment that is expected to average approximately 15,500 students per year, with incoming Freshman classes of approximately 3,800 students.

Table 1 provides a summary of past undergraduate enrollment levels at the Campus. Currently Boston University has projections for enrollment that look ahead six years, to 2017, and those future enrollment projections are also provided in Table 1.

Table 1 Charles River Campus Full-Time Undergraduate Enrollment

Year	Undergraduate Enrollment	Freshman Class Size
1996	14,571	3,964
1997	14,496	3,865
1998	14,477	4,213
1999	14,645	4,224
2000	14,467	4,132
2001	14,459	3,601
2002	15,064	4,560
2003	14,976	3,961
2004	15,186	4,352
2005	15,690	4,209
2006	15,681	4,124
2007	15,771	4,163
2008	15,540	4,131
2009	15,386	4,130
2010	15,573	4,409
2011	15,540	4,025
2012	15,572	3,900
2013	15,674	3,800
2014	15,575	3,800
2015	15,577	3,800
2016	15,488	3,800
2017	15,488	3,800

Source: Boston University.

Projected Enrollment

2.1.1 On-Campus Housing

Responding to concerns from representatives of the surrounding neighborhoods and the City of Boston, Boston University has endeavored to increase the number of on-campus residential units for undergraduate students. Currently (2011-2012 academic year) 76% of the undergraduate students who require housing are housed on campus (approximately 11,060 students). Looking back historically, this represents a significant increase from the proportion of students that were housed when the original Boston University Master Plan was prepared in 1986, which at that time was approximately 61% of the students requiring housing.

Since the 2003 Master Plan was completed, Boston University has added 960 new beds at the CRC, primarily in the Phase II component of the John Hancock Student Village site (JHSV). Looking to the next 10 years covered by this Master Plan, the University expects to add approximately 583 new beds at the CRC (JHSV Phase III), and the proportion of students requiring housing that are expected to live on-campus will stabilize at approximately 75 percent. Table 2 provides a summary of the changes over time in the number of students housed on-campus by Boston University.

Table 2 Proportion of Full-Time Undergraduates Housed On-Campus

Year	Proportion of Undergraduates Living On-Campus
1986	61%
1996	68%
2002	77%
2003	76%
2004	75%
2005	74%
2006	74%
2007	73%
2008	73%
2009	76%
2010	76%
2011	77%
2012	75%
2013	75%
2014	75%
2015	75%
2016	75%
2017	75%

Sources: Boston University and *Boston University Charles River Campus Master Plan*, Kenney Development Company, Inc., December 23, 2002; 1997 *Boston University Charles River Campus Master Plan Transportation Master Plan*, Sam Park & Associates, June 18, 1997.

Projected On-Campus Housing

2.2 Charles River Campus Employment

The University currently employs approximately 5,461 full time and 1,224 part-time people at the Campus (6,685 total). The full-time employees include approximately 1,500 faculty positions, 3,961 and professional staff or service/trade personnel. 1,022 of the 1,224 part-time employees are part-time faculty positions. The University expects that future employment levels will be similar to the current levels, or at most a modest increase in employment.

2.3 Existing Travel Characteristics

Travel characteristics have change dramatically at Boston University's CRC since the completion of the University's early Master Plans. Through coordinated efforts over the past two decades, the University has reduced the amount of vehicle trips to the campus. This reduction has been realized through policies administered by the University's Parking & Transportation Services Office and its Sustainability Office. Travel Demand Management (TDM) and Sustainability programs have been developed with the goal of achieving one of the key objectives laid out in the 2003 Master Plan, namely, "*Objective 2: Limit of reduce trip generation levels at the Charles River Campus*".

Other actions by Boston University also have contributed to the reduction in demands on the transportation network (roadway and transit), these actions include:

- Constructing more on-campus housing for undergraduates
- Constructing new academic facilities with little or no new parking
- Supporting the City of Boston efforts to implement bike lanes on Commonwealth Avenue
- Expanding bicycle storage capacity on campus
- Severely limiting student parking on-campus
- Implementing a rideshare/ride matching program (http://www.bu.edu/parking/alt/rideshare/)
- Promoting use of public transportation through various MBTA Pass Programs offered to employees and students.
- Expanding the Boston University Shuttle (BUS) service which reduces pressure on the MBTA Green Line

As Boston University is a significant employer in the state, the Massachusetts Department of Environmental Protection (MADEP) requires that a "Rideshare Report" be prepared every two years. The MADEP Rideshare report programs requires large employers (like the University) to conduct surveys and document how people travel to the campus. For Boston University, the data includes both employees and students who live off-campus and travel to the campus.

The first Rideshare Report prepared by Boston University for the CRC was in 2002 and served as the basis for the travel mode characteristics documented in the 2003 Master Plan. The most

recent MADEP rideshare report prepared by Boston University was completed in December of 2010 and serves as the basis for the mode splits documented in this Master Plan.

Based on the December 2010 Rideshare Report, 44 percent of the trips are made in single occupancy vehicles, approximately 31 percent of the trips are public transportation trips (MBTA), approximately 13.5 percent of the trips are pedestrian trips, approximately 6 percent are bicycle trips, and approximately 5 percent of the total trips arrive/depart in car or van pools or other methods. Therefore, approximately 56 percent of commuting trips to the campus are made using sustainable modes (i.e., public transit, bicycle, walking, etc.).

The proportion of passenger vehicle trips to/from Campus (44 percent) compares very favorably with City-wide and Fenway/Longwood area transportation mode share data published by the Boston Transportation Department (A*ccess Boston 2000 – 2010,* Boston Transportation Department, May 2002). The campus automobile mode share is below the City-wide share of 51 percent, but above the 37 percent share for the Fenway/Longwood area. The automobile mode share in the Allston/Brighton neighborhoods, which encompasses the West Campus area, is 60 percent (well above the University's mode share of 44 percent). The current mode share data for the Campus is summarized in Table 3.

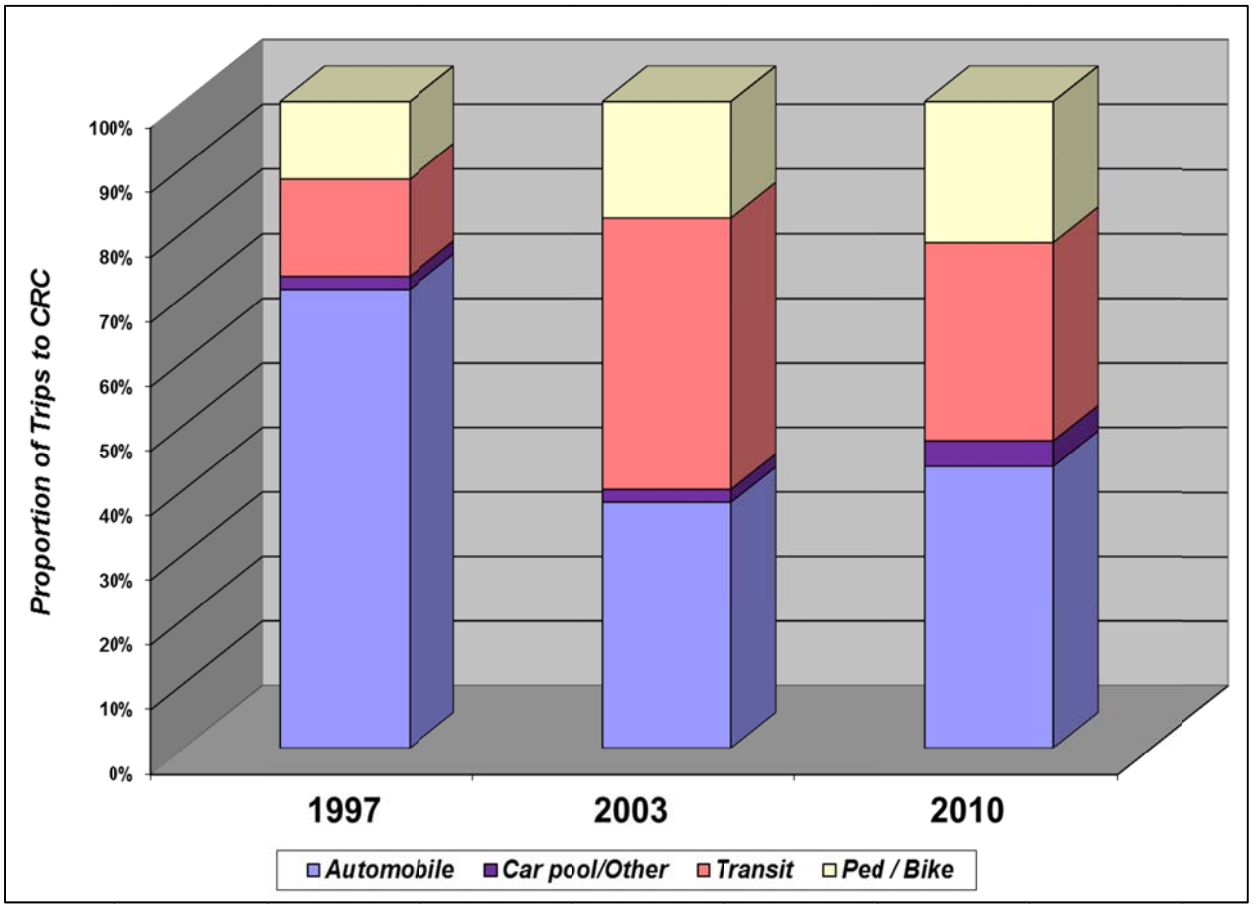
Table 3 Existing (2010) Campus Modal Split

Transportation Mode	Proportion of Trips to/from Campus
Single Occupancy Vehicle	44.2%
Public Transportation (MBTA)	31.4%
Walk	13.5%
Bicycle	6.0%
Car/Van Pools	2.3%
Other	2.6%
Total	**100.0%**
Vehicle Occupancy Rate (VOR)	1.05

Source: *Boston University Charles River Campus 2010 MassDEP Rideshare Report*
VOR derived from 2010 Rideshare Report Data

Figure 2 provides a graphic comparison of how commuting to the campus has changed over time. The most significant change has occurred in the number of commuters who drive alone to campus, which has dropped from 77 percent in 1997 to 44 percent in 2010. Corresponding increases have occurred in the number of commuters taking transit, bicycles or walking to campus. Transit use has increased from 15 to 31 percent and the combination of bicycle and pedestrian modes has increased from 12 to 22 percent. This trend in changing commuting modes is the result of Boston University's implementation of trip reduction policies over the last two Master Plan periods.

Figure 2 Historical Trends of Modal Splits at the Charles River Campus



The traffic count data used for this master plan was reviewed to estimate the approximate distribution of vehicle trips to/from the CRC. Specifically, the traffic volumes that were reviewed were the AM and PM peak hour vehicle trips entering or exiting streets that primarily (or exclusively) provide access to University facilities. These streets include:

- Babcock Street
- Harry Agganis Way
- Buick Street
- Cummington Street
- Granby Street
- Blandford Street

It is recognized that all the traffic on these streets may not be related to BU, however, the majority of the traffic on these streets during the peak periods are likely to be related to the University and the distribution of the traffic movements at these locations can give a sense of the distribution of trips to/from the campus. Therefore, based on the existing traffic entering or exiting these roadways, the overall campus distribution is estimated to be approximately 37 percent to/from the east (via Kenmore Square or University Road), 19 percent to/from the west

via Commonwealth Avenue or Brighton Avenue, 26 percent to/from the north and west (via the Boston University Bridge, University Road) and 18 percent to the south (via Babcock Street, Pleasant Street, St. Paul Street, Essex Street).

Table 4 summarizes the approximate Campus distribution pattern for vehicular trips.

Table 4 Approximate Trip Distribution Pattern for the Charles River Campus

Direction	Proportion of Trips to/from Campus
East via Kenmore Square or University Road	37%
North/West/East via Boston University Bridge/University Rd.	26%
West via Commonwealth Ave./Brighton Ave.	19%
South via Babcock St., Pleasant St., St. Paul St., Essex St., Kenmore Sq.	18%
Total	**100%**

3.0 Existing Transportation Conditions

The initial step in understanding how the transportation system will function over the 10 year period covered by this Master Plan, is to establish a comprehensive baseline condition that includes the essential elements that comprise or influence the transportation network in and around the CRC. Those elements are:

- Roadway system and traffic operations
- Traffic safety
- Pedestrian circulation
- Bicycle circulation and storage
- Public Transportation (MBTA)
- Boston University Shuttle (BUS)
- Parking
- Loading and Service
- Traffic Management for Special Events

The following sections describe the existing 2012 conditions pertaining to these elements.

3.1 Existing Traffic Network

Through discussions with the Boston Transportation Department (BTD) that occurred during the IMPNF review process, the traffic network to be evaluated for this Master Plan was established. That network is primarily along Commonwealth Avenue between Kenmore Square and Packard's Corner (Brighton Avenue), as Commonwealth Avenue is the key transportation spine that connects the East and Central Campus areas with the West Campus. In addition, the network includes several secondary roadways that provide access to the various Boston University facilities located throughout the Charles River Campus. The other roadways within the Master Plan study limits include:

- Bay State Road (one-way westbound)
- Deerfield Street
- Silber Way
- Granby Street
- St. Mary's Street (one-way southbound)
- Mountfort Street
- Carleton Street

- University Road
- Buick Street
- Harry Agganis Way
- Babcock Street
- Ashford Street
- Gardner Street

The majority of these roadways are located within the City of Boston. Mountfort Street, Carleton Street and St. Mary's Street are located in the Town of Brookline.

The traffic operations analysis performed for the Master Plan study examined intersections located within the study limits described above. A summary of the study intersections, traffic control and jurisdiction (Boston or Brookline) are summarized in Table 5.

Table 5 Master Plan Study Intersections

Location	Traffic Control	Jurisdiction
Kenmore Square	Signal	Boston
Commonwealth Ave. at Silber Way/Blandford Street	Signal	Boston
Commonwealth Ave. at Granby Street	Signal	Boston
Commonwealth Ave. at Cummington Street	Signal	Boston
Commonwealth Ave. at St. Mary's Street	Signal	Boston
Commonwealth Ave. at University Rd./Carlton St.	Signal	Boston
Commonwealth Ave. at BU Bridge/Essex Street	Signal	Boston
Commonwealth Ave. at Amory Street	Signal	Boston
Commonwealth Ave. at Buick Street/St. Paul Street	Signal	Boston
Commonwealth Ave. at Harry Agganis Way/Pleasant St.	Signal	Boston
Commonwealth Ave. at Babcock Street	Signal	Boston
Commonwealth Ave. at Brighton Ave.	Signal	Boston
Babcock Street at Gardner Street	STOP Sign	Boston
Babcock Street at Ashford Street	STOP Sign	Boston
Ashford Street at Alcorn Street	STOP Sign	Boston
Alcorn Street at Gardner Street	STOP Sign	Boston
Bay State Road at Deerfield Street	STOP Sign	Boston
Bay State Road at Silber Way	STOP Sign	Boston
Bay State Road at Granby Street	STOP Sign	Boston
Mountfort Street at Carleton Street	Signal	Brookline
Mountfort Street at St. Mary's Street	Signal	Brookline

The existing lane configurations at the study intersections noted in Table 5 are illustrated schematically on Figure 3.

3.1.1 Traffic Volumes

Peak Hour Volumes

Traffic volume data from several sources were used in this Master Plan analysis. The traffic data sources used are:

- Traffic counts commission by Boston University and performed during the week of March 19-23, 2012

- Traffic counts performed by the Massachusetts Department of Transportation during the last week of January 2012 for improvements in the BU Bridge area

- Traffic counts performed by the BETA Group, Inc. for Boston University during the week of November 16-20, 2009 for the Commonwealth Avenue Phase 2A project

In each of these data collection efforts, intersection turning movement and vehicle classification counts were performed during the weekday morning peak commuting period (7:00 AM to 9:00 AM) and the weekday afternoon peak commuting period (4:00 PM to 6:00 PM). A list of the intersections counted and when those counts were performed is provided below.

<u>March 2012</u>

- Kenmore Square
- Commonwealth Ave. at Silber Way/Blandford Street
- Commonwealth Ave. at Granby Street
- Commonwealth Ave. at Cummington Street
- Commonwealth Ave. at St. Mary's Street
- Commonwealth Ave. at Buick Street/St. Paul Street
- Commonwealth Ave. at Brighton Ave.
- Babcock Street at Gardner Street
- Babcock Street at Ashford Street
- Ashford Street at Alcorn Street
- Alcorn Street at Gardner Street
- Bay State Road at Deerfield Street
- Bay State Road at Silber Way
- Bay State Road at Granby Street
- Mountfort Street at St. Mary's Street

<u>January 2012</u>

- Commonwealth Ave. at University Rd./Carlton St.
- Commonwealth Ave. at BU Bridge/Essex Street
- Mountfort Street at Carleton Street

November 2009

- Commonwealth Ave. at Amory Street
- Commonwealth Ave. at Harry Agganis Way/Pleasant St.
- Commonwealth Ave. at Babcock Street

March 2012 peak hour counts at the intersection of Commonwealth Avenue and Buick Street/St. Paul Street were compared to counts at that same intersection performed in November 2009. The March 2012 count results indicate that peak hour volumes along the portion of Commonwealth Avenue west of the BU Bridge had increased by approximately five percent since the November 2009. The lower November 2009 counts likely reflect a change in commuting habits due to construction that was underway at that time on the Boston University Bridge.

Consequently, the peak hour traffic data at the remaining three intersections counted in November 2009 that are noted above were increased by five percent to reflect 2012 conditions.

The existing morning and afternoon peak hour traffic volumes are illustrated in Figure 4 and Figure 5. Copies of the original peak hour traffic count data sheets are provided in Appendix A of the Transportation Technical Appendices.

Daily Volumes

In addition to the peak hour counts, Automatic Traffic Recorder (ATR) counts were conducted on several roadways in the campus area to measure traffic for a 24-hour period during a weekday. The ATR counts were conducted at the following locations:

March 2012

- Commonwealth Avenue, west of Kenmore Square
- Commonwealth Avenue, west of St. Mary's Street
- Commonwealth Avenue, west of Babcock Street
- Bay State Road, west of Deerfield Street

November 2009

- Commonwealth Avenue, west of the B. U. Bridge
- Buick Street, north of Commonwealth Avenue
- Harry Agganis Way, north of Commonwealth Avenue
- Babcock Street, north of Commonwealth Avenue

Table 6 provides a summary of the existing daily volumes that were measured with the ATR machines. Similar to the peak hour traffic data, the daily volumes that were measured in 2009 were increased by 5 percent to reflect 2012 conditions. The daily volumes are also summarized graphically on Figure 6. Copies of the original ATR count sheets are provided in Appendix A of the Transportation Technical Appendices.

Table 6 2012 Average Weekday Traffic Volumes

Roadway	Vehicles per Day
Commonwealth Avenue, west of Babcock Street	31,100
Commonwealth Avenue, west of B.U. Bridge	36,300
Commonwealth Avenue, west of St. Mary's Street	22,400
Commonwealth Avenue, west of Kenmore Square	21,400
Buick Street, north of Commonwealth Avenue	2,300
Harry Agganis Way, north of Commonwealth Avenue	2,300
Babcock Street, north of Commonwealth Avenue	4,700
Bay State Road, west of Deerfield Street	2,975

Sources: Boston University Traffic Count Program, March 2012
Commonwealth Avenue Phase 2A Functional Design Report, BETA Group Inc., 2011

Traffic Volume Trends on Commonwealth Avenue

In addition to establishing a baseline for looking forward to the next 10 year period covered by this Master Plan, the recently measured traffic data affords an opportunity to look back historically to determine how traffic has changed within the CRC over time. There is an abundance of traffic data that has been collected along Commonwealth Avenue by the University for various Institutional Projects or previous Master Planning efforts over the past 25 years.

Despite the recent trend of volume increases west of the BU Bridge in the 2009 to 2012 time frame, the long-term trend on Commonwealth Avenue and the adjacent streets has been stable or a decrease in volumes since 1987. Looking first at daily volume data, which is presented in Table 7, the long-range trend is clearly downward.

West of the BU Bridge, traffic on Commonwealth Avenue is approximately 17 to 18 percent lower in 2012 than in 1987. On the side streets that provide access to University facilities in the west campus area (Buick Street and Harry Agganis Way), volumes are down about 4 percent since the 2003 Master Plan. The data shows a shift in use between the two streets, with Buick volumes increasing and Harry Agganis Way volumes decreasing. Both roadways serve the same Boston University facilities and are connected by a service road on the north boundary of the JHSV site. The approximate equalization of traffic on each road indicates a natural "balancing" of use as traffic tends to reach its own equilibrium in urban areas where drivers have choices.

East of the BU Bridge, the 2012 traffic volumes are also lower than were observed in 2001. Indeed, volumes are down between 18 and 32 percent between Kenmore Square and Carleton Street. On Bay State Road volumes are down nearly 23 percent in this same time period.

The decreases in volumes, particularly since the 2003 Master Plan, are likely due to several contributing factors:

- Boston University TDM programs (stabilized parking supply, more students housed on campus, limitations on student parking, increased transit, bicycle and pedestrian mode splits at the CRC, etc.)

- Traffic calming effects of the Commonwealth Avenue Phase 1 improvements on the segment of Commonwealth Avenue between Kenmore Square and Carleton Street

- Installation of bicycle lanes on Commonwealth Avenue from Kenmore Square to Packards Corner.

- Recent economic conditions

Additionally, some of the decrease in traffic on Bay State Road may be attributable to the construction of Boston University's East Campus Student Services Center at the corner of Bay State Road and Deerfield Street. However, at the time of the March 2012 counts, the disruption to traffic flows on Bay State Road were minimal and it is estimated that the impact on traffic was correspondingly minimal as well.

Table 7 Daily Traffic Volume Trends at the Charles River Campus (1987 – 2012)

	Vehicles per day			%
Location	**1987[1]**	**2001[2]**	**2012[3]**	**Change[4]**
Commonwealth Avenue (west of Babcock St.)	37,500	38,400	31,100	(-17%)
Commonwealth Avenue (west of B.U. Bridge)	44,350	44,500	36,300	(-18%)
Commonwealth Ave. (west of St. Mary's St.)	- -	32,600	22,400	(-32%)
Commonwealth Ave (west of Kenmore Sq.)	- -	26,000	21,400	(-18%)
Buick Street (north of Comm. Ave.)	- -	1,990	2,300	+16%
Harry Agganis Way (north of Comm. Ave.)	- -	2,880	2,300	(-20%)
Bay State Road (west of Deerfield)	- -	3,825	2,975	(-23%)

1 Source: 899-925 Commonwealth Avenue Project FEIR, 1990.
2 Source: Boston University 200I Traffic Count Program as reported in 2003 CRC Transportation Master Plan.
3 Source: Boston University 2012 Traffic Count Program or Commonwealth Avenue Phase 2A Functional Design Report, BETA Group Inc., 2011.
4 Net change between 1987 or 2001 volumes and 2012 traffic volumes.

Figure 7 provides a visual comparison of how daily traffic volumes have changed from 2001 to 2012 along the portion of Commonwealth Ave. that serves the CRC.

A similar comparison was performed using the peak hour turning movement data collected at intersections along Commonwealth Avenue. That data is presented in Table 8 and is based on traffic observations made in 1987, 1996, 2001/2002 and 2012. As Table 8 indicates, peak hour traffic is also down throughout the corridor. Since the 2003 Master Plan (2001/2002 data), peak hour traffic has decreased between 9 percent and 25 percent, depending upon the location and the peak period. The most significant decreases in traffic were observed at the following intersections:

- Commonwealth Ave. at Babcock Street: (-25%) in the PM peak
- Commonwealth Ave. at Harry Agganis Way: (-23%) in the PM peak
- Commonwealth Ave. at BU Bridge/Essex Street: (-22%) in the AM and PM peaks

Figure 7 Daily Traffic Volume Trends on Commonwealth Avenue

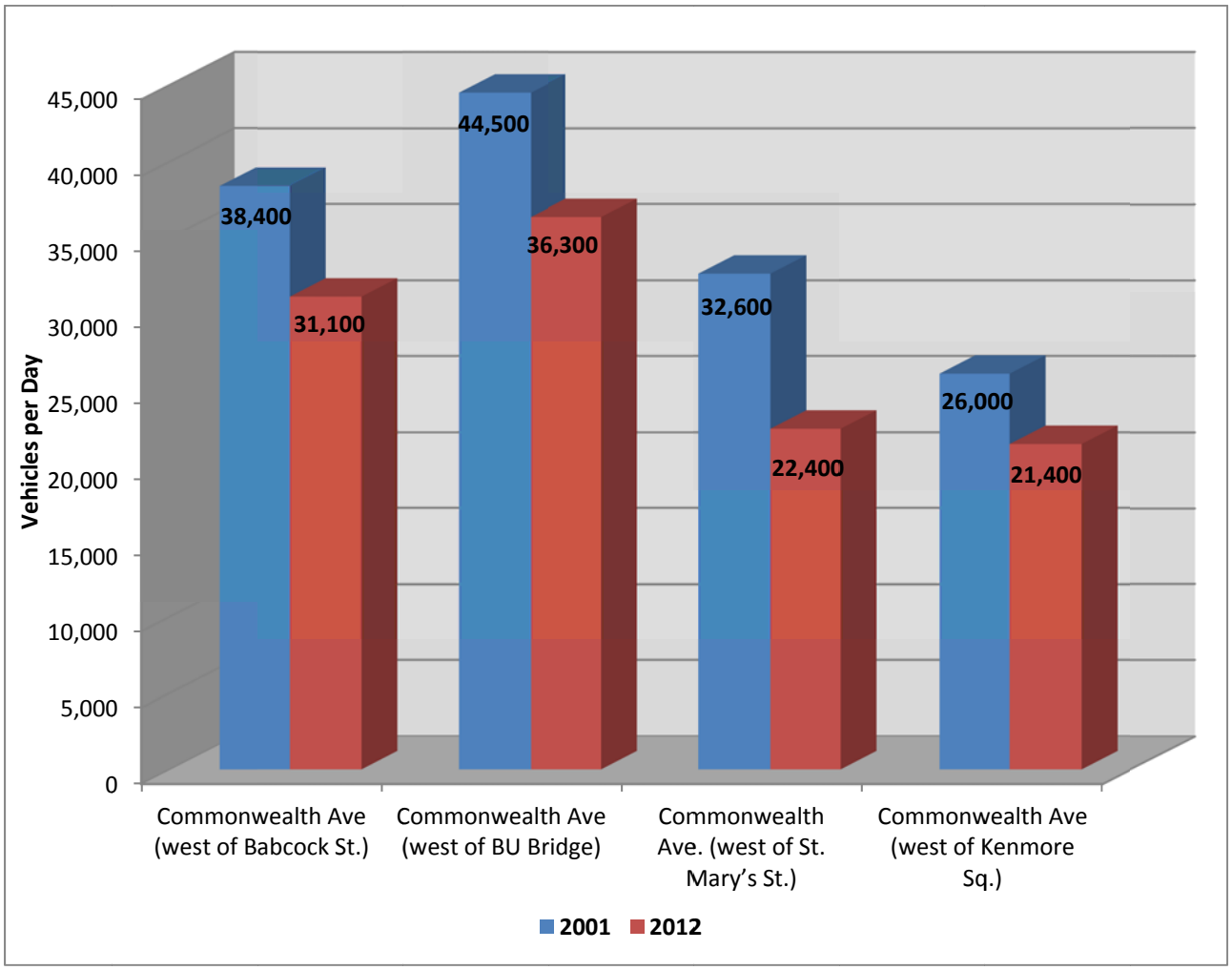


Table 8 Peak Hour Traffic Volume Trends on Commonwealth Ave. (1987 – 2012)

Location	Vehicles per Hour (vph) 1987[1]	1996[2]	2001/2[3]	2012[4]	% Change 2002 to 2012[5]
Commonwealth Ave. at Brighton Ave.					
AM Peak Hour	2,376	1,950	2,225	2011	(-10%)
PM Peak Hour	2,890	3,205	2,831	2385	(-16%)
Commonwealth Ave. at Babcock St.					
AM Peak Hour	2,827	2,620	2,668	2147	(-20%)
PM Peak Hour	3,327	3,200	3,465	2588	(-25%)
Commonwealth Ave. at H. Agganis Way					
AM Peak Hour	2,724	2,610	2,446	2056	(-16%)
PM Peak Hour	3,103	3,035	3,183	2445	(-23%)
Commonwealth Ave. at Buick St.					
AM Peak Hour	3,210	3,020	2,759	2522	(-9%)
PM Peak Hour	3,393	3,545	3,272	2780	(-15%)
Commonwealth Ave. at B.U. Bridge					
AM Peak Hour	5,912	5,630	5,776	4480	(-22%)
PM Peak Hour	5,820	6,070	6,183	4795	(-22%)
Commonwealth Ave. at University Rd.					
AM Peak Hour	4,333	3,995	3,937	3160	(-20%)
PM Peak Hour	3,980	3,970	3,940	3255	(-17%)
Commonwealth Ave. at St. Mary's St.					
AM Peak Hour	- -	1,585	1,420	1251	(-12%)
PM Peak Hour	- -	2,200	1,977	1707	(-14%)
Commonwealth Ave. at Cummington St.					
AM Peak Hour	- -	1,575	1,426	1206	(-15%)
PM Peak Hour	- -	2,230	1,968	1706	(-13%)
Commonwealth Ave. at Granby St.					
AM Peak Hour	- -	1,590	1,427	1220	(-15%)
PM Peak Hour	- -	2,230	2,006	1603	(-20%)
Commonwealth Ave. at Silber Way					
AM Peak Hour	- -	1,590	1,427	1214	(-15%)
PM Peak Hour	- -	2,230	2,006	1637	(-18%)
Commonwealth Ave. at Kenmore Sq.					
AM Peak Hour	- -	1,645	3,668	3014	(-18%)
PM Peak Hour	- -	2,175	4,019	3475	(-14%)

[1] Source: *899-925 Commonwealth Avenue Project FEIR*, 1990.
[2] Source: *Boston University Charles River Campus Transportation Master Plan*, 1997.
[3] Source: *Boston University Charles River Campus Transportation Master Plan*, 2003.
[4] Source: Boston University 2012 Traffic Count Program or Commonwealth Avenue Phase 2A FDR, BETA Group Inc., 2011.
[5] Net change between 2001/2002 and 2012 traffic volumes.

3.1.2 Traffic Operations

Level of Service

Level of Service (LOS) is a term used to describe the quality of the traffic flow on a roadway at a particular point in time. It is an aggregate measure of travel delay, travel speed, congestion, driver discomfort, convenience, and safety based on a comparison of roadway facility capacity to travel demand. Operating levels of service are reported on a scale of A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating

conditions. LOS A represents free-flow conditions with little or no traffic delays, while LOS F represents a forced-flow condition with long delays and traffic demands exceeding roadway capacity.

LOS C is often cited as a design standard for rural roadways and LOS D is often used for urban roadways. However, when trying to establish minimum "acceptable" level of service thresholds for existing roadways a number of factors must be considered. These include existing operating levels of service at other similar and nearby facilities; the duration of the peak traffic periods; the feasibility and cost of providing roadway capacity increases; and, applicable state and local regulations.

Roadway operating levels of service are calculated following procedures defined in the 2000 *Highway Capacity Manual*, published by the Transportation Research Board. For both signalized and unsignalized intersections, the operating level of service is based on travel delay. Delay can be measured in the field, but is generally calculated as a function of the traffic volume; quality of traffic progression; the green ratio; the cycle length; the v/c (volume/capacity) ratio; and the capacity of each intersection approach, as appropriate for signalized intersections. Delay at unsignalized intersections is calculated for the side street or minor street approach and for left turns from the major street. Delays at unsignalized intersections are influenced by the traffic volume levels on the major and minor streets.

The delay-based level of service thresholds provided in the 2000 *Highway Capacity Manual* are summarized for signalized and unsignalized intersections in Table 9.

Table 9 Intersection Level of Service Criteria

	Average Delay per Vehicle (Seconds)	
Level of Service	**Signalized**	**Unsignalized**
A	≤10.0	≤10.0
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1to 50.0
F	>80.0	>50.0

Note: "≤" = Less than or equal to
"＞" = Greater than
Source: *Highway Capacity Manual*, Special Report 209, Transportation Research Board, National Research Council, Washington, DC, 2000.

Existing Operations

Existing peak hour traffic operations for this Master Plan were evaluated using the SYNCHRO 6.0 software, which is the standard traffic analysis and simulation tool used by the Boston Transportation Department. The results of the analysis are summarized in Table 10, which provides overall level of service, delay and volume-to-capacity ratio results for the signalized intersections that were evaluated; and level of service, delay and volume-to-capacity ratio results for the side street traffic moments at the unsignalized intersections.

A detailed tabular summary of the traffic model results, i.e., level of service, delay and volume-to-capacity ratio results by traffic movement at each intersection, are provided in Technical Appendix B. The tables in Appendix B also report the average and 95th percentile queues for each traffic movement, as well as available queue storage. Appendix B also includes copies of the SYNCHRO traffic model output sheets for each study intersection.

As review of Table 10 indicates, the roadway network in the vicinity of the campus functions reasonable well during peak periods on typical weekdays. Most of the signalized intersections along Commonwealth Ave. for example, function at LOS D (overall) or better during both the morning and afternoon peak. The exception is the main intersection at Kenmore Square which functions at LOS E during the PM peak, with a volume-to-capacity ratio of 0.98 (approaching the capacity of the intersection).

Although the overall LOS along the Commonwealth Ave. corridor is adequate, there are individual approaches or traffic turning movements that are above capacity or have long queues (see Appendix B). Within the corridor these approaches tend to be the side street approaches to Commonwealth Ave. as the BTD provides a greater portion of the signal's green time to Commonwealth Ave because that road carries more vehicles. The street approaches to Commonwealth Ave. that exhibit congestion during peak periods include:

- Babcock Street northbound (AM)
- Babcock Street southbound (PM)
- St. Paul Street northbound (PM)
- Carleton Street northbound (AM & PM)

Historically, the Commonwealth Ave. westbound approach to the BU Bridge was severely congested in both peak periods because of the large amount of right turns onto the BU Bridge. The queues on this portion of Commonwealth Ave would routinely back into the Carleton Street/University Road intersection and impact operations for traffic and Green Line trolleys at that intersection. However, since completion of the BU Bridge reconstruction project in December 2011, the queuing/congestion/gridlock in this area has been reduced noticeably. The improvement in operations is likely due to a combination of factors:

- Traffic diverting to other routes to avoid construction at the BU Bridge may have not yet returned to the area
- Adjustment to signal coordination settings between the Carleton Street signal and the BU Bridge signal that were implemented by the BTD in January 2012.
- Generally lower volumes in the area because of the current economic conditions

With regards to the unsignalized intersections on Bay State Road and in the Babcock Street area in west campus, all of these locations function adequately with minimal congestion during both peak periods (LOS A, LOS B or LOS C).

Table 10 Existing Intersection Level of Service Results

Location	AM Peak Hour			PM Peak Hour		
	Delay[1]	v/c[2]	LOS[3]	Delay[1]	v/c[2]	LOS[3]
Signalized Intersections						
Brighton Ave & Commonwealth Ave	0.73	36.8	D	0.80	40.8	D
Commonwealth Ave & Babcock Street	0.60	29.3	C	0.67	16.0	B
Commonwealth Ave & Harry Agganis Way	0.64	14.4	B	0.56	13.5	B
Commonwealth Ave & Buick Street	0.71	34.7	C	0.87	22.6	C
Commonwealth Ave & Amory Street	0.66	26.8	C	0.58	23.6	C
Commonwealth Ave & BU Bridge	0.76	21.9	C	0.77	26.3	C
Commonwealth Ave & Carlton Street	0.71	28.2	C	0.69	12.1	B
Commonwealth Ave & St. Mary's St.	0.37	15.0	B	0.42	7.0	A
Commonwealth Ave & Cummington St.	0.30	12.6	B	0.46	16.3	B
Commonwealth Ave & Granby Street	0.37	9.0	A	0.41	11.7	B
Commonwealth Avenue & Silber Way	0.38	8.3	A	0.47	10.3	B
Commonwealth Ave & Beacon Street (Kenmore Square)	0.88	44.5	D	0.98	70.4	E
Mountfort Street & Carlton Street	0.39	17.8	B	0.37	14.5	B
Mountfort Street & St. Mary's St.	0.46	48.4	D	0.61	49.6	D
Unsignalized Intersections						
Commonwealth Ave & University Rd.						
University Avenue SB R	0.34	11.2	B	0.4	13.8	B
Ashford Street & Babcock Street						
Ashford Street EB LR	0.08	9.2	*A*	0.07	9.7	A
Babcock Street NB L	0.01	6.7	A	0.03	5.3	A
Ashford Street & Alcorn Street						
Alcorn Street NB LR	0.01	9.7	A	0.03	9.6	A
Gardner Street & Babcock Street						
Gardner Street EB LR	0.14	10.3	B	0.13	10.0	A
Babcock Street NB L	0.04	3.1	A	0.01	1.7	A

[1] Delay = Average delay in seconds per vehicle

[2] v/c = Volume to capacity ratio

[3] LOS = Level of Service

* Indicates that Degree Utilization was used in place of volume to capacity ratio

Table 10 cont'd Existing Intersection Level of Service Results

Location	AM Peak Hour			PM Peak Hour		
	Delay[1]	v/c[2]	LOS[3]	Delay[1]	v/c[2]	LOS[3]
Unsignalized Intersections						
Gardner Street & Alcorn Street						
Gardner Street EB LTR	7.7	0.13*	A	7.7	0.16*	A
Gardner Street WB LR	7.4	0.03*	A	7.2	0.04*	A
Alcorn Street NB TR	7.4	0.03*	A	7.6	0.06*	A
Alcorn Street SB LT	7.2	0.03*	A	7.5	0.04*	A
Bay State Road & Granby Street						
Bay State Road EB R	9.2	0.02	A	12.2	0.11	B
Bay State Road WB LT	10.8	0.25	B	16.0	0.38	C
Bay State Road & Silber Way						
Bay State Road WB LTR	9.9	0.38*	A	9.3	0.31*	A
Silber Way NB LT	8.4	0.10*	A	8.7	0.17*	A

[1] Delay = Average delay in seconds per vehicle

[2] v/c = Volume to capacity ratio

[3] LOS = Level of Service

* Indicates that Degree Utilization was used in place of volume to capacity ratio

3.1.3 Safety Analysis

An analysis of crash data has been performed using data available from the MassDOT Registry of Motor Vehicles division and in accordance with BTD and MassDOT standards for safety analysis for planning studies. Crash data from the three most recent years available from MassDOT (2007 – 2009) were used for the analysis. The results of the analysis are summarized in Table 11, which provides a breakdown of crashes per year at each intersection, as well as the crash rate.

The crash rate, which represents the number of crashes at the intersection per million entering vehicles, provides an indication of how the intersection compares with other similar intersections (signalized or unsignalized) within the region or the state. MassDOT calculates the average crash rate for intersections on a state-wide basis and for each of its six engineering districts. Boston is in MassDOT District 6. The MassDOT average crash rates are also provided in Table 11.

It is important to note that the data summarized in Table 11 may not reflect all of the accidents that are occurring at the study intersections, as there are some limitations on the crash data that come from the Registry. Typically, the Registry data is lower than the data collected by the local police departments. For example, data obtained from the Boston Police Department, Boston EMS Department and the Boston University Police Department for use in the design of the improvements proposed for Commonwealth Avenue west of the BU Bridge showed 67 percent greater number crashes for that area than the MassDOT data. However, for this Master Plan MassDOT data has been used in order to provide a fair comparison to other intersections in the

CRC, and more importantly, for the comparison to the MassDOT state-wide and District 6 rates which are based on crash data from the Registry. However, for comparative purposes, the intersections for which Boston Police Department (BPD) data was available, the total number of crashes and crash rates by location for the same three year period are presented in Table 11 (in red).

As noted in Table 11, the intersections with the highest number of crashes between 2007 and 2009, according to the MassDOT data, were:

- Kenmore Square (27 crashes)
- Commonwealth Avenue/BU Bridge/Essex St (20)
- Commonwealth Avenue/Babcock Street (15)
- Commonwealth Avenue/Harry Agganis Way/Pleasant St.(14)

In addition, it is important to note that most intersections along Commonwealth Avenue in the west campus area (i.e., west of the BU Bridge) had a least one reported pedestrian or bike accident during the three years evaluated. East of Carleton Street however, there were a minimal number of pedestrian or bicycle crashes reported. The smaller number of pedestrian/bike crashes in the central/east campus area is most likely due to the safety improvements made in this area as part of the Commonwealth Avenue Phase I project (Note: bicycle lanes were not installed on the portion of Commonwealth Ave. west of the BU Bridge until 2009).

The MassDOT data also indicates that there were not many accidents of any time along Bay State Road or in the Babcock Street area (Babcock, Gardner, Ashford, Alcorn Streets).

In terms of the crash rates, only one intersection had crash rates that exceeded the MassDOT the District 6 rate: Ashford Street at Alcorn Street (only 1 crash but the traffic volumes are very low). All other intersections were below the District 6 and state-wide crash rates, and in fact many locations were well below the MassDOT rates.

Copies of the MassDOT crash data for 2007 – 2009 and the crash rate calculation sheets are provided in Appendix C. Appendix C also includes copies of the BPD crash records for the intersections west of the BU Bridge.

Table 11 Safety Analysis Results

Intersection	Number of Crashes 2007	2008	2009	Total	Crash Rate	Dist. 6 Rate	State Rate
Commonwealth Ave. at Brighton							
Property Damage Only	3	4	4	**11**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	2	0	0	**2**			
Total	**5**	**4**	**4**	**13**	**0.35**	**0.77**	**0.81**
BPD Total				***18***	*0.48*		
Commonwealth Ave. at Babcock St.							
Property Damage Only	5	0	2	**7**			
Personal Injury	2	2	0	**4**			
Pedestrian/Bike	0	1	0	**1**			
Unknown/Unreported/Other	2	1	0	**3**			
Total	**9**	**4**	**2**	**15**	**0.38**	**0.77**	**0.81**
BPD Total				***27***	*0.68*		
Commonwealth Ave. at Harry Agganis Way/Pleasant St.							
Property Damage Only	3	5	0	**8**			
Personal Injury	4	1	0	**5**			
Pedestrian/Bike	0	1	0	**1**			
Unknown/Unreported/Other	0	0	0	**0**			
Total	**7**	**7**	**0**	**14**	**0.37**	**0.77**	**0.81**
BPD Total				***25***	*0.66*		
Commonwealth Ave. at Buick St./ St. Paul St.							
Property Damage Only	4	3	1	**8**			
Personal Injury	1	0	0	**1**			
Pedestrian/Bike	0	1	1	**2**			
Unknown/Unreported/Other	0	0	1	**1**			
Total	**5**	**4**	**3**	**12**	**0.28**	**0.77**	**0.81**
BPD Total				***27***	*0.63*		
Commonwealth Ave. at Amory St.							
Property Damage Only	2	1	0	**3**			
Personal Injury	0	1	0	**1**			
Pedestrian/Bike	0	0	1	**1**			
Unknown/Unreported/Other	0	0	0	**0**			
Total	**2**	**2**	**1**	**5**	**0.26**	**0.77**	**0.81**
BPD Total				***2***	*0.10*		
Commonwealth Ave. at B.U. Bridge/ Essex St.							
Property Damage Only	5	5	1	**11**			
Personal Injury	3	1	0	**4**			
Pedestrian/Bike	2	0	0	**2**			
Unknown/Unreported/Other	1	1	1	**3**			
Total	**11**	**7**	**2**	**20**	**0.27**	**0.77**	**0.81**

Table 11 cont'd Safety Analysis Results

Intersection	Number of Crashes 2007	2008	2009	Total	Crash Rate	Dist. 6 Rate	State Rate
Commonwealth Ave. at Carlton St./ University Road							
Property Damage Only	2	1	0	**3**			
Personal Injury	1	1	0	**2**			
Pedestrian/Bike	0	0	1	**1**			
Unknown/Unreported/Other	0	0	1	**1**			
Total	**3**	**2**	**2**	**7**	**0.15**	**0.77**	**0.81**
Commonwealth Ave. at St. Mary's							
Property Damage Only	1	1	0	**2**			
Personal Injury	0	1	0	**1**			
Pedestrian/Bike	1	0	0	**1**			
Unknown/Unreported/Other	1	0	0	**1**			
Total	**3**	**2**	**0**	**5**	**0.20**	**0.77**	**0.81**
Commonwealth Ave. at Cummington							
Property Damage Only	3	0	0	**3**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	1	0	0	**1**			
Total	**4**	**0**	**0**	**4**	**0.16**	**0.77**	**0.81**
Commonwealth Ave. at Granby St.							
Property Damage Only	2	0	0	**2**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	0	0	0	**0**			
Total	**2**	**0**	**0**	**2**	**0.09**	**0.77**	**0.81**
Commonwealth Ave. at Silber Way/ Blandford St.							
Property Damage Only	0	0	0	**0**			
Personal Injury	1	0	0	**1**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	2	1	0	**3**			
Total	**3**	**1**	**0**	**4**	**0.15**	**0.77**	**0.81**
Commonwealth Ave. at Beacon St./ Brookline Ave./Deerfield St.							
Property Damage Only	12	6	2	**20**			
Personal Injury	1	2	0	**3**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	3	1	0	**4**			
Total	**16**	**9**	**2**	**27**	**0.47**	**0.77**	**0.81**
Bay State Road at Deerfield St.							
Property Damage Only	1	0	0	**1**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	0	0	0	**0**			
Total	**1**	**0**	**0**	**1**	**0.27**	**0.77**	**0.81**
Bay State Road at Silber Way							
Property Damage Only	0	2	0	**2**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	0	1	0	**1**			

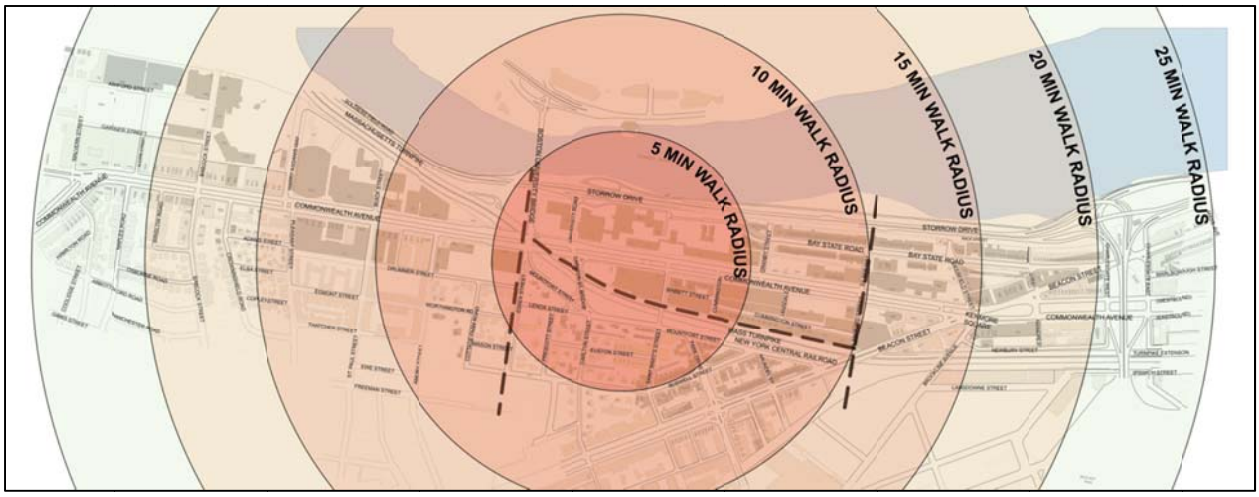
Table 11 cont'd Safety Analysis Results

Intersection	Number of Crashes 2007	2008	2009	Total	Crash Rate	Dist. 6 Rate	State Rate
Bay State Road at Granby St.							
Property Damage Only	0	0	0	**0**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	0	0	0	**0**			
Total	**0**	**0**	**0**	**0**	**0.00**	**0.57**	**0.61**
Mountfort St. at St. Mary's St.							
Property Damage Only	0	0	1	**0**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	0	0	0	**0**			
Total	**0**	**0**	**1**	**1**	**0.06**	**0.77**	**0.81**
Mountfort St. at Carleton St							
Property Damage Only	**0**	**1**	**0**	**1**			
Personal Injury	**0**	**1**	**0**	**1**			
Pedestrian/Bike	**0**	**0**	**0**	**0**			
Unknown/Unreported/Other	1	0	0	**1**			
Total	**1**	**2**	**0**	**3**	**0.16**	**0.57**	**0.61**
Babcock St. at Gardner St.							
Property Damage Only	1	0	0	**1**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	0	0	1	**0**			
Total	**1**	**0**	**1**	**2**	**0.34**	**0.57**	**0.61**
Babcock St. at Ashford St.							
Property Damage Only	0	0	0	**0**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	0	0	0	**0**			
Total	**0**	**0**	**0**	**0**	**0.00**	**0.57**	**0.61**
Ashford St. at Alcorn St.							
Property Damage Only	0	0	0	**0**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	0	**0**			
Unknown/Unreported/Other	1	0	0	**1**			
Total	**1**	**0**	**0**	**1**	**0.58**	**0.57**	**0.61**
Gardner St. at Alcorn St.							
Property Damage Only	0	0	0	**0**			
Personal Injury	0	0	0	**0**			
Pedestrian/Bike	0	0	1	**1**			
Unknown/Unreported/Other	0	0	0	**0**			
Total	**0**	**0**	**1**	**1**	**0.23**	**0.57**	**0.61**

3.2 Pedestrian Circulation

Due to the urban setting of the Charles River Campus, having safe and convenient pedestrian facilities is absolutely vital for the campus to function properly. The campus is not a compact geographically; rather it has a linear nature and stretches out for approximately 1.75 miles along Commonwealth Ave. Despite the distances from one end of campus to other, many students walk between their residence halls, classroom or other academic/recreational activities. As illustrated in Figure 8, from the center of campus a student can walk to any University facility at the CRC in 25 minutes or less. Thus, the CRC is a very walkable campus, and the discussion in the following sections demonstrates just how vibrant the pedestrian environment is at the CRC.

Figure 8 Charles River Campus Walk Times



Existing Pedestrian Volumes

Peak hour pedestrian activity was measured at each intersection where traffic volumes were counted (please refer to section 3.1.1 for location and time of counts). In addition to the traditional weekday AM and PM peak commuting periods (7 – 9 AM and 4 – 6 PM), pedestrian volumes were also measured during the weekday mid-day period (12 – 2 PM). Based on past observations conducted by the University and the BTD, the mid-day period is as busy, or perhaps even busier, the PM peak hour because of the amount of student moving between classes and other activities during this part of the day.

The pedestrian activity that was measured at each intersection was the number of pedestrian crossing in each crosswalk at the intersection (two-way volume at each crosswalk). Thus, for most locations where observations were made four sets of pedestrian data were recorded for each of the three time periods studied. The results of the observations are presented on Figures 9 through 11. Due to the large number of intersections and crosswalks studied for the Master Plan, each peak period is shown on two diagrams. The AM peak hour pedestrian volumes, for example, are illustrated on Figure 9A (West Campus area) and Figure 9B (Central/East Campus areas).

The count data shows that pedestrian activity in the mid-day and PM peak periods are significantly busier than during the AM peak. However, that does not mean that the AM peak does not have pedestrian activity within the CRC, rather this is an indication of how extremely busy pedestrian activity is during the mid-day and afternoon periods. Indeed, some of the crosswalk volumes in the AM peak were observed to be as much as 1,195 crossings per hour at University Road or 1,050 crossings per hour at Babcock Street. As busy as these crosswalks are, those volumes are dwarfed by the number of pedestrians along Commonwealth Avenue in the mid-day and afternoon peaks. For example, the number of pedestrian crossings at the intersections of Commonwealth Ave./BU Bridge ranges between 1,600 to 2,400 pedestrians per hour in the mid-day and PM peaks.

The busiest crosswalks are typically on the north side of Commonwealth Avenue, particularly west of St. Mary's Street. The activity is highest on the north side because of the concentration of Boston University academic, residential and athletic facilities located on the north side of Commonwealth Ave. in the west campus area. As noted above, there is a particularly large concentration of pedestrian traffic at the BU Bridge and University Road. This is due to their location as the "crossroads" between west campus and central and east campus areas. Students who live in west campus walk to classes and other activities in Central campus, and then return to their residence hall after the class/activity is completed. For students who live in the central/east campus areas, they often walk to west campus for classes or to make use of the many athletic or recreational opportunities in the west campus. Ultimately they make are return trip to their residence halls in central campus. Thus, for each group of students, these walking "roundtrips" between campus areas all funnel through the BU Bridge/University Road area.

The pedestrian activity in this "crossroads" area is further concentrated as the vast majority of the pedestrian use occurs along the north crosswalk. Indeed, the peak volumes in the crosswalks at the BU Bridge and across University Road were measured at 1,425 pedestrians per hour and 1,350 pedestrians per hour, respectively. The level of pedestrian activity in these two crosswalks is comparable to intersections located in the City's downtown central business or at the core of the Longwood Medical and Academic Area (LMA). Two examples of intersections with similar levels of pedestrian volumes are Congress Street and State Street (downtown) and Brookline Avenue at Longwood Avenue (LMA).

The high level of pedestrian activity at the BU Bridge/University Road area is also not just a peak period phenomenon. Based on 12-hour pedestrian counts collected by the BTD at the BU Bridge in the fall of 2007, the level of pedestrian activity reaches a plateau of about 1,000 crossings per hour around 11:00 AM and stays above 1,000 crossings until nearly 7:00 PM. Because of the sustained high level of activity over a 7 to 8 hour period, these crosswalks are in reality busier locations that crosswalks located in Boston's downtown core, which tend to have activity levels that peak during AM and PM commuting periods and the noon lunch time period. If the BTD's 12 hour data is extrapolated to 24 hours, it is estimated that approximately 18,000 to 20,000 pedestrians a day pass through this portion of Commonwealth Avenue.

In Central campus, between St. Mary's Street and Hinsdale Street, there are also high levels of pedestrian activity which is concentrated on the south side of Commonwealth Ave. Pedestrian activity is at high levels in this area because of the Warren Towers residence halls, which are

located on the south side of Commonwealth Ave. Approximately 1,750 students live at the Warren Towers.

With such high levels of pedestrian activity along both sides of Commonwealth Ave., as well as the high number of pedestrians crossing Commonwealth Avenue in the Central campus area, it becomes obvious why the University was such an important contributor and supporter of the pedestrian improvements made as part of the Commonwealth Avenue Phase 1 Improvements project. Shortening the pedestrian crossing distances along this portion of Commonwealth Ave. has improved safety for those pedestrians, and the streetscape improvements have enhanced the pedestrian experience immeasurably.

The existing high level of pedestrian volumes in the BU Bridge area, coupled with a significant number of vehicular conflicts, is essential in understanding the University's desire to improve pedestrian safety in this critical area. As will be discussed later in this Master Plan, Boston University's support, both political and financial, of the major roadway circulation changes planned by the BTD and MassDOT at the BU Bridge, is driven by the need to ensure safety for the tens of thousands of pedestrians (students) traversing through the area each day.

Pedestrian Volume Growth

The pedestrian activity along Commonwealth Avenue that was measured in 2012 was compared to pedestrian activity measured for the 1997 and 2003 Master Plans (and from earlier observations), to understand how pedestrian flows have evolved over time. The comparison of pedestrian volumes is summarized in Table 12. As can be seen in reviewing Table 12, in general pedestrian activity has increased steadily through the CRC over the past 25 years. Some of the more dramatic changes since the 2003 Master Plan have occurred at the intersections of:

- Commonwealth Ave. at Buick Street
- Commonwealth Ave. at Carleton Street.

At Buick Street, for example, pedestrian flows in the Buick Street crosswalk (north side of Commonwealth Ave.) have increased from 770 to 1,180 pedestrians per hour in the midday peak and from 665 to over 1,300 in the PM peak. These translate to a 53 percent increase in the mid-day peak and a 97 percent increase in the PM peak. At this particular crosswalk, the dramatic increase in pedestrian activity is most likely due to students traveling to/from the recreation center which opened after the 2003 Master Plan was completed.

At the Carlton Street intersection, the south crosswalk has increased from 335 to 525 pedestrian crossings per hour during the PM peak period, a 57 percent increase since 2003. This increase reflects a trend in activity on the sidewalks and crosswalks along the south side of this portion of Commonwealth Avenue that has been observed over the past several years. Two factors appear to be contributing to these increases:

1. General increases in pedestrian movements between west campus and central/east campus areas
2. Pedestrians avoiding the crosswalk at the BU Bridge due to safety concerns and congestion conditions at the two traffic islands (the crosswalk at Essex Street is a single crossing rather than the three separate crossings required an the BU Bridge).

Table 12 Peak Hour Pedestrian Volume Trends on Commonwealth Ave. (1987 – 2012)

Location	Pedestrians per Hour[1] 1987[2]	1996[3]	2001/ 2002[4]	2012[5]	% Change 2002 to 2012[6]
Commonwealth Ave. at Babcock St.					
AM Peak Hour	193	612	670	1,052	64%
Mid-Day Peak Hour	- -	860	1,443	1,020	(-29%)
PM Peak Hour	851	1,018	1,229	1,044	(-15%)
Commonwealth Ave. at H. Agganis Way					
AM Peak Hour	200	535	386	927	140%
Mid-Day Peak Hour	- -	843	748	1,147	53%
PM Peak Hour	450	719	511	984	93%
Commonwealth Ave. at Buick St.					
AM Peak Hour	150	914	1,175	862	(-27%)
Mid-Day Peak Hour	- -	1,200	1,402	2,507	79%
PM Peak Hour	400	754	1,299	2,070	59%
Commonwealth Ave. at B.U. Bridge					
AM Peak Hour	527	795	806	1,032	28%
Mid-Day Peak Hour	- -	899	1,535	1,630	6%
PM Peak Hour	796	987	1,146	2,042	78%
Commonwealth Ave. at University Rd.					
AM Peak Hour	617	811	1,055	1,195	13%
Mid-Day Peak Hour	- -	954	1,579	1,914	21%
PM Peak Hour	927	983	1,253	2,024	62%
Commonwealth Ave. at St. Mary's St.					
AM Peak Hour	- -	911	1,347	747	(-45%)
Mid-Day Peak Hour		2,524	2,860	2,418	(-15%)
PM Peak Hour	- -	2,149	1,992	1,966	(-1%)
Commonwealth Ave. at Cummington St.					
AM Peak Hour	- -	1,439	1,353	420	(-69%)
Mid-Day Peak Hour		2,945	1,952	1,968	1%
PM Peak Hour	- -	1,798	1,663	1,547	(-7%)
Commonwealth Ave. at Granby St.					
AM Peak Hour	- -	1,642	802	644	(-20%)
Mid-Day Peak Hour		1,717	2,047	2,436	19%
PM Peak Hour	- -	940	1,081	1,767	63%
Commonwealth Ave. at Silber Way					
AM Peak Hour	- -	1,404	1,677	2,161	29%
Mid-Day Peak Hour		1,320	2,968	3,230	9%
PM Peak Hour	- -	851	2,637	2,785	6%

[1] Volumes represent the sum of the pedestrian crossings at all of the crosswalks at the intersection.
[2] Source: *899-925 Commonwealth Avenue Project FEIR*, 1990.
[3] Source: *Boston University Charles River Campus Transportation Master Plan*, 1997.
[4] Source: *Boston University Charles River Campus Transportation Master Plan*, 2003.
[5] Source: Boston University 2012 Traffic Count Program or Commonwealth Avenue Phase 2A FDR, BETA Group Inc., 2011.
[6] Net change between 2001/2002 and 2012 pedestrian volumes.

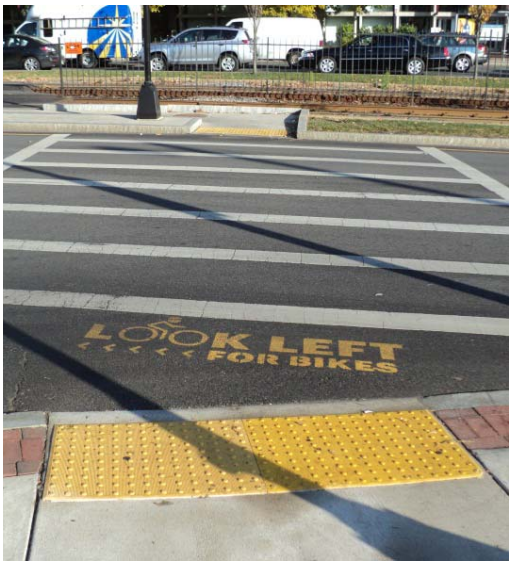
Existing Pedestrian Facilities

With such high levels of pedestrian activity throughout the CRC, it is important to ensure that the pedestrian facilities are adequate, and that pedestrian flows function safely and efficiently. Because of its urban setting, pedestrian travel in the CRC occurs on a combination of pedestrian walkways and paths on University property and along city sidewalks. In fact, observations indicate that most of the pedestrian activity occurs on along public sidewalks. A field inventory

confirmed that, within the campus area, every street has sidewalks on both sides. As part of the field inventory sidewalk widths were measured and a qualitative assessment regarding sidewalk conditions was performed. Sidewalk conditions were rated as good, fair or poor and represent an average for the entire block. The conditions of the sidewalks and sidewalk widths are shown on Figures 12A and 12B.

The pedestrian inventory found the following attributes within the CRC:

- Streets (public or private) in the CRC area all have concrete sidewalks on both sides of the street.
- Every signalized intersection has striped crosswalks and pedestrian WALK phases programed into the signal operations.
- Many of the unsignalized intersections also have striped crosswalks
- Handicapped ramps have been installed at vast majority of signalized and unsignalized intersection in the CRC campus area



In general sidewalk widths were found to be adequate to accommodate the existing pedestrian demands, even the high levels of demand on Commonwealth Ave. As noted on Figures 12A and 12B, sidewalk widths on Commonwealth Ave. are very generous, ranging from 20 feet to 25 feet in width in the west campus area and 14 feet to 25 feet in the central/east campus areas. There are a couple of "pinch points" in the systems, particularly on Commonwealth Ave. in the vicinity of the BU Bridge area.

One pinch point is on the north sidewalk just west of Carleton Street where an MBTA bus shelter narrows the "usable" sidewalk width from 22 feet to approximately 6 to 8 feet. The University and the BRA have discussed this pinch point and the University is committed under this Master Plan to modify the University-owned parking lot located north of the sidewalk (the Upper Bridge Lot/Boston Academy Lot) to provide additional space so the sidewalk can be widened and additional landscape buffer area be provided.

A second pinch point is also on the Commonwealth Ave. north sidewalk at the intersection of the BU Bridge. On the north side of the intersection, due to the presence of two "delta" traffic islands, pedestrians have to make three separate crossing to get from one side of the intersection to the other. Pedestrian storage capabilities on the traffic islands and on the outside corners are not adequate to "store" the number of pedestrians waiting for the WALK phase to come up during the signal cycle. This lack of storage space has safety implications for those pedestrians.

The University has worked with the BTD, and later MassDOT, for many years to implement improvements at this intersection that would eliminate the traffic islands and expand the

pedestrian waiting areas at the northeast and northwest corners of this intersection. Recently (March 2012), MassDOT has endorsed a long-range plan for the Commonwealth Ave./BU Bridge/Mountfort Street/Carleton Street/University Road area that includes the pedestrian safety improvements that have been long endorsed by Boston University.

3.3 Accessibility

The University is committed to providing equal and integrated access for individuals with disabilities to all academic, social, cultural and recreational programs offered at the Charles River Campus. In keeping with this commitment, the University's Office of Disability Services has created a on-line, interactive map which illustrates the locations of accessible features/facilities at all major buildings within the campus (www.bu.edu/maps).

As noted above, the field inventory of existing pedestrians facilities indicated that nearly all of the intersections within the CRC have at least one crosswalk. The field inventory also found that wheelchair ramps are also present at nearly every intersection. Thus individuals traveling to/from the University's major facilities via the pedestrian network generally have an accessible route available to them. Figures 13A and 13B illustrate the locations of crosswalks and wheelchair ramps within and adjacent to the CRC.

3.4 Bicycle Circulation and Storage

After pedestrians, bicycling may be the most important mode of travel at the CRC. It is also a mode whose use on campus has grown significantly in the past 10 years. The increase in bicycle use at the CRC is a reflection of a larger mode shift that has occurred in Boston (and society in general), as more and more commuters choose to use sustainable modes of transportation. The University has increased its emphasis on bicycle facilities, circulation and safety in response to the recent growth. As the following sections describe, the University has supported the City's program to expand the number and length of bike lanes in Boston, and has tripled the amount of bicycle storage capacity within the campus to accommodate the increase demands.

Existing Bicycle Volumes

The 2012 traffic count program also measured bicycle activity within the CRC during the peak commuting periods. That data is presented on Figures 14 and 15 (Existing AM Peak Hour Bicycle Volumes and Existing PM Peak Hour Bicycle Volumes). Bicycle activity has increased dramatically at the CRC since the 2003 Master Plan, as has the amount of bike storage available on-campus for the students, faculty and staff (see below). A significant contributing factor to the increased use is the installation of bicycle lanes along Commonwealth Avenue by the City of Boston.

As Figures 14 and 15 illustrate, the highest bicycle volumes in the area are in the Commonwealth Avenue bicycle lanes. In the AM peak hour for example, approximately 375 bicyclists were observed travelling east along Commonwealth Avenue at the BU Bridge from the west campus area toward central and east campus areas. Observations further indicated that most of the bicyclists appeared to be students. In the PM peak hour bicycle use along Commonwealth Avenue was heavier westbound (consistent with the peak traffic flows) and was observed to be as high as 250 bicyclists per hour at between Carleton Street and the BU Bridge.

Other roadways where a significant amount of bicycle traffic was observed include:

- Boston University Bridge (approx. 330 bikes in the AM peak and 235 in the PM peak)
- Mountfort Street, east of Carleton Street (approx. 90 bikes/hr in the AM and PM peaks)
- Kenmore Square (approx. 230 bikes in the AM Peak and 325 in the PM peak)

The bicycle counts performed in the spring of 2012 at the BU Bridge were compared with bicycle counts made in the spring of 2010 (by BU) and the fall of 2007 (by the BTD) at the BU Bridge. The data is summarized in Table 13 and indicates a growth in bicycle activity along Commonwealth Avenue that has average about 9 percent per year in the AM peak hour, and 27 percent per hour in the PM peak hour, since 2007.

Table 13 Peak Hour Bicycle Volume Trends on Commonwealth Ave. (2007 – 2012)

Location/Time Period	2007[2]	2010[3]	2012[4]	% Change 2007 to 2012	% Annual Change 2007 to 2012
Commonwealth Ave. at BU Bridge.					
AM Peak Hour[1]	414	340	609	+47%	+9.4%
PM Peak Hour[1]	222	467	522	+135%	+27.0%

[1] Volumes represent the sum of all bicycles entering the intersection.
[2] Source: BTD traffic counts, September 2007.
[3] Source: Boston University bicycle counts, April 2010.
[4] Source: Boston University traffic counts, March 2012.

Existing Bicycle Facilities

Since the 2003 Master Plan was completed several bicycle facilities have been installed in and around the CRC area. In fact, the bike lanes on Commonwealth Ave. between Kenmore Square and the BU Bridge were the first bike lanes to be installed in the City of Boston. After the successful installation of those bike lanes, the portion of Commonwealth Ave. between the BU Bridge and Brighton Ave. (Packards Corner) was re-striped to include bike lanes.

A recent addition (spring 2011) to the bicycle infrastructure in the CRC is the City's Hubway program, which allows members to "rent" bikes for one way trips between Hubway stations. The program has been very successful and the City has expanded the program for 2012, including adding stations in the cities of Cambridge and Somerville.



Currently the Hubway program has located three stations within the CRC. Those locations are:

- Commonwealth Ave. at Packards Corner (19 bike station)
- Commonwealth Ave. at Buick Street (19 bike station)
- Commonwealth Ave. at Kenmore Square (19 bike station)

A time line summarizing the recent history of bicycle infrastructure improvements in the CRC area is provided below. Existing bicycle facilities in the campus area are illustrated on Figure 16.

Bicycle Facilities Timeline

Year	Facility/Infrastructure
2007	Bike Lanes installed on Commonwealth Ave. between Kenmore Sq. and BU Bridge
2009	Bike Lanes installed on Commonwealth Ave. between BU Bridge and Packards Corner
2009/2010	Bike Lanes installed in Kenmore Square and on Beacon Street
Spring 2011	Hubway program installs bike stations on Commonwealth Ave.
Dec 2011	MassDOT installs bike lanes on BU Bridge

Existing Bicycle Storage

In response to the dramatic increases in bicycle use at the CRC, The University's Parking & Transportation Services office has significantly expanded the amount of bike storage on campus. Additionally, new University projects that have been recently constructed (e.g., JHSV Phase II and East Campus Student Services Center) have included bicycle storage as part of their building programs. The bicycle storage that has been added since the last Master Plan includes outdoor bike racks as well as secure indoor bike rooms or storage areas (e.g., indoor bike storage at Myles Standish Hall and an indoor bike storage area in the garage in Warren Towers). Since 2003 on-campus bike storage capacity has been increased from 1,295 bikes to 3,930 bikes, a 205 percent increase.

The location and number of indoor and outdoor bicycle storage facilities at the CRC as of 2011 (time of latest inventory) are illustrated on Figure 17A (west campus) and Figure 17B (east, central and south campus).

In the interest of safety and security for its students and their property, the University also has a voluntary bike registration program for students who have bicycles on campus. As of the fall 2011 semester, approximately 1,215 students have registered their bikes with the University's Parking & Transportation Services office.

Bicycle Storage Utilization

The most recent bicycle storage utilization survey conducted by Boston University at the CRC was performed on April 13, 2010. A count of all bikes "parked" on the campus was performed within a 2-hour window on that afternoon. Bikes secured at bike storage racks, bike rooms and non-bike storage equipment (e.g., trees, parking meters) were included in the count. This inventory provides a "snapshot" of bike use on-campus on a typical warm and sunny spring day.

The inventory found that a total of 1,482 bicycles were on the campus that afternoon, most of them in the central campus area (967 bicycles) or in the west campus area (343 bicycles).

3.5 Public Transportation (MBTA)

The Massachusetts Bay Transportation Authority (MBTA) has three service lines that have stops or stations within or near the University's CRC that faculty, staff, students and visitors could use in order to travel to/from the campus. Those service lines are:

- Green Line Trolley Service
- Bus Service
- Commuter Rail Service

MBTA Green Line

The MBTA Green Line B Branch provides trolley service between Boston College and Government Center stations. The B Branch operates on six-minute headways in the morning and afternoon peak periods, and on nine-minute headways during off-peak periods. In the Campus area, the current (spring 2012) passenger fare is $2.00 per trip ($1.70 with a Charlie Card). The MBTA recently announced that subway fares will increase to $2.00 on July 1, 2012 (with a Charlie Card). It is interesting to note that in 2003 the peak and off-peak headways were five minutes and eight minutes, and fares were $1.00 (free outbound west of Kenmore Square Station).

Within the CRC area there are a total of eight inbound and outbound MBTA Green Line B Branch stops located along the Commonwealth Avenue corridor. Those stops are as follows:

- Brighton Avenue (Packard's Corner)
- Babcock Street
- Buick Street/St. Paul Street
- Amory Street (BU West)
- St. Mary's Street (BU Central)
- Cummington Street (BU East)
- Silber Way/Blandford Street
- Kenmore Square

A notable change in Green Line operations that occurred since the 2003 Master Plan is the fare for outbound B Branch trips west of Kenmore Square. At the time of the 2003 Master Plan the MBTA did not charge fares for outbound trips. Starting in 2007, the MBTA's policy was modified and the Authority starting charging fares for those passengers. This change in policy had a noticeable impact on how students travelled between west and central campuses. As described above, pedestrian and bicycle use has increased in part due to the MBTA's policy change. This change also had a profound effect on demand for the Boston University Shuttle service (see below).

The most recent MBTA published passenger count data available for the Green Line service, compiled by the Central Transportation Planning Staff (CTPS), is available in the MBTA's *Ridership and Service Statistics*, 13th Edition, 2010 (the MBTA "Blue Book"). The data provided in the 2010 Blue Book is primarily from 2009 and it indicates that the Green Line B Branch serves approximately 28,000 passengers per day. In the CRC area, Green Line station boardings were among of the highest along the B Branch, with the Harvard Avenue station in Allston having the most boardings (approximately 4,000 per day). Daily boardings at the CRC stations are summarized in Table 14.

Table 14 2009 Boardings at MBTA Green Line B Branch Stations

Station	Daily Passenger Boardings[1]
Blandford Street	2,840
BU East	2,892
BU Central	2,524
BU West	899
St. Paul Street	814
Pleasant Street	1,014
Babcock Street	1,824
Brighton Avenue	1,571

[1] Source: *Ridership and Service Statistics*, 13th Edition, 2010.

In addition to the daily data, hourly passenger data collected in 2010 by the MBTA for the B Branch was reviewed to determine what the peak hour loads were in the trolleys passing through the campus area. Between the Brighton Avenue station (Packards Corner) and the Kenmore Square Station, the peak inbound load was measured to be 1,962 passengers at the St. Paul Street station. The inbound peak occurs between 8:00 AM and 9:00 AM. The peak outbound load was observed at the BU Central station (1,955 passengers). The outbound peak occurs between 5:00 PM and 6:00 PM.

For planning purposes, CTPS and the MBTA have identified the peak capacity of the B Branch as 101 passengers per car. This translates to an approximate planning capacity of 2,020 passengers per hour per direction (101 passengers per car, two cars per train set, running on six minute headways, or ten trains per hour). Actual Green Line passenger counts indicate that as many as 199 passengers can squeeze into a single car during the peak periods. This "crush" capacity of 199 passengers translates to a peak hour line capacity of approximately 3,980 passengers per hour.

Therefore, in the 2009 morning peak hour the B Branch is at approximately 97 percent of planning capacity and 49 percent of crush capacity as the trains pass through the Central Campus to Kenmore Station. In the afternoon peak hour, the B Branch is also at approximately 97 percent of planning capacity and 49 percent of crush capacity as the trains enter the Central Campus area from Kenmore Station.

For comparative purposes, peak passenger loads documented in the 2003 Master Plan (1997 data) indicated that the inbound peak load was 2,063 passengers and that the peak outbound load

was 1,522 passengers. Thus, the 2009 AM peak load of 1,962 is similar to the 1997 peak load while the 2009 PM peak load of 1,955 passengers represents a 28 percent increase from the 1997 passenger levels. Even with the increase, the PM peak load is still below the line's planning capacity and well below the line's crush capacity.

MBTA Bus Service

The primary MBTA bus route serving the CRC is the #57 Bus. The # 57 Bus provides service between Watertown Square and Kenmore Square. The buses operate on six-minute headways in the morning and afternoon peak periods, and on 11 minute headways during off-peak periods. The current (spring 2012) passenger fare is $1.50 ($1.25 with a Charlie Card). The MBTA also plans to increase bus fares as of July 1, 2012. After that date riding the #57 Bus will cost $1.50 per trip (with a Charlie Card). Headways in 2003 were six minutes (peak) and eight minutes (off-peak), with fares of $0.75.

The Kenmore Square MBTA Station is located at the eastern end of the CRC. At this station, passengers can catch several different buses if they are travelling to/from the campus, including the following routes

- #8 Bus (Dudley Square/U Mass)
- #19 Bus (Dudley Square/Fields Corner)
- #60 Bus (Longwood Medical/Brookline Village/Chestnut Hill)
- #65 Bus (Longwood Medical/Brookline Village/Brighton Center)

Other MBTA bus routes that pass through the CRC (over the BU Bridge to Mountfort Street) are the #47 Bus (Central Square to Longwood Medical) and the CT2 bus (Sullivan Square to Ruggles Station).

The most recent passenger data available for the #57 Bus Route available from CTPS and MBTA is from 2009. That data indicates that the #57 Bus carries approximately 11,500 passengers per day. Currently, there are a total of 10 inbound and 10 outbound bus stops for the #57 bus on Commonwealth Ave. in the CRC area. The station location and number of daily boardings and alightings are summarized in Table 15. Excluding the Kenmore Square Station, the busiest stops serving the campus are at St. Mary's Street, Silber Way/Blandford Street and Buick Street/St. Paul Street.

Table 15 2009 Boardings/Alightings at #57 Bus Stops within the CRC

	Daily Passengers[1]				
	Inbound		Outbound		
Bus Stop	Boardings	Alightings	Boardings	Alightings	Total
Kenmore Sq. Station	8	2,358	2,224	2	**4,592**
Silber Way/Blandford Street	24	390	546	2	**962**
Granby Street	28	269	272	8	**577**
St. Mary's Street	32	482	447	31	**992**
University Road	12	196	207	17	**432**
Amory Street	66	62	53	56	**237**
Buick Street/St. Paul Street	248	103	122	234	**707**
Harry Agganis Way/Pleasant St.	134	114	82	161	**491**
Babcock Street	231	86	90	178	**585**
1079 Comm. Ave./Naples Road	44	54	151	225	**474**

[1] Source: MBTA Bus Passenger counts, 2010.

The data available from the MBTA for the #57 Bus is limited to daily passenger counts, thus it was necessary for this Master Plan to estimate peak hour passenger use. What is known is the peak hour capacity of the 57 bus service. In peak periods the buses operate on approximate 6 minute headways, or 10 buses per hour per direction (inbound and outbound). For planning purposes, the MBTA and CTPS estimate the capacity of a MBTA bus to be 56 passengers. Therefore, the 57 Bus Line's capacity is approximately 560 passengers per hour (56 passengers per bus x 10 trips per hour). If 10 percent of the daily trips occurred during the peak hour (typically this is the relationship for traffic between the peaks and the daily volumes), then estimates for the number of passengers during peak periods can be made and compared to the carrying capacity of the service.

To estimate the peak loads in the CRC, the number of alightings were subtracted from the number of boardings for each stop along the inbound and outbound routes. On the inbound route, the peak load within the CRC occurs between the Pleasant Street stop and the Amory Street stop, where the peak load is estimated at 386 passengers per hour, or approximately 70 percent of the peak capacity. For the outbound route, the #57 bus peak load occurs between the St. Mary's Street stop and the Buick Street stop. The peak load is estimated to be approximately 364 passengers, or roughly 65 percent of the lines peak capacity. Consequently, the #57 bus does have available capacity during peak periods Note: the #57 bus can accommodate approximately 15 percent of the daily boardings during peak periods, therefore, a reasonable margin of error has been built into the calculation of the utilization rates for the service.

MBTA Commuter Rail

The Framingham/Worcester Line of the MBTA Commuter Rail service stops at the Yawkey Station, which is located less than ¼ mile from central and east campus areas. The current Yawkey Station is a single platform, "part-time" station, which means that every train on the MBTA's Worcester Line does not stop at the station. Currently, 18 of 41 trains per day stop at this station (9 inbound and 9 outbound), with 6 stopping during the AM peak period and 5 during the PM peak period.

According to the *MBTA Yawkey Station Feasibility Study* (August 2007) the Worcester Line transports approximately 20,000 passengers per day (inbound + outbound) in 41 trains per day. Approximately 585 passengers use the Yawkey Station on a daily basis. Passenger surveys conducted in 2008/2009 by the Central Transportation Planning Staff (CTPS) for the MBTA indicated that approximately 7 percent of the passengers alighting at the station have destinations at Boston University (approximately 32 passengers).

The MBTA has planned and designed an expansion of Yawkey Station and construction is scheduled to begin 2012. When completed, Yawkey Station will become a "full-time" station with inbound and outbound platforms. When completed all trains on the Worcester Line will stop at the station (41 per day, 21 inbound and 20 outbound). With the additional trains stopping at Yawkey station, passenger use at the station is projected to increase to 937 boardings/alightings per day.

Figure 18 illustrates the locations of the existing MBTA Green Line, Commuter Rail and Bus stops in the Campus area. Copies of the MBTA Green Line B Branch, Route 57 and Yawkey Station ridership data are provided in Appendix D.

3.6 Boston University Shuttle (BUS)

Boston University operates a shuttle service (BUS) that connects the Charles River Campus to the Boston University Medical Campus to facilitate travel and collaboration for students and faculty in both campuses. This is a change from the shuttle bus service that BU operated at the time of the 2003 Master Plan. At that time the shuttle service was limited to stops within the CRC and adjacent neighborhoods along Commonwealth Ave. (an intra-campus service vs. the current inter-campus service). For a short period of time BU suspended shuttle operations and when the service was reinstituted in 2004, it was expanded to provide a connection between campuses with, initially, a limited number of stops in the CRC.

The 2012 BUS service provides more stops in the CRC in addition to providing an important connection to the medical campus. Current students take full advantage of the expanded service, particularly those traveling between west campus and central campus (and especially on days of inclement weather). Use of the BUS has increased exponentially since 2004, in part due to the MBTA fare policy change for outbound Green Line riders (see discussion in the Public Transportation section). The University has increased service levels dramatically to keep up with the ever increasing demand.

Initially the BUS operated two buses during the peak periods on 30 minute headways. By 2012 the BUS service expanded to operate six buses on 10 minute headways during peak periods Monday through Thursday (five buses during peaks on Fridays). Additionally, to satisfy the peak period demands, the University recently increased the hourly carrying capacity of the service by using larger articulated buses instead of standard city bus-type vehicles during the peaks.

The BUS is free for users and operates five days per week between 7:00 AM and 12:00 AM. As noted above, during peak periods (7:00 – 10:00 AM and 4:00 – 8:00 PM) from Monday through Thursday the BUS operates on 10 minute headways. During off-peak times it operates with 20

minute headways. On Fridays the BUS operates on 10 minute headways during peak periods and 20 minutes headways in off-peak periods.

Starting in the fall of 2011, the University made live BUS tracking available on BU Maps (www.bu.edu.maps) so that users have real-time information for bus locations traveling along the route. The real-time tracking is available on personal computers and on iPhones (via an application developed by BU Mobile).

Recent passenger data for the BUS, collected in the fall 2011 semester, indicates that the BUS provides service to over 5,800 passengers per day, which translates to approximately 1.6 million passenger trips per year when including services provided in the summer semesters.

The current route and BUS stops within the CRC campus are shown on Figure 19. A complete listing of the BUS stops is as follows:

- Harry Agganis Way (inbound + outbound)
- Amory Street (inbound + outbound)
- St. Mary's Street (inbound + outbound)
- Silber Way (inbound + outbound)
- Hotel Commonwealth (inbound)
- Huntington Ave. (inbound + outbound)
- Albany Street (inbound + outbound)
- Danielsen Hall (outbound)
- Myles Standish Hall (outbound)



Note: Inbound refers to the route from the CRC to the Medical Campus and Outbound refers to the return trip from the Medical Campus to the CRC.

The following chart presents a summary of BUS service milestones.

BUS Service Milestones

Academic Year	Service Change
2004-2005	• Shuttle bus service reinstituted with four stops: Silber Way, Huntington Avenue, Albany Street, and Danielsen Hall. • Service hours: 7:30 AM – 10:30 PM • Service Frequency: 30 minute peak (2 buses) • Stop added at Harry Agganis Way in spring 2005
2005-2006	• service hours increased to 7:00 AM - 12:00 AM
2006-2007	• Peak period headways reduced to 20 minutes (3 buses)
2007-2008	• Peak period headways reduced to 15 minutes (4 buses)
2008-2009	• Night and weekend service added with 15 minute headways and service hours ending at 2:30 AM Sun. - Wed. and 4:30 AM Thu. - Sat
2009-2010	• Peak period headways reduced to 10 minutes M-Th (6 buses) • Off-peak headways reduced to 20 minutes (3 buses) • Peak headways on Fridays = 12 minutes (5 buses)
2011-2012	• Live, real-time BUS tracking on BU Maps (for computers or iPhones) • 2 new stops added: Myles Standish Hall and Hotel Commonwealth • morning and afternoon rush-hour buses were added for the summer semesters

3.7 Parking

Although the Charles River Campus is located in an urban setting and has good public transit connections, there is a necessity to provide an adequate amount of parking at the campus to safely and efficiently accommodate those who travel to campus via automobiles. As noted above, only 44 percent of daily commuters travel to campus via automobiles. However, a large University like BU has many visitors who come to campus every day for a variety of reasons (academic conferences, artistic performances or lectures, family visits by perspective students, etc.), and many of them may arrive by automobile. Thus, to ensure that the parking demands associated with the University do not have a negative impact on the surrounding neighborhoods, it is critical for the University to have an appropriate supply of parking.

There are three types of parking within the CRC that drivers coming to the campus could use:

- Off-street parking facilities owned and operated by BU
- On-street parking on private alleys owned (or shared) by BU
- On-street parking along public ways that are regulated by the BTD

3.7.1 Boston University Parking Facilities

Boston University owns and operates nine major off-street surface parking lots and four parking garages. In addition, the University regulates on-street parking along several alley ways in each of the sub-campus areas, as well as a variety of small miscellaneous off-street parking areas located throughout the campus.

The locations of the University's major off-street surface parking lots are illustrated in Figure 20, and include:

- 1 and 3 University Road (central campus)
- 240 Bay State Road (central campus)
- 655 Commonwealth Avenue (central campus)
- 730/750 Commonwealth Avenue (central campus)
- 766 Commonwealth Avenue (central campus)
- 549 Commonwealth Avenue (east campus)
- 286 Babcock Street (west campus)
- 25 Buick Street (west campus)
- 808 Commonwealth Avenue (west campus)

Parking garages owned and operated by Boston University, also shown on Figure 20, are located at:

- 700 Commonwealth Avenue (central campus)
- 575 Commonwealth Avenue (east campus)
- 595 Commonwealth Avenue (east campus)
- 925 Commonwealth Avenue (west campus)

Table 16, organized by campus area, summarizes information related to the parking facilities owned and operated by the University and includes data pertaining to the facility's street address, facility type and number and type of parking spaces. Table 16 also includes data related to the smaller University-owned off-street lots and on-street alley parking spaces owned by the University.

The central and west campus areas accommodate most of the University's parking supply with approximately 35 percent of the total located in central campus and 45 percent located within west campus. In total, Boston University provides 3,709 parking spaces within the CRC, of which 2,725 spaces are reserved for BU permitted vehicles, 242 spaces (in two surface lots) are

"pay-on-entry" spaces and the remaining 742 spaces (at the JHSV site) are shared by both BU permit holders and pay-on-entry customers. Additional information regarding the location, times of operation and fees (if applicable), of the major Boston University parking facilities can be found on the Parking & Transportation Services page of the Boston University web site at: http://www.bu.edu/maps/

In the 2003 Master Plan, Boston University reported a total of 3,072 parking spaces, a difference of 637 parking spaces as compared to the current conditions. Table 17 provides a detailed comparison of the parking supply data reported in the 2003 IMP to current 2012 conditions. Since 2003 several major changes have occurred on the Boston University campus which account for the differences described in Table 17. These include:

- An increase of 668 parking spaces at the John Hancock Student Village site. The net difference of 668 spaces is comprised of 640 new spaces in the Agganis Arena Garage, 102 new spaces in the C-2 lot and a reduction of 74 spaces at the C-1 lot.
- An increase of 62 spaces at the Granby parking lot which was realized when the old Burger King structure was demolished and the adjacent surface lot increased.
- The loss of the entire Deerfield parking lot (69 spaces) where the new East Campus Student Services Building is currently being constructed.
- The loss of 24 spaces attributed to restriping the parking spaces as several facilities by the University.

3.7.2 Parking Permit Program

Use of the off-street and on-street parking facilities described above is limited and is regulated by the University through a Parking Permit program administered by the University's Parking & Transportation Services Office. The University issues two sets of permits; one to Boston University faculty and staff, and the other to the students. Detailed descriptions of the various permits issued by the University including information regarding parking policies, costs and restrictions can be found on the Parking & Transportation Services website: http://www.bu.edu/parking/

Table 18 provides a summary of the faculty and staff parking permit program, including which lots/garages the permit allows the user to park in and the fees charged for each permit (weekly, by semester and annually). Table 19 provides the parking permit and fee data for Boston University students. Table 20 provides a summary of the number of parking permits issued by the University in the Fall 2011 semester.

Boston University strongly discourages students from bring their cars onto campus, either on a daily basis as commuters or if they live on-campus, and in fact limits the number of permits issued to students each year. In the Fall 2010 semester for example, the University only issued 216 BLUE permits (day commuter) for an undergraduate enrollment of approximately 15,500 students. In addition, overnight parking by students on Campus is also severely limited. In the Fall 2010 semester only 205 ORANGE permits were issued that allow students to park overnight on-street in the alleys in the central and south campus areas.

Table 16 Boston University Off-Street Parking Facilities

Lot ID	Parking Lot	Address	Facility Type[1]	Atten-dent[2]	2012 Capacity BU Permits	Cash Only	Cash/ Permit Spaces	Total
	Central Campus							
G	Sargent - Lower Bridge	3 University Rd.	S	N	42	- -	- -	42
H	Bridge and Academy	1 University Rd.	S	Y	67	- -	- -	67
J	CAS and George Hart Way	240 Bay State Rd.	S	Y	168	- -	- -	168
K	Warren Towers	700 Comm. Ave.	G	Y	481	- -	- -	481
N	Granby	655 Comm. Ave.	S	Y		126	- -	126
Q	730/750 Comm. Ave.	730 Comm. Ave.	S,D	N	138	- -	- -	138
R	766 Comm. Ave.	766 Comm. Ave.	S	N	83	- -	- -	83
	Alley - Bay State Road	Bay State Road Alley	Alley	N	125	- -	- -	125
	Miscellaneous							- -
	Lenox	10 Lenox St.	S	N	6	- -	- -	6
	10 Essex Street	10 Essex Street	S	N	9	- -	- -	9
	Other				77	- -	- -	77
	Central Campus Total				**1196**	**126**	**0**	**1322**
	East Campus							
L	575 Comm. Ave.	575 Comm. Ave.	G	N	117	- -	- -	117
M	School of Management	595 Comm. Ave.	G	Y	269	- -	- -	269
O	Kenmore	549 Comm. Ave.	S	Y		116		116
	Alley - Bay State Road	Bay State Alley	Alley	N	108	- -	- -	108
	Miscellaneous							
	LAZ Lot	677 Beacon St.	S	N	2	- -	- -	2
	Deerfield		S	N		- -	- -	0
	Other				- -	- -	- -	- -
	East Campus Total				**496**	**116**	**0**	**612**
	South Campus							
	Alley - South Campus	S. Campus Alley			103	- -	- -	103
	South Campus Total				**103**	**0**	**0**	**103**
	West Campus							
A	Agganis Arena Garage	925 Comm. Ave.	G	Y	- -	- -	640	640
B	Babcock & Annex	286 Babcock St.	S	Y	361	- -	- -	361
C-1	C-1 Lot	30 Harry Agganis Way	S	N	37	- -	- -	37
C-2	C-2 Lot	925 Comm. Ave.	S	Y	- -	- -	102	102
D	25 Buick Street	25 Buick Street	S,D	Y	144	- -	- -	144
E	CFA Lot	855 Comm. Ave.	S	N	41	- -	- -	41
F	808 Comm. Ave.	808 Comm. Ave.	S,G	Y	263	- -	- -	263
S	890 Comm. Ave.	890 Comm. Ave.	S	N	46	- -	- -	46
	Alley - 985 Comm. Ave.	985 Comm. Ave. Alley	Alley	N	20	- -	- -	20
	Miscellaneous							
	120 Ashford Street	120 Ashford St.	S	N	11	- -	- -	11
	SHA	928 Comm. Ave.	S	N	5	- -	- -	5
	1019 Comm. Ave.	1019 Comm. Ave.	S	N	2	- -	- -	2
	Other				- -	- -	- -	- -
	West Campus Total				**930**	**0**	**742**	**1672**
	Charles River Campus Total				**2725**	**242**	**742**	**3709**

1 S = Surface Lot, G = Garage, D = Parking Deck
2 Lot is staffed by an attendant during normal business hours or during events

Table 17 Parking Supply Comparison (2003 to 2012)

Lot ID	Parking Lot	2003	2012	Net Difference	See Footnote
	Central Campus				
G	Sargent - Lower Bridge	144	42	-35	1
H	Bridge and Academy		67		
J	CAS and George Hart Way	156	168	12	1
K	Warren Towers	503	481	-22	1
N	Granby	64	126	62	2
Q	730/750 Comm. Ave.	122	138	16	1
R	766 Comm. Ave.	106	83	-23	1
	Alley - Bay State Road	131	125	-6	1
	Miscellaneous			0	
	Lenox	0	6	6	3
	10 Essex Street	0	9	9	3
	Other	72	77	5	1
	Central Campus Total	**1298**	**1322**	**24**	
	East Campus				
L	575 Comm. Ave.	111	117	6	1
M	School of Management	268	269	1	1
O	Kenmore	116	116	0	
	Alley - Bay State Road	114	108	-6	1
	Miscellaneous				
	LAZ Lot		2	2	3
	Deerfield	69	0	-69	4
	Other	21	0	-21	1
	East Campus Total	**699**	**612**	**-87**	
	South Campus				
	Alley - South Campus	102	103	1	1
	South Campus Total	**102**	**103**	**1**	
	West Campus				
A	Agganis Arena Garage	0	640	640	5
B	Babcock & Annex	300	361	61	1
C-1	C-1 Lot	111	37	-74	5
C-2	C-2 Lot	0	102	102	5
D	25 Buick Street	187	144	-2	1
E	CFA Lot		41		
F	808 Comm. Ave.	232	263	31	1
S	890 Comm. Ave.	0	46	46	3
	Alley - 985 Comm. Ave.	21	20	-1	1
	Miscellaneous				
	120 Ashford Street	0	11	11	3
	SHA	0	5	5	3
	1019 Comm. Ave.	0	2	2	3
	Other	122	0	-122	1
	West Campus Total	**973**	**1672**	**699**	
	Charles River Campus Total	**3072**	**3709**	**637**	

[1] Restriping spaces; [2] Demolition of old Burger King Building; [3] In 2003 these spaces were accounted for in a general miscellaneous category; [4] Construction of new Student Services Building; [5] John Hancock Student Village Site Development

The University encourages employees to use non-automobile modes to travel to campus while discouraging faculty and staff from driving to Campus. Boston University makes it easy for employees to purchase MBTA passes via payroll deduction, while at the same time charging significant parking fees for those employees who do bring their vehicles to Campus. The annual fee for employees commuting on a daily basis to the Campus (GREEN Permit) is $1,155.96. For those faculty and staff who park overnight on the Campus (BROWN Permit), the annual fee is $1,650.48. These fees represent a significant increase since the 2003, when the GREEN permit cost approximately $904.80 per year (an approximate 28 percent increase) and a BROWN permit cost approximately $1,237.08 (an approximate 33 percent increase).

Table 18 Boston University Faculty/Staff Parking Permit Program and Fees

			Fees		
Permit	**Time Period**	**Parking Lots**	**Weekly**	**Semester**	**Annually**
GREEN					
Daytime Commuter	6:00 AM to 1:00 AM	All lots (excluding Granby and Kenmore)			
	6:00 AM to 11:00 PM	700 Comm. Ave. and SMG Garages, and Agganis Arena Garage	$22.23	N/A	$1,155.96
BROWN					
Resident Faculty/Staff	6:00 AM to 1:00 AM or 6:00 AM to 11:00 PM. or Overnight	As posted in garages, lots or alleys in central, east south or west campus areas (excluding Granby and Kenmore "pay on entry" lots) .	$31.74	N/A	$1,650.48
RED					
Pay on Entry	6:00 AM to 1:00 AM	Attended surface lots only (excluding Granby and Kenmore)	Pay on Entry: $8 to $40 per day depending upon the lot		
	6:00 AM to 11:00 PM	700 Comm. Ave. and SMG Garages			
WHITE					
Evening Commuter	2:30 PM to 1:00 AM	All lots ((excluding 766, 575,Granby and Kenmore)			
	2:30 PM to 11:00 PM	700 Comm. Ave. and SMG Garages		$80.00	
CARPOOL					
	6:00 AM to 1:00 AM	All lots (excluding Granby and Kenmore)			
	6:00 AM to 11:00 PM	700 Comm. Ave., SMG and Agganis Arena Garages	$22.23	N/A	$1,155.96
MOTORCYCLE	6:00 AM to 1:00 AM	All lots (excluding Granby and Kenmore)			
	6:00 AM to 11:00 PM	700 Comm. Ave., SMG and Agganis Arena Garages	$7.20	N/A	$374,40

Source: Boston University Parking & Transportation Services Office.

Table 19 Boston University Student Parking Permit Program and Fees

Permit	Parking		Fees			
			Semester 1	Semester 2	Combined	Summer
BLUE Daytime Commuter	6:00 AM to 1:00 AM	Valid at Babcock St, 808 Commonwealth Avenue				
	3:00 PM to 1:00 AM	All lots (except Agganis Garage, C-1, C-2, 575 Comm. Ave. and 766 Comm. Ave.)	$400.14	$444.60	$844.74	$311.22
	3:00 PM to 11:00 PM	700 Comm. Ave. and SMG Garages				
ORANGE Overnight	Overnight	As posted east of the BU Bridge (Back Street Area, Bay State Road alleys, Audubon Circle) and in the west campus areas.	$571.32	$634.80	$1,206.12	$444.36
BLACK Pay on Entry	6:00 AM to 3:00 PM	Valid at Babcock St, 808 Commonwealth Avenue				
	3:00 PM to 1:00 AM	All lots (except Agganis Garage, C-1, C-2, 575 Comm. Ave. and 766 Comm. Ave.)	Pay on Entry: $8 to $40 per day depending upon the lot			
	3:00 PM to 11:00 PM	700 Comm. Ave. and SMG Garages				
WHITE Evening Commuter	2:30 PM to 1:00 AM	All lots (except Agganis Arena Garage, C-1, C-2, 575 Comm. Ave. and 766 Comm. Ave.)	$80.00	$80.00	$160.00	$80.00
	2:30 PM to 11:00 PM	700 Comm. Ave. and SMG Garages				
CARPOOL	6:00 AM to 1:00 AM	Valid at Babcock St, 808 Commonwealth Avenue				
	3:00 PM to 1:00 AM	All lots (except Agganis Garage, C-1, C-2, 575 Comm. Ave. and 766 Comm. Ave.)	$400.14	$444.60	$844.74	$311.22
	3:00 PM to 11:00 PM	700 Comm. Ave., SMG and Agganis Arena Garages				
MOTORCYCLE	6:00 AM to 1:00 AM	All lots (except Agganis Garage and C-1 and C-2)	N/A	N/A	$374.40	N/A
	6:00 AM to 11:00 PM	700 Comm. Ave., SMG and Agganis Arena Garages				

Source: Boston University Parking & Transportation Services Office.

Table 20 Boston University Parking Permits Issued in the Fall 2010 Semester

Permit	Faculty/Staff	Student	Total
GREEN - Daytime Commuter	3,430	0	3,430
BROWN - Resident Faculty/Staff	90	0	90
RED - Pay on Entry	258	0	258
WHITE - Evening Commuter	574	510	1,084
BLUE - Daytime Commuter	0	216	216
ORANGE - Overnight	0	205	205
BLACK - Pay on Entry	0	144	144
CARPOOL	6	0	6
MOTORCYCLE	28	8	36
YELLOW[1]	146	0	146
Handicap	94	10	104
Temporary	255	64	319
EMBA[2]		35	35
Total	**4,881**	**1,192**	**6,073**

Source: Boston University Parking & Transportation Services Office.
[1] Yellow Permits are issued to Physical Plant and Trades staff.
[2] Grad Program (Fridays and Saturdays only).

3.7.3 Parking Utilization

Boston University conducts daily counts of many of its larger parking facilities as well as periodic counts of many of its smaller facilities. Table 21 provides a comparison of the existing parking supply to count data obtained over a three month period in the fall of 2011. Daily counts were typically obtained at 10:00 a.m. and 1:30 p.m. The utilization data represents the peak parking demand that was observed, usually at the 1:30 p.m. count. It total, approximately 3,100 vehicles were parked on-campus. As shown in the Table 21, Boston University utilizes approximately 83 percent of its available parking capacity. Parking facilities in central and east campus areas are more heavily utilized than those in the west and south Campus areas, but still have reserve capacities of greater than six percent. As parking utilization is within a comfortable range on campus, i.e., not requiring long hunts for parking, spill over onto neighborhood streets is not a problem in the vicinity of the campus.

A comparison of vehicles parked on-campus (3,093) to the number of day-time permits (4,784 - excluding white and orange permits) indicates a daytime permit to on-campus vehicle ratio of approximately 1.5 permits/on-campus vehicle. This reflects the nature of the campus where faculty, staff and students are not typically on campus for a full day or present every day of the week.

Table 21 2011 Parking Supply versus Demand

Campus	Permitted	Cash	Cash/ Permit	Total	Reserve Capacity
Central					
Supply	1196	126	0	1322	
Occupied	1093	114	0	1207	
Available	103	12	0	115	9%
East					
Supply	496	116	0	612	
Occupied	473	101	0	574	
Available	23	15	0	38	6%
South					
Supply	103	0	0	103	
Occupied	73	0	0	73	
Available	30	0	0	30	29%
West					
Supply	930	0	742	1672	
Occupied	820	0	419	1239	
Available	110	0	323	433	26%
Charles River Campus					
Supply	3365	242	102	3709	
Occupied	2789	215	89	3093	
Available	576	27	13	616	17%

Source: BU Parking & Transportation Services Office Fall 2011 Counts

Other Boston University-Owned Parking

In addition to the parking spaces managed by the University's Parking & Transportation Services office, there are parking spaces dispersed throughout the campus that are related to residential or commercial properties owned by the University. These spaces are designated for use by the tenants of those properties and may be required by zoning to support the functionality of the property. In total there are 242 such spaces owned by the University. Of the 242 spaces, 76 are associated with residential properties, 62 with residential properties for graduate students and 104 spaces are designated to support commercial properties. 73 of these spaces are located in the east campus area, 56 in central campus, 75 in south campus and 38 of them are in west campus.

3.7.4 On-Street Parking

An inventory of on-street parking spaces within the Campus area not regulated by Boston University was also conducted to update the data from the previous Master Plan. These spaces are primarily metered spaces regulated by the BTD or spaces restricted for use by the BTD for Allston/Brighton and Fenway/Kenmore residents (i.e., resident permit parking).

In the vicinity of central campus, there are 308 four-hour metered parking spaces located along Commonwealth Avenue, Bay State Road, Cummington Street, and Granby Street. Ten three-hour metered spaces are located on the west side of St. Mary's Street.

On the roadways serving south campus, parking is predominately limited to residential parking (approximately 190 spaces). However, 19 three-hour metered spaces and five two-hour metered

spaces are located along the west side of St. Mary's Street, and 49 two-hour metered spaces are located on the north side of Beacon Street.

Within the east campus area, roadways including Commonwealth Avenue, Beacon Street and Bay State Road (east of Deerfield Street) provide a total of 223 two-hour metered spaces. 94 four-hour metered spaces are located along the east side of Blandford Street and Silber Way and on Bay State Road, west of Deerfield Street. Approximately 59 residential parking spaces are located along Beacon Street and Bay State Road.

In the west campus area, two-hour metered parking spaces are located along Commonwealth Avenue, Harry Agganis Way, Babcock Street (south of Commonwealth Avenue), Pleasant Street, St. Paul Street and Amory Street. Four-hour metered spaces are located on Babcock Street (north of Commonwealth Avenue), Gardner Street, Ashford Street, Acorn Street and Malvern Street. A total of 33 parking spaces are restricted for use by the Boston Police Department in the vicinity of the northeast corner of the Commonwealth Avenue/Babcock Street intersection. Please note that the meters in the west campus area that are located on the side streets south of Commonwealth Ave. are owned and regulated by the Town of Brookline.

Figure 21A illustrates the location, type and number of on-street metered parking in the west campus area, and Figure 21B illustrates the on-street parking in the central, east and south campus areas. Table 22 provides a summary of the on-street spaces in the West, Central, East and South Campus areas. As noted in Table 22, a total of approximately 1,350 on-street parking spaces are available within the immediate area of the CRC.

Table 22 On-Street Parking Summary

	Campus Area				
Type	**West**	**Central**	**East**	**South**	**Total**
2 Hour Meters (8 AM - 6 PM M-SAT)	195	- -	223	54	472
2 Hour Meters (Except 8 AM - 10 AM)	8	- -	- -	- -	8
2 Hour Meters (8 AM - 4 PM M-SAT)	9	- -	- -	- -	9
3 Hour Meters (8 AM - 6 PM M-SAT)	8	10	- -	19	37
4 Hour Meters (8 AM - 6 PM M-SAT)	220	308	- -	- -	528
Total Metered Spaces	*440*	*318*	*223*	*73*	*1,054*
Reserved for Boston Police	33	- -	- -	- -	33
Fenway/Kenmore Resident		- -	59	190	249
Allston/Brighton Resident	11	- -	- -	- -	11
Total On-Street Spaces	**484**	**318**	**282**	**263**	**1,347**

3.8 Loading and Service

An inventory of existing loading docks and on-street loading zones was performed in the CRC area. Within the campus there is a mix of service area types. For example, BU facilities such as those at the JHSV, the Field House on Ashford Street and the School of Management Building have off-street loading docks or service areas. At other buildings, such as the building housing the Facilities and Athletic Departments near the intersection of Babcock Street and Ashford

Street rely on designated on-street loading zones in order to fulfill some of their loading and servicing functions.

Recently constructed University projects provide as much loading and servicing at off-street facilities as possible. For example the East Campus Student Services Center, which is currently under construction, will be serviced via off-street loading docks and trash compactors.

Figure 22 illustrates the number and location of loading docks and service bays at Boston University buildings as well as designated on-street loading zones in the CRC area.

3.9 Traffic Management for Special Events

The University has developed over the years a variety of strategies to manage traffic and parking during large events at the Charles River Campus. Some management strategies have been formalized in written documents such as how traffic and parking is managed for events at the Harry Agganis Arena at the John Hancock Student Village (JHSV). That plan, known as the Agganis Arena Special Events Logistics Plan (AASELP) was codified with the Boston Transportation Department through the Transportation Access Plan Agreement (TAPA) for the JHSV site that was endorsed by the City and the University. Other management strategies for events like Commencement have evolved over time as University has addressed issues as they have arisen with these events.

The AASELP, prepared when the Arena opened in early 2005, documented the expected demands associated with various events that the University anticipated would be hosted at the facility, the parking capacity that would be available for attendees, the expected impacts on the transportation system that would result from the events and operating procedures to mitigate those impacts.

The procedures outlined in the AASELP addressed how the University would manage a variety of transportation elements to ensure the safe and efficient operations for all who are attending events at the Agganis Arena. Those elements included:

- Guest parking
- Parking meters
- Police details
- Bus access and parking
- Truck access and loading
- Public transportation

Since 2005, the standard operating procedures developed for the AASELP have been refined as the University and Boston Police Department have learned from experience how best to handle operations before and after events. However, the basic operational framework from the AASLEP remains intact and over the past seven years the impacts on the surrounding transportation network or to adjacent neighborhoods has been kept to a minimum. A copy of the full AASELP is provided in Appendix E.

The University's Parking & Transportation Services Office has developed operating procedures for other events or venues at the CRC, including:

- Commencement
- Orientation
- "Move-in/Move-out" periods
- Athletic events at the Track & Tennis Center
- Athletic events at Nickerson Field
- Spring and Fall "Open Houses"
- Snow Emergencies

The Parking & Transportation Services Office makes information pertaining to travel and parking options available for attendees of University events available on their website. Following is just a few examples of the events for which guidance is provided on-line:

- Commencement: http://www.bu.edu/commencement/2012/parking.shtml
  http://www.bu.edu/commencement/2012/disability.shtml#parking
- Open Houses: http://www.bu.edu/parking/?page_id=3381&preview=true
- Agganis Arena Events: http://www.bu.edu/agganis/directions/parking.html
- Move-in period: http://www.bu.edu/parking/2011-move-in/student/

4.0 Future Transportation Conditions

This Master Plan looks ahead to the transportation conditions that are expected in 2022. The evaluation of the future 2022 conditions considers several factors:

- Institutional projects that may be constructed in the next 10 year period
- Expected changes in the area's transportation infrastructure
- Measures to minimize transportation impacts of the institutional projects.

The following sections describe the University's proposed development projects and the infrastructure projects that are expected to occur within the next 10 years that would be constructed by the City, MassDOT or the MBTA.

4.1 Proposed Institutional Projects

In the IMPNF, Boston University identified nine institutional projects that may be constructed within this Master Plan's time frame, as well as six public realm improvement projects that are expected to be implemented under this Master Plan. Of the nine potential development projects, four projects were previously approved in the 2010 Master Plan Renewal or in the Planned Development Area (PDA) Master Plan for the John Hancock Student Village (JHSV) site.

The evaluation of the future transportation conditions considers the effects that all nine institutional development projects may have on the future transportation network. The public realm projects identified in the IMPNF have also been factored into the future analysis, as those projects may have an impact of traffic, pedestrian or bicycle circulation, or on the on-campus parking supply.

4.1.1 Institutional Projects Previously Proposed/Approved

New Balance Field

The New Balance Field site is located at the existing surface parking lot on the block in west campus that is bound by Babcock Street, Ashford Street, Alcorn Street and Gardner Street. The site currently consists of an older multi-story building used by the University for storage and a 361-space surface parking lot. The building will be razed and an athletic field constructed on a deck structure. Parking will be located beneath the deck and in a small surface lot at the west end of the site. A total net loss of approximately 13 spaces is expected due to this project. Seating for 500 attendees will be provided at the field. Pedestrian and bicycle improvements are plan for Babcock Street to enhance access for those modes to the field. A transportation and parking demand management plan is being developed for the site, for both the construction phase and the final conditions.

Admissions Reception Center

The project is located at 233 Bay State Road and is primarily a renovation of an existing building owned by the University. Space at the building is to be expanded slightly to meet current building codes and accessibility requirements. The current Admissions Reception Center is located at 121 Bay State Road so impacts to the transportation network in the central and east

campus areas will not be significant has visitors are already traveling to this part of campus today.

The project will have an impact on some of the University's off-street parking in the area immediately adjacent to the site, at the CAS lot (Lot J) and along George Hart Way. It is anticipated that a total of 24 parking spaces could be lost in this part of campus due to this project plus the School of Law project.

4.1.2 Future Institutional Projects

John Hancock Student Village Phase III (Site AA)

This project would consist of the third and final residential tower to be constructed at the JHSV site. It is anticipated that the building would add 523 new beds to the on-campus housing inventory. The site is currently a surface parking lot (Lot C-2) that has 102 shared spaces (BU parking permits and pay-on-entry). Lot C-2 is utilized for daily parking and for Agganis Arena event parking. It has not been determined at this time if subsurface parking will be included in the building program. However, through previous PDA approvals for the JHSV site, the University is permitted to construct up to 1,000 parking spaces at the site. Currently there are approximately 780 spaces at the JHSV site.

School of Law (Site BB)

The Boston University School of Law is located at 763-767 Commonwealth Ave. the project is a combination of rehabilitating the existing School of Law building (195,000 sf) plus an expansion of approximately 125,000 sf. Currently, there are seven parking spaces located at the project site. No parking is proposed at the site when construction is completed.

Academic Building at 645-665 Commonwealth Avenue (Site CC)

The site is located at the corner of Commonwealth Avenue and Granby Street. The current site is a surface parking lot with 126 spaces (pay on entry). Proposed project would house academic uses and could be approximately 280,000 sf in size. It has not been determined if the building program will replace the existing parking in a sub-surface garage

Academic Building Addition (DD)

The site is located at 640 Commonwealth Ave. and the project would potentially increase an existing 84,000 sf academic building by approximately 50,000 sf. No parking is provided at the site and none is proposed. Transportation impacts are expected to be negligible.

Science and Engineering Research Building (EE)

The site is located at 30-38 Cummington Street (soon to be the Cummington Mall) and will consist of the replacement of an approximate 38,000 sf building with potentially a 165,000 sf academic building. The site does not have parking currently and no parking will be included in the building program.

Academic/Administrative Building at 130 Bay State Road (FF)

The project is a rehabilitation/expansion project at two buildings owned by the University. Impacts to the transportation network or to on-campus parking are not anticipated.

Myles Standish/Myles Standish Annex Residence Hall Rehabilitation (Site GG)

The site is located on Beacon Street on the eastern edge of Kenmore Square. It is a rehabilitation of two existing residence halls that house approximately 660 students. There may be a small reduction in the number of beds at the facilities as a result of addressing current building code requirements and accessibility requirements. No parking is provided at this site currently. No appreciable impact to the transportation network is expected due to this project.

4.1.3 Public Realm Improvements

The IMPNF identified five public realm improvements that are likely to be implemented by the University within this Master Plan. A brief summary of the projects and their potential transportation impacts are summarized below.

Commonwealth Avenue Phase 2A

Positive impacts for vehicular, bicycle and pedestrian circulation and safety. Some impacts to the on-street parking supply. A more detailed description of the project is provided in Section 4.2 (Proposed Transportation Infrastructure Projects)

Commonwealth Avenue at BU Bridge

Positive impacts on pedestrian circulation are expected as the sidewalk will be widened between University Road and the BU Bridge to alleviate the pedestrian "pinch point" in the vicinity of an existing bus shelter.

Commonwealth Avenue MBTA Safety Improvements (CAP1A)

Positive impacts on pedestrian safety and circulation as well as MBTA passenger accessibility at the Blandford Street station. A more detailed description of the project is provided in Section 4.2 (Proposed Transportation Infrastructure Projects).

Cummington Street Mall

Positive impacts for pedestrian circulation and safety along Cummington Street. Project will have an impact on the existing on-street parking supply. Approximately 133 BTD parking meters will be removed and four handicapped parking spaces relocated. Vehicle traffic will be limited to emergency vehicles or authorized vehicles (deliveries made to BU buildings).

Granby Street Pocket Park

No impacts on the transportation network are anticipated because of this project.

Granby Street/Silber Way Pedestrian Way

Positive impacts on pedestrian and bicycle travel in the central campus area are expected from this project. The project will have a negative impact on the campus parking supply. Approximately 74 parking spaces could be permanently lost due to this project.

Bay State Road/Beacon Street Pocket Park

Project is expected to have a positive impact. Project should slow vehicles entering Bay State Road and may reduce cut-through traffic. Pending the design, it is possible that a few on-street parking spaces could be added.

The location of the Master Plan projects (previously approved, new institutional projects and public realm projects) are shown on Figure 23.

4.2 Proposed Transportation Infrastructure Projects

There has been a tremendous amount of transportation planning, design and construction that has occurred in and around the Charles River Campus since the filing of the 2003 Master Plan, and Boston University has been an active participant in many of these efforts. The next 10 years look to be equally as active, and the University expects to continue to partner with the City and MassDOT to ensure that planned improvements for the area's transportation infrastructure are implemented as rapidly as fiscally possible.

There are six transportation infrastructure projects that are in various levels of planning or design that are likely to be completed by 2022. Those projects are described below and have been incorporated in the analysis of the future conditions.

Commonwealth Avenue Phase 2A (CAP2A)

This project will be a continuation of the Commonwealth Avenue Phase 1 improvements (CAP1), beginning at Amory Street where CAP1 ended and extending west to the intersection with Alcorn Street. The project includes pedestrian and bicycle improvements, traffic safety and operational improvements, landscaping and street furniture improvements/ enhancements. The project also envisions implementing safety improvements within the MBTA reservation, as well as modifications to the MBTA station platforms to bring them into compliance with ADA requirements.

Boston University has been instrumental in advancing these improvements. While the technical aspects of the project are being directed by the Boston Transportation Department, the University has stepped forward in the spirit of public/private partnership and is funding the design and permitting costs of the project. The University has also been the driving force behind securing federal funding that will pay for a substantial portion of the construction costs. The construction will be managed by MassDOT.

The project design is currently at the 25% level. The project's 25% design hearing was held on March 28, 2012 and the Boston MPO has included the project on the most recent four-year Transportation Improvements Plan (TIP) for the year 2015.

Some key roadway design features include:

- Reducing the number of through lanes on Commonwealth Ave. westbound from three to two.
- Creation of protected left turn lanes on Commonwealth Ave. westbound at Buick Street/St. Paul Street and Babcock Street
- Prohibition of left turns on Commonwealth Ave. westbound at Harry Agganis Way/Pleasant Street
- Creation of a protected left turn lane on Commonwealth Ave. eastbound at Harry Agganis Way/Pleasant Street
- Installation of curb extensions at the intersections wherever feasible

- Relocation of some MBTA bus stops because of the proposed curb extensions

The improvements will result in a loss of approximately 35 on-street metered parking spaces along Commonwealth Ave. primarily to accommodate the new left turn lane at Harry Agganis Way/Pleasant Street, the proposed intersection curb extensions and the bus stop relocations.

Figures 24A, 24B and 24C present the project's 25 percent design plans, including proposed landscape and streetscape enhancements.

Commonwealth Avenue MBTA Safety Improvements (CAP1A)

This project will install and upgrade safety fencing in the MBTA reservation along Commonwealth Avenue between Kenmore Square and Carleton Street, completing safety improvements that were not undertaken as part of CAP1 improvements. Known as the CAP1A project, it includes modifications to the station platforms at the Silber Way Station in order to make them ADA accessible.

Boston University was again instrumental in securing a grant from the U.S. Department of Transportation to fund the construction of the project, which will be managed by the MBTA. Because of the current poor fiscal situation at the MBTA, the University has offer to partner with the MBTA and fund the design of the improvements, as well as funding the required 20 percent "local" match needed to access the federal grant money. Design is expected to start in 2012 and take approximately one year to complete. Thus, construction of this project could start in 2013 or 2014.

Commonwealth Avenue Deck Replacement

This project will replace the severely deteriorated Commonwealth Avenue bridge deck over the Turnpike. The condition of the deck is so poor that part of the CAP1 improvements could not be implemented and this portion of Commonwealth Avenue was skipped over during construction of CAP1. The bridge is actually comprised of three separate structures, Commonwealth Avenue inbound, Commonwealth Avenue inbound and the MBTA tracks/reservation.

MassDOT is responsible for the design and construction of the project. The latest information provided by MassDOT is that the project may include work on the Carlton Street Bridge deck consistent with the long range improvement plans of the Commonwealth Avenue Phase 2B project (see below). Construction is expected to start in 2013 and last for two construction seasons (2013 – 2014). The initial construction season of 2013 will likely be dedicated to utility relocations on both bridge structures. MassDOT is considering using accelerated construction techniques to reconstruct the bridge decks.

Commonwealth Avenue Phase 2B (CAP2B)

This project is another example of Boston University's willingness to support City and State efforts to make improvements to the region's transportation system. The University has invested significant amount money to fund the technical analyses and the development of improvement options for this area.

The project will be a MassDOT project and will address the portion Commonwealth Avenue between University Road and Amory Street left out of CAP1 due to excessive complications with the deteriorating bridge deck over the Turnpike. The project will also extend to portions of the BU Bridge, Carleton Street, Mountfort Street, Essex Street and University Road. MassDOT

led a working group that looked at a variety of traffic, pedestrian and bicycle improvement options for this area. The working group includes representatives from Boston University, the BTD and BRA, Brookline, Cambridge and the Department of Conservation and Recreation. MassDOT and the working group recently completed a planning study that made recommendations for long term improvements for this area, which will include the following elements:

- Remove traffic islands at the BU Bridge/Commonwealth Ave. intersection which will reduce the number of pedestrian crosswalk crossings from three to one, provide additional pedestrian storage capabilities at the northeast and northwest corners of the intersections and generally "tighten-up" the intersection geometry. These measures will greatly enhance pedestrian safety at the intersection.
- Signalize the University Road approach to Commonwealth Ave. and provide an exclusive pedestrian WALK phase for the University Road crosswalk.
- Construct a "punch-through" at the intersection of Mountfort Street and Carleton Street that will allow westbound drivers on Mountfort Street destined for the BU Bridge to travel directly through to the bridge rather than having to use Carleton Street and Commonwealth Avenue to access the BU Bridge.
- Modify the existing cross-section on the Carleton Street Bridge.

The Commonwealth Ave. and Carleton Street bridge deck improvements/modifications will be constructed by MassDOT as part of the Commonwealth Avenue Deck Replacement project (see above). The remaining components of this project will be constructed later by MassDOT as a separate project. Initial information from MassDOT indicates that the later elements could be constructed in the 2016 - 2017 time-frame.

The conceptual plan for the Commonwealth Ave. Phase 2B developed by MassDOT in March 2012 is illustrated in Figure 25. The plan shows the proposed lane configuration at the three subject intersections as well as the potential signal phasing schemes for each intersection.

Yawkey Commuter Rail Station

The project is the initial phase of Meredith Management Corporation's Parcel 7 Air Rights Development project (Kenmore Center project). This project will transform Yawkey Station into a full service multi-modal station with inbound and outbound platforms (there is only one platform today to serve both directions of travel). Major modifications will make the platforms fully ADA accessible from the headhouses on Beacon Street via elevators. When completed, the station will become a full-time rather than part-time station on the MBTA Worcester Commuter Rail Line. Construction has been delayed by legal actions, but a recent court decision has freed the project to go forward and construction could start in 2012.

St. Mary's Street Bridge

This project will repair the bridge deck, sidewalks, and railings on this thoroughfare. MassDOT is overseeing the project and anticipates redesign to be complete in late 2011. Construction will begin in 2012 and conclude within one season.

Other Long-Range Projects

In addition to the projects described above there are other, longer-range transportation initiatives that may be active in the planning and design phases within the next ten years, such as the Urban Ring Phase 2 project. The proposed circumferential Bus Rapid Transit (BRT) service would connect the MBTA's existing radial transit lines. Boston University has been an active participant in the MassDOT endeavor throughout the planning and design phases of this project as its proposed alignment passes through the CRC at the critical Commonwealth Avenue/BU Bridge nexus. MassDOT suspended planning activities for the project as of January 2010 due to funding constraints. Planning could potentially be re-activated during this Master Plan period if the state's transportation funding landscape improves. If so, the University would resume its active participation in the planning process.

4.3 Institutional Project Impacts

From a Master Planning perspective, the impacts of the projects are approximate and have been developed in order to provide a sense of the cumulative effects of the project by the end of the Master Plan period. Each project will be required to go through large project or small project review by the BRA, and will be subject to review by the Boston University Task Force. Under Article 80 of the Boston Zoning Code, large institutional projects will be required to file a PNF and a DPIR that will document the impacts of the projects in significant detail.

Quantifying all of the potential transportation impacts of individual Master Plan projects is a difficult task to undertake at this time because most of the projects are still early in the planning/design processes (or the planning process has not yet begun). There are some aspects of the projects that are better understood by the University at this time, so better data pertaining to impacts can be documented. Examples of these aspects include potential impacts to on- and off-street parking, or the number of student beds that may be added or lost for the residence hall projects. Other aspects are less understood at this time, such as the number of new employees (faculty or staff) that may be associated with any particular project. Changes in employment levels are important, as these levels directly translate to trip generation at the campus.

In general, the University expects employment levels to be relatively stable over the Master Plan period. However, for this analysis, to account for the expected increase in building area associated with the potential Master Plan projects, a modest growth in employment of between two and three percent has been assumed for the next 10 years. With the 2011 baseline employment of approximately 5,700 employees at the CRC (full time equivalents), an increase of 2.5 percent translates to approximately 150 additional employees.

In general, adding new student beds will reduce the project impacts on the transportation network. More students living on campus reduces the number of commuters to campus and reduced the pressures on the roadway and the transit systems. There are about 580 new beds planned for Phase III of the JHSV site. At the Myles Standish residence hall, the proposed rehabilitation will likely result in a net loss of 10 to 20 percent of the 660 beds due to current building code and accessibility requirements. Therefore, overall by 2022 a net increase in on-campus housing capacity is expected by 2022. However, for the transportation analysis in this Master Plan, no reduction in campus trip generation has been assumed because of the proposed beds. Thus, the transportation analysis presented in the future case is conservative in nature.

Again, it is important to reiterate that each of the institutional projects will all undergo further and more detailed reviews as part of the BRA's design review processes when the projects are ready to be implemented by the University.

The following sections describe the potential impacts of the projects (in a cumulative manner) at the end of the Master Plan period on the various components of the local transportation network.

4.3.1 Traffic

The first step in evaluating the potential impacts on traffic flow in the CRC area that may result from the projects was to determine the expected number of new vehicles that will travel to and from the campus during the peak periods. To estimate those trips, the existing mode split for automobile trips (single occupancy plus car/van pools) was applied to the number of "new" employees assumed for this analysis. The current mode split for all vehicle trips is approximately 47 percent.

The University expects this proportion to decrease of the course of the Master Plan as expanded programs and incentives to use other modes should reduce the number of automobile trips to the CRC. However, to present a conservative analysis, the current mode split has been assumed for the future year analyses. Therefore, of the 150 employees, it is estimated that approximately 70 will arrive by vehicle. It was also assumed that 75 percent of the trips would occur during the AM or PM peak periods. Therefore, 53 vehicles were assigned to the future AM and PM traffic models. The traffic was assigned in in accordance with the approximate trip distribution pattern described in Section 2. Most of these trips were assumed to travel to/from the central campus area as that is where the majority of the Master Plan projects are located.

In addition to the potential traffic associated with the University's Master Plan projects, several other factors were incorporated into the traffic modeling of the future traffic network. These factors included adjustments to traffic volumes or adjustments to the roadway system. The changes incorporated into the analyses include:

- Existing traffic volumes were increased by 0.25 per year from 2012 to 2022 in accordance with the requirements outlined by the BTD in their comment letter on the IMPNF. This "background" growth rate accounts for development traffic outside the immediate area of the University that may use Commonwealth Ave. (i.e., regional traffic growth).

- Traffic from other development projects in close proximity to the CRC that are expected to be completed within the Master Plan period. The other projects that have been assumed to have an influence on operations at Master Plan intersections include:

    - Kenmore Center (large, mixed use project on Turnpike Air Rights Parcel 7)

    - 121 Brookline Avenue (hotel project)

    - 60-66 Brainerd Road (residential project)

- Proposed changes to the roadway system that will be constructed as part of the Commonwealth Avenue Phase 2A project including:
    - New left turn lane on Commonwealth Ave. eastbound at Pleasant Street
    - Left turn restriction on Commonwealth Ave. westbound at Harry Agganis Way
    - Signal phasing and timing changes
- Proposed changes to the roadway system that will be constructed as part of the Commonwealth Avenue Phase 2B project including:
    - Geometric and signal changes at the intersection of Commonwealth Ave./BU Bridge/Essex Street
    - Geometric and signal changes at the intersection of Mountfort Street/Carleton Street
    - Geometric and signal changes at the intersection of Commonwealth Ave./Carleton Street
    - Installation of signal control on the University Road approach to Commonwealth Ave.

Figure 26 presents the lane configurations at the Master Plan intersections and reflect the geometric changes associated with the Commonwealth Avenue Phase 2A and 2B projects. Traffic circulation changes associated with the Cummington Mall project are also included in Figure 26. Changes from current traffic lane arrangements are shown on Figure 26 in red.

Future AM and PM peak hour vehicle trips associated with the Master Plan projects that have been assigned to the traffic study network are illustrated on Figure 27. The traffic volumes used for the analyses of future peak hour conditions (including the Master Plan project trips from Figure 27) are shown on Figure 28 (2022 AM peak) and Figure 29 (2022 PM peak). The results of the future AM and PM peak hour analyses using these volumes are summarized in Table 23. Detailed analysis results that presents data for traffic operations and queuing by traffic movement at each Master Plan intersection are provided in Appendix F. Appendix F also includes copies of the Synchro traffic model output sheets for all of the intersections.

The analysis results in Table 23 indicate that the future traffic conditions in the CRC area in general will be very similar to the conditions in 2012, even with the conservative set of assumptions associated with proposed Master Plan projects. This is due in part to the low number of new trips that would be generated by University uses, and the decline in traffic volumes along the Commonwealth Avenue corridor that has occurred over the past 10 years.

Most of the forecast changes in operations are limited to a few extra seconds of vehicle delay at Master Plan intersections. There are several intersections where the level of service will degrade because of the additional delays projected. There are also intersections where operations are

forecast to be better than the current conditions. The intersections where the largest changes are expected include:

Intersections with Operational Impacts

- Commonwealth Avenue at Carleton Street/University Road (PM peak hour changes from LOS C to LOS D). This change is a result of adding the University Road approach to the signal operations and introducing new signal phases to the operations. LOS D is still an acceptable peak hour condition and the pedestrian safety benefits that will be realized with this change for users of the University Road crosswalk outweigh the minor impact to traffic flow.

- Kenmore Square (AM operations drop from LOS D to LOS E and PM operations degrade from LOS E to LOS F). The change in the PM peak hour operations are of more concern as the volume-to-capacity ratio is forecast to be slightly above the intersections capacity (1.03). The change is a result of additional traffic growth at this intersection by 2012. The traffic increases are from the Kenmore Center project, the 121 Brookline Avenue project, and to a lesser extent, the traffic associated with the University's institutional projects.

- Mountfort Street at Carleton Street (AM peak degrades from LOS B to LOS C) Changes in traffic circulation and additional traffic phases as this location cause the drop in LOS. However, LOS C is an acceptable peak hour level of operation.

Intersections with Operational Improvements

- Mountfort Street at St. Mary's Street (AM peak improves from LOS D to LOS C). Improved operations are expected with re-timing of the signal to provide more time to the Mountfort Street approaches (part of the Mountfort Street improvements).

- Commonwealth Ave. at Amory Street (PM peak improves from LOS B to LOS A). Improved operations are a result of signal re-timing and signal coordination along the Commonwealth Ave. corridor.

Table 23 Future Intersection Level of Service Results

	AM Peak Hour			PM Peak Hour		
Location	**v/c[1]**	**Delay[2]**	**LOS[3]**	**v/c[1]**	**Delay[2]**	**LOS[3]**
Signalized Intersections						
Brighton Ave & Commonwealth Ave	0.76	38.6	D	0.82	44.6	D
Commonwealth Ave & Babcock Street	0.65	23.3	C	0.68	19.9	B
Commonwealth Ave & Harry Agganis Way	0.60	19.1	B	0.69	17.3	B
Commonwealth Ave & Buick Street	0.92	25.0	C	0.84	29.1	C
Commonwealth Ave & Amory Street	0.74	10.5	B	0.67	9.2	A
Commonwealth Ave & BU Bridge	0.88	32.3	C	0.9	37.4	D
Commonwealth Ave & Carlton Street	0.74	24.5	C	0.72	39.0	D
Commonwealth Ave & St. Mary's St.	0.41	5.1	A	0.44	7.8	A
Commonwealth Ave & Cummington St.	0.32	12.7	B	0.48	15.2	B
Commonwealth Ave & Granby Street	0.40	8.0	A	0.42	11.8	B
Commonwealth Avenue & Silber Way	0.41	8.4	A	0.49	10.9	B
Commonwealth Ave & Beacon Street (Kenmore Square)	0.95	57.4	E	1.03	87.2	F
Mountfort Street & Carlton Street	0.91	32.6	C	0.65	23.8	C
Mountfort Street & St. Mary's St.	0.47	25.9	C	0.63	40.6	D
Unsignalized Intersections						
Ashford Street & Babcock Street						
Ashford Street EB LR	0.08	9.2	A	0.07	9.7	A
Babcock Street NB L	0.01	6.7	A	0.03	5.3	A

[1] v/c = Volume to capacity ratio

[2] Delay = Average delay in seconds per vehicle

[3] LOS = Level of Service

* = Indicates that Degree Utilization was used in place of volume to capacity ratio

Table 23 (cont'd) Future Intersection Level of Service Results

Location	AM Peak Hour v/c[1]	AM Peak Hour Delay[2]	AM Peak Hour LOS[3]	PM Peak Hour Delay[1]	PM Peak Hour v/c[2]	PM Peak Hour LOS[3]
Unsignalized Intersections						
Ashford Street & Alcorn Street						
Alcorn Street NB LR	0.01	9.7	A	0.03	9.6	A
Gardner Street & Babcock Street						
Gardner Street EB LR	0.14	10.4	B	0.13	10.0	B
Babcock Street NB L	0.04	3.1	A	0.01	1.7	A
Gardner Street & Alcorn Street						
Gardner Street EB LTR	0.13*	7.7	A	0.16*	7.7	A
Gardner Street WB LR	0.03*	7.2	A	0.04*	7.2	A
Alcorn Street NB TR	0.04*	7.4	A	0.07*	7.6	A
Alcorn Street SB LT	0.03*	7.6	A	0.04*	7.6	A
Bay State Road & Granby Street						
Bay State Road EB R	0.01*	6.7	A	0.01*	6.7	A
Bay State Road WB LT	0.26*	8.4	A	0.26*	8.4	A
Bay State Road & Silber Way						
Bay State Road WB LTR	0.16*	10.2	B	0.16*	10.2	B
Silber Way NB LT	0.11*	8.5	A	0.11*	8.5	A

[1] v/c = Volume to capacity ratio

[2] Delay = Average delay in seconds per vehicle

[3] LOS = Level of Service

* = Indicates that Degree Utilization was used in place of volume to capacity ratio

4.3.2 Pedestrians

As has been described earlier in this Master Plan, providing safe and efficient pedestrian circulation within the CRC is a paramount concern for the University. As each institutional project is planned and designed, high quality pedestrian connections to the building from the existing pedestrian network will be a key provision.

At the Admissions Reception Center project for example, the sidewalk area immediately in front of the building will be expanded and "traffic calming" treatments will be incorporated into the design to ensure the pedestrian crossing at Bay State Road is as visible and safe as possible. Another example is the New Balance Field project, where the University is working with the BTD to implement changes along a portion of Babcock Street that will make that street consistent with City's *Complete Streets* guidelines.

In the future, the same high level of consideration will be given for projects like the academic buildings at 645 – 665 Commonwealth Avenue (Site CC), where pedestrian connections to the facility will be integrated with the proposed Granby Street Pocket Park project and the proposed pedestrian way connecting Granby Street to Silber Way along the northern edge of the site.

Nearly all of the public realm projects that have been identified in this Master Plan will also improve pedestrian safety and circulation within the campus. The Commonwealth Avenue Area at the BU Bridge project, for example, will have a significant positive impact for pedestrian circulation as the project will alleviate the pedestrian "pinch point" along the Commonwealth Avenue north sidewalk.

As each of the public realm and institutional project are implemented under this Master Plan, the pedestrian network within the CRC will be improved and made safer.

4.3.3 Bicycles

Since the last Master Plan, the University has a demonstrated history of expanding and enhancing bicycle facilities and safety at the Charles River Campus, as well as supporting City initiatives to enhance bicycle safety in Boston. The result of these efforts is that the CRC area has become one of the more "bike friendly" areas in Boston. The University's proactive philosophy regarding bicycle safety and the need to incorporate bicycle accommodations into the design of their facilities will continue during this Master Plan period.

Secure, indoor bike storage rooms, for example, have been incorporated into the design of the most recently constructed residence hall at 33 Harry Agganis Way (JHSV Phase II). The University has also constructed indoor bicycle storage in older student residential buildings such as Myles Standish Hall and Warren Towers. When the University is prepared to move forward with the next residence hall project, JHSV Phase III, indoor bike storage will be included in the design

The University has installed outdoor bicycle storage at the academic buildings that it has constructed, and will continue to do so in the future. The East Campus Student Services building, which is currently under construction, is a good example. Bicycle racks for approximately 100 bicycles will be provided at that site. Bicycle racks will also be provided at the proposed New Balance Field project on Babcock Street. In addition, the University is working with the City to install bike lanes, where feasible, on Babcock Street adjacent to the new Balance Field site.

It is important to note that the University satisfies two interests by providing the appropriate amount of bike storage at its facilities. The first is the student demand for such equipment and the second is to protect the University's investment in landscaping and streetscape equipment within the campus. If inadequate bicycle storage is provided, the students will chain their bikes to whatever is available at the site, often resulting in damage to trees and equipment such as ornamental lamp posts. Consequently, the University has responded quickly when the lack of bike storage has been observed. The University's perspective on this issue is part of the reason that the dramatic expansion in bike storage described above has occurred on the campus since the last Master Plan. The University fully anticipates that bike demands at each new facility will be met. If the initial amount of bike storage is not adequate, it will be expanded so the demand can be accommodated at the bike racks to avoid student securing their bicycles to other equipment.

4.3.4 Public Transportation

Construction of University planned projects over the course of this Master Plan are not expected to have a significant effect on the capacity of the three MBTA services that serve the CRC area (Green Line, #57 Bus and Commuter Rail). As was noted in the discussion of existing conditions on the MBTA's Green Line B Branch and #57 Bus, peak loads are below the carrying capacity of each service type. Based on the estimates of the potential growth in employment levels at the CRC (for transportation analysis purposes only), and the current modal split at the campus, the potential increase in MBTA ridership is projected to be approximately 50 passengers (150 employees x transit mode share of approximately 31 percent). When distributed over the course of an hour, three different service types, and split between travel directions (inbound vs. outbound), the impact to any one transit vehicle will be minimal.

Where greater increases in MBTA ridership could come from is the University's continuing efforts to reduce vehicular trips to campus for current employees. Travel Demand Management (TDM) strategies being pursued by the University (discussed below) will result in a shift from cars to other modes, including public transit. Precisely how much of a shift will occur over the course of this Master Plan is difficult to predict because of factors outside the control of Boston University (e.g., MBTA fare increases/service cut-backs or the price of gasoline).

If the TDM programs could achieve a five percent shift from automobiles to transit, for example, this would translate to approximately 250 additional transit passengers. Decreasing trips to the campus by this many vehicles would have significant benefits for the local and regional roadway networks and reduce the campus' carbon footprint. Given that during peak periods the Green Line Branch is at 49 percent of "crush capacity" and the #57 Bus is at 70 percent of capacity, there is availability on both services to accept this level of potential new passengers.

The University views the proposed Yawkey Station Improvements Project as having the potential to serve as catalyst to get a segment of its workforce out of cars and onto transit. A substaintail number of current employees live in communities along the Worcester Commuter Rail line (approximately 1,130 employees, of which 472 already purchase MBTA passes through the University and 487 purchase parking permits) and may consider using the train to commute once the station becomes a full-time station. When completed, passengers will be able to ascend from the platform level up to Beacon Street within the station. Once at Beacon Street, they can access the pedestrian stairs at the southern end of Blandford Street. Therefore, it will be a short 10 to 15 minute walk from the new Yawkey Station to most facilities in the east and central campus areas. Over time, new employees may choose to locate in the communities along the Worcester Line in order to avail themselves of this service for their commute to work at the University.

4.3.5 Parking

Several of the previously approved and new institutional projects will likely have impacts on parking at the CRC. The impacts to parking fall into two categories: construction phase impacts and permanent impacts.

Construction Phase Impacts

Although construction impacts are temporary in nature, the University has carefully considered the effects the loss of these spaces will have on its employees, visitors and its neighbors. The project with the most significant construction phase impacts is the previously approved New Balance Field project as the current site is primarily a surface parking lot with 361 spaces. During much of the construction of the new athletic field all 361 spaces will be off-line from the University's parking inventory. The University has identified mitigation measures that will result in directing current users (primarily University employees) to other parking facilities in the University's system without impacting the surrounding neighborhood. The PNF filed with BRA provides greater detail pertaining to the parking impacts and proposed mitigation measures.

Permanent Impacts

There are several institutional projects that could have an impact on the campus' parking supply during the Master Plan period. The projects with potentially the greatest amount of permanent impacts to the campus parking supply are:

<u>Previously Approved</u>

- Admissions Reception Center: -24 spaces
- New Balance Field: -13 spaces

<u>New Projects</u>

- 645-665 Commonwealth Ave. Academic Buildings (Site CC): -126 spaces
- JHSV Phase III (Site AA): -102 spaces

<u>Public Realm Projects</u>

- Granby Street to Silber Way Pedestrian Way: -74 spaces
- Cummington Street Pedestrian Mall: -133 spaces (public, on-street parking meters primarily used by drivers traveling to adjacent BU buildings)

A cumulative accounting of the permanent impacts to the University's parking inventory expected to occur during this Master Plan period is presented in Table 24. For this summary, the "worst case" scenario for parking impacts has been assumed for Site AA (JHSV Phase III) and Site CC (Academic Buildings at 645-665 Comm. Ave.), whereby construction of replacement parking at the site as part of the project was not considered. The final determination as to parking at each of these sites will be made when the projects are funded and the design is undertaken. Consequently, the amount of permanent parking impacts could be less than what is shown in Table 24.

Table 24 Potential Master Plan Projects Parking Impacts

Project	Site	Expected Year (if known)	Construction Phase Impacts	Permanent Impacts	On-Street Parking Impacts
Institutional Projects					
JHSV Phase III[1]	AA		- -	(-102)	- -
New Balance Field		2013	(-361)	(-13)	- -
Admissions Reception Center		2012	- -	(-24)	- -
School of Law	BB	2014	- -	- -	- -
Academic Buildings[1]	CC		- -	(-126)	- -
Academic Building Expansion	DD		- -	- -	- -
Science and Engineering Bldg.	EE		- -	- -	- -
Academic/Administrative	FF		- -	- -	- -
Myles Standish Hall/Annex	GG		- -	- -	- -
Public Realm Projects					
Comm. Ave. Phase 2		2015	- -	- -	(-35)
Comm. Ave. at BU Bridge		2013	- -	(-10)	- -
Cummington Street Mall		2012	- -	- -	(-133)
Granby St. Pocket Park			- -	- -	- -
Granby St./Silber Way Pedestrian		2014	- -	(-74)	- -
Bay State Rd Pocket Park			- -	- -	- -
TOTAL				**(-349)**	**(-168)**

NOTES
[1] Permanent impacts assume "worst case" scenario where parking spaces lost at the site are not replaced.

If the maximum impact of 331 spaces is realized by the end of the Master Plan period, the total inventory of BU owned and operated spaces would be reduced from 3,709 to 3,378 spaces (an impact of approximately nine percent). As noted in Table 21, parking utilization counts performed in the fall 2011 semester revealed that approximately 616 spaces were available on campus during the peak parking period of a typical day. Therefore, provided that the existing demand for parking does not increase, the parking system could absorb the projected loss of 331 spaces (leaving a potential available capacity of approximately 285 spaces, or an 8 percent availability rate). However, if the demand were to increase rather than remain stable or decrease, then parking availability will become tighter and managing the future inventory as efficiently as possible will become even more critical. This underscores the importance of the University's efforts to reduce the number of vehicle trips to the campus (particularly single occupancy vehicles) through its TDM strategies.

4.3.6 Loading and Servicing

Current service activities at buildings within the CRC campus are handled for the most part at off-street at designated loading docks. Provision of off-street servicing of buildings is a design objective that the University requires for new projects as they are being planned. Precisely how loading and servicing will be handled for any particular project will become known as the design of these projects is advanced. Information related to how proposed buildings will be serviced will be documented in the PNF and DPIR that will be prepared for the project. The BU Task

Force, BTD and the BRA will have ample opportunity to review and comment on the proposed building servicing features through the City's permitting processes.

4.3.7 Construction Impacts

Any potential impacts associated with the construction of an institutional project will be fully documented in the PNF and DPIR prepared for each project; and the BU Task Force, BTD and BRA will have opportunity to comment on the impacts and any mitigation measures proposed by the University. Additionally, a Construction Management Plan (CMP) will also be prepared for each institutional project. The CMPs, which must be approved by the BTD prior to commencement of construction, will be prepared with consultation with BTD staff and the project's construction managers.

The CMP prepared for each project will address issues such as:

- Designated construction trucks routes
- Work hours
- Construction worker parking
- Truck idling and dust control
- Pedestrian circulation and safety near the work zone
- Traffic management and police office control
- Impacts to on-street parking (meters)

The CMP will be customized for each project as the circumstances and potential impacts are unique to each project site. However, based on past experience, the University recognizes the potential impacts of construction trucks and construction worker parking can have on abutters and will work with the community and the BTD to ensure that truck traffic is restricted from residential streets such as Bay State Road to the degree possible. Likewise, the University will work with construction manager or general contractor to ensure that construction worker parking is accommodated at University-owned parking facilities or that the workers are encouraged to take public transportation or to car pool to the job site.

5.0 Mitigation

As noted in the introduction to this Master Plan, Boston University has developed a set of transportation goals that seek to

1. *Improve safety and efficiency for all modes with particular emphasis on pedestrian and bicycle safety*
2. *Increase the use of sustainable modes of those employees and students who are currently commuting to the Charles River Campus in single occupancy vehicles.*
3. *Minimize the University's traffic and parking impacts on the adjacent communities*

The strategies developed by the University to achieve Transportation Goal # 2 and Transportation Goal #3 serve as the basis for the University's Campus Transportation Mitigation Program for the 2012 – 2022 Master Plan. Thus, the Transportation Mitigation Program for the Charles River Campus has two fundamental components, which are listed below and described in subsequent sections:

- Transportation Demand Management (TDM) Measures / Sustainability Initiatives
- Traffic and Parking Management for Special Events

5.1 Transportation Demand Management/Sustainability

The University's Parking & Transportation Services office has previously established a set of initiatives with the goal of reducing the number of vehicles on campus and increasing use of sustainable modes. These programs, many of which have been noted previously, are described in the following sections.

5.1.1 Commuting

Ride Matching Program

The University provides a ride-matching service for car and van pools. Boston University faculty and staff can conveniently participate in the ride-matching services by completing an on-line Ride-Matching form on the Parking Services web page: http://www.bu.edu/parking/alt/rideshare/

The form prompts the applicant for the following data to result in the most desirable match possible:

- The First Five Digits of Your Zip Code
- Gender Preference (if specified)
- Smoking Preference (if specified)
- Driving Preference
- Work Schedule (Work Days, Departure times, Return times

In the most recent commuting survey prepared by Boston University (December 2010), the number of daily commuters arriving on campus in car or van pools was 2.3 percent. In December of 2002 the amount of car/van pool participants was 1.5 percent.

MBTA Pass Program

University employees can purchase MBTA monthly passes through by payroll deduction on a pre-tax basis.

The most recent data available (Fall 2011 and Spring 2012 semesters) indicates that purchases of monthly MBTA passes through pre-tax payroll deduction by Boston University employees averaged 799 per month. This compares with 692 employees who participated in this program in 2002, an approximate 15 percent increase.

Student MBTA Semester Pass and Corporate Pass Programs

Boston University students can purchase Semester MBTA Passes through the Parking & Transportation Services Office via the University web page. The semester pass is good for four months and affords students an 11 percent discount off the regular monthly MBTA pass costs.

In the most recent academic semester (Spring 2012), 3,148 Boston University students purchased MBTA Semester Passes through the University.

Boston University Shuttle (BUS)

Boston University provides a free shuttle bus service for faculty, staff and students that connects the Charles River Campus with the BU Medical Campus. This service allows students from either campus to travel between the campuses for academic or other purposes without having to use a private automobile.

Based on data collected from the Fall 2011 semester, the BUS serves over 1.6 million passengers per year.

Bicycle Facilities

Over the past 10 years the University has installed a significant amount of bicycle storage racks or bicycle rooms throughout the campus making bicycle travel to the campus (and within the campus) convenient for users. All institutional projects constructed in the future will provide an appropriate amount of bicycle storage as part of the project's development program. Additionally, the University has been a strong supporter and fiscal partner with the City for infrastructure projects like Commonwealth Phase 2A that will include bicycle lanes.

As of the Fall 2011 semester there was bicycle storage capacity on campus for 3,930 bicycles, more than tripling the on-campus storage capacity since 2003. Bicycle use along Commonwealth Avenue has increased dramatically since the installation of bicycle lanes, with use estimated at approximately 3,000 bicyclists per day.

Bicycle Safety

In an effort to promote bicycle safety and responsibility on-campus, students are encouraged to register their bicycles with the University's Parking & Transportation Services Office, who issued bicycle decals to registrants. Students can register their bikes with the Parking & Transportation Services Office on-line at: http://www.bu.edu/bikesafety/bike-registration/

The BUPD co-sponsors bicycle sales/raffles with the George Sherman Union at which the BUPD bike officers or Community Policing officers discuss bicycle safety. BUPD staff are made available for bicycle safety clinics upon request by any Boston University staff, faculty or student group. In addition, bicycle safety and security are discussed at Residence Assistant and Residence Hall Association meetings held throughout the year. There is also a student bicycle

club which sponsors events during the academic year. Information regarding their activities can be found at http://www.bu.edu/bike/.

As of the fall 2011 semester, approximately 1,215 students have registered their bikes with the University's Parking & Transportation Services Office. In 2003 only 240 bicycles were registered with the University.

Zipcar

Zipcar (http://www.zipcar.com/) offers shot term use of private vehicles for members who reserve vehicle use in advance. Typically, the vehicles are parked in designated spots in off-street lots which must be accessible 24-hours a day. Currently, there are seven Zipcars within the Campus area. These are located at:

- 17 Bay State Road (2 vehicles)
- BU surface lot at Granby Street (3 vehicles)
- BU surface lot at 766 Commonwealth Ave. (2 vehicles)

In addition, there are an additional 15 Zipcar vehicles located in Boston or Brookline within a short walking distance of the CRC (approx. ¼ mile)

Zipcar also offers specific programs designed for universities and students. Information pertaining to these programs can be found at: http://www.zipcar.com/universities/

In 2003 there were only four Zipcars located in the vicinity of the campus, and none of those were located on-campus.

Maintain or Increase the Number of Students Living On-Campus

The proportion of undergraduates living on campus is approximately 76 percent. The University forecast that the proportion of undergraduates living on campus will stabilize at about 75 percent in the future.

Approximately 583 additional student beds are proposed as part of Phase III of the John Hancock Student Village Project (Site AA).

5.1.2 Parking Management

Parking Fees

Fees are charged for all Boston University Parking Permits for faculty, staff and students (i.e., there is no free parking at the Charles River Campus). Annual Parking Permit Fees for University employees range from $1,155.96 (Green permits) to $1,650.48 (Brown Permits). Student Parking Fees range from $844.74 (day time commuter) to $1,206.12 (overnight).

Boston University has increased parking permit fees by 28 percent for Green Permits and by 33 percent for Brown Permits since 2003. Student parking permit fees have increased by 31 percent (daytime commuter) and 37 percent for overnight permits since the 2003 Master Plan.

Limit Student Parking

The University severely restricts the number of parking permits issued to undergraduate students.

In the Fall 2010 semester, the University issued only 205 Overnight Parking Permits to students who live on Campus and 216 daytime permits for an undergraduate enrollment of over 15,000 students.

Limiting Construction of New Parking Spaces

Over the course of the last Master Plan, the University limited the number of new spaces provided at institutional projects, or constructed new buildings with no parking. During this Master Plan the University anticipates that, in general, this philosophy of limiting parking will be continued. However, each project will be carefully evaluated and a determination regarding parking will be on a project by project basis. A key factor in this determination will be a project's impact on the existing parking supply and the parking demand situation at the time the project is going through the City's permitting process.

The East Campus Student Services Building, the School of Law and the Admissions Reception Center projects will be constructed without parking, and in fact the three projects will result in a net loss of approximately 95 spaces. A further net loss in parking will occur as a result of the New Balance Field project and the Granby Street – Silber Way Pedestrian Way public real project (approximately additional 80 spaces).

5.1.3 New or Enhanced Strategies

The University is considering a number of additional measures to meet its goal of reducing the number of commuters who arrive in single occupancy vehicles, and to manage future parking demands with a parking supply that is expected to be reduced as a result of institutional and public realm projects that are expected to be constructed during the life of this Master Plan.

The strategies being considered for implementation include:

- Maintaining appropriate parking fees to discourage employees from driving alone to campus
- Provide a parking permit discount for employees who are in a current car/van pool, or who form a new car pool.
- Set aside spaces for car or van pools at highly desirable parking locations within the CRC. It is anticipated that this "preferential" parking initiative will have the most influence on driver behavior if implemented in the central campus area.
- Provide preferential parking for drivers who drive to campus in hybrid or electric vehicles.
- Develop a tiered system for the daily parking permits where drivers desiring to park in lots or garages located in the central campus area are charge higher fees than their colleagues who park in west campus.
- Institute a policy where employees who live within a certain radius of the will no longer be eligible to purchase a parking permit campus (for example 1 mile or less).

- Start a "Try the T" program, where employees who currently drive alone to campus and have a Green parking permit are given a MBTA pass for free to test taking public transportation to work for 30 days.

5.2 Transportation Management for Special Events

5.2.1 Agganis Arena Events

A comprehensive traffic and parking management plan was developed by Boston University, and reviewed and approved by the Boston Transportation Department (BTD) and Boston Police Department (BPD) in early 2005 when the facility opened. The Agganis Arena Special Events Logistics Plan (AASELP) underwent some initial refinements as the University and the BPD gained experience from managing events, but has function very well over the years and impacts to the adjacent neighborhoods has been minimal. The University does not envision significant departures from the current event management procedures during the life of this Master Plan.

However, there will be adjustments to the parking management plan for the Agganis Arena that will become necessary during the construction of the New Balance Athletic Field. When the New Balance Field is under construction (summer of 2012 through the summer of 2013) the existing Babcock Street surface parking lot located at that site will not be available. The Babcock Street serves an important parking overflow function for events at the Agganis Arena. When the garage and surface lots at the JHSV site are full, event attendees arriving by vehicle from the east on Commonwealth Ave are directed to the Babcock Street lot by flaggers working for the University. Attendees approaching from the west on Commonwealth Ave. are direct to the University owned surface lot at 808 Commonwealth Ave. when the lots at the JHSV are full.

When the New Balance Field is under construction, all drivers will be directed by flaggers to the University lot at 808 Commonwealth Ave if the Agganis Arena parking is full (Note: the parking demand for many events at the Arena can be accommodated on-site and the need to use the Babcock Street lot or the lot at 808 Commonwealth Ave are only necessary for events with larger attendance or a larger than normal proportion of attendees arriving by automobile). When the New Balance Field construction is completed, parking at that site will again be employed as overflow parking for events at the Agganis Arena, when necessary.

Attendees of events at the Arena will be advised of the use of the 808 Commonwealth Ave. parking lot in advance of the event, primarily through announcements and driving directions/ maps posted on the Agganis Arena web site: http://www.bu.edu/agganis/directions/parking.html

5.2.2 New Balance Field Events

The University has developed a Traffic and Parking Management Plan for events that will be held at the proposed New Balance Field facility. A Parking Management Plan during construction of the project has been established as well, portions of which have been described above in section 5.2.1 pertaining to events at the Agganis Arena. The construction period and post-construction management plans are as follow:

Construction Period

- Overflow parking from the Agganis Arena (when needed) will be directed to the University-owned surface lot at 808 Commonwealth Avenue

- Bus parking for events at the Track and Tennis Center, which currently use the Babcock Street Lot, will be directed to park at the following locations instead (in order of preference):

    1. Loading dock area at the Agganis Arena (north side of site off of the perimeter road)

    2. Curb side along Harry Agganis Way adjacent to the Nickerson Field fence (private portion of the street owned by Boston University)

    3. Rent parking meters along Ashford Street

    4. Lease spaces at an off-site location.

Post Construction

- Vehicle parking for automobiles will be accommodated on-site. When construction is completed, a total of 348 parking spaces will be provided. If additional parking is required to accommodate the demand for a particular event, attendees will be directed to park at the Agganis Arena garage.

- Bus arriving for events at the New Balance Field will be directed to park at the following locations (in order of preference):

    1. On-site in the surface parking area located at the western end of the site adjacent to Alcorn Street. This area has been designed to accommodate 8 to 10 buses for events. The parking spaces will be cordoned-off early on event days to ensure automobiles are not parked in the spaces when the buses arrive.

    2. The portion of Babcock Street north of Ashford Street (owned by Boston University)

    3. Loading dock area at the Agganis Arena (north side of site off of the perimeter road)

    4. Curb side along Harry Agganis Way adjacent to the Nickerson Field fence (private portion of the street owned by Boston University)

    5. Rent parking meters along Ashford Street

    6. Lease spaces at an off-site location.

- Traffic (attendees and buses) approaching the site on Babcock Street from Commonwealth Avenue will be directed west onto Gardner Street to access the on-site parking. This route will reduce the pedestrian/vehicular conflicts along Babcock Street at the entrance to the field.

- Because of the proposed limited spectator capacity at New Balance Field, the University does not anticipated that police details will be needed to handle traffic before or after events at the New Balance Field. However, if issues do arise and it is determined through experience that details are needed to manage traffic flows, the BU Police Department will coordinate the details with the Boston Police Department. If details are required they would most likely be limited to the intersection of Commonwealth Ave. and Babcock Street and possible the intersection of Babcock Street and Gardner Street.

5.2.3 Other Charles River Campus Events

The University's Parking & Transportation Services Office has developed operating procedures for other events or venues at the Charles River Campus. These procedures have evolved and have been refined over the years to minimize impacts to the local neighborhoods. Examples of the larger campus events that have to be managed by the University from a transportation perspective include:

- Commencement
- Orientation
- "Move-in/Move-out" periods
- Athletic events at the Track & Tennis Center
- Athletic events at Nickerson Field
- Spring and Fall "Open Houses"
- Snow Emergencies

Information is conveyed to event attendees through the Parking & Transportation Services web site. More information pertaining to these events, and links to the web page established for the particular event, are provided in Section 3.9 of this Master Plan. Several examples are shown below:

Commencement: http://www.bu.edu/commencement/2012/parking.shtml

Open Houses: http://www.bu.edu/parking/?page_id=3381&preview=true

Move-in period: http://www.bu.edu/parking/2011-move-in/student/

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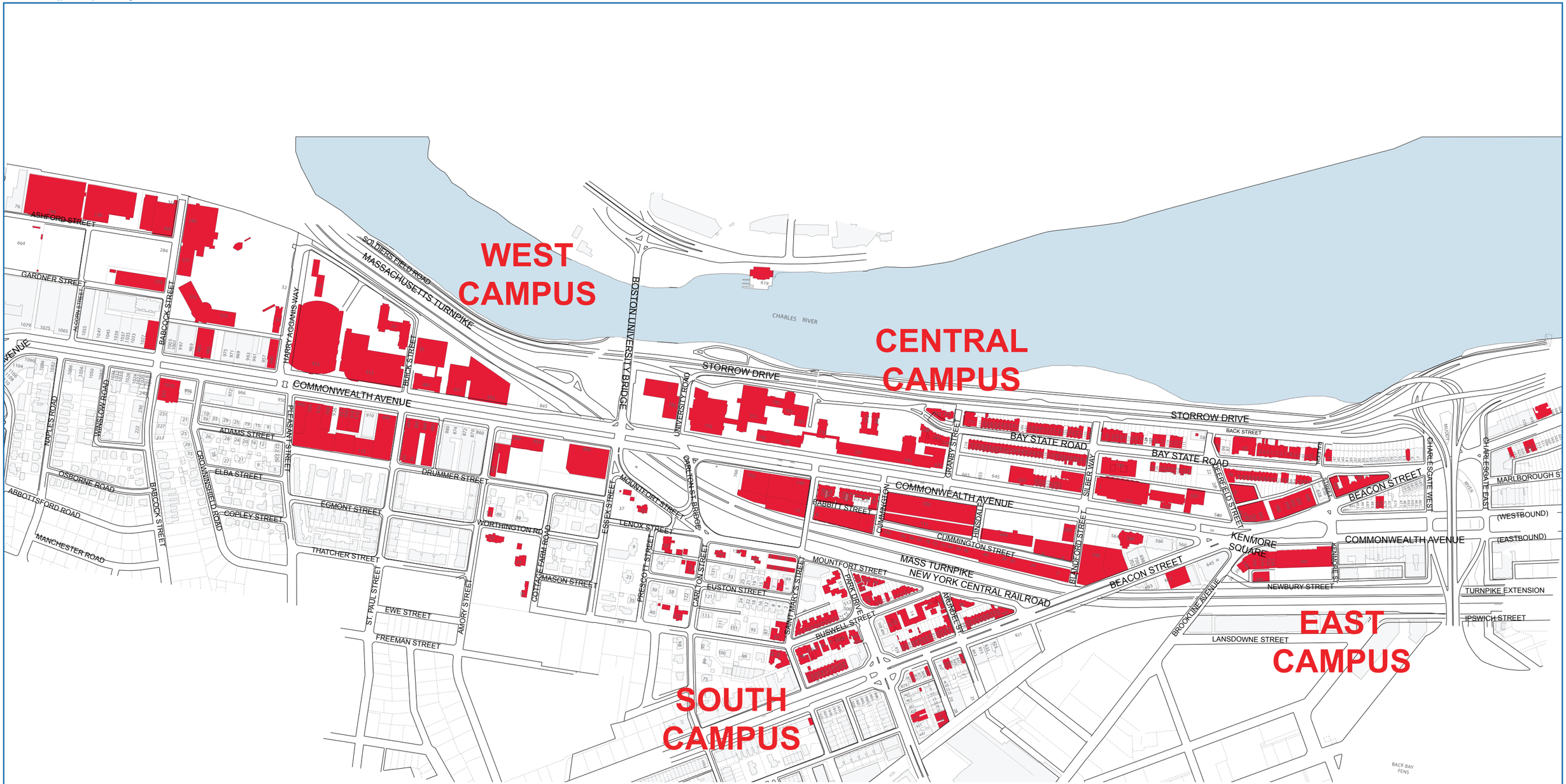

NORTH - NOT TO SCALE

Boston University Properties
Building to be Removed

BOSTON UNIVERSITY

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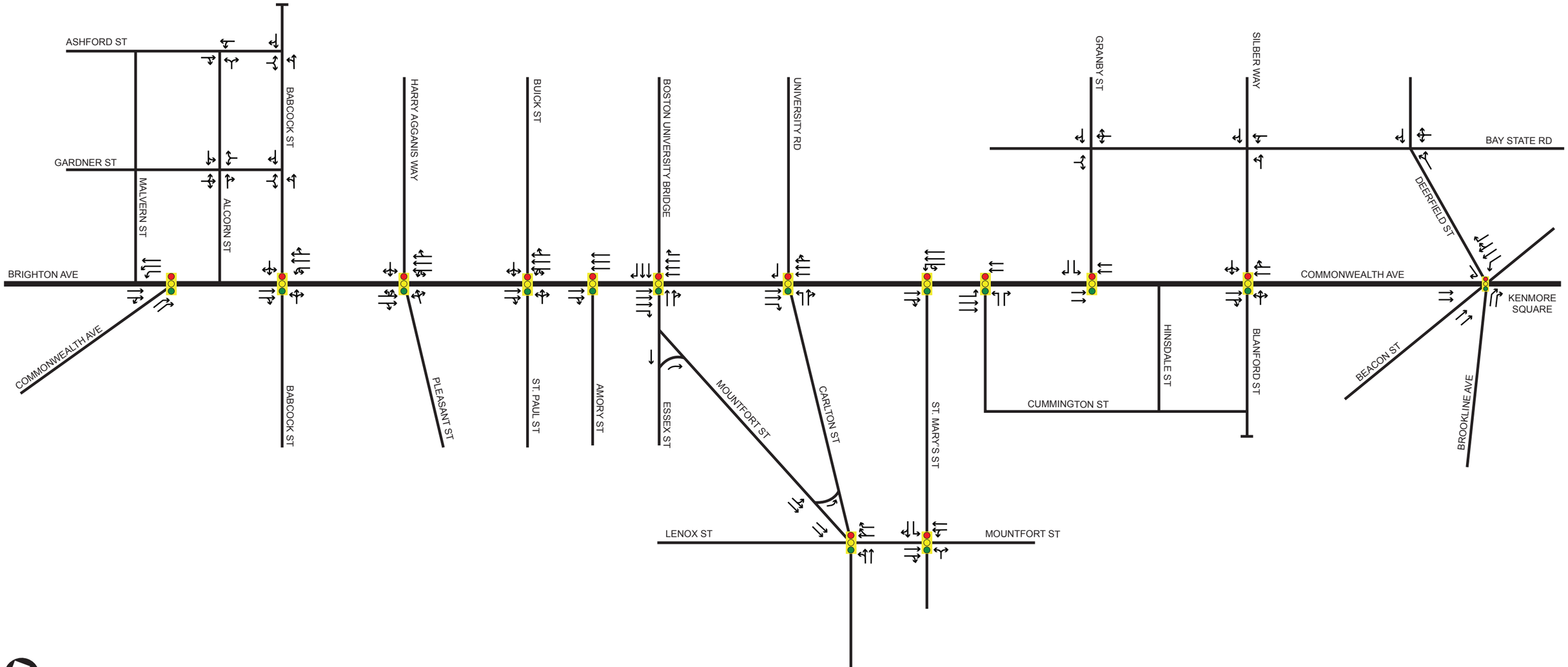
Boston University Charles River Campus
2012-2022 Master Plan

Charles River Campus Map

Figure 1

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Lane Configurations.ai



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Existing Traffic Signal

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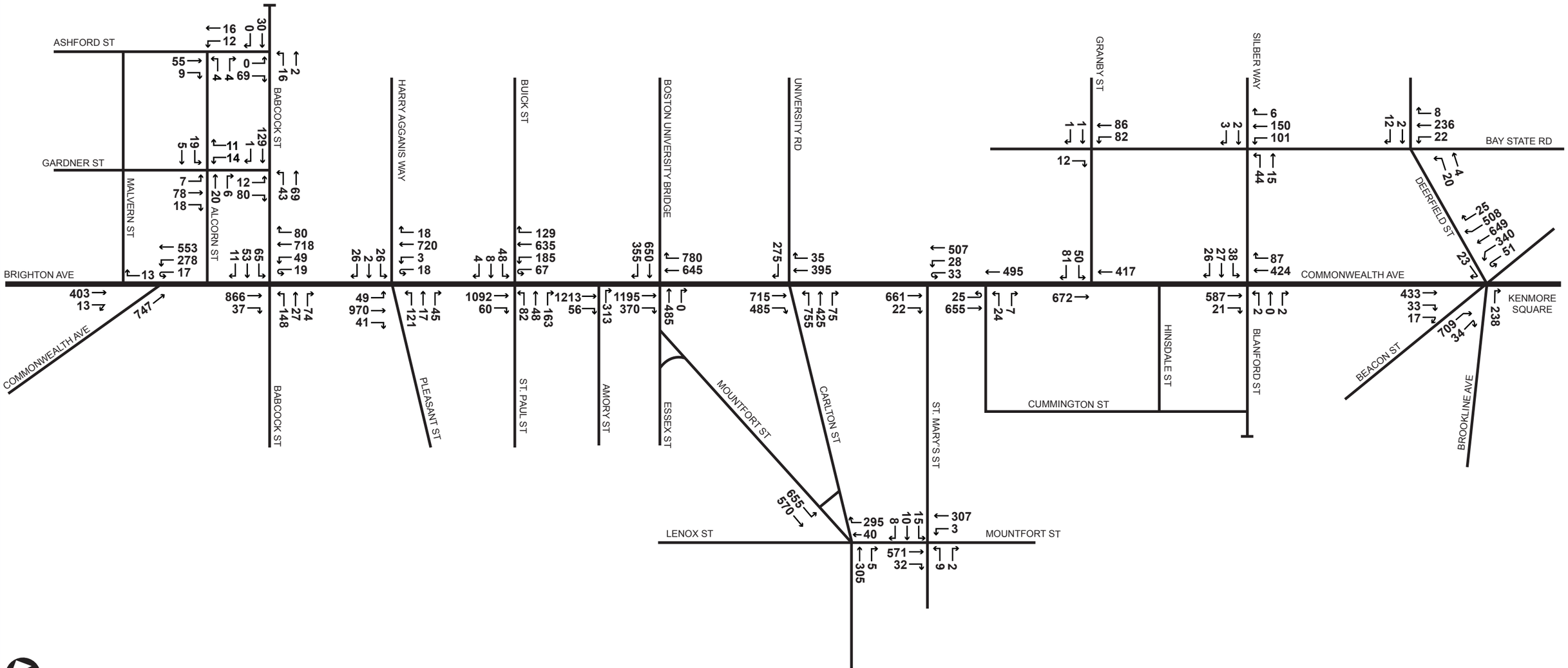
2012-2022 Master Plan

Existing Lane Configurations

Figure 3

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Morning Peak Hour Traffic Volumes.ai



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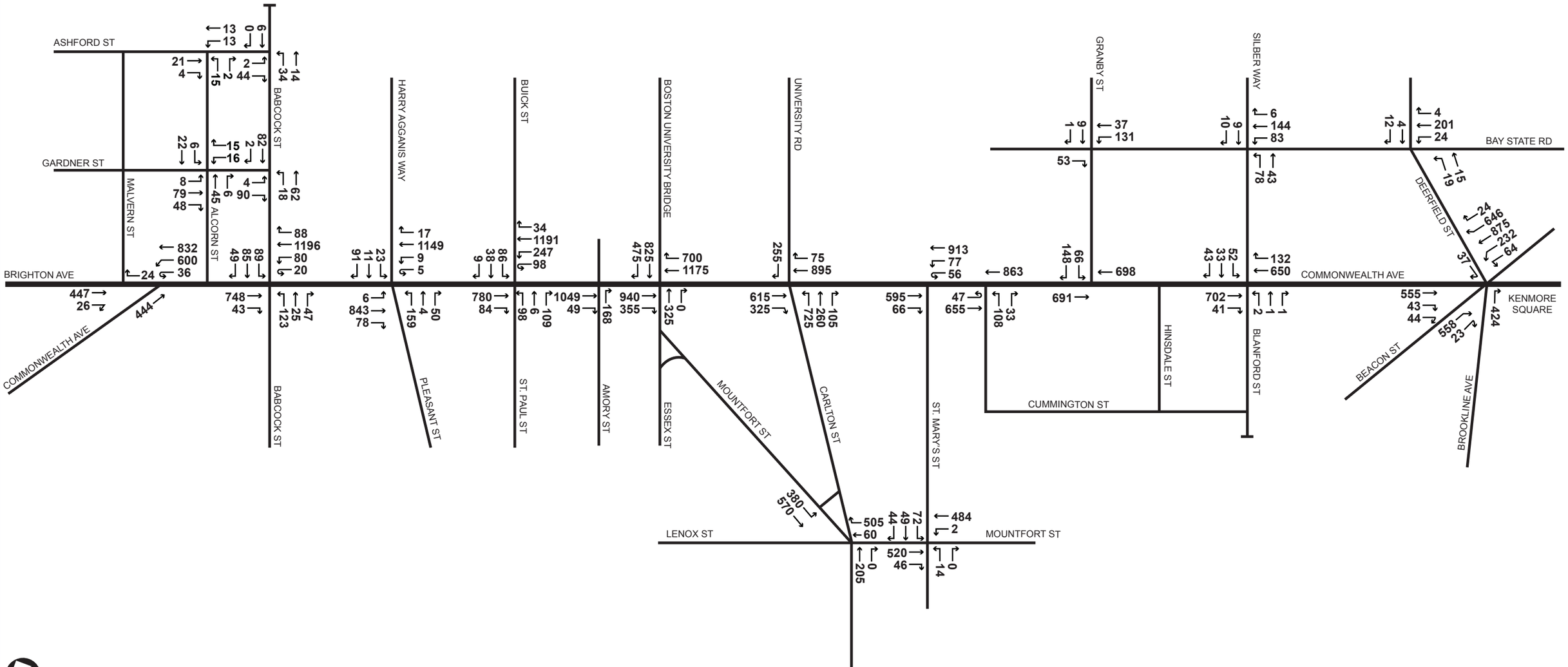
2012-2022 Master Plan

Existing Morning Peak Hour Traffic Volumes

Figure 4

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Afternoon Peak Hour Traffic Volumes.ai



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Boston University Charles River Campus
2012-2022 Master Plan

Existing Afternoon Peak Hour Traffic Volumes

Figure 5

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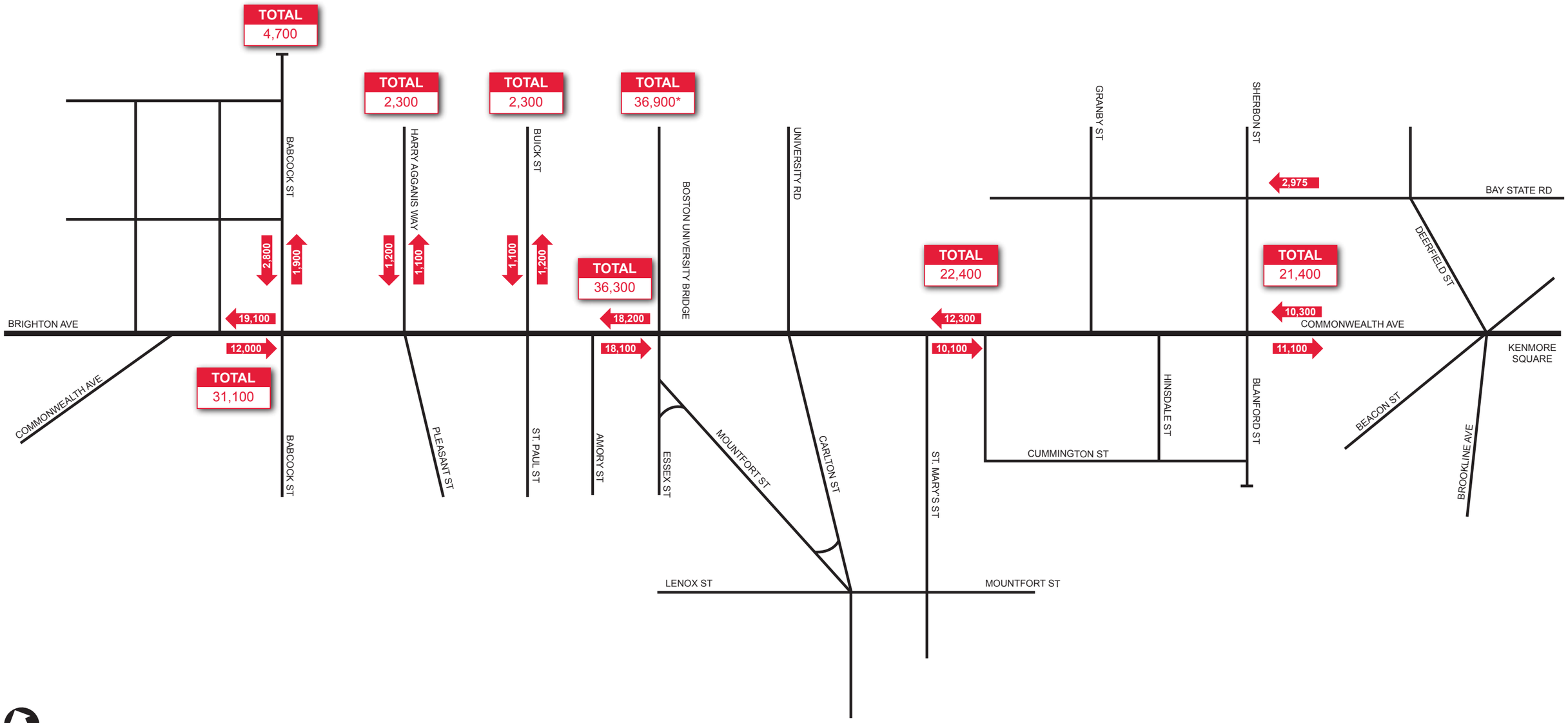
P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Daily Traffic Volumes.ai



NORTH - NOT TO SCALE

* Source: 2010 MassDOT Counts

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Boston University Charles River Campus
2012-2022 Master Plan

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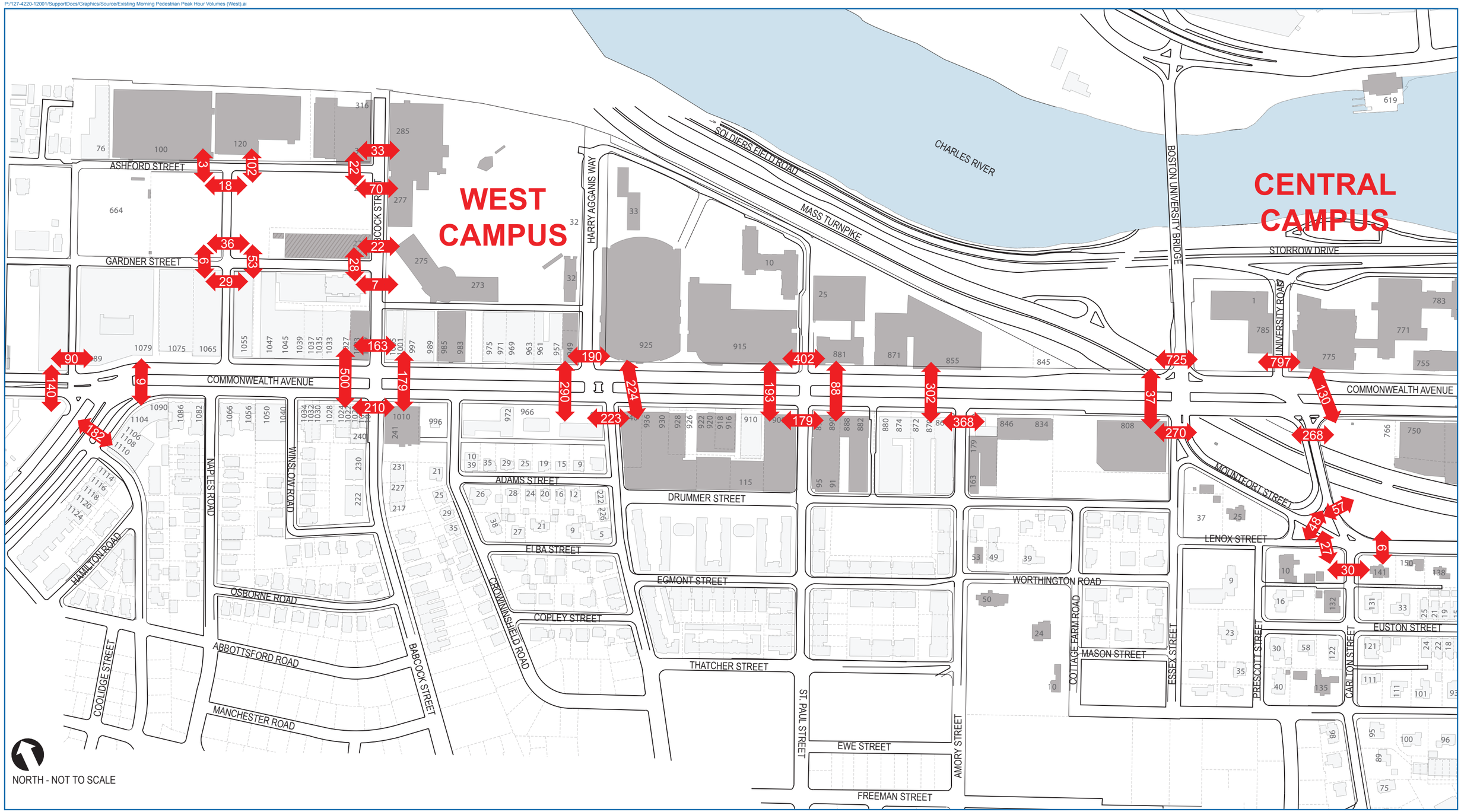
Existing Daily Traffic Volumes

Figure 6

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Morning Pedestrian Peak Hour Volumes (West).ai



Boston University Properties
Building to be Removed
Pedestrian Crossings

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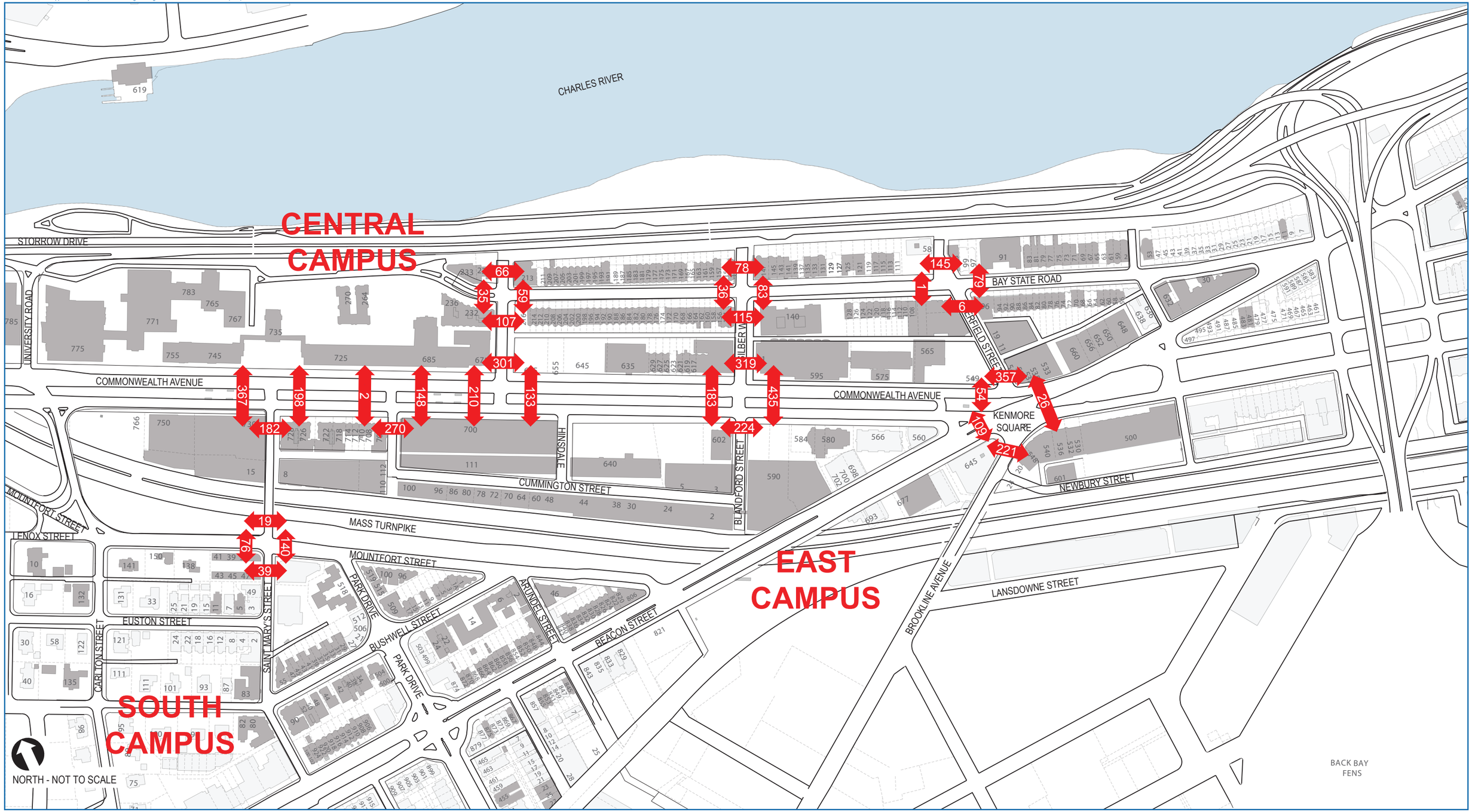
Boston University Charles River Campus
2012-2022 Master Plan

Existing Morning Peak Hour Pedestrain Volumes

Figure 9A

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Morning Pedestrian Peak Hour Volumes (East).ai



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Boston University Properties

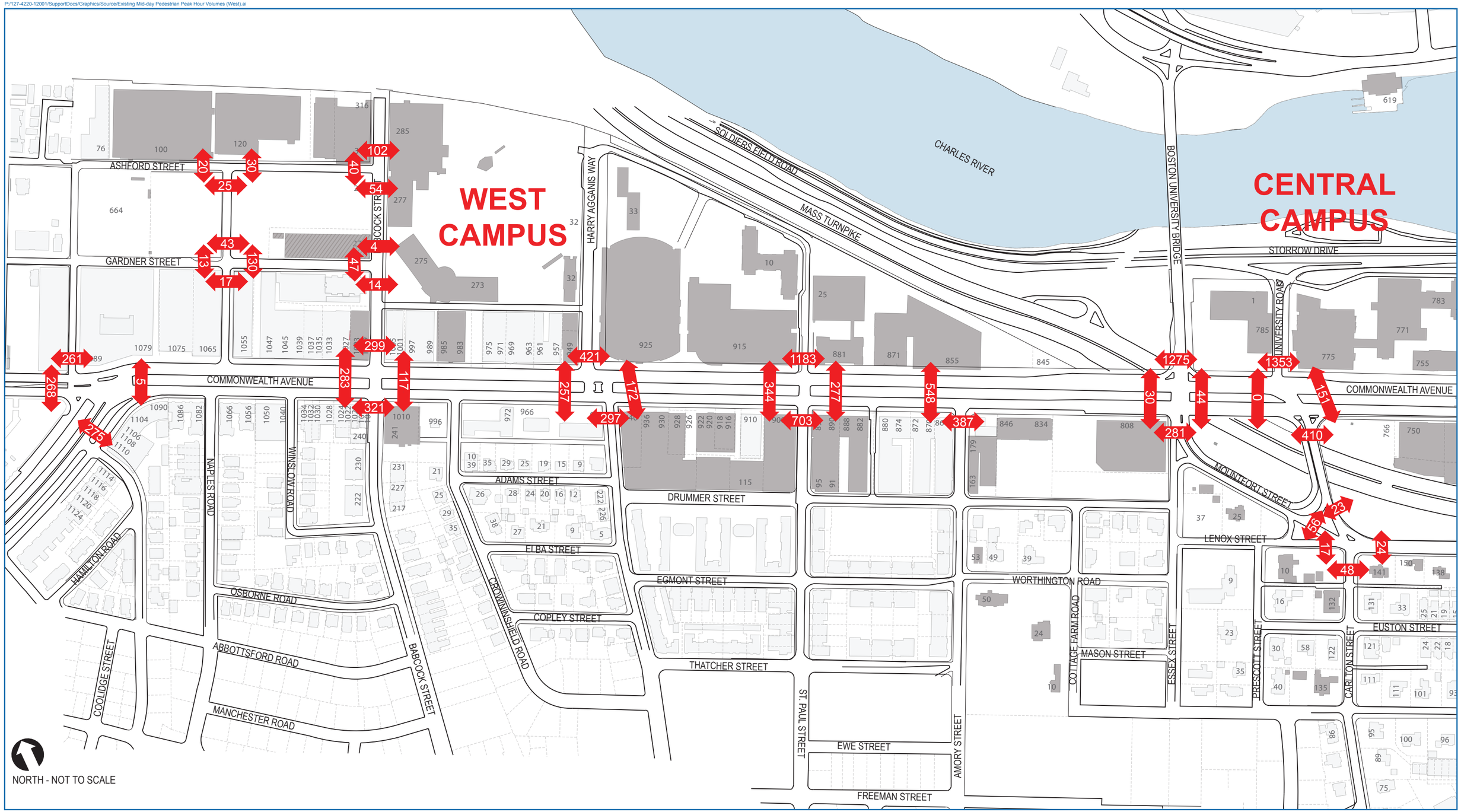
Pedestrian Crossings

Boston University Charles River Campus
2012-2022 Master Plan

Existing Morning Peak Hour Pedestrain Volumes

Figure 9B

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Mid-day Pedestrian Peak Hour Volumes (West).ai



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Building to be Removed
Pedestrian Crossings

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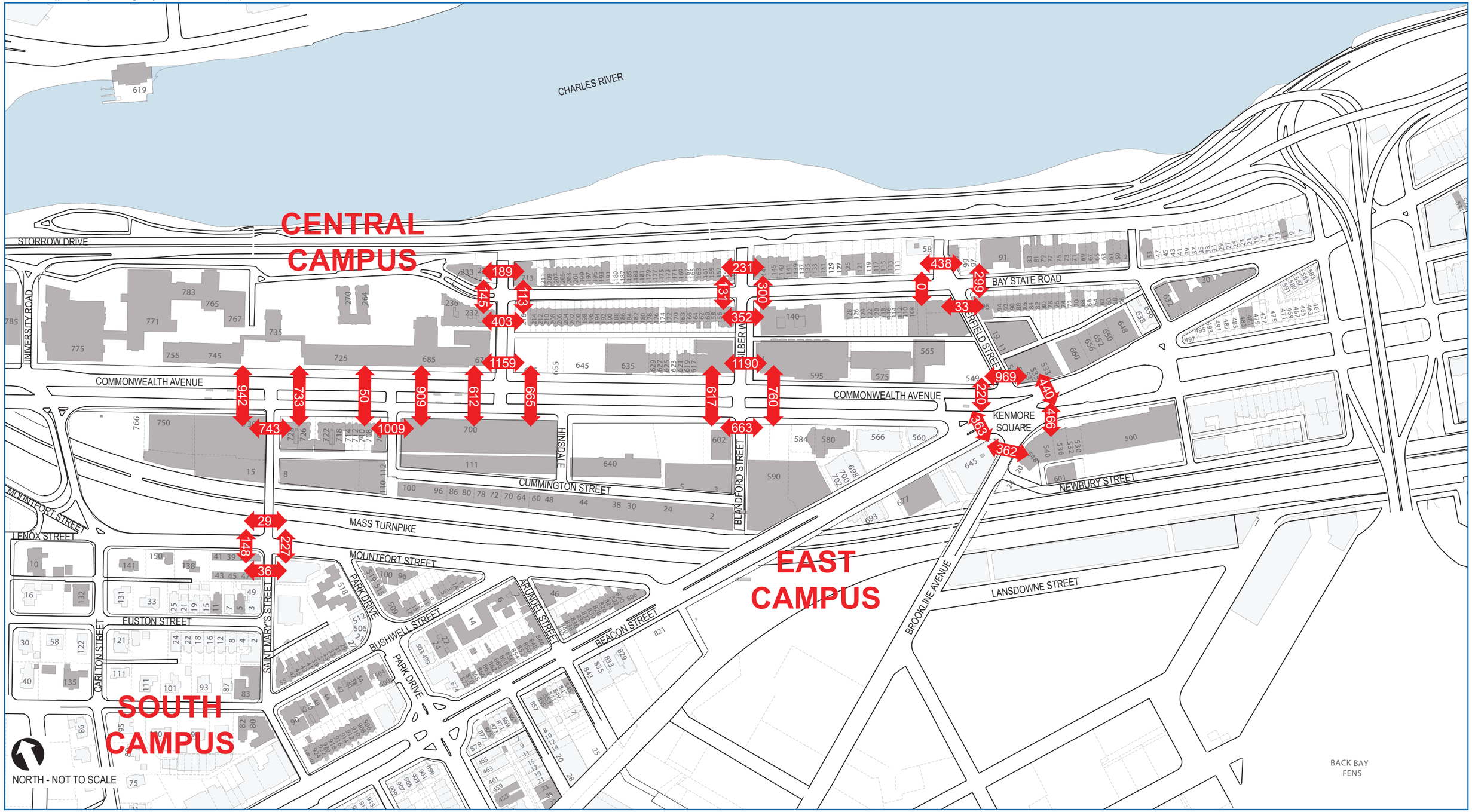
2012-2022 Master Plan

Existing Mid-day Peak Hour Pedestrain Volumes

Figure 10A

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Mid-day Pedestrian Peak Hour Volumes (East).ai



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Boston University Charles River Campus
2012-2022 Master Plan

Boston University Properties

Pedestrian Crossings

Existing Mid-day Peak Hour Pedestrain Volumes

Figure 10B

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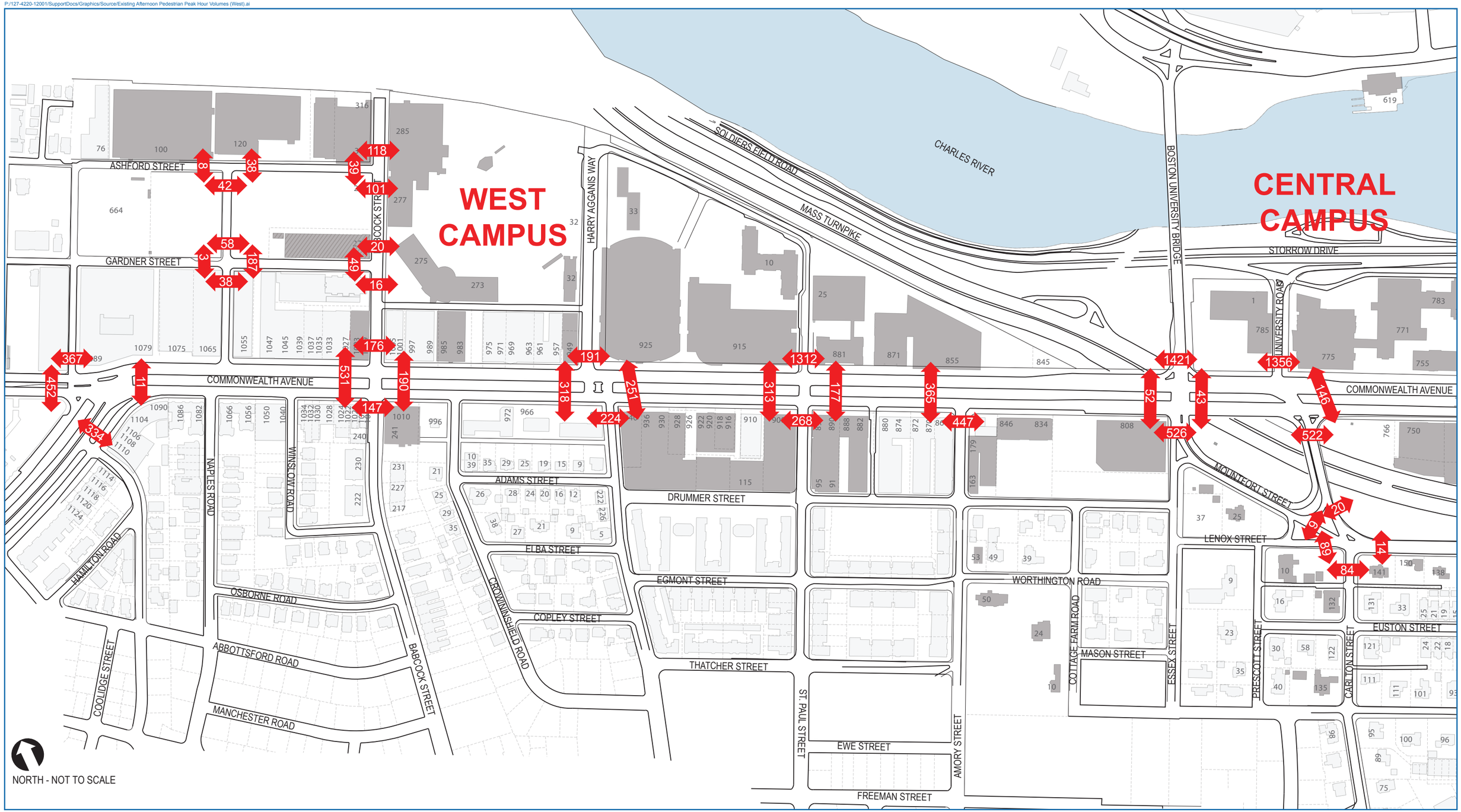
P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Afternoon Pedestrian Peak Hour Volumes (West).ai



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Pedestrian Crossings

Boston University Charles River Campus
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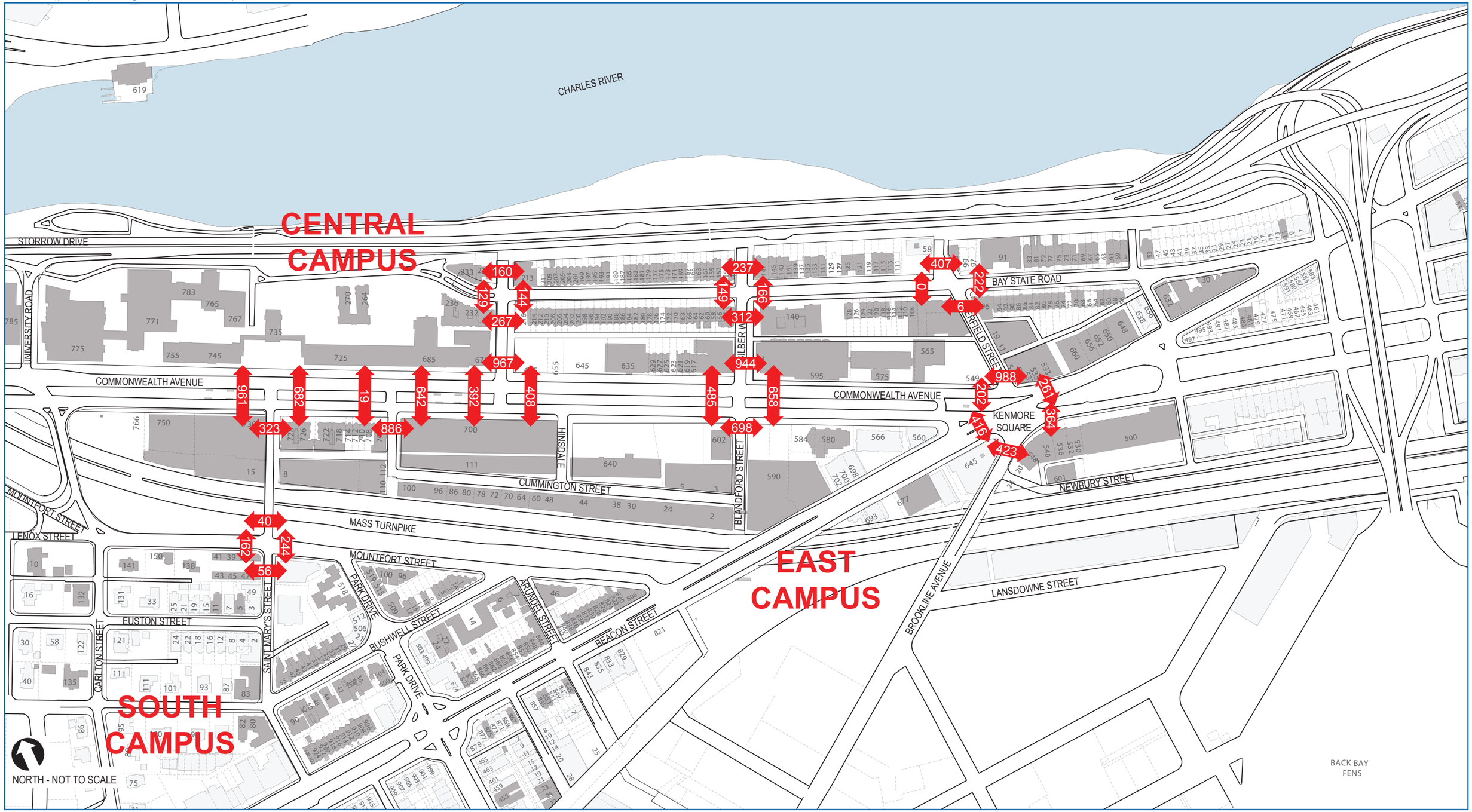
Existing Afternoon Peak Hour Pedestrain Volumes

Figure 11A

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Afternoon Pedestrian Peak Hour Volumes (East).ai



Boston University Properties

Pedestrian Crossings

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Boston University Charles River Campus
2012-2022 Master Plan

Existing Afternoon Peak Hour Pedestrain Volumes

Figure 11B

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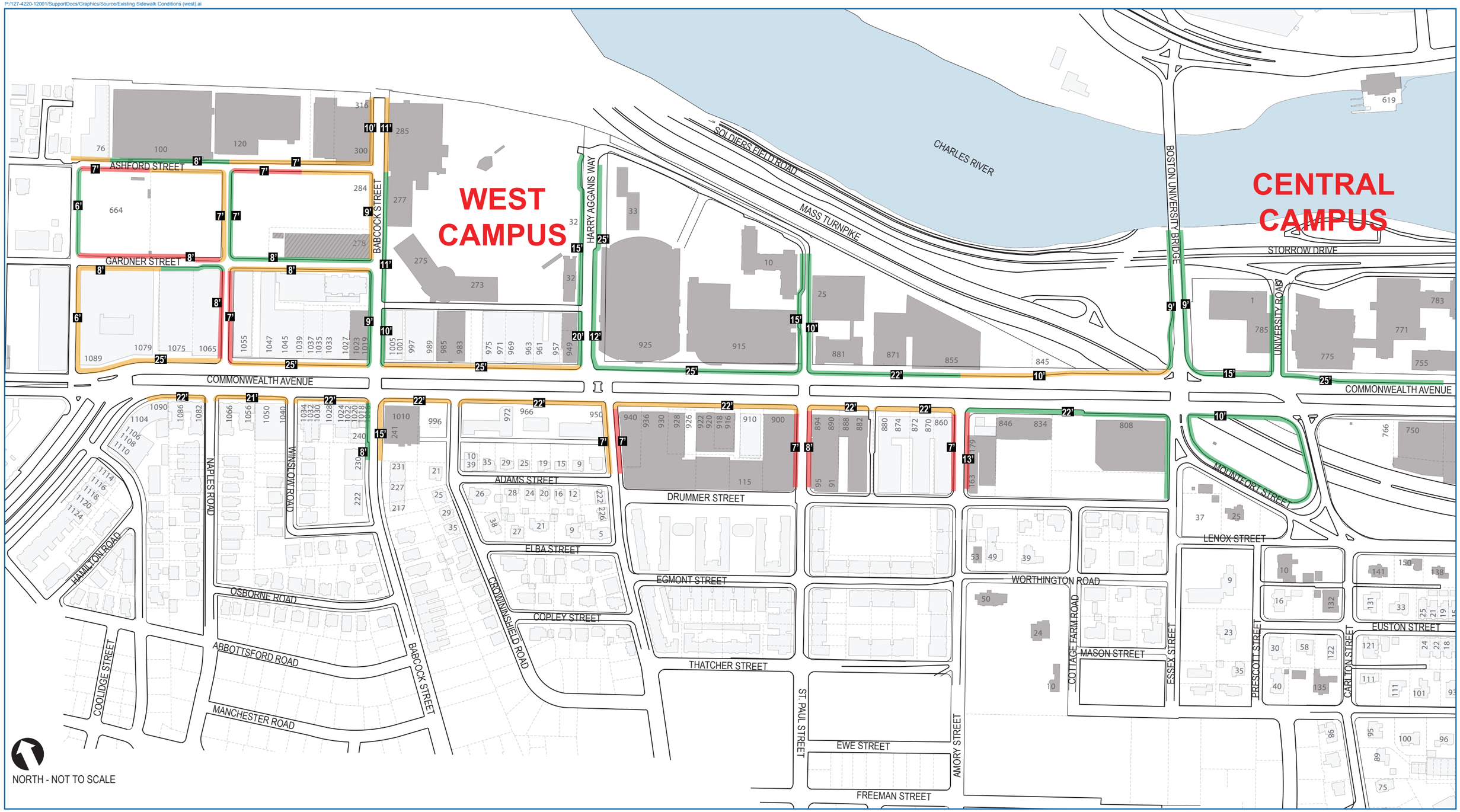
P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Sidewalk Conditions (west).ai



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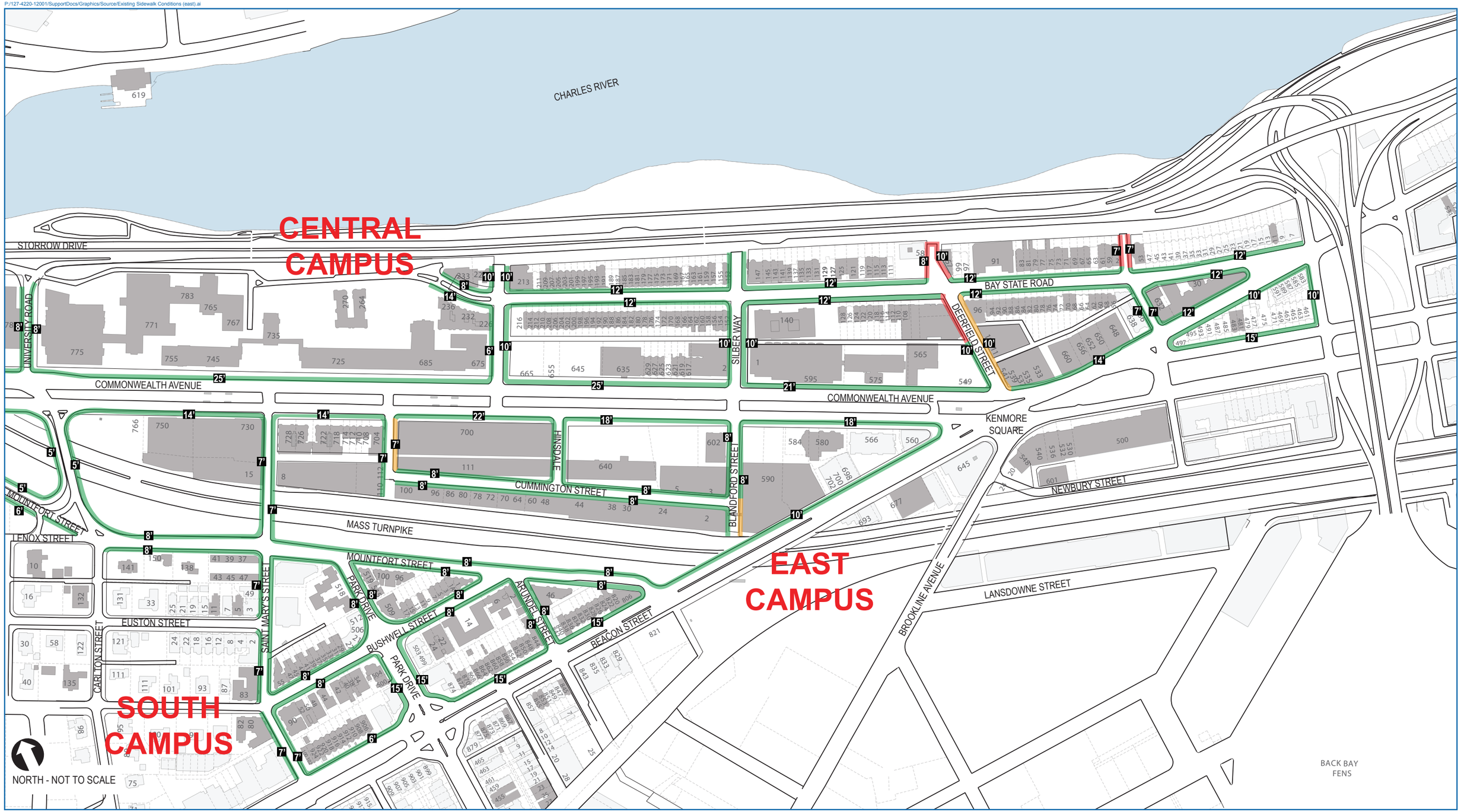
- Boston University Properties
- Building to be Removed
- Good Sidwalk Conditions
- Fair Sidewalk Conditions
- Poor Sidewalk Conditions
- xx' Average Sidewalk Width

Boston University Charles River Campus
2012-2022 Master Plan

Existing Sidewalk Conditions

Figure 12A

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Sidewalk Conditions (east).ai



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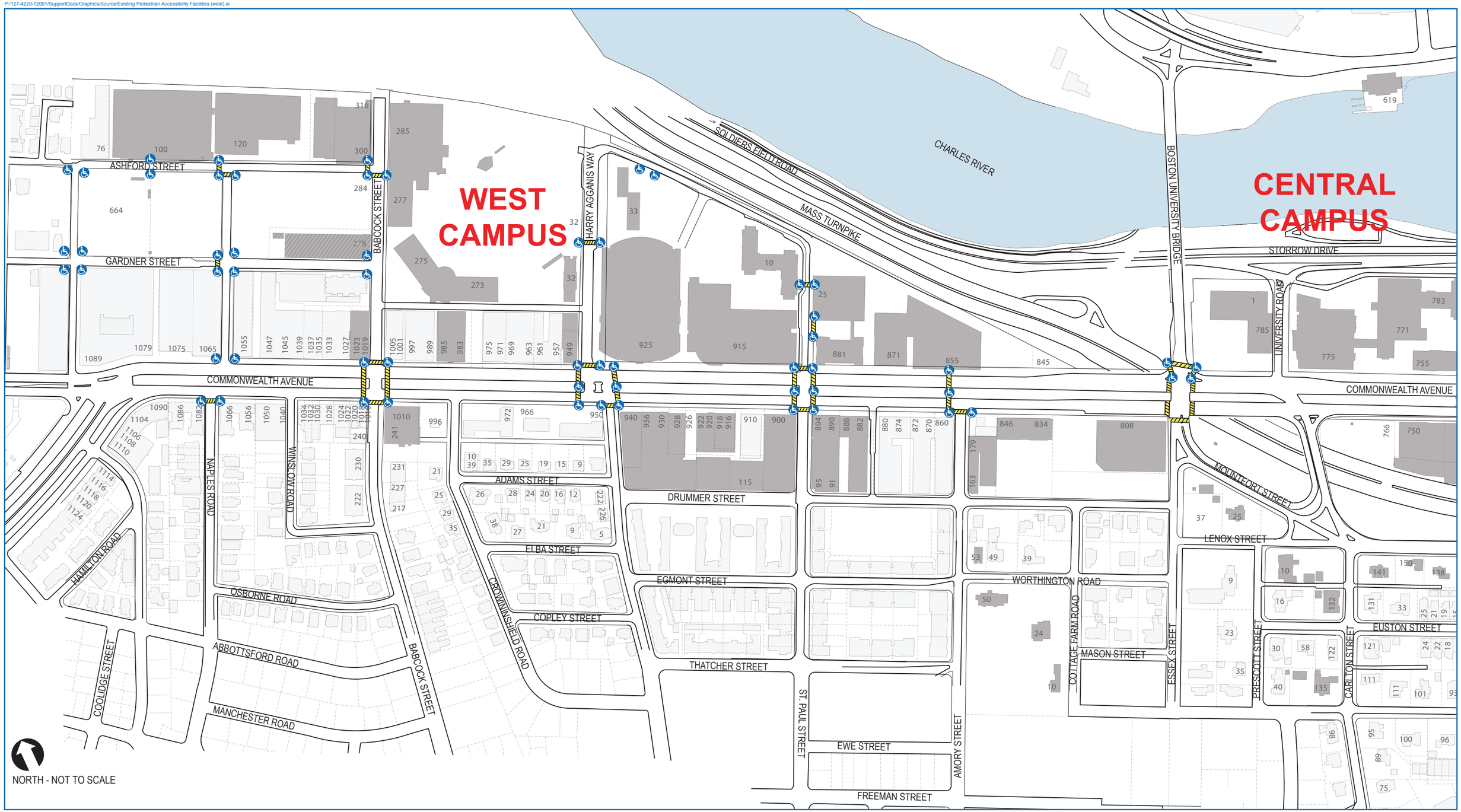
Boston University Charles River Campus
2012-2022 Master Plan

- Boston University Properties
- Good Sidwalk Conditions
- Fair Sidewalk Conditions
- Poor Sidewalk Conditions
- xx' Average Sidewalk Width

Existing Sidewalk Conditions

Figure 12B

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Pedestrian Accessibility Facilities (west).ai



Boston University Properties
Building to be Removed
Wheelchair Ramps
Crosswalks

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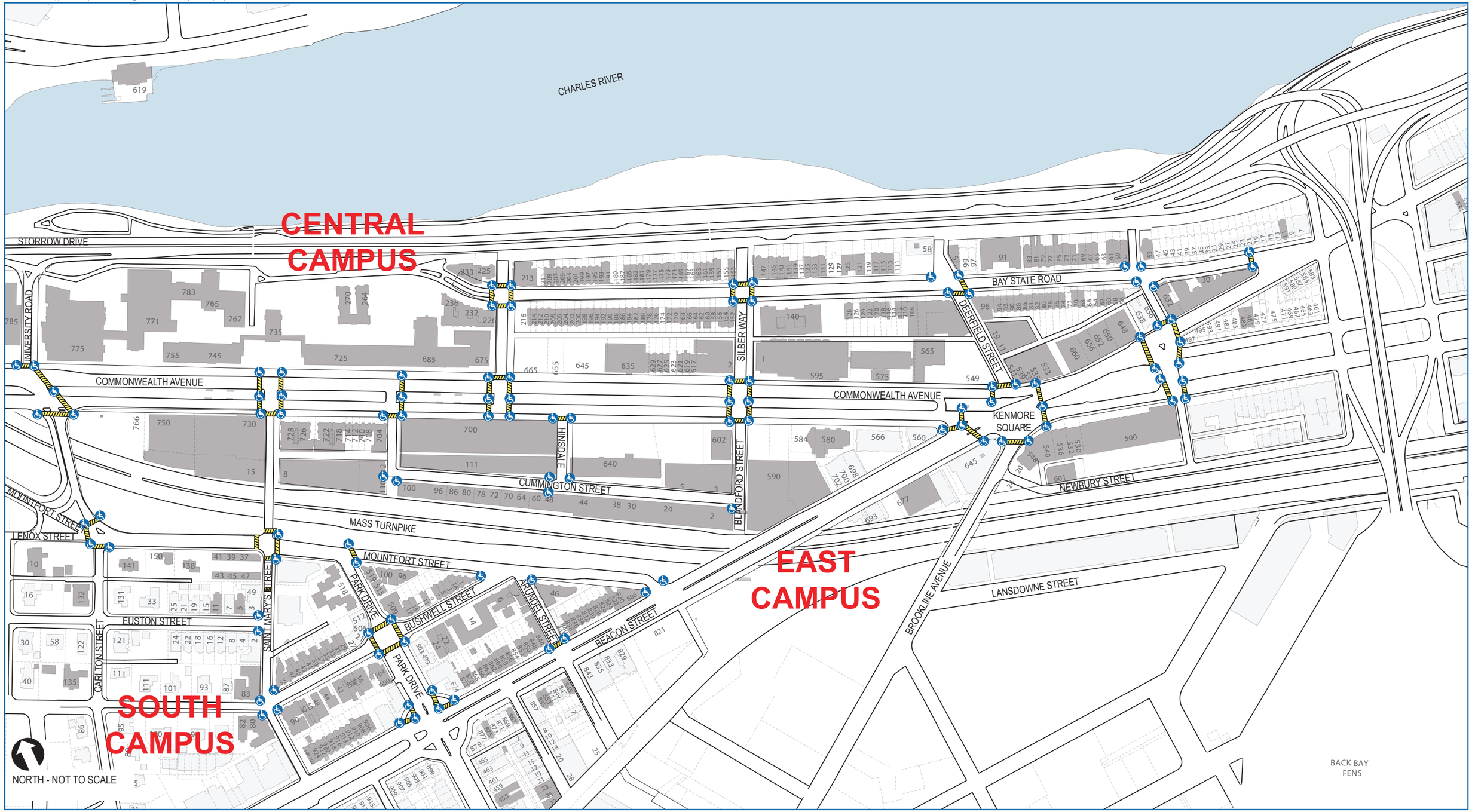
Boston University Charles River Campus
2012-2022 Master Plan

Existing Pedestrian Accessibility Facilities

Figure 13A

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Pedestrian Accessibility Facilities (east).ai



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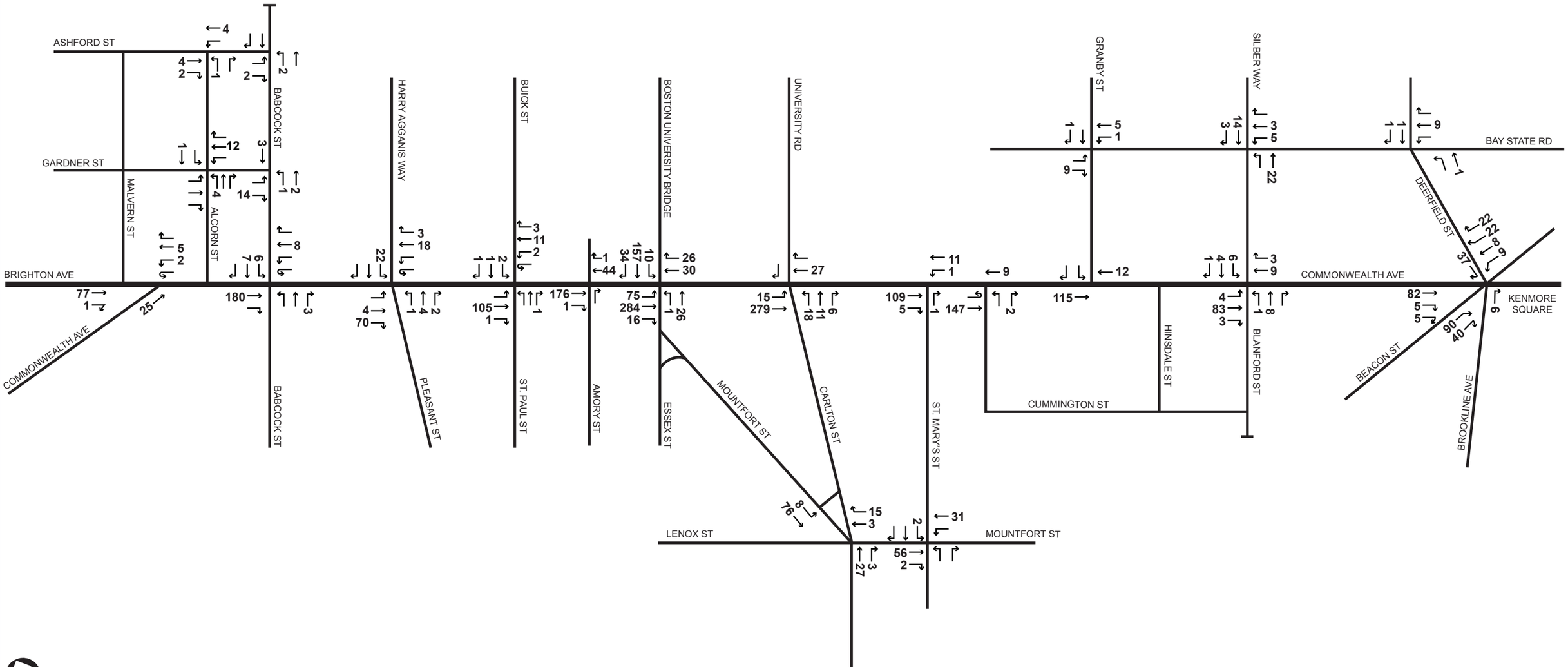
Boston University Properties
Wheelchair Ramps
Crosswalks

Boston University Charles River Campus
2012-2022 Master Plan

Existing Pedestrian Accessibility Facilities

Figure 13B

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Morning Peak Hour Bicycle Volumes.ai



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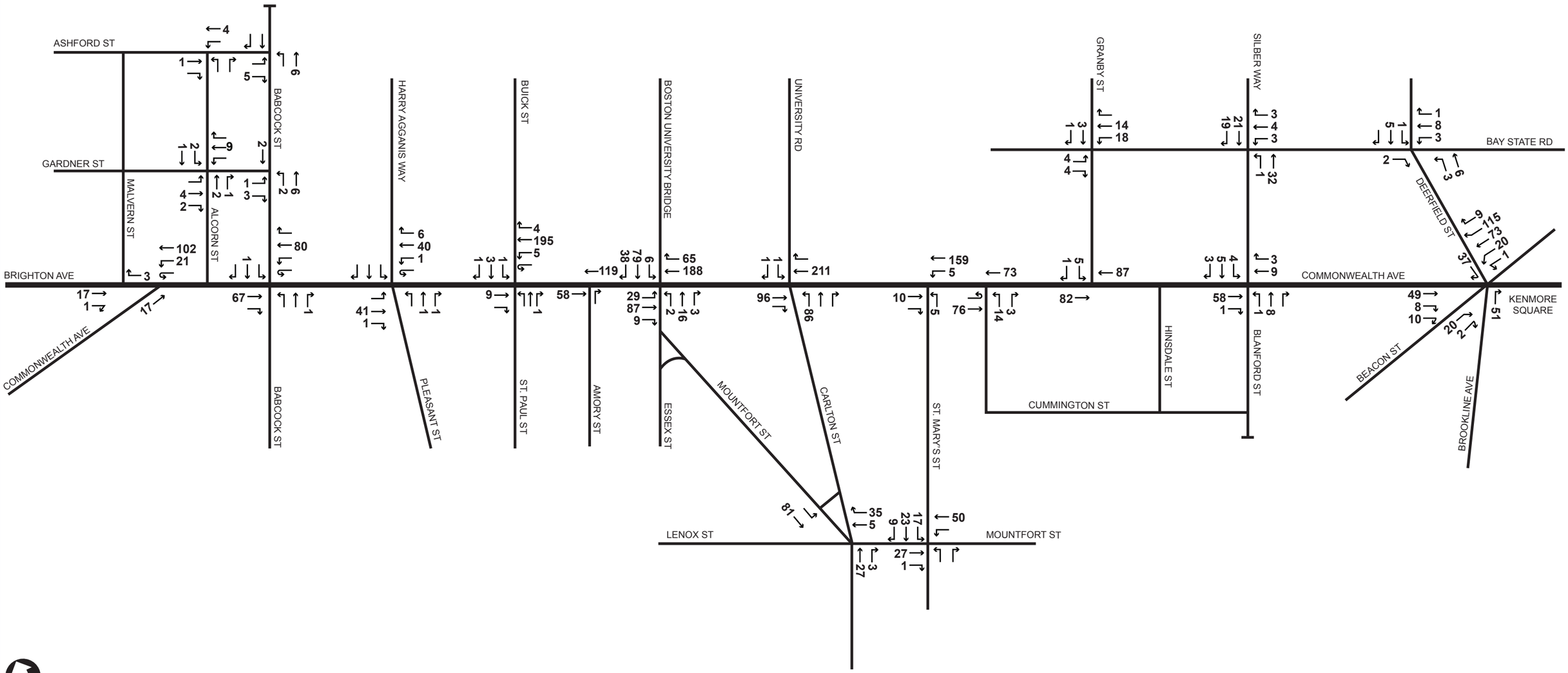
Boston University Charles River Campus
2012-2022 Master Plan

Existing Morning Peak Hour Bicycle Volumes

Figure 14

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Afternoon Peak Hour Bicycle Volumes.ai



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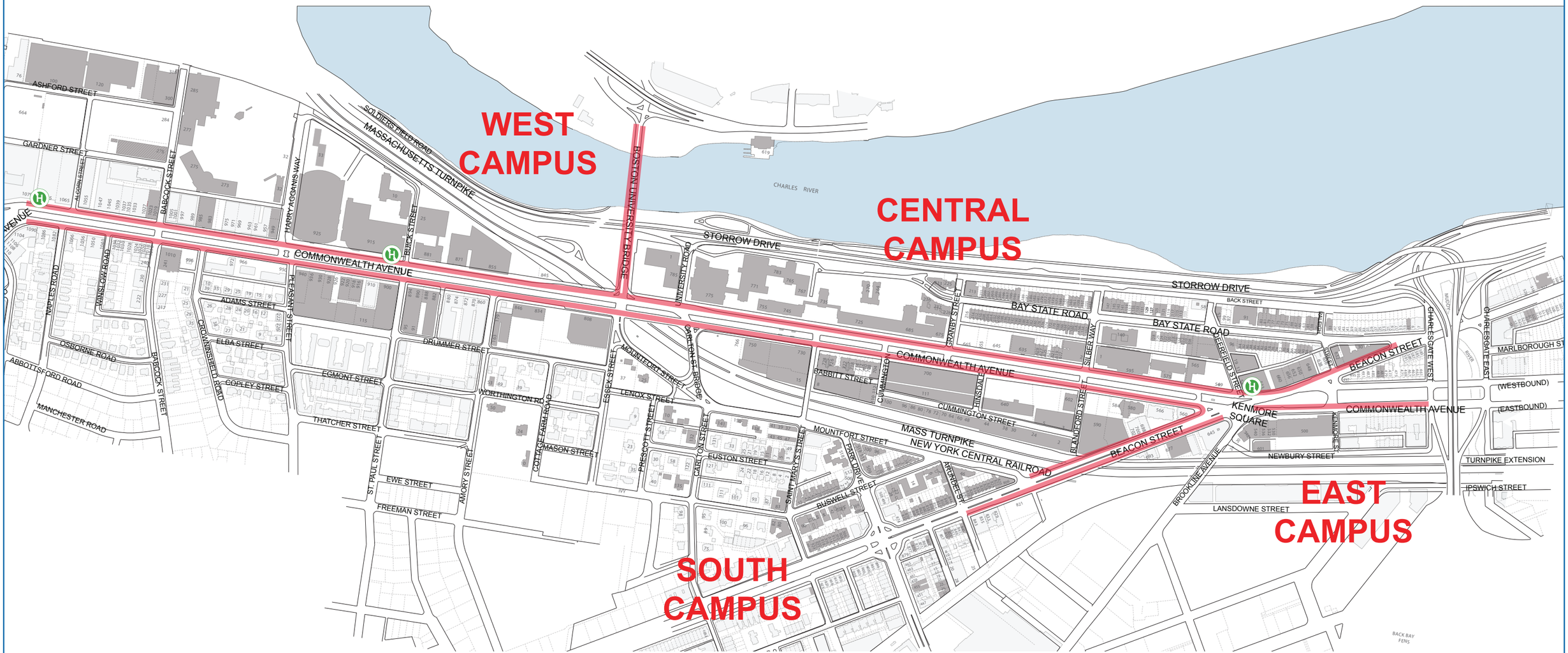
Boston University Charles River Campus
2012-2022 Master Plan

Existing Afternoon Peak Hour Bicycle Volumes

Figure 15

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Bicycle Facilities.ai



NORTH - NOT TO SCALE

BOSTON UNIVERSITY

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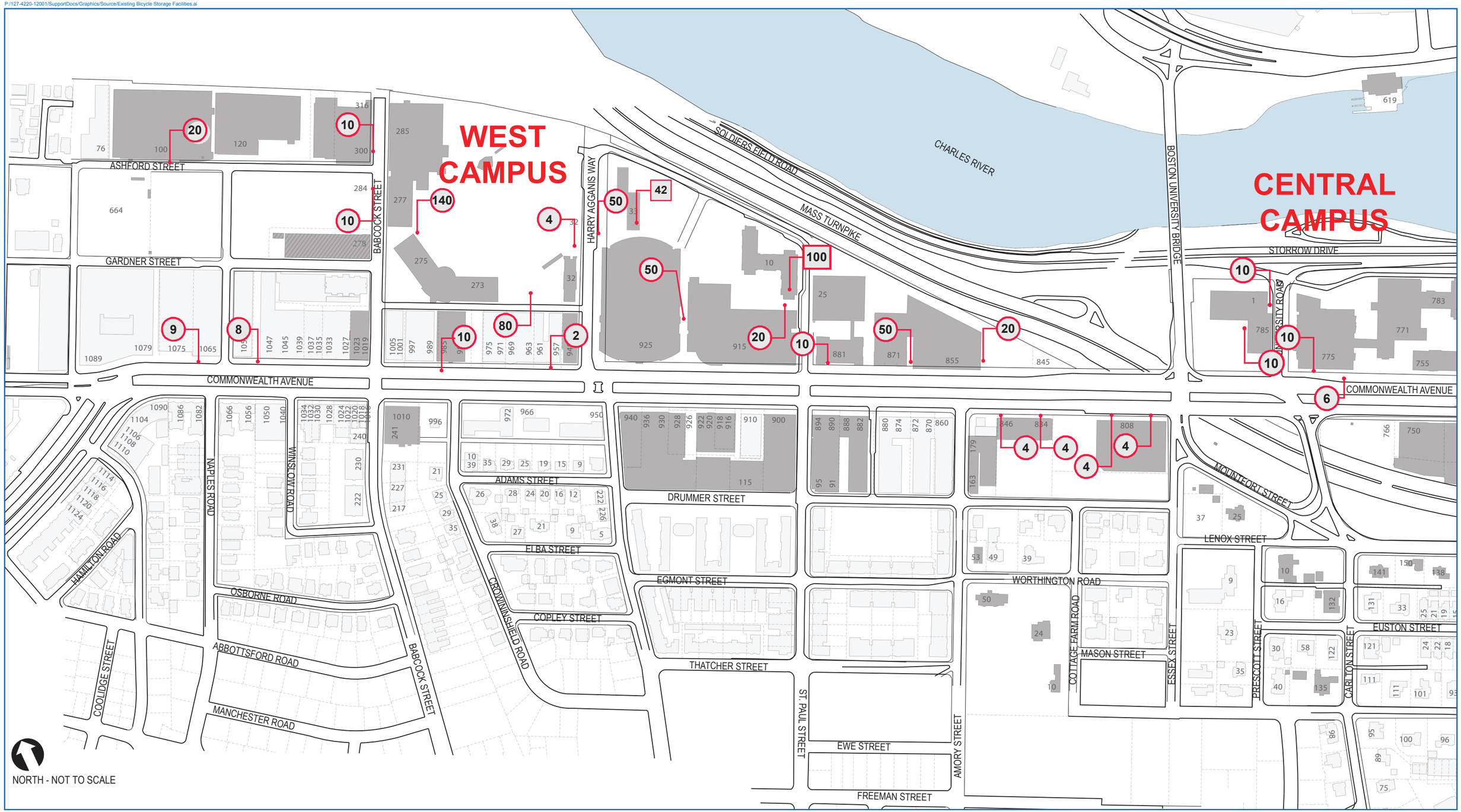
- Boston University Properties
- Building to be Removed
- Bike Lanes
- Hubway Bike Stations (19 Bicycles)

Boston University Charles River Campus
2012-2022 Master Plan

Existing Bicycle Facilities

Figure 16

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Bicycle Storage Facilities.ai



BOSTON UNIVERSITY

Bike Rack Location & Capacity (XX)
Bike Room Location & Capacity (XX)

Boston University Properties
Building to be Removed

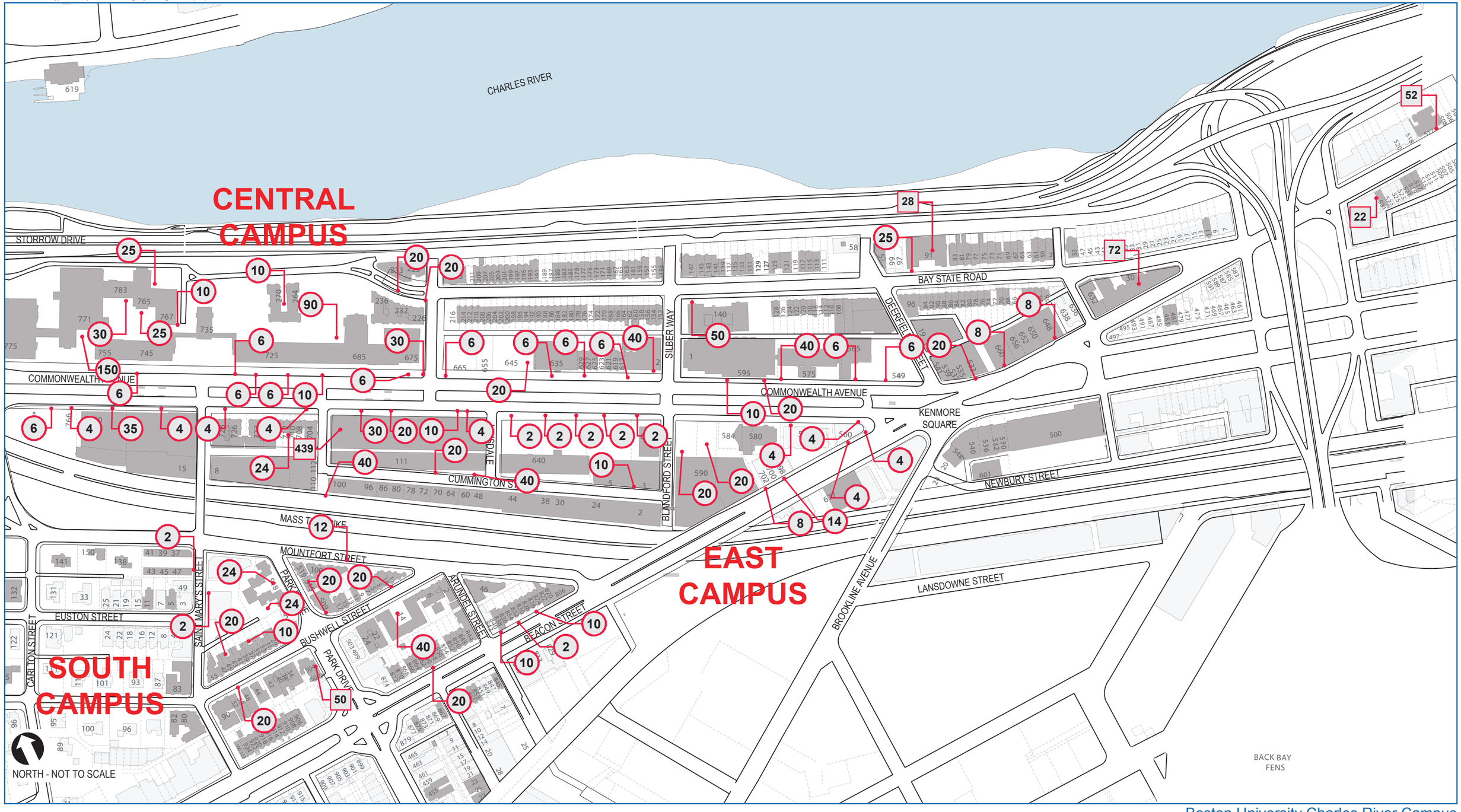
Boston University Charles River Campus
2012-2022 Master Plan

TETRATECH
One Grant Street
Framingham, MA 01701-9005
508.903.2000
www.tetratech.com

Existing Bicycle Storage Facilities

Figure 17A

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Bicycle Storage Facilities (east).ai



Bike Rack Location & Capacity (XX)
Bike Room Location & Capacity (XX)

Boston University Properties

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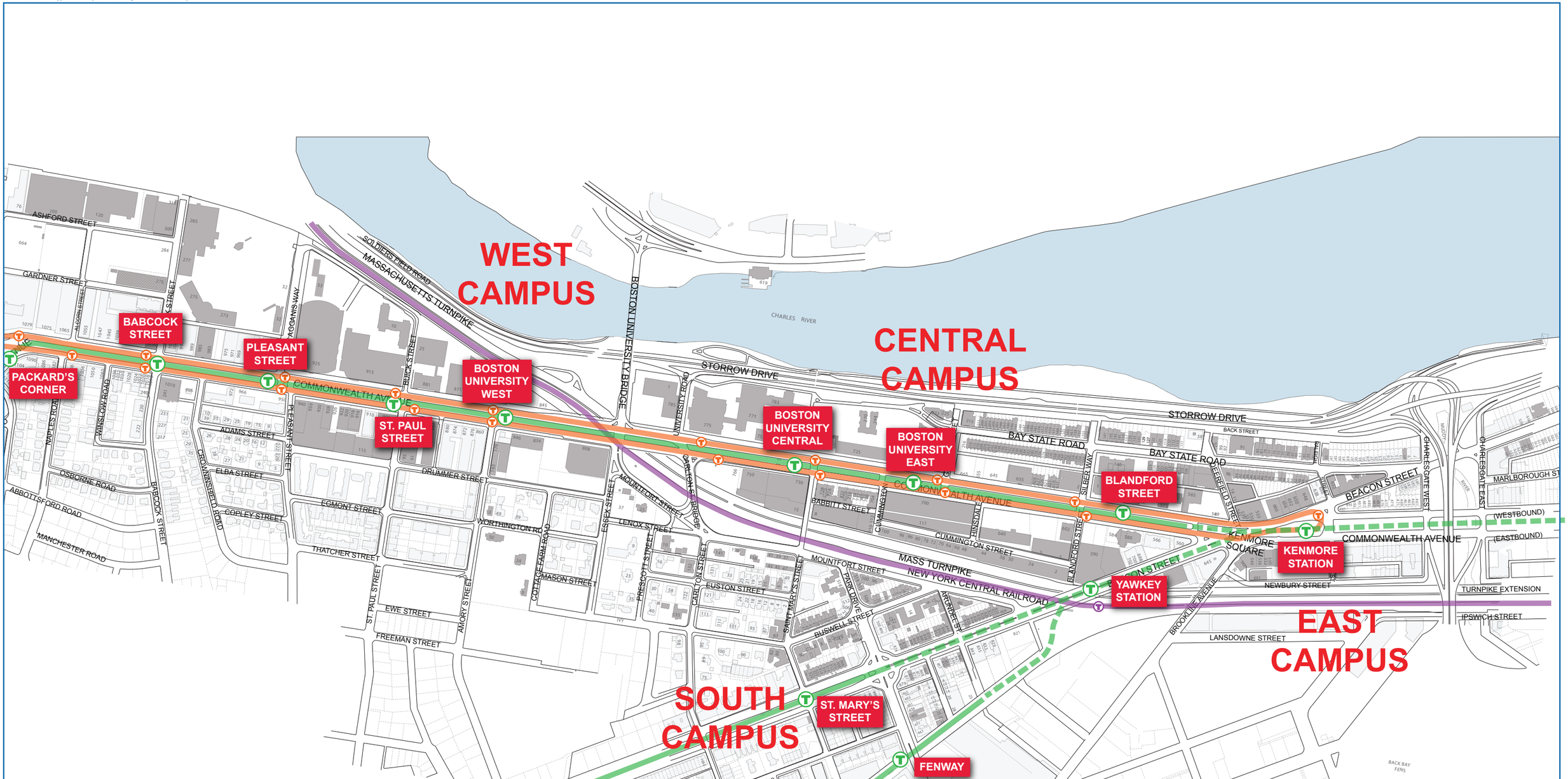
Boston University Charles River Campus
2012-2022 Master Plan

TETRATECH
One Grant Street
Framingham, MA 01701-9005
508.903.2000
www.tetratech.com

Existing Bicycle Storage Facilities

Figure 17B

P:/127-4220-12001/SupportDocs/Graphics/Source/Key MBTA Stations or Stops.ai



NORTH - NOT TO SCALE

BOSTON UNIVERSITY

TETRA TECH
One Grant Street
Framingham, MA 01701-9005
508.903.2000
www.tetratech.com

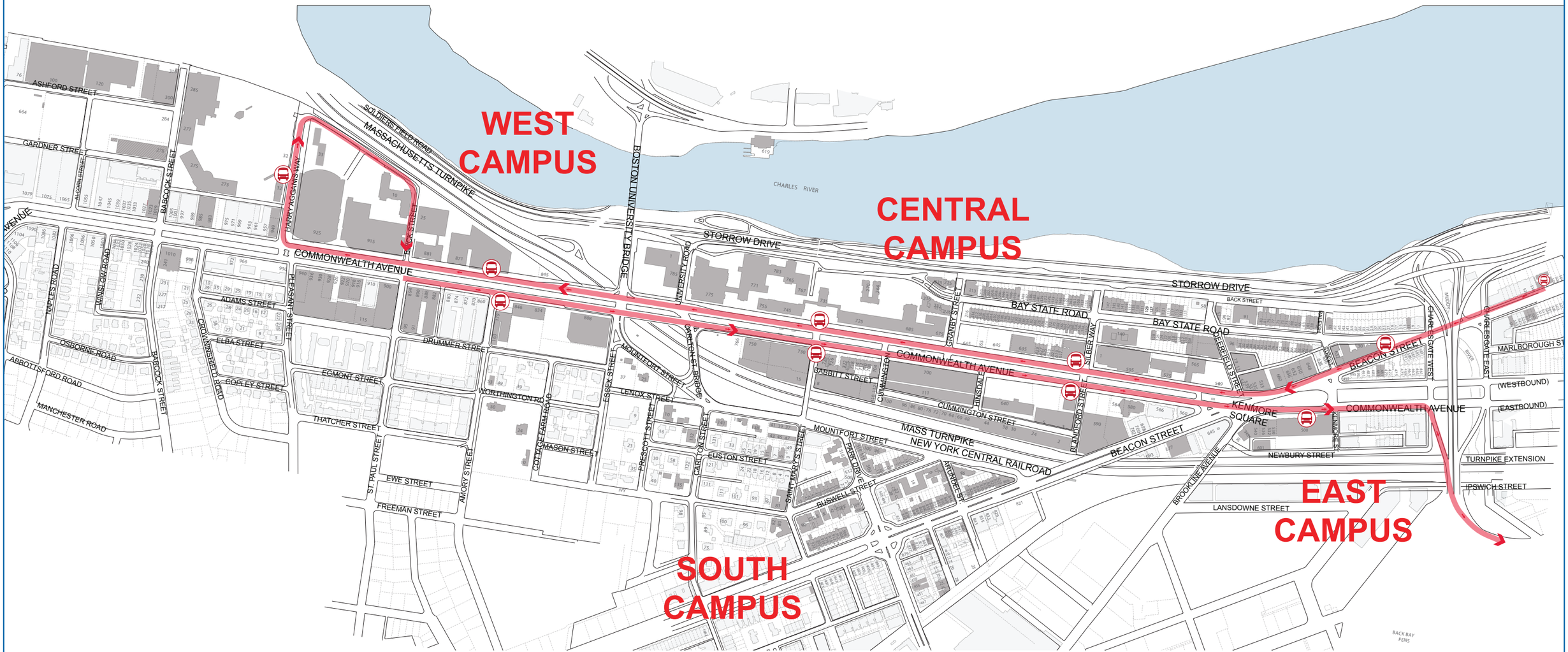
- Boston University Properties
- Building to be Removed
- MBTA Green Line
- MBTA Commuter Rail
- MBTA Bus 57
- Below Grade Trolley Tracks

Boston University Charles River Campus
2012-2022 Master Plan

Key MBTA Stations or Stops near the Charles River Campus

Figure 18

P:/127-4220-12001/SupportDocs/Graphics/Source/BUS Route.ai



NORTH - NOT TO SCALE

BOSTON UNIVERSITY

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Framingham, MA 01701-9005
508.903.2000
www.tetratech.com

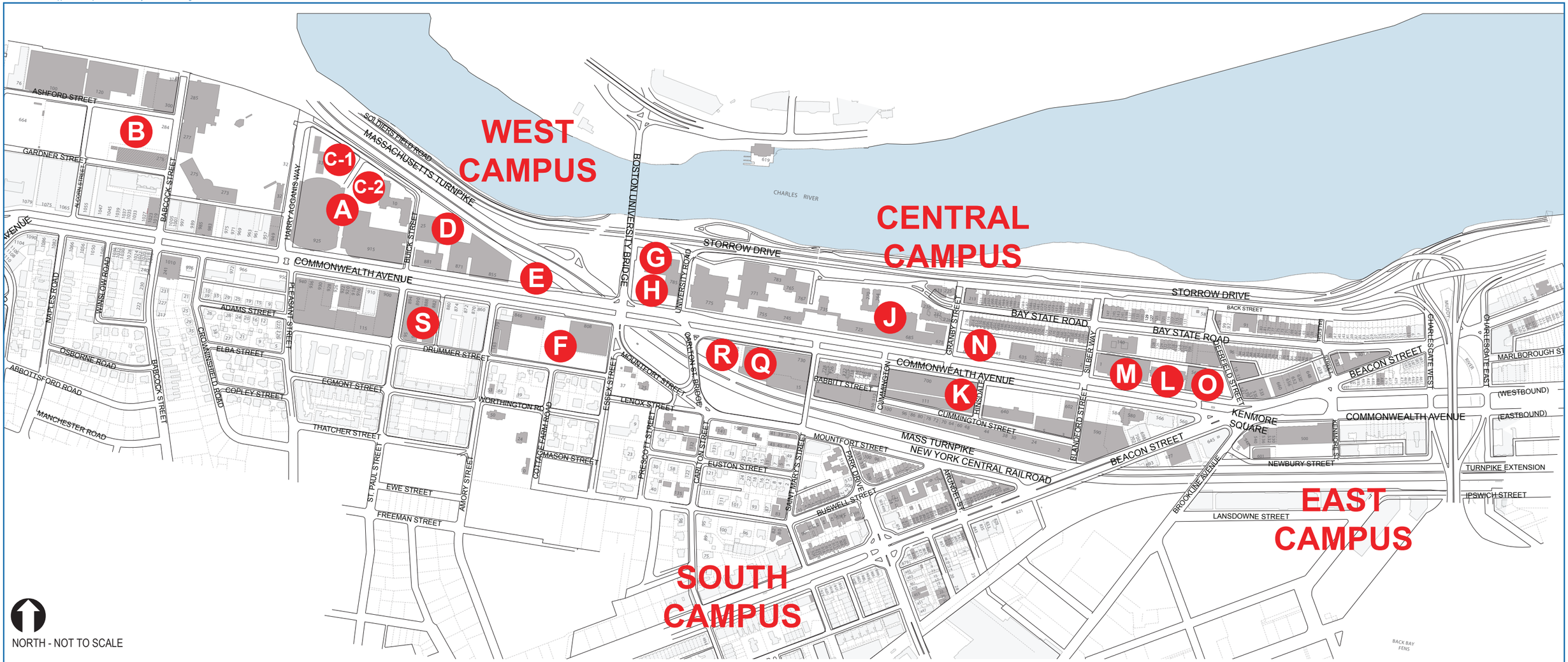
- Boston University Properties
- Building to be Removed
- BUS Route
- BUS Stop

Boston University Charles River Campus
2012-2022 Master Plan

BUS Route (Boston University Shuttle)

Figure 19

P:/127-4220-12001/SupportDocs/Graphics/Source/BU Major Off-Street Parking Facilities.ai



NORTH - NOT TO SCALE

Location		Spaces
A	JHSV (Garage)	640
B	Babcock Street Lot	361
C-1	JHSV Lot 1	37
C-2	JHSV Lot 2	102
D	Buick Street Lots	144
E	CFA Lot	41
F	808 Commonwealth Ave.	263
G	Lower Bridge Lot	42
H	Bridge Lot	67
J	CAS Lot	168

Location		Spaces
K	Warren Towers Garage	481
L	575 Commonwealth Ave.	117
M	SMG	269
N	Granby Street Lot	126
O	Kenmore Lot	116
Q	730-750 Commonwealth Ave.	138
R	766 Commonwealth Ave.	83
S	890 Commonwealth Ave.	46
	Alleys	356
	Miscellaneous	112

Total Spaces:
3,709

Boston University Properties
Building to be Removed

BOSTON UNIVERSITY

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One Grant Street
Framingham, MA 01701-9005
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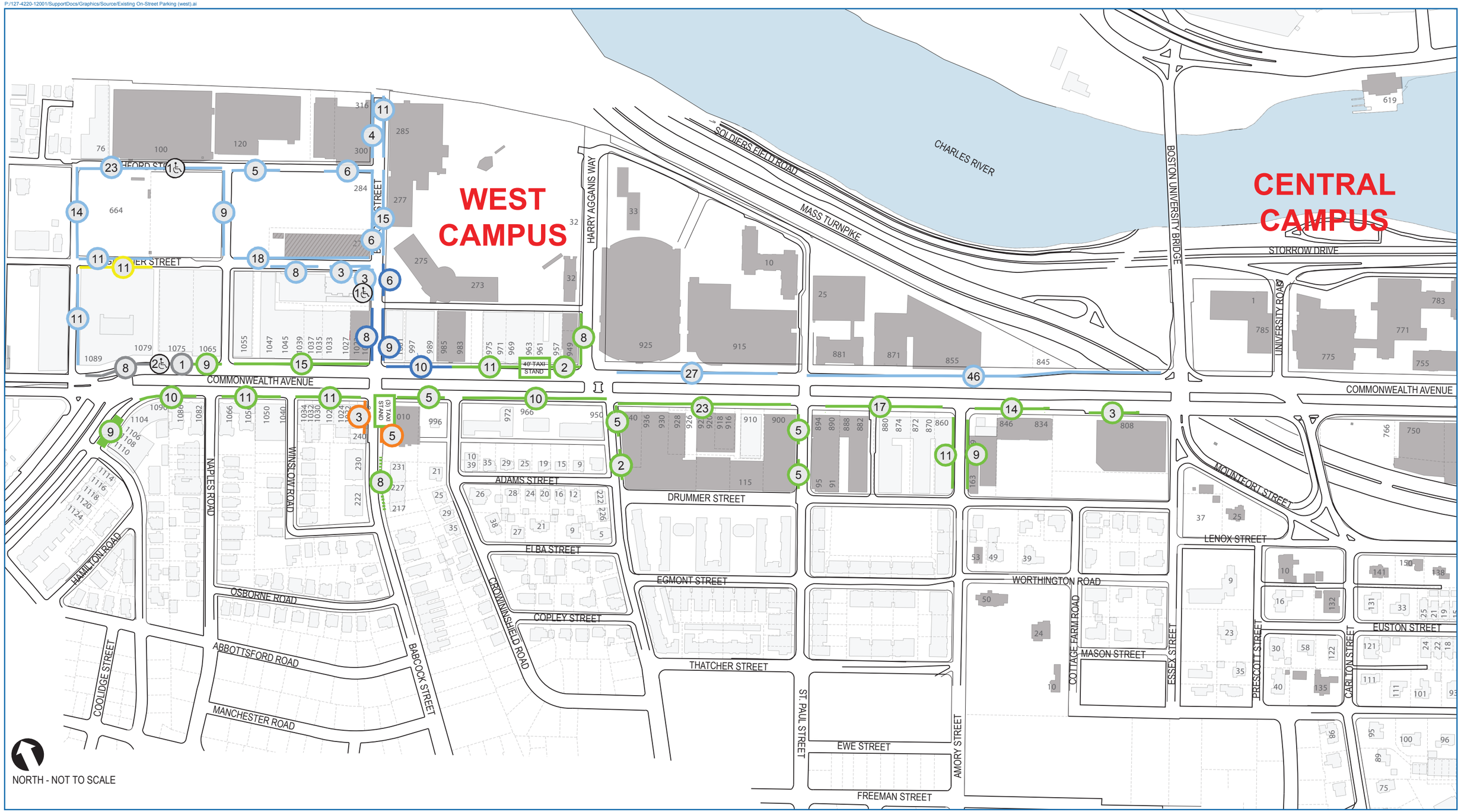
Boston University Charles River Campus
2012-2022 Master Plan

Boston University Major Off-Street Parking Facilities

Figure 20

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing On-Street Parking (west).ai



BOSTON UNIVERSITY

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One Grant Street
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www.tetratech.com

2 Hour Meters (8AM-6PM M-SAT)
2 Hour Meters (EXCEPT 8AM-10AM)
2 Hour Meters (8AM-4PM M-SAT)
3 Hour Meters (8AM-6PM M-SAT)
4 Hour Meters (8AM-6PM M-SAT)

Allston/Brighton Resident Parking
Boston Police Vehicles Only
Fenway / Kenmore Resident Parking (est.)

Boston University Properties
Building to be Removed

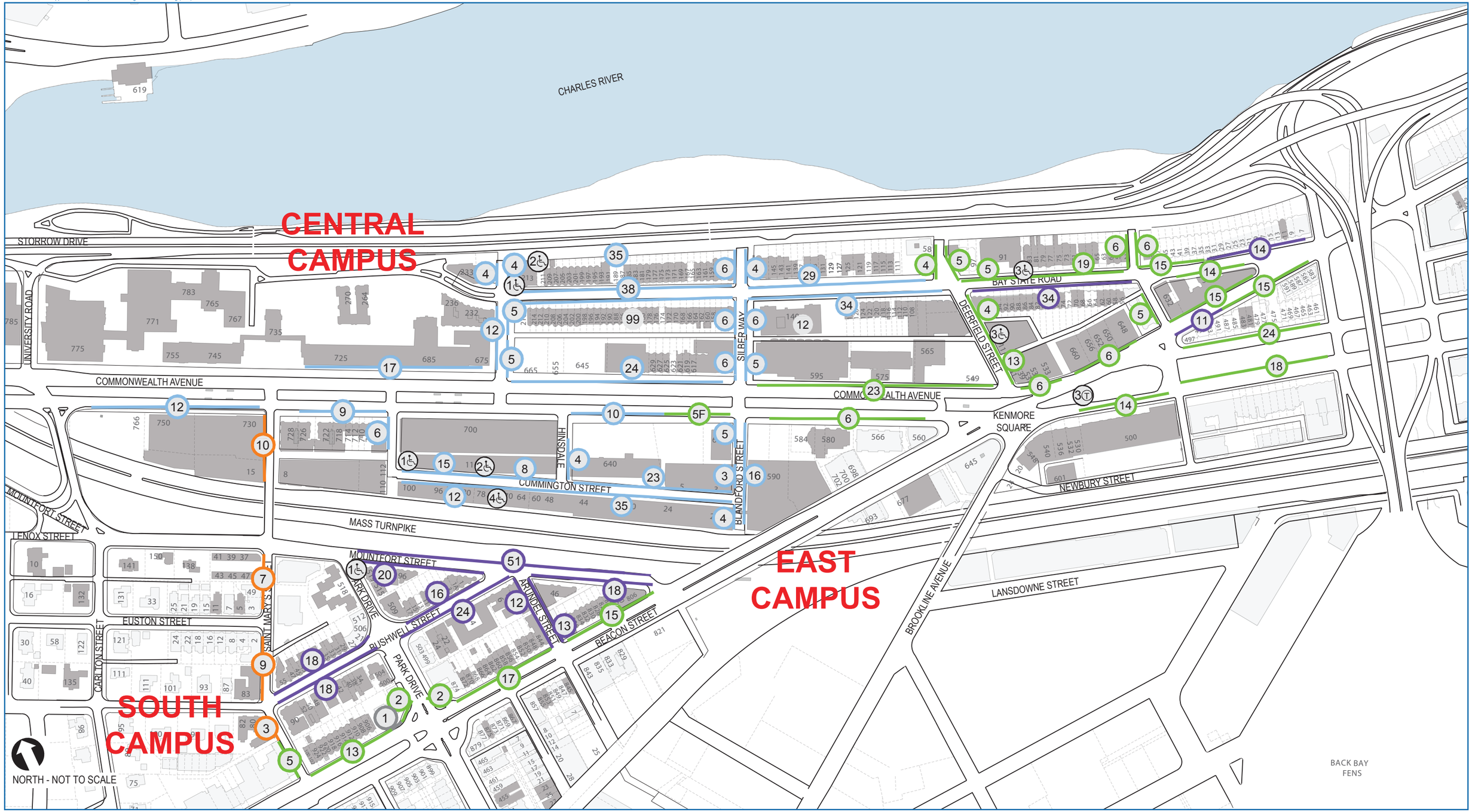
Handicap Parking
MBTA "T" Parking Only
Reserved for Food Trucks

Boston University Charles River Campus
2012-2022 Master Plan

Exsiting On-Street Parking

Figure 21A

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing On-Street Parking (east).ai



BOSTON UNIVERSITY

TETRATECH
One Grant Street
Framingham, MA 01701-9005
508.903.2000
www.tetratech.com

- 2 Hour Meters (8AM-6PM M-SAT)
- 2 Hour Meters (EXCEPT 8AM-10AM)
- 2 Hour Meters (8AM-4PM M-SAT)
- 3 Hour Meters (8AM-6PM M-SAT)
- 4 Hour Meters (8AM-6PM M-SAT)

- Allston/Brighton Resident Parking
- Boston Police Vehicles Only
- Fenway / Kenmore Resident Parking (est.)
- No Parking due to Construction

- Handicap Parking
- MBTA "T" Parking Only
- Reserved for Food Trucks

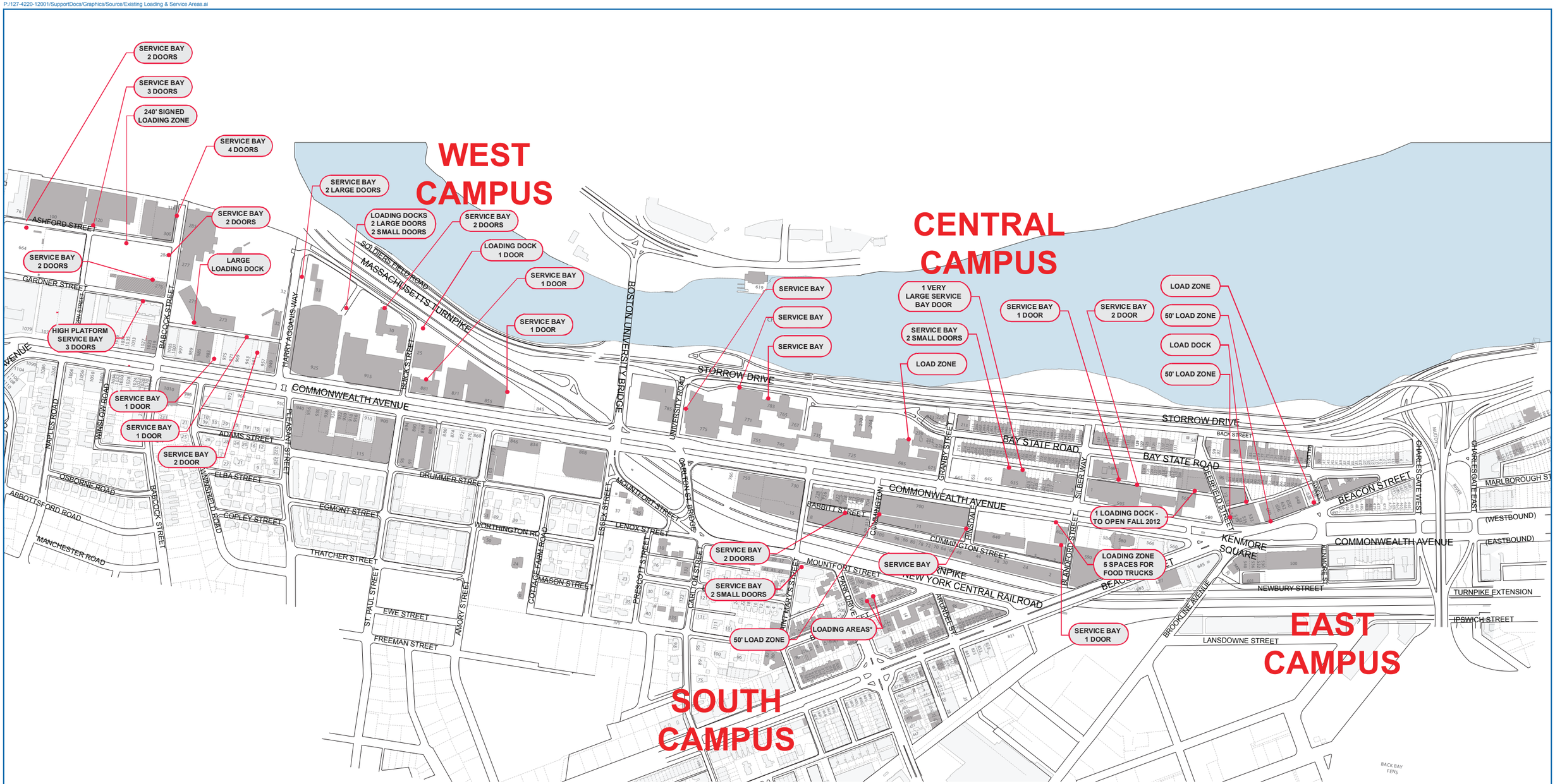
Boston University Properties

Boston University Charles River Campus
2012-2022 Master Plan

Existing On-Street Parking

Figure 21B

P:/127-4220-12001/SupportDocs/Graphics/Source/Existing Loading & Service Areas.ai



NORTH - NOT TO SCALE

* = "Loading Areas" appear to be used for loading and unloading, but have normal sized doors and no specific signage.

Boston University Properties
Building to be Removed

BOSTON UNIVERSITY

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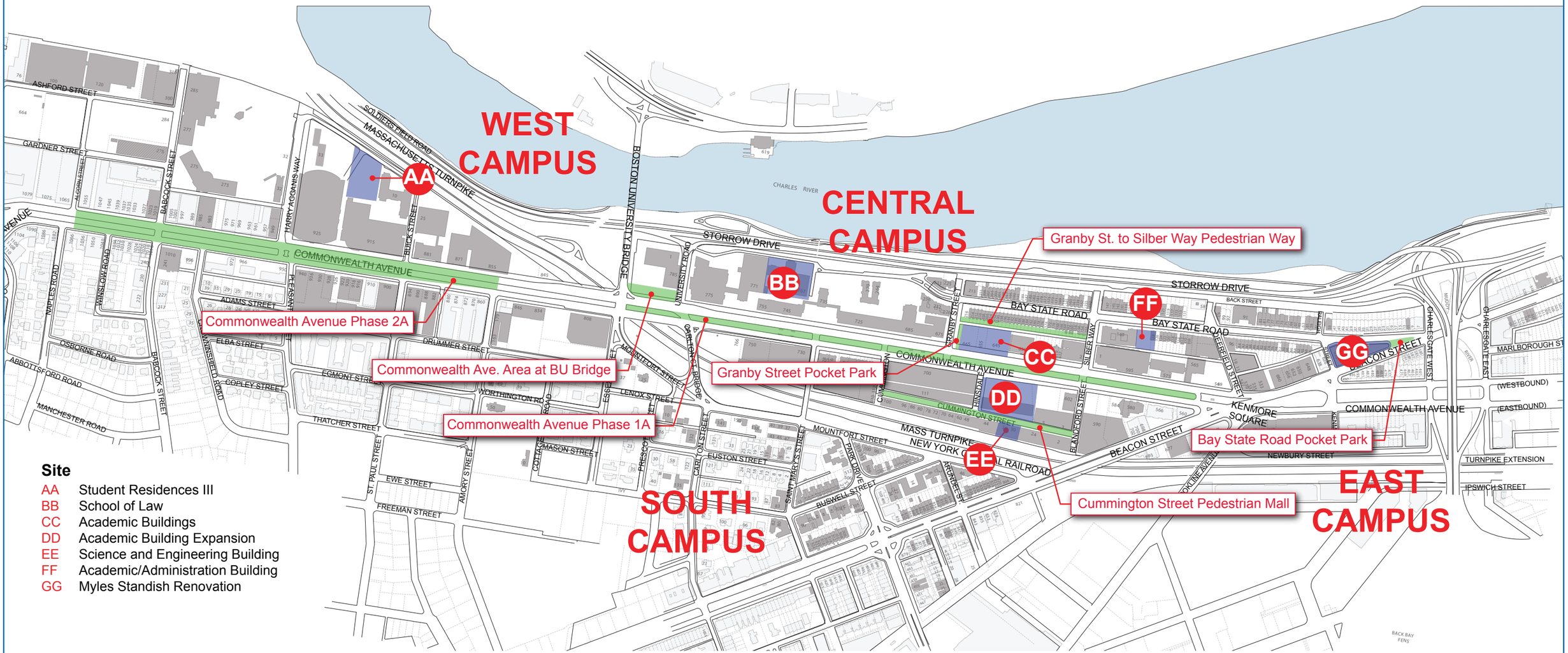
One Grant Street
Framingham, MA 01701-9005
508.903.2000
www.tetratech.com

Boston University Charles River Campus
2012-2022 Master Plan

Existing Loading & Service Areas

Figure 22

P:/127-4220-12001/SupportDocs/Graphics/Source/Master Plan Projects.ai



Site

AA	Student Residences III
BB	School of Law
CC	Academic Buildings
DD	Academic Building Expansion
EE	Science and Engineering Building
FF	Academic/Administration Building
GG	Myles Standish Renovation

NORTH - NOT TO SCALE

- Boston University Properties
- Building to be Removed
- Proposed Institutional Projects
- Proposed Public Realm Improvements

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Boston University Charles River Campus
2012-2022 Master Plan

Master Plan Projects

Figure 23

P:/127-4220-12001/SupportDocs/Graphics/Source/Alternative Conceptual Plan.ai

STAR MARKET
ALCORN ST
PLANNED PARENTHOOD
T-MOBILE
(RESIDENTIAL ABOVE)
EASTERN MOUNTAIN SPORTS
CITY SPORTS
BROWN SUGAR CAFE
PRODUCTIONS MOTION PICTURES
VICTORIA SEAFOOD
1027 RESIDENTIAL
LISA HAIR DESIGN
BU DORMS
BABCOCK ST
MATCH CHARTER PUBLIC HIGH SCHOOL
FAMILY JUSTICE CENTER OF BOSTON
985 BU MARKETING & COMMUNICATIONS
AUTO SERVICE EXPERTS
MIDAS/BU SOURCING

11" Pin Oak to Remain (Good)
9" Pin Oak to Remain (Good)
9" Pin Oak to Remain (Good)
8" Pin Oak to Remain (Good)
BENCH TYP.
8" Pin Oak to Remain (Good)
SOLAR TRASH COMPACTOR TYP.

Babcock St. T Stop

BIKE RACKS TYP.
BENCH TYP.
BRICK FEATURE STRIP, TYP.

RESIDENTIAL
RESIDENTIAL
NAPLES RD
RESIDENTIAL
RESIDENTIAL
BOB'S WILDERNESS HOUSE
WINSLOW RD
FOOD & DAIRY COUNCIL
EXIT REALTY
KAYURA JAPANESE RESTAURANT
BOSTON PIZZA EXPRESS
QUANS KITCHEN
LEEBA INNER COIFFURE
ANGORA CAFE
UBURGER
DUNKIN' DONUTS
T. ANTHONY'S PIZZA
BABCOCK ST
#1010 RESIDENTIAL
ENTERPRISE
CROWNINSHIELD RD

BOSTONIA. CONDITA A.D. 1630.

NORTH - NOT TO SCALE

EXISTING BUS SHELTER
EXISTING T STOP SHELTER
GREEN LINE (OUTBOUND)
GREEN LINE (INBOUND)
MINIMUM MEDIAN OFFSET
T STOP
PROPOSED TREE (IN GRATE)
PROPOSED TREE (IN PLANTER)
EXISTING TREE TO REMAIN
STREET LIGHT
BIKE RACKS
BENCH
SOLAR TRASH COMPACTOR

TREE TOTALS:

5 EXISTING TREES -TO REMAIN
8 EXISTING TREES - REMOVED *(15 cal. inch - mature)*
18 EXISTING TREES - REMOVED *(under 15 cal. inch)*
117 PROPOSED STREET TREES
125 PROPOSED MEDIAN TREES

Source: BETA Group, Inc. and Copley Wolff Design Group

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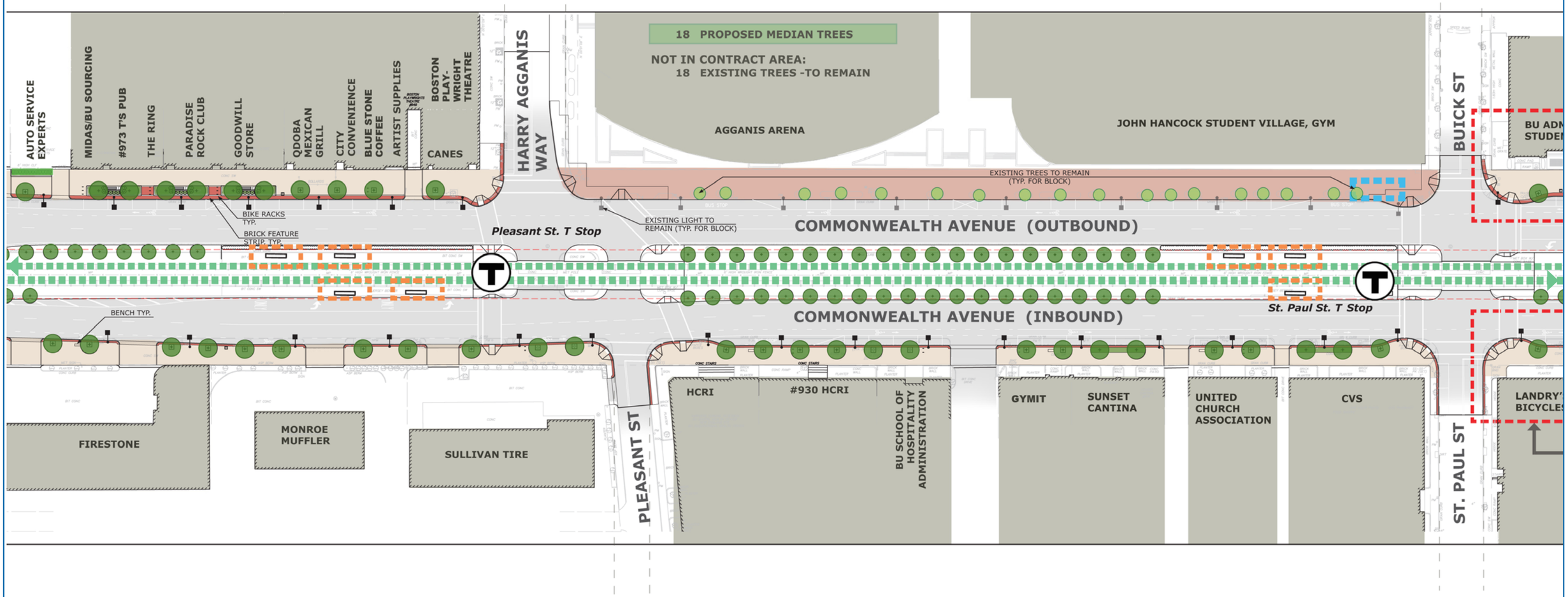
Boston University Charles River Campus
2012-2022 Master Plan

Commonwealth Avenue Streetscape Plan

Figure 24A

P:/127-4220-12001/SupportDocs/Graphics/Source/Alternative Conceptual Plan.ai



NORTH - NOT TO SCALE

BOSTON UNIVERSITY

TETRA TECH
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Framingham, MA 01701-9005
508.903.2000
www.tetratech.com

EXISTING BUS SHELTER
EXISTING T STOP SHELTER
GREEN LINE (OUTBOUND)
GREEN LINE (INBOUND)
MINIMUM MEDIAN OFFSET
T STOP
PROPOSED TREE (IN GRATE)
PROPOSED TREE (IN PLANTER)
EXISTING TREE TO REMAIN
STREET LIGHT
BIKE RACKS
BENCH
SOLAR TRASH COMPACTOR

TREE TOTALS:

5	EXISTING TREES -TO REMAIN
8	EXISTING TREES - REMOVED *(15 cal. inch - mature)*
18	EXISTING TREES - REMOVED *(under 15 cal. inch)*
117	PROPOSED STREET TREES
125	PROPOSED MEDIAN TREES

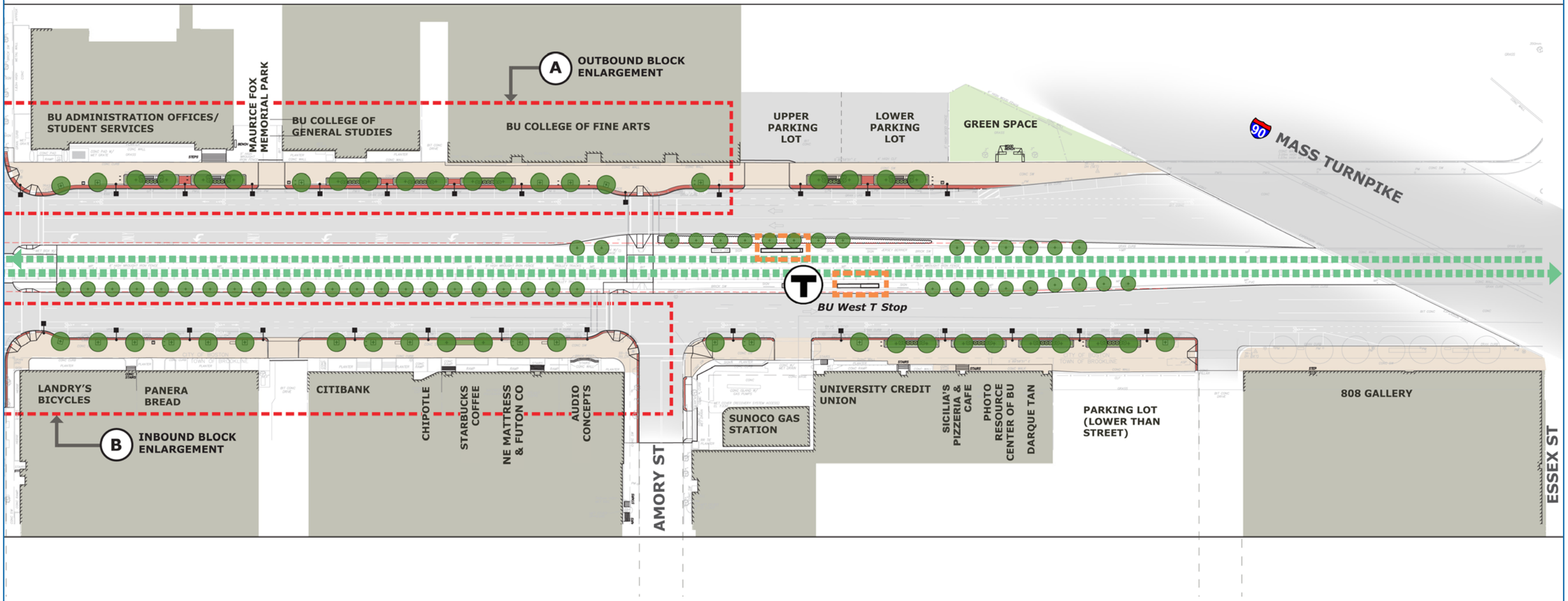
Source: BETA Group, Inc.
and Copley Wolff Design Group

Boston University Charles River Campus
2012-2022 Master Plan

Commonwealth Avenue Streetscape Plan

Figure 24B

P:/127-4220-12001/SupportDocs/Graphics/Source/Alternative Conceptual Plan.ai



NORTH - NOT TO SCALE

BOSTON UNIVERSITY

TETRA TECH
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Framingham, MA 01701-9005
508.903.2000
www.tetratech.com

EXISTING BUS SHELTER
EXISTING T STOP SHELTER
GREEN LINE (OUTBOUND)
GREEN LINE (INBOUND)
MINIMUM MEDIAN OFFSET
T STOP
PROPOSED TREE (IN GRATE)
PROPOSED TREE (IN PLANTER)
EXISTING TREE TO REMAIN
STREET LIGHT
BIKE RACKS
BENCH
SOLAR TRASH COMPACTOR

TREE TOTALS:

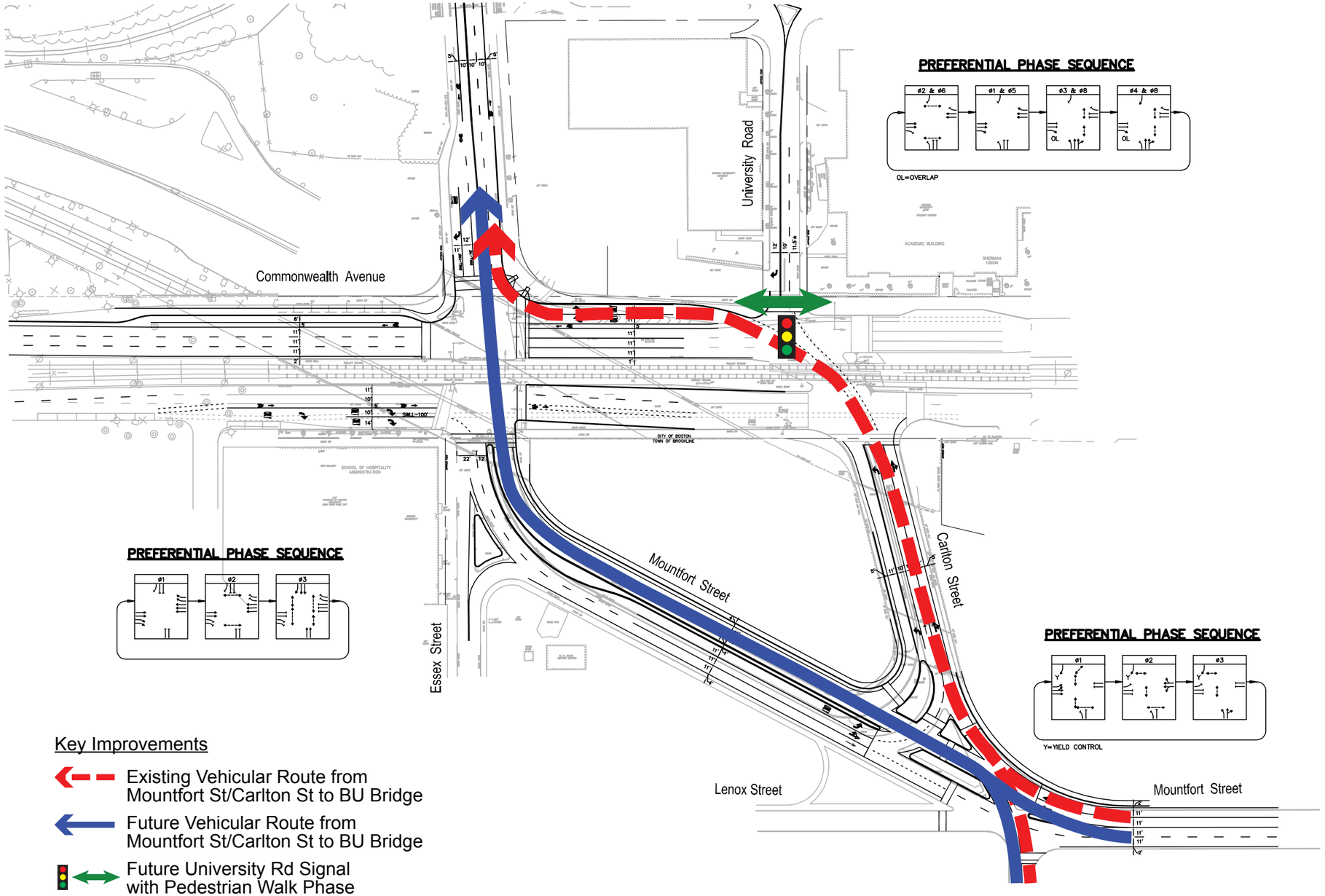
5	EXISTING TREES -TO REMAIN
8	EXISTING TREES - REMOVED *(15 cal. inch - mature)*
18	EXISTING TREES - REMOVED *(under 15 cal. inch)*
117	PROPOSED STREET TREES
125	PROPOSED MEDIAN TREES

Source: BETA Group, Inc.
and Copley Wolff Design Group

Boston University Charles River Campus
2012-2022 Master Plan

Commonwealth Avenue Streetscape Plan

Figure 24C



Key Improvements

- Existing Vehicular Route from Mountfort St/Carlton St to BU Bridge
- Future Vehicular Route from Mountfort St/Carlton St to BU Bridge
- Future University Rd Signal with Pedestrian Walk Phase

NORTH - NOT TO SCALE

Source: VHB

BOSTON UNIVERSITY

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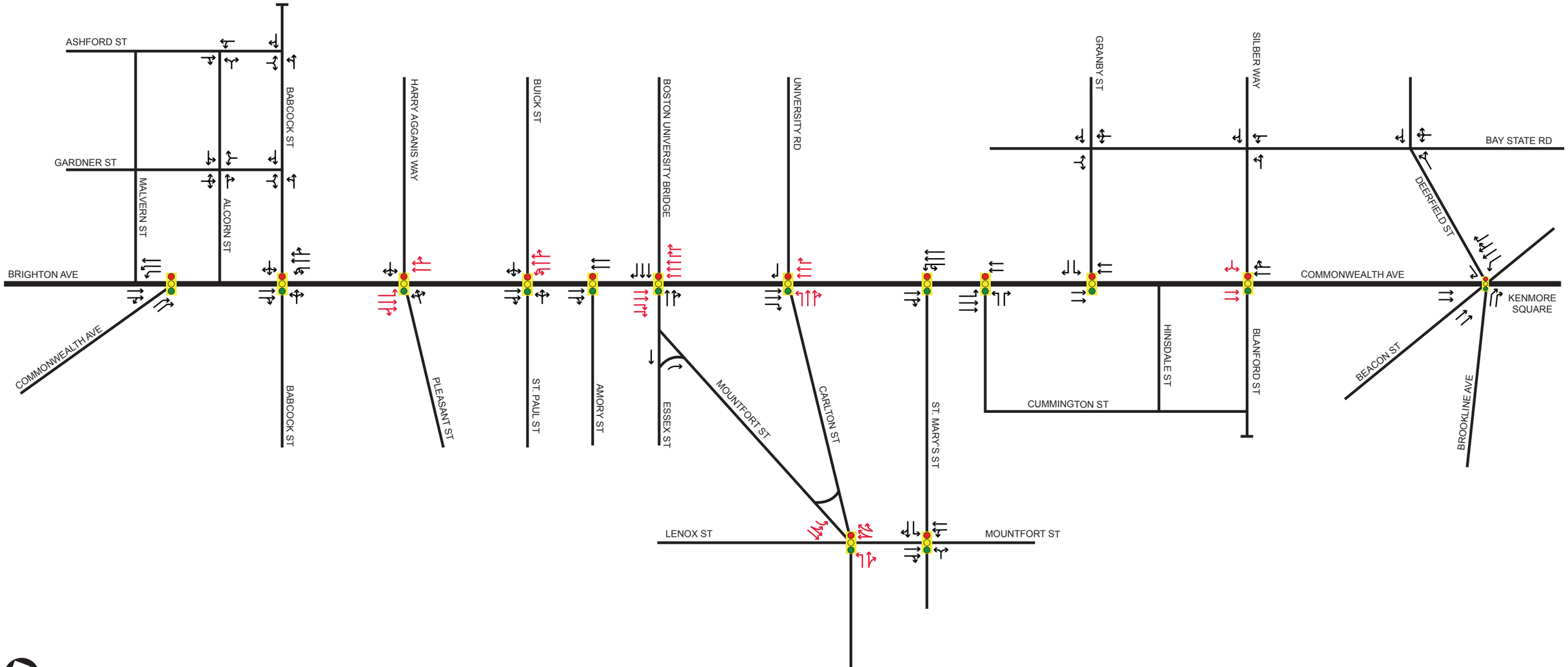
Boston University Bridge Conceptual Plan

Figure 25

P:/127-4220-12001/SupportDocs/Graphics/Source/Future Lane Configurations.ai



Traffic Signal

← Changed from Existing Conditions

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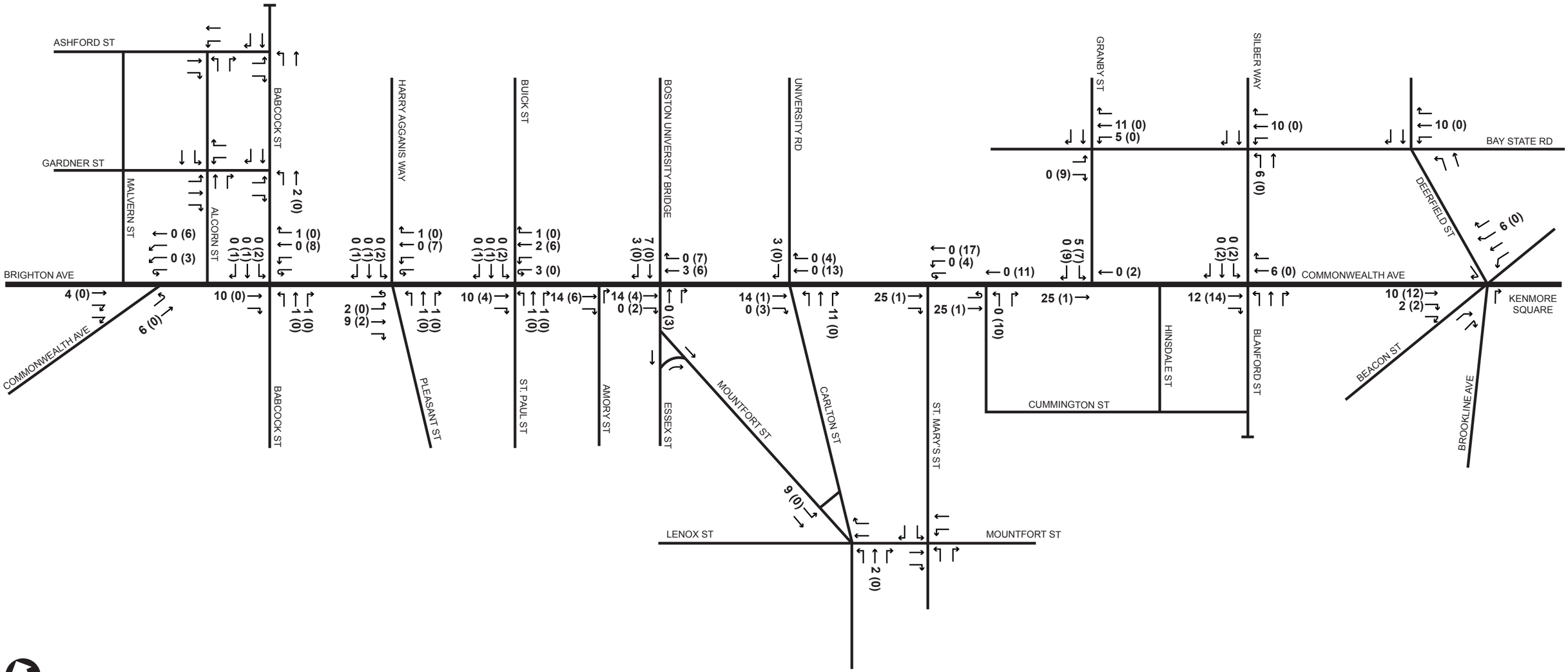
Boston University Charles River Campus
2012-2022 Master Plan

Future Lane Configurations

Figure 26

P:/127-4220-12001/SupportDocs/Graphics/Source/Master Plan Projects Peak Hour Trips.ai



NORTH - NOT TO SCALE

AM (PM)

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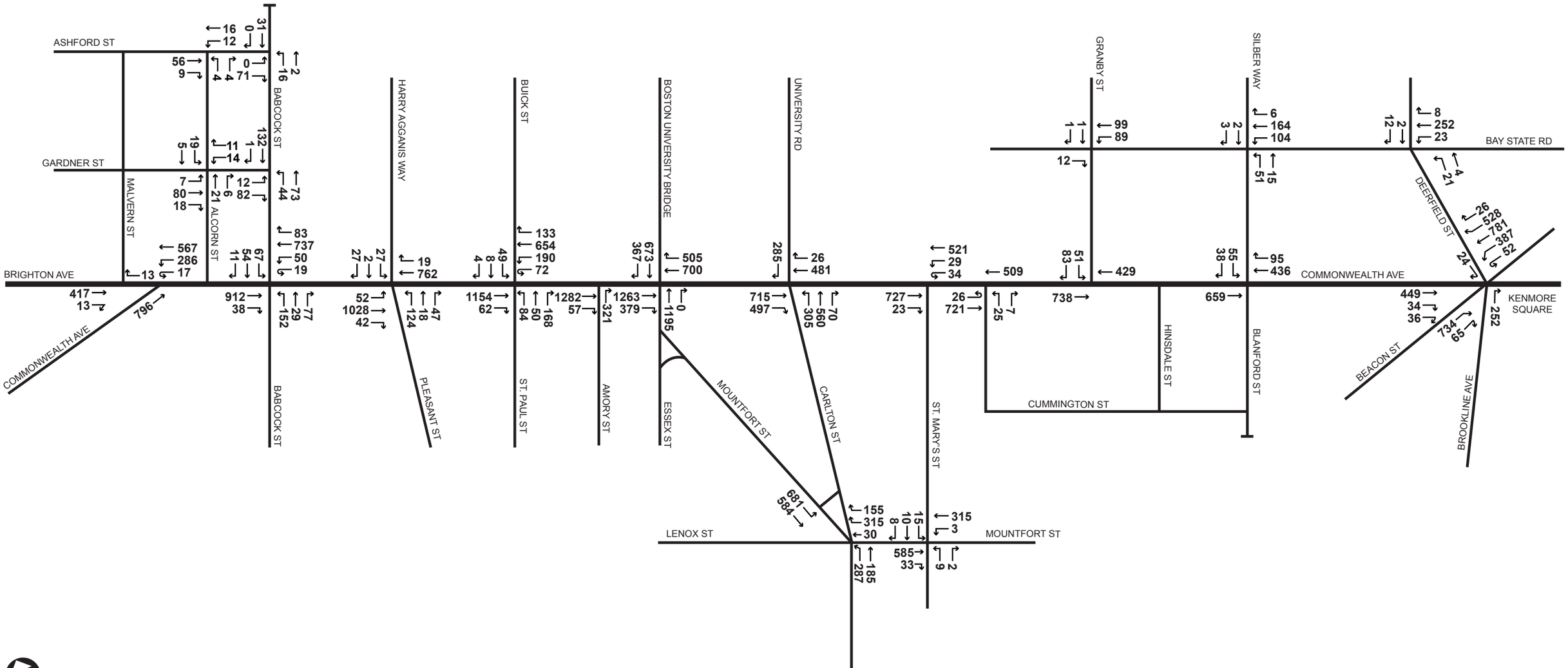
508.903.2000
www.tetratech.com

Boston University Charles River Campus
2012-2022 Master Plan

Master Plan Projects Peak Hour Trips

Figure 27

P:/127-4220-12001/SupportDocs/Graphics/Source/Future 2022 Morning Peak Hour Traffic Volumes.ai



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TETRA TECH

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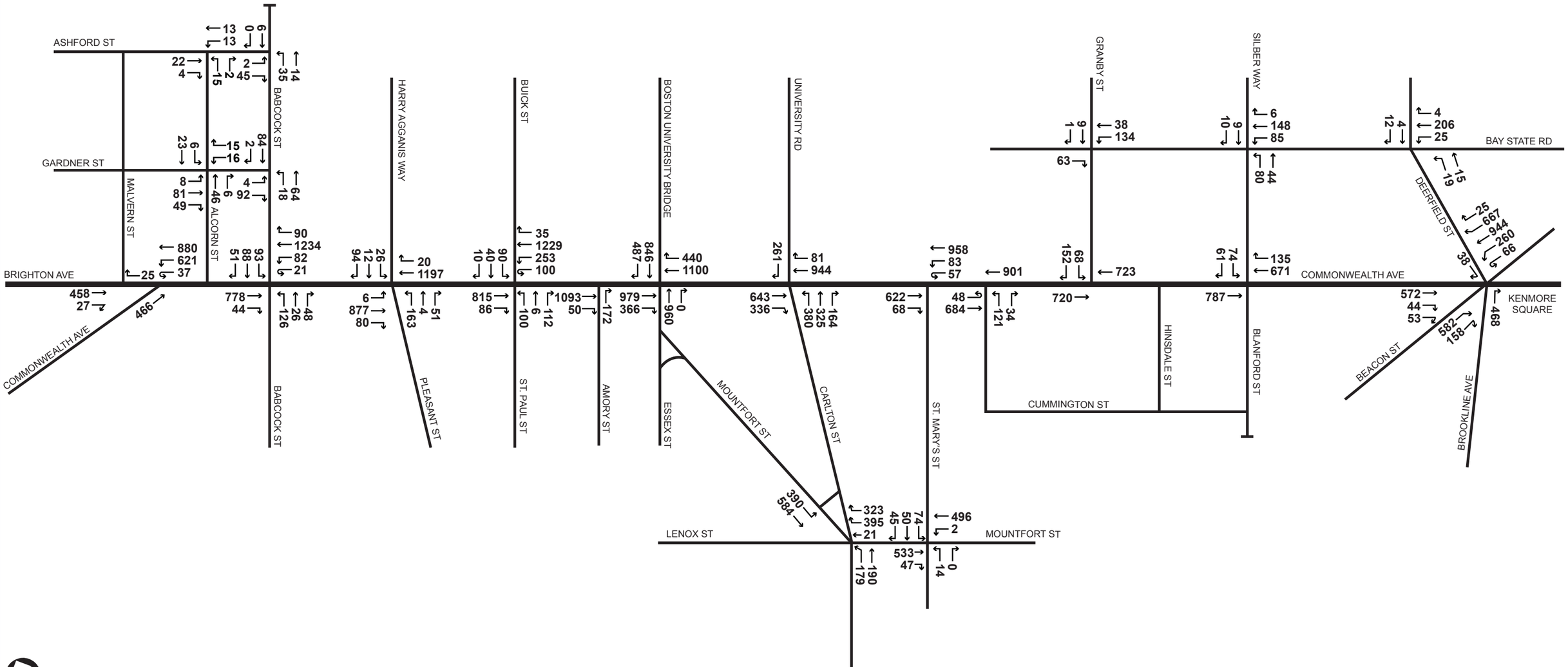
Boston University Charles River Campus
2012-2022 Master Plan

Future (2022) Morning Peak Hour Traffic Volumes

Figure 28

P:/127-4220-12001/SupportDocs/Graphics/Source/Future 2022 Afternoon Peak Hour Traffic Volumes.ai



NORTH - NOT TO SCALE

BOSTON UNIVERSITY

TETRA TECH

One Grant Street
Framingham, MA 01701-9005
508.903.2000
www.tetratech.com

Boston University Charles River Campus
2012-2022 Master Plan

Future (2022) Afternoon Peak Hour Traffic Volumes

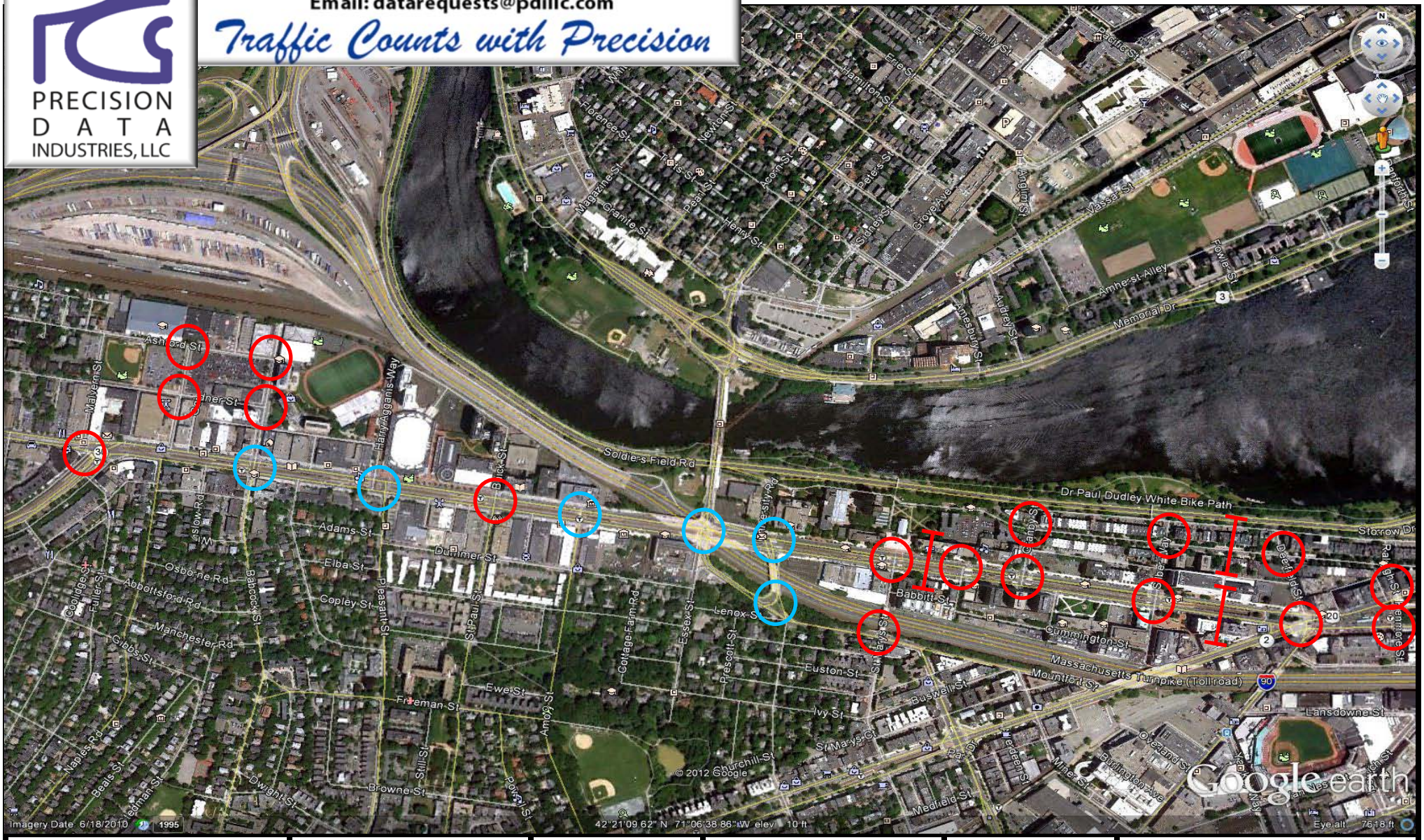
Figure 29

Appendix A

Traffic Count Data

PRECISION DATA INDUSTRIES, LLC
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Traffic Counts with Precision



Client:	Engineer:	Site Code:	Date:	PDI Job Number:	City, State:
Tetra Tech Rizzo	M. Hall	127-4220-12001.002	Tues 3/20 thru Wed 3/21/2012	122828	Boston, MA (BU)

Commonwealth Avenue (Route 20/30)
east of Silber Way
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

122828 B WB volume
Site Code: 127-4220-12001.002

Start Time	A.M.	WB	P.M.				Tue 03-Apr-12
12:00	51		118				
12:15	52		185				
12:30	42		148				
12:45	27	172	124	575			
01:00	30		110				
01:15	27		117				
01:30	22		121				
01:45	28	107	153	501			
02:00	28		130				
02:15	28		113				
02:30	18		129				
02:45	12	86	141	513			
03:00	8		154				
03:15	4		172				
03:30	9		168				
03:45	8	29	179	673			
04:00	6		158				
04:15	11		160				
04:30	10		170				
04:45	16	43	176	664			
05:00	24		214				
05:15	19		215				
05:30	35		192				
05:45	52	130	192	813			
06:00	56		184				
06:15	62		164				
06:30	72		160				
06:45	94	284	162	670			
07:00	84		148				
07:15	72		141				
07:30	103		138				
07:45	114	373	127	554			
08:00	133		106				
08:15	130		160				
08:30	112		143				
08:45	134	509	148	557			
09:00	159		182				
09:15	156		136				
09:30	130		116				
09:45	166	611	94	528			
10:00	148		92				
10:15	140		94				
10:30	134		82				
10:45	164	586	74	342			
11:00	118		72				
11:15	142		53				
11:30	124		62				
11:45	149	533	68	255			
Total	3463		6645				
Percent			100.0%		0.0%	0.0%	
Day Total		10108					
Peak	09:00		05:00				
Vol.	611		813				
P.H.F.	0.920		0.945				

Commonwealth Avenue (Route 20/30)
east of Silber Way
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

122828 B WB volume
Site Code: 127-4220-12001.002

Start Time	A.M.	WB	P.M.				Wed 04-Apr-12
12:00	55		128				
12:15	54		144				
12:30	49		139				
12:45	45	203	130	541			
01:00	33		134				
01:15	42		128				
01:30	30		144				
01:45	22	127	154	560			
02:00	22		138				
02:15	31		126				
02:30	19		180				
02:45	16	88	174	618			
03:00	16		169				
03:15	12		174				
03:30	7		178				
03:45	7	42	182	703			
04:00	6		188				
04:15	5		161				
04:30	10		189				
04:45	10	31	179	717			
05:00	6		228				
05:15	18		220				
05:30	20		201				
05:45	54	98	181	830			
06:00	56		220				
06:15	60		202				
06:30	81		164				
06:45	86	283	183	769			
07:00	100		146				
07:15	98		144				
07:30	110		162				
07:45	114	422	148	600			
08:00	112		134				
08:15	134		138				
08:30	132		170				
08:45	132	510	154	596			
09:00	136		178				
09:15	151		133				
09:30	126		90				
09:45	144	557	106	507			
10:00	125		90				
10:15	113		110				
10:30	139		100				
10:45	128	505	77	377			
11:00	152		67				
11:15	122		84				
11:30	130		50				
11:45	144	548	54	255			
Total	3414		7073				
Percent			100.0%		0.0%	0.0%	
Day Total		10487					
Peak	09:00		05:00				
Vol.	557		830				
P.H.F.	0.922		0.910				

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 20/30)
east of St. Marys Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

122828 A volume
Site Code: 127-4220-12001.002

Start	EB				WB				Combined				20-Mar-12
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	39		148		60		148		99		296		
12:15	38		163		42		190		80		353		
12:30	40		152		37		202		77		354		
12:45	43	160	136	599	46	185	176	716	89	345	312	1315	
01:00	34		135		38		153		72		288		
01:15	32		136		38		144		70		280		
01:30	20		142		26		166		46		308		
01:45	11	97	176	589	24	126	190	653	35	223	366	1242	
02:00	13		149		24		188		37		337		
02:15	20		147		23		168		43		315		
02:30	14		116		18		182		32		298		
02:45	14	61	142	554	12	77	175	713	26	138	317	1267	
03:00	12		136		13		179		25		315		
03:15	12		157		17		220		29		377		
03:30	5		174		7		232		12		406		
03:45	12	41	136	603	14	51	206	837	26	92	342	1440	
04:00	13		134		12		231		25		365		
04:15	11		152		9		184		20		336		
04:30	16		154		16		204		32		358		
04:45	13	53	164	604	11	48	222	841	24	101	386	1445	
05:00	14		155		16		258		30		413		
05:15	16		181		20		262		36		443		
05:30	20		180		28		244		48		424		
05:45	38	88	173	689	56	120	256	1020	94	208	429	1709	
06:00	28		170		49		249		77		419		
06:15	46		142		61		222		107		364		
06:30	58		121		74		200		132		321		
06:45	87	219	112	545	88	272	214	885	175	491	326	1430	
07:00	64		128		114		189		178		317		
07:15	98		108		94		136		192		244		
07:30	99		115		93		170		192		285		
07:45	132	393	130	481	144	445	178	673	276	838	308	1154	
08:00	142		124		156		184		298		308		
08:15	192		122		106		164		298		286		
08:30	168		105		148		182		316		287		
08:45	182	684	136	487	152	562	178	708	334	1246	314	1195	
09:00	184		136		156		230		340		366		
09:15	192		114		150		164		342		278		
09:30	168		114		152		142		320		256		
09:45	152	696	88	452	170	628	146	682	322	1324	234	1134	
10:00	106		98		140		112		246		210		
10:15	141		74		147		97		288		171		
10:30	146		64		141		86		287		150		
10:45	198	591	80	316	178	606	107	402	376	1197	187	718	
11:00	128		76		152		110		280		186		
11:15	125		56		153		69		278		125		
11:30	116		62		152		74		268		136		
11:45	143	512	52	246	164	621	70	323	307	1133	122	569	
Total	3595		6165		3741		8453		7336		14618		
Percent	49.0%		42.2%		51.0%		57.8%						
Day Total		9760				12194				21954			
Peak	08:15		05:15		10:45		05:00		08:45		05:15		
Vol.	726		704		635		1020		1336		1715		
P.H.F.	0.945		0.972		0.892		0.973		0.977		0.968		

PRECISION
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INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Commonwealth Avenue (Route 20/30)
east of St. Marys Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

122828 A volume
Site Code: 127-4220-12001.002

Start	EB				WB				Combined				21-Mar-12
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	38		160		74		178		112		338		
12:15	40		180		54		174		94		354		
12:30	44		166		47		199		91		365		
12:45	38	160	159	665	34	209	193	744	72	369	352	1409	
01:00	28		154		46		178		74		332		
01:15	30		154		27		172		57		326		
01:30	18		172		22		184		40		356		
01:45	21	97	180	660	26	121	184	718	47	218	364	1378	
02:00	18		134		17		189		35		323		
02:15	20		152		36		164		56		316		
02:30	20		133		23		178		43		311		
02:45	19	77	144	563	23	99	192	723	42	176	336	1286	
03:00	22		148		11		202		33		350		
03:15	10		173		13		232		23		405		
03:30	6		164		6		223		12		387		
03:45	10	48	160	645	8	38	189	846	18	86	349	1491	
04:00	7		158		4		229		11		387		
04:15	15		140		10		222		25		362		
04:30	15		138		15		207		30		345		
04:45	6	43	183	619	14	43	216	874	20	86	399	1493	
05:00	21		178		20		248		41		426		
05:15	21		164		12		232		33		396		
05:30	19		159		22		252		41		411		
05:45	36	97	202	703	62	116	236	968	98	213	438	1671	
06:00	31		192		38		230		69		422		
06:15	52		165		45		250		97		415		
06:30	62		153		67		220		129		373		
06:45	82	227	139	649	98	248	189	889	180	475	328	1538	
07:00	79		132		106		228		185		360		
07:15	94		138		121		184		215		322		
07:30	116		127		111		168		227		295		
07:45	162	451	140	537	130	468	156	736	292	919	296	1273	
08:00	150		125		111		164		261		289		
08:15	170		131		134		184		304		315		
08:30	160		96		114		152		274		248		
08:45	207	687	129	481	120	479	234	734	327	1166	363	1215	
09:00	170		135		146		214		316		349		
09:15	178		110		170		165		348		275		
09:30	188		108		142		160		330		268		
09:45	158	694	102	455	156	614	148	687	314	1308	250	1142	
10:00	142		105		160		123		302		228		
10:15	141		92		136		106		277		198		
10:30	132		106		188		110		320		216		
10:45	180	595	90	393	184	668	117	456	364	1263	207	849	
11:00	130		82		183		116		313		198		
11:15	156		60		149		76		305		136		
11:30	174		71		162		74		336		145		
11:45	146	606	54	267	174	668	54	320	320	1274	108	587	
Total	3782		6637		3771		8695		7553		15332		
Percent	50.1%		43.3%		49.9%		56.7%						
Day Total		10419				12466				22885			
Peak	08:45		05:30		10:30		05:00		08:45		05:30		
Vol.	743		718		704		968		1321		1686		
P.H.F.	0.897		0.889		0.936		0.960		0.949		0.962		

Commonwealth Avenue (Route 20/30)
east of Blandford Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

122828 B EB VOLUME
Site Code: 127-4220-12001.002

Start Time	A.M.	EB	P.M.				Mon 19-Mar-12
12:00	*		158				
12:15	*		153				
12:30	*		136				
12:45	*	0	148	595			
01:00	*		158				
01:15	*		124				
01:30	*		167				
01:45	*	0	170	619			
02:00	*		173				
02:15	*		152				
02:30	*		127				
02:45	*	0	172	624			
03:00	*		150				
03:15	*		171				
03:30	*		157				
03:45	*	0	145	623			
04:00	*		168				
04:15	*		162				
04:30	*		148				
04:45	*	0	152	630			
05:00	*		169				
05:15	*		178				
05:30	*		151				
05:45	*	0	158	656			
06:00	*		166				
06:15	*		128				
06:30	*		140				
06:45	*	0	166	600			
07:00	*		124				
07:15	*		130				
07:30	*		128				
07:45	*	0	122	504			
08:00	*		136				
08:15	*		106				
08:30	*		133				
08:45	*	0	157	532			
09:00	*		160				
09:15	*		94				
09:30	*		90				
09:45	*	0	100	444			
10:00	*		84				
10:15	*		98				
10:30	*		84				
10:45	*	0	65	331			
11:00	*		72				
11:15	*		54				
11:30	*		43				
11:45	*	0	52	221			
Total	0		6379				
Percent			100.0%		0.0%	0.0%	
Day Total		6379					
Peak			01:30				
Vol.			662				
P.H.F.			0.957				

Commonwealth Avenue (Route 20/30)
east of Blandford Street
City, State: Boston, MA
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122828 B EB VOLUME
Site Code: 127-4220-12001.002

Start Time	A.M.	EB	P.M.				Tue 20-Mar-12
12:00	46		0				
12:15	40		0				
12:30	40		0				
12:45	46	172	0	0			
01:00	33		0				
01:15	34		0				
01:30	22		0				
01:45	13	102	0	0			
02:00	14		0				
02:15	21		0				
02:30	14		0				
02:45	15	64	0	0			
03:00	12		0				
03:15	10		0				
03:30	5		0				
03:45	12	39	0	0			
04:00	13		0				
04:15	8		0				
04:30	14		0				
04:45	16	51	0	0			
05:00	18		0				
05:15	12		0				
05:30	14		0				
05:45	0	44	0	0			
06:00	0		0				
06:15	0		0				
06:30	0		0				
06:45	0	0	0	0			
07:00	0		0				
07:15	0		0				
07:30	0		0				
07:45	0	0	0	0			
08:00	0		0				
08:15	0		0				
08:30	0		0				
08:45	0	0	0	0			
09:00	0		0				
09:15	0		0				
09:30	0		0				
09:45	0	0	0	0			
10:00	0		0				
10:15	0		0				
10:30	0		0				
10:45	0	0	0	0			
11:00	0		0				
11:15	0		0				
11:30	0		0				
11:45	0	0	0	0			
Total	472		0				
Percent			0.0%		0.0%	0.0%	
Day Total		472					
Peak	12:00						
Vol.	172						
P.H.F.	0.935						

Commonwealth Avenue (Route 20/30)
east of Blandford Street
City, State: Boston, MA
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122828 B EB VOLUME
Site Code: 127-4220-12001.002

Start Time	A.M.	EB	P.M.				Wed 21-Mar-12
12:00	0		0				
12:15	0		0				
12:30	0		0				
12:45	0	0	0	0			
01:00	0		0				
01:15	0		0				
01:30	0		0				
01:45	0	0	0	0			
02:00	0		0				
02:15	0		0				
02:30	0		0				
02:45	0	0	0	0			
03:00	0		0				
03:15	0		0				
03:30	0		0				
03:45	0	0	0	0			
04:00	0		0				
04:15	0		0				
04:30	0		0				
04:45	0	0	0	0			
05:00	0		0				
05:15	0		0				
05:30	0		0				
05:45	0	0	0	0			
06:00	0		0				
06:15	0		0				
06:30	0		0				
06:45	0	0	0	0			
07:00	0		0				
07:15	0		13				
07:30	0		131				
07:45	0	0	142	286			
08:00	0		138				
08:15	0		146				
08:30	0		100				
08:45	0	0	157	541			
09:00	0		153				
09:15	0		139				
09:30	0		128				
09:45	0	0	103	523			
10:00	0		112				
10:15	0		94				
10:30	0		86				
10:45	0	0	105	397			
11:00	0		86				
11:15	0		64				
11:30	0		81				
11:45	0	0	68	299			
Total	0		2046				
Percent			100.0%		0.0%	0.0%	
Day Total		2046					
Peak			08:45				
Vol.			577				
P.H.F.			0.919				

Commonwealth Avenue (Route 20/30)
east of Blandford Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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122828 B EB VOLUME
Site Code: 127-4220-12001.002

Start Time	A.M.	EB	P.M.				Thu 22-Mar-12
12:00	52		138				
12:15	60		181				
12:30	36		170				
12:45	42	190	155	644			
01:00	40		154				
01:15	46		155				
01:30	34		170				
01:45	24	144	174	653			
02:00	32		166				
02:15	24		168				
02:30	24		150				
02:45	19	99	158	642			
03:00	12		156				
03:15	20		190				
03:30	14		170				
03:45	12	58	167	683			
04:00	10		170				
04:15	8		170				
04:30	9		176				
04:45	19	46	183	699			
05:00	6		204				
05:15	20		170				
05:30	18		168				
05:45	26	70	169	711			
06:00	30		214				
06:15	38		184				
06:30	48		175				
06:45	72	188	166	739			
07:00	73		140				
07:15	84		148				
07:30	117		168				
07:45	125	399	150	606			
08:00	124		154				
08:15	142		158				
08:30	152		161				
08:45	167	585	155	628			
09:00	157		166				
09:15	142		140				
09:30	158		156				
09:45	143	600	134	596			
10:00	141		110				
10:15	114		140				
10:30	155		124				
10:45	158	568	118	492			
11:00	146		116				
11:15	131		108				
11:30	166		94				
11:45	138	581	74	392			
Total	3528		7485				
Percent			100.0%		0.0%	0.0%	
Day Total		11013					
Peak	08:45		05:45				
Vol.	624		742				
P.H.F.	0.934		0.867				

Commonwealth Avenue (Route 20/30)
east of Blandford Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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122828 B EB VOLUME
Site Code: 127-4220-12001.002

Start Time	A.M.	EB	P.M.				Fri 23-Mar-12
12:00	81		*				
12:15	94		*				
12:30	101		*				
12:45	72	348	*	0			
01:00	58		*				
01:15	75		*				
01:30	66		*				
01:45	74	273	*	0			
02:00	80		*				
02:15	68		*				
02:30	44		*				
02:45	44	236	*	0			
03:00	54		*				
03:15	56		*				
03:30	26		*				
03:45	14	150	*	0			
04:00	8		*				
04:15	12		*				
04:30	22		*				
04:45	18	60	*	0			
05:00	14		*				
05:15	15		*				
05:30	22		*				
05:45	30	81	*	0			
06:00	35		*				
06:15	46		*				
06:30	46		*				
06:45	56	183	*	0			
07:00	80		*				
07:15	92		*				
07:30	106		*				
07:45	125	403	*	0			
08:00	124		*				
08:15	164		*				
08:30	178		*				
08:45	162	628	*	0			
09:00	185		*				
09:15	156		*				
09:30	144		*				
09:45	139	624	*	0			
10:00	156		*				
10:15	*	*	*	*			
10:30	*	*	*	*			
10:45	*	*	*	*			
11:00	*	*	*	*			
11:15	*	*	*	*			
11:30	*	*	*	*			
11:45	*	*	*	*			
Total	3142		0				
Percent			0.0%		0.0%	0.0%	
Day Total		2986					
Peak	08:15						
Vol.	689						
P.H.F.	0.931						

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Bay State Road
west of Deerfield Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

122828 C VOLUME
Site Code: 127-4220-12001.002

Start Time	A.M.	WB	P.M.				Tue 20-Mar-12
12:00	7		40				
12:15	0		55				
12:30	4		41				
12:45	5	16	46	182			
01:00	3		32				
01:15	8		35				
01:30	1		36				
01:45	4	16	40	143			
02:00	3		38				
02:15	1		38				
02:30	0		43				
02:45	3	7	34	153			
03:00	0		42				
03:15	2		67				
03:30	0		56				
03:45	0	2	48	213			
04:00	0		47				
04:15	4		38				
04:30	2		45				
04:45	6	12	58	188			
05:00	4		56				
05:15	6		66				
05:30	9		59				
05:45	20	39	68	249			
06:00	23		47				
06:15	23		56				
06:30	36		35				
06:45	32	114	50	188			
07:00	40		24				
07:15	43		29				
07:30	39		30				
07:45	47	169	21	104			
08:00	60		22				
08:15	58		20				
08:30	62		20				
08:45	89	269	21	83			
09:00	66		24				
09:15	74		21				
09:30	70		19				
09:45	57	267	20	84			
10:00	58		19				
10:15	44		14				
10:30	52		19				
10:45	38	192	18	70			
11:00	38		13				
11:15	29		12				
11:30	42		14				
11:45	48	157	8	47			
Total	1260		1704				
Percent			100.0%		0.0%	0.0%	
Day Total		2964					
Peak	08:45		05:00				
Vol.	299		249				
P.H.F.	0.840		0.915				

PRECISION
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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Bay State Road
west of Deerfield Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

122828 C VOLUME
Site Code: 127-4220-12001.002

Start Time	A.M.	WB	P.M.				Wed 21-Mar-12
12:00	8		43				
12:15	5		44				
12:30	7		55				
12:45	6	26	50	192			
01:00	2		46				
01:15	3		38				
01:30	6		36				
01:45	2	13	44	164			
02:00	1		37				
02:15	2		30				
02:30	6		44				
02:45	2	11	37	148			
03:00	2		51				
03:15	2		64				
03:30	2		62				
03:45	0	6	54	231			
04:00	0		60				
04:15	4		50				
04:30	3		32				
04:45	7	14	70	212			
05:00	3		50				
05:15	5		39				
05:30	9		65				
05:45	22	39	62	216			
06:00	22		60				
06:15	23		62				
06:30	38		36				
06:45	33	116	34	192			
07:00	27		31				
07:15	40		34				
07:30	45		30				
07:45	48	160	26	121			
08:00	48		28				
08:15	52		22				
08:30	62		26				
08:45	60	222	28	104			
09:00	72		24				
09:15	68		27				
09:30	72		20				
09:45	62	274	18	89			
10:00	46		26				
10:15	62		11				
10:30	38		23				
10:45	56	202	18	78			
11:00	9		15				
11:15	15		10				
11:30	26		17				
11:45	58	108	9	51			
Total	1191		1798				
Percent			100.0%		0.0%	0.0%	
Day Total		2989					
Peak	09:00		05:30				
Vol.	274		249				
P.H.F.	0.951		0.889				

N/S: Malvern Street/ Commonwealth Avenue
E/W: Commonwealth Avenue/ Brighton Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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File Name : 122828 A
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	8	0	0	0	0	5	81	2	42	1	67	0	0	0	0	0	0	0	0	0	5	0	46	3	0	260
07:15 AM	8	0	0	0	0	5	95	2	50	4	89	0	0	0	0	0	0	0	0	0	2	0	94	5	2	356
07:30 AM	13	0	0	0	0	3	107	6	55	7	134	0	0	0	0	0	0	0	0	0	2	0	68	3	3	401
07:45 AM	12	1	0	0	0	4	130	5	48	4	202	0	0	0	0	0	0	0	0	0	0	0	94	13	1	514
Total	41	1	0	0	0	17	413	15	195	16	492	0	0	0	0	0	0	0	0	0	9	0	302	24	6	1531
08:00 AM	15	0	0	0	0	2	159	15	85	2	165	0	0	0	0	0	0	0	0	0	5	1	92	12	3	556
08:15 AM	12	0	0	0	0	2	129	6	54	5	180	0	0	0	0	0	0	0	0	0	3	0	117	7	4	519
08:30 AM	7	0	0	0	0	5	122	9	56	6	200	0	1	0	0	0	0	0	0	0	4	0	100	12	5	527
08:45 AM	12	0	0	0	0	7	122	8	46	1	156	0	0	0	0	0	0	0	0	0	4	1	122	12	9	500
Total	46	0	0	0	0	16	532	38	241	14	701	0	1	0	0	0	0	0	0	0	16	2	431	43	21	2102
Grand Total	87	1	0	0	0	33	945	53	436	30	1193	0	1	0	0	0	0	0	0	0	25	2	733	67	27	3633
Apprch %	98.9	1.1	0	0	0	2.2	63.1	3.5	29.1	2	99.9	0	0.1	0	0	0	0	0	0	0	2.9	0.2	85.8	7.8	3.2	
Total %	2.4	0	0	0	0	0.9	26	1.5	12	0.8	32.8	0	0	0	0	0	0	0	0	0	0.7	0.1	20.2	1.8	0.7	
Cars	84	1	0	0	0	26	885	38	415	29	1153	0	0	0	0	0	0	0	0	0	25	2	665	63	26	3412
% Cars	96.6	100	0	0	0	78.8	93.7	71.7	95.2	96.7	96.6	0	0	0	0	0	0	0	0	0	100	100	90.7	94	96.3	93.9
Heavy Vehicles	3	0	0	0	0	7	60	15	21	1	40	0	1	0	0	0	0	0	0	0	0	0	68	4	1	221
% Heavy Vehicles	3.4	0	0	0	0	21.2	6.3	28.3	4.8	3.3	3.4	0	100	0	0	0	0	0	0	0	0	0	9.3	6	3.7	6.1

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:45 AM																															
07:45 AM	12	**1**	0	0	0	13	4	130	5	48	4	191	**202**	0	0	0	0	**202**									**13**	1	108	514	
08:00 AM	**15**	0	0	0	0	**15**	2	**159**	**15**	**85**	2	**263**	165	0	0	0	0	165	0	0	0	0	0	0	**5**	**1**	92	12	3	113	**556**
08:15 AM	12	0	0	0	0	12	2	129	6	54	5	196	180	0	0	0	0	180	0	0	0	0	0	0	3	0	**117**	7	4	**131**	519
08:30 AM	7	0	0	0	0	7	**5**	122	9	56	**6**	198	200	0	**1**	0	0	201	0	0	0	0	0	0	4	0	100	12	**5**	121	527
Total Volume	46	1	0	0	0	47	13	540	35	243	17	848	747	0	1	0	0	748	0	0	0	0	0	0	12	1	403	44	13	473	2116
% App. Total	97.9	2.1	0	0	0		1.5	63.7	4.1	28.7	2		99.9	0	0.1	0	0		0	0	0	0	0		2.5	0.2	85.2	9.3	2.7		
PHF	.767	.250	.000	.000	.000	.783	.650	.849	.583	.715	.708	.806	.925	.000	.250	.000	.000	.926	.000	.000	.000	.000	.000	.000	.600	.250	.861	.846	.650	.903	.951
Cars	44	1	0	0	0	45	10	504	27	234	17	792	729	0	0	0	0	729	0	0	0	0	0	0	12	1	374	42	13	442	2008
% Cars	95.7	100	0	0	0	95.7	76.9	93.3	77.1	96.3	100	93.4	97.6	0	0	0	0	97.5	0	0	0	0	0	0	100	100	92.8	95.5	100	93.4	94.9
Heavy Vehicles	2	0	0	0	0	2	3	36	8	9	0	56	18	0	1	0	0	19	0	0	0	0	0	0	0	0	29	2	0	31	108
% Heavy Vehicles	4.3	0	0	0	0	4.3	23.1	6.7	22.9	3.7	0	6.6	2.4	0	100	0	0	2.5	0	0	0	0	0	0	0	0	7.2	4.5	0	6.6	5.1

N/S: Malvern Street/ Commonwealth Avenue
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File Name : 122828 A
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	8	0	0	0	0	4	75	1	40	1	61	0	0	0	0	0	0	0	0	0	5	0	39	2	0	236
07:15 AM	8	0	0	0	0	3	89	0	44	4	85	0	0	0	0	0	0	0	0	0	2	0	82	5	2	324
07:30 AM	13	0	0	0	0	3	101	4	54	6	128	0	0	0	0	0	0	0	0	0	2	0	61	3	3	378
07:45 AM	11	1	0	0	0	3	117	4	45	4	199	0	0	0	0	0	0	0	0	0	0	0	87	12	1	484
Total	40	1	0	0	0	13	382	9	183	15	473	0	0	0	0	0	0	0	0	0	9	0	269	22	6	1422
08:00 AM	15	0	0	0	0	2	152	11	81	2	163	0	0	0	0	0	0	0	0	0	5	1	88	12	3	535
08:15 AM	11	0	0	0	0	2	122	5	54	5	176	0	0	0	0	0	0	0	0	0	3	0	106	6	4	494
08:30 AM	7	0	0	0	0	3	113	7	54	6	191	0	0	0	0	0	0	0	0	0	4	0	93	12	5	495
08:45 AM	11	0	0	0	0	6	116	6	43	1	150	0	0	0	0	0	0	0	0	0	4	1	109	11	8	466
Total	44	0	0	0	0	13	503	29	232	14	680	0	0	0	0	0	0	0	0	0	16	2	396	41	20	1990
Grand Total	84	1	0	0	0	26	885	38	415	29	1153	0	0	0	0	0	0	0	0	0	25	2	665	63	26	3412
Apprch %	98.8	1.2	0	0	0	1.9	63.5	2.7	29.8	2.1	100	0	0	0	0	0	0	0	0	0	3.2	0.3	85.1	8.1	3.3	
Total %	2.5	0	0	0	0	0.8	25.9	1.1	12.2	0.8	33.8	0	0	0	0	0	0	0	0	0	0.7	0.1	19.5	1.8	0.8	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:45 AM																															
07:45 AM	11	**1**	0	0	0	12	**3**	117	4	45	4	173	**199**	0	0	0	0	**199**										**12**	1	100	484
08:00 AM	**15**	0	0	0	0	**15**	2	**152**	**11**	**81**	2	**248**	163	0	0	0	0	163	0	0	0	0	0	0	**5**	**1**	88	12	3	109	**535**
08:15 AM	11	0	0	0	0	11	2	122	5	54	5	188	176	0	0	0	0	176	0	0	0	0	0	0	3	0	**106**	6	4	**119**	494
08:30 AM	7	0	0	0	0	7	3	113	7	54	**6**	183	191	0	0	0	0	191	0	0	0	0	0	0	4	0	93	12	**5**	114	495
Total Volume	44	1	0	0	0	45	10	504	27	234	17	792	729	0	0	0	0	729	0	0	0	0	0	0	12	1	374	42	13	442	2008
% App. Total	97.8	2.2	0	0	0		1.3	63.6	3.4	29.5	2.1		100	0	0	0	0		0	0	0	0	0		2.7	0.2	84.6	9.5	2.9		
PHF	.733	.250	.000	.000	.000	.750	.833	.829	.614	.722	.708	.798	.916	.000	.000	.000	.000	.916	.000	.000	.000	.000	.000	.000	.600	.250	.882	.875	.650	.929	.938

N/S: Malvern Street/ Commonwealth Avenue
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Page No : 1

Groups Printed- Heavy Vehicles

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	1	6	1	2	0	6	0	0	0	0	0	0	0	0	0	0	0	7	1	0	24
07:15 AM	0	0	0	0	0	2	6	2	6	0	4	0	0	0	0	0	0	0	0	0	0	0	12	0	0	32
07:30 AM	0	0	0	0	0	0	6	2	1	1	6	0	0	0	0	0	0	0	0	0	0	0	7	0	0	23
07:45 AM	1	0	0	0	0	1	13	1	3	0	3	0	0	0	0	0	0	0	0	0	0	0	7	1	0	30
Total	1	0	0	0	0	4	31	6	12	1	19	0	0	0	0	0	0	0	0	0	0	0	33	2	0	109
08:00 AM	0	0	0	0	0	0	7	4	4	0	2	0	0	0	0	0	0	0	0	0	0	0	4	0	0	21
08:15 AM	1	0	0	0	0	0	7	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	11	1	0	25
08:30 AM	0	0	0	0	0	2	9	2	2	0	9	0	1	0	0	0	0	0	0	0	0	0	7	0	0	32
08:45 AM	1	0	0	0	0	1	6	2	3	0	6	0	0	0	0	0	0	0	0	0	0	0	13	1	1	34
Total	2	0	0	0	0	3	29	9	9	0	21	0	1	0	0	0	0	0	0	0	0	0	35	2	1	112
Grand Total	3	0	0	0	0	7	60	15	21	1	40	0	1	0	0	0	0	0	0	0	0	0	68	4	1	221
Apprch %	100	0	0	0	0	6.7	57.7	14.4	20.2	1	97.6	0	2.4	0	0	0	0	0	0	0	0	0	93.2	5.5	1.4	
Total %	1.4	0	0	0	0	3.2	27.1	6.8	9.5	0.5	18.1	0	0.5	0	0	0	0	0	0	0	0	0	30.8	1.8	0.5	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 08:00 AM																															
08:00 AM	0	0	0	0	0	0	0	7	**4**	**4**	0	**15**	2	0	0	0	0	2	0	0	0	0	0	0	0	0	4	0	0	4	21
08:15 AM	**1**	0	0	0	0	**1**	0	7	1	0	0	8	4	0	0	0	0	4	0	0	0	0	0	0	0	0	11	**1**	0	12	25
08:30 AM	0	0	0	0	0	0	**2**	**9**	2	2	0	15	**9**	0	**1**	0	0	**10**	0	0	0	0	0	0	0	0	7	0	0	7	32
08:45 AM	1	0	0	0	0	1	1	6	2	3	0	12	6	0	0	0	0	6	0	0	0	0	0	0	0	0	**13**	1	**1**	**15**	**34**
Total Volume	2	0	0	0	0	2	3	29	9	9	0	50	21	0	1	0	0	22	0	0	0	0	0	0	0	0	35	2	1	38	112
% App. Total	100	0	0	0	0		6	58	18	18	0		95.5	0	4.5	0	0		0	0	0	0	0		0	0	92.1	5.3	2.6		
PHF	.500	.000	.000	.000	.000	.500	.375	.806	.563	.563	.000	.833	.583	.000	.250	.000	.000	.550	.000	.000	.000	.000	.000	.000	.000	.000	.673	.500	.250	.633	.824

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Page No : 1

Groups Printed- Peds and Bicycles

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	12	0	1	0	0	0	8	0	0	0	6	0	0	0	0	22	0	0	11	0	18	78
07:15 AM	0	0	0	0	6	0	1	0	0	0	3	0	0	0	18	0	0	0	0	23	0	0	11	1	18	81
07:30 AM	0	0	0	0	18	0	1	0	0	1	5	0	0	0	16	0	0	0	0	58	0	0	18	0	39	156
07:45 AM	0	0	0	0	27	1	6	0	0	2	2	0	0	0	19	0	0	0	0	48	0	0	15	1	39	160
Total	0	0	0	0	63	1	9	0	0	3	18	0	0	0	59	0	0	0	0	151	0	0	55	2	114	475
08:00 AM	0	0	0	0	18	0	0	0	0	2	7	0	0	0	20	0	0	0	0	32	0	0	15	0	26	120
08:15 AM	0	0	0	0	20	0	1	0	1	2	4	0	0	0	54	0	0	0	0	44	0	0	16	0	40	182
08:30 AM	0	0	0	2	23	0	2	0	0	3	8	0	0	0	48	0	0	0	0	55	0	0	20	0	34	195
08:45 AM	0	0	0	1	29	0	2	1	0	2	6	0	0	0	51	0	0	0	0	51	1	0	26	0	40	210
Total	0	0	0	3	90	0	5	1	1	9	25	0	0	0	173	0	0	0	0	182	1	0	77	0	140	707
Grand Total	0	0	0	3	153	1	14	1	1	12	43	0	0	0	232	0	0	0	0	333	1	0	132	2	254	1182
Apprch %	0	0	0	1.9	98.1	3.4	48.3	3.4	3.4	41.4	15.6	0	0	0	84.4	0	0	0	0	100	0.3	0	33.9	0.5	65.3	
Total %	0	0	0	0.3	12.9	0.1	1.2	0.1	0.1	1	3.6	0	0	0	19.6	0	0	0	0	28.2	0.1	0	11.2	0.2	21.5	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 08:00 AM																															
08:00 AM	0	0	0	0	18	18	0	0	0	0	2	2	7	0	0	0	20	27	0	0	0	0	32	32	0	0	15	0	26	41	120
08:15 AM	0	0	0	0	20	20	0	1	0	**1**	2	4	4	0	0	0	**54**	**58**	0	0	0	0	44	44	0	0	16	0	**40**	56	182
08:30 AM	0	0	0	**2**	23	25	0	**2**	0	0	**3**	**5**	**8**	0	0	0	48	56	0	0	0	0	**55**	**55**	0	0	20	0	34	54	195
08:45 AM	0	0	0	1	**29**	**30**	0	2	**1**	0	2	5	6	0	0	0	51	57	0	0	0	0	51	51	**1**	0	**26**	0	40	**67**	**210**
Total Volume	0	0	0	3	90	93	0	5	1	1	9	16	25	0	0	0	173	198	0	0	0	0	182	182	1	0	77	0	140	218	707
% App. Total	0	0	0	3.2	96.8		0	31.2	6.2	6.2	56.2		12.6	0	0	0	87.4		0	0	0	0	100		0.5	0	35.3	0	64.2		
PHF	.000	.000	.000	.375	.776	.775	.000	.625	.250	.250	.750	.800	.781	.000	.000	.000	.801	.853	.000	.000	.000	.000	.827	.827	.250	.000	.740	.000	.875	.813	.842

N/S: Malvern Street/ Commonwealth Avenue
E/W: Commonwealth Avenue/ Brighton Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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File Name : 122828 A
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Trains

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	6	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
08:00 AM	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
08:15 AM	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:45 AM	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	8	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Grand Total	0	0	0	0	0	0	0	0	14	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
Apprch %	0	0	0	0	0	0	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	41.2	0	58.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:15 AM																															
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	2	0	2	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	**4**	0	**4**	**4**	0	0	0	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	**8**
Total Volume	0	0	0	0	0	0	0	0	0	9	0	9	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	19
% App. Total	0	0	0	0	0		0	0	0	100	0		100	0	0	0	0		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.563	.000	.563	.625	.000	.000	.000	.000	.625	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.594

N/S: Malvern Street/ Commonwealth Avenue
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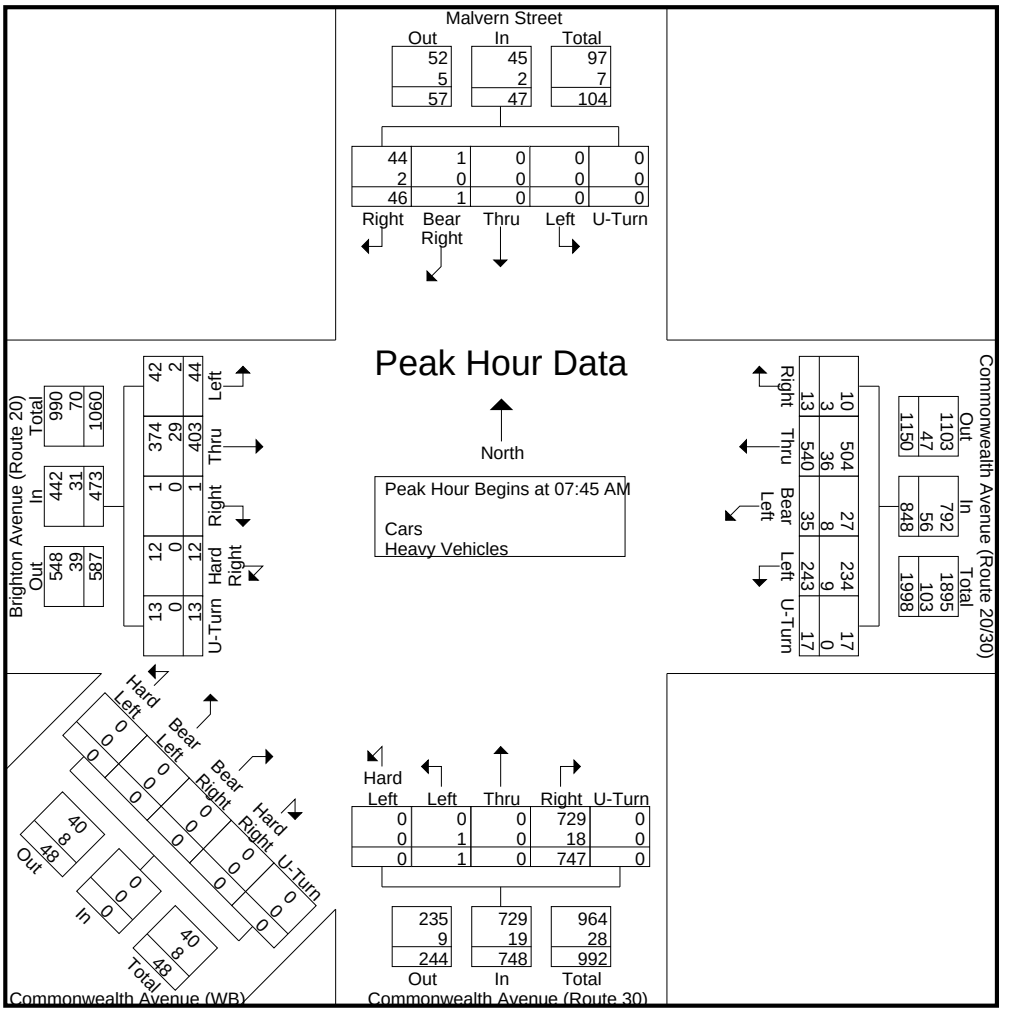
	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:45 AM																															
07:45 AM	12	**1**	0	0	0	13	4	130	5	48	4	191	**202**	0	0	0	0	**202**									**13**	1	108	514
08:00 AM	**15**	0	0	0	0	**15**	2	**159**	**15**	**85**	2	**263**	165	0	0	0	0	165	0	0	0	0	0	0	**5**	**1**	92	12	3	113	**556**
08:15 AM	12	0	0	0	0	12	2	129	6	54	5	196	180	0	0	0	0	180	0	0	0	0	0	0	3	0	**117**	7	4	**131**	519
08:30 AM	7	0	0	0	0	7	**5**	122	9	56	**6**	198	200	0	**1**	0	0	201	0	0	0	0	0	0	4	0	100	12	**5**	121	527
Total Volume	46	1	0	0	0	47	13	540	35	243	17	848	747	0	1	0	0	748	0	0	0	0	0	0	12	1	403	44	13	473	2116
% App. Total	97.9	2.1	0	0	0		1.5	63.7	4.1	28.7	2		99.9	0	0.1	0	0		0	0	0	0	0		2.5	0.2	85.2	9.3	2.7		
PHF	.767	.250	.000	.000	.000	.783	.650	.849	.583	.715	.708	.806	.925	.000	.250	.000	.000	.926	.000	.000	.000	.000	.000	.000	.600	.250	.861	.846	.650	.903	.951
Cars	44	1	0	0	0	45	10	504	27	234	17	792	729	0	0	0	0	729	0	0	0	0	0	0	12	1	374	42	13	442	2008
% Cars	95.7	100	0	0	0	95.7	76.9	93.3	77.1	96.3	100	93.4	97.6	0	0	0	0	97.5	0	0	0	0	0	0	100	100	92.8	95.5	100	93.4	94.9
Heavy Vehicles	2	0	0	0	0	2	3	36	8	9	0	56	18	0	1	0	0	19	0	0	0	0	0	0	0	0	29	2	0	31	108
% Heavy Vehicles	4.3	0	0	0	0	4.3	23.1	6.7	22.9	3.7	0	6.6	2.4	0	100	0	0	2.5	0	0	0	0	0	0	0	0	7.2	4.5	0	6.6	5.1



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Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 AA
Site Code : 127-4220
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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	13	0	0	0	0	2	145	9	56	6	83	0	1	0	0	0	0	0	0	0	12	2	112	3	12	456
12:15 PM	18	0	0	0	0	8	138	4	63	7	110	0	0	0	0	0	0	0	0	0	3	2	90	6	5	454
12:30 PM	21	0	0	0	0	5	172	10	61	11	96	0	0	0	0	0	0	0	0	0	9	0	92	6	13	496
12:45 PM	9	1	0	0	0	4	140	5	55	17	67	0	0	0	0	0	0	0	0	0	5	2	69	4	13	391
Total	61	1	0	0	0	19	595	28	235	41	356	0	1	0	0	0	0	0	0	0	29	6	363	19	43	1797
01:00 PM	15	0	0	0	0	5	120	7	71	12	83	0	0	1	0	0	0	0	0	0	4	2	86	3	10	419
01:15 PM	5	0	0	0	0	2	129	7	59	8	86	0	0	0	0	0	0	0	0	0	6	2	115	10	13	442
01:30 PM	14	0	0	1	0	5	128	9	58	13	73	0	0	0	0	0	0	0	0	0	4	1	90	4	9	409
01:45 PM	13	0	0	0	0	3	129	8	64	2	93	0	1	0	0	0	0	0	0	0	7	1	100	6	8	435
Total	47	0	0	1	0	15	506	31	252	35	335	0	1	1	0	0	0	0	0	0	21	6	391	23	40	1705
Grand Total	108	1	0	1	0	34	1101	59	487	76	691	0	2	1	0	0	0	0	0	0	50	12	754	42	83	3502
Apprch %	98.2	0.9	0	0.9	0	1.9	62.7	3.4	27.7	4.3	99.6	0	0.3	0.1	0	0	0	0	0	0	5.3	1.3	80.1	4.5	8.8	
Total %	3.1	0	0	0	0	1	31.4	1.7	13.9	2.2	19.7	0	0.1	0	0	0	0	0	0	0	1.4	0.3	21.5	1.2	2.4	
Cars	105	1	0	1	0	32	1035	48	471	73	656	0	1	1	0	0	0	0	0	0	47	12	707	40	82	3312
% Cars	97.2	100	0	100	0	94.1	94	81.4	96.7	96.1	94.9	0	50	100	0	0	0	0	0	0	94	100	93.8	95.2	98.8	94.6
Heavy Vehicles	3	0	0	0	0	2	66	11	16	3	35	0	1	0	0	0	0	0	0	0	3	0	47	2	1	190
% Heavy Vehicles	2.8	0	0	0	0	5.9	6	18.6	3.3	3.9	5.1	0	50	0	0	0	0	0	0	0	6	0	6.2	4.8	1.2	5.4

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00 PM																															
12:00 PM	13	0	0	0	0	13	2	145	9	56	6	218	83	0	**1**	0	0	84	0	0	0	0	0	0	**12**	**2**	**112**	3	12	**141**	456
12:15 PM	18	0	0	0	0	18	**8**	138	4	**63**	7	220	**110**	0	0	0	0	**110**										**6**	5	106	454
12:30 PM	**21**	0	0	0	0	**21**	5	**172**	**10**	61	11	**259**																	**13**	120	**496**
12:45 PM	9	**1**	0	0	0	10	4	140	5	55	**17**	221	67	0	0	0	0	67	0	0	0	0	0	0	5	2	69	4	13	93	391
Total Volume	61	1	0	0	0	62	19	595	28	235	41	918	356	0	1	0	0	357	0	0	0	0	0	0	29	6	363	19	43	460	1797
% App. Total	98.4	1.6	0	0	0		2.1	64.8	3.1	25.6	4.5		99.7	0	0.3	0	0		0	0	0	0	0		6.3	1.3	78.9	4.1	9.3		
PHF	.726	.250	.000	.000	.000	.738	.594	.865	.700	.933	.603	.886	.809	.000	.250	.000	.000	.811	.000	.000	.000	.000	.000	.000	.604	.750	.810	.792	.827	.816	.906
Cars	60	1	0	0	0	61	18	555	28	224	38	863	334	0	0	0	0	334	0	0	0	0	0	0	28	6	343	18	43	438	1696
% Cars	98.4	100	0	0	0	98.4	94.7	93.3	100	95.3	92.7	94.0	93.8	0	0	0	0	93.6	0	0	0	0	0	0	96.6	100	94.5	94.7	100	95.2	94.4
Heavy Vehicles	1	0	0	0	0	1	1	40	0	11	3	55	22	0	1	0	0	23	0	0	0	0	0	0	1	0	20	1	0	22	101
% Heavy Vehicles	1.6	0	0	0	0	1.6	5.3	6.7	0	4.7	7.3	6.0	6.2	0	100	0	0	6.4	0	0	0	0	0	0	3.4	0	5.5	5.3	0	4.8	5.6

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File Name : 122828 AA
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Page No : 1

Groups Printed- Cars

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	12	0	0	0	0	2	135	9	54	5	79	0	0	0	0	0	0	0	0	0	12	2	106	3	12	431
12:15 PM	18	0	0	0	0	7	127	4	60	6	104	0	0	0	0	0	0	0	0	0	3	2	87	5	5	428
12:30 PM	21	0	0	0	0	5	164	10	57	11	90	0	0	0	0	0	0	0	0	0	8	0	86	6	13	471
12:45 PM	9	1	0	0	0	4	129	5	53	16	61	0	0	0	0	0	0	0	0	0	5	2	64	4	13	366
Total	60	1	0	0	0	18	555	28	224	38	334	0	0	0	0	0	0	0	0	0	28	6	343	18	43	1696
01:00 PM	15	0	0	0	0	5	114	4	68	12	80	0	0	1	0	0	0	0	0	0	3	2	81	3	10	398
01:15 PM	4	0	0	0	0	2	122	5	59	8	84	0	0	0	0	0	0	0	0	0	6	2	109	9	12	422
01:30 PM	14	0	0	1	0	4	121	5	57	13	69	0	0	0	0	0	0	0	0	0	4	1	79	4	9	381
01:45 PM	12	0	0	0	0	3	123	6	63	2	89	0	1	0	0	0	0	0	0	0	6	1	95	6	8	415
Total	45	0	0	1	0	14	480	20	247	35	322	0	1	1	0	0	0	0	0	0	19	6	364	22	39	1616
Grand Total	105	1	0	1	0	32	1035	48	471	73	656	0	1	1	0	0	0	0	0	0	47	12	707	40	82	3312
Apprch %	98.1	0.9	0	0.9	0	1.9	62.4	2.9	28.4	4.4	99.7	0	0.2	0.2	0	0	0	0	0	0	5.3	1.4	79.6	4.5	9.2	
Total %	3.2	0	0	0	0	1	31.2	1.4	14.2	2.2	19.8	0	0	0	0	0	0	0	0	0	1.4	0.4	21.3	1.2	2.5	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00 PM																															
12:00 PM	12	0	0	0	0	12	2	135	9	54	5	205	79	0	0	0	0	79	0	0	0	0	0	0	**12**	**2**	**106**	3	12	**135**	431
12:15 PM	18	0	0	0	0	18	**7**	127	4	**60**	6	204	**104**	0	0	0	0	**104**												102	428
12:30 PM	**21**	0	0	0	0	**21**	5	**164**	**10**	57	11	**247**																**6**	**13**	113	**471**
12:45 PM	9	**1**	0	0	0	10	4	129	5	53	**16**	207	61	0	0	0	0	61	0	0	0	0	0	0	5	2	64	4	13	88	366
Total Volume	60	1	0	0	0	61	18	555	28	224	38	863	334	0	0	0	0	334	0	0	0	0	0	0	28	6	343	18	43	438	1696
% App. Total	98.4	1.6	0	0	0		2.1	64.3	3.2	26	4.4		100	0	0	0	0		0	0	0	0	0		6.4	1.4	78.3	4.1	9.8		
PHF	.714	.250	.000	.000	.000	.726	.643	.846	.700	.933	.594	.873	.803	.000	.000	.000	.000	.803	.000	.000	.000	.000	.000	.000	.583	.750	.809	.750	.827	.811	.900

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Groups Printed- Heavy Vehicles

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	1	0	0	0	0	0	10	0	2	1	4	0	1	0	0	0	0	0	0	0	0	0	6	0	0	25
12:15 PM	0	0	0	0	0	1	11	0	3	1	6	0	0	0	0	0	0	0	0	0	0	0	3	1	0	26
12:30 PM	0	0	0	0	0	0	8	0	4	0	6	0	0	0	0	0	0	0	0	0	1	0	6	0	0	25
12:45 PM	0	0	0	0	0	0	11	0	2	1	6	0	0	0	0	0	0	0	0	0	0	0	5	0	0	25
Total	1	0	0	0	0	1	40	0	11	3	22	0	1	0	0	0	0	0	0	0	1	0	20	1	0	101
01:00 PM	0	0	0	0	0	0	6	3	3	0	3	0	0	0	0	0	0	0	0	0	1	0	5	0	0	21
01:15 PM	1	0	0	0	0	0	7	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	6	1	1	20
01:30 PM	0	0	0	0	0	1	7	4	1	0	4	0	0	0	0	0	0	0	0	0	0	0	11	0	0	28
01:45 PM	1	0	0	0	0	0	6	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	5	0	0	20
Total	2	0	0	0	0	1	26	11	5	0	13	0	0	0	0	0	0	0	0	0	2	0	27	1	1	89
Grand Total	3	0	0	0	0	2	66	11	16	3	35	0	1	0	0	0	0	0	0	0	3	0	47	2	1	190
Apprch %	100	0	0	0	0	2	67.3	11.2	16.3	3.1	97.2	0	2.8	0	0	0	0	0	0	0	5.7	0	88.7	3.8	1.9	
Total %	1.6	0	0	0	0	1.1	34.7	5.8	8.4	1.6	18.4	0	0.5	0	0	0	0	0	0	0	1.6	0	24.7	1.1	0.5	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00 PM																															
12:00 PM	**1**	0	0	0	0	**1**	0	10	0	2	**1**	13	4	0	**1**	0	0	5	0	0	0	0	0	0	0	0	**6**	0	0	6	25
12:15 PM	0	0	0	0	0	0	**1**	**11**	0	3	1	**16**	**6**	0	0	0	0	**6**	0	0	0	0	0	0	0	0	3	**1**	0	4	**26**
12:30 PM	0	0	0	0	0	0	0	8	0	**4**	0	12	6	0	0	0	0	6	0	0	0	0	0	0	**1**	0	6	0	0	**7**	25
12:45 PM	0	0	0	0	0	0	0	11	0	2	1	14	6	0	0	0	0	6	0	0	0	0	0	0	0	0	5	0	0	5	25
Total Volume																															101
% App. Total	100	0	0	0	0		1.8	72.7	0	20	5.5		95.7	0	4.3	0	0		0	0	0	0	0		4.5	0	90.9	4.5	0		
PHF	.250	.000	.000	.000	.000	.250	.250	.909	.000	.688	.750	.859	.917	.000	.250	.000	.000	.958	.000	.000	.000	.000	.000	.000	.250	.000	.833	.250	.000	.786	.971

N/S: Malvern Street/ Commonwealth Avenue
E/W: Commonwealth Avenue/ Brighton Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 AA
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	0	0	0	47	0	6	0	0	1	7	0	0	0	58	0	0	0	0	65	0	2	3	2	72	263
12:15 PM	0	0	0	0	54	1	1	0	2	1	10	0	0	0	41	0	0	0	0	51	0	0	8	0	53	222
12:30 PM	0	0	0	0	54	0	10	0	2	0	2	0	0	0	54	0	0	0	0	56	1	0	6	0	61	246
12:45 PM	0	0	0	1	56	3	5	0	0	4	5	0	0	0	44	0	0	0	0	53	0	1	3	0	59	234
Total	0	0	0	1	211	4	22	0	4	6	24	0	0	0	197	0	0	0	0	225	1	3	20	2	245	965
01:00 PM	1	0	0	0	79	1	6	1	0	0	6	0	0	0	45	0	0	0	0	61	0	0	8	0	67	275
01:15 PM	1	0	0	0	56	0	5	0	1	2	3	0	0	0	50	0	0	0	0	83	0	1	10	0	64	276
01:30 PM	0	0	0	0	65	0	4	1	0	2	2	0	0	0	66	0	0	0	0	76	0	0	13	1	67	297
01:45 PM	2	0	0	0	61	0	14	0	2	1	3	0	0	0	64	0	0	0	0	55	0	0	11	0	70	283
Total	4	0	0	0	261	1	29	2	3	5	14	0	0	0	225	0	0	0	0	275	0	1	42	1	268	1131
Grand Total	4	0	0	1	472	5	51	2	7	11	38	0	0	0	422	0	0	0	0	500	1	4	62	3	513	2096
Apprch %	0.8	0	0	0.2	99	6.6	67.1	2.6	9.2	14.5	8.3	0	0	0	91.7	0	0	0	0	100	0.2	0.7	10.6	0.5	88	
Total %	0.2	0	0	0	22.5	0.2	2.4	0.1	0.3	0.5	1.8	0	0	0	20.1	0	0	0	0	23.9	0	0.2	3	0.1	24.5	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 01:00 PM																															
01:00 PM	1	0	0	0	**79**	**80**	**1**	6	**1**	0	0	8	**6**	0	0	0	45	51	0	0	0	0	61	61	0	0	8	0	67	75	275
01:15 PM	1	0	0	0	56	57	0	5	0	1	**2**	8	3	0	0	0	50	53	0	0	0	0	**83**	**83**	0	**1**	10	0	64	75	276
01:30 PM	0	0	0	0	65	65	0	4	1	0	2	7	2	0	0	0	**66**	**68**	0	0	0	0	76	76	0	0	**13**	**1**	67	**81**	**297**
01:45 PM	**2**	0	0	0	61	63	0	**14**	0	**2**	1	**17**	3	0	0	0	64	67	0	0	0	0	55	55	0	0	11	0	**70**	81	283
Total Volume	4	0	0	0	261	265	1	29	2	3	5	40	14	0	0	0	225	239	0	0	0	0	275	275	0	1	42	1	268	312	1131
% App. Total	1.5	0	0	0	98.5		2.5	72.5	5	7.5	12.5		5.9	0	0	0	94.1		0	0	0	0	100		0	0.3	13.5	0.3	85.9		
PHF	.500	.000	.000	.000	.826	.828	.250	.518	.500	.375	.625	.588	.583	.000	.000	.000	.852	.879	.000	.000	.000	.000	.828	.828	.000	.250	.808	.250	.957	.963	.952

N/S: Malvern Street/ Commonwealth Avenue
E/W: Commonwealth Avenue/ Brighton Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 AA
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Trains

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
12:15 PM	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
12:30 PM	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
12:45 PM	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	6	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
01:00 PM	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
01:15 PM	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
01:30 PM	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
01:45 PM	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	9	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Grand Total	0	0	0	0	0	0	0	0	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Apprch %	0	0	0	0	0	0	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	50	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 01:00 PM																															
01:00 PM	0	0	0	0	0	0	0	0	0	**3**	0	**3**	**2**	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	**5**
01:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4
01:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
01:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Volume																															
% App. Total	0	0	0	0	0		0	0	0	100	0		100	0	0	0	0		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.750	.875	.000	.000	.000	.000	.875	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.800

N/S: Malvern Street/ Commonwealth Avenue
E/W: Commonwealth Avenue/ Brighton Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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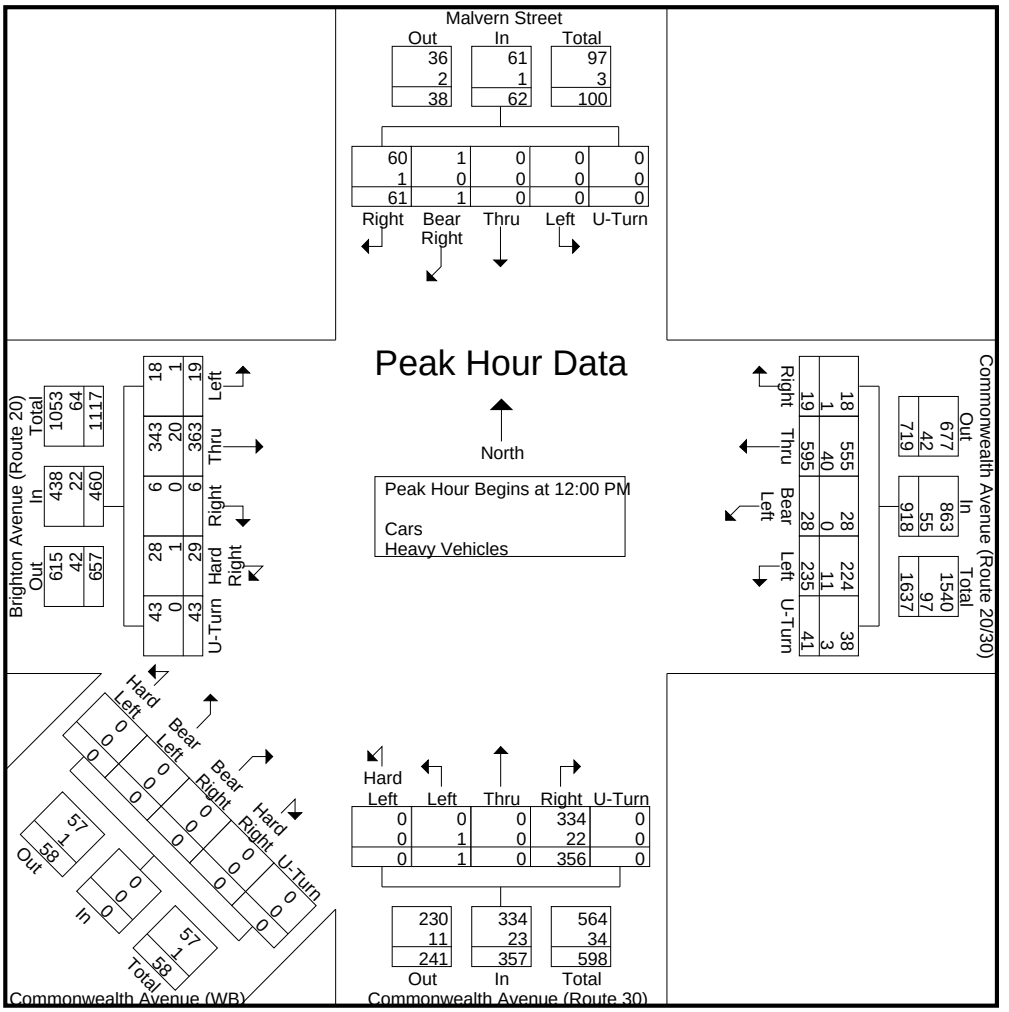
File Name : 122828 AA
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00 PM																															
12:00 PM	13	0	0	0	0	13	2	145	9	56	6	218	83	0	**1**	0	0	84	0	0	0	0	0	0	**12**	**2**	112	3	12	**141**	456
12:15 PM	18	0	0	0	0	18	**8**	138	4	**63**	7	220	**110**	0	0	0	0	**110**										**6**	5	106	454
12:30 PM	**21**	0	0	0	0	**21**	5	**172**	**10**	61	11	**259**																	**13**	120	**496**
12:45 PM	9	**1**	0	0	0	10	4	140	5	55	**17**	221	67	0	0	0	0	67	0	0	0	0	0	0	5	2	69	4	13	93	391
Total Volume	61	1	0	0	0	62	19	595	28	235	41	918	356	0	1	0	0	357	0	0	0	0	0	0	29	6	363	19	43	460	1797
% App. Total	98.4	1.6	0	0	0		2.1	64.8	3.1	25.6	4.5		99.7	0	0.3	0	0		0	0	0	0	0		6.3	1.3	78.9	4.1	9.3		
PHF	.726	.250	.000	.000	.000	.738	.594	.865	.700	.933	.603	.886	.809	.000	.250	.000	.000	.811	.000	.000	.000	.000	.000	.000	.604	.750	.810	.792	.827	.816	.906
Cars	60	1	0	0	0	61	18	555	28	224	38	863	334	0	0	0	0	334	0	0	0	0	0	0	28	6	343	18	43	438	1696
% Cars	98.4	100	0	0	0	98.4	94.7	93.3	100	95.3	92.7	94.0	93.8	0	0	0	0	93.6	0	0	0	0	0	0	96.6	100	94.5	94.7	100	95.2	94.4
Heavy Vehicles	1	0	0	0	0	1	1	40	0	11	3	55	22	0	1	0	0	23	0	0	0	0	0	0	1	0	20	1	0	22	101
% Heavy Vehicles	1.6	0	0	0	0	1.6	5.3	6.7	0	4.7	7.3	6.0	6.2	0	100	0	0	6.4	0	0	0	0	0	0	3.4	0	5.5	5.3	0	4.8	5.6



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File Name : 122828 AAA
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Groups Printed- Cars - Heavy Vehicles

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	14	0	0	0	0	3	202	15	104	5	90	0	0	0	0	0	0	0	0	0	4	0	70	4	11	522
04:15 PM	13	0	1	1	0	5	197	8	115	9	85	0	0	0	0	0	0	0	0	0	4	1	83	12	12	546
04:30 PM	28	0	0	0	0	6	195	12	110	12	93	0	0	0	0	0	0	0	0	0	3	1	114	5	8	587
04:45 PM	13	0	0	1	0	7	171	13	111	12	110	0	0	0	0	0	0	0	0	0	6	0	78	4	7	533
Total	68	0	1	2	0	21	765	48	440	38	378	0	0	0	0	0	0	0	0	0	17	2	345	25	38	2188
05:00 PM	21	0	0	0	0	6	216	14	125	10	101	0	0	0	0	0	0	0	0	0	8	1	116	6	5	629
05:15 PM	12	0	0	0	0	2	194	5	122	8	112	0	0	0	0	0	0	0	0	0	1	0	115	11	11	593
05:30 PM	15	0	0	0	0	9	214	15	181	8	119	0	0	0	0	0	0	0	0	0	5	1	110	5	13	695
05:45 PM	16	0	0	1	0	7	208	14	124	10	112	0	0	0	0	0	0	0	0	0	10	0	106	6	9	623
Total	64	0	0	1	0	24	832	48	552	36	444	0	0	0	0	0	0	0	0	0	24	2	447	28	38	2540
Grand Total	132	0	1	3	0	45	1597	96	992	74	822	0	0	0	0	0	0	0	0	0	41	4	792	53	76	4728
Apprch %	97.1	0	0.7	2.2	0	1.6	57	3.4	35.4	2.6	100	0	0	0	0	0	0	0	0	0	4.2	0.4	82	5.5	7.9	
Total %	2.8	0	0	0.1	0	1	33.8	2	21	1.6	17.4	0	0	0	0	0	0	0	0	0	0.9	0.1	16.8	1.1	1.6	
Cars	127	0	1	3	0	44	1563	76	982	71	790	0	0	0	0	0	0	0	0	0	38	4	763	50	75	4587
% Cars	96.2	0	100	100	0	97.8	97.9	79.2	99	95.9	96.1	0	0	0	0	0	0	0	0	0	92.7	100	96.3	94.3	98.7	97
Heavy Vehicles	5	0	0	0	0	1	34	20	10	3	32	0	0	0	0	0	0	0	0	0	3	0	29	3	1	141
% Heavy Vehicles	3.8	0	0	0	0	2.2	2.1	20.8	1	4.1	3.9	0	0	0	0	0	0	0	0	0	7.3	0	3.7	5.7	1.3	3

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	**21**	0	0	0	0	**21**	6	**216**	14	125	**10**	371	101	0	0	0	0	101	0	0	0	0	0	0	8	**1**	**116**	6	5	136	629
05:15 PM	12	0	0	0	0	12	2	194	5	122	8	331	112	0	0	0	0	112	0	0	0	0	0	0	1	0	115	**11**	11	**138**	593
05:30 PM	15	0	0	0	0	15	**9**	214	**15**	**181**	8	**427**	**119**	0	0	0	0	**119**									110	5	**13**	134	**695**
05:45 PM	16	0	0	**1**	0	17	7	208	14	124	10	363	112	0	0	0	0	112	0	0	0	0	0	0	**10**	0	106	6	9	131	623
Total Volume	64	0	0	1	0	65	24	832	48	552	36	1492	444	0	0	0	0	444	0	0	0	0	0	0	24	2	447	28	38	539	2540
% App. Total	98.5	0	0	1.5	0		1.6	55.8	3.2	37	2.4		100	0	0	0	0		0	0	0	0	0		4.5	0.4	82.9	5.2	7.1		
PHF	.762	.000	.000	.250	.000	.774	.667	.963	.800	.762	.900	.874	.933	.000	.000	.000	.000	.933	.000	.000	.000	.000	.000	.000	.600	.500	.963	.636	.731	.976	.914
Cars	61	0	0	1	0	62	24	814	38	548	35	1459	431	0	0	0	0	431	0	0	0	0	0	0	22	2	427	27	38	516	2468
% Cars	95.3	0	0	100	0	95.4	100	97.8	79.2	99.3	97.2	97.8	97.1	0	0	0	0	97.1	0	0	0	0	0	0	91.7	100	95.5	96.4	100	95.7	97.2
Heavy Vehicles	3	0	0	0	0	3	0	18	10	4	1	33	13	0	0	0	0	13	0	0	0	0	0	0	2	0	20	1	0	23	72
% Heavy Vehicles	4.7	0	0	0	0	4.6	0	2.2	20.8	0.7	2.8	2.2	2.9	0	0	0	0	2.9	0	0	0	0	0	0	8.3	0	4.5	3.6	0	4.3	2.8

N/S: Malvern Street/ Commonwealth Avenue
E/W: Commonwealth Avenue/ Brighton Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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File Name : 122828 AAA
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	13	0	0	0	0	3	197	11	99	4	84	0	0	0	0	0	0	0	0	0	3	0	69	3	11	497
04:15 PM	12	0	1	1	0	5	194	6	115	9	80	0	0	0	0	0	0	0	0	0	4	1	80	11	12	531
04:30 PM	28	0	0	0	0	6	189	11	109	12	89	0	0	0	0	0	0	0	0	0	3	1	111	5	7	571
04:45 PM	13	0	0	1	0	6	169	10	111	11	106	0	0	0	0	0	0	0	0	0	6	0	76	4	7	520
Total	66	0	1	2	0	20	749	38	434	36	359	0	0	0	0	0	0	0	0	0	16	2	336	23	37	2119
05:00 PM	19	0	0	0	0	6	214	11	124	10	99	0	0	0	0	0	0	0	0	0	6	1	108	6	5	609
05:15 PM	11	0	0	0	0	2	187	3	121	8	107	0	0	0	0	0	0	0	0	0	1	0	111	10	11	572
05:30 PM	15	0	0	0	0	9	209	12	180	7	116	0	0	0	0	0	0	0	0	0	5	1	105	5	13	677
05:45 PM	16	0	0	1	0	7	204	12	123	10	109	0	0	0	0	0	0	0	0	0	10	0	103	6	9	610
Total	61	0	0	1	0	24	814	38	548	35	431	0	0	0	0	0	0	0	0	0	22	2	427	27	38	2468
Grand Total	127	0	1	3	0	44	1563	76	982	71	790	0	0	0	0	0	0	0	0	0	38	4	763	50	75	4587
Apprch %	96.9	0	0.8	2.3	0	1.6	57.1	2.8	35.9	2.6	100	0	0	0	0	0	0	0	0	0	4.1	0.4	82	5.4	8.1	
Total %	2.8	0	0	0.1	0	1	34.1	1.7	21.4	1.5	17.2	0	0	0	0	0	0	0	0	0	0.8	0.1	16.6	1.1	1.6	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	**19**	0	0	0	0	**19**	6	**214**	11	124	**10**	365	99	0	0	0	0	99	0	0	0	0	0	0	6	**1**	108	6	5	126	609
05:15 PM	11	0	0	0	0	11	2	187	3	121	8	321	107	0	0	0	0	107	0	0	0	0	0	0	1	0	**111**	**10**	11	**133**	572
05:30 PM	15	0	0	0	0	15	**9**	209	**12**	**180**	7	**417**	**116**	0	0	0	0	**116**									105	5	**13**	129	**677**
05:45 PM	16	0	0	**1**	0	17	7	204	12	123	10	356	109	0	0	0	0	109	0	0	0	0	0	0	**10**	0	103	6	9	128	610
Total Volume	61	0	0	1	0	62	24	814	38	548	35	1459	431	0	0	0	0	431	0	0	0	0	0	0	22	2	427	27	38	516	2468
% App. Total	98.4	0	0	1.6	0		1.6	55.8	2.6	37.6	2.4		100	0	0	0	0		0	0	0	0	0		4.3	0.4	82.8	5.2	7.4		
PHF	.803	.000	.000	.250	.000	.816	.667	.951	.792	.761	.875	.875	.929	.000	.000	.000	.000	.929	.000	.000	.000	.000	.000	.000	.550	.500	.962	.675	.731	.970	.911

N/S: Malvern Street/ Commonwealth Avenue
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File Name : 122828 AAA
Site Code : 127-4220
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Groups Printed- Heavy Vehicles

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	1	0	0	0	0	0	5	4	5	1	6	0	0	0	0	0	0	0	0	0	1	0	1	1	0	25
04:15 PM	1	0	0	0	0	0	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	3	1	0	15
04:30 PM	0	0	0	0	0	0	6	1	1	0	4	0	0	0	0	0	0	0	0	0	0	0	3	0	1	16
04:45 PM	0	0	0	0	0	1	2	3	0	1	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	13
Total	2	0	0	0	0	1	16	10	6	2	19	0	0	0	0	0	0	0	0	0	1	0	9	2	1	69
05:00 PM	2	0	0	0	0	0	2	3	1	0	2	0	0	0	0	0	0	0	0	0	2	0	8	0	0	20
05:15 PM	1	0	0	0	0	0	7	2	1	0	5	0	0	0	0	0	0	0	0	0	0	0	4	1	0	21
05:30 PM	0	0	0	0	0	0	5	3	1	1	3	0	0	0	0	0	0	0	0	0	0	0	5	0	0	18
05:45 PM	0	0	0	0	0	0	4	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	13
Total	3	0	0	0	0	0	18	10	4	1	13	0	0	0	0	0	0	0	0	0	2	0	20	1	0	72
Grand Total	5	0	0	0	0	1	34	20	10	3	32	0	0	0	0	0	0	0	0	0	3	0	29	3	1	141
Apprch %	100	0	0	0	0	1.5	50	29.4	14.7	4.4	100	0	0	0	0	0	0	0	0	0	8.3	0	80.6	8.3	2.8	
Total %	3.5	0	0	0	0	0.7	24.1	14.2	7.1	2.1	22.7	0	0	0	0	0	0	0	0	0	2.1	0	20.6	2.1	0.7	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:45 PM																															
04:45 PM	0	0	0	0	0	0	**1**	2	**3**	0	**1**	7	4	0	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	2	13
05:00 PM	**2**	0	0	0	0	**2**	0	2	3	**1**	0	6	2	0	0	0	0	2	0	0	0	0	0	0	**2**	0	**8**	0	0	**10**	20
05:15 PM	1	0	0	0	0	1	0	**7**	2	1	0	**10**	**5**	0	0	0	0	**5**	0	0	0	0	0	0	0	0	4	**1**	0	5	**21**
05:30 PM	0	0	0	0	0	0	0	5	3	1	1	10	3	0	0	0	0	3	0	0	0	0	0	0	0	0	5	0	0	5	18
Total Volume																															
% App. Total	100	0	0	0	0		3	48.5	33.3	9.1	6.1		100	0	0	0	0		0	0	0	0	0		9.1	0	86.4	4.5	0		
PHF	.375	.000	.000	.000	.000	.375	.250	.571	.917	.750	.500	.825	.700	.000	.000	.000	.000	.700	.000	.000	.000	.000	.000	.000	.250	.000	.594	.250	.000	.550	.857

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Groups Printed- Peds and Bicycles

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	57	0	9	2	0	0	3	0	0	0	49	0	0	0	0	23	0	0	2	0	80	225
04:15 PM	0	0	0	0	65	0	12	2	0	1	7	0	0	0	62	0	0	0	0	37	0	0	4	0	73	263
04:30 PM	0	0	0	0	54	2	21	0	2	0	3	0	0	0	59	0	0	0	0	32	0	0	5	0	92	270
04:45 PM	0	0	0	0	63	1	15	1	2	1	5	0	0	0	60	0	0	0	0	35	0	0	7	0	107	297
Total	0	0	0	0	239	3	57	5	4	2	18	0	0	0	230	0	0	0	0	127	0	0	18	0	352	1055
05:00 PM	1	0	0	0	76	0	21	3	0	0	6	0	0	0	59	0	0	0	0	65	0	0	2	0	100	333
05:15 PM	1	0	0	0	108	0	34	3	0	2	3	0	0	0	71	0	0	0	0	99	0	0	4	2	126	453
05:30 PM	0	0	0	0	83	2	24	8	2	3	4	0	0	0	65	0	0	0	0	78	1	0	7	0	102	379
05:45 PM	2	0	0	0	100	1	23	1	4	6	4	0	0	0	59	0	0	0	0	92	0	0	4	0	124	420
Total	4	0	0	0	367	3	102	15	6	11	17	0	0	0	254	0	0	0	0	334	1	0	17	2	452	1585
Grand Total	4	0	0	0	606	6	159	20	10	13	35	0	0	0	484	0	0	0	0	461	1	0	35	2	804	2640
Apprch %	0.7	0	0	0	99.3	2.9	76.4	9.6	4.8	6.2	6.7	0	0	0	93.3	0	0	0	0	100	0.1	0	4.2	0.2	95.5	
Total %	0.2	0	0	0	23	0.2	6	0.8	0.4	0.5	1.3	0	0	0	18.3	0	0	0	0	17.5	0	0	1.3	0.1	30.5	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	1	0	0	0	76	77	0	21	3	0	0	24	**6**	0	0	0	59	65	0	0	0	0	65	65	0	0	2	0	100	102	333
05:15 PM	1	0	0	0	**108**	**109**		**34**	3	0	2	**39**	3	0	0	0	**71**	**74**	0	0	0	0	**99**	**99**	0	0	4	**2**	**126**	**132**	**453**
05:30 PM	0	0	0	0	83	83	**2**	24	**8**	2	3	39	4	0	0	0	65	69	0	0	0	0	78	78	**1**	0	**7**	0	102	110	379
05:45 PM	**2**	0	0	0	100	102	1	23	1	**4**	**6**	35	4	0	0	0	59	63	0	0	0	0	92	92	0	0	4	0	124	128	420
Total Volume	4	0	0	0	367	371	3	102	15	6	11	137	17	0	0	0	254	271	0	0	0	0	334	334	1	0	17	2	452	472	1585
% App. Total	1.1	0	0	0	98.9		2.2	74.5	10.9	4.4	8		6.3	0	0	0	93.7		0	0	0	0	100		0.2	0	3.6	0.4	95.8		
PHF	.500	.000	.000	.000	.850	.851	.375	.750	.469	.375	.458	.878	.708	.000	.000	.000	.894	.916	.000	.000	.000	.000	.843	.843	.250	.000	.607	.250	.897	.894	.875

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Page No : 1

Groups Printed- Trains

	Malvern Street From North					Commonwealth Avenue (Route 20/30) From East					Commonwealth Avenue (Route 30) From South					Commonwealth Avenue (WB) From Southwest					Brighton Avenue (Route 20) From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:15 PM	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
04:30 PM	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:45 PM	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	9	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
05:00 PM	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
05:30 PM	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
05:45 PM	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	0	0	0	0	0	0	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Grand Total	0	0	0	0	0	0	0	0	19	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
Apprch %	0	0	0	0	0	0	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	45.2	0	54.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:00 PM																															
04:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	5
04:15 PM	0	0	0	0	0	0	0	0	0	**3**	0	**3**	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	**6**
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	**4**	0	0	0	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	5
04:45 PM	0	0	0	0	0	0	0	0	0	3	0	3	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6
Total Volume																															
% App. Total	0	0	0	0	0		0	0	0	100	0		100	0	0	0	0		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.750	.813	.000	.000	.000	.000	.813	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.917

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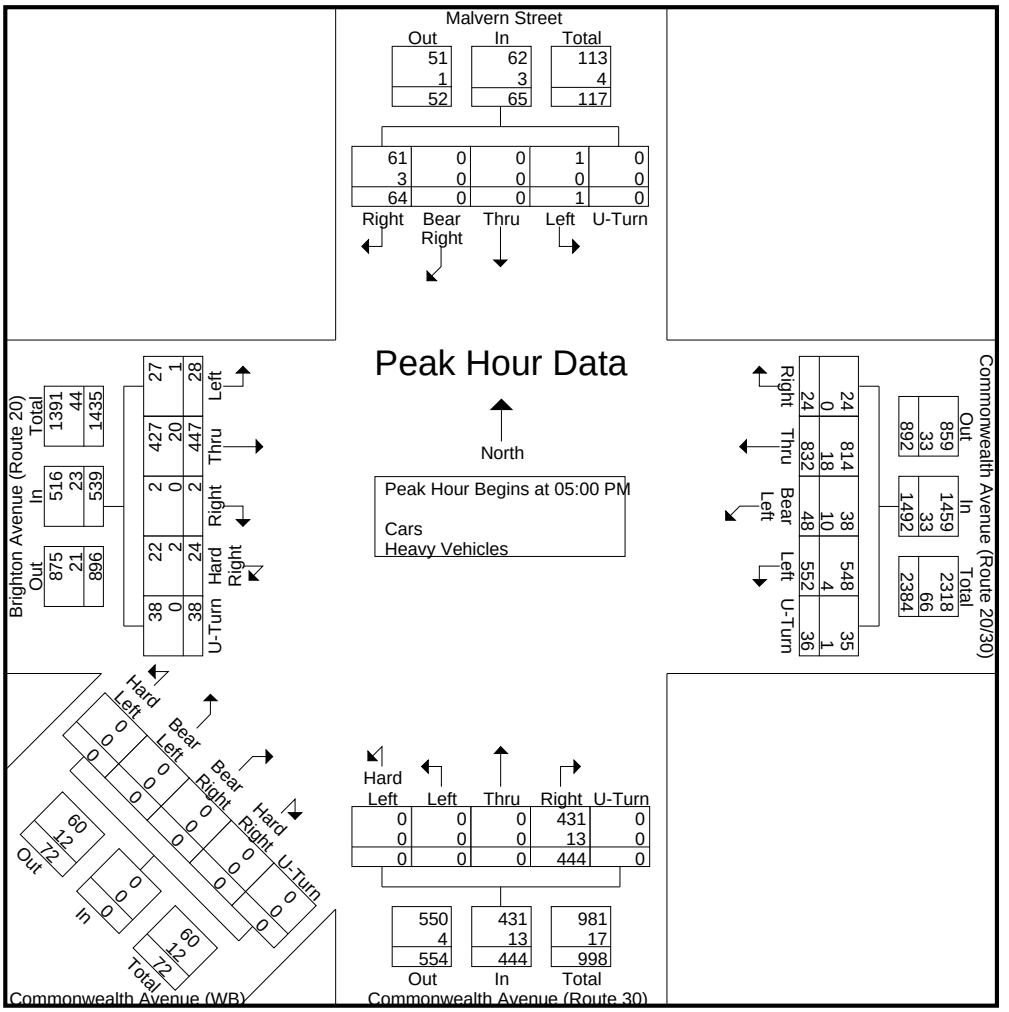
	Malvern Street From North						Commonwealth Avenue (Route 20/30) From East						Commonwealth Avenue (Route 30) From South						Commonwealth Avenue (WB) From Southwest						Brighton Avenue (Route 20) From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	**21**	0	0	0	0	**21**	6	**216**	14	125	**10**	371	101	0	0	0	0	101	0	0	0	0	0	0	8	**1**	**116**	6	5	136	629
05:15 PM	12	0	0	0	0	12	2	194	5	122	8	331	112	0	0	0	0	112	0	0	0	0	0	0	1	0	115	**11**	11	**138**	593
05:30 PM	15	0	0	0	0	15	**9**	214	**15**	**181**	8	**427**	**119**	0	0	0	0	**119**									110	5	**13**	134	**695**
05:45 PM	16	0	0	**1**	0	17	7	208	14	124	10	363	112	0	0	0	0	112	0	0	0	0	0	0	**10**	0	106	6	9	131	623
Total Volume	64	0	0	1	0	65	24	832	48	552	36	1492	444	0	0	0	0	444	0	0	0	0	0	0	24	2	447	28	38	539	2540
% App. Total	98.5	0	0	1.5	0		1.6	55.8	3.2	37	2.4		100	0	0	0	0		0	0	0	0	0		4.5	0.4	82.9	5.2	7.1		
PHF	.762	.000	.000	.250	.000	.774	.667	.963	.800	.762	.900	.874	.933	.000	.000	.000	.000	.933	.000	.000	.000	.000	.000	.000	.600	.500	.963	.636	.731	.976	.914
Cars	61	0	0	1	0	62	24	814	38	548	35	1459	431	0	0	0	0	431	0	0	0	0	0	0	22	2	427	27	38	516	2468
% Cars	95.3	0	0	100	0	95.4	100	97.8	79.2	99.3	97.2	97.8	97.1	0	0	0	0	97.1	0	0	0	0	0	0	91.7	100	95.5	96.4	100	95.7	97.2
Heavy Vehicles	3	0	0	0	0	3	0	18	10	4	1	33	13	0	0	0	0	13	0	0	0	0	0	0	2	0	20	1	0	23	72
% Heavy Vehicles	4.7	0	0	0	0	4.6	0	2.2	20.8	0.7	2.8	2.2	2.9	0	0	0	0	2.9	0	0	0	0	0	0	8.3	0	4.5	3.6	0	4.3	2.8



N/S: Alcorn Street
E/W: Gardner Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 B
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Alcorn Street From North			Gardner Street From East			Alcorn Street From South			Gardner Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	3	0	2	10	1	1	0	1	0	1	2	22
07:15 AM	0	3	0	1	18	3	0	3	0	1	0	2	31
07:30 AM	2	9	0	2	15	0	0	2	0	2	0	2	34
07:45 AM	0	2	0	3	15	0	0	1	1	4	1	2	29
Total	3	17	0	8	58	4	1	6	2	7	2	8	116
08:00 AM	4	3	0	4	18	1	0	3	9	4	0	4	50
08:15 AM	0	8	0	5	17	2	0	1	5	0	0	4	42
08:30 AM	0	4	0	4	23	2	0	1	2	2	0	1	39
08:45 AM	2	5	1	5	20	2	0	0	3	5	0	5	48
Total	6	20	1	18	78	7	0	5	19	11	0	14	179
Grand Total	9	37	1	26	136	11	1	11	21	18	2	22	295
Apprch %	19.1	78.7	2.1	15	78.6	6.4	3	33.3	63.6	42.9	4.8	52.4	
Total %	3.1	12.5	0.3	8.8	46.1	3.7	0.3	3.7	7.1	6.1	0.7	7.5	
Cars	7	36	0	21	132	11	0	8	20	17	1	21	274
% Cars	77.8	97.3	0	80.8	97.1	100	0	72.7	95.2	94.4	50	95.5	92.9
Heavy Vehicles	2	1	1	5	4	0	1	3	1	1	1	1	21
% Heavy Vehicles	22.2	2.7	100	19.2	2.9	0	100	27.3	4.8	5.6	50	4.5	7.1

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**4**	3	0	7	4	18	1	23	0	**3**	**9**	**12**	4	0	4	8	**50**
08:15 AM	0	**8**	0	**8**	**5**	17	**2**	24	0	1	5	6	0	0	4	4	42
08:30 AM	0	4	0	4	4	**23**	2	**29**	0	1	2	3	2	0	1	3	39
08:45 AM	2	5	**1**	8	5	20	2	27	0	0	3	3	**5**	0	**5**	**10**	48
Total Volume	6	20	1	27	18	78	7	103	0	5	19	24	11	0	14	25	179
% App. Total	22.2	74.1	3.7		17.5	75.7	6.8		0	20.8	79.2		44	0	56		
PHF	.375	.625	.250	.844	.900	.848	.875	.888	.000	.417	.528	.500	.550	.000	.700	.625	.895
Cars	5	19	0	24	14	76	7	97	0	5	18	23	10	0	14	24	168
% Cars	83.3	95.0	0	88.9	77.8	97.4	100	94.2	0	100	94.7	95.8	90.9	0	100	96.0	93.9
Heavy Vehicles	1	1	1	3	4	2	0	6	0	0	1	1	1	0	0	1	11
% Heavy Vehicles	16.7	5.0	100	11.1	22.2	2.6	0	5.8	0	0	5.3	4.2	9.1	0	0	4.0	6.1

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N/S: Alcorn Street
E/W: Gardner Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 B
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Alcorn Street From North			Gardner Street From East			Alcorn Street From South			Gardner Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	3	0	2	10	1	0	0	1	0	1	2	21
07:15 AM	0	3	0	1	17	3	0	1	0	1	0	2	28
07:30 AM	1	9	0	2	14	0	0	1	0	2	0	2	31
07:45 AM	0	2	0	2	15	0	0	1	1	4	0	1	26
Total	2	17	0	7	56	4	0	3	2	7	1	7	106
08:00 AM	3	3	0	4	18	1	0	3	9	4	0	4	49
08:15 AM	0	8	0	2	17	2	0	1	5	0	0	4	39
08:30 AM	0	3	0	4	22	2	0	1	2	2	0	1	37
08:45 AM	2	5	0	4	19	2	0	0	2	4	0	5	43
Total	5	19	0	14	76	7	0	5	18	10	0	14	168
Grand Total	7	36	0	21	132	11	0	8	20	17	1	21	274
Apprch %	16.3	83.7	0	12.8	80.5	6.7	0	28.6	71.4	43.6	2.6	53.8	
Total %	2.6	13.1	0	7.7	48.2	4	0	2.9	7.3	6.2	0.4	7.7	

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**3**	3	0	6	**4**	18	1	23	0	**3**	**9**	**12**	**4**	0	4	8	**49**
08:15 AM	0	**8**	0	**8**	2	17	**2**	21	0	1	5	6	0	0	4	4	39
08:30 AM	0	3	0	3	4	**22**	2	**28**	0	1	2	3	2	0	1	3	37
08:45 AM	2	5	0	7	4	19	2	25	0	0	2	2	4	0	**5**	**9**	43
Total Volume	5	19	0	24	14	76	7	97	0	5	18	23	10	0	14	24	168
% App. Total	20.8	79.2	0		14.4	78.4	7.2		0	21.7	78.3		41.7	0	58.3		
PHF	.417	.594	.000	.750	.875	.864	.875	.866	.000	.417	.500	.479	.625	.000	.700	.667	.857

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File Name : 122828 B
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Alcorn Street From North			Gardner Street From East			Alcorn Street From South			Gardner Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
07:15 AM	0	0	0	0	1	0	0	2	0	0	0	0	3
07:30 AM	1	0	0	0	1	0	0	1	0	0	0	0	3
07:45 AM	0	0	0	1	0	0	0	0	0	0	1	1	3
Total	1	0	0	1	2	0	1	3	0	0	1	1	10
08:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	3	0	0	0	0	0	0	0	0	3
08:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
08:45 AM	0	0	1	1	1	0	0	0	1	1	0	0	5
Total	1	1	1	4	2	0	0	0	1	1	0	0	11
Grand Total	2	1	1	5	4	0	1	3	1	1	1	1	21
Apprch %	50	25	25	55.6	44.4	0	20	60	20	33.3	33.3	33.3	
Total %	9.5	4.8	4.8	23.8	19	0	4.8	14.3	4.8	4.8	4.8	4.8	

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	0	0	0	3
08:30 AM	0	**1**	0	1	0	**1**	0	1	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	**1**	1	1	1	0	2	0	0	**1**	**1**	**1**	0	0	**1**	**5**
Total Volume	1	1	1	3	4	2	0	6	0	0	1	1	1	0	0	1	11
% App. Total	33.3	33.3	33.3		66.7	33.3	0		0	0	100		100	0	0		
PHF	.250	.250	.250	.750	.333	.500	.000	.500	.000	.000	.250	.250	.250	.000	.000	.250	.550

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Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	5	1	1	0	8	0	0	0	3	0	0	0	3	21
07:15 AM	0	0	0	4	1	2	0	8	0	0	0	5	0	0	0	2	22
07:30 AM	0	0	0	3	0	2	0	11	0	0	1	7	1	0	0	2	27
07:45 AM	0	0	0	6	0	2	0	7	0	0	0	4	0	0	0	0	19
Total	0	0	0	18	2	7	0	34	0	0	1	19	1	0	0	7	89
08:00 AM	0	0	0	8	0	3	0	7	0	0	0	2	0	0	0	0	20
08:15 AM	0	0	0	1	0	2	0	16	0	0	1	10	0	0	0	1	31
08:30 AM	0	0	0	14	0	4	0	10	0	0	1	9	0	0	0	1	39
08:45 AM	0	1	0	13	0	3	0	20	0	0	2	8	0	0	0	4	51
Total	0	1	0	36	0	12	0	53	0	0	4	29	0	0	0	6	141
Grand Total	0	1	0	54	2	19	0	87	0	0	5	48	1	0	0	13	230
Apprch %	0	1.8	0	98.2	1.9	17.6	0	80.6	0	0	9.4	90.6	7.1	0	0	92.9	
Total %	0	0.4	0	23.5	0.9	8.3	0	37.8	0	0	2.2	20.9	0.4	0	0	5.7	

	Alcorn Street From North					Gardner Street From East					Alcorn Street From South					Gardner Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	8	8	0	3	0	7	10	0	0	0	2	2	0	0	0	0	0	20
08:15 AM	0	0	0	1	1	0	2	0	16	18	0	0	1	**10**	**11**	0	0	0	1	1	31
08:30 AM	0	0	0	**14**	**14**	0	**4**	0	10	14	0	0	1	9	10	0	0	0	1	1	39
08:45 AM	0	**1**	0	13	14	0	3	0	**20**	**23**	0	0	**2**	8	10	0	0	0	**4**	**4**	**51**
Total Volume	0	1	0	36	37	0	12	0	53	65	0	0	4	29	33	0	0	0	6	6	141
% App. Total	0	2.7	0	97.3		0	18.5	0	81.5		0	0	12.1	87.9		0	0	0	100		
PHF	.000	.250	.000	.643	.661	.000	.750	.000	.663	.707	.000	.000	.500	.725	.750	.000	.000	.000	.375	.375	.691

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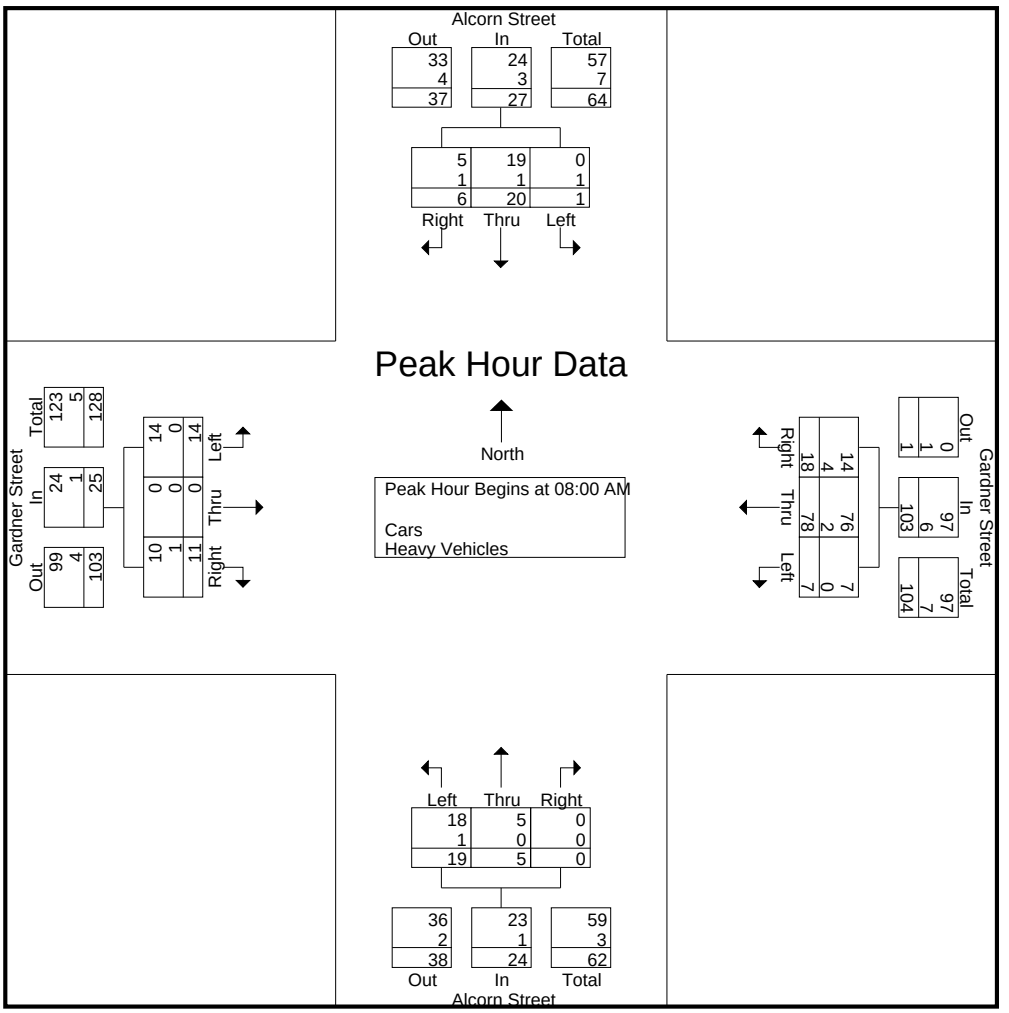
	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**4**	3	0	7	4	18	1	23	0	**3**	**9**	**12**	4	0	4	8	**50**
08:15 AM	0	**8**	0	**8**	**5**	17	**2**	24	0	1	5	6	0	0	4	4	42
08:30 AM	0	4	0	4	4	**23**	2	**29**	0	1	2	3	2	0	1	3	39
08:45 AM	2	5	**1**	8	5	20	2	27	0	0	3	3	**5**	0	**5**	**10**	48
Total Volume	6	20	1	27	18	78	7	103	0	5	19	24	11	0	14	25	179
% App. Total	22.2	74.1	3.7		17.5	75.7	6.8		0	20.8	79.2		44	0	56		
PHF	.375	.625	.250	.844	.900	.848	.875	.888	.000	.417	.528	.500	.550	.000	.700	.625	.895
Cars	5	19	0	24	14	76	7	97	0	5	18	23	10	0	14	24	168
% Cars	83.3	95.0	0	88.9	77.8	97.4	100	94.2	0	100	94.7	95.8	90.9	0	100	96.0	93.9
Heavy Vehicles	1	1	1	3	4	2	0	6	0	0	1	1	1	0	0	1	11
% Heavy Vehicles	16.7	5.0	100	11.1	22.2	2.6	0	5.8	0	0	5.3	4.2	9.1	0	0	4.0	6.1



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Groups Printed- Cars - Heavy Vehicles

	Alcorn Street From North			Gardner Street From East			Alcorn Street From South			Gardner Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
12:00 PM	2	5	0	6	6	2	0	2	1	1	0	2	27
12:15 PM	1	8	0	6	20	2	0	1	3	6	0	0	47
12:30 PM	5	8	0	14	12	3	0	3	0	5	1	3	54
12:45 PM	2	7	0	9	15	1	0	2	4	0	0	2	42
Total	10	28	0	35	53	8	0	8	8	12	1	7	170
01:00 PM	0	5	0	10	12	0	0	4	2	2	0	1	36
01:15 PM	2	6	0	12	15	3	0	7	4	0	0	1	50
01:30 PM	2	7	0	7	14	0	0	2	1	1	0	1	35
01:45 PM	0	4	0	5	19	3	0	0	0	0	0	2	33
Total	4	22	0	34	60	6	0	13	7	3	0	5	154
Grand Total	14	50	0	69	113	14	0	21	15	15	1	12	324
Apprch %	21.9	78.1	0	35.2	57.7	7.1	0	58.3	41.7	53.6	3.6	42.9	
Total %	4.3	15.4	0	21.3	34.9	4.3	0	6.5	4.6	4.6	0.3	3.7	
Cars	13	49	0	64	111	14	0	20	12	15	1	12	311
% Cars	92.9	98	0	92.8	98.2	100	0	95.2	80	100	100	100	96
Heavy Vehicles	1	1	0	5	2	0	0	1	3	0	0	0	13
% Heavy Vehicles	7.1	2	0	7.2	1.8	0	0	4.8	20	0	0	0	4

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	**5**	**8**	0	**13**	**14**	12	**3**	29	0	3	0	3	**5**	**1**	**3**	**9**	**54**
12:45 PM	2	7	0	9	9	**15**	1	25	0	2	**4**	6	0	0	2	2	42
01:00 PM	0	5	0	5	10	12	0	22	0	4	2	6	2	0	1	3	36
01:15 PM	2	6	0	8	12	15	3	**30**	0	**7**	4	**11**	0	0	1	1	50
Total Volume	9	26	0	35	45	54	7	106	0	16	10	26	7	1	7	15	182
% App. Total	25.7	74.3	0		42.5	50.9	6.6		0	61.5	38.5		46.7	6.7	46.7		
PHF	.450	.813	.000	.673	.804	.900	.583	.883	.000	.571	.625	.591	.350	.250	.583	.417	.843
Cars	9	26	0	35	41	53	7	101	0	15	8	23	7	1	7	15	174
% Cars	100	100	0	100	91.1	98.1	100	95.3	0	93.8	80.0	88.5	100	100	100	100	95.6
Heavy Vehicles	0	0	0	0	4	1	0	5	0	1	2	3	0	0	0	0	8
% Heavy Vehicles	0	0	0	0	8.9	1.9	0	4.7	0	6.3	20.0	11.5	0	0	0	0	4.4

N/S: Alcorn Street
E/W: Gardner Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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File Name : 122828 BB
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Alcorn Street From North			Gardner Street From East			Alcorn Street From South			Gardner Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
12:00 PM	2	5	0	6	6	2	0	2	1	1	0	2	27
12:15 PM	0	8	0	5	19	2	0	1	2	6	0	0	43
12:30 PM	5	8	0	14	12	3	0	3	0	5	1	3	54
12:45 PM	2	7	0	8	15	1	0	2	3	0	0	2	40
Total	9	28	0	33	52	8	0	8	6	12	1	7	164
01:00 PM	0	5	0	9	11	0	0	3	2	2	0	1	33
01:15 PM	2	6	0	10	15	3	0	7	3	0	0	1	47
01:30 PM	2	6	0	7	14	0	0	2	1	1	0	1	34
01:45 PM	0	4	0	5	19	3	0	0	0	0	0	2	33
Total	4	21	0	31	59	6	0	12	6	3	0	5	147
Grand Total	13	49	0	64	111	14	0	20	12	15	1	12	311
Apprch %	21	79	0	33.9	58.7	7.4	0	62.5	37.5	53.6	3.6	42.9	
Total %	4.2	15.8	0	20.6	35.7	4.5	0	6.4	3.9	4.8	0.3	3.9	

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	**5**	**8**	0	**13**	**14**	12	**3**	**29**	0	3	0	3	**5**	**1**	**3**	**9**	**54**
12:45 PM	2	7	0	9	8	**15**	1	24	0	2	**3**	5	0	0	2	2	40
01:00 PM	0	5	0	5	9	11	0	20	0	3	2	5	2	0	1	3	33
01:15 PM	2	6	0	8	10	15	3	28	0	**7**	3	**10**	0	0	1	1	47
Total Volume	9	26	0	35	41	53	7	101	0	15	8	23	7	1	7	15	174
% App. Total	25.7	74.3	0		40.6	52.5	6.9		0	65.2	34.8		46.7	6.7	46.7		
PHF	.450	.813	.000	.673	.732	.883	.583	.871	.000	.536	.667	.575	.350	.250	.583	.417	.806

N/S: Alcorn Street
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File Name : 122828 BB
Site Code : 127-4220
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Groups Printed- Heavy Vehicles

	Alcorn Street From North			Gardner Street From East			Alcorn Street From South			Gardner Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	1	0	0	1	1	0	0	0	1	0	0	0	4
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	1	0	0	0	0	1	0	0	0	2
Total	1	0	0	2	1	0	0	0	2	0	0	0	6
01:00 PM	0	0	0	1	1	0	0	1	0	0	0	0	3
01:15 PM	0	0	0	2	0	0	0	0	1	0	0	0	3
01:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	3	1	0	0	1	1	0	0	0	7
Grand Total	1	1	0	5	2	0	0	1	3	0	0	0	13
Apprch %	50	50	0	71.4	28.6	0	0	25	75	0	0	0	
Total %	7.7	7.7	0	38.5	15.4	0	0	7.7	23.1	0	0	0	

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	**1**	0	0	**1**	**1**	**1**	0	**2**	0	0	**1**	**1**	0	0	0	0	**4**
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
01:00 PM	0	0	0	0	1	1	0	2	0	**1**	0	1	0	0	0	0	3
Total Volume	1	0	0	1	3	2	0	5	0	1	2	3	0	0	0	0	9
% App. Total	100	0	0		60	40	0		0	33.3	66.7		0	0	0		
PHF	.250	.000	.000	.250	.750	.500	.000	.625	.000	.250	.500	.750	.000	.000	.000	.000	.563

N/S: Alcorn Street
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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 BB
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Peds and Bicycles

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	0	0	12	0	1	0	17	0	0	1	2	0	0	0	3	36
12:15 PM	0	0	0	13	0	3	0	51	0	0	0	3	0	0	0	2	72
12:30 PM	0	0	0	13	0	2	0	36	0	0	1	8	0	0	0	6	66
12:45 PM	0	0	0	5	0	2	0	26	0	0	0	4	0	0	0	2	39
Total	0	0	0	43	0	8	0	130	0	0	2	17	0	0	0	13	213
01:00 PM	0	0	0	6	1	1	0	11	0	0	0	1	0	2	0	1	23
01:15 PM	0	0	0	10	0	1	0	26	0	0	0	7	2	0	0	1	47
01:30 PM	0	0	0	12	0	2	0	15	0	0	0	9	0	0	0	1	39
01:45 PM	0	1	0	10	0	2	0	17	0	0	0	6	0	0	0	0	36
Total	0	1	0	38	1	6	0	69	0	0	0	23	2	2	0	3	145
Grand Total	0	1	0	81	1	14	0	199	0	0	2	40	2	2	0	16	358
Apprch %	0	1.2	0	98.8	0.5	6.5	0	93	0	0	4.8	95.2	10	10	0	80	
Total %	0	0.3	0	22.6	0.3	3.9	0	55.6	0	0	0.6	11.2	0.6	0.6	0	4.5	

	Alcorn Street From North					Gardner Street From East					Alcorn Street From South					Gardner Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	12	12	0	1	0	17	18	0	0	**1**	2	3	0	0	0	3	3	36
12:15 PM	0	0	0	**13**	**13**	0	**3**	0	**51**	**54**	0	0	0	3	3	0	0	0	2	2	**72**
12:30 PM	0	0	0	13	13	0	2	0	36	38	0	0	1	**8**	**9**	0	0	0	**6**	**6**	66
12:45 PM	0	0	0	5	5	0	2	0	26	28	0	0	0	4	4	0	0	0	2	2	39
Total Volume	0	0	0	43	43	0	8	0	130	138	0	0	2	17	19	0	0	0	13	13	213
% App. Total	0	0	0	100		0	5.8	0	94.2		0	0	10.5	89.5		0	0	0	100		
PHF	.000	.000	.000	.827	.827	.000	.667	.000	.637	.639	.000	.000	.500	.531	.528	.000	.000	.000	.542	.542	.740

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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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Site Code : 127-4220
Start Date : 3/20/2012
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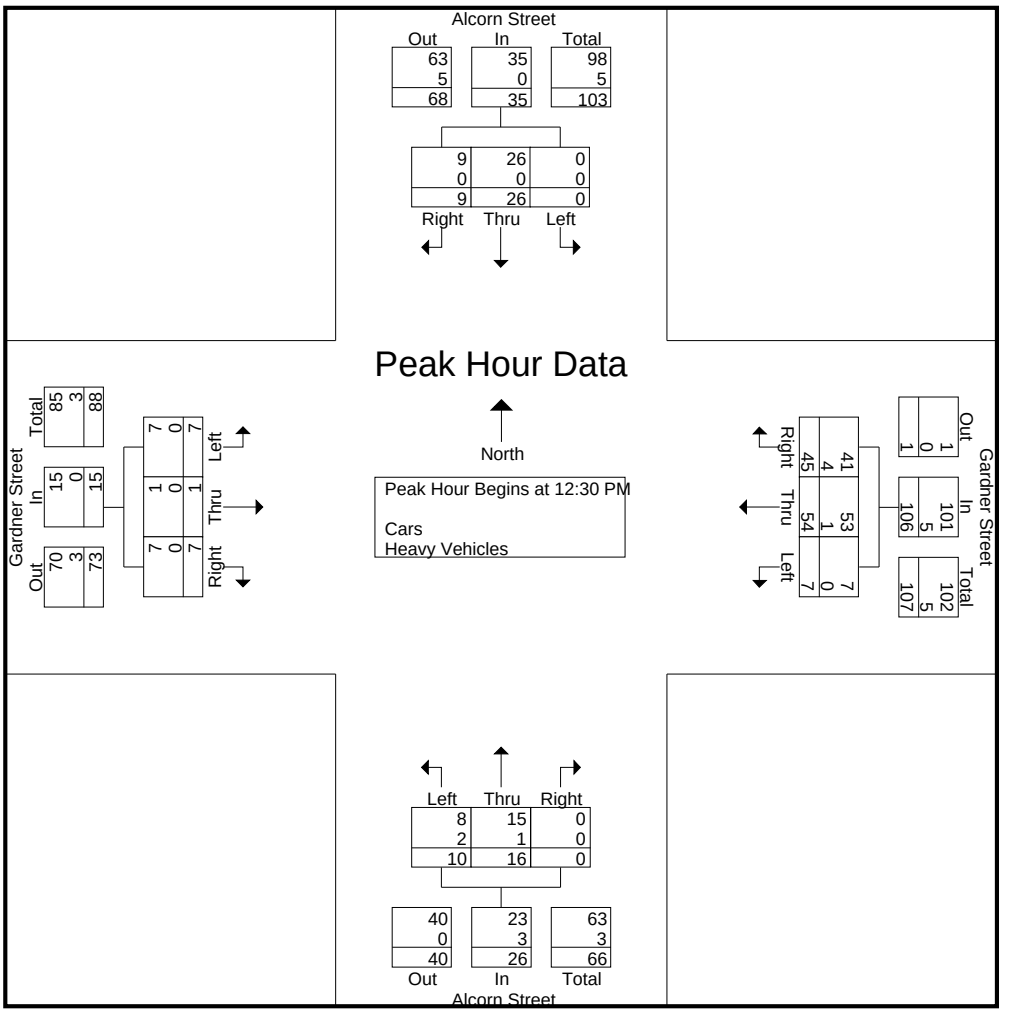
	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	**5**	**8**	0	**13**	**14**	12	**3**	29	0	3	0	3	**5**	**1**	**3**	**9**	**54**
12:45 PM	2	7	0	9	9	**15**	1	25	0	2	**4**	6	0	0	2	2	42
01:00 PM	0	5	0	5	10	12	0	22	0	4	2	6	2	0	1	3	36
01:15 PM	2	6	0	8	12	15	3	**30**	0	**7**	4	**11**	0	0	1	1	50
Total Volume	9	26	0	35	45	54	7	106	0	16	10	26	7	1	7	15	182
% App. Total	25.7	74.3	0		42.5	50.9	6.6		0	61.5	38.5		46.7	6.7	46.7		
PHF	.450	.813	.000	.673	.804	.900	.583	.883	.000	.571	.625	.591	.350	.250	.583	.417	.843
Cars	9	26	0	35	41	53	7	101	0	15	8	23	7	1	7	15	174
% Cars	100	100	0	100	91.1	98.1	100	95.3	0	93.8	80.0	88.5	100	100	100	100	95.6
Heavy Vehicles	0	0	0	0	4	1	0	5	0	1	2	3	0	0	0	0	8
% Heavy Vehicles	0	0	0	0	8.9	1.9	0	4.7	0	6.3	20.0	11.5	0	0	0	0	4.4



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N/S: Alcorn Street
E/W: Gardner Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 BBB
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Alcorn Street From North			Gardner Street From East			Alcorn Street From South			Gardner Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	5	0	11	18	1	0	3	0	3	0	8	49
04:15 PM	0	9	0	9	14	5	0	3	1	4	0	3	48
04:30 PM	0	5	0	6	16	1	0	6	2	4	0	0	40
04:45 PM	0	10	0	8	14	0	0	6	0	3	0	5	46
Total	0	29	0	34	62	7	0	18	3	14	0	16	183
05:00 PM	1	15	0	6	20	0	0	12	3	2	0	7	66
05:15 PM	0	8	0	17	21	3	0	6	1	0	0	2	58
05:30 PM	1	10	0	12	19	2	0	3	2	9	0	4	62
05:45 PM	4	12	0	13	19	3	0	1	0	4	0	3	59
Total	6	45	0	48	79	8	0	22	6	15	0	16	245
Grand Total	6	74	0	82	141	15	0	40	9	29	0	32	428
Apprch %	7.5	92.5	0	34.5	59.2	6.3	0	81.6	18.4	47.5	0	52.5	
Total %	1.4	17.3	0	19.2	32.9	3.5	0	9.3	2.1	6.8	0	7.5	
Cars	6	73	0	82	140	15	0	39	9	29	0	32	425
% Cars	100	98.6	0	100	99.3	100	0	97.5	100	100	0	100	99.3
Heavy Vehicles	0	1	0	0	1	0	0	1	0	0	0	0	3
% Heavy Vehicles	0	1.4	0	0	0.7	0	0	2.5	0	0	0	0	0.7

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	**15**	0	**16**	6	20	0	26	0	**12**	**3**	**15**	2	0	**7**	9	**66**
05:15 PM	0	8	0	8	**17**	**21**	**3**	**41**	0	6	1	7	0	0	2	2	58
05:30 PM	1	10	0	11	12	19	2	33	0	3	2	5	**9**	0	4	**13**	62
05:45 PM	**4**	12	0	16	13	19	3	35	0	1	0	1	4	0	3	7	59
Total Volume	6	45	0	51	48	79	8	135	0	22	6	28	15	0	16	31	245
% App. Total	11.8	88.2	0		35.6	58.5	5.9		0	78.6	21.4		48.4	0	51.6		
PHF	.375	.750	.000	.797	.706	.940	.667	.823	.000	.458	.500	.467	.417	.000	.571	.596	.928
Cars	6	44	0	50	48	79	8	135	0	22	6	28	15	0	16	31	244
% Cars	100	97.8	0	98.0	100	100	100	100	0	100	100	100	100	0	100	100	99.6
Heavy Vehicles	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% Heavy Vehicles	0	2.2	0	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0.4

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File Name : 122828 BBB
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Cars

	Alcorn Street From North			Gardner Street From East			Alcorn Street From South			Gardner Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	5	0	11	18	1	0	2	0	3	0	8	48
04:15 PM	0	9	0	9	14	5	0	3	1	4	0	3	48
04:30 PM	0	5	0	6	16	1	0	6	2	4	0	0	40
04:45 PM	0	10	0	8	13	0	0	6	0	3	0	5	45
Total	0	29	0	34	61	7	0	17	3	14	0	16	181
05:00 PM	1	14	0	6	20	0	0	12	3	2	0	7	65
05:15 PM	0	8	0	17	21	3	0	6	1	0	0	2	58
05:30 PM	1	10	0	12	19	2	0	3	2	9	0	4	62
05:45 PM	4	12	0	13	19	3	0	1	0	4	0	3	59
Total	6	44	0	48	79	8	0	22	6	15	0	16	244
Grand Total	6	73	0	82	140	15	0	39	9	29	0	32	425
Apprch %	7.6	92.4	0	34.6	59.1	6.3	0	81.2	18.8	47.5	0	52.5	
Total %	1.4	17.2	0	19.3	32.9	3.5	0	9.2	2.1	6.8	0	7.5	

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	**14**	0	15	6	20	0	26	0	**12**	**3**	**15**	2	0	**7**	9	**65**
05:15 PM	0	8	0	8	**17**	**21**	**3**	**41**	0	6	1	7	0	0	2	2	58
05:30 PM	1	10	0	11	12	19	2	33	0	3	2	5	**9**	0	4	**13**	62
05:45 PM	**4**	12	0	**16**	13	19	3	35	0	1	0	1	4	0	3	7	59
Total Volume	6	44	0	50	48	79	8	135	0	22	6	28	15	0	16	31	244
% App. Total	12	88	0		35.6	58.5	5.9		0	78.6	21.4		48.4	0	51.6		
PHF	.375	.786	.000	.781	.706	.940	.667	.823	.000	.458	.500	.467	.417	.000	.571	.596	.938

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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 BBB
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Heavy Vehicles

	Alcorn Street From North			Gardner Street From East			Alcorn Street From South			Gardner Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	1	0	0	1	0	0	0	0	2
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	0	1	0	0	1	0	0	0	0	3
Apprch %	0	100	0	0	100	0	0	100	0	0	0	0	
Total %	0	33.3	0	0	33.3	0	0	33.3	0	0	0	0	

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

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Alcorn Street
E/W: Gardner Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 BBB
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	12	0	0	0	37	0	0	0	4	0	0	0	2	55
04:15 PM	0	0	1	10	0	1	0	25	0	0	0	5	0	0	0	1	43
04:30 PM	0	0	0	12	0	0	0	34	0	0	0	5	0	0	0	0	51
04:45 PM	0	0	0	16	0	3	0	34	0	0	0	3	0	2	0	4	62
Total	0	0	1	50	0	4	0	130	0	0	0	17	0	2	0	7	211
05:00 PM	0	0	0	19	0	2	0	29	0	0	0	14	0	2	0	0	66
05:15 PM	0	0	0	16	0	2	0	36	0	0	0	7	1	1	0	2	65
05:30 PM	0	1	0	10	0	4	0	58	1	0	0	9	1	1	0	1	86
05:45 PM	0	0	2	13	0	1	0	64	0	2	0	8	0	0	0	0	90
Total	0	1	2	58	0	9	0	187	1	2	0	38	2	4	0	3	307
Grand Total	0	1	3	108	0	13	0	317	1	2	0	55	2	6	0	10	518
Apprch %	0	0.9	2.7	96.4	0	3.9	0	96.1	1.7	3.4	0	94.8	11.1	33.3	0	55.6	
Total %	0	0.2	0.6	20.8	0	2.5	0	61.2	0.2	0.4	0	10.6	0.4	1.2	0	1.9	

	Alcorn Street From North					Gardner Street From East					Alcorn Street From South					Gardner Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	**19**	**19**	0	2	0	29	31	0	0	0	**14**	**14**	0	**2**	0	0	2	66
05:15 PM	0	0	0	16	16	0	2	0	36	38	0	0	0	7	7	**1**	1	0	**2**	**4**	65
05:30 PM	0	**1**	0	10	11	0	**4**	0	58	62	**1**	0	0	9	10	1	1	0	1	3	86
05:45 PM	0	0	**2**	13	15	0	1	0	**64**	**65**	0	**2**	0	8	10	0	0	0	0	0	**90**
Total Volume	0	1	2	58	61	0	9	0	187	196	1	2	0	38	41	2	4	0	3	9	307
% App. Total	0	1.6	3.3	95.1		0	4.6	0	95.4		2.4	4.9	0	92.7		22.2	44.4	0	33.3		
PHF	.000	.250	.250	.763	.803	.000	.563	.000	.730	.754	.250	.250	.000	.679	.732	.500	.500	.000	.375	.563	.853

PRECISION
D A T A
INDUSTRIES, LLC
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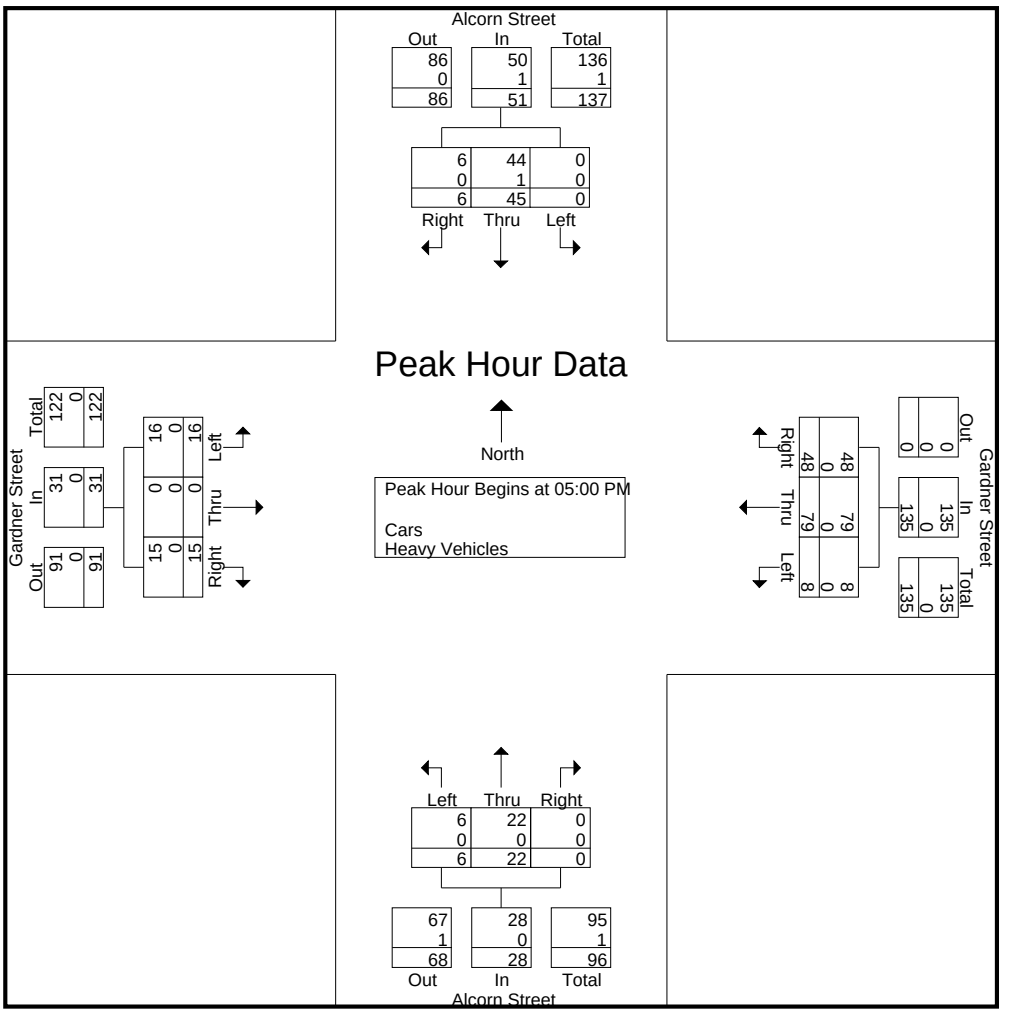
N/S: Alcorn Street
E/W: Gardner Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 BBB
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Alcorn Street From North				Gardner Street From East				Alcorn Street From South				Gardner Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	**15**	0	**16**	6	20	0	26	0	**12**	**3**	**15**	2	0	**7**	9	**66**
05:15 PM	0	8	0	8	**17**	**21**	**3**	**41**	0	6	1	7	0	0	2	2	58
05:30 PM	1	10	0	11	12	19	2	33	0	3	2	5	**9**	0	4	**13**	62
05:45 PM	**4**	12	0	16	13	19	3	35	0	1	0	1	4	0	3	7	59
Total Volume	6	45	0	51	48	79	8	135	0	22	6	28	15	0	16	31	245
% App. Total	11.8	88.2	0		35.6	58.5	5.9		0	78.6	21.4		48.4	0	51.6		
PHF	.375	.750	.000	.797	.706	.940	.667	.823	.000	.458	.500	.467	.417	.000	.571	.596	.928
Cars	6	44	0	50	48	79	8	135	0	22	6	28	15	0	16	31	244
% Cars	100	97.8	0	98.0	100	100	100	100	0	100	100	100	100	0	100	100	99.6
Heavy Vehicles	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% Heavy Vehicles	0	2.2	0	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0.4



S/SW: Alcorn Street/ Star Market Lot
E/W/SE: Ashford Street/ Gated Lot
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 C
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Ashford Street From East				Parking Lot (Gated) From Southeast				Alcorn Street From South				Star Market Lot From Southwest				Ashford Street From West				
Start Time	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Left	Left	Hard Left	Hard Right	Right	Left	Hard Left	Hard Right	Right	Bear Right	Hard Left	Hard Right	Right	Bear Right	Thru	Int. Total
07:00 AM	0	1	1	0	1	0	0	0	0	1	0	13	0	0	0	0	0	2	0	8	27
07:15 AM	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	14	18
07:30 AM	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	11	17
07:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	13	17
Total	2	3	6	0	2	0	0	0	0	1	0	13	0	0	0	0	0	6	0	46	79
08:00 AM	6	3	1	0	2	0	0	0	0	2	0	7	0	0	0	0	0	6	0	13	40
08:15 AM	5	1	2	0	0	0	0	1	0	1	0	5	0	0	0	0	0	0	0	11	26
08:30 AM	2	1	1	0	0	0	0	0	0	1	3	1	0	0	0	0	0	2	0	13	24
08:45 AM	3	0	3	0	0	0	0	2	0	0	1	0	0	0	0	0	0	1	0	18	28
Total	16	5	7	0	2	0	0	3	0	4	4	13	0	0	0	0	0	9	0	55	118
Grand Total	18	8	13	0	4	0	0	3	0	5	4	26	0	0	0	0	0	15	0	101	197
Apprch %	46.2	20.5	33.3	0	57.1	0	0	42.9	0	14.3	11.4	74.3	0	0	0	0	0	12.9	0	87.1	
Total %	9.1	4.1	6.6	0	2	0	0	1.5	0	2.5	2	13.2	0	0	0	0	0	7.6	0	51.3	
Cars	15	7	11	0	3	0	0	0	0	4	4	26	0	0	0	0	0	12	0	96	178
% Cars	83.3	87.5	84.6	0	75	0	0	0	0	80	100	100	0	0	0	0	0	80	0	95	90.4
Heavy Vehicles	3	1	2	0	1	0	0	3	0	1	0	0	0	0	0	0	0	3	0	5	19
% Heavy Vehicles	16.7	12.5	15.4	0	25	0	0	100	0	20	0	0	0	0	0	0	0	20	0	5	9.6

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:00 AM																										
08:00 AM	**6**	**3**	1	0	**10**	**2**	0	0	0	**2**	0	**2**	0	**7**	**9**	0	0	0	0	0	0	**6**	0	13	**19**	**40**
08:15 AM	5	1	2	0	8	0	0	0	1	1	0	1	0	5	6	0	0	0	0	0	0	0	0	11	11	26
08:30 AM	2	1	1	0	4	0	0	0	0	0	0	1	**3**	1	5	0	0	0	0	0	0	2	0	13	15	24
08:45 AM	3	0	**3**	0	6	0	0	0	**2**	2	0	0	1	0	1	0	0	0	0	0	0	1	0	**18**	19	28
Total Volume	16	5	7	0	28	2	0	0	3	5	0	4	4	13	21	0	0	0	0	0	0	9	0	55	64	118
% App. Total	57.1	17.9	25	0		40	0	0	60		0	19	19	61.9		0	0	0	0		0	14.1	0	85.9		
PHF	.667	.417	.583	.000	.700	.250	.000	.000	.375	.625	.000	.500	.333	.464	.583	.000	.000	.000	.000	.000	.000	.375	.000	.764	.842	.738
Cars	14	4	6	0	24	2	0	0	0	2	0	3	4	13	20	0	0	0	0	0	0	8	0	52	60	106
% Cars	87.5	80.0	85.7	0	85.7	100	0	0	0	40.0	0	75.0	100	100	95.2	0	0	0	0	0	0	88.9	0	94.5	93.8	89.8
Heavy Vehicles	2	1	1	0	4	0	0	0	3	3	0	1	0	0	1	0	0	0	0	0	0	1	0	3	4	12
% Heavy Vehicles	12.5	20.0	14.3	0	14.3	0	0	0	100	60.0	0	25.0	0	0	4.8	0	0	0	0	0	0	11.1	0	5.5	6.3	10.2

S/SW: Alcorn Street/ Star Market Lot
E/W/SE: Ashford Street/ Gated Lot
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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File Name : 122828 C
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Ashford Street From East				Parking Lot (Gated) From Southeast				Alcorn Street From South				Star Market Lot From Southwest				Ashford Street From West				
Start Time	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Left	Left	Hard Left	Hard Right	Right	Left	Hard Left	Hard Right	Right	Bear Right	Hard Left	Hard Right	Right	Bear Right	Thru	Int. Total
07:00 AM	0	1	1	0	0	0	0	0	0	1	0	13	0	0	0	0	0	1	0	8	25
07:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	15
07:30 AM	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	11	16
07:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	12	16
Total	1	3	5	0	1	0	0	0	0	1	0	13	0	0	0	0	0	4	0	44	72
08:00 AM	5	3	1	0	2	0	0	0	0	2	0	7	0	0	0	0	0	6	0	12	38
08:15 AM	5	1	2	0	0	0	0	0	0	1	0	5	0	0	0	0	0	0	0	11	25
08:30 AM	2	0	1	0	0	0	0	0	0	0	3	1	0	0	0	0	0	1	0	12	20
08:45 AM	2	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	17	23
Total	14	4	6	0	2	0	0	0	0	3	4	13	0	0	0	0	0	8	0	52	106
Grand Total	15	7	11	0	3	0	0	0	0	4	4	26	0	0	0	0	0	12	0	96	178
Apprch %	45.5	21.2	33.3	0	100	0	0	0	0	11.8	11.8	76.5	0	0	0	0	0	11.1	0	88.9	
Total %	8.4	3.9	6.2	0	1.7	0	0	0	0	2.2	2.2	14.6	0	0	0	0	0	6.7	0	53.9	

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:00 AM																										
08:00 AM	**5**	**3**	1	0	**9**	**2**	0	0	0	**2**	0	**2**	0	**7**	**9**	0	0	0	0	0	0	**6**	0	12	**18**	**38**
08:15 AM	5	1	**2**	0	8	0	0	0	0	0	0	1	0	5	6	0	0	0	0	0	0	0	0	11	11	25
08:30 AM	2	0	1	0	3	0	0	0	0	0	0	0	**3**	1	4	0	0	0	0	0	0	1	0	12	13	20
08:45 AM	2	0	2	0	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	**17**	18	23
Total Volume	14	4	6	0	24	2	0	0	0	2	0	3	4	13	20	0	0	0	0	0	0	8	0	52	60	106
% App. Total	58.3	16.7	25	0		100	0	0	0		0	15	20	65		0	0	0	0		0	13.3	0	86.7		
PHF	.700	.333	.750	.000	.667	.250	.000	.000	.000	.250	.000	.375	.333	.464	.556	.000	.000	.000	.000	.000	.000	.333	.000	.765	.833	.697

S/SW: Alcorn Street/ Star Market Lot
E/W/SE: Ashford Street/ Gated Lot
City, State: Boston, MA
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File Name : 122828 C
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Ashford Street From East				Parking Lot (Gated) From Southeast				Alcorn Street From South				Star Market Lot From Southwest				Ashford Street From West				
Start Time	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Left	Left	Hard Left	Hard Right	Right	Left	Hard Left	Hard Right	Right	Bear Right	Hard Left	Hard Right	Right	Bear Right	Thru	Int. Total
07:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
07:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
07:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	7
08:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	4
08:45 AM	1	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	5
Total	2	1	1	0	0	0	0	3	0	1	0	0	0	0	0	0	0	1	0	3	12
Grand Total	3	1	2	0	1	0	0	3	0	1	0	0	0	0	0	0	0	3	0	5	19
Apprch %	50	16.7	33.3	0	25	0	0	75	0	100	0	0	0	0	0	0	0	37.5	0	62.5	
Total %	15.8	5.3	10.5	0	5.3	0	0	15.8	0	5.3	0	0	0	0	0	0	0	15.8	0	26.3	

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:00 AM																										
08:00 AM	**1**	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	1	2
08:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	**1**	0	0	1	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	**1**	0	1	**2**	4
08:45 AM	1	0	**1**	0	**2**	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	**5**
Total Volume	2	1	1	0	4	0	0	0	3	3	0	1	0	0	1	0	0	0	0	0	0	1	0	3	4	12
% App. Total	50	25	25	0		0	0	0	100		0	100	0	0		0	0	0	0		0	25	0	75		
PHF	.500	.250	.250	.000	.500	.000	.000	.000	.375	.375	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.250	.000	.750	.500	.600

S/SW: Alcorn Street/ Star Market Lot
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Groups Printed- Peds and Bicycles

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	Peds	Hard Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Left	Hard Left	Peds	Hard Right	Right	Bear Right	Hard Left	Peds	Hard Right	Right	Bear Right	Thru	Peds	Int. Total
07:00 AM	1	0	0	0	7	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	1	13
07:15 AM	0	0	0	0	19	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	2	26
07:30 AM	1	0	0	0	23	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	1	0	1	1	32
07:45 AM	1	0	0	0	26	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	1	1	33
Total	3	0	0	0	75	0	0	0	0	0	0	0	1	0	16	0	0	0	0	0	0	1	0	3	5	104
08:00 AM	1	0	0	0	27	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	1	1	36
08:15 AM	1	0	0	0	26	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1	0	1	0	33
08:30 AM	0	0	0	0	16	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	1	0	1	0	28
08:45 AM	0	0	0	0	11	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	1	16
Total	2	0	0	0	80	0	0	0	0	0	0	0	1	0	23	0	0	0	0	0	0	2	0	3	2	113
Grand Total	5	0	0	0	155	0	0	0	0	0	0	0	2	0	39	0	0	0	0	0	0	3	0	6	7	217
Apprch %	3.1	0	0	0	96.9	0	0	0	0	0	0	0	4.9	0	95.1	0	0	0	0	0	0	18.8	0	37.5	43.8	
Total %	2.3	0	0	0	71.4	0	0	0	0	0	0	0	0.9	0	18	0	0	0	0	0	0	1.4	0	2.8	3.2	

	Ashford Street From East						Parking Lot (Gated) From Southeast						Alcorn Street From South						Star Market Lot From Southwest						Ashford Street From West						
Start Time	Thru	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Right	Left	Hard Left	Peds	App. Total	Hard Right	Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Bear Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:30 AM																															
07:30 AM	**1**	0	0	0	23	24	0	0	0	0	0	0	0	0	**1**	0	4	5	0	0	0	0	0	0	0	**1**	0	**1**	**1**	**3**	32
07:45 AM	1	0	0	0	26	27	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	1	1	2	33
08:00 AM	1	0	0	0	**27**	**28**	0	0	0	0	0	0	0	0	0	0	**6**	**6**	0	0	0	0	0	0	0	0	0	1	1	2	**36**
08:15 AM	1	0	0	0	26	27	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	1	0	1	0	2	33
Total Volume					102	106																									134
% App. Total	3.8	0	0	0	96.2		0	0	0	0	0		0	0	5.3	0	94.7		0	0	0	0	0		0	22.2	0	44.4	33.3		
PHF	1.00	.000	.000	.000	.944	.946	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.750	.792	.000	.000	.000	.000	.000	.000	.000	.500	.000	1.00	.750	.750	.931

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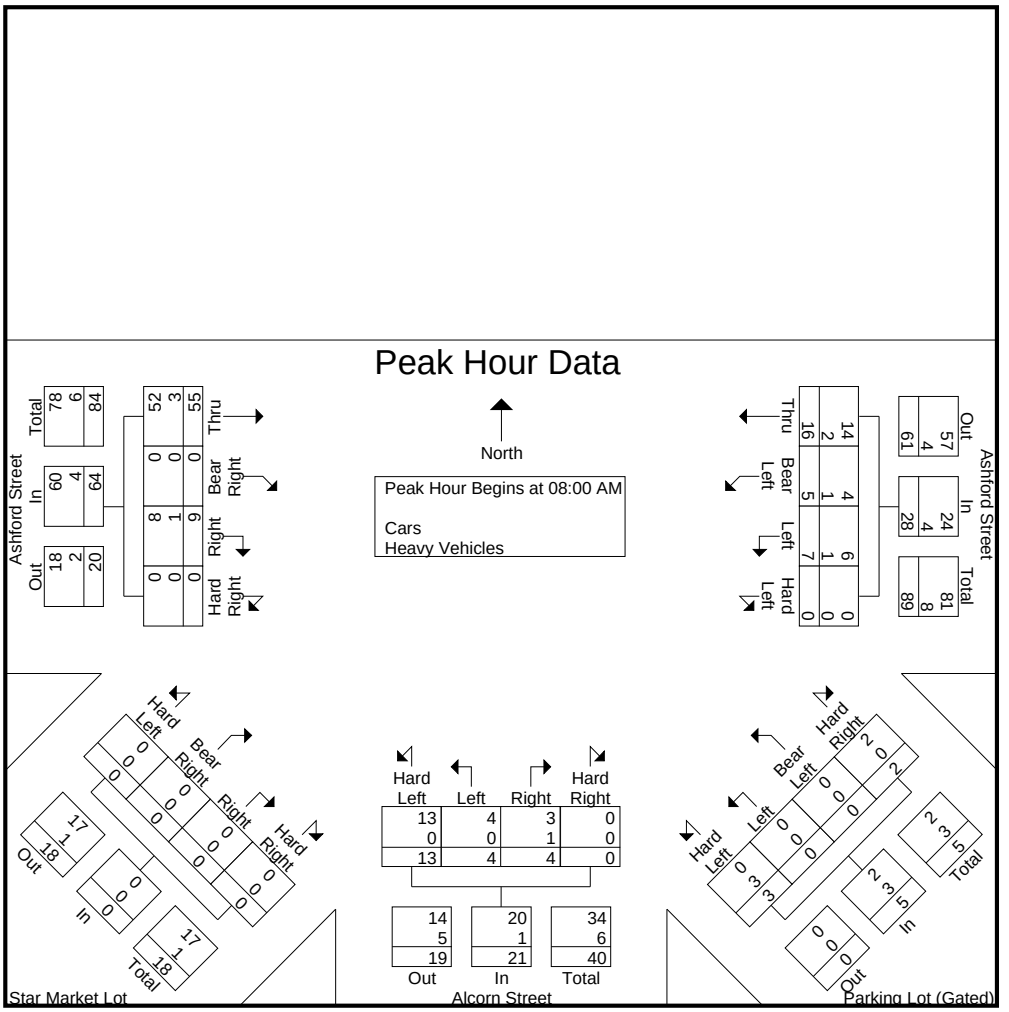
S/SW: Alcorn Street/ Star Market Lot
E/W/SE: Ashford Street/ Gated Lot
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 C
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:00 AM																										
08:00 AM	**6**	**3**	1	0	**10**	**2**	0	0	0	**2**	0	**2**	0	**7**	**9**	0	0	0	0	0	0	**6**	0	13	**19**	**40**
08:15 AM	5	1	2	0	8	0	0	0	1	1	0	1	0	5	6	0	0	0	0	0	0	0	0	11	11	26
08:30 AM	2	1	1	0	4	0	0	0	0	0	0	1	**3**	1	5	0	0	0	0	0	0	2	0	13	15	24
08:45 AM	3	0	**3**	0	6	0	0	0	**2**	2	0	0	1	0	1	0	0	0	0	0	0	1	0	**18**	19	28
Total Volume	16	5	7	0	28	2	0	0	3	5	0	4	4	13	21	0	0	0	0	0	0	9	0	55	64	118
% App. Total	57.1	17.9	25	0		40	0	0	60		0	19	19	61.9		0	0	0	0		0	14.1	0	85.9		
PHF	.667	.417	.583	.000	.700	.250	.000	.000	.375	.625	.000	.500	.333	.464	.583	.000	.000	.000	.000	.000	.000	.375	.000	.764	.842	.738
Cars	14	4	6	0	24	2	0	0	0	2	0	3	4	13	20	0	0	0	0	0	0	8	0	52	60	106
% Cars	87.5	80.0	85.7	0	85.7	100	0	0	0	40.0	0	75.0	100	100	95.2	0	0	0	0	0	0	88.9	0	94.5	93.8	89.8
Heavy Vehicles	2	1	1	0	4	0	0	0	3	3	0	1	0	0	1	0	0	0	0	0	0	1	0	3	4	12
% Heavy Vehicles	12.5	20.0	14.3	0	14.3	0	0	0	100	60.0	0	25.0	0	0	4.8	0	0	0	0	0	0	11.1	0	5.5	6.3	10.2



S/SW: Alcorn Street/ Star Market Lot
E/W/SE: Ashford Street/ Gated Lot
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 CC
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Ashford Street From East				Parking Lot (Gated) From Southeast				Alcorn Street From South				Star Market Lot From Southwest				Ashford Street From West				
Start Time	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Left	Left	Hard Left	Hard Right	Right	Left	Hard Left	Hard Right	Right	Bear Right	Hard Left	Hard Right	Right	Bear Right	Thru	Int. Total
12:00 PM	2	1	1	0	0	0	0	2	0	0	1	6	0	0	0	0	0	1	0	6	20
12:15 PM	0	1	2	0	0	0	0	0	0	1	1	16	0	0	0	0	0	1	0	12	34
12:30 PM	5	1	2	0	0	0	0	1	0	1	4	12	0	0	0	0	0	3	0	6	35
12:45 PM	5	3	6	0	0	0	0	2	0	1	2	7	0	0	0	0	0	1	0	5	32
Total	12	6	11	0	0	0	0	5	0	3	8	41	0	0	0	0	0	6	0	29	121
01:00 PM	1	1	6	0	1	0	0	0	0	1	2	6	1	0	1	0	0	1	0	6	27
01:15 PM	6	1	2	0	1	0	0	1	0	3	2	10	0	0	0	0	0	2	0	4	32
01:30 PM	1	3	2	0	0	0	0	3	0	2	1	6	0	0	1	0	0	3	0	3	25
01:45 PM	5	1	2	0	1	0	0	0	0	1	0	5	0	0	0	0	0	0	0	5	20
Total	13	6	12	0	3	0	0	4	0	7	5	27	1	0	2	0	0	6	0	18	104
Grand Total	25	12	23	0	3	0	0	9	0	10	13	68	1	0	2	0	0	12	0	47	225
Apprch %	41.7	20	38.3	0	25	0	0	75	0	11	14.3	74.7	33.3	0	66.7	0	0	20.3	0	79.7	
Total %	11.1	5.3	10.2	0	1.3	0	0	4	0	4.4	5.8	30.2	0.4	0	0.9	0	0	5.3	0	20.9	
Cars	23	12	21	0	3	0	0	5	0	10	13	68	1	0	2	0	0	12	0	47	217
% Cars	92	100	91.3	0	100	0	0	55.6	0	100	100	100	100	0	100	0	0	100	0	100	96.4
Heavy Vehicles	2	0	2	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	8
% Heavy Vehicles	8	0	8.7	0	0	0	0	44.4	0	0	0	0	0	0	0	0	0	0	0	0	3.6

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 12:15 PM																										
12:15 PM	0	1	2	0	3	0	0	0	0	0	0	**1**	1	**16**	**18**	0	0	0	0	0	0	1	0	**12**	**13**	34
12:30 PM	**5**	1	2	0	8	0	0	0	1	1	0	1	**4**	12	17	0	0	0	0	0	0	**3**	0	6	9	**35**
12:45 PM	5	**3**	**6**	0	**14**	0	0	0	**2**	**2**	0	1	2	7	10	0	0	0	0	0	0	1	0	5	6	32
01:00 PM	1	1	6	0	8	**1**	0	0	0	1	0	1	2	6	9	**1**	0	**1**	0	**2**	0	1	0	6	7	27
Total Volume	11	6	16	0	33	1	0	0	3	4	0	4	9	41	54	1	0	1	0	2	0	6	0	29	35	128
% App. Total	33.3	18.2	48.5	0		25	0	0	75		0	7.4	16.7	75.9		50	0	50	0		0	17.1	0	82.9		
PHF	.550	.500	.667	.000	.589	.250	.000	.000	.375	.500	.000	1.00	.563	.641	.750	.250	.000	.250	.000	.250	.000	.500	.000	.604	.673	.914
Cars	10	6	15	0	31	1	0	0	2	3	0	4	9	41	54	1	0	1	0	2	0	6	0	29	35	125
% Cars	90.9	100	93.8	0	93.9	100	0	0	66.7	75.0	0	100	100	100	100	100	0	100	0	100	0	100	0	100	100	97.7
Heavy Vehicles	1	0	1	0	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
% Heavy Vehicles	9.1	0	6.3	0	6.1	0	0	0	33.3	25.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.3

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S/SW: Alcorn Street/ Star Market Lot
E/W/SE: Ashford Street/ Gated Lot
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 CC
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Ashford Street From East				Parking Lot (Gated) From Southeast				Alcorn Street From South				Star Market Lot From Southwest				Ashford Street From West				
Start Time	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Left	Left	Hard Left	Hard Right	Right	Left	Hard Left	Hard Right	Right	Bear Right	Hard Left	Hard Right	Right	Bear Right	Thru	Int. Total
12:00 PM	2	1	1	0	0	0	0	0	0	0	1	6	0	0	0	0	0	1	0	6	18
12:15 PM	0	1	2	0	0	0	0	0	0	1	1	16	0	0	0	0	0	1	0	12	34
12:30 PM	4	1	1	0	0	0	0	1	0	1	4	12	0	0	0	0	0	3	0	6	33
12:45 PM	5	3	6	0	0	0	0	1	0	1	2	7	0	0	0	0	0	1	0	5	31
Total	11	6	10	0	0	0	0	2	0	3	8	41	0	0	0	0	0	6	0	29	116
01:00 PM	1	1	6	0	1	0	0	0	0	1	2	6	1	0	1	0	0	1	0	6	27
01:15 PM	6	1	1	0	1	0	0	1	0	3	2	10	0	0	0	0	0	2	0	4	31
01:30 PM	1	3	2	0	0	0	0	2	0	2	1	6	0	0	1	0	0	3	0	3	24
01:45 PM	4	1	2	0	1	0	0	0	0	1	0	5	0	0	0	0	0	0	0	5	19
Total	12	6	11	0	3	0	0	3	0	7	5	27	1	0	2	0	0	6	0	18	101
Grand Total	23	12	21	0	3	0	0	5	0	10	13	68	1	0	2	0	0	12	0	47	217
Apprch %	41.1	21.4	37.5	0	37.5	0	0	62.5	0	11	14.3	74.7	33.3	0	66.7	0	0	20.3	0	79.7	
Total %	10.6	5.5	9.7	0	1.4	0	0	2.3	0	4.6	6	31.3	0.5	0	0.9	0	0	5.5	0	21.7	

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 12:15 PM																										
12:15 PM	0	1	2	0	3	0	0	0	0	0	0	**1**	1	**16**	**18**	0	0	0	0	0	0	1	0	**12**	**13**	**34**
12:30 PM	4	1	1	0	6	0	0	0	**1**	**1**	0	1	**4**	12	17	0	0	0	0	0	0	**3**	0	6	9	33
12:45 PM	**5**	**3**	**6**	0	**14**	0	0	0	1	1	0	1	2	7	10	0	0	0	0	0	0	1	0	5	6	31
01:00 PM	1	1	6	0	8	**1**	0	0	0	1	0	1	2	6	9	**1**	0	**1**	0	**2**	0	1	0	6	7	27
Total Volume	10	6	15	0	31	1	0	0	2	3	0	4	9	41	54	1	0	1	0	2	0	6	0	29	35	125
% App. Total	32.3	19.4	48.4	0		33.3	0	0	66.7		0	7.4	16.7	75.9		50	0	50	0		0	17.1	0	82.9		
PHF	.500	.500	.625	.000	.554	.250	.000	.000	.500	.750	.000	1.00	.563	.641	.750	.250	.000	.250	.000	.250	.000	.500	.000	.604	.673	.919

S/SW: Alcorn Street/ Star Market Lot
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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 CC
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Ashford Street From East				Parking Lot (Gated) From Southeast				Alcorn Street From South				Star Market Lot From Southwest				Ashford Street From West				
Start Time	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Left	Left	Hard Left	Hard Right	Right	Left	Hard Left	Hard Right	Right	Bear Right	Hard Left	Hard Right	Right	Bear Right	Thru	Int. Total
12:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	5
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
01:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Grand Total	2	0	2	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	8
Apprch %	50	0	50	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	25	0	25	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 12:00 PM																										
12:00 PM	0	0	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	**1**	0	**1**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	0	1	0	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
% App. Total	50	0	50	0		0	0	0	100		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.250	.000	.250	.000	.250	.000	.000	.000	.375	.375	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625

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Groups Printed- Peds and Bicycles

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	Peds	Hard Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Left	Hard Left	Peds	Hard Right	Right	Bear Right	Hard Left	Peds	Hard Right	Right	Bear Right	Thru	Peds	Int. Total
12:00 PM	0	0	0	0	18	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	1	0	0	5	36
12:15 PM	2	0	1	0	3	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	4	17
12:30 PM	1	0	0	0	4	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	1	0	0	8	20
12:45 PM	1	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	10
Total	4	0	1	0	30	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	2	0	1	20	83
01:00 PM	0	0	0	0	6	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	1	3	15
01:15 PM	0	0	0	0	7	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	12
01:30 PM	1	0	0	0	7	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	2	15
01:45 PM	1	0	0	0	4	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	1	0	0	2	13
Total	2	0	0	0	24	0	0	0	0	0	0	0	3	0	17	0	0	0	0	0	0	1	0	1	7	55
Grand Total	6	0	1	0	54	0	0	0	0	0	0	0	3	0	42	0	0	0	0	0	0	3	0	2	27	138
Apprch %	9.8	0	1.6	0	88.5	0	0	0	0	0	0	0	6.7	0	93.3	0	0	0	0	0	0	9.4	0	6.2	84.4	
Total %	4.3	0	0.7	0	39.1	0	0	0	0	0	0	0	2.2	0	30.4	0	0	0	0	0	0	2.2	0	1.4	19.6	

	Ashford Street From East						Parking Lot (Gated) From Southeast						Alcorn Street From South						Star Market Lot From Southwest						Ashford Street From West						
Start Time	Thru	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Right	Left	Hard Left	Peds	App. Total	Hard Right	Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Bear Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00 PM																															
12:00 PM	0	0	0	0	**18**	**18**	0	0	0	0	0	0	0	0	0	0	**12**	**12**	0	0	0	0	0	0	0	**1**	0	0	5	6	**36**
12:15 PM	**2**	0	**1**	0	3	6	0	0	0	0	0	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	4	4	17
12:30 PM	1	0	0	0	4	5	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	1	0	0	**8**	**9**	20
12:45 PM	1	0	0	0	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	3	4	10
Total Volume	4	0	1	0	30	35	0	0	0	0	0	0	0	0	0	0	25	25	0	0	0	0	0	0	0	2	0	1	20	23	83
% App. Total	11.4	0	2.9	0	85.7		0	0	0	0	0		0	0	0	0	100		0	0	0	0	0		0	8.7	0	4.3	87		
PHF	.500	.000	.250	.000	.417	.486	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.521	.521	.000	.000	.000	.000	.000	.000	.000	.500	.000	.250	.625	.639	.576

S/SW: Alcorn Street/ Star Market Lot
E/W/SE: Ashford Street/ Gated Lot
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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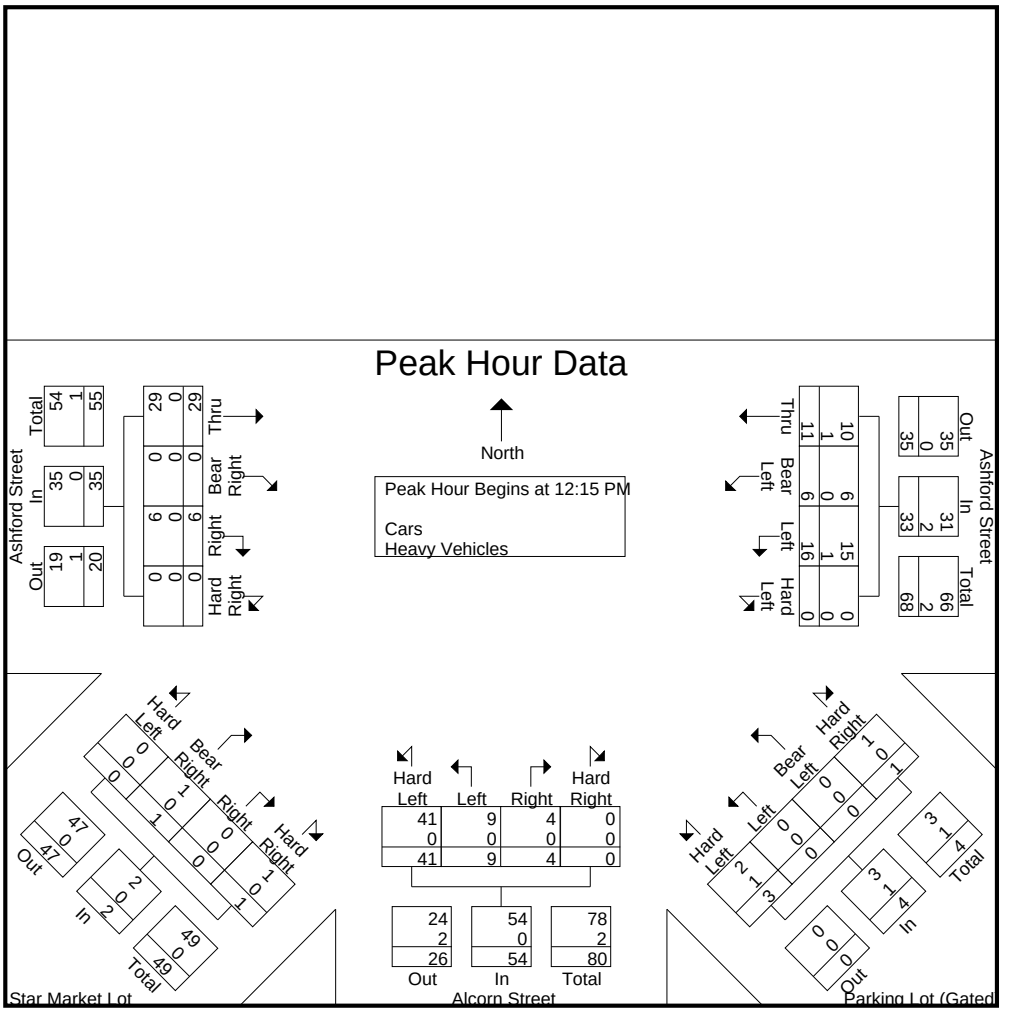
File Name : 122828 CC
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 12:15 PM																										
12:15 PM	0	1	2	0	3	0	0	0	0	0	0	**1**	1	**16**	**18**	0	0	0	0	0	0	1	0	**12**	**13**	34
12:30 PM	**5**	1	2	0	8	0	0	0	1	1	0	1	**4**	12	17	0	0	0	0	0	0	**3**	0	6	9	**35**
12:45 PM	5	**3**	**6**	0	**14**	0	0	0	**2**	**2**	0	1	2	7	10	0	0	0	0	0	0	1	0	5	6	32
01:00 PM	1	1	6	0	8	**1**	0	0	0	1	0	1	2	6	9	**1**	0	**1**	0	**2**	0	1	0	6	7	27
Total Volume	11	6	16	0	33	1	0	0	3	4	0	4	9	41	54	1	0	1	0	2	0	6	0	29	35	128
% App. Total	33.3	18.2	48.5	0		25	0	0	75		0	7.4	16.7	75.9		50	0	50	0		0	17.1	0	82.9		
PHF	.550	.500	.667	.000	.589	.250	.000	.000	.375	.500	.000	1.00	.563	.641	.750	.250	.000	.250	.000	.250	.000	.500	.000	.604	.673	.914
Cars	10	6	15	0	31	1	0	0	2	3	0	4	9	41	54	1	0	1	0	2	0	6	0	29	35	125
% Cars	90.9	100	93.8	0	93.9	100	0	0	66.7	75.0	0	100	100	100	100	100	0	100	0	100	0	100	0	100	100	97.7
Heavy Vehicles	1	0	1	0	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
% Heavy Vehicles	9.1	0	6.3	0	6.1	0	0	0	33.3	25.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.3



S/SW: Alcorn Street/ Star Market Lot
E/W/SE: Ashford Street/ Gated Lot
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 CCC
Site Code : 127-4220
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Groups Printed- Cars - Heavy Vehicles

	Ashford Street From East				Parking Lot (Gated) From Southeast				Alcorn Street From South				Star Market Lot From Southwest				Ashford Street From West				
Start Time	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Left	Left	Hard Left	Hard Right	Right	Left	Hard Left	Hard Right	Right	Bear Right	Hard Left	Hard Right	Right	Bear Right	Thru	Int. Total
04:00 PM	3	1	2	0	0	0	0	1	0	1	4	7	0	0	0	0	0	0	0	1	20
04:15 PM	4	1	2	0	3	0	0	1	0	0	4	19	0	0	0	0	0	2	0	4	40
04:30 PM	4	3	2	0	5	0	0	11	0	1	6	11	0	0	1	0	0	1	0	7	52
04:45 PM	3	1	1	0	0	0	0	4	0	0	3	11	0	0	0	0	0	0	0	7	30
Total	14	6	7	0	8	0	0	17	0	2	17	48	0	0	1	0	0	3	0	19	142
05:00 PM	2	0	3	0	2	0	0	3	0	1	2	11	0	0	0	0	0	1	0	3	28
05:15 PM	2	2	2	0	0	0	0	5	0	0	0	12	0	0	0	0	0	0	0	6	29
05:30 PM	4	2	3	0	4	0	0	1	0	4	5	20	0	0	0	0	0	2	0	9	54
05:45 PM	1	1	1	0	1	0	0	0	0	1	1	17	0	0	0	0	0	3	0	7	33
Total	9	5	9	0	7	0	0	9	0	6	8	60	0	0	0	0	0	6	0	25	144
Grand Total	23	11	16	0	15	0	0	26	0	8	25	108	0	0	1	0	0	9	0	44	286
Apprch %	46	22	32	0	36.6	0	0	63.4	0	5.7	17.7	76.6	0	0	100	0	0	17	0	83	
Total %	8	3.8	5.6	0	5.2	0	0	9.1	0	2.8	8.7	37.8	0	0	0.3	0	0	3.1	0	15.4	
Cars	23	11	16	0	15	0	0	26	0	6	25	108	0	0	1	0	0	9	0	44	284
% Cars	100	100	100	0	100	0	0	100	0	75	100	100	0	0	100	0	0	100	0	100	99.3
Heavy Vehicles	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0.7

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:15 PM																										
04:15 PM	**4**	1	2	0	7	3	0	0	1	4	0	0	4	**19**	**23**	0	0	0	0	0	0	**2**	0	4	6	40
04:30 PM	4	**3**	2	0	**9**	**5**	0	0	**11**	**16**	0	**1**	**6**	11	18	0	0	**1**	0	**1**	0	1	0	**7**	**8**	**52**
04:45 PM	3	1	1	0	5	0	0	0	4	4	0	0	3	11	14	0	0	0	0	0	0	0	0	7	7	30
05:00 PM	2	0	**3**	0	5	2	0	0	3	5	0	1	2	11	14	0	0	0	0	0	0	1	0	3	4	28
Total Volume	13	5	8	0	26	10	0	0	19	29	0	2	15	52	69	0	0	1	0	1	0	4	0	21	25	150
% App. Total	50	19.2	30.8	0		34.5	0	0	65.5		0	2.9	21.7	75.4		0	0	100	0		0	16	0	84		
PHF	.813	.417	.667	.000	.722	.500	.000	.000	.432	.453	.000	.500	.625	.684	.750	.000	.000	.250	.000	.250	.000	.500	.000	.750	.781	.721
Cars	13	5	8	0	26	10	0	0	19	29	0	1	15	52	68	0	0	1	0	1	0	4	0	21	25	149
% Cars	100	100	100	0	100	100	0	0	100	100	0	50.0	100	100	98.6	0	0	100	0	100	0	100	0	100	100	99.3
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	50.0	0	0	1.4	0	0	0	0	0	0	0	0	0	0	0.7

PRECISION
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S/SW: Alcorn Street/ Star Market Lot
E/W/SE: Ashford Street/ Gated Lot
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 CCC
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Ashford Street From East				Parking Lot (Gated) From Southeast				Alcorn Street From South				Star Market Lot From Southwest				Ashford Street From West				
Start Time	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Left	Left	Hard Left	Hard Right	Right	Left	Hard Left	Hard Right	Right	Bear Right	Hard Left	Hard Right	Right	Bear Right	Thru	Int. Total
04:00 PM	3	1	2	0	0	0	0	1	0	0	4	7	0	0	0	0	0	0	0	1	19
04:15 PM	4	1	2	0	3	0	0	1	0	0	4	19	0	0	0	0	0	2	0	4	40
04:30 PM	4	3	2	0	5	0	0	11	0	1	6	11	0	0	1	0	0	1	0	7	52
04:45 PM	3	1	1	0	0	0	0	4	0	0	3	11	0	0	0	0	0	0	0	7	30
Total	14	6	7	0	8	0	0	17	0	1	17	48	0	0	1	0	0	3	0	19	141
05:00 PM	2	0	3	0	2	0	0	3	0	0	2	11	0	0	0	0	0	1	0	3	27
05:15 PM	2	2	2	0	0	0	0	5	0	0	0	12	0	0	0	0	0	0	0	6	29
05:30 PM	4	2	3	0	4	0	0	1	0	4	5	20	0	0	0	0	0	2	0	9	54
05:45 PM	1	1	1	0	1	0	0	0	0	1	1	17	0	0	0	0	0	3	0	7	33
Total	9	5	9	0	7	0	0	9	0	5	8	60	0	0	0	0	0	6	0	25	143
Grand Total	23	11	16	0	15	0	0	26	0	6	25	108	0	0	1	0	0	9	0	44	284
Apprch %	46	22	32	0	36.6	0	0	63.4	0	4.3	18	77.7	0	0	100	0	0	17	0	83	
Total %	8.1	3.9	5.6	0	5.3	0	0	9.2	0	2.1	8.8	38	0	0	0.4	0	0	3.2	0	15.5	

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:15 PM																										
04:15 PM	**4**	1	2	0	7	3	0	0	1	4	0	0	4	**19**	**23**	0	0	0	0	0	0	**2**	0	4	6	40
04:30 PM	4	**3**	2	0	**9**	**5**	0	0	**11**	**16**	0	**1**	**6**	11	18	0	0	**1**	0	**1**	0	1	0	**7**	**8**	**52**
04:45 PM	3	1	1	0	5	0	0	0	4	4	0	0	3	11	14	0	0	0	0	0	0	0	0	7	7	30
05:00 PM	2	0	**3**	0	5	2	0	0	3	5	0	0	2	11	13	0	0	0	0	0	0	1	0	3	4	27
Total Volume	13	5	8	0	26	10	0	0	19	29	0	1	15	52	68	0	0	1	0	1	0	4	0	21	25	149
% App. Total	50	19.2	30.8	0		34.5	0	0	65.5		0	1.5	22.1	76.5		0	0	100	0		0	16	0	84		
PHF	.813	.417	.667	.000	.722	.500	.000	.000	.432	.453	.000	.250	.625	.684	.739	.000	.000	.250	.000	.250	.000	.500	.000	.750	.781	.716

S/SW: Alcorn Street/ Star Market Lot
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File Name : 122828 CCC
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Ashford Street From East				Parking Lot (Gated) From Southeast				Alcorn Street From South				Star Market Lot From Southwest				Ashford Street From West				
Start Time	Thru	Bear Left	Left	Hard Left	Hard Right	Bear Left	Left	Hard Left	Hard Right	Right	Left	Hard Left	Hard Right	Right	Bear Right	Hard Left	Hard Right	Right	Bear Right	Thru	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Apprch %	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:00 PM																										
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	**1**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0	0		0	0	0	0		0	100	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

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City, State: Boston, MA
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Groups Printed- Peds and Bicycles

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	Peds	Hard Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Left	Hard Left	Peds	Hard Right	Right	Bear Right	Hard Left	Peds	Hard Right	Right	Bear Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	15	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	1	2	23
04:15 PM	0	0	0	0	11	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	2	23
04:30 PM	2	0	0	0	16	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	2	23
04:45 PM	1	0	0	0	7	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	12
Total	3	0	0	0	49	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	2	6	81
05:00 PM	1	0	0	0	4	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	4	35
05:15 PM	3	0	0	0	4	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	2	0	14
05:30 PM	0	0	0	0	8	0	0	0	0	0	0	0	2	0	5	0	0	0	0	0	0	1	0	2	2	20
05:45 PM	0	0	1	0	5	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	1	0	3	0	14
Total	4	0	1	0	21	0	0	0	0	0	0	0	4	0	38	0	0	0	0	0	0	2	0	7	6	83
Grand Total	7	0	1	0	70	0	0	0	0	0	0	0	4	0	59	0	0	0	0	0	0	2	0	9	12	164
Apprch %	9	0	1.3	0	89.7	0	0	0	0	0	0	0	6.3	0	93.7	0	0	0	0	0	0	8.7	0	39.1	52.2	
Total %	4.3	0	0.6	0	42.7	0	0	0	0	0	0	0	2.4	0	36	0	0	0	0	0	0	1.2	0	5.5	7.3	

	Ashford Street From East						Parking Lot (Gated) From Southeast						Alcorn Street From South						Star Market Lot From Southwest						Ashford Street From West						
Start Time	Thru	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Right	Left	Hard Left	Peds	App. Total	Hard Right	Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Right	Bear Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:15 PM																															
04:15 PM	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	2	2	23
04:30 PM	**2**	0	0	0	**16**	**18**	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	2	2	23
04:45 PM	1	0	0	0	7	8	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	**1**	0	1	12
05:00 PM	1	0	0	0	4	5	0	0	0	0	0	0	0	0	0	0	**26**	**26**	0	0	0	0	0	0	0	0	0	0	**4**	**4**	**35**
Total Volume	4	0	0	0	38	42	0	0	0	0	0	0	0	0	0	0	42	42	0	0	0	0	0	0	0	0	0	1	8	9	93
% App. Total	9.5	0	0	0	90.5		0	0	0	0	0		0	0	0	0	100		0	0	0	0	0		0	0	0	11.1	88.9		
PHF	.500	.000	.000	.000	.594	.583	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.404	.404	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.500	.563	.664

S/SW: Alcorn Street/ Star Market Lot
E/W/SE: Ashford Street/ Gated Lot
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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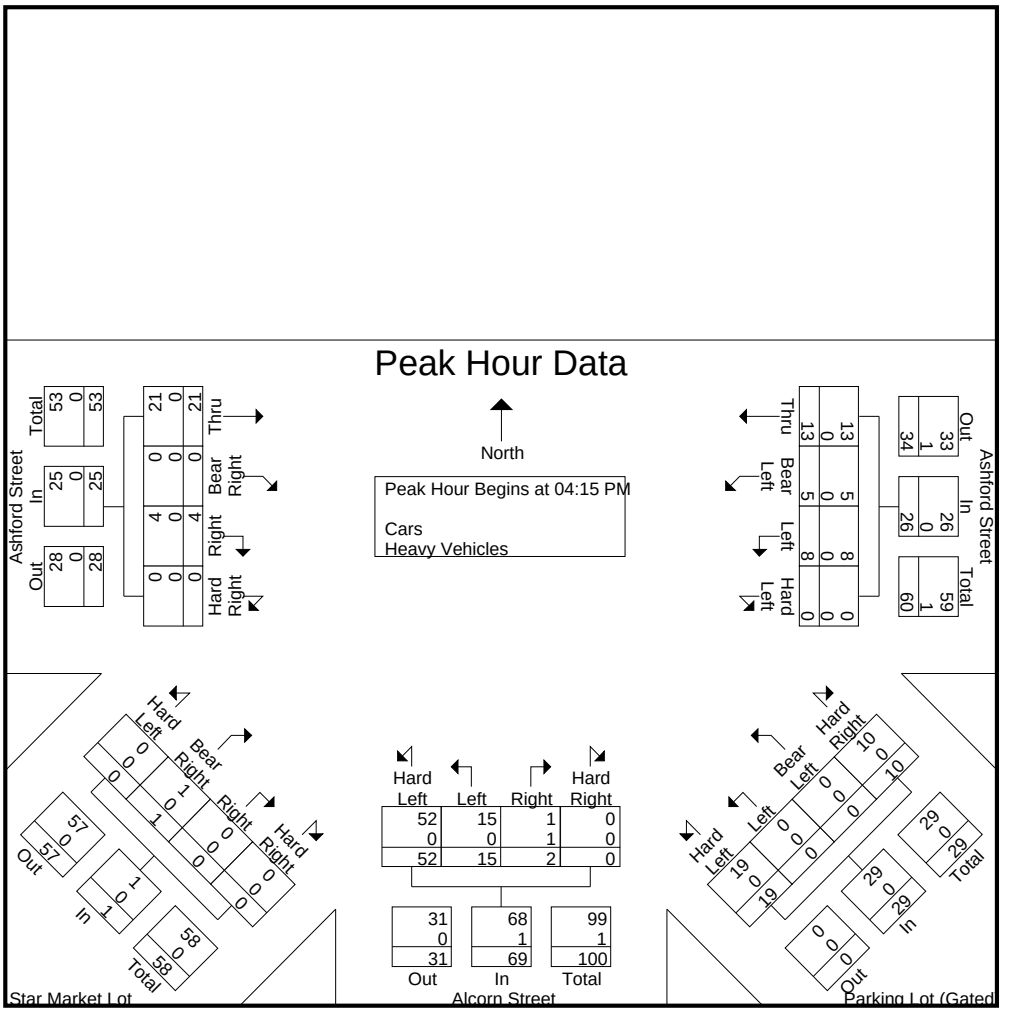
File Name : 122828 CCC
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Ashford Street From East					Parking Lot (Gated) From Southeast					Alcorn Street From South					Star Market Lot From Southwest					Ashford Street From West					
Start Time	Thru	Bear Left	Left	Hard Left	App. Total	Hard Right	Bear Left	Left	Hard Left	App. Total	Hard Right	Right	Left	Hard Left	App. Total	Hard Right	Right	Bear Right	Hard Left	App. Total	Hard Right	Right	Bear Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:15 PM																										
04:15 PM	**4**	1	2	0	7	3	0	0	1	4	0	0	4	**19**	**23**	0	0	0	0	0	0	**2**	0	4	6	40
04:30 PM	4	**3**	2	0	**9**	**5**	0	0	**11**	**16**	0	**1**	**6**	11	18	0	0	**1**	0	**1**	0	1	0	**7**	**8**	**52**
04:45 PM	3	1	1	0	5	0	0	0	4	4	0	0	3	11	14	0	0	0	0	0	0	0	0	7	7	30
05:00 PM	2	0	**3**	0	5	2	0	0	3	5	0	1	2	11	14	0	0	0	0	0	0	1	0	3	4	28
Total Volume	13	5	8	0	26	10	0	0	19	29	0	2	15	52	69	0	0	1	0	1	0	4	0	21	25	150
% App. Total	50	19.2	30.8	0		34.5	0	0	65.5		0	2.9	21.7	75.4		0	0	100	0		0	16	0	84		
PHF	.813	.417	.667	.000	.722	.500	.000	.000	.432	.453	.000	.500	.625	.684	.750	.000	.000	.250	.000	.250	.000	.500	.000	.750	.781	.721
Cars	13	5	8	0	26	10	0	0	19	29	0	1	15	52	68	0	0	1	0	1	0	4	0	21	25	149
% Cars	100	100	100	0	100	100	0	0	100	100	0	50.0	100	100	98.6	0	0	100	0	100	0	100	0	100	100	99.3
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	50.0	0	0	1.4	0	0	0	0	0	0	0	0	0	0	0.7



PRECISION
D A T A
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Email: datarequests@pdillc.com

N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 D
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Cars - Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Parking Lot Driveways From Southwest			Ashford Street From West			
Start Time	Right	Bear Right	Thru	Thru	Left	Hard Left	Hard Right	Bear Left	Hard Left	Hard Right	Right	Left	Int. Total
07:00 AM	0	0	3	1	6	17	0	0	0	0	11	0	38
07:15 AM	0	5	6	0	1	25	0	1	0	0	16	0	54
07:30 AM	0	6	5	1	4	28	0	0	0	0	13	0	57
07:45 AM	0	5	0	1	2	31	0	2	0	0	14	0	55
Total	0	16	14	3	13	101	0	3	0	0	54	0	204
08:00 AM	0	3	0	0	9	8	0	0	0	0	26	0	46
08:15 AM	0	6	0	0	10	9	0	2	0	0	13	0	40
08:30 AM	0	3	0	0	5	17	0	0	0	0	19	0	44
08:45 AM	0	4	0	0	10	20	0	0	0	0	20	0	54
Total	0	16	0	0	34	54	0	2	0	0	78	0	184
Grand Total	0	32	14	3	47	155	0	5	0	0	132	0	388
Apprch %	0	69.6	30.4	1.5	22.9	75.6	0	100	0	0	100	0	
Total %	0	8.2	3.6	0.8	12.1	39.9	0	1.3	0	0	34	0	
Cars	0	32	14	2	41	154	0	5	0	0	119	0	367
% Cars	0	100	100	66.7	87.2	99.4	0	100	0	0	90.2	0	94.6
Heavy Vehicles	0	0	0	1	6	1	0	0	0	0	13	0	21
% Heavy Vehicles	0	0	0	33.3	12.8	0.6	0	0	0	0	9.8	0	5.4

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	5	**6**	**11**	0	1	25	26	0	1	0	1	0	16	0	16	54
07:30 AM	0	**6**	5	11	**1**	4	28	33	0	0	0	0	0	13	0	13	**57**
07:45 AM	0	5	0	5	1	2	**31**	**34**	0	**2**	0	**2**	0	14	0	14	55
08:00 AM	0	3	0	3	0	**9**	8	17	0	0	0	0	0	**26**	0	**26**	46
Total Volume	0	19	11	30	2	16	92	110	0	3	0	3	0	69	0	69	212
% App. Total	0	63.3	36.7		1.8	14.5	83.6		0	100	0		0	100	0		
PHF	.000	.792	.458	.682	.500	.444	.742	.809	.000	.375	.000	.375	.000	.663	.000	.663	.930
Cars	0	19	11	30	2	13	91	106	0	3	0	3	0	60	0	60	199
% Cars	0	100	100	100	100	81.3	98.9	96.4	0	100	0	100	0	87.0	0	87.0	93.9
Heavy Vehicles	0	0	0	0	0	3	1	4	0	0	0	0	0	9	0	9	13
% Heavy Vehicles	0	0	0	0	0	18.8	1.1	3.6	0	0	0	0	0	13.0	0	13.0	6.1

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N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 D
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Cars

	Babcock Street From North			Babcock Street From South			Parking Lot Driveways From Southwest			Ashford Street From West			
Start Time	Right	Bear Right	Thru	Thru	Left	Hard Left	Hard Right	Bear Left	Hard Left	Hard Right	Right	Left	Int. Total
07:00 AM	0	0	3	0	5	17	0	0	0	0	11	0	36
07:15 AM	0	5	6	0	1	25	0	1	0	0	15	0	53
07:30 AM	0	6	5	1	3	28	0	0	0	0	13	0	56
07:45 AM	0	5	0	1	1	30	0	2	0	0	13	0	52
Total	0	16	14	2	10	100	0	3	0	0	52	0	197
08:00 AM	0	3	0	0	8	8	0	0	0	0	19	0	38
08:15 AM	0	6	0	0	10	9	0	2	0	0	13	0	40
08:30 AM	0	3	0	0	4	17	0	0	0	0	16	0	40
08:45 AM	0	4	0	0	9	20	0	0	0	0	19	0	52
Total	0	16	0	0	31	54	0	2	0	0	67	0	170
Grand Total	0	32	14	2	41	154	0	5	0	0	119	0	367
Apprch %	0	69.6	30.4	1	20.8	78.2	0	100	0	0	100	0	
Total %	0	8.7	3.8	0.5	11.2	42	0	1.4	0	0	32.4	0	

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	5	**6**	**11**	0	1	25	26	0	1	0	1	0	15	0	15	53
07:30 AM	0	**6**	5	11	**1**	3	28	**32**	0	0	0	0	0	13	0	13	**56**
07:45 AM	0	5	0	5	1	1	**30**	32	0	**2**	0	**2**	0	13	0	13	52
08:00 AM	0	3	0	3	0	**8**	8	16	0	0	0	0	0	**19**	0	**19**	38
Total Volume	0	19	11	30	2	13	91	106	0	3	0	3	0	60	0	60	199
% App. Total	0	63.3	36.7		1.9	12.3	85.8		0	100	0		0	100	0		
PHF	.000	.792	.458	.682	.500	.406	.758	.828	.000	.375	.000	.375	.000	.789	.000	.789	.888

PRECISION
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N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 D
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Parking Lot Driveways From Southwest			Ashford Street From West			
Start Time	Right	Bear Right	Thru	Thru	Left	Hard Left	Hard Right	Bear Left	Hard Left	Hard Right	Right	Left	Int. Total
07:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
07:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	1	1	0	0	0	0	1	0	3
Total	0	0	0	1	3	1	0	0	0	0	2	0	7
08:00 AM	0	0	0	0	1	0	0	0	0	0	7	0	8
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	0	0	0	0	0	3	0	4
08:45 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
Total	0	0	0	0	3	0	0	0	0	0	11	0	14
Grand Total	0	0	0	1	6	1	0	0	0	0	13	0	21
Apprch %	0	0	0	12.5	75	12.5	0	0	0	0	100	0	
Total %	0	0	0	4.8	28.6	4.8	0	0	0	0	61.9	0	

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0	0	1	0	1	3
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	**7**	0	**7**	**8**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
Total Volume	0	0	0	0	0	3	1	4	0	0	0	0	0	11	0	11	15
% App. Total	0	0	0		0	75	25		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.250	.500	.000	.000	.000	.000	.000	.393	.000	.393	.469

N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 D
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	Peds	Thru	Left	Hard Left	Peds	Hard Right	Bear Left	Hard Left	Peds	Hard Right	Right	Left	Peds	Int. Total
07:00 AM	0	0	1	22	0	1	0	8	0	0	0	0	0	1	0	3	36
07:15 AM	0	0	0	3	0	0	0	7	0	0	0	0	0	0	0	7	17
07:30 AM	0	0	0	3	0	1	0	7	0	0	0	0	0	1	0	1	13
07:45 AM	0	0	0	3	0	1	0	4	0	0	0	0	0	1	0	4	13
Total	0	0	1	31	0	3	0	26	0	0	0	0	0	3	0	15	79
08:00 AM	0	0	0	25	0	1	0	7	0	0	0	0	0	1	0	4	38
08:15 AM	0	0	0	4	0	1	0	19	0	0	0	0	0	0	0	3	27
08:30 AM	0	0	0	2	0	0	0	26	0	0	0	0	0	1	0	9	38
08:45 AM	0	0	0	2	0	0	0	18	0	0	0	0	0	0	0	6	26
Total	0	0	0	33	0	2	0	70	0	0	0	0	0	2	0	22	129
Grand Total	0	0	1	64	0	5	0	96	0	0	0	0	0	5	0	37	208
Apprch %	0	0	1.5	98.5	0	5	0	95	0	0	0	0	0	11.9	0	88.1	
Total %	0	0	0.5	30.8	0	2.4	0	46.2	0	0	0	0	0	2.4	0	17.8	

	Babcock Street From North					Babcock Street From South					Parking Lot Driveways From Southwest					Ashford Street From West					
Start Time	Right	Bear Right	Thru	Peds	App. Total	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	**25**	**25**	0	**1**	0	7	8	0	0	0	0	0	0	**1**	0	4	5	**38**
08:15 AM	0	0	0	4	4	0	1	0	19	20	0	0	0	0	0	0	0	0	3	3	27
08:30 AM	0	0	0	2	2	0	0	0	**26**	**26**	0	0	0	0	0	0	1	0	**9**	**10**	38
08:45 AM	0	0	0	2	2	0	0	0	18	18	0	0	0	0	0	0	0	0	6	6	26
Total Volume	0	0	0	33	33	0	2	0	70	72	0	0	0	0	0	0	2	0	22	24	129
% App. Total	0	0	0	100		0	2.8	0	97.2		0	0	0	0		0	8.3	0	91.7		
PHF	.000	.000	.000	.330	.330	.000	.500	.000	.673	.692	.000	.000	.000	.000	.000	.000	.500	.000	.611	.600	.849

N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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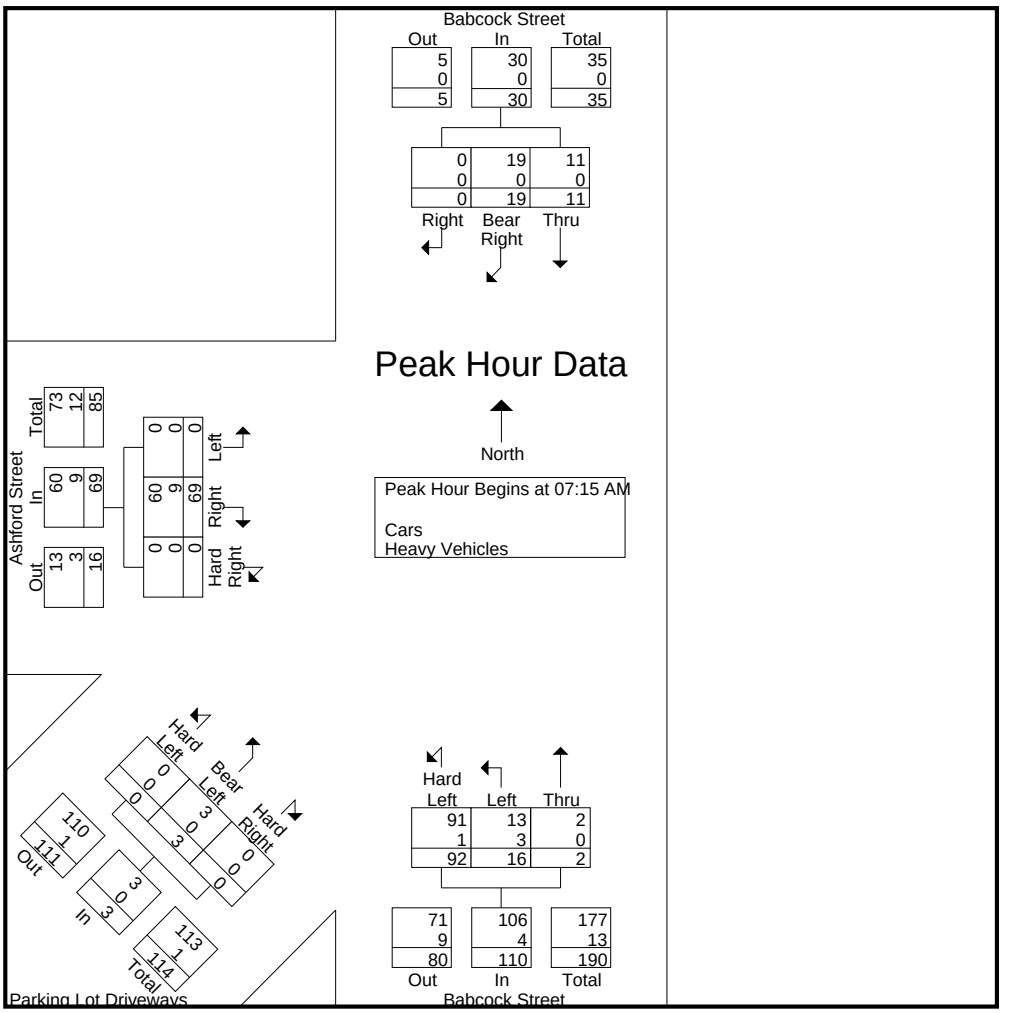
File Name : 122828 D
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	5	**6**	**11**	0	1	25	26	0	1	0	1	0	16	0	16	54
07:30 AM	0	**6**	5	11	**1**	4	28	33	0	0	0	0	0	13	0	13	**57**
07:45 AM	0	5	0	5	1	2	**31**	**34**	0	**2**	0	**2**	0	14	0	14	55
08:00 AM	0	3	0	3	0	**9**	8	17	0	0	0	0	0	**26**	0	**26**	46
Total Volume	0	19	11	30	2	16	92	110	0	3	0	3	0	69	0	69	212
% App. Total	0	63.3	36.7		1.8	14.5	83.6		0	100	0		0	100	0		
PHF	.000	.792	.458	.682	.500	.444	.742	.809	.000	.375	.000	.375	.000	.663	.000	.663	.930
Cars	0	19	11	30	2	13	91	106	0	3	0	3	0	60	0	60	199
% Cars	0	100	100	100	100	81.3	98.9	96.4	0	100	0	100	0	87.0	0	87.0	93.9
Heavy Vehicles	0	0	0	0	0	3	1	4	0	0	0	0	0	9	0	9	13
% Heavy Vehicles	0	0	0	0	0	18.8	1.1	3.6	0	0	0	0	0	13.0	0	13.0	6.1



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N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 DD
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Parking Lot Driveways From Southwest			Ashford Street From West			
Start Time	Right	Bear Right	Thru	Thru	Left	Hard Left	Hard Right	Bear Left	Hard Left	Hard Right	Right	Left	Int. Total
12:00 PM	0	1	2	1	8	3	1	0	0	0	6	1	23
12:15 PM	0	1	1	1	6	3	5	0	0	0	18	2	37
12:30 PM	0	0	0	0	6	1	1	0	0	0	11	0	19
12:45 PM	0	1	2	3	13	1	4	0	0	0	9	0	33
Total	0	3	5	5	33	8	11	0	0	0	44	3	112
01:00 PM	0	1	0	1	13	3	2	0	0	0	11	0	31
01:15 PM	0	2	1	1	9	4	1	0	0	0	13	0	31
01:30 PM	0	0	2	0	6	8	3	0	0	0	10	0	29
01:45 PM	0	0	2	3	13	3	5	1	0	0	6	0	33
Total	0	3	5	5	41	18	11	1	0	0	40	0	124
Grand Total	0	6	10	10	74	26	22	1	0	0	84	3	236
Apprch %	0	37.5	62.5	9.1	67.3	23.6	95.7	4.3	0	0	96.6	3.4	
Total %	0	2.5	4.2	4.2	31.4	11	9.3	0.4	0	0	35.6	1.3	
Cars	0	6	10	10	64	26	22	1	0	0	78	3	220
% Cars	0	100	100	100	86.5	100	100	100	0	0	92.9	100	93.2
Heavy Vehicles	0	0	0	0	10	0	0	0	0	0	6	0	16
% Heavy Vehicles	0	0	0	0	13.5	0	0	0	0	0	7.1	0	6.8

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:45 PM																	
12:45 PM	0	1	**2**	**3**	**3**	**13**	1	**17**	**4**	0	0	**4**	0	9	0	9	**33**
01:00 PM	0	1	0	1	1	13	3	17	2	0	0	2	0	11	0	11	31
01:15 PM	0	**2**	1	3	1	9	4	14	1	0	0	1	0	**13**	0	**13**	31
01:30 PM	0	0	2	2	0	6	**8**	14	3	0	0	3	0	10	0	10	29
Total Volume	0	4	5	9	5	41	16	62	10	0	0	10	0	43	0	43	124
% App. Total	0	44.4	55.6		8.1	66.1	25.8		100	0	0		0	100	0		
PHF	.000	.500	.625	.750	.417	.788	.500	.912	.625	.000	.000	.625	.000	.827	.000	.827	.939
Cars	0	4	5	9	5	37	16	58	10	0	0	10	0	39	0	39	116
% Cars	0	100	100	100	100	90.2	100	93.5	100	0	0	100	0	90.7	0	90.7	93.5
Heavy Vehicles	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	8
% Heavy Vehicles	0	0	0	0	0	9.8	0	6.5	0	0	0	0	0	9.3	0	9.3	6.5

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 DD
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Babcock Street From North			Babcock Street From South			Parking Lot Driveways From Southwest			Ashford Street From West			
Start Time	Right	Bear Right	Thru	Thru	Left	Hard Left	Hard Right	Bear Left	Hard Left	Hard Right	Right	Left	Int. Total
12:00 PM	0	1	2	1	6	3	1	0	0	0	6	1	21
12:15 PM	0	1	1	1	5	3	5	0	0	0	18	2	36
12:30 PM	0	0	0	0	4	1	1	0	0	0	10	0	16
12:45 PM	0	1	2	3	12	1	4	0	0	0	7	0	30
Total	0	3	5	5	27	8	11	0	0	0	41	3	103
01:00 PM	0	1	0	1	12	3	2	0	0	0	11	0	30
01:15 PM	0	2	1	1	7	4	1	0	0	0	13	0	29
01:30 PM	0	0	2	0	6	8	3	0	0	0	8	0	27
01:45 PM	0	0	2	3	12	3	5	1	0	0	5	0	31
Total	0	3	5	5	37	18	11	1	0	0	37	0	117
Grand Total	0	6	10	10	64	26	22	1	0	0	78	3	220
Apprch %	0	37.5	62.5	10	64	26	95.7	4.3	0	0	96.3	3.7	
Total %	0	2.7	4.5	4.5	29.1	11.8	10	0.5	0	0	35.5	1.4	

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	0	1	0	1	1	**12**	3	16	2	0	0	2	0	11	0	11	30
01:15 PM	0	**2**	1	**3**	1	7	4	12	1	0	0	1	0	**13**	0	**13**	29
01:30 PM	0	0	**2**	2	0	6	**8**	14	3	0	0	3	0	8	0	8	27
01:45 PM	0	0	2	2	**3**	12	3	**18**	**5**	**1**	0	**6**	0	5	0	5	**31**
Total Volume	0	3	5	8	5	37	18	60	11	1	0	12	0	37	0	37	117
% App. Total	0	37.5	62.5		8.3	61.7	30		91.7	8.3	0		0	100	0		
PHF	.000	.375	.625	.667	.417	.771	.563	.833	.550	.250	.000	.500	.000	.712	.000	.712	.944

N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 DD
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Parking Lot Driveways From Southwest			Ashford Street From West			
Start Time	Right	Bear Right	Thru	Thru	Left	Hard Left	Hard Right	Bear Left	Hard Left	Hard Right	Right	Left	Int. Total
12:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
12:45 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
Total	0	0	0	0	6	0	0	0	0	0	3	0	9
01:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
01:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
01:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
01:45 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
Total	0	0	0	0	4	0	0	0	0	0	3	0	7
Grand Total	0	0	0	0	10	0	0	0	0	0	6	0	16
Apprch %	0	0	0	0	100	0	0	0	0	0	100	0	
Total %	0	0	0	0	62.5	0	0	0	0	0	37.5	0	

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	**3**
12:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**	0	**2**	3
Total Volume	0	0	0	0	0	6	0	6	0	0	0	0	0	3	0	3	9
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.375	.000	.375	.750

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Email: datarequests@pdillc.com

N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 DD
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	Peds	Thru	Left	Hard Left	Peds	Hard Right	Bear Left	Hard Left	Peds	Hard Right	Right	Left	Peds	Int. Total
12:00 PM	0	0	0	8	0	0	0	11	0	0	0	0	0	0	0	11	30
12:15 PM	0	0	0	29	0	1	0	15	0	0	0	0	0	0	0	15	60
12:30 PM	0	0	0	14	0	1	0	9	0	0	0	0	0	0	0	20	44
12:45 PM	0	0	0	13	0	1	0	14	0	0	0	0	0	3	0	9	40
Total	0	0	0	64	0	3	0	49	0	0	0	0	0	3	0	55	174
01:00 PM	0	0	0	18	0	0	0	13	0	0	0	0	0	1	0	13	45
01:15 PM	0	0	0	20	0	0	0	19	0	0	0	0	0	0	0	10	49
01:30 PM	0	0	0	27	0	1	0	11	0	0	0	0	0	0	0	9	48
01:45 PM	0	0	0	37	0	2	0	11	0	0	0	0	0	0	0	8	58
Total	0	0	0	102	0	3	0	54	0	0	0	0	0	1	0	40	200
Grand Total	0	0	0	166	0	6	0	103	0	0	0	0	0	4	0	95	374
Apprch %	0	0	0	100	0	5.5	0	94.5	0	0	0	0	0	4	0	96	
Total %	0	0	0	44.4	0	1.6	0	27.5	0	0	0	0	0	1.1	0	25.4	

	Babcock Street From North					Babcock Street From South					Parking Lot Driveways From Southwest					Ashford Street From West					
Start Time	Right	Bear Right	Thru	Peds	App. Total	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	0	0	0	18	18	0	0	0	13	13	0	0	0	0	0	0	**1**	0	**13**	**14**	45
01:15 PM	0	0	0	20	20	0	0	0	**19**	**19**	0	0	0	0	0	0	0	0	10	10	49
01:30 PM	0	0	0	27	27	0	1	0	11	12	0	0	0	0	0	0	0	0	9	9	48
01:45 PM	0	0	0	**37**	**37**	0	**2**	0	11	13	0	0	0	0	0	0	0	0	8	8	**58**
Total Volume	0	0	0	102	102	0	3	0	54	57	0	0	0	0	0	0	1	0	40	41	200
% App. Total	0	0	0	100		0	5.3	0	94.7		0	0	0	0		0	2.4	0	97.6		
PHF	.000	.000	.000	.689	.689	.000	.375	.000	.711	.750	.000	.000	.000	.000	.000	.000	.250	.000	.769	.732	.862

N/S: BabcockStreet
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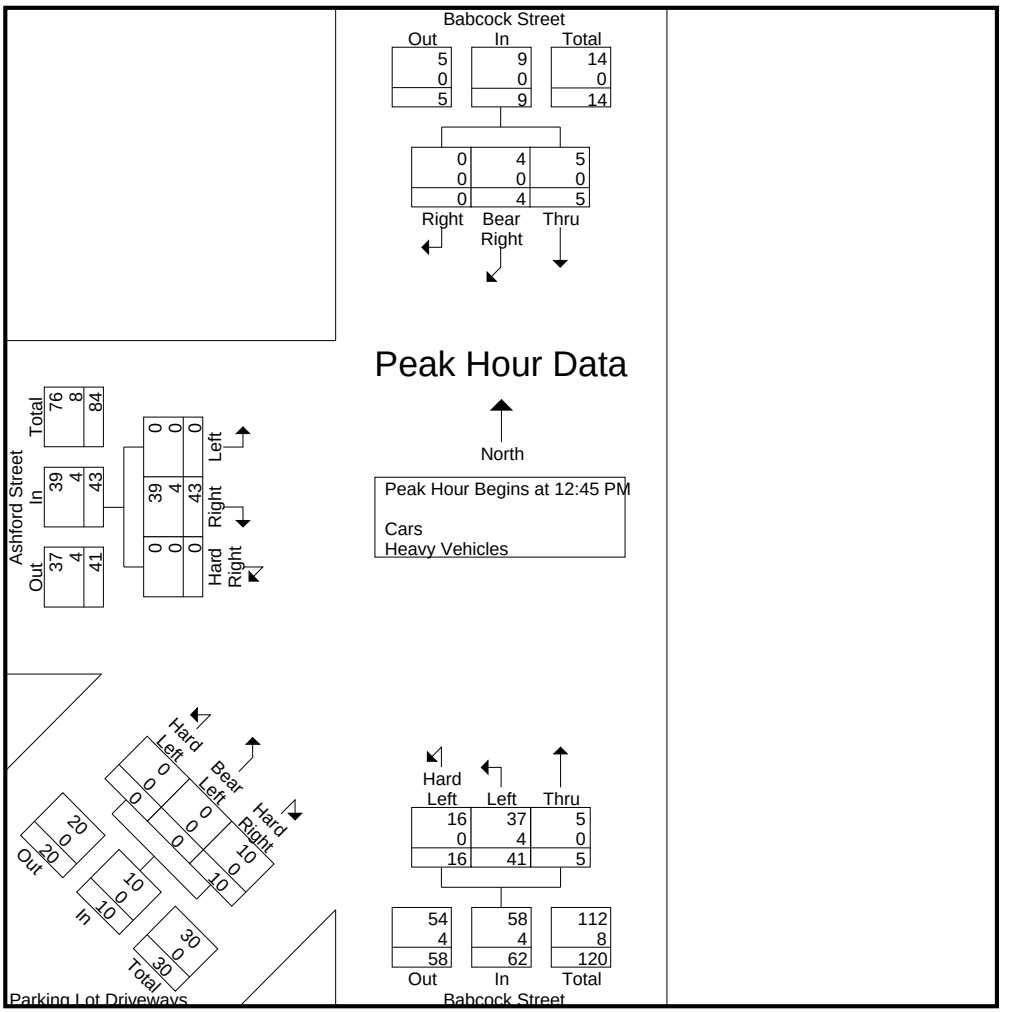
	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:45 PM																	
12:45 PM	0	1	**2**	**3**	**3**	**13**	1	**17**	**4**	0	0	**4**	0	9	0	9	**33**
01:00 PM	0	1	0	1	1	13	3	17	2	0	0	2	0	11	0	11	31
01:15 PM	0	**2**	1	3	1	9	4	14	1	0	0	1	0	**13**	0	**13**	31
01:30 PM	0	0	2	2	0	6	**8**	14	3	0	0	3	0	10	0	10	29
Total Volume	0	4	5	9	5	41	16	62	10	0	0	10	0	43	0	43	124
% App. Total	0	44.4	55.6		8.1	66.1	25.8		100	0	0		0	100	0		
PHF	.000	.500	.625	.750	.417	.788	.500	.912	.625	.000	.000	.625	.000	.827	.000	.827	.939
Cars	0	4	5	9	5	37	16	58	10	0	0	10	0	39	0	39	116
% Cars	0	100	100	100	100	90.2	100	93.5	100	0	0	100	0	90.7	0	90.7	93.5
Heavy Vehicles	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	8
% Heavy Vehicles	0	0	0	0	0	9.8	0	6.5	0	0	0	0	0	9.3	0	9.3	6.5



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N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 DDD
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Parking Lot Driveways From Southwest			Ashford Street From West			
Start Time	Right	Bear Right	Thru	Thru	Left	Hard Left	Hard Right	Bear Left	Hard Left	Hard Right	Right	Left	Int. Total
04:00 PM	1	0	0	1	10	5	4	0	0	0	4	0	25
04:15 PM	0	0	0	2	11	7	5	0	0	0	9	1	35
04:30 PM	0	0	1	5	7	2	8	0	0	0	10	1	34
04:45 PM	0	1	2	3	12	4	8	0	0	0	13	0	43
Total	1	1	3	11	40	18	25	0	0	0	36	2	137
05:00 PM	0	0	2	4	4	4	8	0	0	0	12	0	34
05:15 PM	0	1	4	6	5	4	3	0	0	0	5	0	28
05:30 PM	1	1	2	5	7	0	10	0	0	0	13	2	41
05:45 PM	1	0	3	4	6	3	11	0	0	0	9	1	38
Total	2	2	11	19	22	11	32	0	0	0	39	3	141
Grand Total	3	3	14	30	62	29	57	0	0	0	75	5	278
Apprch %	15	15	70	24.8	51.2	24	100	0	0	0	93.8	6.2	
Total %	1.1	1.1	5	10.8	22.3	10.4	20.5	0	0	0	27	1.8	
Cars	3	3	14	30	60	29	57	0	0	0	69	5	270
% Cars	100	100	100	100	96.8	100	100	0	0	0	92	100	97.1
Heavy Vehicles	0	0	0	0	2	0	0	0	0	0	6	0	8
% Heavy Vehicles	0	0	0	0	3.2	0	0	0	0	0	8	0	2.9

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	2	11	**7**	**20**	5	0	0	5	0	9	**1**	10	35
04:30 PM	0	0	1	1	**5**	7	2	14	**8**	0	0	**8**	0	10	1	11	34
04:45 PM	0	**1**	**2**	**3**	3	**12**	4	19	8	0	0	8	0	**13**	0	**13**	**43**
05:00 PM	0	0	2	2	4	4	4	12	8	0	0	8	0	12	0	12	34
Total Volume	0	1	5	6	14	34	17	65	29	0	0	29	0	44	2	46	146
% App. Total	0	16.7	83.3		21.5	52.3	26.2		100	0	0		0	95.7	4.3		
PHF	.000	.250	.625	.500	.700	.708	.607	.813	.906	.000	.000	.906	.000	.846	.500	.885	.849
Cars	0	1	5	6	14	33	17	64	29	0	0	29	0	38	2	40	139
% Cars	0	100	100	100	100	97.1	100	98.5	100	0	0	100	0	86.4	100	87.0	95.2
Heavy Vehicles	0	0	0	0	0	1	0	1	0	0	0	0	0	6	0	6	7
% Heavy Vehicles	0	0	0	0	0	2.9	0	1.5	0	0	0	0	0	13.6	0	13.0	4.8

N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
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Groups Printed- Cars

	Babcock Street From North			Babcock Street From South			Parking Lot Driveways From Southwest			Ashford Street From West			
Start Time	Right	Bear Right	Thru	Thru	Left	Hard Left	Hard Right	Bear Left	Hard Left	Hard Right	Right	Left	Int. Total
04:00 PM	1	0	0	1	9	5	4	0	0	0	4	0	24
04:15 PM	0	0	0	2	11	7	5	0	0	0	7	1	33
04:30 PM	0	0	1	5	6	2	8	0	0	0	8	1	31
04:45 PM	0	1	2	3	12	4	8	0	0	0	12	0	42
Total	1	1	3	11	38	18	25	0	0	0	31	2	130
05:00 PM	0	0	2	4	4	4	8	0	0	0	11	0	33
05:15 PM	0	1	4	6	5	4	3	0	0	0	5	0	28
05:30 PM	1	1	2	5	7	0	10	0	0	0	13	2	41
05:45 PM	1	0	3	4	6	3	11	0	0	0	9	1	38
Total	2	2	11	19	22	11	32	0	0	0	38	3	140
Grand Total	3	3	14	30	60	29	57	0	0	0	69	5	270
Apprch %	15	15	70	25.2	50.4	24.4	100	0	0	0	93.2	6.8	
Total %	1.1	1.1	5.2	11.1	22.2	10.7	21.1	0	0	0	25.6	1.9	

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**1**	2	3	3	**12**	**4**	**19**	8	0	0	8	0	12	0	12	**42**
05:00 PM	0	0	2	2	4	4	4	12	8	0	0	8	0	11	0	11	33
05:15 PM	0	1	**4**	**5**	**6**	5	4	15	3	0	0	3	0	5	0	5	28
05:30 PM	**1**	1	2	4	5	7	0	12	**10**	0	0	**10**	0	**13**	**2**	**15**	41
Total Volume	1	3	10	14	18	28	12	58	29	0	0	29	0	41	2	43	144
% App. Total	7.1	21.4	71.4		31	48.3	20.7		100	0	0		0	95.3	4.7		
PHF	.250	.750	.625	.700	.750	.583	.750	.763	.725	.000	.000	.725	.000	.788	.250	.717	.857

N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 DDD
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Parking Lot Driveways From Southwest			Ashford Street From West			
Start Time	Right	Bear Right	Thru	Thru	Left	Hard Left	Hard Right	Bear Left	Hard Left	Hard Right	Right	Left	Int. Total
04:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
04:30 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	2	0	0	0	0	0	5	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	1
Grand Total	0	0	0	0	2	0	0	0	0	0	6	0	8
Apprch %	0	0	0	0	100	0	0	0	0	0	100	0	
Total %	0	0	0	0	25	0	0	0	0	0	75	0	

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**	2
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	**3**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	5	0	5	7
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.625	.000	.625	.583

N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 DDD
Site Code : 127-4220
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Groups Printed- Peds and Bicycles

	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	Peds	Thru	Left	Hard Left	Peds	Hard Right	Bear Left	Hard Left	Peds	Hard Right	Right	Left	Peds	Int. Total
04:00 PM	0	0	0	37	0	0	0	17	0	0	0	0	0	1	0	2	57
04:15 PM	0	0	0	21	0	1	0	24	0	0	0	0	0	1	0	7	54
04:30 PM	0	0	0	20	0	1	0	6	0	0	0	0	0	1	0	2	30
04:45 PM	0	0	0	24	0	0	0	28	0	0	0	0	0	1	0	3	56
Total	0	0	0	102	0	2	0	75	0	0	0	0	0	4	0	14	197
05:00 PM	0	0	0	37	0	2	0	24	0	0	0	0	0	0	0	9	72
05:15 PM	0	0	0	31	0	4	0	19	0	0	0	0	0	2	0	6	62
05:30 PM	0	0	0	25	0	0	0	22	0	0	0	0	0	0	0	8	55
05:45 PM	0	0	0	25	0	0	0	36	0	0	0	0	0	3	0	16	80
Total	0	0	0	118	0	6	0	101	0	0	0	0	0	5	0	39	269
Grand Total	0	0	0	220	0	8	0	176	0	0	0	0	0	9	0	53	466
Apprch %	0	0	0	100	0	4.3	0	95.7	0	0	0	0	0	14.5	0	85.5	
Total %	0	0	0	47.2	0	1.7	0	37.8	0	0	0	0	0	1.9	0	11.4	

	Babcock Street From North					Babcock Street From South					Parking Lot Driveways From Southwest					Ashford Street From West					
Start Time	Right	Bear Right	Thru	Peds	App. Total	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	**37**	**37**	0	2	0	24	26	0	0	0	0	0	0	0	0	9	9	72
05:15 PM	0	0	0	31	31	0	**4**	0	19	23	0	0	0	0	0	0	2	0	6	8	62
05:30 PM	0	0	0	25	25	0	0	0	22	22	0	0	0	0	0	0	0	0	8	8	55
05:45 PM	0	0	0	25	25	0	0	0	**36**	**36**	0	0	0	0	0	0	**3**	0	**16**	**19**	**80**
Total Volume	0	0	0	118	118	0	6	0	101	107	0	0	0	0	0	0	5	0	39	44	269
% App. Total	0	0	0	100		0	5.6	0	94.4		0	0	0	0		0	11.4	0	88.6		
PHF	.000	.000	.000	.797	.797	.000	.375	.000	.701	.743	.000	.000	.000	.000	.000	.000	.417	.000	.609	.579	.841

N/S: BabcockStreet
W/SW: Ashford Street/ Parking Lot Drives
City, State: Boston, MA
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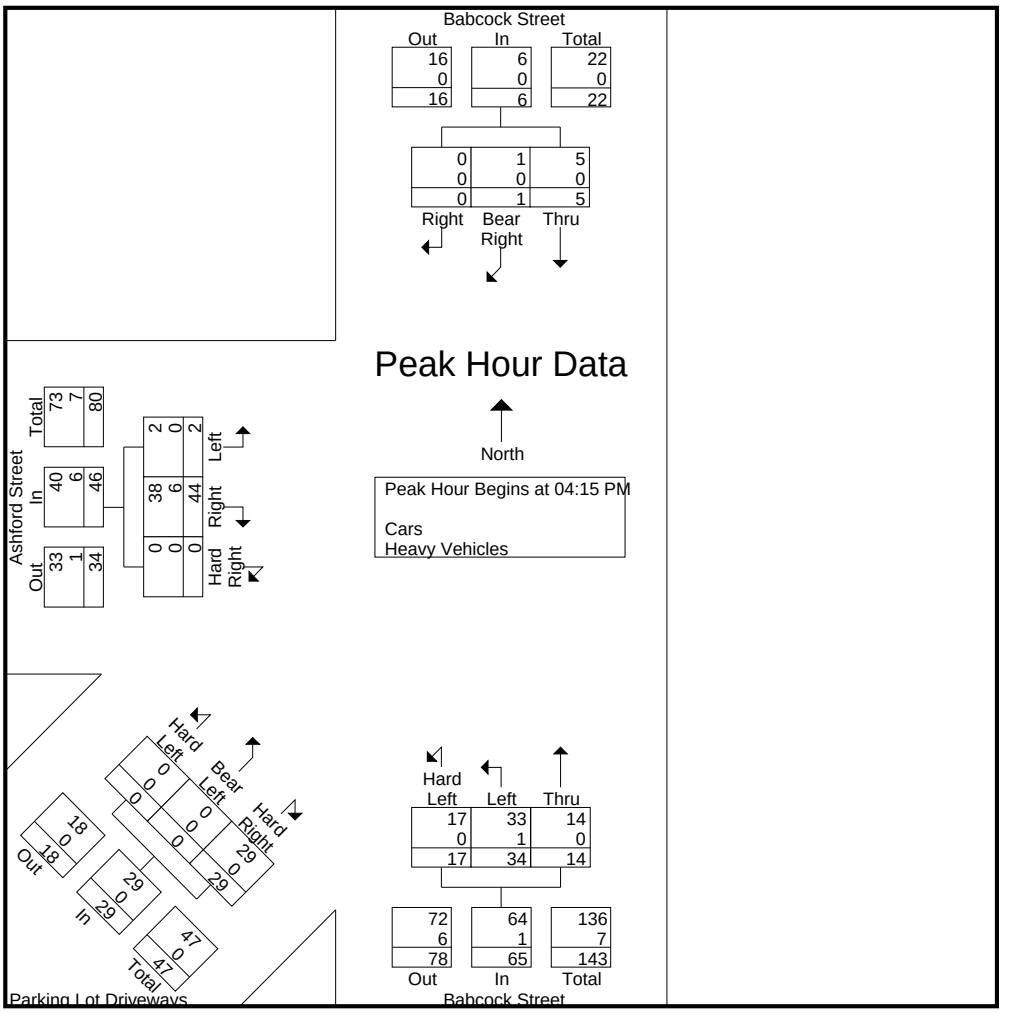
	Babcock Street From North				Babcock Street From South				Parking Lot Driveways From Southwest				Ashford Street From West				
Start Time	Right	Bear Right	Thru	App. Total	Thru	Left	Hard Left	App. Total	Hard Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	2	11	**7**	**20**	5	0	0	5	0	9	**1**	10	35
04:30 PM	0	0	1	1	**5**	7	2	14	**8**	0	0	**8**	0	10	1	11	34
04:45 PM	0	**1**	**2**	**3**	3	**12**	4	19	8	0	0	8	0	**13**	0	**13**	**43**
05:00 PM	0	0	2	2	4	4	4	12	8	0	0	8	0	12	0	12	34
Total Volume	0	1	5	6	14	34	17	65	29	0	0	29	0	44	2	46	146
% App. Total	0	16.7	83.3		21.5	52.3	26.2		100	0	0		0	95.7	4.3		
PHF	.000	.250	.625	.500	.700	.708	.607	.813	.906	.000	.000	.906	.000	.846	.500	.885	.849
Cars	0	1	5	6	14	33	17	64	29	0	0	29	0	38	2	40	139
% Cars	0	100	100	100	100	97.1	100	98.5	100	0	0	100	0	86.4	100	87.0	95.2
Heavy Vehicles	0	0	0	0	0	1	0	1	0	0	0	0	0	6	0	6	7
% Heavy Vehicles	0	0	0	0	0	2.9	0	1.5	0	0	0	0	0	13.6	0	13.0	4.8



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N/S: BabcockStreet
W: Gardner Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 E
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Cars - Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Gardner Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
07:00 AM	1	21	2	25	7	1	11	1	4	73
07:15 AM	0	20	0	29	4	0	18	4	0	75
07:30 AM	0	14	0	36	6	0	13	3	0	72
07:45 AM	0	11	0	31	14	0	11	2	0	69
Total	1	66	2	121	31	1	53	10	4	289
08:00 AM	1	51	0	11	10	0	23	3	0	99
08:15 AM	0	41	0	15	8	1	25	1	0	91
08:30 AM	0	19	0	18	7	0	15	3	0	62
08:45 AM	0	18	1	25	17	0	17	4	1	83
Total	1	129	1	69	42	1	80	11	1	335
Grand Total	2	195	3	190	73	2	133	21	5	624
Apprch %	1	97.5	1.5	71.7	27.5	0.8	83.6	13.2	3.1	
Total %	0.3	31.2	0.5	30.4	11.7	0.3	21.3	3.4	0.8	
Cars	2	184	3	181	71	2	125	21	5	594
% Cars	100	94.4	100	95.3	97.3	100	94	100	100	95.2
Heavy Vehicles	0	11	0	9	2	0	8	0	0	30
% Heavy Vehicles	0	5.6	0	4.7	2.7	0	6	0	0	4.8

	Babcock Street From North				Babcock Street From South				Gardner Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	**1**	**51**	0	**52**	11	10	0	21	23	3	0	**26**	**99**
08:15 AM	0	41	0	41	15	8	**1**	24	**25**	1	0	26	91
08:30 AM	0	19	0	19	18	7	0	25	15	3	0	18	62
08:45 AM	0	18	**1**	19	**25**	**17**	0	**42**	17	**4**	**1**	22	83
Total Volume	1	129	1	131	69	42	1	112	80	11	1	92	335
% App. Total	0.8	98.5	0.8		61.6	37.5	0.9		87	12	1.1		
PHF	.250	.632	.250	.630	.690	.618	.250	.667	.800	.688	.250	.885	.846
Cars	1	120	1	122	65	42	1	108	75	11	1	87	317
% Cars	100	93.0	100	93.1	94.2	100	100	96.4	93.8	100	100	94.6	94.6
Heavy Vehicles	0	9	0	9	4	0	0	4	5	0	0	5	18
% Heavy Vehicles	0	7.0	0	6.9	5.8	0	0	3.6	6.3	0	0	5.4	5.4

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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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Site Code : 127-4220
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Groups Printed- Cars

	Babcock Street From North			Babcock Street From South			Gardner Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
07:00 AM	1	21	2	23	6	1	10	1	4	69
07:15 AM	0	19	0	29	4	0	17	4	0	73
07:30 AM	0	14	0	35	6	0	12	3	0	70
07:45 AM	0	10	0	29	13	0	11	2	0	65
Total	1	64	2	116	29	1	50	10	4	277
08:00 AM	1	46	0	10	10	0	21	3	0	91
08:15 AM	0	41	0	15	8	1	25	1	0	91
08:30 AM	0	16	0	16	7	0	14	3	0	56
08:45 AM	0	17	1	24	17	0	15	4	1	79
Total	1	120	1	65	42	1	75	11	1	317
Grand Total	2	184	3	181	71	2	125	21	5	594
Apprch %	1.1	97.4	1.6	71.3	28	0.8	82.8	13.9	3.3	
Total %	0.3	31	0.5	30.5	12	0.3	21	3.5	0.8	

	Babcock Street From North				Babcock Street From South				Gardner Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	14	0	14	**35**	6	0	41	12	**3**	0	15	70
07:45 AM	0	10	0	10	29	**13**	0	**42**	11	2	0	13	65
08:00 AM	**1**	**46**	0	**47**	10	10	0	20	21	3	0	24	**91**
08:15 AM	0	41	0	41	15	8	**1**	24	**25**	1	0	**26**	91
Total Volume	1	111	0	112	89	37	1	127	69	9	0	78	317
% App. Total	0.9	99.1	0		70.1	29.1	0.8		88.5	11.5	0		
PHF	.250	.603	.000	.596	.636	.712	.250	.756	.690	.750	.000	.750	.871

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Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Gardner Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
07:00 AM	0	0	0	2	1	0	1	0	0	4
07:15 AM	0	1	0	0	0	0	1	0	0	2
07:30 AM	0	0	0	1	0	0	1	0	0	2
07:45 AM	0	1	0	2	1	0	0	0	0	4
Total	0	2	0	5	2	0	3	0	0	12
08:00 AM	0	5	0	1	0	0	2	0	0	8
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	3	0	2	0	0	1	0	0	6
08:45 AM	0	1	0	1	0	0	2	0	0	4
Total	0	9	0	4	0	0	5	0	0	18
Grand Total	0	11	0	9	2	0	8	0	0	30
Apprch %	0	100	0	81.8	18.2	0	100	0	0	
Total %	0	36.7	0	30	6.7	0	26.7	0	0	

	Babcock Street From North				Babcock Street From South				Gardner Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	1	0	1	**2**	**1**	0	**3**	0	0	0	0	4
08:00 AM	0	**5**	0	**5**	1	0	0	1	**2**	0	0	**2**	**8**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	3	0	3	2	0	0	2	1	0	0	1	6
Total Volume	0	9	0	9	5	1	0	6	3	0	0	3	18
% App. Total	0	100	0		83.3	16.7	0		100	0	0		
PHF	.000	.450	.000	.450	.625	.250	.000	.500	.375	.000	.000	.375	.563

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Groups Printed- Peds and Bicycles

	Babcock Street From North			Babcock Street From South			Gardner Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
07:00 AM	1	2	6	1	0	2	0	0	1	13
07:15 AM	0	0	6	0	0	4	1	0	3	14
07:30 AM	0	2	2	1	1	3	2	0	6	17
07:45 AM	0	1	4	1	0	1	3	0	2	12
Total	1	5	18	3	1	10	6	0	12	56
08:00 AM	0	2	6	1	0	1	2	0	5	17
08:15 AM	0	0	10	1	0	2	4	0	1	18
08:30 AM	0	1	3	0	0	3	4	0	6	17
08:45 AM	0	0	3	0	1	1	4	0	16	25
Total	0	3	22	2	1	7	14	0	28	77
Grand Total	1	8	40	5	2	17	20	0	40	133
Apprch %	2	16.3	81.6	20.8	8.3	70.8	33.3	0	66.7	
Total %	0.8	6	30.1	3.8	1.5	12.8	15	0	30.1	

	Babcock Street From North				Babcock Street From South				Gardner Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	**2**	6	8	**1**	0	1	2	2	0	5	7	17
08:15 AM	0	0	**10**	**10**	1	0	2	**3**	**4**	0	1	5	18
08:30 AM	0	1	3	4	0	0	**3**	3	4	0	6	10	17
08:45 AM	0	0	3	3	0	**1**	1	2	4	0	**16**	**20**	**25**
Total Volume	0	3	22	25	2	1	7	10	14	0	28	42	77
% App. Total	0	12	88		20	10	70		33.3	0	66.7		
PHF	.000	.375	.550	.625	.500	.250	.583	.833	.875	.000	.438	.525	.770

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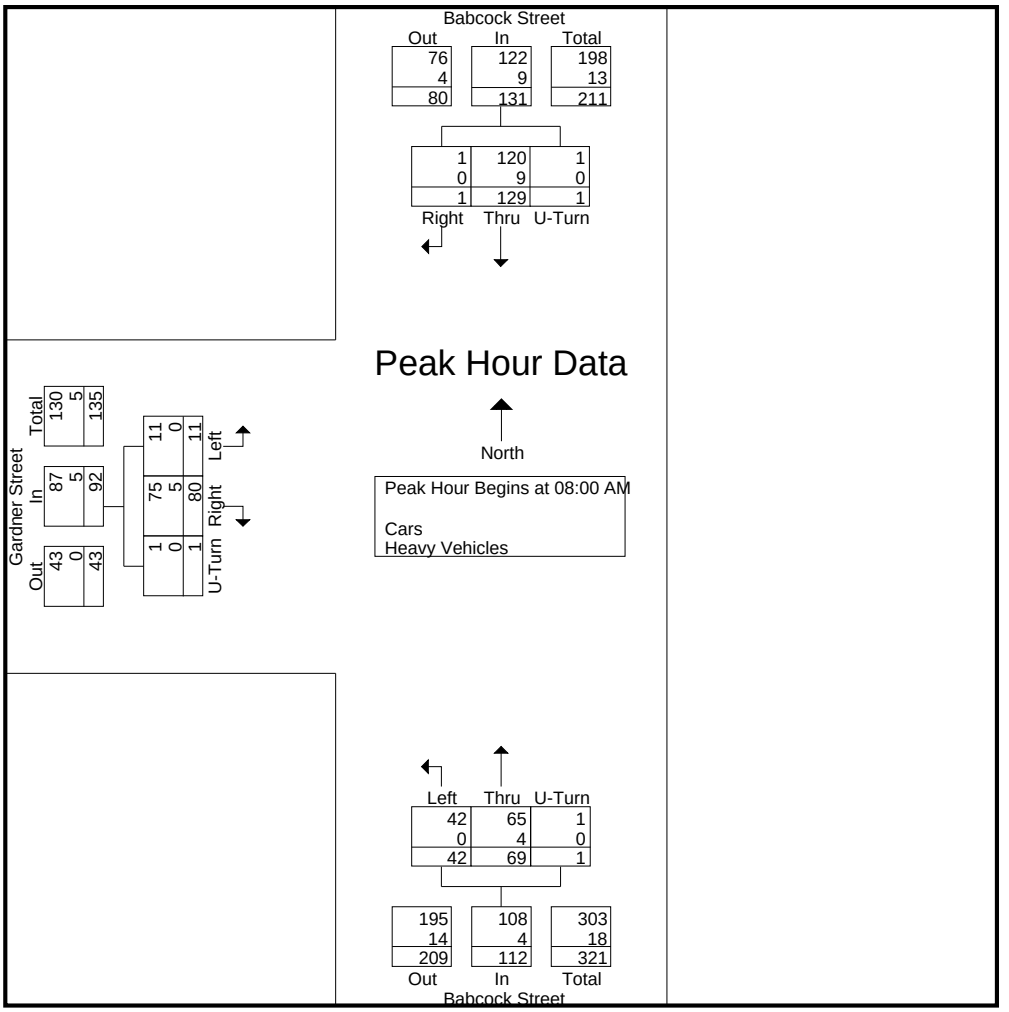
	Babcock Street From North				Babcock Street From South				Gardner Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	**1**	**51**	0	**52**	11	10	0	21	23	3	0	**26**	**99**
08:15 AM	0	41	0	41	15	8	**1**	24	**25**	1	0	26	91
08:30 AM	0	19	0	19	18	7	0	25	15	3	0	18	62
08:45 AM	0	18	**1**	19	**25**	**17**	0	**42**	17	**4**	**1**	22	83
Total Volume	1	129	1	131	69	42	1	112	80	11	1	92	335
% App. Total	0.8	98.5	0.8		61.6	37.5	0.9		87	12	1.1		
PHF	.250	.632	.250	.630	.690	.618	.250	.667	.800	.688	.250	.885	.846
Cars	1	120	1	122	65	42	1	108	75	11	1	87	317
% Cars	100	93.0	100	93.1	94.2	100	100	96.4	93.8	100	100	94.6	94.6
Heavy Vehicles	0	9	0	9	4	0	0	4	5	0	0	5	18
% Heavy Vehicles	0	7.0	0	6.9	5.8	0	0	3.6	6.3	0	0	5.4	5.4



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N/S: BabcockStreet
W: Gardner Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 EE
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Gardner Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
12:00 PM	0	12	0	14	2	1	14	0	0	43
12:15 PM	0	23	0	14	11	1	23	0	0	72
12:30 PM	3	12	1	6	4	0	15	1	0	42
12:45 PM	0	18	0	18	3	1	20	0	2	62
Total	3	65	1	52	20	3	72	1	2	219
01:00 PM	0	11	0	15	4	0	15	0	0	45
01:15 PM	1	16	1	10	0	0	20	3	0	51
01:30 PM	0	15	0	14	7	2	16	1	0	55
01:45 PM	0	11	0	20	7	1	23	0	0	62
Total	1	53	1	59	18	3	74	4	0	213
Grand Total	4	118	2	111	38	6	146	5	2	432
Apprch %	3.2	95.2	1.6	71.6	24.5	3.9	95.4	3.3	1.3	
Total %	0.9	27.3	0.5	25.7	8.8	1.4	33.8	1.2	0.5	
Cars	3	109	2	102	37	6	139	5	2	405
% Cars	75	92.4	100	91.9	97.4	100	95.2	100	100	93.8
Heavy Vehicles	1	9	0	9	1	0	7	0	0	27
% Heavy Vehicles	25	7.6	0	8.1	2.6	0	4.8	0	0	6.2

	Babcock Street From North				Babcock Street From South				Gardner Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:15 PM													
12:15 PM	0	**23**	0	**23**	14	**11**	**1**	**26**	**23**	0	0	**23**	**72**
12:30 PM	**3**	12	**1**	16	6	4	0	10	15	**1**	0	16	42
12:45 PM	0	18	0	18	**18**	3	1	22	20	0	**2**	22	62
01:00 PM	0	11	0	11	15	4	0	19	15	0	0	15	45
Total Volume	3	64	1	68	53	22	2	77	73	1	2	76	221
% App. Total	4.4	94.1	1.5		68.8	28.6	2.6		96.1	1.3	2.6		
PHF	.250	.696	.250	.739	.736	.500	.500	.740	.793	.250	.250	.826	.767
Cars	2	57	1	60	49	21	2	72	68	1	2	71	203
% Cars	66.7	89.1	100	88.2	92.5	95.5	100	93.5	93.2	100	100	93.4	91.9
Heavy Vehicles	1	7	0	8	4	1	0	5	5	0	0	5	18
% Heavy Vehicles	33.3	10.9	0	11.8	7.5	4.5	0	6.5	6.8	0	0	6.6	8.1

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File Name : 122828 EE
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Cars

	Babcock Street From North			Babcock Street From South			Gardner Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
12:00 PM	0	12	0	12	2	1	14	0	0	41
12:15 PM	0	21	0	14	11	1	20	0	0	67
12:30 PM	2	9	1	4	4	0	15	1	0	36
12:45 PM	0	16	0	17	3	1	19	0	2	58
Total	2	58	1	47	20	3	68	1	2	202
01:00 PM	0	11	0	14	3	0	14	0	0	42
01:15 PM	1	16	1	9	0	0	19	3	0	49
01:30 PM	0	14	0	14	7	2	16	1	0	54
01:45 PM	0	10	0	18	7	1	22	0	0	58
Total	1	51	1	55	17	3	71	4	0	203
Grand Total	3	109	2	102	37	6	139	5	2	405
Apprch %	2.6	95.6	1.8	70.3	25.5	4.1	95.2	3.4	1.4	
Total %	0.7	26.9	0.5	25.2	9.1	1.5	34.3	1.2	0.5	

	Babcock Street From North				Babcock Street From South				Gardner Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:15 PM													
12:15 PM	0	**21**	0	**21**	14	**11**	**1**	**26**	**20**	0	0	20	**67**
12:30 PM	**2**	9	**1**	12	4	4	0	8	15	**1**	0	16	36
12:45 PM	0	16	0	16	**17**	3	1	21	19	0	**2**	**21**	58
01:00 PM	0	11	0	11	14	3	0	17	14	0	0	14	42
Total Volume	2	57	1	60	49	21	2	72	68	1	2	71	203
% App. Total	3.3	95	1.7		68.1	29.2	2.8		95.8	1.4	2.8		
PHF	.250	.679	.250	.714	.721	.477	.500	.692	.850	.250	.250	.845	.757

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File Name : 122828 EE
Site Code : 127-4220
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Page No : 1

Groups Printed- Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Gardner Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
12:00 PM	0	0	0	2	0	0	0	0	0	2
12:15 PM	0	2	0	0	0	0	3	0	0	5
12:30 PM	1	3	0	2	0	0	0	0	0	6
12:45 PM	0	2	0	1	0	0	1	0	0	4
Total	1	7	0	5	0	0	4	0	0	17
01:00 PM	0	0	0	1	1	0	1	0	0	3
01:15 PM	0	0	0	1	0	0	1	0	0	2
01:30 PM	0	1	0	0	0	0	0	0	0	1
01:45 PM	0	1	0	2	0	0	1	0	0	4
Total	0	2	0	4	1	0	3	0	0	10
Grand Total	1	9	0	9	1	0	7	0	0	27
Apprch %	10	90	0	90	10	0	100	0	0	
Total %	3.7	33.3	0	33.3	3.7	0	25.9	0	0	

	Babcock Street From North				Babcock Street From South				Gardner Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:15 PM													
12:15 PM	0	2	0	2	0	0	0	0	**3**	0	0	**3**	5
12:30 PM	**1**	**3**	0	**4**	**2**	0	0	**2**	0	0	0	0	**6**
12:45 PM	0	2	0	2	1	0	0	1	1	0	0	1	4
01:00 PM	0	0	0	0	1	**1**	0	2	1	0	0	1	3
Total Volume	1	7	0	8	4	1	0	5	5	0	0	5	18
% App. Total	12.5	87.5	0		80	20	0		100	0	0		
PHF	.250	.583	.000	.500	.500	.250	.000	.625	.417	.000	.000	.417	.750

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Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Peds and Bicycles

	Babcock Street From North			Babcock Street From South			Gardner Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
12:00 PM	0	0	1	0	0	6	2	0	9	18
12:15 PM	0	2	2	2	0	0	1	0	17	24
12:30 PM	0	0	0	1	0	3	3	0	11	18
12:45 PM	0	3	1	1	0	5	2	0	10	22
Total	0	5	4	4	0	14	8	0	47	82
01:00 PM	0	0	0	0	2	6	0	0	9	17
01:15 PM	0	0	1	0	1	0	3	0	14	19
01:30 PM	0	0	4	0	0	0	2	0	17	23
01:45 PM	0	1	1	4	0	3	2	0	8	19
Total	0	1	6	4	3	9	7	0	48	78
Grand Total	0	6	10	8	3	23	15	0	95	160
Apprch %	0	37.5	62.5	23.5	8.8	67.6	13.6	0	86.4	
Total %	0	3.8	6.2	5	1.9	14.4	9.4	0	59.4	

	Babcock Street From North				Babcock Street From South				Gardner Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	0	0	1	1	0	0	**6**	**6**	2	0	9	11	18
12:15 PM	0	2	**2**	**4**	**2**	0	0	2	1	0	**17**	**18**	**24**
12:30 PM	0	0	0	0	1	0	3	4	**3**	0	11	14	18
12:45 PM	0	**3**	1	4	1	0	5	6	2	0	10	12	22
Total Volume	0	5	4	9	4	0	14	18	8	0	47	55	82
% App. Total	0	55.6	44.4		22.2	0	77.8		14.5	0	85.5		
PHF	.000	.417	.500	.563	.500	.000	.583	.750	.667	.000	.691	.764	.854

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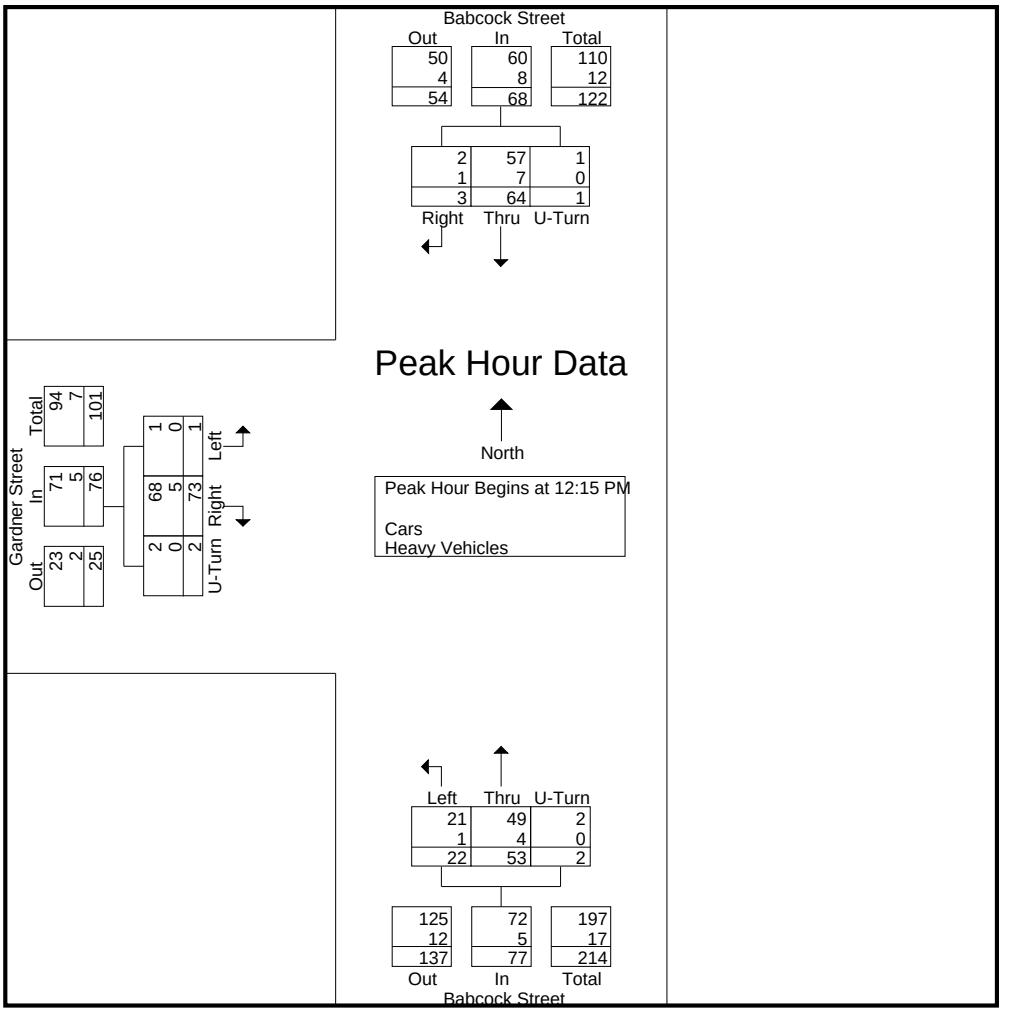
	Babcock Street From North				Babcock Street From South				Gardner Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:15 PM													
12:15 PM	0	**23**	0	**23**	14	**11**	**1**	**26**	**23**	0	0	**23**	**72**
12:30 PM	**3**	12	**1**	16	6	4	0	10	15	**1**	0	16	42
12:45 PM	0	18	0	18	**18**	3	1	22	20	0	**2**	22	62
01:00 PM	0	11	0	11	15	4	0	19	15	0	0	15	45
Total Volume	3	64	1	68	53	22	2	77	73	1	2	76	221
% App. Total	4.4	94.1	1.5		68.8	28.6	2.6		96.1	1.3	2.6		
PHF	.250	.696	.250	.739	.736	.500	.500	.740	.793	.250	.250	.826	.767
Cars	2	57	1	60	49	21	2	72	68	1	2	71	203
% Cars	66.7	89.1	100	88.2	92.5	95.5	100	93.5	93.2	100	100	93.4	91.9
Heavy Vehicles	1	7	0	8	4	1	0	5	5	0	0	5	18
% Heavy Vehicles	33.3	10.9	0	11.8	7.5	4.5	0	6.5	6.8	0	0	6.6	8.1



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Start Date : 3/20/2012
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Groups Printed- Cars - Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Gardber Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:00 PM	0	7	0	16	3	1	24	0	0	51
04:15 PM	1	11	0	23	4	0	15	0	0	54
04:30 PM	0	27	0	15	7	1	23	1	0	74
04:45 PM	1	21	0	16	2	0	20	1	0	61
Total	2	66	0	70	16	2	82	2	0	240
05:00 PM	0	23	0	8	4	0	32	1	1	69
05:15 PM	0	12	0	18	0	1	22	0	0	53
05:30 PM	5	15	0	10	8	2	19	0	0	59
05:45 PM	0	20	0	14	8	1	28	0	0	71
Total	5	70	0	50	20	4	101	1	1	252
Grand Total	7	136	0	120	36	6	183	3	1	492
Apprch %	4.9	95.1	0	74.1	22.2	3.7	97.9	1.6	0.5	
Total %	1.4	27.6	0	24.4	7.3	1.2	37.2	0.6	0.2	
Cars	7	130	0	120	36	6	181	3	1	484
% Cars	100	95.6	0	100	100	100	98.9	100	100	98.4
Heavy Vehicles	0	6	0	0	0	0	2	0	0	8
% Heavy Vehicles	0	4.4	0	0	0	0	1.1	0	0	1.6

	Babcock Street From North				Babcock Street From South				Gardber Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	**1**	11	0	12	**23**	4	0	**27**	15	0	0	15	54
04:30 PM	0	**27**	0	**27**	15	**7**	**1**	23	23	**1**	0	24	**74**
04:45 PM	1	21	0	22	16	2	0	18	20	1	0	21	61
05:00 PM	0	23	0	23	8	4	0	12	**32**	1	**1**	**34**	69
Total Volume	2	82	0	84	62	17	1	80	90	3	1	94	258
% App. Total	2.4	97.6	0		77.5	21.2	1.2		95.7	3.2	1.1		
PHF	.500	.759	.000	.778	.674	.607	.250	.741	.703	.750	.250	.691	.872
Cars	2	77	0	79	62	17	1	80	88	3	1	92	251
% Cars	100	93.9	0	94.0	100	100	100	100	97.8	100	100	97.9	97.3
Heavy Vehicles	0	5	0	5	0	0	0	0	2	0	0	2	7
% Heavy Vehicles	0	6.1	0	6.0	0	0	0	0	2.2	0	0	2.1	2.7

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Groups Printed- Cars

	Babcock Street From North			Babcock Street From South			Gardber Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:00 PM	0	7	0	16	3	1	24	0	0	51
04:15 PM	1	11	0	23	4	0	15	0	0	54
04:30 PM	0	25	0	15	7	1	22	1	0	71
04:45 PM	1	20	0	16	2	0	19	1	0	59
Total	2	63	0	70	16	2	80	2	0	235
05:00 PM	0	21	0	8	4	0	32	1	1	67
05:15 PM	0	11	0	18	0	1	22	0	0	52
05:30 PM	5	15	0	10	8	2	19	0	0	59
05:45 PM	0	20	0	14	8	1	28	0	0	71
Total	5	67	0	50	20	4	101	1	1	249
Grand Total	7	130	0	120	36	6	181	3	1	484
Apprch %	5.1	94.9	0	74.1	22.2	3.7	97.8	1.6	0.5	
Total %	1.4	26.9	0	24.8	7.4	1.2	37.4	0.6	0.2	

	Babcock Street From North				Babcock Street From South				Gardber Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	**1**	11	0	12	**23**	4	0	**27**	15	0	0	15	54
04:30 PM	0	**25**	0	**25**	15	**7**	**1**	23	22	**1**	0	23	**71**
04:45 PM	1	20	0	21	16	2	0	18	19	1	0	20	59
05:00 PM	0	21	0	21	8	4	0	12	**32**	1	**1**	**34**	67
Total Volume	2	77	0	79	62	17	1	80	88	3	1	92	251
% App. Total	2.5	97.5	0		77.5	21.2	1.2		95.7	3.3	1.1		
PHF	.500	.770	.000	.790	.674	.607	.250	.741	.688	.750	.250	.676	.884

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Groups Printed- Heavy Vehicles

	Babcock Street From North			Babcock Street From South			Gardber Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	2	0	0	0	0	1	0	0	3
04:45 PM	0	1	0	0	0	0	1	0	0	2
Total	0	3	0	0	0	0	2	0	0	5
05:00 PM	0	2	0	0	0	0	0	0	0	2
05:15 PM	0	1	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	0	0	0	0	0	3
Grand Total	0	6	0	0	0	0	2	0	0	8
Apprch %	0	100	0	0	0	0	100	0	0	
Total %	0	75	0	0	0	0	25	0	0	

	Babcock Street From North				Babcock Street From South				Gardber Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	0	**2**	0	**2**	0	0	0	0	**1**	0	0	**1**	**3**
04:45 PM	0	1	0	1	0	0	0	0	1	0	0	1	2
05:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	6	0	6	0	0	0	0	2	0	0	2	8
% App. Total	0	100	0		0	0	0		100	0	0		
PHF	.000	.750	.000	.750	.000	.000	.000	.000	.500	.000	.000	.500	.667

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Email: datarequests@pdillc.com

File Name : 122828 EEE
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Peds and Bicycles

	Babcock Street From North			Babcock Street From South			Gardber Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:00 PM	0	1	1	0	1	2	0	0	6	11
04:15 PM	0	1	5	1	0	1	1	0	15	24
04:30 PM	0	1	4	1	0	5	0	0	8	19
04:45 PM	0	0	6	1	1	2	3	1	14	28
Total	0	3	16	3	2	10	4	1	43	82
05:00 PM	0	0	5	3	1	8	3	0	12	32
05:15 PM	0	2	1	4	2	2	1	0	6	18
05:30 PM	0	0	1	0	2	6	5	0	5	19
05:45 PM	0	2	3	1	1	8	1	0	11	27
Total	0	4	10	8	6	24	10	0	34	96
Grand Total	0	7	26	11	8	34	14	1	77	178
Apprch %	0	21.2	78.8	20.8	15.1	64.2	15.2	1.1	83.7	
Total %	0	3.9	14.6	6.2	4.5	19.1	7.9	0.6	43.3	

	Babcock Street From North				Babcock Street From South				Gardber Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	0	**1**	5	**6**	1	0	1	2	1	0	**15**	16	24
04:30 PM	0	1	4	5	1	0	5	6	0	0	8	8	19
04:45 PM	0	0	**6**	6	1	**1**	2	4	**3**	**1**	14	**18**	28
05:00 PM	0	0	5	5	**3**	1	**8**	**12**	3	0	12	15	**32**
Total Volume	0	2	20	22	6	2	16	24	7	1	49	57	103
% App. Total	0	9.1	90.9		25	8.3	66.7		12.3	1.8	86		
PHF	.000	.500	.833	.917	.500	.500	.500	.500	.583	.250	.817	.792	.805

N/S: BabcockStreet
W: Gardner Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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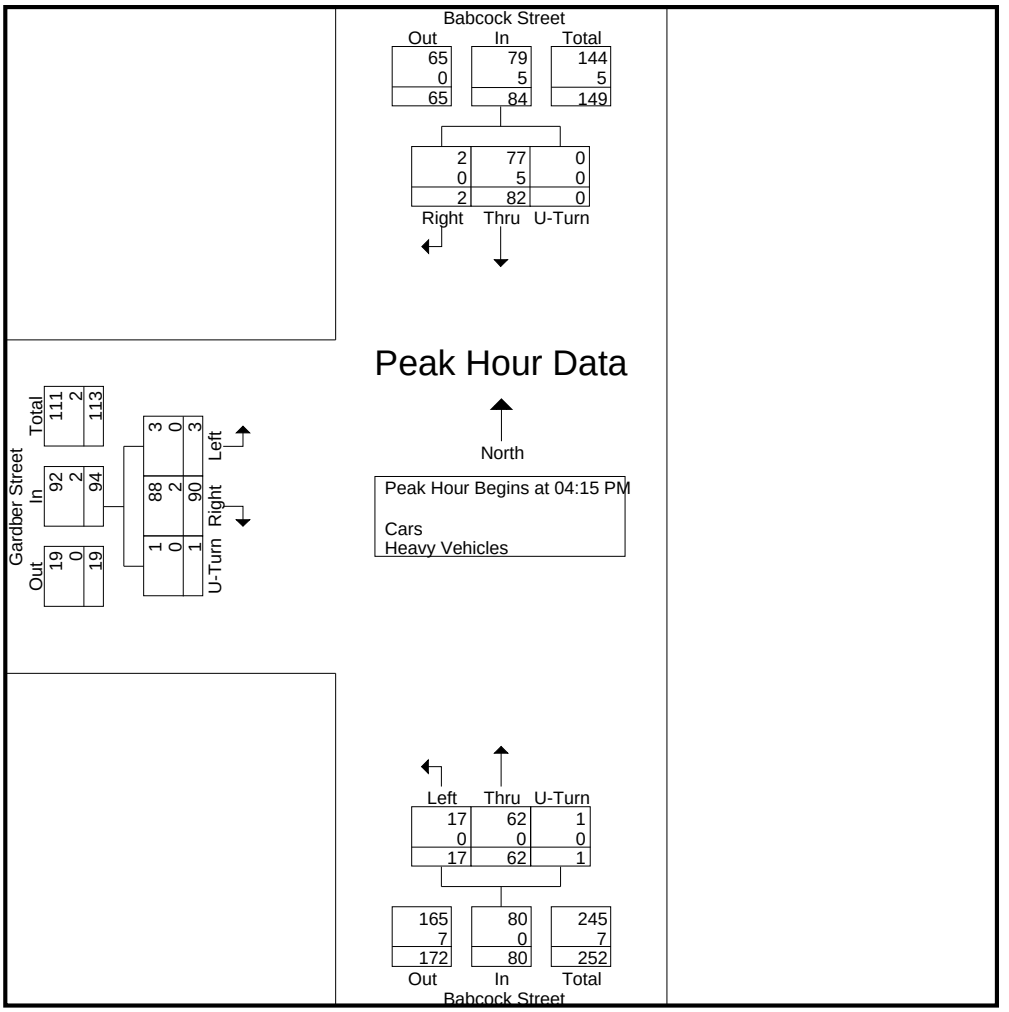
File Name : 122828 EEE
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Babcock Street From North				Babcock Street From South				Gardber Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	**1**	11	0	12	**23**	4	0	**27**	15	0	0	15	54
04:30 PM	0	**27**	0	**27**	15	**7**	**1**	23	23	**1**	0	24	**74**
04:45 PM	1	21	0	22	16	2	0	18	20	1	0	21	61
05:00 PM	0	23	0	23	8	4	0	12	**32**	1	**1**	**34**	69
Total Volume	2	82	0	84	62	17	1	80	90	3	1	94	258
% App. Total	2.4	97.6	0		77.5	21.2	1.2		95.7	3.2	1.1		
PHF	.500	.759	.000	.778	.674	.607	.250	.741	.703	.750	.250	.691	.872
Cars	2	77	0	79	62	17	1	80	88	3	1	92	251
% Cars	100	93.9	0	94.0	100	100	100	100	97.8	100	100	97.9	97.3
Heavy Vehicles	0	5	0	5	0	0	0	0	2	0	0	2	7
% Heavy Vehicles	0	6.1	0	6.0	0	0	0	0	2.2	0	0	2.1	2.7



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N/S: Babcock Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 FF
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Babcock Street From North				Commonwealth Avenue (Route 20/30) From East				Babcock Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	4	7	20	0	16	193	18	6	12	2	21	0	10	139	0	4	452
12:15 PM	3	8	26	0	20	195	11	7	12	8	27	0	10	183	0	0	510
12:30 PM	2	9	20	0	9	218	19	8	19	2	23	0	4	155	0	0	488
12:45 PM	3	7	22	0	17	192	16	7	9	3	21	0	8	140	0	0	445
Total	12	31	88	0	62	798	64	28	52	15	92	0	32	617	0	4	1895
01:00 PM	5	7	27	0	17	165	8	8	15	1	23	0	6	170	0	0	452
01:15 PM	4	7	20	0	12	166	16	5	15	0	16	0	16	176	0	0	453
01:30 PM	5	7	22	0	20	185	9	4	10	6	19	0	13	160	0	0	460
01:45 PM	6	11	22	1	14	178	21	13	12	5	22	0	8	174	0	0	487
Total	20	32	91	1	63	694	54	30	52	12	80	0	43	680	0	0	1852
Grand Total	32	63	179	1	125	1492	118	58	104	27	172	0	75	1297	0	4	3747
Apprch %	11.6	22.9	65.1	0.4	7	83.2	6.6	3.2	34.3	8.9	56.8	0	5.5	94.3	0	0.3	
Total %	0.9	1.7	4.8	0	3.3	39.8	3.1	1.5	2.8	0.7	4.6	0	2	34.6	0	0.1	
Cars	28	61	170	1	113	1402	115	58	96	27	167	0	71	1216	0	4	3529
% Cars	87.5	96.8	95	100	90.4	94	97.5	100	92.3	100	97.1	0	94.7	93.8	0	100	94.2
Heavy Vehicles	4	2	9	0	12	90	3	0	8	0	5	0	4	81	0	0	218
% Heavy Vehicles	12.5	3.2	5	0	9.6	6	2.5	0	7.7	0	2.9	0	5.3	6.2	0	0	5.8

	Babcock Street From North					Commonwealth Avenue (Route 20/30) From East					Babcock Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	**4**	7	20	0	31	16	193	18	6	233	12	2	21	0	35	**10**	139	0	**4**	153	452
12:15 PM	3	8	**26**	0	**37**	**20**	195	11	7	233	12	**8**	**27**	0	**47**	10	**183**	0	0	**193**	**510**
12:30 PM	2	**9**	20	0	31	9	**218**	**19**	**8**	**254**	**19**	2	23	0	44	4	155	0	0	159	488
12:45 PM	3	7	22	0	32	17	192	16	7	232	9	3	21	0	33	8	140	0	0	148	445
Total Volume	12	31	88	0	131	62	798	64	28	952	52	15	92	0	159	32	617	0	4	653	1895
% App. Total	9.2	23.7	67.2	0		6.5	83.8	6.7	2.9		32.7	9.4	57.9	0		4.9	94.5	0	0.6		
PHF	.750	.861	.846	.000	.885	.775	.915	.842	.875	.937	.684	.469	.852	.000	.846	.800	.843	.000	.250	.846	.929
Cars	10	29	80	0	119	56	747	64	28	895	49	15	87	0	151	30	578	0	4	612	1777
% Cars	83.3	93.5	90.9	0	90.8	90.3	93.6	100	100	94.0	94.2	100	94.6	0	95.0	93.8	93.7	0	100	93.7	93.8
Heavy Vehicles																					
% Heavy Vehicles	16.7	6.5	9.1	0	9.2	9.7	6.4	0	0	6.0	5.8	0	5.4	0	5.0	6.3	6.3	0	0	6.3	6.2

N/S: Babcock Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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File Name : 122828 FF
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Babcock Street From North				Commonwealth Avenue (Route 20/30) From East				Babcock Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	3	6	20	0	14	180	18	6	11	2	19	0	10	131	0	4	424
12:15 PM	2	8	23	0	18	182	11	7	12	8	25	0	10	175	0	0	481
12:30 PM	2	9	18	0	8	205	19	8	18	2	23	0	3	142	0	0	457
12:45 PM	3	6	19	0	16	180	16	7	8	3	20	0	7	130	0	0	415
Total	10	29	80	0	56	747	64	28	49	15	87	0	30	578	0	4	1777
01:00 PM	5	7	27	0	14	151	8	8	13	1	23	0	6	158	0	0	421
01:15 PM	3	7	20	0	11	160	16	5	13	0	16	0	15	171	0	0	437
01:30 PM	5	7	21	0	20	172	8	4	10	6	19	0	13	145	0	0	430
01:45 PM	5	11	22	1	12	172	19	13	11	5	22	0	7	164	0	0	464
Total	18	32	90	1	57	655	51	30	47	12	80	0	41	638	0	0	1752
Grand Total	28	61	170	1	113	1402	115	58	96	27	167	0	71	1216	0	4	3529
Apprch %	10.8	23.5	65.4	0.4	6.7	83.1	6.8	3.4	33.1	9.3	57.6	0	5.5	94.2	0	0.3	
Total %	0.8	1.7	4.8	0	3.2	39.7	3.3	1.6	2.7	0.8	4.7	0	2	34.5	0	0.1	

	Babcock Street From North					Commonwealth Avenue (Route 20/30) From East					Babcock Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	**3**	6	20	0	29	14	180	18	6	218	11	2	19	0	32	**10**	131	0	**4**	145	424
12:15 PM	2	8	**23**	0	**33**	**18**	182	11	7	218	12	**8**	**25**	0	**45**	10	**175**	0	0	**185**	**481**
12:30 PM	2	**9**	18	0	29	8	**205**	**19**	**8**	**240**	**18**	2	23	0	43	3	142	0	0	145	457
12:45 PM	3	6	19	0	28	16	180	16	7	219	8	3	20	0	31	7	130	0	0	137	415
Total Volume	10	29	80	0	119	56	747	64	28	895	49	15	87	0	151	30	578	0	4	612	1777
% App. Total	8.4	24.4	67.2	0		6.3	83.5	7.2	3.1		32.5	9.9	57.6	0		4.9	94.4	0	0.7		
PHF	.833	.806	.870	.000	.902	.778	.911	.842	.875	.932	.681	.469	.870	.000	.839	.750	.826	.000	.250	.827	.924

PRECISION
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N/S: Babcock Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 FF
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Heavy Vehicles

	Babcock Street From North				Commonwealth Avenue (Route 20/30) From East				Babcock Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	1	1	0	0	2	13	0	0	1	0	2	0	0	8	0	0	28
12:15 PM	1	0	3	0	2	13	0	0	0	0	2	0	0	8	0	0	29
12:30 PM	0	0	2	0	1	13	0	0	1	0	0	0	1	13	0	0	31
12:45 PM	0	1	3	0	1	12	0	0	1	0	1	0	1	10	0	0	30
Total	2	2	8	0	6	51	0	0	3	0	5	0	2	39	0	0	118
01:00 PM	0	0	0	0	3	14	0	0	2	0	0	0	0	12	0	0	31
01:15 PM	1	0	0	0	1	6	0	0	2	0	0	0	1	5	0	0	16
01:30 PM	0	0	1	0	0	13	1	0	0	0	0	0	0	15	0	0	30
01:45 PM	1	0	0	0	2	6	2	0	1	0	0	0	1	10	0	0	23
Total	2	0	1	0	6	39	3	0	5	0	0	0	2	42	0	0	100
Grand Total	4	2	9	0	12	90	3	0	8	0	5	0	4	81	0	0	218
Apprch %	26.7	13.3	60	0	11.4	85.7	2.9	0	61.5	0	38.5	0	4.7	95.3	0	0	
Total %	1.8	0.9	4.1	0	5.5	41.3	1.4	0	3.7	0	2.3	0	1.8	37.2	0	0	

	Babcock Street From North					Commonwealth Avenue (Route 20/30) From East					Babcock Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	**1**	0	**3**	0	**4**	2	13	0	0	15	0	0	**2**	0	**2**	0	8	0	0	8	29
12:30 PM	0	0	2	0	2	1	13	0	0	14	1	0	0	0	1	**1**	**13**	0	0	**14**	**31**
12:45 PM	0	**1**	3	0	4	1	12	0	0	13	1	0	1	0	2	1	10	0	0	11	30
01:00 PM	0	0	0	0	0	**3**	**14**	0	0	**17**	**2**	0	0	0	2	0	12	0	0	12	31
Total Volume	1	1	8	0	10	7	52	0	0	59	4	0	3	0	7	2	43	0	0	45	121
% App. Total	10	10	80	0		11.9	88.1	0	0		57.1	0	42.9	0		4.4	95.6	0	0		
PHF	.250	.250	.667	.000	.625	.583	.929	.000	.000	.868	.500	.000	.375	.000	.875	.500	.827	.000	.000	.804	.976

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File Name : 122828 FF
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Babcock Street From North				Commonwealth Avenue (Route 20/30) From East				Babcock Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	0	0	59	0	6	0	27	0	0	0	84	0	6	0	54	236
12:15 PM	0	0	1	49	2	6	0	32	0	0	1	93	0	15	0	72	271
12:30 PM	0	1	0	82	1	11	0	29	0	0	1	81	0	6	0	71	283
12:45 PM	1	1	0	77	2	6	0	16	0	0	0	86	0	4	0	71	264
Total	1	2	1	267	5	29	0	104	0	0	2	344	0	31	0	268	1054
01:00 PM	0	1	1	91	1	9	0	40	0	0	1	61	0	13	0	69	287
01:15 PM	0	0	4	56	1	7	0	31	0	1	1	71	0	13	0	47	232
01:30 PM	0	1	2	64	1	6	0	25	0	1	0	88	0	16	0	58	262
01:45 PM	0	0	1	67	3	16	1	18	1	0	1	60	1	16	0	47	232
Total	0	2	8	278	6	38	1	114	1	2	3	280	1	58	0	221	1013
Grand Total	1	4	9	545	11	67	1	218	1	2	5	624	1	89	0	489	2067
Apprch %	0.2	0.7	1.6	97.5	3.7	22.6	0.3	73.4	0.2	0.3	0.8	98.7	0.2	15.4	0	84.5	
Total %	0	0.2	0.4	26.4	0.5	3.2	0	10.5	0	0.1	0.2	30.2	0	4.3	0	23.7	

	Babcock Street From North					Commonwealth Avenue (Route 20/30) From East					Babcock Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	0	0	**1**	49	50	**2**	6	0	32	40	0	0	**1**	**93**	**94**	0	**15**	0	**72**	**87**	271
12:30 PM	0	**1**	0	82	83	1	**11**	0	29	41	0	0	1	81	82	0	6	0	71	77	283
12:45 PM	**1**	1	0	77	79	2	6	0	16	24	0	0	0	86	86	0	4	0	71	75	264
01:00 PM	0	1	1	**91**	**93**	1	9	0	**40**	**50**	0	0	1	61	62	0	13	0	69	82	**287**
Total Volume	1	3	2	299	305	6	32	0	117	155	0	0	3	321	324	0	38	0	283	321	1105
% App. Total	0.3	1	0.7	98		3.9	20.6	0	75.5		0	0	0.9	99.1		0	11.8	0	88.2		
PHF	.250	.750	.500	.821	.820	.750	.727	.000	.731	.775	.000	.000	.750	.863	.862	.000	.633	.000	.983	.922	.963

N/S: Babcock Street
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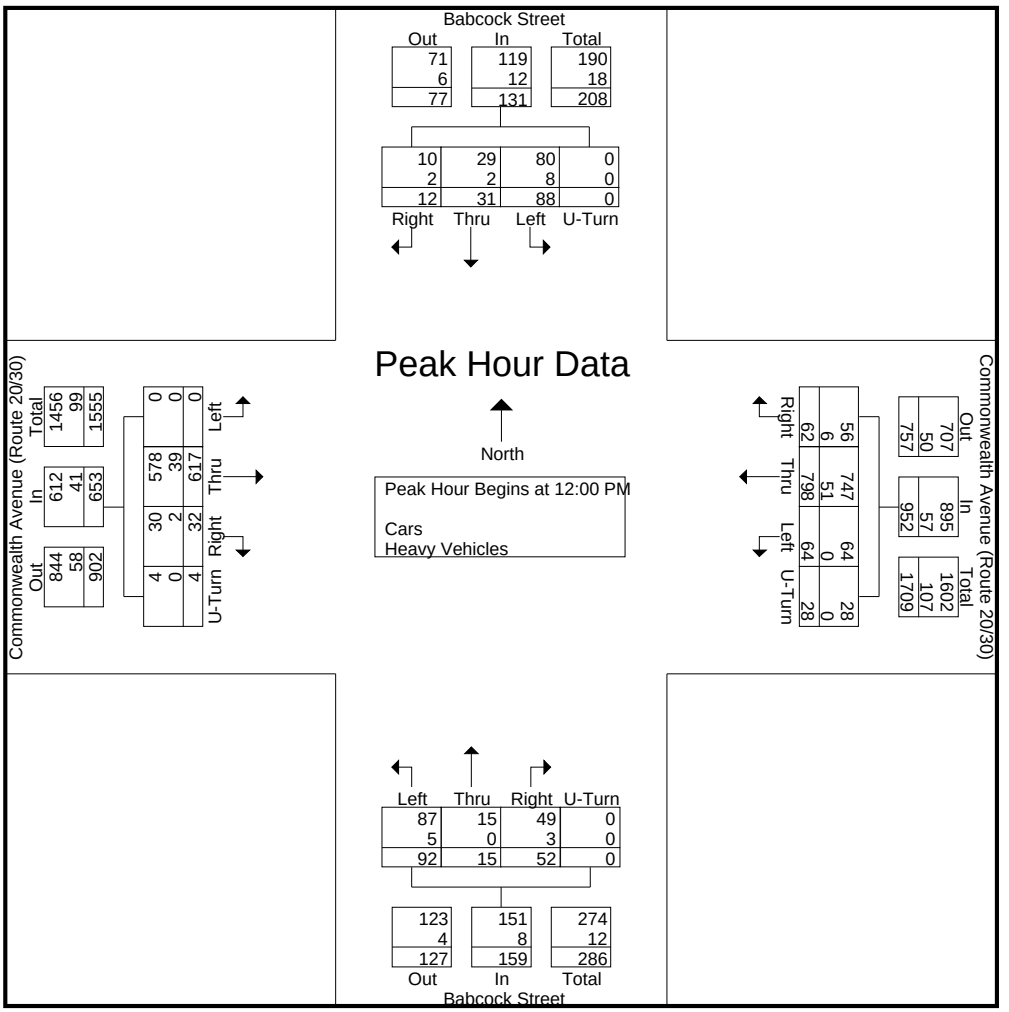
	Babcock Street From North					Commonwealth Avenue (Route 20/30) From East					Babcock Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	**4**	7	20	0	31	16	193	18	6	233	12	2	21	0	35	**10**	139	0	**4**	153	452
12:15 PM	3	8	**26**	0	**37**	**20**	195	11	7	233	12	**8**	**27**	0	**47**	10	**183**	0	0	**193**	**510**
12:30 PM	2	**9**	20	0	31	9	**218**	**19**	**8**	**254**	**19**	2	23	0	44	4	155	0	0	159	488
12:45 PM	3	7	22	0	32	17	192	16	7	232	9	3	21	0	33	8	140	0	0	148	445
Total Volume	12	31	88	0	131	62	798	64	28	952	52	15	92	0	159	32	617	0	4	653	1895
% App. Total	9.2	23.7	67.2	0		6.5	83.8	6.7	2.9		32.7	9.4	57.9	0		4.9	94.5	0	0.6		
PHF	.750	.861	.846	.000	.885	.775	.915	.842	.875	.937	.684	.469	.852	.000	.846	.800	.843	.000	.250	.846	.929
Cars	10	29	80	0	119	56	747	64	28	895	49	15	87	0	151	30	578	0	4	612	1777
% Cars	83.3	93.5	90.9	0	90.8	90.3	93.6	100	100	94.0	94.2	100	94.6	0	95.0	93.8	93.7	0	100	93.7	93.8
Heavy Vehicles																					
% Heavy Vehicles	16.7	6.5	9.1	0	9.2	9.7	6.4	0	0	6.0	5.8	0	5.4	0	5.0	6.3	6.3	0	0	6.3	6.2



N/S: Harry Agganis Way/ Pleasant Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122828 GG
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Harry Agganis Way From North			Commonwealth Avenue (Route 20/30) From East				Pleasant Street From South			Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	10	0	6	7	171	1	5	10	2	30	16	162	3	4	427
12:15 PM	4	2	3	1	174	2	6	16	1	15	15	184	3	25	451
12:30 PM	8	2	7	5	202	4	4	14	0	20	18	164	7	15	470
12:45 PM	7	0	2	2	195	3	4	13	2	20	9	161	1	9	428
Total	29	4	18	15	742	10	19	53	5	85	58	671	14	53	1776
01:00 PM	3	2	4	5	150	2	3	7	1	19	13	160	3	8	380
01:15 PM	3	0	4	3	162	2	2	9	0	14	15	173	0	14	401
01:30 PM	3	1	4	5	166	3	4	9	2	21	15	172	2	12	419
01:45 PM	5	1	7	8	183	1	6	13	1	17	15	191	0	16	464
Total	14	4	19	21	661	8	15	38	4	71	58	696	5	50	1664
Grand Total	43	8	37	36	1403	18	34	91	9	156	116	1367	19	103	3440
Apprch %	48.9	9.1	42	2.4	94.1	1.2	2.3	35.5	3.5	60.9	7.2	85.2	1.2	6.4	
Total %	1.2	0.2	1.1	1	40.8	0.5	1	2.6	0.3	4.5	3.4	39.7	0.6	3	
Cars	35	8	32	28	1330	17	33	80	8	152	112	1292	18	101	3246
% Cars	81.4	100	86.5	77.8	94.8	94.4	97.1	87.9	88.9	97.4	96.6	94.5	94.7	98.1	94.4
Heavy Vehicles	8	0	5	8	73	1	1	11	1	4	4	75	1	2	194
% Heavy Vehicles	18.6	0	13.5	22.2	5.2	5.6	2.9	12.1	11.1	2.6	3.4	5.5	5.3	1.9	5.6

	Harry Agganis Way From North				Commonwealth Avenue (Route 20/30) From East					Pleasant Street From South				Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 12:00 PM																			
12:00 PM	**10**	0	6	16	**7**	171	1	5	184	10	**2**	**30**	**42**	16	162	3	4	185	427
12:15 PM	4	**2**	3	9	1	174	2	**6**	183	**16**	1	15	32	15	**184**	3	**25**	**227**	451
12:30 PM	8	2	**7**	**17**	5	**202**	**4**	4	**215**	14	0	20	34	**18**	164	**7**	15	204	**470**
12:45 PM	7	0	2	9	2	195	3	4	204	13	2	20	35	9	161	1	9	180	428
Total Volume	29	4	18	51	15	742	10	19	786	53	5	85	143	58	671	14	53	796	1776
% App. Total	56.9	7.8	35.3		1.9	94.4	1.3	2.4		37.1	3.5	59.4		7.3	84.3	1.8	6.7		
PHF	.725	.500	.643	.750	.536	.918	.625	.792	.914	.828	.625	.708	.851	.806	.912	.500	.530	.877	.945
Cars	24	4	14	42	11	702	10	19	742	44	4	82	130	56	628	13	51	748	1662
% Cars	82.8	100	77.8	82.4	73.3	94.6	100	100	94.4	83.0	80.0	96.5	90.9	96.6	93.6	92.9	96.2	94.0	93.6
Heavy Vehicles	5	0	4	9	4	40	0	0	44	9	1	3	13	2	43	1	2	48	114
% Heavy Vehicles	17.2	0	22.2	17.6	26.7	5.4	0	0	5.6	17.0	20.0	3.5	9.1	3.4	6.4	7.1	3.8	6.0	6.4

N/S: Harry Agganis Way/ Pleasant Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
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File Name : 122828 GG
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Harry Agganis Way From North			Commonwealth Avenue (Route 20/30) From East				Pleasant Street From South			Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	9	0	4	6	160	1	5	8	2	30	15	154	3	4	401
12:15 PM	3	2	3	1	165	2	6	14	0	15	15	172	2	24	424
12:30 PM	7	2	6	3	190	4	4	12	0	20	18	150	7	15	438
12:45 PM	5	0	1	1	187	3	4	10	2	17	8	152	1	8	399
Total	24	4	14	11	702	10	19	44	4	82	56	628	13	51	1662
01:00 PM	2	2	4	4	141	2	3	7	1	18	13	151	3	8	359
01:15 PM	3	0	3	2	156	2	2	8	0	14	15	169	0	14	388
01:30 PM	3	1	4	4	154	3	4	8	2	21	15	161	2	12	394
01:45 PM	3	1	7	7	177	0	5	13	1	17	13	183	0	16	443
Total	11	4	18	17	628	7	14	36	4	70	56	664	5	50	1584
Grand Total	35	8	32	28	1330	17	33	80	8	152	112	1292	18	101	3246
Apprch %	46.7	10.7	42.7	2	94.5	1.2	2.3	33.3	3.3	63.3	7.4	84.8	1.2	6.6	
Total %	1.1	0.2	1	0.9	41	0.5	1	2.5	0.2	4.7	3.5	39.8	0.6	3.1	

	Harry Agganis Way From North				Commonwealth Avenue (Route 20/30) From East					Pleasant Street From South				Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 12:00 PM																			
12:00 PM	**9**	0	4	13	**6**	160	1	5	172	8	**2**	**30**	**40**	15	154	3	4	176	401
12:15 PM	3	**2**	3	8	1	165	2	**6**	174	**14**	0	15	29	15	**172**	2	**24**	**213**	424
12:30 PM	7	2	**6**	**15**	3	**190**	**4**	4	**201**	12	0	20	32	**18**	150	**7**	15	190	**438**
12:45 PM	5	0	1	6	1	187	3	4	195	10	2	17	29	8	152	1	8	169	399
Total Volume	24	4	14	42	11	702	10	19	742	44	4	82	130	56	628	13	51	748	1662
% App. Total	57.1	9.5	33.3		1.5	94.6	1.3	2.6		33.8	3.1	63.1		7.5	84	1.7	6.8		
PHF	.667	.500	.583	.700	.458	.924	.625	.792	.923	.786	.500	.683	.813	.778	.913	.464	.531	.878	.949

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File Name : 122828 GG
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Heavy Vehicles

	Harry Agganis Way From North			Commonwealth Avenue (Route 20/30) From East				Pleasant Street From South			Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	1	0	2	1	11	0	0	2	0	0	1	8	0	0	26
12:15 PM	1	0	0	0	9	0	0	2	1	0	0	12	1	1	27
12:30 PM	1	0	1	2	12	0	0	2	0	0	0	14	0	0	32
12:45 PM	2	0	1	1	8	0	0	3	0	3	1	9	0	1	29
Total	5	0	4	4	40	0	0	9	1	3	2	43	1	2	114
01:00 PM	1	0	0	1	9	0	0	0	0	1	0	9	0	0	21
01:15 PM	0	0	1	1	6	0	0	1	0	0	0	4	0	0	13
01:30 PM	0	0	0	1	12	0	0	1	0	0	0	11	0	0	25
01:45 PM	2	0	0	1	6	1	1	0	0	0	2	8	0	0	21
Total	3	0	1	4	33	1	1	2	0	1	2	32	0	0	80
Grand Total	8	0	5	8	73	1	1	11	1	4	4	75	1	2	194
Apprch %	61.5	0	38.5	9.6	88	1.2	1.2	68.8	6.2	25	4.9	91.5	1.2	2.4	
Total %	4.1	0	2.6	4.1	37.6	0.5	0.5	5.7	0.5	2.1	2.1	38.7	0.5	1	

	Harry Agganis Way From North				Commonwealth Avenue (Route 20/30) From East					Pleasant Street From South				Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 12:00 PM																			
12:00 PM	1	0	**2**	**3**	1	11	0	0	12	2	0	0	2	**1**	8	0	0	9	26
12:15 PM	1	0	0	1	0	9	0	0	9	2	**1**	0	3	0	12	**1**	**1**	**14**	27
12:30 PM	1	0	1	2	**2**	**12**	0	0	**14**	2	0	0	2	0	**14**	0	0	14	**32**
12:45 PM	**2**	0	1	3	1	8	0	0	9	**3**	0	**3**	**6**	1	9	0	1	11	29
Total Volume	5	0	4	9	4	40	0	0	44	9	1	3	13	2	43	1	2	48	114
% App. Total	55.6	0	44.4		9.1	90.9	0	0		69.2	7.7	23.1		4.2	89.6	2.1	4.2		
PHF	.625	.000	.500	.750	.500	.833	.000	.000	.786	.750	.250	.250	.542	.500	.768	.250	.500	.857	.891

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N/S: Harry Agganis Way/ Pleasant Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 GG
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Trains

	Harry Agganis Way From North			Commonwealth Avenue (Route 20/30) From East				Pleasant Street From South			Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
12:15 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
12:30 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
12:45 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
Total	0	0	0	0	7	0	0	0	0	0	0	7	0	0	14
01:00 PM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
01:15 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
01:30 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
01:45 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
Total	0	0	0	0	8	0	0	0	0	0	0	8	0	0	16
Grand Total	0	0	0	0	15	0	0	0	0	0	0	15	0	0	30
Apprch %	0	0	0	0	100	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	50	0	0	0	0	0	0	50	0	0	

	Harry Agganis Way From North				Commonwealth Avenue (Route 20/30) From East					Pleasant Street From South				Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 12:45 PM																			
12:45 PM	0	0	0	0	0	**2**	0	0	**2**	0	0	0	0	0	2	0	0	2	4
01:00 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	**3**	0	0	**3**	**5**
01:15 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
01:30 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
Total Volume	0	0	0	0	0	8	0	0	8	0	0	0	0	0	9	0	0	9	17
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	1.00	.000	.000	1.00	.000	.000	.000	.000	.000	.750	.000	.000	.750	.850

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Groups Printed- Peds and Bicycles

	Harry Agganis Way From North				Commonwealth Avenue (Route 20/30) From East				Pleasant Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	0	1	90	0	7	0	56	0	1	0	80	0	19	0	62	316
12:15 PM	0	0	1	107	3	10	0	48	2	0	0	77	0	37	0	73	358
12:30 PM	1	0	3	111	2	11	0	39	4	0	2	67	0	12	0	62	314
12:45 PM	0	0	2	113	3	10	0	29	0	0	0	73	0	9	0	60	299
Total	1	0	7	421	8	38	0	172	6	1	2	297	0	77	0	257	1287
01:00 PM	0	0	0	115	1	11	0	44	1	0	1	60	0	17	1	51	302
01:15 PM	0	0	0	94	1	12	0	36	0	0	1	49	0	20	0	48	261
01:30 PM	0	0	1	108	3	11	0	35	2	0	1	62	0	20	0	37	280
01:45 PM	0	0	4	110	1	20	2	34	0	0	0	52	2	23	0	48	296
Total	0	0	5	427	6	54	2	149	3	0	3	223	2	80	1	184	1139
Grand Total	1	0	12	848	14	92	2	321	9	1	5	520	2	157	1	441	2426
Apprch %	0.1	0	1.4	98.5	3.3	21.4	0.5	74.8	1.7	0.2	0.9	97.2	0.3	26.1	0.2	73.4	
Total %	0	0	0.5	35	0.6	3.8	0.1	13.2	0.4	0	0.2	21.4	0.1	6.5	0	18.2	

	Harry Agganis Way From North					Commonwealth Avenue (Route 20/30) From East					Pleasant Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	1	90	91	0	7	0	**56**	**63**	0	**1**	0	**80**	**81**	0	19	0	62	81	316
12:15 PM	0	0	1	107	108	**3**	10	0	48	61	2	0	0	77	79	0	**37**	0	**73**	**110**	**358**
12:30 PM	**1**	0	**3**	111	**115**	2	**11**	0	39	52	**4**	0	**2**	67	73	0	12	0	62	74	314
12:45 PM	0	0	2	**113**	115	3	10	0	29	42	0	0	0	73	73	0	9	0	60	69	299
Total Volume	1	0	7	421	429	8	38	0	172	218	6	1	2	297	306	0	77	0	257	334	1287
% App. Total	0.2	0	1.6	98.1		3.7	17.4	0	78.9		2	0.3	0.7	97.1		0	23.1	0	76.9		
PHF	.250	.000	.583	.931	.933	.667	.864	.000	.768	.865	.375	.250	.250	.928	.944	.000	.520	.000	.880	.759	.899

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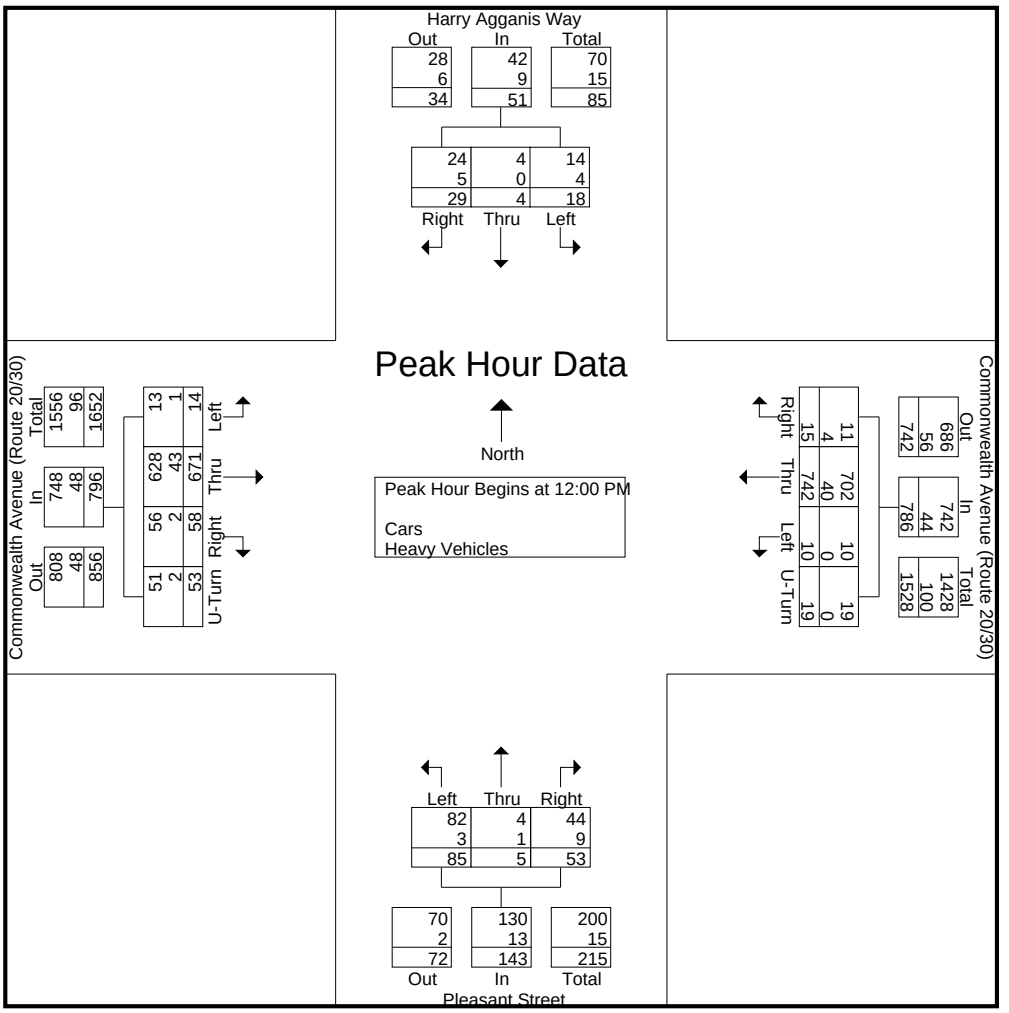
	Harry Agganis Way From North				Commonwealth Avenue (Route 20/30) From East					Pleasant Street From South				Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 12:00 PM																			
12:00 PM	**10**	0	6	16	**7**	171	1	5	184	10	**2**	**30**	**42**	16	162	3	4	185	427
12:15 PM	4	**2**	3	9	1	174	2	**6**	183	**16**	1	15	32	15	**184**	3	**25**	**227**	451
12:30 PM	8	2	**7**	**17**	5	**202**	**4**	4	**215**	14	0	20	34	**18**	164	**7**	15	204	**470**
12:45 PM	7	0	2	9	2	195	3	4	204	13	2	20	35	9	161	1	9	180	428
Total Volume	29	4	18	51	15	742	10	19	786	53	5	85	143	58	671	14	53	796	1776
% App. Total	56.9	7.8	35.3		1.9	94.4	1.3	2.4		37.1	3.5	59.4		7.3	84.3	1.8	6.7		
PHF	.725	.500	.643	.750	.536	.918	.625	.792	.914	.828	.625	.708	.851	.806	.912	.500	.530	.877	.945
Cars	24	4	14	42	11	702	10	19	742	44	4	82	130	56	628	13	51	748	1662
% Cars	82.8	100	77.8	82.4	73.3	94.6	100	100	94.4	83.0	80.0	96.5	90.9	96.6	93.6	92.9	96.2	94.0	93.6
Heavy Vehicles	5	0	4	9	4	40	0	0	44	9	1	3	13	2	43	1	2	48	114
% Heavy Vehicles	17.2	0	22.2	17.6	26.7	5.4	0	0	5.6	17.0	20.0	3.5	9.1	3.4	6.4	7.1	3.8	6.0	6.4



N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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File Name : 122828 H
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	3	8	0	20	140	36	6	33	4	13	0	7	115	0	0	387
07:15 AM	0	1	3	0	13	127	27	10	37	6	14	0	10	196	0	0	444
07:30 AM	0	0	6	0	14	140	53	19	39	7	22	0	15	202	0	0	517
07:45 AM	0	2	7	0	25	156	45	15	42	12	24	0	15	229	0	0	572
Total	2	6	24	0	72	563	161	50	151	29	73	0	47	742	0	0	1920
08:00 AM	0	1	8	0	29	178	47	16	40	7	22	0	13	282	0	0	643
08:15 AM	1	1	16	0	26	157	53	17	47	14	20	0	11	299	0	0	662
08:30 AM	0	4	10	0	38	145	40	16	44	11	25	0	19	273	0	0	625
08:45 AM	3	2	14	0	36	155	45	18	32	16	15	0	17	238	0	0	591
Total	4	8	48	0	129	635	185	67	163	48	82	0	60	1092	0	0	2521
Grand Total	6	14	72	0	201	1198	346	117	314	77	155	0	107	1834	0	0	4441
Apprch %	6.5	15.2	78.3	0	10.8	64.3	18.6	6.3	57.5	14.1	28.4	0	5.5	94.5	0	0	
Total %	0.1	0.3	1.6	0	4.5	27	7.8	2.6	7.1	1.7	3.5	0	2.4	41.3	0	0	
Cars	6	14	59	0	194	1110	340	114	310	76	149	0	95	1736	0	0	4203
% Cars	100	100	81.9	0	96.5	92.7	98.3	97.4	98.7	98.7	96.1	0	88.8	94.7	0	0	94.6
Heavy Vehicles	0	0	13	0	7	88	6	3	4	1	6	0	12	98	0	0	238
% Heavy Vehicles	0	0	18.1	0	3.5	7.3	1.7	2.6	1.3	1.3	3.9	0	11.2	5.3	0	0	5.4

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	1	8	0	9	29	**178**	47	16	**270**	40	7	22	0	69	13	282	0	0	295	643
08:15 AM	1	1	**16**	0	18	26	157	**53**	17	253	**47**	14	20	0	**81**	11	**299**	0	0	**310**	**662**
08:30 AM	0	**4**	10	0	14	**38**	145	40	16	239	44	11	**25**	0	80	**19**	273	0	0	292	625
08:45 AM	**3**	2	14	0	**19**	36	155	45	**18**	254	32	**16**	15	0	63	17	238	0	0	255	591
Total Volume	4	8	48	0	60	129	635	185	67	1016	163	48	82	0	293	60	1092	0	0	1152	2521
% App. Total	6.7	13.3	80	0		12.7	62.5	18.2	6.6		55.6	16.4	28	0		5.2	94.8	0	0		
PHF	.333	.500	.750	.000	.789	.849	.892	.873	.931	.941	.867	.750	.820	.000	.904	.789	.913	.000	.000	.929	.952
Cars	4	8	40	0	52	125	591	180	66	962	162	48	78	0	288	57	1037				
% Cars	100	100	83.3	0	86.7	96.9	93.1	97.3	98.5	94.7	99.4	100	95.1	0	98.3	95.0	95.0	0	0	95.0	95.0
Heavy Vehicles	0	0	8	0	8	4	44	5	1	54	1	0	4	0	5	3	55	0	0	58	125
% Heavy Vehicles	0	0	16.7	0	13.3	3.1	6.9	2.7	1.5	5.3	0.6	0	4.9	0	1.7	5.0	5.0	0	0	5.0	5.0

N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 H
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	3	7	0	18	124	36	6	32	4	13	0	4	109	0	0	358
07:15 AM	0	1	2	0	13	118	26	10	37	6	14	0	8	185	0	0	420
07:30 AM	0	0	4	0	14	133	53	19	39	7	20	0	12	187	0	0	488
07:45 AM	0	2	6	0	24	144	45	13	40	11	24	0	14	218	0	0	541
Total	2	6	19	0	69	519	160	48	148	28	71	0	38	699	0	0	1807
08:00 AM	0	1	6	0	27	166	46	16	40	7	20	0	12	273	0	0	614
08:15 AM	1	1	15	0	26	150	52	16	46	14	20	0	10	284	0	0	635
08:30 AM	0	4	7	0	37	131	38	16	44	11	24	0	19	259	0	0	590
08:45 AM	3	2	12	0	35	144	44	18	32	16	14	0	16	221	0	0	557
Total	4	8	40	0	125	591	180	66	162	48	78	0	57	1037	0	0	2396
Grand Total	6	14	59	0	194	1110	340	114	310	76	149	0	95	1736	0	0	4203
Apprch %	7.6	17.7	74.7	0	11	63.1	19.3	6.5	57.9	14.2	27.9	0	5.2	94.8	0	0	
Total %	0.1	0.3	1.4	0	4.6	26.4	8.1	2.7	7.4	1.8	3.5	0	2.3	41.3	0	0	

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	1	6	0	7	27	**166**	46	16	**255**	40	7	20	0	67	12	273	0	0	285	614
08:15 AM	1	1	**15**	0	**17**	26	150	**52**	16	244	**46**	14	20	0	**80**	10	**284**	0	0	**294**	**635**
08:30 AM	0	**4**	7	0	11	**37**	131	38	16	222	44	11	**24**	0	79	**19**	259	0	0	278	590
08:45 AM	**3**	2	12	0	17	35	144	44	**18**	241	32	**16**	14	0	62	16	221	0	0	237	557
Total Volume	4	8	40	0	52	125	591	180	66	962	162	48	78	0	288	57	1037	0	0	1094	2396
% App. Total	7.7	15.4	76.9	0		13	61.4	18.7	6.9		56.2	16.7	27.1	0		5.2	94.8	0	0		
PHF	.333	.500	.667	.000	.765	.845	.890	.865	.917	.943	.880	.750	.813	.000	.900	.750	.913	.000	.000	.930	.943

PRECISION
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N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 H
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	1	0	2	16	0	0	1	0	0	0	3	6	0	0	29
07:15 AM	0	0	1	0	0	9	1	0	0	0	0	0	2	11	0	0	24
07:30 AM	0	0	2	0	0	7	0	0	0	0	2	0	3	15	0	0	29
07:45 AM	0	0	1	0	1	12	0	2	2	1	0	0	1	11	0	0	31
Total	0	0	5	0	3	44	1	2	3	1	2	0	9	43	0	0	113
08:00 AM	0	0	2	0	2	12	1	0	0	0	2	0	1	9	0	0	29
08:15 AM	0	0	1	0	0	7	1	1	1	0	0	0	1	15	0	0	27
08:30 AM	0	0	3	0	1	14	2	0	0	0	1	0	0	14	0	0	35
08:45 AM	0	0	2	0	1	11	1	0	0	0	1	0	1	17	0	0	34
Total	0	0	8	0	4	44	5	1	1	0	4	0	3	55	0	0	125
Grand Total	0	0	13	0	7	88	6	3	4	1	6	0	12	98	0	0	238
Apprch %	0	0	100	0	6.7	84.6	5.8	2.9	36.4	9.1	54.5	0	10.9	89.1	0	0	
Total %	0	0	5.5	0	2.9	37	2.5	1.3	1.7	0.4	2.5	0	5	41.2	0	0	

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	2	0	2	**2**	12	1	0	15	0	0	**2**	0	**2**	**1**	9	0	0	10	29
08:15 AM	0	0	1	0	1	0	7	1	**1**	9	**1**	0	0	0	1	1	15	0	0	16	27
08:30 AM	0	0	**3**	0	**3**	1	**14**	**2**	0	**17**	0	0	1	0	1	0	14	0	0	14	**35**
08:45 AM	0	0	2	0	2	1	11	1	0	13	0	0	1	0	1	1	**17**	0	0	**18**	34
Total Volume	0	0	8	0	8	4	44	5	1	54	1	0	4	0	5	3	55	0	0	58	125
% App. Total	0	0	100	0		7.4	81.5	9.3	1.9		20	0	80	0		5.2	94.8	0	0		
PHF	.000	.000	.667	.000	.667	.500	.786	.625	.250	.794	.250	.000	.500	.000	.625	.750	.809	.000	.000	.806	.893

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File Name : 122828 H
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	23	0	2	0	3	0	0	0	20	0	18	0	8	74
07:15 AM	0	0	0	34	0	1	0	7	0	2	0	34	0	15	0	10	103
07:30 AM	0	0	0	91	0	7	0	6	0	0	0	53	0	28	0	26	211
07:45 AM	0	0	0	129	0	8	0	6	0	0	0	47	0	17	0	34	241
Total	0	0	0	277	0	18	0	22	0	2	0	154	0	78	0	78	629
08:00 AM	0	0	0	58	1	2	1	9	0	0	0	29	0	27	0	37	164
08:15 AM	0	1	0	77	0	2	0	17	1	0	0	29	1	24	0	40	192
08:30 AM	1	0	0	105	1	3	0	20	0	0	0	66	0	35	0	46	277
08:45 AM	0	0	2	162	1	4	1	42	0	0	0	55	0	19	0	70	356
Total	1	1	2	402	3	11	2	88	1	0	0	179	1	105	0	193	989
Grand Total	1	1	2	679	3	29	2	110	1	2	0	333	1	183	0	271	1618
Apprch %	0.1	0.1	0.3	99.4	2.1	20.1	1.4	76.4	0.3	0.6	0	99.1	0.2	40.2	0	59.6	
Total %	0.1	0.1	0.1	42	0.2	1.8	0.1	6.8	0.1	0.1	0	20.6	0.1	11.3	0	16.7	

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	58	58	**1**	2	**1**	9	13	0	0	0	29	29	0	27	0	37	64	164
08:15 AM	0	**1**	0	77	78	0	2	0	17	19	**1**	0	0	29	30	**1**	24	0	40	65	192
08:30 AM	**1**	0	0	105	106	1	3	0	20	24	0	0	0	**66**	**66**	0	**35**	0	46	81	277
08:45 AM	0	0	**2**	**162**	**164**	1	**4**	1	**42**	**48**	0	0	0	55	55	0	19	0	**70**	**89**	**356**
Total Volume	1	1	2	402	406	3	11	2	88	104	1	0	0	179	180	1	105	0	193	299	989
% App. Total	0.2	0.2	0.5	99		2.9	10.6	1.9	84.6		0.6	0	0	99.4		0.3	35.1	0	64.5		
PHF	.250	.250	.250	.620	.619	.750	.688	.500	.524	.542	.250	.000	.000	.678	.682	.250	.750	.000	.689	.840	.695

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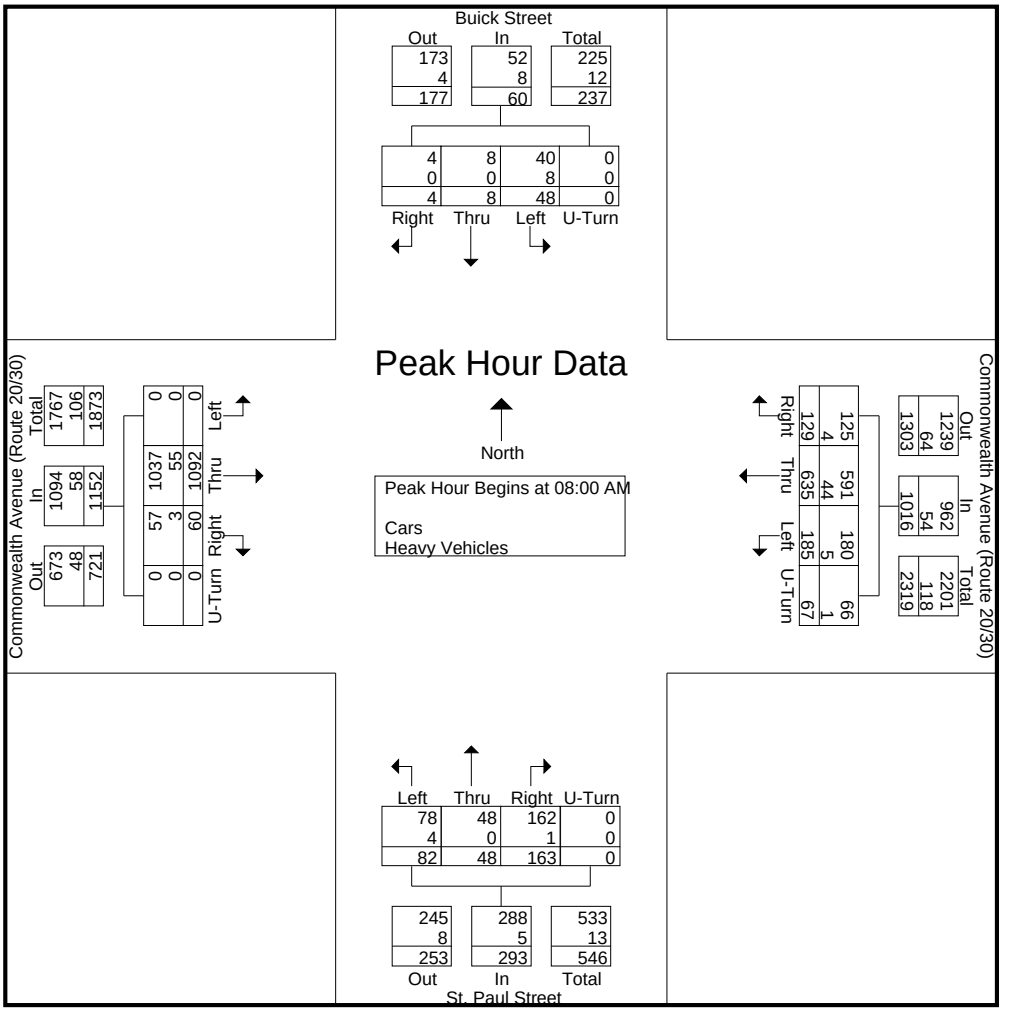
	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	1	8	0	9	29	**178**	47	16	**270**	40	7	22	0	69	13	282	0	0	295	643
08:15 AM	1	1	**16**	0	18	26	157	**53**	17	253	**47**	14	20	0	**81**	11	**299**	0	0	**310**	**662**
08:30 AM	0	**4**	10	0	14	**38**	145	40	16	239	44	11	**25**	0	80	**19**	273	0	0	292	625
08:45 AM	**3**	2	14	0	**19**	36	155	45	**18**	254	32	**16**	15	0	63	17	238	0	0	255	591
Total Volume	4	8	48	0	60	129	635	185	67	1016	163	48	82	0	293	60	1092	0	0	1152	2521
% App. Total	6.7	13.3	80	0		12.7	62.5	18.2	6.6		55.6	16.4	28	0		5.2	94.8	0	0		
PHF	.333	.500	.750	.000	.789	.849	.892	.873	.931	.941	.867	.750	.820	.000	.904	.789	.913	.000	.000	.929	.952
Cars	4	8	40	0	52	125	591	180	66	962	162	48	78	0	288	57	1037				
% Cars	100	100	83.3	0	86.7	96.9	93.1	97.3	98.5	94.7	99.4	100	95.1	0	98.3	95.0	95.0	0	0	95.0	95.0
Heavy Vehicles	0	0	8	0	8	4	44	5	1	54	1	0	4	0	5	3	55	0	0	58	125
% Heavy Vehicles	0	0	16.7	0	13.3	3.1	6.9	2.7	1.5	5.3	0.6	0	4.9	0	1.7	5.0	5.0	0	0	5.0	5.0



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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	1	7	4	0	8	172	44	21	25	0	23	0	17	188	0	0	510
12:15 PM	1	4	10	0	6	188	35	22	18	1	16	0	8	211	0	0	520
12:30 PM	1	2	1	0	6	197	37	21	33	0	24	0	13	189	0	0	524
12:45 PM	2	1	9	0	8	178	34	18	15	2	16	0	22	159	0	0	464
Total	5	14	24	0	28	735	150	82	91	3	79	0	60	747	0	0	2018
01:00 PM	2	2	6	0	4	155	31	20	29	1	16	0	10	176	0	0	452
01:15 PM	1	3	11	0	6	146	44	19	18	2	21	0	13	186	0	0	470
01:30 PM	1	1	8	0	7	175	38	25	23	0	18	0	20	182	0	0	498
01:45 PM	1	0	12	0	3	197	27	26	18	1	19	0	11	197	0	0	512
Total	5	6	37	0	20	673	140	90	88	4	74	0	54	741	0	0	1932
Grand Total	10	20	61	0	48	1408	290	172	179	7	153	0	114	1488	0	0	3950
Apprch %	11	22	67	0	2.5	73.4	15.1	9	52.8	2.1	45.1	0	7.1	92.9	0	0	
Total %	0.3	0.5	1.5	0	1.2	35.6	7.3	4.4	4.5	0.2	3.9	0	2.9	37.7	0	0	
Cars	9	19	54	0	44	1330	286	163	172	7	145	0	108	1378	0	0	3715
% Cars	90	95	88.5	0	91.7	94.5	98.6	94.8	96.1	100	94.8	0	94.7	92.6	0	0	94.1
Heavy Vehicles	1	1	7	0	4	78	4	9	7	0	8	0	6	110	0	0	235
% Heavy Vehicles	10	5	11.5	0	8.3	5.5	1.4	5.2	3.9	0	5.2	0	5.3	7.4	0	0	5.9

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	1	**7**	4	0	12	**8**	172	**44**	21	245	25	0	23	0	48	17	188	0	0	205	510
12:15 PM	1	4	**10**	0	**15**	6	188	35	**22**	251	18	1	16	0	35	8	**211**	0	0	**219**	520
12:30 PM	1	2	1	0	4	6	**197**	37	21	**261**	**33**	0	**24**	0	**57**	13	189	0	0	202	**524**
12:45 PM	**2**	1	9	0	12	8	178	34	18	238	15	**2**	16	0	33	**22**	159	0	0	181	464
Total Volume	5	14	24	0	43	28	735	150	82	995	91	3	79	0	173	60	747	0	0	807	2018
% App. Total	11.6	32.6	55.8	0		2.8	73.9	15.1	8.2		52.6	1.7	45.7	0		7.4	92.6	0	0		
PHF	.625	.500	.600	.000	.717	.875	.933	.852	.932	.953	.689	.375	.823	.000	.759	.682	.885	.000	.000	.921	.963
Cars	5	13	20	0	38	26	697	148	76	947	87	3	74	0	164	56	674	0	0	730	1879
% Cars	100	92.9	83.3	0	88.4	92.9	94.8	98.7	92.7	95.2	95.6	100	93.7	0	94.8	93.3	90.2	0	0	90.5	93.1
Heavy Vehicles																					
% Heavy Vehicles	0	7.1	16.7	0	11.6	7.1	5.2	1.3	7.3	4.8	4.4	0	6.3	0	5.2	6.7	9.8	0	0	9.5	6.9

N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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File Name : 122828 HH
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Cars

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	1	6	4	0	7	161	43	21	25	0	20	0	15	166	0	0	469
12:15 PM	1	4	9	0	6	178	34	21	18	1	16	0	8	195	0	0	491
12:30 PM	1	2	0	0	6	190	37	19	30	0	23	0	13	173	0	0	494
12:45 PM	2	1	7	0	7	168	34	15	14	2	15	0	20	140	0	0	425
Total	5	13	20	0	26	697	148	76	87	3	74	0	56	674	0	0	1879
01:00 PM	1	2	5	0	4	143	30	20	27	1	16	0	8	168	0	0	425
01:15 PM	1	3	10	0	6	139	44	18	18	2	20	0	13	181	0	0	455
01:30 PM	1	1	8	0	5	164	38	23	23	0	17	0	20	167	0	0	467
01:45 PM	1	0	11	0	3	187	26	26	17	1	18	0	11	188	0	0	489
Total	4	6	34	0	18	633	138	87	85	4	71	0	52	704	0	0	1836
Grand Total	9	19	54	0	44	1330	286	163	172	7	145	0	108	1378	0	0	3715
Apprch %	11	23.2	65.9	0	2.4	73	15.7	8.9	53.1	2.2	44.8	0	7.3	92.7	0	0	
Total %	0.2	0.5	1.5	0	1.2	35.8	7.7	4.4	4.6	0.2	3.9	0	2.9	37.1	0	0	

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	1	**6**	4	0	11	**7**	161	**43**	**21**	232	25	0	20	0	45	15	166	0	0	181	469
12:15 PM	1	4	**9**	0	**14**	6	178	34	21	239	18	1	16	0	35	8	**195**	0	0	**203**	491
12:30 PM	1	2	0	0	3	6	**190**	37	19	**252**	**30**	0	**23**	0	**53**	13	173	0	0	186	**494**
12:45 PM	**2**	1	7	0	10	7	168	34	15	224	14	**2**	15	0	31	**20**	140	0	0	160	425
Total Volume	5	13	20	0	38	26	697	148	76	947	87	3	74	0	164	56	674	0	0	730	1879
% App. Total	13.2	34.2	52.6	0		2.7	73.6	15.6	8		53	1.8	45.1	0		7.7	92.3	0	0		
PHF	.625	.542	.556	.000	.679	.929	.917	.860	.905	.939	.725	.375	.804	.000	.774	.700	.864	.000	.000	.899	.951

N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 HH
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Heavy Vehicles

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	1	0	0	1	11	1	0	0	0	3	0	2	22	0	0	41
12:15 PM	0	0	1	0	0	10	1	1	0	0	0	0	0	16	0	0	29
12:30 PM	0	0	1	0	0	7	0	2	3	0	1	0	0	16	0	0	30
12:45 PM	0	0	2	0	1	10	0	3	1	0	1	0	2	19	0	0	39
Total	0	1	4	0	2	38	2	6	4	0	5	0	4	73	0	0	139
01:00 PM	1	0	1	0	0	12	1	0	2	0	0	0	2	8	0	0	27
01:15 PM	0	0	1	0	0	7	0	1	0	0	1	0	0	5	0	0	15
01:30 PM	0	0	0	0	2	11	0	2	0	0	1	0	0	15	0	0	31
01:45 PM	0	0	1	0	0	10	1	0	1	0	1	0	0	9	0	0	23
Total	1	0	3	0	2	40	2	3	3	0	3	0	2	37	0	0	96
Grand Total	1	1	7	0	4	78	4	9	7	0	8	0	6	110	0	0	235
Apprch %	11.1	11.1	77.8	0	4.2	82.1	4.2	9.5	46.7	0	53.3	0	5.2	94.8	0	0	
Total %	0.4	0.4	3	0	1.7	33.2	1.7	3.8	3	0	3.4	0	2.6	46.8	0	0	

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	**1**	0	0	1	**1**	**11**	**1**	0	13	0	0	**3**	0	3	**2**	**22**	0	0	**24**	**41**
12:15 PM	0	0	1	0	1	0	10	1	1	12	0	0	0	0	0	0	16	0	0	16	29
12:30 PM	0	0	1	0	1	0	7	0	2	9	**3**	0	1	0	**4**	0	16	0	0	16	30
12:45 PM	0	0	**2**	0	**2**	1	10	0	**3**	**14**	1	0	1	0	2	2	19	0	0	21	39
Total Volume	0	1	4	0	5	2	38	2	6	48	4	0	5	0	9	4	73	0	0	77	139
% App. Total	0	20	80	0		4.2	79.2	4.2	12.5		44.4	0	55.6	0		5.2	94.8	0	0		
PHF	.000	.250	.500	.000	.625	.500	.864	.500	.500	.857	.333	.000	.417	.000	.563	.500	.830	.000	.000	.802	.848

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N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 HH
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	0	0	270	0	4	0	83	0	0	0	209	0	6	0	99	671
12:15 PM	0	0	1	225	0	9	3	62	0	0	0	206	0	16	0	84	606
12:30 PM	0	0	0	315	0	17	0	61	0	0	0	155	0	16	0	80	644
12:45 PM	0	0	0	373	0	17	0	71	0	0	0	133	0	5	0	81	680
Total	0	0	1	1183	0	47	3	277	0	0	0	703	0	43	0	344	2601
01:00 PM	0	1	0	198	0	9	0	75	0	0	0	102	0	7	0	88	480
01:15 PM	0	0	0	166	0	14	0	50	1	0	1	137	0	15	0	91	475
01:30 PM	0	0	0	246	0	10	0	28	0	0	0	109	0	9	0	60	462
01:45 PM	0	0	1	499	0	21	1	58	1	0	2	95	0	4	0	69	751
Total	0	1	1	1109	0	54	1	211	2	0	3	443	0	35	0	308	2168
Grand Total	0	1	2	2292	0	101	4	488	2	0	3	1146	0	78	0	652	4769
Apprch %	0	0	0.1	99.9	0	17	0.7	82.3	0.2	0	0.3	99.6	0	10.7	0	89.3	
Total %	0	0	0	48.1	0	2.1	0.1	10.2	0	0	0.1	24	0	1.6	0	13.7	

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	270	270	0	4	0	**83**	87	0	0	0	**209**	**209**	0	6	0	**99**	**105**	671
12:15 PM	0	0	**1**	225	226	0	9	**3**	62	74	0	0	0	206	206	0	**16**	0	84	100	606
12:30 PM	0	0	0	315	315	0	**17**	0	61	78	0	0	0	155	155	0	16	0	80	96	644
12:45 PM	0	0	0	**373**	**373**	0	17	0	71	**88**	0	0	0	133	133	0	5	0	81	86	**680**
Total Volume	0	0	1	1183	1184	0	47	3	277	327	0	0	0	703	703	0	43	0	344	387	2601
% App. Total	0	0	0.1	99.9		0	14.4	0.9	84.7		0	0	0	100		0	11.1	0	88.9		
PHF	.000	.000	.250	.793	.794	.000	.691	.250	.834	.929	.000	.000	.000	.841	.841	.000	.672	.000	.869	.921	.956

N/S: Buick Street/ St. Paul Street
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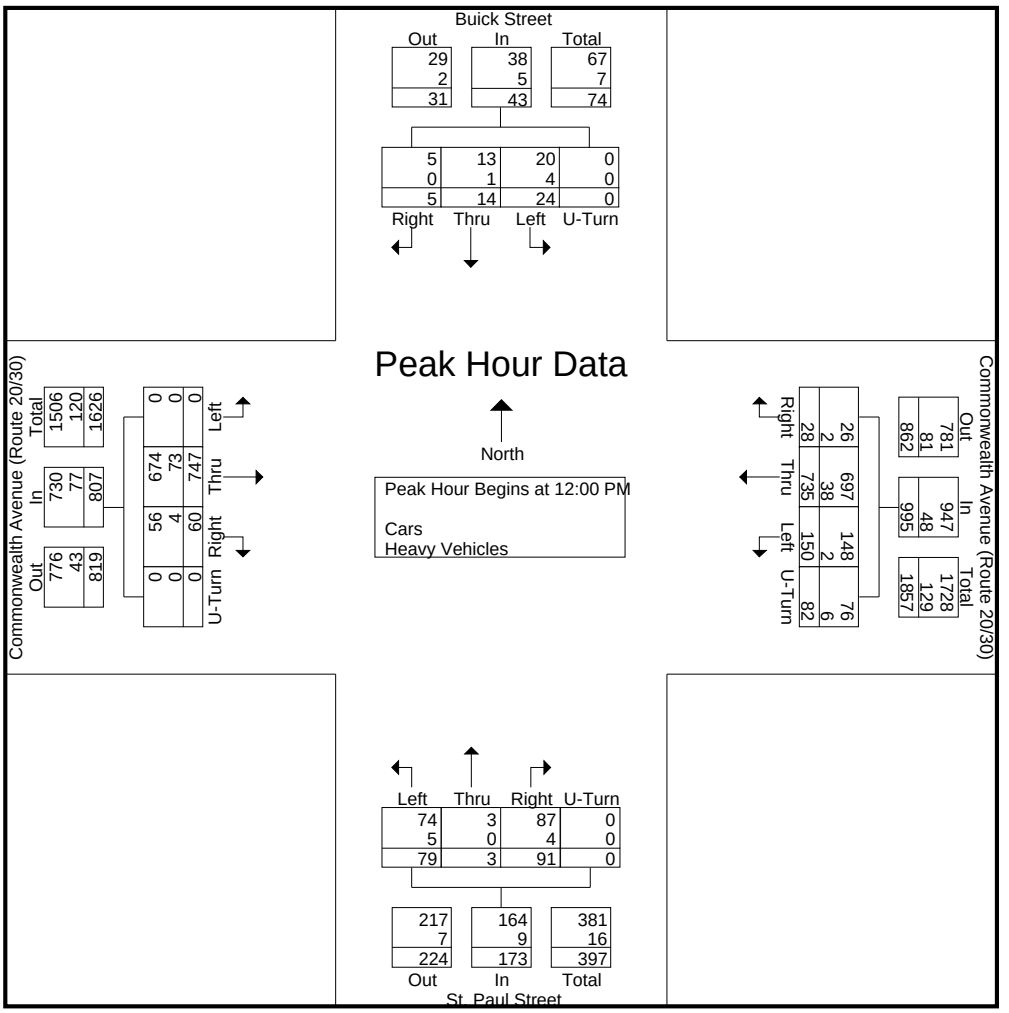
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	1	**7**	4	0	12	**8**	172	**44**	21	245	25	0	23	0	48	17	188	0	0	205	510
12:15 PM	1	4	**10**	0	**15**	6	188	35	**22**	251	18	1	16	0	35	8	**211**	0	0	**219**	520
12:30 PM	1	2	1	0	4	6	**197**	37	21	**261**	**33**	0	**24**	0	**57**	13	189	0	0	202	**524**
12:45 PM	**2**	1	9	0	12	8	178	34	18	238	15	**2**	16	0	33	**22**	159	0	0	181	464
Total Volume	5	14	24	0	43	28	735	150	82	995	91	3	79	0	173	60	747	0	0	807	2018
% App. Total	11.6	32.6	55.8	0		2.8	73.9	15.1	8.2		52.6	1.7	45.7	0		7.4	92.6	0	0		
PHF	.625	.500	.600	.000	.717	.875	.933	.852	.932	.953	.689	.375	.823	.000	.759	.682	.885	.000	.000	.921	.963
Cars	5	13	20	0	38	26	697	148	76	947	87	3	74	0	164	56	674	0	0	730	1879
% Cars	100	92.9	83.3	0	88.4	92.9	94.8	98.7	92.7	95.2	95.6	100	93.7	0	94.8	93.3	90.2	0	0	90.5	93.1
Heavy Vehicles																					
% Heavy Vehicles	0	7.1	16.7	0	11.6	7.1	5.2	1.3	7.3	4.8	4.4	0	6.3	0	5.2	6.7	9.8	0	0	9.5	6.9



N/S: Buick Street/ St. Paul Street
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Groups Printed- Cars - Heavy Vehicles

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	5	10	17	0	8	243	50	21	27	4	24	0	10	168	0	0	587
04:15 PM	6	6	12	0	1	238	51	23	28	2	27	0	9	162	0	0	565
04:30 PM	0	12	18	0	7	237	52	13	29	1	24	0	16	180	0	0	589
04:45 PM	10	6	12	0	7	234	55	15	35	3	31	0	10	180	0	0	598
Total	21	34	59	0	23	952	208	72	119	10	106	0	45	690	0	0	2339
05:00 PM	3	15	26	0	4	259	54	31	35	2	22	0	19	187	0	0	657
05:15 PM	2	14	26	0	12	265	58	26	22	2	24	0	23	201	0	0	675
05:30 PM	3	5	16	0	14	336	72	20	29	2	26	0	19	203	0	0	745
05:45 PM	1	4	18	0	4	331	63	21	23	0	26	0	23	189	0	0	703
Total	9	38	86	0	34	1191	247	98	109	6	98	0	84	780	0	0	2780
Grand Total	30	72	145	0	57	2143	455	170	228	16	204	0	129	1470	0	0	5119
Apprch %	12.1	29.1	58.7	0	2	75.9	16.1	6	50.9	3.6	45.5	0	8.1	91.9	0	0	
Total %	0.6	1.4	2.8	0	1.1	41.9	8.9	3.3	4.5	0.3	4	0	2.5	28.7	0	0	
Cars	30	71	131	0	56	2068	453	168	224	16	200	0	126	1406	0	0	4949
% Cars	100	98.6	90.3	0	98.2	96.5	99.6	98.8	98.2	100	98	0	97.7	95.6	0	0	96.7
Heavy Vehicles	0	1	14	0	1	75	2	2	4	0	4	0	3	64	0	0	170
% Heavy Vehicles	0	1.4	9.7	0	1.8	3.5	0.4	1.2	1.8	0	2	0	2.3	4.4	0	0	3.3

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**3**	**15**	**26**	0	**44**	4	259	54	**31**	348	**35**	**2**	22	0	**59**	19	187	0	0	206	657
05:15 PM	2	14	26	0	42	12	265	58	26	361	22	2	24	0	48	**23**	201	0	0	**224**	675
05:30 PM	3	5	16	0	24	**14**	**336**	**72**	20	**442**	29	2	**26**	0	57	19	**203**	0	0	222	**745**
05:45 PM	1	4	18	0	23	4	331	63	21	419	23	0	26	0	49	23	189	0	0	212	703
Total Volume	9	38	86	0	133	34	1191	247	98	1570	109	6	98	0	213	84	780	0	0	864	2780
% App. Total	6.8	28.6	64.7	0		2.2	75.9	15.7	6.2		51.2	2.8	46	0		9.7	90.3	0	0		
PHF	.750	.633	.827	.000	.756	.607	.886	.858	.790	.888	.779	.750	.942	.000	.903	.913	.961	.000	.000	.964	.933
Cars	9	37	80	0	126	33	1148														
% Cars	100	97.4	93.0	0	94.7	97.1	96.4	100	98.0	97.1	100	100	96.9	0	98.6	97.6	96.5	0	0	96.6	96.9
Heavy Vehicles	0	1	6	0	7	1	43	0	2	46	0	0	3	0	3	2	27	0	0	29	85
% Heavy Vehicles	0	2.6	7.0	0	5.3	2.9	3.6	0	2.0	2.9	0	0	3.1	0	1.4	2.4	3.5	0	0	3.4	3.1

N/S: Buick Street/ St. Paul Street
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Groups Printed- Cars

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	5	10	14	0	8	231	48	21	23	4	24	0	10	160	0	0	558
04:15 PM	6	6	11	0	1	234	51	23	28	2	27	0	8	155	0	0	552
04:30 PM	0	12	16	0	7	226	52	13	29	1	23	0	16	170	0	0	565
04:45 PM	10	6	10	0	7	229	55	15	35	3	31	0	10	168	0	0	579
Total	21	34	51	0	23	920	206	72	115	10	105	0	44	653	0	0	2254
05:00 PM	3	15	24	0	4	250	54	30	35	2	22	0	19	180	0	0	638
05:15 PM	2	14	25	0	12	258	58	26	22	2	23	0	23	194	0	0	659
05:30 PM	3	4	14	0	14	325	72	20	29	2	25	0	18	194	0	0	720
05:45 PM	1	4	17	0	3	315	63	20	23	0	25	0	22	185	0	0	678
Total	9	37	80	0	33	1148	247	96	109	6	95	0	82	753	0	0	2695
Grand Total	30	71	131	0	56	2068	453	168	224	16	200	0	126	1406	0	0	4949
Apprch %	12.9	30.6	56.5	0	2	75.3	16.5	6.1	50.9	3.6	45.5	0	8.2	91.8	0	0	
Total %	0.6	1.4	2.6	0	1.1	41.8	9.2	3.4	4.5	0.3	4	0	2.5	28.4	0	0	

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**3**	**15**	24	0	**42**	4	250	54	**30**	338	**35**	**2**	22	0	**59**	19	180	0	0	199	638
05:15 PM	2	14	**25**	0	41	12	258	58	26	354	22	2	23	0	47	**23**	**194**	0	0	**217**	659
05:30 PM	3	4	14	0	21	**14**	**325**	**72**	20	**431**	29	2	**25**	0	56	18	194	0	0	212	**720**
05:45 PM	1	4	17	0	22	3	315	63	20	401	23	0	25	0	48	22	185	0	0	207	678
Total Volume	9	37	80	0	126	33	1148	247	96	1524	109	6	95	0	210	82	753	0	0	835	2695
% App. Total	7.1	29.4	63.5	0		2.2	75.3	16.2	6.3		51.9	2.9	45.2	0		9.8	90.2	0	0		
PHF	.750	.617	.800	.000	.750	.589	.883	.858	.800	.884	.779	.750	.950	.000	.890	.891	.970	.000	.000	.962	.936

PRECISION
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N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 HHH
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	3	0	0	12	2	0	4	0	0	0	0	8	0	0	29
04:15 PM	0	0	1	0	0	4	0	0	0	0	0	0	1	7	0	0	13
04:30 PM	0	0	2	0	0	11	0	0	0	0	1	0	0	10	0	0	24
04:45 PM	0	0	2	0	0	5	0	0	0	0	0	0	0	12	0	0	19
Total	0	0	8	0	0	32	2	0	4	0	1	0	1	37	0	0	85
05:00 PM	0	0	2	0	0	9	0	1	0	0	0	0	0	7	0	0	19
05:15 PM	0	0	1	0	0	7	0	0	0	0	1	0	0	7	0	0	16
05:30 PM	0	1	2	0	0	11	0	0	0	0	1	0	1	9	0	0	25
05:45 PM	0	0	1	0	1	16	0	1	0	0	1	0	1	4	0	0	25
Total	0	1	6	0	1	43	0	2	0	0	3	0	2	27	0	0	85
Grand Total	0	1	14	0	1	75	2	2	4	0	4	0	3	64	0	0	170
Apprch %	0	6.7	93.3	0	1.2	93.8	2.5	2.5	50	0	50	0	4.5	95.5	0	0	
Total %	0	0.6	8.2	0	0.6	44.1	1.2	1.2	2.4	0	2.4	0	1.8	37.6	0	0	

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	**3**	0	**3**	0	**12**	**2**	0	**14**	**4**	0	0	0	**4**	0	8	0	0	8	**29**
04:15 PM	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	**1**	7	0	0	8	13
04:30 PM	0	0	2	0	2	0	11	0	0	11	0	0	**1**	0	1	0	10	0	0	10	24
04:45 PM	0	0	2	0	2	0	5	0	0	5	0	0	0	0	0	0	**12**	0	0	**12**	19
Total Volume	0	0	8	0	8	0	32	2	0	34	4	0	1	0	5	1	37	0	0	38	85
% App. Total	0	0	100	0		0	94.1	5.9	0		80	0	20	0		2.6	97.4	0	0		
PHF	.000	.000	.667	.000	.667	.000	.667	.250	.000	.607	.250	.000	.250	.000	.313	.250	.771	.000	.000	.792	.733

PRECISION
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N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 HHH
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Buick Street From North				Commonwealth Avenue (Route 20/30) From East				St. Paul Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	236	0	21	0	37	0	0	0	32	0	0	0	77	403
04:15 PM	0	1	0	158	0	28	3	26	0	0	0	43	0	1	0	62	322
04:30 PM	0	0	0	224	0	32	0	24	0	0	0	37	0	2	0	55	374
04:45 PM	0	0	0	303	3	44	2	46	0	0	1	68	0	4	0	78	549
Total	0	1	0	921	3	125	5	133	0	0	1	180	0	7	0	272	1648
05:00 PM	0	2	1	444	1	48	0	41	0	0	0	50	0	2	0	103	692
05:15 PM	0	0	0	277	0	49	2	54	0	0	0	78	0	2	0	74	536
05:30 PM	1	1	0	288	0	54	1	36	0	0	0	72	0	1	0	58	512
05:45 PM	0	3	0	299	0	47	0	44	0	0	1	73	0	1	0	60	528
Total	1	6	1	1308	1	198	3	175	0	0	1	273	0	6	0	295	2268
Grand Total	1	7	1	2229	4	323	8	308	0	0	2	453	0	13	0	567	3916
Apprch %	0	0.3	0	99.6	0.6	50.2	1.2	47.9	0	0	0.4	99.6	0	2.2	0	97.8	
Total %	0	0.2	0	56.9	0.1	8.2	0.2	7.9	0	0	0.1	11.6	0	0.3	0	14.5	

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	303	303	**3**	44	**2**	46	95	0	0	**1**	68	69	0	**4**	0	78	82	549
05:00 PM	0	**2**	**1**	**444**	**447**	1	48	0	41	90	0	0	0	50	50	0	2	0	**103**	**105**	**692**
05:15 PM	0	0	0	277	277	0	49	2	**54**	**105**	0	0	0	**78**	**78**	0	2	0	74	76	536
05:30 PM	**1**	1	0	288	290	0	**54**	1	36	91	0	0	0	72	72	0	1	0	58	59	512
Total Volume	1	3	1	1312	1317	4	195	5	177	381	0	0	1	268	269	0	9	0	313	322	2289
% App. Total	0.1	0.2	0.1	99.6		1	51.2	1.3	46.5		0	0	0.4	99.6		0	2.8	0	97.2		
PHF	.250	.375	.250	.739	.737	.333	.903	.625	.819	.907	.000	.000	.250	.859	.862	.000	.563	.000	.760	.767	.827

N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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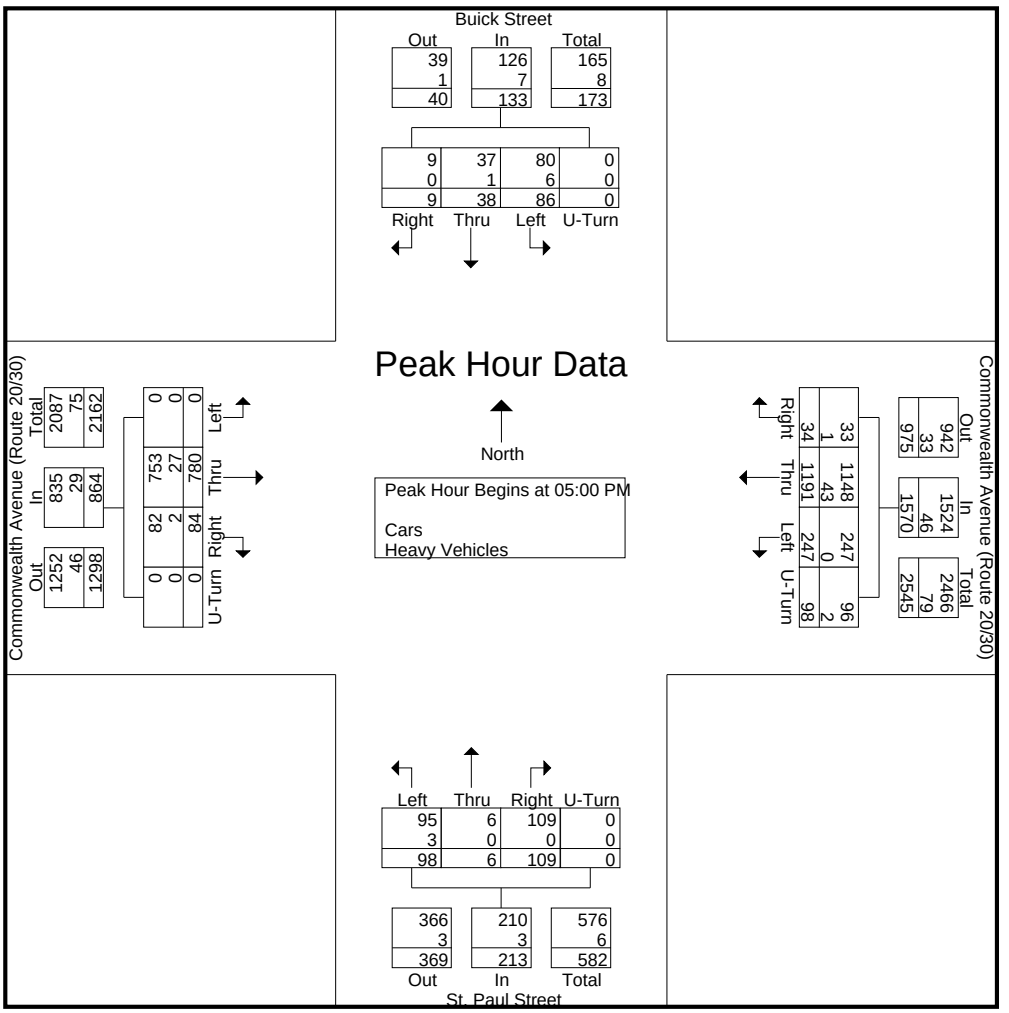
File Name : 122828 HHH
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Buick Street From North					Commonwealth Avenue (Route 20/30) From East					St. Paul Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**3**	**15**	**26**	0	**44**	4	259	54	**31**	348	**35**	**2**	22	0	**59**	19	187	0	0	206	657
05:15 PM	2	14	26	0	42	12	265	58	26	361	22	2	24	0	48	**23**	201	0	0	**224**	675
05:30 PM	3	5	16	0	24	**14**	**336**	**72**	20	**442**	29	2	**26**	0	57	19	**203**	0	0	222	**745**
05:45 PM	1	4	18	0	23	4	331	63	21	419	23	0	26	0	49	23	189	0	0	212	703
Total Volume	9	38	86	0	133	34	1191	247	98	1570	109	6	98	0	213	84	780	0	0	864	2780
% App. Total	6.8	28.6	64.7	0		2.2	75.9	15.7	6.2		51.2	2.8	46	0		9.7	90.3	0	0		
PHF	.750	.633	.827	.000	.756	.607	.886	.858	.790	.888	.779	.750	.942	.000	.903	.913	.961	.000	.000	.964	.933
Cars	9	37	80	0	126	33	1148														
% Cars	100	97.4	93.0	0	94.7	97.1	96.4	100	98.0	97.1	100	100	96.9	0	98.6	97.6	96.5	0	0	96.6	96.9
Heavy Vehicles	0	1	6	0	7	1	43	0	2	46	0	0	3	0	3	2	27	0	0	29	85
% Heavy Vehicles	0	2.6	7.0	0	5.3	2.9	3.6	0	2.0	2.9	0	0	3.1	0	1.4	2.4	3.5	0	0	3.4	3.1



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S: Armory Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 II
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East		Armory Street From South		Commonwealth Avenue (Route 20/30) From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
12:00 PM	137	0	5	0	16	189	347
12:15 PM	181	0	11	0	20	217	429
12:30 PM	219	0	23	0	7	220	469
12:45 PM	213	0	19	0	7	213	452
Total	750	0	58	0	50	839	1697
01:00 PM	207	0	15	0	16	209	447
01:15 PM	201	0	15	0	10	207	433
01:30 PM	204	0	9	0	13	202	428
01:45 PM	235	0	18	0	14	247	514
Total	847	0	57	0	53	865	1822
Grand Total	1597	0	115	0	103	1704	3519
Apprch %	100	0	100	0	5.7	94.3	
Total %	45.4	0	3.3	0	2.9	48.4	
Cars	1531	0	112	0	100	1617	3360
% Cars	95.9	0	97.4	0	97.1	94.9	95.5
Heavy Vehicles	66	0	3	0	3	87	159
% Heavy Vehicles	4.1	0	2.6	0	2.9	5.1	4.5

	Commonwealth Avenue (Route 20/30) From East			Armory Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:00 PM										
01:00 PM	207	0	207	15	0	15	**16**	209	225	447
01:15 PM	201	0	201	15	0	15	10	207	217	433
01:30 PM	204	0	204	9	0	9	13	202	215	428
01:45 PM	**235**	0	**235**	**18**	0	**18**	14	**247**	**261**	**514**
Total Volume	847	0	847	57	0	57	53	865	918	1822
% App. Total	100	0		100	0		5.8	94.2		
PHF	.901	.000	.901	.792	.000	.792	.828	.876	.879	.886
Cars	816	0	816	56	0	56	52	833	885	1757
% Cars	96.3	0	96.3	98.2	0	98.2	98.1	96.3	96.4	96.4
Heavy Vehicles	31	0	31	1	0	1	1	32	33	65
% Heavy Vehicles	3.7	0	3.7	1.8	0	1.8	1.9	3.7	3.6	3.6

S: Armory Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 II
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Commonwealth Avenue (Route 20/30) From East		Armory Street From South		Commonwealth Avenue (Route 20/30) From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
12:00 PM	130	0	5	0	16	179	330
12:15 PM	170	0	11	0	19	204	404
12:30 PM	213	0	23	0	7	204	447
12:45 PM	202	0	17	0	6	197	422
Total	715	0	56	0	48	784	1603
01:00 PM	200	0	14	0	16	200	430
01:15 PM	196	0	15	0	10	205	426
01:30 PM	194	0	9	0	12	190	405
01:45 PM	226	0	18	0	14	238	496
Total	816	0	56	0	52	833	1757
Grand Total	1531	0	112	0	100	1617	3360
Apprch %	100	0	100	0	5.8	94.2	
Total %	45.6	0	3.3	0	3	48.1	

	Commonwealth Avenue (Route 20/30) From East			Armory Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:00 PM										
01:00 PM	200	0	200	14	0	14	**16**	200	216	430
01:15 PM	196	0	196	15	0	15	10	205	215	426
01:30 PM	194	0	194	9	0	9	12	190	202	405
01:45 PM	**226**	0	**226**	**18**	0	**18**	14	**238**	**252**	**496**
Total Volume	816	0	816	56	0	56	52	833	885	1757
% App. Total	100	0		100	0		5.9	94.1		
PHF	.903	.000	.903	.778	.000	.778	.813	.875	.878	.886

PRECISION
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S: Armory Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 II
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East		Armory Street From South		Commonwealth Avenue (Route 20/30) From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
12:00 PM	7	0	0	0	0	10	17
12:15 PM	11	0	0	0	1	13	25
12:30 PM	6	0	0	0	0	16	22
12:45 PM	11	0	2	0	1	16	30
Total	35	0	2	0	2	55	94
01:00 PM	7	0	1	0	0	9	17
01:15 PM	5	0	0	0	0	2	7
01:30 PM	10	0	0	0	1	12	23
01:45 PM	9	0	0	0	0	9	18
Total	31	0	1	0	1	32	65
Grand Total	66	0	3	0	3	87	159
Apprch %	100	0	100	0	3.3	96.7	
Total %	41.5	0	1.9	0	1.9	54.7	

	Commonwealth Avenue (Route 20/30) From East			Armory Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	7	0	7	0	0	0	0	10	10	17
12:15 PM	**11**	0	**11**	0	0	0	**1**	13	14	25
12:30 PM	6	0	6	0	0	0	0	**16**	16	22
12:45 PM	11	0	11	**2**	0	**2**	1	16	**17**	**30**
Total Volume	35	0	35	2	0	2	2	55	57	94
% App. Total	100	0		100	0		3.5	96.5		
PHF	.795	.000	.795	.250	.000	.250	.500	.859	.838	.783

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S: Armory Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 II
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Trains

	Commonwealth Avenue (Route 20/30) From East		Armory Street From South		Commonwealth Avenue (Route 20/30) From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
12:00 PM	4	0	0	0	0	2	6
12:15 PM	1	0	0	0	0	2	3
12:30 PM	1	0	0	0	0	2	3
12:45 PM	2	0	0	0	0	2	4
Total	8	0	0	0	0	8	16
01:00 PM	2	0	0	0	0	2	4
01:15 PM	3	0	0	0	0	1	4
01:30 PM	2	0	0	0	0	2	4
01:45 PM	2	0	0	0	0	1	3
Total	9	0	0	0	0	6	15
Grand Total	17	0	0	0	0	14	31
Apprch %	100	0	0	0	0	100	
Total %	54.8	0	0	0	0	45.2	

	Commonwealth Avenue (Route 20/30) From East			Armory Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	**4**	0	**4**	0	0	0	0	**2**	**2**	**6**
12:15 PM	1	0	1	0	0	0	0	2	2	3
12:30 PM	1	0	1	0	0	0	0	2	2	3
12:45 PM	2	0	2	0	0	0	0	2	2	4
Total Volume	8	0	8	0	0	0	0	8	8	16
% App. Total	100	0		0	0		0	100		
PHF	.500	.000	.500	.000	.000	.000	.000	1.00	1.00	.667

PRECISION
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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

S: Armory Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 II
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Commonwealth Avenue (Route 20/30) From East			Armory Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
12:00 PM	6	0	0	0	0	105	0	20	117	248
12:15 PM	10	0	0	2	0	107	0	36	160	315
12:30 PM	10	0	0	0	0	90	0	21	156	277
12:45 PM	9	1	0	0	0	85	0	16	115	226
Total	35	1	0	2	0	387	0	93	548	1066
01:00 PM	16	0	0	0	0	77	0	21	109	223
01:15 PM	8	0	0	0	0	64	0	20	67	159
01:30 PM	7	0	0	0	0	91	0	29	119	246
01:45 PM	11	0	0	0	0	147	1	26	183	368
Total	42	0	0	0	0	379	1	96	478	996
Grand Total	77	1	0	2	0	766	1	189	1026	2062
Apprch %	98.7	1.3	0	0.3	0	99.7	0.1	15.5	84.4	
Total %	3.7	0	0	0.1	0	37.1	0	9.2	49.8	

	Commonwealth Avenue (Route 20/30) From East				Armory Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	6	0	0	6	0	0	105	105	0	20	117	137	248
12:15 PM	**10**	0	0	**10**	**2**	0	**107**	**109**	0	**36**	**160**	**196**	**315**
12:30 PM	10	0	0	10	0	0	90	90	0	21	156	177	277
12:45 PM	9	**1**	0	10	0	0	85	85	0	16	115	131	226
Total Volume	35	1	0	36	2	0	387	389	0	93	548	641	1066
% App. Total	97.2	2.8	0		0.5	0	99.5		0	14.5	85.5		
PHF	.875	.250	.000	.900	.250	.000	.904	.892	.000	.646	.856	.818	.846

PRECISION
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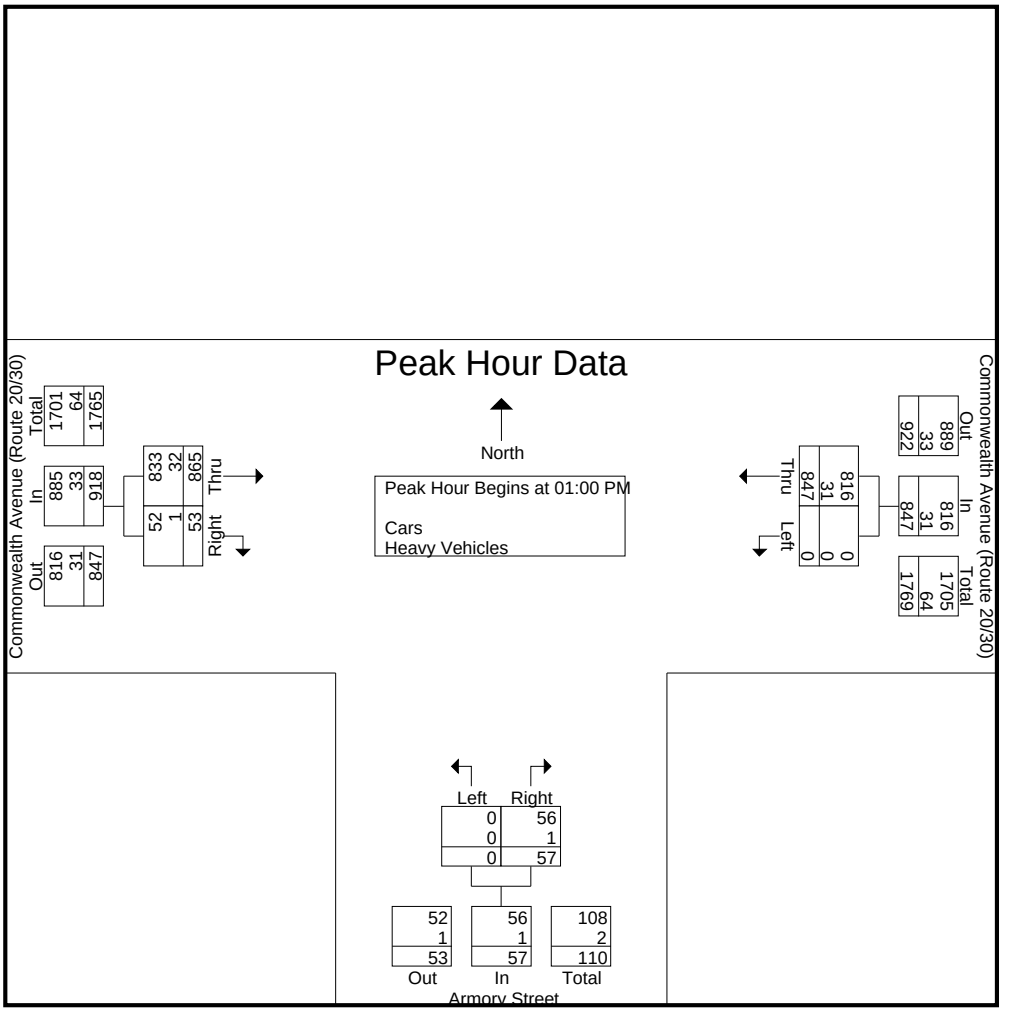
S: Armory Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 II
Site Code : 127-4220
Start Date : 3/20/2012

	Commonwealth Avenue (Route 20/30) From East			Armory Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:00 PM										
01:00 PM	207	0	207	15	0	15	**16**	209	225	447
01:15 PM	201	0	201	15	0	15	10	207	217	433
01:30 PM	204	0	204	9	0	9	13	202	215	428
01:45 PM	**235**	0	**235**	**18**	0	**18**	14	**247**	**261**	**514**
Total Volume	847	0	847	57	0	57	53	865	918	1822
% App. Total	100	0		100	0		5.8	94.2		
PHF	.901	.000	.901	.792	.000	.792	.828	.876	.879	.886
Cars	816	0	816	56	0	56	52	833	885	1757
% Cars	96.3	0	96.3	98.2	0	98.2	98.1	96.3	96.4	96.4
Heavy Vehicles	31	0	31	1	0	1	1	32	33	65
% Heavy Vehicles	3.7	0	3.7	1.8	0	1.8	1.9	3.7	3.6	3.6



N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 JJ
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	B.U. Bridge From North				Commonwealth Avenue (Route 20/30) From East				Essex Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	56	98	0	0	133	182	0	0	0	30	1	0	63	151	0	0	714
12:15 PM	55	122	1	0	146	198	0	0	0	43	0	0	69	186	0	0	820
12:30 PM	55	105	3	0	135	221	0	0	2	68	2	0	88	195	0	0	874
12:45 PM	47	114	2	0	117	180	0	0	0	49	1	0	75	153	0	0	738
Total	213	439	6	0	531	781	0	0	2	190	4	0	295	685	0	0	3146
01:00 PM	42	109	1	0	136	166	0	0	4	45	1	0	70	150	0	0	724
01:15 PM	52	122	2	0	136	158	0	0	0	48	0	0	76	161	0	0	755
01:30 PM	55	109	2	0	118	161	1	0	0	41	1	0	70	152	0	0	710
01:45 PM	59	118	2	0	140	183	0	0	1	43	0	0	65	192	0	0	803
Total	208	458	7	0	530	668	1	0	5	177	2	0	281	655	0	0	2992
Grand Total	421	897	13	0	1061	1449	1	0	7	367	6	0	576	1340	0	0	6138
Apprch %	31.6	67.4	1	0	42.3	57.7	0	0	1.8	96.6	1.6	0	30.1	69.9	0	0	
Total %	6.9	14.6	0.2	0	17.3	23.6	0	0	0.1	6	0.1	0	9.4	21.8	0	0	
Cars	409	873	13	0	1030	1361	1	0	7	356	6	0	561	1247	0	0	5864
% Cars	97.1	97.3	100	0	97.1	93.9	100	0	100	97	100	0	97.4	93.1	0	0	95.5
Heavy Vehicles	12	24	0	0	31	88	0	0	0	11	0	0	15	93	0	0	274
% Heavy Vehicles	2.9	2.7	0	0	2.9	6.1	0	0	0	3	0	0	2.6	6.9	0	0	4.5

	B.U. Bridge From North					Commonwealth Avenue (Route 20/30) From East					Essex Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	**55**	**122**	1	0	**178**	**146**	198	0	0	344	0	43	0	0	43	69	186	0	0	255	820
12:30 PM	55	105	**3**	0	163	135	**221**	0	0	**356**	2	**68**	**2**	0	**72**	**88**	**195**	0	0	**283**	**874**
12:45 PM	47	114	2	0	163	117	180	0	0	297	0	49	1	0	50	75	153	0	0	228	738
01:00 PM	42	109	1	0	152	136	166	0	0	302	**4**	45	1	0	50	70	150	0	0	220	724
Total Volume	199	450	7	0	656	534	765	0	0	1299	6	205	4	0	215	302	684	0	0	986	3156
% App. Total	30.3	68.6	1.1	0		41.1	58.9	0	0		2.8	95.3	1.9	0		30.6	69.4	0	0		
PHF	.905	.922	.583	.000	.921	.914	.865	.000	.000	.912	.375	.754	.500	.000	.747	.858	.877	.000	.000	.871	.903
Cars	193	436	7	0	636	517	716	0	0	1233	6	200	4	0	210	294	636	0	0	930	3009
% Cars	97.0	96.9	100	0	97.0	96.8	93.6	0	0	94.9	100	97.6	100	0	97.7	97.4	93.0	0	0	94.3	95.3
Heavy Vehicles																					
% Heavy Vehicles	3.0	3.1	0	0	3.0	3.2	6.4	0	0	5.1	0	2.4	0	0	2.3	2.6	7.0	0	0	5.7	4.7

N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 JJ
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	B.U. Bridge From North				Commonwealth Avenue (Route 20/30) From East				Essex Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	56	95	0	0	127	168	0	0	0	28	1	0	62	140	0	0	677
12:15 PM	53	119	1	0	141	185	0	0	0	43	0	0	68	178	0	0	788
12:30 PM	52	99	3	0	131	212	0	0	2	64	2	0	85	179	0	0	829
12:45 PM	46	110	2	0	113	165	0	0	0	49	1	0	74	142	0	0	702
Total	207	423	6	0	512	730	0	0	2	184	4	0	289	639	0	0	2996
01:00 PM	42	108	1	0	132	154	0	0	4	44	1	0	67	137	0	0	690
01:15 PM	50	121	2	0	134	151	0	0	0	48	0	0	74	149	0	0	729
01:30 PM	53	107	2	0	117	151	1	0	0	39	1	0	66	142	0	0	679
01:45 PM	57	114	2	0	135	175	0	0	1	41	0	0	65	180	0	0	770
Total	202	450	7	0	518	631	1	0	5	172	2	0	272	608	0	0	2868
Grand Total	409	873	13	0	1030	1361	1	0	7	356	6	0	561	1247	0	0	5864
Apprch %	31.6	67.4	1	0	43.1	56.9	0	0	1.9	96.5	1.6	0	31	69	0	0	
Total %	7	14.9	0.2	0	17.6	23.2	0	0	0.1	6.1	0.1	0	9.6	21.3	0	0	

	B.U. Bridge From North					Commonwealth Avenue (Route 20/30) From East					Essex Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	**53**	**119**	1	0	**173**	**141**	185	0	0	326	0	43	0	0	43	68	178	0	0	246	788
12:30 PM	52	99	**3**	0	154	131	**212**	0	0	**343**	2	**64**	**2**	0	**68**	**85**	**179**	0	0	**264**	**829**
12:45 PM	46	110	2	0	158	113	165	0	0	278	0	49	1	0	50	74	142	0	0	216	702
01:00 PM	42	108	1	0	151	132	154	0	0	286	**4**	44	1	0	49	67	137	0	0	204	690
Total Volume	193	436	7	0	636	517	716	0	0	1233	6	200	4	0	210	294	636	0	0	930	3009
% App. Total	30.3	68.6	1.1	0		41.9	58.1	0	0		2.9	95.2	1.9	0		31.6	68.4	0	0		
PHF	.910	.916	.583	.000	.919	.917	.844	.000	.000	.899	.375	.781	.500	.000	.772	.865	.888	.000	.000	.881	.907

N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 JJ
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	B.U. Bridge From North				Commonwealth Avenue (Route 20/30) From East				Essex Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	3	0	0	6	14	0	0	0	2	0	0	1	11	0	0	37
12:15 PM	2	3	0	0	5	13	0	0	0	0	0	0	1	8	0	0	32
12:30 PM	3	6	0	0	4	9	0	0	0	4	0	0	3	16	0	0	45
12:45 PM	1	4	0	0	4	15	0	0	0	0	0	0	1	11	0	0	36
Total	6	16	0	0	19	51	0	0	0	6	0	0	6	46	0	0	150
01:00 PM	0	1	0	0	4	12	0	0	0	1	0	0	3	13	0	0	34
01:15 PM	2	1	0	0	2	7	0	0	0	0	0	0	2	12	0	0	26
01:30 PM	2	2	0	0	1	10	0	0	0	2	0	0	4	10	0	0	31
01:45 PM	2	4	0	0	5	8	0	0	0	2	0	0	0	12	0	0	33
Total	6	8	0	0	12	37	0	0	0	5	0	0	9	47	0	0	124
Grand Total	12	24	0	0	31	88	0	0	0	11	0	0	15	93	0	0	274
Apprch %	33.3	66.7	0	0	26.1	73.9	0	0	0	100	0	0	13.9	86.1	0	0	
Total %	4.4	8.8	0	0	11.3	32.1	0	0	0	4	0	0	5.5	33.9	0	0	

	B.U. Bridge From North					Commonwealth Avenue (Route 20/30) From East					Essex Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	3	0	0	3	**6**	14	0	0	**20**	0	2	0	0	2	1	11	0	0	12	37
12:15 PM	2	3	0	0	5	5	13	0	0	18	0	0	0	0	0	1	8	0	0	9	32
12:30 PM	**3**	**6**	0	0	**9**	4	9	0	0	13	0	**4**	0	0	**4**	**3**	**16**	0	0	**19**	**45**
12:45 PM	1	4	0	0	5	4	**15**	0	0	19	0	0	0	0	0	1	11	0	0	12	36
Total Volume	6	16	0	0	22	19	51	0	0	70	0	6	0	0	6	6	46	0	0	52	150
% App. Total	27.3	72.7	0	0		27.1	72.9	0	0		0	100	0	0		11.5	88.5	0	0		
PHF	.500	.667	.000	.000	.611	.792	.850	.000	.000	.875	.000	.375	.000	.000	.375	.500	.719	.000	.000	.684	.833

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File Name : 122828 JJ
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Page No : 1

Groups Printed- Peds and Bicycles

	B.U. Bridge From North				Commonwealth Avenue (Route 20/30) From East				Essex Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	1	7	0	298	8	7	0	15	0	0	0	74	0	18	0	5	433
12:15 PM	1	11	0	361	5	28	0	9	0	0	0	83	0	34	0	10	542
12:30 PM	2	9	0	342	2	12	0	11	0	2	0	62	1	20	0	7	470
12:45 PM	4	5	0	274	3	14	0	9	0	0	0	62	0	17	0	8	396
Total	8	32	0	1275	18	61	0	44	0	2	0	281	1	89	0	30	1841
01:00 PM	0	5	0	187	5	5	0	5	0	0	0	59	1	22	0	8	297
01:15 PM	1	6	1	175	8	8	0	4	0	0	0	55	3	19	0	14	294
01:30 PM	0	8	0	246	4	5	0	0	0	2	0	84	2	22	1	9	383
01:45 PM	2	1	0	570	5	15	0	6	0	1	0	207	3	23	0	12	845
Total	3	20	1	1178	22	33	0	15	0	3	0	405	9	86	1	43	1819
Grand Total	11	52	1	2453	40	94	0	59	0	5	0	686	10	175	1	73	3660
Apprch %	0.4	2.1	0	97.5	20.7	48.7	0	30.6	0	0.7	0	99.3	3.9	67.6	0.4	28.2	
Total %	0.3	1.4	0	67	1.1	2.6	0	1.6	0	0.1	0	18.7	0.3	4.8	0	2	

	B.U. Bridge From North					Commonwealth Avenue (Route 20/30) From East					Essex Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	1	7	0	298	306	**8**	7	0	**15**	30	0	0	0	74	74	0	18	0	5	23	433
12:15 PM	1	**11**	0	**361**	**373**	5	**28**	0	9	**42**	0	0	0	**83**	**83**	0	**34**	0	**10**	**44**	**542**
12:30 PM	2	9	0	342	353	2	12	0	11	25	0	**2**	0	62	64	**1**	20	0	7	28	470
12:45 PM	**4**	5	0	274	283	3	14	0	9	26	0	0	0	62	62	0	17	0	8	25	396
Total Volume	8	32	0	1275	1315	18	61	0	44	123	0	2	0	281	283	1	89	0	30	120	1841
% App. Total	0.6	2.4	0	97		14.6	49.6	0	35.8		0	0.7	0	99.3		0.8	74.2	0	25		
PHF	.500	.727	.000	.883	.881	.563	.545	.000	.733	.732	.000	.250	.000	.846	.852	.250	.654	.000	.750	.682	.849

N/S: BU Bridge/ Essex Street
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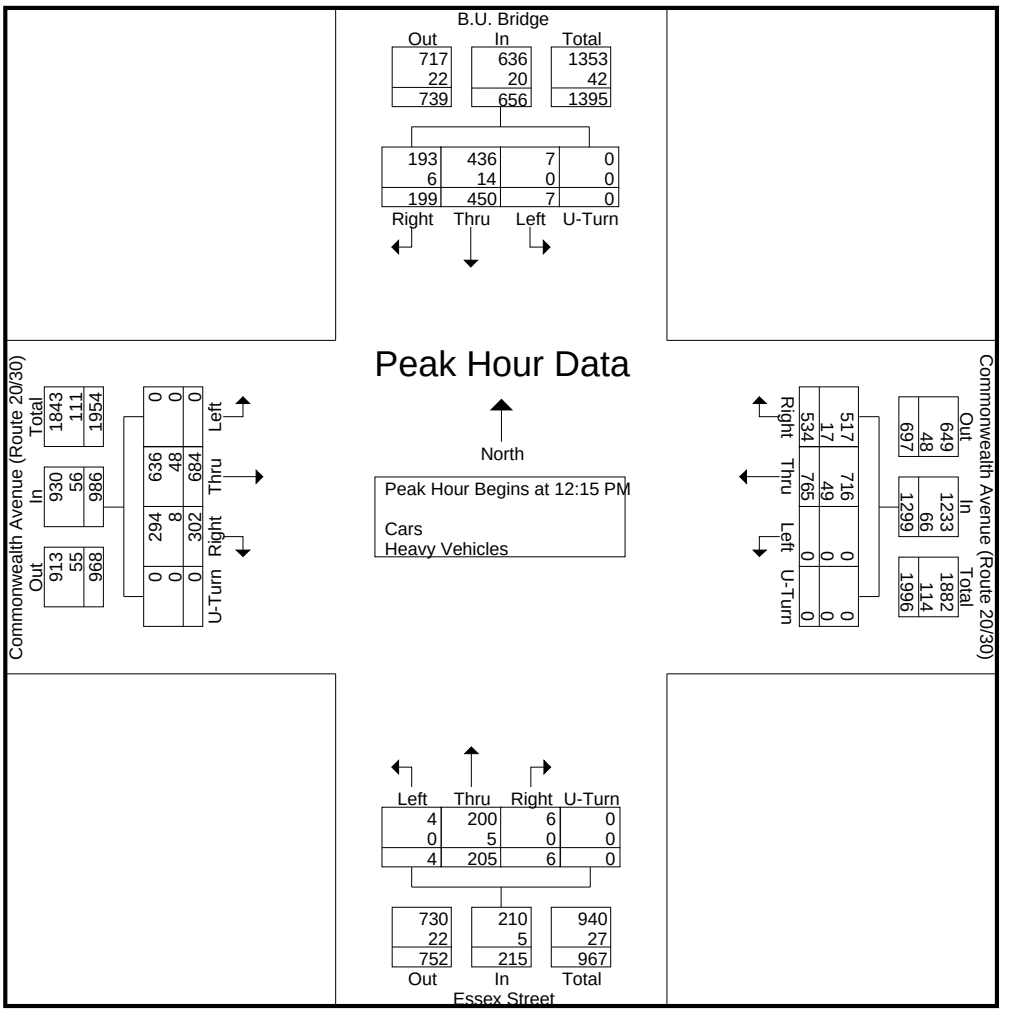
	B.U. Bridge From North					Commonwealth Avenue (Route 20/30) From East					Essex Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	**55**	**122**	1	0	**178**	**146**	198	0	0	344	0	43	0	0	43	69	186	0	0	255	820
12:30 PM	55	105	**3**	0	163	135	**221**	0	0	**356**	2	**68**	**2**	0	**72**	**88**	**195**	0	0	**283**	**874**
12:45 PM	47	114	2	0	163	117	180	0	0	297	0	49	1	0	50	75	153	0	0	228	738
01:00 PM	42	109	1	0	152	136	166	0	0	302	**4**	45	1	0	50	70	150	0	0	220	724
Total Volume	199	450	7	0	656	534	765	0	0	1299	6	205	4	0	215	302	684	0	0	986	3156
% App. Total	30.3	68.6	1.1	0		41.1	58.9	0	0		2.8	95.3	1.9	0		30.6	69.4	0	0		
PHF	.905	.922	.583	.000	.921	.914	.865	.000	.000	.912	.375	.754	.500	.000	.747	.858	.877	.000	.000	.871	.903
Cars	193	436	7	0	636	517	716	0	0	1233	6	200	4	0	210	294	636	0	0	930	3009
% Cars	97.0	96.9	100	0	97.0	96.8	93.6	0	0	94.9	100	97.6	100	0	97.7	97.4	93.0	0	0	94.3	95.3
Heavy Vehicles																					
% Heavy Vehicles	3.0	3.1	0	0	3.0	3.2	6.4	0	0	5.1	0	2.4	0	0	2.3	2.6	7.0	0	0	5.7	4.7



N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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File Name : 122828 KK
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	University Road From North				Commonwealth Avenue (Route 20/30) From East				Carlton Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	27	0	0	0	18	146	0	0	14	46	163	0	36	128	1	0	579
12:15 PM	23	0	0	0	9	141	0	0	9	56	166	0	41	141	1	0	587
12:30 PM	40	0	0	0	17	149	0	0	13	58	153	0	79	137	0	0	646
12:45 PM	43	0	0	0	9	154	0	0	21	58	125	0	42	116	0	0	568
Total	133	0	0	0	53	590	0	0	57	218	607	0	198	522	2	0	2380
01:00 PM	30	0	0	0	17	139	0	0	17	70	127	0	50	117	0	0	567
01:15 PM	32	0	0	0	11	138	0	0	21	50	157	0	50	120	0	0	579
01:30 PM	41	0	0	0	14	149	0	0	20	72	125	0	44	113	1	0	579
01:45 PM	41	0	0	0	13	148	0	0	16	58	142	0	43	164	0	0	625
Total	144	0	0	0	55	574	0	0	74	250	551	0	187	514	1	0	2350
Grand Total	277	0	0	0	108	1164	0	0	131	468	1158	0	385	1036	3	0	4730
Apprch %	100	0	0	0	8.5	91.5	0	0	7.5	26.6	65.9	0	27	72.8	0.2	0	
Total %	5.9	0	0	0	2.3	24.6	0	0	2.8	9.9	24.5	0	8.1	21.9	0.1	0	
Cars	274	0	0	0	97	1090	0	0	120	465	1119	0	375	951	3	0	4494
% Cars	98.9	0	0	0	89.8	93.6	0	0	91.6	99.4	96.6	0	97.4	91.8	100	0	95
Heavy Vehicles	3	0	0	0	11	74	0	0	11	3	39	0	10	85	0	0	236
% Heavy Vehicles	1.1	0	0	0	10.2	6.4	0	0	8.4	0.6	3.4	0	2.6	8.2	0	0	5

	University Road From North					Commonwealth Avenue (Route 20/30) From East					Carlton Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	27	0	0	0	27	**18**	146	0	0	164	14	46	163	0	223	36	128	**1**	0	165	579
12:15 PM	23	0	0	0	23	9	141	0	0	150	9	56	**166**	0	**231**	41	**141**	1	0	183	587
12:30 PM	40	0	0	0	40	17	149	0	0	**166**	13	**58**	153	0	224	**79**	137	0	0	**216**	**646**
12:45 PM	**43**	0	0	0	**43**	9	**154**	0	0	163	**21**	58	125	0	204	42	116	0	0	158	568
Total Volume	133	0	0	0	133	53	590	0	0	643	57	218	607	0	882	198	522	2	0	722	2380
% App. Total	100	0	0	0		8.2	91.8	0	0		6.5	24.7	68.8	0		27.4	72.3	0.3	0		
PHF	.773	.000	.000	.000	.773	.736	.958	.000	.000	.968	.679	.940	.914	.000	.955	.627	.926	.500	.000	.836	.921
Cars	132	0	0	0	132	45	546	0	0	591	52	217	586	0	855	192	474	2	0	668	2246
% Cars	99.2	0	0	0	99.2	84.9	92.5	0	0	91.9	91.2	99.5	96.5	0	96.9	97.0	90.8	100	0	92.5	94.4
Heavy Vehicles																					
% Heavy Vehicles	0.8	0	0	0	0.8	15.1	7.5	0	0	8.1	8.8	0.5	3.5	0	3.1	3.0	9.2	0	0	7.5	5.6

N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 KK
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	University Road From North				Commonwealth Avenue (Route 20/30) From East				Carlton Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	27	0	0	0	18	132	0	0	13	46	154	0	34	117	1	0	542
12:15 PM	23	0	0	0	5	128	0	0	9	56	163	0	41	132	1	0	558
12:30 PM	39	0	0	0	13	142	0	0	11	57	150	0	75	122	0	0	609
12:45 PM	43	0	0	0	9	144	0	0	19	58	119	0	42	103	0	0	537
Total	132	0	0	0	45	546	0	0	52	217	586	0	192	474	2	0	2246
01:00 PM	30	0	0	0	15	133	0	0	15	69	120	0	49	105	0	0	536
01:15 PM	32	0	0	0	11	129	0	0	20	49	155	0	50	114	0	0	560
01:30 PM	40	0	0	0	13	139	0	0	18	72	122	0	43	104	1	0	552
01:45 PM	40	0	0	0	13	143	0	0	15	58	136	0	41	154	0	0	600
Total	142	0	0	0	52	544	0	0	68	248	533	0	183	477	1	0	2248
Grand Total	274	0	0	0	97	1090	0	0	120	465	1119	0	375	951	3	0	4494
Apprch %	100	0	0	0	8.2	91.8	0	0	7	27.3	65.7	0	28.2	71.6	0.2	0	
Total %	6.1	0	0	0	2.2	24.3	0	0	2.7	10.3	24.9	0	8.3	21.2	0.1	0	

	University Road From North					Commonwealth Avenue (Route 20/30) From East					Carlton Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	30	0	0	0	30	**15**	133	0	0	148	15	69	120	0	204	49	105	0	0	154	536
01:15 PM	32	0	0	0	32	11	129	0	0	140	**20**	49	**155**	0	**224**	**50**	114	0	0	164	560
01:30 PM	**40**	0	0	0	**40**	13	139	0	0	152	18	**72**	122	0	212	43	104	**1**	0	148	552
01:45 PM	40	0	0	0	40	13	**143**	0	0	**156**	15	58	136	0	209	41	**154**	0	0	**195**	**600**
Total Volume	142	0	0	0	142	52	544	0	0	596	68	248	533	0	849	183	477	1	0	661	2248
% App. Total	100	0	0	0		8.7	91.3	0	0		8	29.2	62.8	0		27.7	72.2	0.2	0		
PHF	.888	.000	.000	.000	.888	.867	.951	.000	.000	.955	.850	.861	.860	.000	.948	.915	.774	.250	.000	.847	.937

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N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 KK
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	University Road From North				Commonwealth Avenue (Route 20/30) From East				Carlton Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	14	0	0	1	0	9	0	2	11	0	0	37
12:15 PM	0	0	0	0	4	13	0	0	0	0	3	0	0	9	0	0	29
12:30 PM	1	0	0	0	4	7	0	0	2	1	3	0	4	15	0	0	37
12:45 PM	0	0	0	0	0	10	0	0	2	0	6	0	0	13	0	0	31
Total	1	0	0	0	8	44	0	0	5	1	21	0	6	48	0	0	134
01:00 PM	0	0	0	0	2	6	0	0	2	1	7	0	1	12	0	0	31
01:15 PM	0	0	0	0	0	9	0	0	1	1	2	0	0	6	0	0	19
01:30 PM	1	0	0	0	1	10	0	0	2	0	3	0	1	9	0	0	27
01:45 PM	1	0	0	0	0	5	0	0	1	0	6	0	2	10	0	0	25
Total	2	0	0	0	3	30	0	0	6	2	18	0	4	37	0	0	102
Grand Total	3	0	0	0	11	74	0	0	11	3	39	0	10	85	0	0	236
Apprch %	100	0	0	0	12.9	87.1	0	0	20.8	5.7	73.6	0	10.5	89.5	0	0	
Total %	1.3	0	0	0	4.7	31.4	0	0	4.7	1.3	16.5	0	4.2	36	0	0	

	University Road From North					Commonwealth Avenue (Route 20/30) From East					Carlton Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	0	**14**	0	0	14	1	0	**9**	0	**10**	2	11	0	0	13	**37**
12:15 PM	0	0	0	0	0	**4**	13	0	0	**17**	0	0	3	0	3	0	9	0	0	9	29
12:30 PM	**1**	0	0	0	**1**	4	7	0	0	11	**2**	**1**	3	0	6	**4**	**15**	0	0	**19**	37
12:45 PM	0	0	0	0	0	0	10	0	0	10	2	0	6	0	8	0	13	0	0	13	31
Total Volume	1	0	0	0	1	8	44	0	0	52	5	1	21	0	27	6	48	0	0	54	134
% App. Total	100	0	0	0		15.4	84.6	0	0		18.5	3.7	77.8	0		11.1	88.9	0	0		
PHF	.250	.000	.000	.000	.250	.500	.786	.000	.000	.765	.625	.250	.583	.000	.675	.375	.800	.000	.000	.711	.905

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N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 KK
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	University Road From North				Commonwealth Avenue (Route 20/30) From East				Carlton Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	1	0	0	359	1	8	0	32	0	1	3	88	0	21	0	0	514
12:15 PM	1	0	0	229	0	12	0	56	0	0	4	160	0	29	1	0	492
12:30 PM	1	0	0	298	0	14	0	35	0	1	4	86	1	21	1	0	462
12:45 PM	1	0	0	467	0	23	0	28	1	1	6	76	0	15	2	0	620
Total	4	0	0	1353	1	57	0	151	1	3	17	410	1	86	4	0	2088
01:00 PM	1	0	0	305	0	14	0	36	1	0	2	53	0	23	0	0	435
01:15 PM	1	0	0	192	0	16	0	24	0	0	8	61	1	21	2	0	326
01:30 PM	0	0	0	248	0	14	0	49	0	1	5	89	1	20	2	0	429
01:45 PM	3	0	0	442	0	24	0	73	1	3	1	213	1	27	1	0	789
Total	5	0	0	1187	0	68	0	182	2	4	16	416	3	91	5	0	1979
Grand Total	9	0	0	2540	1	125	0	333	3	7	33	826	4	177	9	0	4067
Apprch %	0.4	0	0	99.6	0.2	27.2	0	72.5	0.3	0.8	3.8	95.1	2.1	93.2	4.7	0	
Total %	0.2	0	0	62.5	0	3.1	0	8.2	0.1	0.2	0.8	20.3	0.1	4.4	0.2	0	

	University Road From North					Commonwealth Avenue (Route 20/30) From East					Carlton Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	**1**	0	0	359	360	**1**	8	0	32	41	0	**1**	3	88	92	0	21	0	0	21	514
12:15 PM	1	0	0	229	230	0	12	0	**56**	**68**	0	0	4	**160**	**164**	0	**29**	1	0	**30**	492
12:30 PM	1	0	0	298	299	0	14	0	35	49	0	1	4	86	91	**1**	21	1	0	23	462
12:45 PM	1	0	0	**467**	**468**	0	**23**	0	28	51	**1**	1	**6**	76	84	0	15	**2**	0	17	**620**
Total Volume	4	0	0	1353	1357	1	57	0	151	209	1	3	17	410	431	1	86	4	0	91	2088
% App. Total	0.3	0	0	99.7		0.5	27.3	0	72.2		0.2	0.7	3.9	95.1		1.1	94.5	4.4	0		
PHF	1.00	.000	.000	.724	.725	.250	.620	.000	.674	.768	.250	.750	.708	.641	.657	.250	.741	.500	.000	.758	.842

N/S: BU Bridge/ Essex Street
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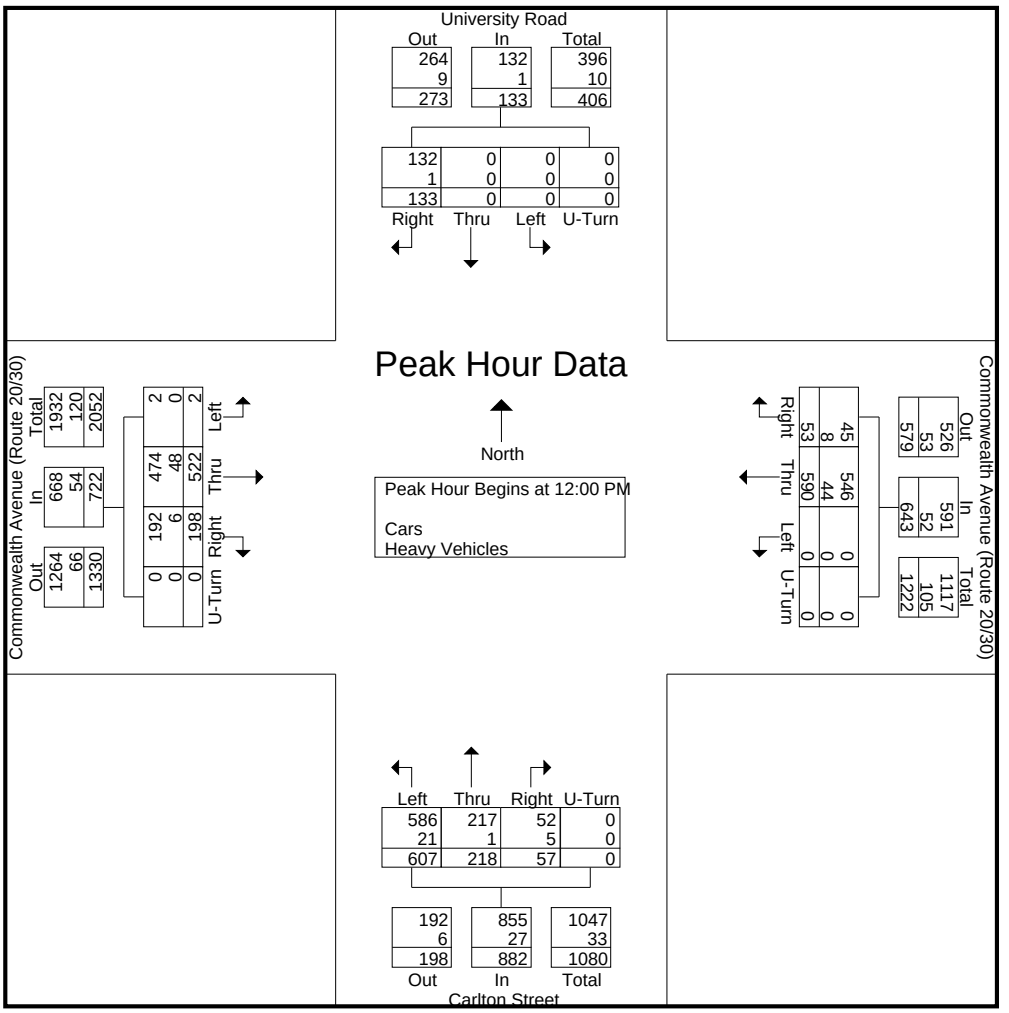
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	University Road From North					Commonwealth Avenue (Route 20/30) From East					Carlton Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	27	0	0	0	27	**18**	146	0	0	164	14	46	163	0	223	36	128	**1**	0	165	579
12:15 PM	23	0	0	0	23	9	141	0	0	150	9	56	**166**	0	**231**	41	**141**	1	0	183	587
12:30 PM	40	0	0	0	40	17	149	0	0	**166**	13	**58**	153	0	224	**79**	137	0	0	**216**	**646**
12:45 PM	**43**	0	0	0	**43**	9	**154**	0	0	163	**21**	58	125	0	204	42	116	0	0	158	568
Total Volume	133	0	0	0	133	53	590	0	0	643	57	218	607	0	882	198	522	2	0	722	2380
% App. Total	100	0	0	0		8.2	91.8	0	0		6.5	24.7	68.8	0		27.4	72.3	0.3	0		
PHF	.773	.000	.000	.000	.773	.736	.958	.000	.000	.968	.679	.940	.914	.000	.955	.627	.926	.500	.000	.836	.921
Cars	132	0	0	0	132	45	546	0	0	591	52	217	586	0	855	192	474	2	0	668	2246
% Cars	99.2	0	0	0	99.2	84.9	92.5	0	0	91.9	91.2	99.5	96.5	0	96.9	97.0	90.8	100	0	92.5	94.4
Heavy Vehicles																					
% Heavy Vehicles	0.8	0	0	0	0.8	15.1	7.5	0	0	8.1	8.8	0.5	3.5	0	3.1	3.0	9.2	0	0	7.5	5.6



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N/S: Carlton Street
E/W/SW: Mountfort Street/ Lennox Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 LL
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Carlton Road From North					Mountfort Street From East					Carlton Street From South					Lenox Street From Southwest					Mountfort Street From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	36	0	0	0	0	88	0	4	0	0	1	49	0	1	0	0	0	0	0	0	0	0	120	80	0	379
12:15 PM	41	0	0	0	0	81	0	3	0	0	0	53	0	0	0	0	0	0	0	0	0	0	116	90	0	384
12:30 PM	79	0	0	0	0	70	0	6	0	0	0	49	0	0	0	0	0	0	0	0	0	0	119	92	0	415
12:45 PM	42	0	0	0	0	96	0	9	0	0	2	47	0	1	0	0	0	0	0	0	0	0	114	84	0	395
Total	198	0	0	0	0	335	0	22	0	0	3	198	0	2	0	0	0	0	0	0	0	0	469	346	0	1573
01:00 PM	50	0	0	0	0	114	0	3	0	0	1	48	0	0	0	0	0	0	0	0	1	0	113	94	0	424
01:15 PM	49	0	0	0	0	83	0	3	0	0	0	35	0	0	0	0	0	0	0	0	1	0	111	83	0	365
01:30 PM	42	0	0	0	0	75	0	2	0	0	1	72	0	0	0	0	0	0	0	0	0	0	105	71	0	368
01:45 PM	43	0	0	0	0	88	0	6	0	0	2	48	0	0	0	0	0	0	0	0	0	0	108	85	0	380
Total	184	0	0	0	0	360	0	14	0	0	4	203	0	0	0	0	0	0	0	0	2	0	437	333	0	1537
Grand Total	382	0	0	0	0	695	0	36	0	0	7	401	0	2	0	0	0	0	0	0	2	0	906	679	0	3110
Apprch %	100	0	0	0	0	95.1	0	4.9	0	0	1.7	97.8	0	0.5	0	0	0	0	0	0	0.1	0	57.1	42.8	0	
Total %	12.3	0	0	0	0	22.3	0	1.2	0	0	0.2	12.9	0	0.1	0	0	0	0	0	0	0.1	0	29.1	21.8	0	
Cars	371	0	0	0	0	655	0	36	0	0	6	394	0	2	0	0	0	0	0	0	2	0	874	669	0	3009
% Cars	97.1	0	0	0	0	94.2	0	100	0	0	85.7	98.3	0	100	0	0	0	0	0	0	100	0	96.5	98.5	0	96.8
Heavy Vehicles	11	0	0	0	0	40	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	32	10	0	101
% Heavy Vehicles	2.9	0	0	0	0	5.8	0	0	0	0	14.3	1.7	0	0	0	0	0	0	0	0	0	0	3.5	1.5	0	3.2

	Carlton Road From North						Mountfort Street From East						Carlton Street From South						Lenox Street From Southwest						Mountfort Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:15 PM																															
12:15 PM	41	0	0	0	0	41	81	0	3	0	0	84	0	**53**	0	0	0	**53**	0	0	0	0	0	0	0	0	116	90	0	206	384
12:30 PM	**79**	0	0	0	0	**79**	70	0	6	0	0	76	0	49	0	0	0	49	0	0	0	0	0	0	0	0	**119**	92	0	**211**	415
12:45 PM	42	0	0	0	0	42	96	0	**9**	0	0	105	**2**	47	0	**1**	0	50	0	0	0	0	0	0	0	0	114	84	0	198	395
01:00 PM	50	0	0	0	0	50	**114**	0	3	0	0	**117**														**1**	0	113	**94**	0	208	**424**
Total Volume	212	0	0	0	0	212	361	0	21	0	0	382	3	197	0	1	0	201	0	0	0	0	0	0	1	0	462	360	0	823	1618
% App. Total	100	0	0	0	0		94.5	0	5.5	0	0		1.5	98	0	0.5	0		0	0	0	0	0		0.1	0	56.1	43.7	0		
PHF	.671	.000	.000	.000	.000	.671	.792	.000	.583	.000	.000	.816	.375	.929	.000	.250	.000	.948	.000	.000	.000	.000	.000	.000	.250	.000	.971	.957	.000	.975	.954
Cars	207	0	0	0	0	207	342	0	21	0	0	363	3	191	0	1	0	195	0	0	0	0	0	0	1	0	445	355	0	801	1566
% Cars	97.6	0	0	0	0	97.6	94.7	0	100	0	0	95.0	100	97.0	0	100	0	97.0	0	0	0	0	0	0	100	0	96.3	98.6	0	97.3	96.8
Heavy Vehicles	5	0	0	0	0	5	19	0	0	0	0	19	0	6	0	0	0	6	0	0	0	0	0	0	0	0	17	5	0	22	52
% Heavy Vehicles	2.4	0	0	0	0	2.4	5.3	0	0	0	0	5.0	0	3.0	0	0	0	3.0	0	0	0	0	0	0	0	0	3.7	1.4	0	2.7	3.2

N/S: Carlton Street
E/W/SW: Mountfort Street/ Lennox Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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File Name : 122828 LL
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Cars

	Carlton Road From North					Mountfort Street From East					Carlton Street From South					Lenox Street From Southwest					Mountfort Street From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	34	0	0	0	0	81	0	4	0	0	0	48	0	1	0	0	0	0	0	0	0	0	116	78	0	362
12:15 PM	41	0	0	0	0	73	0	3	0	0	0	51	0	0	0	0	0	0	0	0	0	0	109	90	0	367
12:30 PM	75	0	0	0	0	70	0	6	0	0	0	48	0	0	0	0	0	0	0	0	0	0	117	90	0	406
12:45 PM	42	0	0	0	0	88	0	9	0	0	2	45	0	1	0	0	0	0	0	0	0	0	109	83	0	379
Total	192	0	0	0	0	312	0	22	0	0	2	192	0	2	0	0	0	0	0	0	0	0	451	341	0	1514
01:00 PM	49	0	0	0	0	111	0	3	0	0	1	47	0	0	0	0	0	0	0	0	1	0	110	92	0	414
01:15 PM	49	0	0	0	0	75	0	3	0	0	0	35	0	0	0	0	0	0	0	0	1	0	109	83	0	355
01:30 PM	41	0	0	0	0	75	0	2	0	0	1	72	0	0	0	0	0	0	0	0	0	0	100	70	0	361
01:45 PM	40	0	0	0	0	82	0	6	0	0	2	48	0	0	0	0	0	0	0	0	0	0	104	83	0	365
Total	179	0	0	0	0	343	0	14	0	0	4	202	0	0	0	0	0	0	0	0	2	0	423	328	0	1495
Grand Total	371	0	0	0	0	655	0	36	0	0	6	394	0	2	0	0	0	0	0	0	2	0	874	669	0	3009
Apprch %	100	0	0	0	0	94.8	0	5.2	0	0	1.5	98	0	0.5	0	0	0	0	0	0	0.1	0	56.6	43.3	0	
Total %	12.3	0	0	0	0	21.8	0	1.2	0	0	0.2	13.1	0	0.1	0	0	0	0	0	0	0.1	0	29	22.2	0	

	Carlton Road From North						Mountfort Street From East						Carlton Street From South						Lenox Street From Southwest						Mountfort Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:15 PM																															
12:15 PM	41	0	0	0	0	41	73	0	3	0	0	76	0	**51**	0	0	0	**51**	0	0	0	0	0	0	0	0	109	90	0	199	367
12:30 PM	**75**	0	0	0	0	**75**	70	0	6	0	0	76	0	48	0	0	0	48	0	0	0	0	0	0	0	0	**117**	90	0	**207**	406
12:45 PM	42	0	0	0	0	42	88	0	**9**	0	0	97	**2**	45	0	**1**	0	48	0	0	0	0	0	0	0	0	109	83	0	192	379
01:00 PM	49	0	0	0	0	49	**111**	0	3	0	0	**114**													**1**	0	110	**92**	0	203	**414**
Total Volume	207	0	0	0	0	207	342	0	21	0	0	363	3	191	0	1	0	195	0	0	0	0	0	0	1	0	445	355	0	801	1566
% App. Total	100	0	0	0	0		94.2	0	5.8	0	0		1.5	97.9	0	0.5	0		0	0	0	0	0		0.1	0	55.6	44.3	0		
PHF	.690	.000	.000	.000	.000	.690	.770	.000	.583	.000	.000	.796	.375	.936	.000	.250	.000	.956	.000	.000	.000	.000	.000	.000	.250	.000	.951	.965	.000	.967	.946

N/S: Carlton Street
E/W/SW: Mountfort Street/ Lennox Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 LL
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Carlton Road From North					Mountfort Street From East					Carlton Street From South					Lenox Street From Southwest					Mountfort Street From West					
Start Time	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	2	0	0	0	0	7	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	2	0	17
12:15 PM	0	0	0	0	0	8	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7	0	0	17
12:30 PM	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	2	0	9
12:45 PM	0	0	0	0	0	8	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5	1	0	16
Total	6	0	0	0	0	23	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	18	5	0	59
01:00 PM	1	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	2	0	10
01:15 PM	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	10
01:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	7
01:45 PM	3	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	15
Total	5	0	0	0	0	17	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	14	5	0	42
Grand Total	11	0	0	0	0	40	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	32	10	0	101
Apprch %	100	0	0	0	0	100	0	0	0	0	12.5	87.5	0	0	0	0	0	0	0	0	0	0	76.2	23.8	0	
Total %	10.9	0	0	0	0	39.6	0	0	0	0	1	6.9	0	0	0	0	0	0	0	0	0	0	31.7	9.9	0	

	Carlton Road From North						Mountfort Street From East						Carlton Street From South						Lenox Street From Southwest						Mountfort Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00 PM																															
12:00 PM	2	0	0	0	0	2	7	0	0	0	0	7	**1**	1	0	0	0	**2**	0	0	0	0	0	0	0	0	4	**2**	0	6	**17**
12:15 PM	0	0	0	0	0	0	**8**	0	0	0	0	**8**	0	**2**	0	0	0	2	0	0	0	0	0	0	0	0	**7**	0	0	**7**	17
12:30 PM	**4**	0	0	0	0	**4**	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	2	0	4	9
12:45 PM	0	0	0	0	0	0	8	0	0	0	0	8	0	2	0	0	0	2	0	0	0	0	0	0	0	0	5	1	0	6	16
Total Volume																															
% App. Total	100	0	0	0	0		100	0	0	0	0		14.3	85.7	0	0	0		0	0	0	0	0		0	0	78.3	21.7	0		
PHF	.375	.000	.000	.000	.000	.375	.719	.000	.000	.000	.000	.719	.250	.750	.000	.000	.000	.875	.000	.000	.000	.000	.000	.000	.000	.000	.643	.625	.000	.821	.868

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N/S: Carlton Street
E/W/SW: Mountfort Street/ Lennox Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 LL
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Carlton Road From North					Mountfort Street From East					Carlton Street From South					Lenox Street From Southwest					Mountfort Street From West					
Start Time	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	0	0	0	4	3	0	0	0	7	0	0	0	0	20	0	0	0	0	1	0	0	2	0	21	58
12:15 PM	0	0	0	0	10	0	0	0	0	5	0	0	0	0	10	0	0	0	0	7	0	0	7	0	13	52
12:30 PM	1	0	0	0	3	2	0	0	0	4	0	2	0	0	9	0	0	0	0	3	0	0	1	0	9	34
12:45 PM	0	0	0	0	6	0	0	0	0	8	0	2	0	0	9	0	0	0	0	6	0	0	4	0	13	48
Total	1	0	0	0	23	5	0	0	0	24	0	4	0	0	48	0	0	0	0	17	0	0	14	0	56	192
01:00 PM	0	0	0	0	5	2	0	0	0	2	0	3	0	0	8	0	0	0	0	2	0	0	6	1	5	34
01:15 PM	1	0	0	0	2	7	0	1	0	3	0	2	0	0	10	0	0	0	0	2	0	0	3	1	11	43
01:30 PM	2	0	0	0	4	8	0	1	0	1	0	1	0	0	8	0	0	0	0	4	0	0	3	2	9	43
01:45 PM	1	0	0	0	6	7	0	0	0	3	2	1	0	0	19	0	0	0	0	5	0	0	5	1	18	68
Total	4	0	0	0	17	24	0	2	0	9	2	7	0	0	45	0	0	0	0	13	0	0	17	5	43	188
Grand Total	5	0	0	0	40	29	0	2	0	33	2	11	0	0	93	0	0	0	0	30	0	0	31	5	99	380
Apprch %	11.1	0	0	0	88.9	45.3	0	3.1	0	51.6	1.9	10.4	0	0	87.7	0	0	0	0	100	0	0	23	3.7	73.3	
Total %	1.3	0	0	0	10.5	7.6	0	0.5	0	8.7	0.5	2.9	0	0	24.5	0	0	0	0	7.9	0	0	8.2	1.3	26.1	

	Carlton Road From North						Mountfort Street From East						Carlton Street From South						Lenox Street From Southwest						Mountfort Street From West						
Start Time	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00 PM																															
12:00 PM	0	0	0	0	4	4	**3**	0	0	0	7	**10**	0	0	0	0	**20**	**20**	0	0	0	0	1	1	0	0	2	0	**21**	**23**	**58**
12:15 PM	0	0	0	0	**10**	**10**	0	0	0	0	5	5	0	0	0	0	10	10	0	0	0	0	**7**	**7**	0	0	**7**	0	13	20	52
12:30 PM	**1**	0	0	0	3	4	2	0	0	0	4	6	0	**2**	0	0	9	11	0	0	0	0	3	3	0	0	1	0	9	10	34
12:45 PM	0	0	0	0	6	6	0	0	0	0	**8**	8	0	2	0	0	9	11	0	0	0	0	6	6	0	0	4	0	13	17	48
Total Volume	1	0	0	0	23	24	5	0	0	0	24	29	0	4	0	0	48	52	0	0	0	0	17	17	0	0	14	0	56	70	192
% App. Total	4.2	0	0	0	95.8		17.2	0	0	0	82.8		0	7.7	0	0	92.3		0	0	0	0	100		0	0	20	0	80		
PHF	.250	.000	.000	.000	.575	.600	.417	.000	.000	.000	.750	.725	.000	.500	.000	.000	.600	.650	.000	.000	.000	.000	.607	.607	.000	.000	.500	.000	.667	.761	.828

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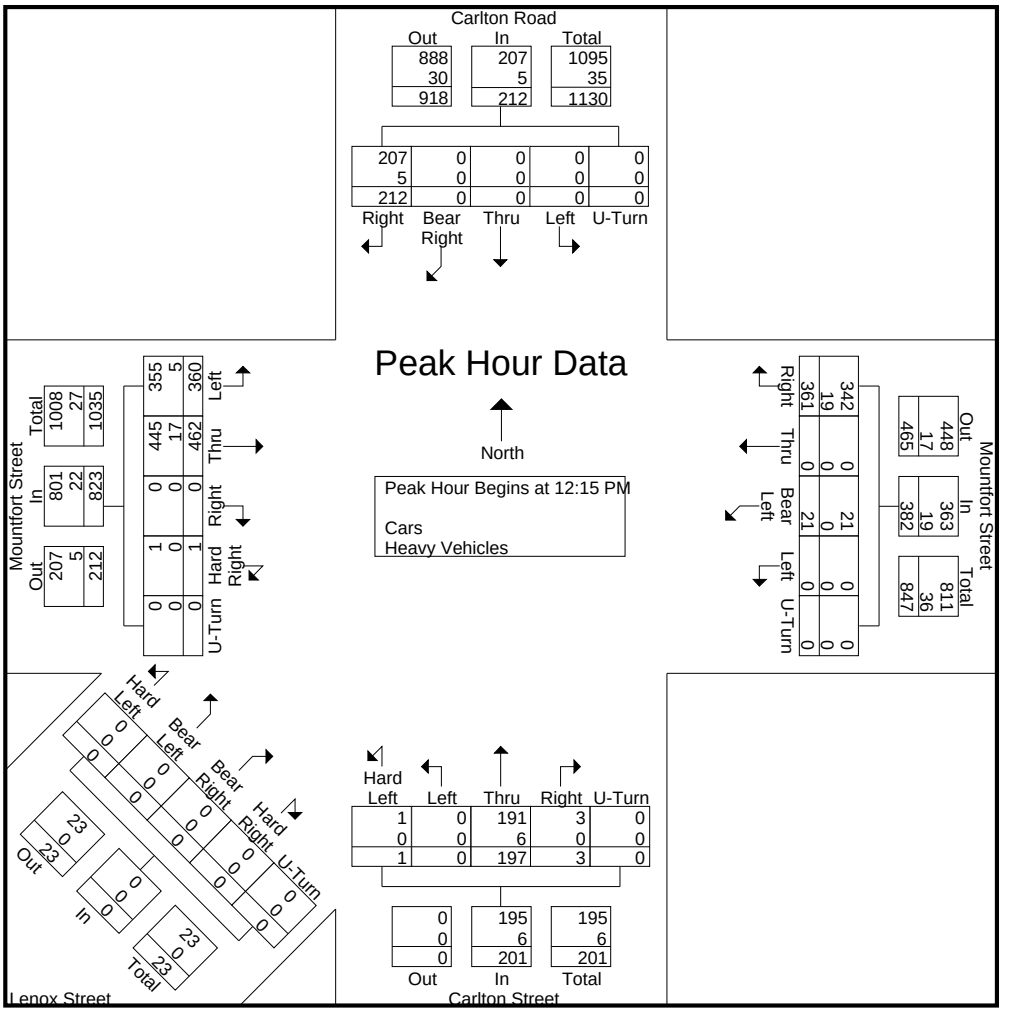
	Carlton Road From North						Mountfort Street From East						Carlton Street From South						Lenox Street From Southwest						Mountfort Street From West						
Start Time	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:15 PM																															
12:15 PM	41	0	0	0	0	41	81	0	3	0	0	84	0	**53**	0	0	0	**53**	0	0	0	0	0	0	0	0	116	90	0	206	384
12:30 PM	**79**	0	0	0	0	**79**	70	0	6	0	0	76	0	49	0	0	0	49	0	0	0	0	0	0	0	0	**119**	92	0	**211**	415
12:45 PM	42	0	0	0	0	42	96	0	**9**	0	0	105	**2**	47	0	**1**	0	50	0	0	0	0	0	0	0	0	114	84	0	198	395
01:00 PM	50	0	0	0	0	50	**114**	0	3	0	0	**117**													**1**	0	113	**94**	0	208	**424**
Total Volume	212	0	0	0	0	212	361	0	21	0	0	382	3	197	0	1	0	201	0	0	0	0	0	0	1	0	462	360	0	823	1618
% App. Total	100	0	0	0	0		94.5	0	5.5	0	0		1.5	98	0	0.5	0		0	0	0	0	0		0.1	0	56.1	43.7	0		
PHF	.671	.000	.000	.000	.000	.671	.792	.000	.583	.000	.000	.816	.375	.929	.000	.250	.000	.948	.000	.000	.000	.000	.000	.000	.250	.000	.971	.957	.000	.975	.954
Cars	207	0	0	0	0	207	342	0	21	0	0	363	3	191	0	1	0	195	0	0	0	0	0	0	1	0	445	355	0	801	1566
% Cars	97.6	0	0	0	0	97.6	94.7	0	100	0	0	95.0	100	97.0	0	100	0	97.0	0	0	0	0	0	0	100	0	96.3	98.6	0	97.3	96.8
Heavy Vehicles	5	0	0	0	0	5	19	0	0	0	0	19	0	6	0	0	0	6	0	0	0	0	0	0	0	0	17	5	0	22	52
% Heavy Vehicles	2.4	0	0	0	0	2.4	5.3	0	0	0	0	5.0	0	3.0	0	0	0	3.0	0	0	0	0	0	0	0	0	3.7	1.4	0	2.7	3.2



S St. Marys Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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File Name : 122828 M
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
07:00 AM	107	3	3	0	0	0	2	55	0	170
07:15 AM	89	2	9	0	0	0	6	93	0	199
07:30 AM	85	2	7	0	0	0	1	88	0	183
07:45 AM	131	8	2	0	0	0	8	145	0	294
Total	412	15	21	0	0	0	17	381	0	846
08:00 AM	142	7	9	0	0	0	6	138	0	302
08:15 AM	99	4	4	0	0	0	6	185	0	298
08:30 AM	133	9	9	0	0	0	6	164	0	321
08:45 AM	133	8	11	0	0	0	4	174	0	330
Total	507	28	33	0	0	0	22	661	0	1251
Grand Total	919	43	54	0	0	0	39	1042	0	2097
Apprch %	90.5	4.2	5.3	0	0	0	3.6	96.4	0	
Total %	43.8	2.1	2.6	0	0	0	1.9	49.7	0	
Cars	823	41	47	0	0	0	38	951	0	1900
% Cars	89.6	95.3	87	0	0	0	97.4	91.3	0	90.6
Heavy Vehicles	96	2	7	0	0	0	1	91	0	197
% Heavy Vehicles	10.4	4.7	13	0	0	0	2.6	8.7	0	9.4

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	**142**	7	9	**158**	0	0	0	0	**6**	138	0	144	302
08:15 AM	99	4	4	107	0	0	0	0	6	**185**	0	**191**	298
08:30 AM	133	**9**	9	151	0	0	0	0	6	164	0	170	321
08:45 AM	133	8	**11**	152	0	0	0	0	4	174	0	178	**330**
Total Volume	507	28	33	568	0	0	0	0	22	661	0	683	1251
% App. Total	89.3	4.9	5.8		0	0	0		3.2	96.8	0		
PHF	.893	.778	.750	.899	.000	.000	.000	.000	.917	.893	.000	.894	.948
Cars	458	26	28	512	0	0	0	0	21	611	0	632	1144
% Cars	90.3	92.9	84.8	90.1	0	0	0	0	95.5	92.4	0	92.5	91.4
Heavy Vehicles	49	2	5	56	0	0	0	0	1	50	0	51	107
% Heavy Vehicles	9.7	7.1	15.2	9.9	0	0	0	0	4.5	7.6	0	7.5	8.6

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S St. Marys Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 M
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
07:00 AM	97	3	3	0	0	0	2	49	0	154
07:15 AM	77	2	8	0	0	0	6	83	0	176
07:30 AM	78	2	6	0	0	0	1	76	0	163
07:45 AM	113	8	2	0	0	0	8	132	0	263
Total	365	15	19	0	0	0	17	340	0	756
08:00 AM	129	6	8	0	0	0	6	129	0	278
08:15 AM	90	4	4	0	0	0	6	170	0	274
08:30 AM	117	9	6	0	0	0	6	151	0	289
08:45 AM	122	7	10	0	0	0	3	161	0	303
Total	458	26	28	0	0	0	21	611	0	1144
Grand Total	823	41	47	0	0	0	38	951	0	1900
Apprch %	90.3	4.5	5.2	0	0	0	3.8	96.2	0	
Total %	43.3	2.2	2.5	0	0	0	2	50.1	0	

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	**129**	6	8	**143**	0	0	0	0	**6**	129	0	135	278
08:15 AM	90	4	4	98	0	0	0	0	6	**170**	0	**176**	274
08:30 AM	117	**9**	6	132	0	0	0	0	6	151	0	157	289
08:45 AM	122	7	**10**	139	0	0	0	0	3	161	0	164	**303**
Total Volume	458	26	28	512	0	0	0	0	21	611	0	632	1144
% App. Total	89.5	5.1	5.5		0	0	0		3.3	96.7	0		
PHF	.888	.722	.700	.895	.000	.000	.000	.000	.875	.899	.000	.898	.944

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S St. Marys Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 M
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
07:00 AM	10	0	0	0	0	0	0	6	0	16
07:15 AM	12	0	1	0	0	0	0	10	0	23
07:30 AM	7	0	1	0	0	0	0	12	0	20
07:45 AM	18	0	0	0	0	0	0	13	0	31
Total	47	0	2	0	0	0	0	41	0	90
08:00 AM	13	1	1	0	0	0	0	9	0	24
08:15 AM	9	0	0	0	0	0	0	15	0	24
08:30 AM	16	0	3	0	0	0	0	13	0	32
08:45 AM	11	1	1	0	0	0	1	13	0	27
Total	49	2	5	0	0	0	1	50	0	107
Grand Total	96	2	7	0	0	0	1	91	0	197
Apprch %	91.4	1.9	6.7	0	0	0	1.1	98.9	0	
Total %	48.7	1	3.6	0	0	0	0.5	46.2	0	

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	**18**	0	0	18	0	0	0	0	0	13	0	13	31
08:00 AM	13	**1**	1	15	0	0	0	0	0	9	0	9	24
08:15 AM	9	0	0	9	0	0	0	0	0	**15**	0	**15**	24
08:30 AM	16	0	**3**	**19**	0	0	0	0	0	13	0	13	**32**
Total Volume	56	1	4	61	0	0	0	0	0	50	0	50	111
% App. Total	91.8	1.6	6.6		0	0	0		0	100	0		
PHF	.778	.250	.333	.803	.000	.000	.000	.000	.000	.833	.000	.833	.867

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S St. Marys Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 M
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	5	1	1	11	1	15	11	45
07:15 AM	1	0	10	0	0	17	0	10	21	59
07:30 AM	1	0	41	0	2	31	3	31	35	144
07:45 AM	5	0	102	0	0	61	2	24	106	300
Total	7	0	158	1	3	120	6	80	173	548
08:00 AM	3	0	26	1	0	39	1	26	47	143
08:15 AM	3	0	42	0	0	42	1	24	91	203
08:30 AM	2	1	35	0	0	41	1	25	92	197
08:45 AM	3	0	95	0	0	60	2	34	137	331
Total	11	1	198	1	0	182	5	109	367	874
Grand Total	18	1	356	2	3	302	11	189	540	1422
Apprch %	4.8	0.3	94.9	0.7	1	98.4	1.5	25.5	73	
Total %	1.3	0.1	25	0.1	0.2	21.2	0.8	13.3	38	

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	**3**	0	26	29	**1**	0	39	40	1	26	47	74	143
08:15 AM	3	0	42	45	0	0	42	42	1	24	91	116	203
08:30 AM	2	**1**	35	38	0	0	41	41	1	25	92	118	197
08:45 AM	3	0	**95**	**98**	0	0	**60**	**60**	**2**	**34**	**137**	**173**	**331**
Total Volume	11	1	198	210	1	0	182	183	5	109	367	481	874
% App. Total	5.2	0.5	94.3		0.5	0	99.5		1	22.7	76.3		
PHF	.917	.250	.521	.536	.250	.000	.758	.763	.625	.801	.670	.695	.660

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Site Code : 127-4220
Start Date : 3/20/2012
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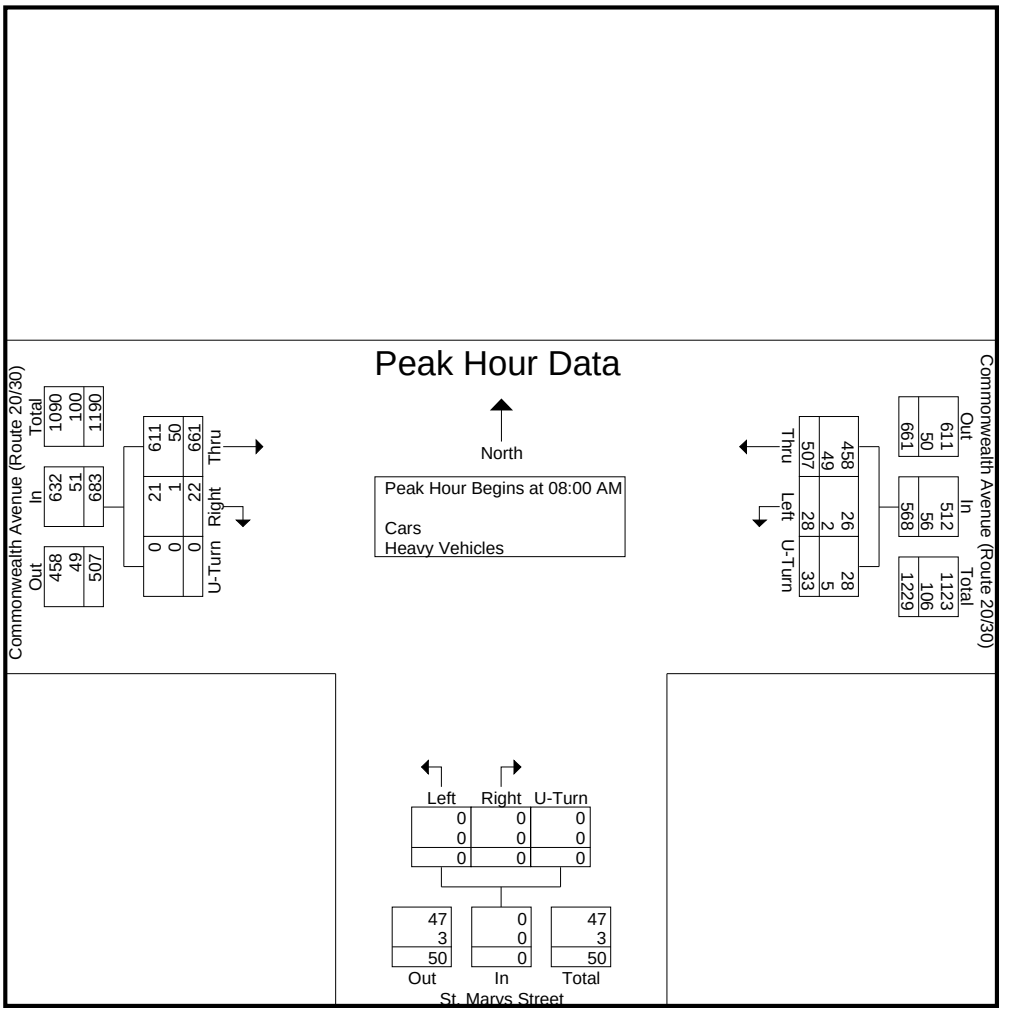
	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	**142**	7	9	**158**	0	0	0	0	**6**	138	0	144	302
08:15 AM	99	4	4	107	0	0	0	0	6	**185**	0	**191**	298
08:30 AM	133	**9**	9	151	0	0	0	0	6	164	0	170	321
08:45 AM	133	8	**11**	152	0	0	0	0	4	174	0	178	**330**
Total Volume	507	28	33	568	0	0	0	0	22	661	0	683	1251
% App. Total	89.3	4.9	5.8		0	0	0		3.2	96.8	0		
PHF	.893	.778	.750	.899	.000	.000	.000	.000	.917	.893	.000	.894	.948
Cars	458	26	28	512	0	0	0	0	21	611	0	632	1144
% Cars	90.3	92.9	84.8	90.1	0	0	0	0	95.5	92.4	0	92.5	91.4
Heavy Vehicles	49	2	5	56	0	0	0	0	1	50	0	51	107
% Heavy Vehicles	9.7	7.1	15.2	9.9	0	0	0	0	4.5	7.6	0	7.5	8.6



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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
12:00 PM	113	9	11	0	0	0	6	136	0	275
12:15 PM	148	8	13	0	0	0	7	151	0	327
12:30 PM	158	7	9	0	0	0	7	141	0	322
12:45 PM	127	8	12	1	0	1	6	126	0	281
Total	546	32	45	1	0	1	26	554	0	1205
01:00 PM	130	10	11	0	0	0	10	122	0	283
01:15 PM	124	10	12	0	0	0	12	124	0	282
01:30 PM	136	9	14	0	0	1	8	120	0	288
01:45 PM	165	10	15	0	0	0	10	162	0	362
Total	555	39	52	0	0	1	40	528	0	1215
Grand Total	1101	71	97	1	0	2	66	1082	0	2420
Apprch %	86.8	5.6	7.6	33.3	0	66.7	5.7	94.3	0	
Total %	45.5	2.9	4	0	0	0.1	2.7	44.7	0	
Cars	1035	70	88	1	0	2	61	985	0	2242
% Cars	94	98.6	90.7	100	0	100	92.4	91	0	92.6
Heavy Vehicles	66	1	9	0	0	0	5	97	0	178
% Heavy Vehicles	6	1.4	9.3	0	0	0	7.6	9	0	7.4

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 01:00 PM													
01:00 PM	130	**10**	11	151	0	0	0	0	10	122	0	132	283
01:15 PM	124	10	12	146	0	0	0	0	**12**	124	0	136	282
01:30 PM	136	9	14	159	0	0	**1**	**1**	8	120	0	128	288
01:45 PM	**165**	10	**15**	**190**	0	0	0	0	10	**162**	0	**172**	**362**
Total Volume	555	39	52	646	0	0	1	1	40	528	0	568	1215
% App. Total	85.9	6	8		0	0	100		7	93	0		
PHF	.841	.975	.867	.850	.000	.000	.250	.250	.833	.815	.000	.826	.839
Cars	525	39	47	611	0	0	1	1	36	486	0	522	1134
% Cars	94.6	100	90.4	94.6	0	0	100	100	90.0	92.0	0	91.9	93.3
Heavy Vehicles	30	0	5	35	0	0	0	0	4	42	0	46	81
% Heavy Vehicles	5.4	0	9.6	5.4	0	0	0	0	10.0	8.0	0	8.1	6.7

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File Name : 122828 MM
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
12:00 PM	108	9	10	0	0	0	6	121	0	254
12:15 PM	138	8	12	0	0	0	6	143	0	307
12:30 PM	148	7	9	0	0	0	7	124	0	295
12:45 PM	116	7	10	1	0	1	6	111	0	252
Total	510	31	41	1	0	1	25	499	0	1108
01:00 PM	121	10	9	0	0	0	7	112	0	259
01:15 PM	119	10	12	0	0	0	11	116	0	268
01:30 PM	127	9	12	0	0	1	8	109	0	266
01:45 PM	158	10	14	0	0	0	10	149	0	341
Total	525	39	47	0	0	1	36	486	0	1134
Grand Total	1035	70	88	1	0	2	61	985	0	2242
Apprch %	86.8	5.9	7.4	33.3	0	66.7	5.8	94.2	0	
Total %	46.2	3.1	3.9	0	0	0.1	2.7	43.9	0	

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 01:00 PM													
01:00 PM	121	**10**	9	140	0	0	0	0	7	112	0	119	259
01:15 PM	119	10	12	141	0	0	0	0	**11**	116	0	127	268
01:30 PM	127	9	12	148	0	0	**1**	**1**	8	109	0	117	266
01:45 PM	**158**	10	**14**	**182**	0	0	0	0	10	**149**	0	**159**	**341**
Total Volume	525	39	47	611	0	0	1	1	36	486	0	522	1134
% App. Total	85.9	6.4	7.7		0	0	100		6.9	93.1	0		
PHF	.831	.975	.839	.839	.000	.000	.250	.250	.818	.815	.000	.821	.831

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Groups Printed- Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
12:00 PM	5	0	1	0	0	0	0	15	0	21
12:15 PM	10	0	1	0	0	0	1	8	0	20
12:30 PM	10	0	0	0	0	0	0	17	0	27
12:45 PM	11	1	2	0	0	0	0	15	0	29
Total	36	1	4	0	0	0	1	55	0	97
01:00 PM	9	0	2	0	0	0	3	10	0	24
01:15 PM	5	0	0	0	0	0	1	8	0	14
01:30 PM	9	0	2	0	0	0	0	11	0	22
01:45 PM	7	0	1	0	0	0	0	13	0	21
Total	30	0	5	0	0	0	4	42	0	81
Grand Total	66	1	9	0	0	0	5	97	0	178
Apprch %	86.8	1.3	11.8	0	0	0	4.9	95.1	0	
Total %	37.1	0.6	5.1	0	0	0	2.8	54.5	0	

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:15 PM													
12:15 PM	10	0	1	11	0	0	0	0	1	8	0	9	20
12:30 PM	10	0	0	10	0	0	0	0	0	**17**	0	**17**	27
12:45 PM	**11**	**1**	**2**	**14**	0	0	0	0	0	15	0	15	**29**
01:00 PM	9	0	2	11	0	0	0	0	**3**	10	0	13	24
Total Volume	40	1	5	46	0	0	0	0	4	50	0	54	100
% App. Total	87	2.2	10.9		0	0	0		7.4	92.6	0		
PHF	.909	.250	.625	.821	.000	.000	.000	.000	.333	.735	.000	.794	.862

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S St. Marys Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 MM
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
12:00 PM	8	0	117	0	0	158	0	7	186	476
12:15 PM	16	0	308	0	0	265	0	14	328	931
12:30 PM	7	1	163	0	0	184	0	8	225	588
12:45 PM	8	1	145	0	0	136	0	12	203	505
Total	39	2	733	0	0	743	0	41	942	2500
01:00 PM	11	1	83	1	0	118	4	23	185	426
01:15 PM	4	1	75	1	0	135	1	14	142	373
01:30 PM	6	2	101	0	0	175	2	17	171	474
01:45 PM	21	2	343	0	0	319	0	16	405	1106
Total	42	6	602	2	0	747	7	70	903	2379
Grand Total	81	8	1335	2	0	1490	7	111	1845	4879
Apprch %	5.7	0.6	93.8	0.1	0	99.9	0.4	5.7	94	
Total %	1.7	0.2	27.4	0	0	30.5	0.1	2.3	37.8	

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	8	0	117	125	0	0	158	158	0	7	186	193	476
12:15 PM	**16**	0	**308**	**324**	0	0	**265**	**265**	0	**14**	**328**	**342**	**931**
12:30 PM	7	**1**	163	171	0	0	184	184	0	8	225	233	588
12:45 PM	8	1	145	154	0	0	136	136	0	12	203	215	505
Total Volume	39	2	733	774	0	0	743	743	0	41	942	983	2500
% App. Total	5	0.3	94.7		0	0	100		0	4.2	95.8		
PHF	.609	.500	.595	.597	.000	.000	.701	.701	.000	.732	.718	.719	.671

S St. Marys Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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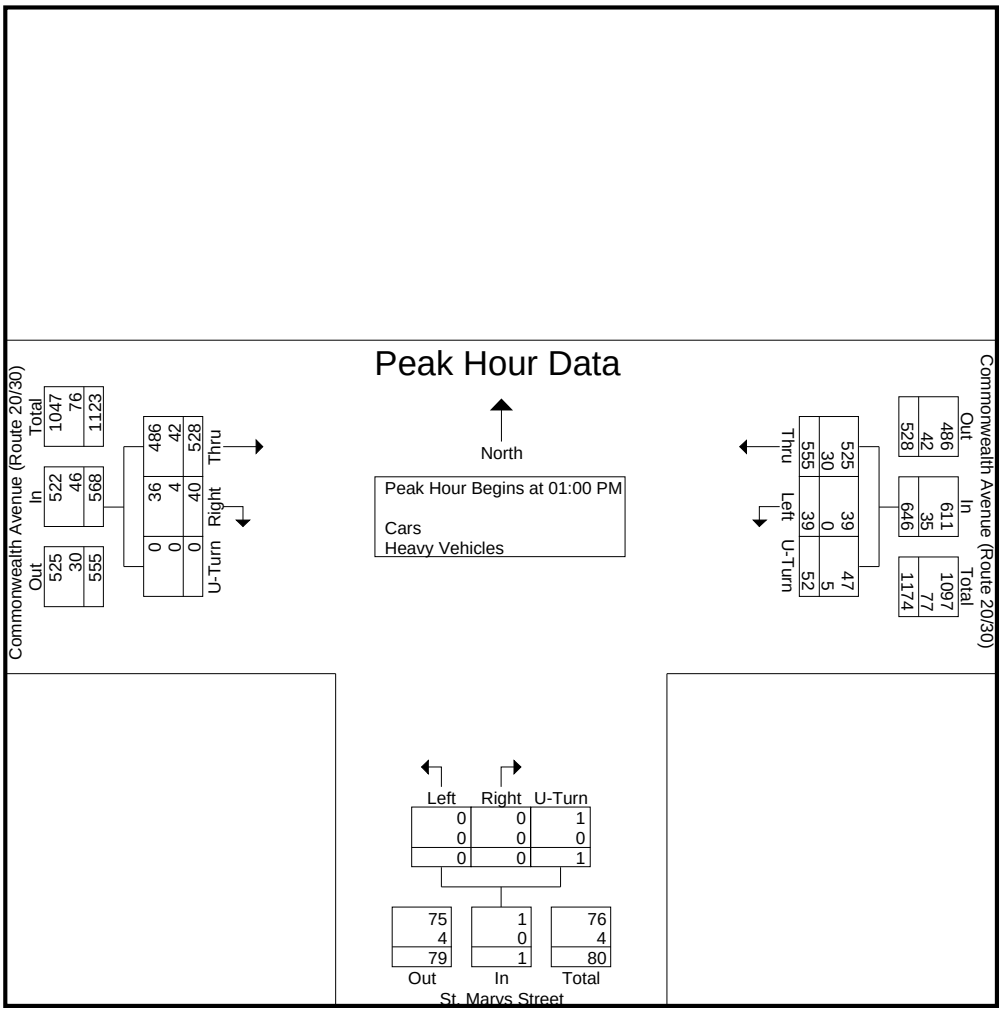
File Name : 122828 MM
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 01:00 PM													
01:00 PM	130	**10**	11	151	0	0	0	0	10	122	0	132	283
01:15 PM	124	10	12	146	0	0	0	0	**12**	124	0	136	282
01:30 PM	136	9	14	159	0	0	**1**	**1**	8	120	0	128	288
01:45 PM	**165**	10	**15**	**190**	0	0	0	0	10	**162**	0	**172**	**362**
Total Volume	555	39	52	646	0	0	1	1	40	528	0	568	1215
% App. Total	85.9	6	8		0	0	100		7	93	0		
PHF	.841	.975	.867	.850	.000	.000	.250	.250	.833	.815	.000	.826	.839
Cars	525	39	47	611	0	0	1	1	36	486	0	522	1134
% Cars	94.6	100	90.4	94.6	0	0	100	100	90.0	92.0	0	91.9	93.3
Heavy Vehicles	30	0	5	35	0	0	0	0	4	42	0	46	81
% Heavy Vehicles	5.4	0	9.6	5.4	0	0	0	0	10.0	8.0	0	8.1	6.7



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City, State: Boston, MA
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File Name : 122828 MMM
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
04:00 PM	214	8	12	0	0	0	4	116	0	354
04:15 PM	158	9	16	0	0	0	12	141	0	336
04:30 PM	178	17	12	0	0	0	11	139	2	359
04:45 PM	195	22	21	0	0	0	13	143	0	394
Total	745	56	61	0	0	0	40	539	2	1443
05:00 PM	240	26	14	0	0	0	20	134	0	434
05:15 PM	222	23	12	0	0	0	19	171	0	447
05:30 PM	223	13	17	0	0	0	17	156	0	426
05:45 PM	228	15	13	0	0	0	10	134	0	400
Total	913	77	56	0	0	0	66	595	0	1707
Grand Total	1658	133	117	0	0	0	106	1134	2	3150
Apprch %	86.9	7	6.1	0	0	0	8.5	91.3	0.2	
Total %	52.6	4.2	3.7	0	0	0	3.4	36	0.1	
Cars	1599	129	112	0	0	0	103	1061	2	3006
% Cars	96.4	97	95.7	0	0	0	97.2	93.6	100	95.4
Heavy Vehicles	59	4	5	0	0	0	3	73	0	144
% Heavy Vehicles	3.6	3	4.3	0	0	0	2.8	6.4	0	4.6

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	**240**	**26**	14	**280**	0	0	0	0	**20**	134	0	154	434
05:15 PM	222	23	12	257	0	0	0	0	19	**171**	0	**190**	**447**
05:30 PM	223	13	**17**	253	0	0	0	0	17	156	0	173	426
05:45 PM	228	15	13	256	0	0	0	0	10	134	0	144	400
Total Volume	913	77	56	1046	0	0	0	0	66	595	0	661	1707
% App. Total	87.3	7.4	5.4		0	0	0		10	90	0		
PHF	.951	.740	.824	.934	.000	.000	.000	.000	.825	.870	.000	.870	.955
Cars	879	76	54	1009	0	0	0	0	64	559	0	623	1632
% Cars	96.3	98.7	96.4	96.5	0	0	0	0	97.0	93.9	0	94.3	95.6
Heavy Vehicles	34	1	2	37	0	0	0	0	2	36	0	38	75
% Heavy Vehicles	3.7	1.3	3.6	3.5	0	0	0	0	3.0	6.1	0	5.7	4.4

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S St. Marys Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 MMM
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
04:00 PM	204	7	11	0	0	0	4	105	0	331
04:15 PM	152	9	16	0	0	0	12	132	0	321
04:30 PM	172	15	11	0	0	0	11	131	2	342
04:45 PM	192	22	20	0	0	0	12	134	0	380
Total	720	53	58	0	0	0	39	502	2	1374
05:00 PM	230	25	13	0	0	0	19	122	0	409
05:15 PM	214	23	12	0	0	0	18	165	0	432
05:30 PM	215	13	16	0	0	0	17	144	0	405
05:45 PM	220	15	13	0	0	0	10	128	0	386
Total	879	76	54	0	0	0	64	559	0	1632
Grand Total	1599	129	112	0	0	0	103	1061	2	3006
Apprch %	86.9	7	6.1	0	0	0	8.8	91	0.2	
Total %	53.2	4.3	3.7	0	0	0	3.4	35.3	0.1	

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	**230**	**25**	13	**268**	0	0	0	0	**19**	122	0	141	409
05:15 PM	214	23	12	249	0	0	0	0	18	**165**	0	**183**	**432**
05:30 PM	215	13	**16**	244	0	0	0	0	17	144	0	161	405
05:45 PM	220	15	13	248	0	0	0	0	10	128	0	138	386
Total Volume	879	76	54	1009	0	0	0	0	64	559	0	623	1632
% App. Total	87.1	7.5	5.4		0	0	0		10.3	89.7	0		
PHF	.955	.760	.844	.941	.000	.000	.000	.000	.842	.847	.000	.851	.944

S St. Marys Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 MMM
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
04:00 PM	10	1	1	0	0	0	0	11	0	23
04:15 PM	6	0	0	0	0	0	0	9	0	15
04:30 PM	6	2	1	0	0	0	0	8	0	17
04:45 PM	3	0	1	0	0	0	1	9	0	14
Total	25	3	3	0	0	0	1	37	0	69
05:00 PM	10	1	1	0	0	0	1	12	0	25
05:15 PM	8	0	0	0	0	0	1	6	0	15
05:30 PM	8	0	1	0	0	0	0	12	0	21
05:45 PM	8	0	0	0	0	0	0	6	0	14
Total	34	1	2	0	0	0	2	36	0	75
Grand Total	59	4	5	0	0	0	3	73	0	144
Apprch %	86.8	5.9	7.4	0	0	0	3.9	96.1	0	
Total %	41	2.8	3.5	0	0	0	2.1	50.7	0	

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	3	0	**1**	4	0	0	0	0	**1**	9	0	10	14
05:00 PM	**10**	**1**	1	**12**	0	0	0	0	1	**12**	0	**13**	**25**
05:15 PM	8	0	0	8	0	0	0	0	1	6	0	7	15
05:30 PM	8	0	1	9	0	0	0	0	0	12	0	12	21
Total Volume	29	1	3	33	0	0	0	0	3	39	0	42	75
% App. Total	87.9	3	9.1		0	0	0		7.1	92.9	0		
PHF	.725	.250	.750	.688	.000	.000	.000	.000	.750	.813	.000	.808	.750

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S St. Marys Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 MMM
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Peds and Bicycles

	Commonwealth Avenue (Route 20/30) From East			St. Marys Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	18	1	102	0	1	55	1	13	179	370
04:15 PM	21	0	79	0	0	55	0	14	181	350
04:30 PM	20	1	111	0	1	37	0	8	154	332
04:45 PM	43	2	166	0	3	56	0	4	188	462
Total	102	4	458	0	5	203	1	39	702	1514
05:00 PM	36	0	200	0	0	80	0	1	248	565
05:15 PM	46	1	95	0	2	77	0	5	204	430
05:30 PM	36	1	150	0	0	78	0	4	231	500
05:45 PM	41	3	237	0	3	88	0	0	278	650
Total	159	5	682	0	5	323	0	10	961	2145
Grand Total	261	9	1140	0	10	526	1	49	1663	3659
Apprch %	18.5	0.6	80.9	0	1.9	98.1	0.1	2.9	97.1	
Total %	7.1	0.2	31.2	0	0.3	14.4	0	1.3	45.4	

	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	36	0	200	236	0	0	80	80	0	1	248	249	565
05:15 PM	**46**	1	95	142	0	2	77	79	0	**5**	204	209	430
05:30 PM	36	1	150	187	0	0	78	78	0	4	231	235	500
05:45 PM	41	**3**	**237**	**281**	0	**3**	**88**	**91**	0	0	**278**	**278**	**650**
Total Volume	159	5	682	846	0	5	323	328	0	10	961	971	2145
% App. Total	18.8	0.6	80.6		0	1.5	98.5		0	1	99		
PHF	.864	.417	.719	.753	.000	.417	.918	.901	.000	.500	.864	.873	.825

S St. Marys Street
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Start Date : 3/20/2012
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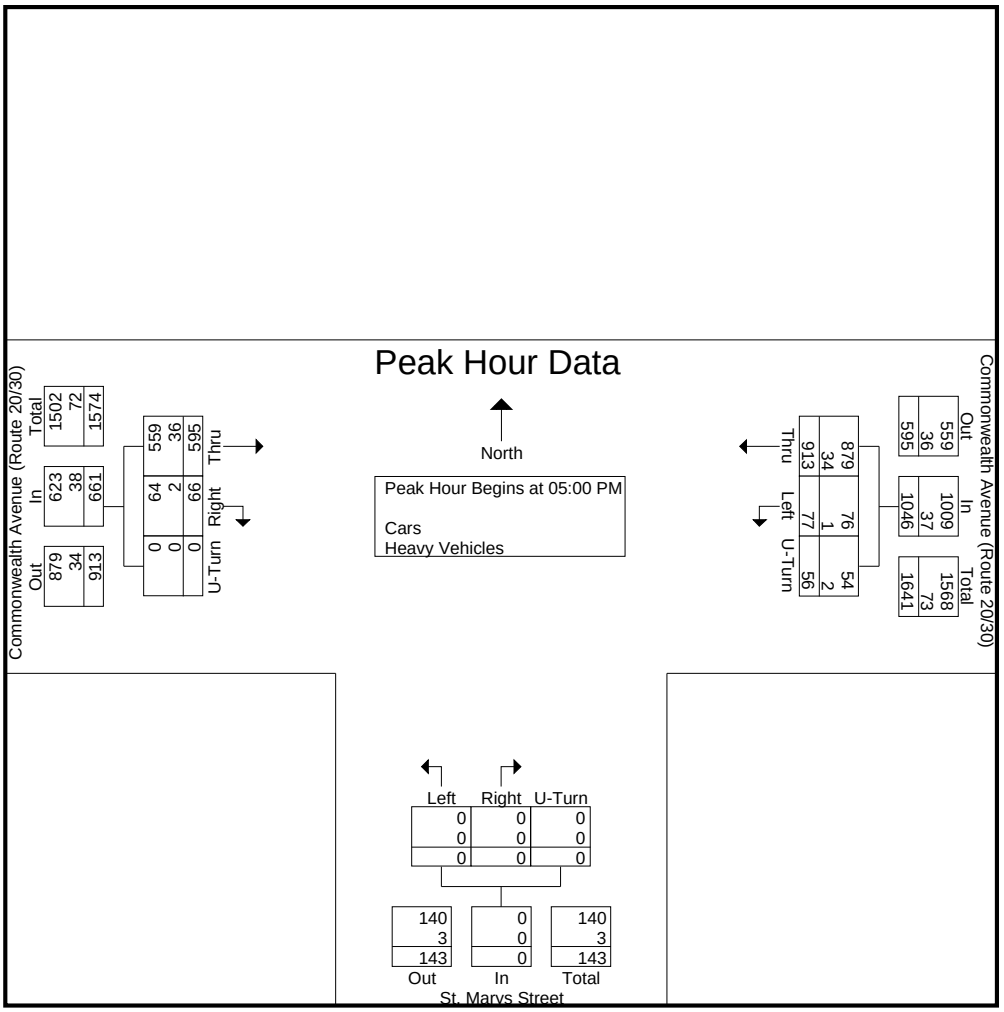
	Commonwealth Avenue (Route 20/30) From East				St. Marys Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	**240**	**26**	14	**280**	0	0	0	0	**20**	134	0	154	434
05:15 PM	222	23	12	257	0	0	0	0	19	**171**	0	**190**	**447**
05:30 PM	223	13	**17**	253	0	0	0	0	17	156	0	173	426
05:45 PM	228	15	13	256	0	0	0	0	10	134	0	144	400
Total Volume	913	77	56	1046	0	0	0	0	66	595	0	661	1707
% App. Total	87.3	7.4	5.4		0	0	0		10	90	0		
PHF	.951	.740	.824	.934	.000	.000	.000	.000	.825	.870	.000	.870	.955
Cars	879	76	54	1009	0	0	0	0	64	559	0	623	1632
% Cars	96.3	98.7	96.4	96.5	0	0	0	0	97.0	93.9	0	94.3	95.6
Heavy Vehicles	34	1	2	37	0	0	0	0	2	36	0	38	75
% Heavy Vehicles	3.7	1.3	3.6	3.5	0	0	0	0	3.0	6.1	0	5.7	4.4



N/S: St. Mary Street
E/W: Mountfort Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 N
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Cars - Heavy Vehicles

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	8	0	1	0	0	48	0	0	0	0	3	0	8	98	0	0	166
07:15 AM	2	1	3	0	0	59	0	0	0	0	5	0	4	135	0	0	209
07:30 AM	0	1	1	0	0	81	1	0	1	0	1	0	6	166	0	0	258
07:45 AM	3	4	4	0	0	75	1	0	0	0	2	0	7	143	0	0	239
Total	13	6	9	0	0	263	2	0	1	0	11	0	25	542	0	0	872
08:00 AM	3	5	5	0	0	80	0	0	1	0	4	0	10	126	0	0	234
08:15 AM	2	0	5	0	0	71	1	0	0	0	2	0	9	136	0	0	226
08:30 AM	3	4	1	0	0	77	0	0	0	0	5	0	9	135	0	0	234
08:45 AM	3	2	4	0	0	80	0	0	0	0	4	0	7	115	0	0	215
Total	11	11	15	0	0	308	1	0	1	0	15	0	35	512	0	0	909
Grand Total	24	17	24	0	0	571	3	0	2	0	26	0	60	1054	0	0	1781
Apprch %	36.9	26.2	36.9	0	0	99.5	0.5	0	7.1	0	92.9	0	5.4	94.6	0	0	
Total %	1.3	1	1.3	0	0	32.1	0.2	0	0.1	0	1.5	0	3.4	59.2	0	0	
Cars	24	17	23	0	0	530	3	0	2	0	26	0	57	1013	0	0	1695
% Cars	100	100	95.8	0	0	92.8	100	0	100	0	100	0	95	96.1	0	0	95.2
Heavy Vehicles	0	0	1	0	0	41	0	0	0	0	0	0	3	41	0	0	86
% Heavy Vehicles	0	0	4.2	0	0	7.2	0	0	0	0	0	0	5	3.9	0	0	4.8

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	1	1	0	2	0	**81**	**1**	0	**82**	**1**	0	1	0	2	6	**166**	0	0	**172**	**258**
07:45 AM	**3**	4	4	0	11	0	75	1	0	76	0	0	2	0	2	7	143	0	0	150	239
08:00 AM	3	**5**	**5**	0	**13**	0	80	0	0	80	1	0	**4**	0	**5**	**10**	126	0	0	136	234
08:15 AM	2	0	5	0	7	0	71	1	0	72	0	0	2	0	2	9	136	0	0	145	226
Total Volume	8	10	15	0	33	0	307	3	0	310	2	0	9	0	11	32	571	0	0	603	957
% App. Total	24.2	30.3	45.5	0		0	99	1	0		18.2	0	81.8	0		5.3	94.7	0	0		
PHF	.667	.500	.750	.000	.635	.000	.948	.750	.000	.945	.500	.000	.563	.000	.550	.800	.860	.000	.000	.876	.927
Cars	8	10	15	0	33	0	288	3	0	291	2	0	9	0	11	30	552	0	0	582	917
% Cars	100	100	100	0	100	0	93.8	100	0	93.9	100	0	100	0	100	93.8	96.7	0	0	96.5	95.8
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	6.2	0	0	6.1	0	0	0	0	0	6.3	3.3	0	0	3.5	4.2

PRECISION
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N/S: St. Mary Street
E/W: Mountfort Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 N
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	8	0	1	0	0	42	0	0	0	0	3	0	8	92	0	0	154
07:15 AM	2	1	3	0	0	55	0	0	0	0	5	0	4	133	0	0	203
07:30 AM	0	1	1	0	0	79	1	0	1	0	1	0	6	160	0	0	250
07:45 AM	3	4	4	0	0	70	1	0	0	0	2	0	6	139	0	0	229
Total	13	6	9	0	0	246	2	0	1	0	11	0	24	524	0	0	836
08:00 AM	3	5	5	0	0	70	0	0	1	0	4	0	10	122	0	0	220
08:15 AM	2	0	5	0	0	69	1	0	0	0	2	0	8	131	0	0	218
08:30 AM	3	4	1	0	0	71	0	0	0	0	5	0	8	128	0	0	220
08:45 AM	3	2	3	0	0	74	0	0	0	0	4	0	7	108	0	0	201
Total	11	11	14	0	0	284	1	0	1	0	15	0	33	489	0	0	859
Grand Total	24	17	23	0	0	530	3	0	2	0	26	0	57	1013	0	0	1695
Apprch %	37.5	26.6	35.9	0	0	99.4	0.6	0	7.1	0	92.9	0	5.3	94.7	0	0	
Total %	1.4	1	1.4	0	0	31.3	0.2	0	0.1	0	1.5	0	3.4	59.8	0	0	

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	1	1	0	2	0	**79**	**1**	0	**80**	**1**	0	1	0	2	6	**160**	0	0	**166**	**250**
07:45 AM	**3**	4	4	0	11	0	70	1	0	71	0	0	2	0	2	6	139	0	0	145	229
08:00 AM	3	**5**	**5**	0	**13**	0	70	0	0	70	1	0	**4**	0	**5**	**10**	122	0	0	132	220
08:15 AM	2	0	5	0	7	0	69	1	0	70	0	0	2	0	2	8	131	0	0	139	218
Total Volume	8	10	15	0	33	0	288	3	0	291	2	0	9	0	11	30	552	0	0	582	917
% App. Total	24.2	30.3	45.5	0		0	99	1	0		18.2	0	81.8	0		5.2	94.8	0	0		
PHF	.667	.500	.750	.000	.635	.000	.911	.750	.000	.909	.500	.000	.563	.000	.550	.750	.863	.000	.000	.877	.917

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N/S: St. Mary Street
E/W: Mountfort Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 N
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	12
07:15 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0	6
07:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	6	0	0	8
07:45 AM	0	0	0	0	0	5	0	0	0	0	0	0	1	4	0	0	10
Total	0	0	0	0	0	17	0	0	0	0	0	0	1	18	0	0	36
08:00 AM	0	0	0	0	0	10	0	0	0	0	0	0	0	4	0	0	14
08:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	5	0	0	8
08:30 AM	0	0	0	0	0	6	0	0	0	0	0	0	1	7	0	0	14
08:45 AM	0	0	1	0	0	6	0	0	0	0	0	0	0	7	0	0	14
Total	0	0	1	0	0	24	0	0	0	0	0	0	2	23	0	0	50
Grand Total	0	0	1	0	0	41	0	0	0	0	0	0	3	41	0	0	86
Apprch %	0	0	100	0	0	100	0	0	0	0	0	0	6.8	93.2	0	0	
Total %	0	0	1.2	0	0	47.7	0	0	0	0	0	0	3.5	47.7	0	0	

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	**10**	0	0	**10**	0	0	0	0	0	0	4	0	0	4	**14**
08:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	**1**	5	0	0	6	8
08:30 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	1	**7**	0	0	**8**	14
08:45 AM	0	0	**1**	0	**1**	0	6	0	0	6	0	0	0	0	0	0	7	0	0	7	14
Total Volume	0	0	1	0	1	0	24	0	0	24	0	0	0	0	0	2	23	0	0	25	50
% App. Total	0	0	100	0		0	100	0	0		0	0	0	0		8	92	0	0		
PHF	.000	.000	.250	.000	.250	.000	.600	.000	.000	.600	.000	.000	.000	.000	.000	.500	.821	.000	.000	.781	.893

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Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	1	0	1	0	7	0	0	0	1	0	4	0	2	16
07:15 AM	0	0	0	2	0	2	0	10	0	0	0	3	0	4	0	8	29
07:30 AM	0	1	0	5	0	2	0	20	0	0	0	2	0	11	0	8	49
07:45 AM	0	0	1	2	0	4	0	46	1	0	0	1	1	20	0	28	104
Total	0	1	1	10	0	9	0	83	1	0	0	7	1	39	0	46	198
08:00 AM	0	0	0	5	0	9	0	19	0	0	0	2	0	10	0	9	54
08:15 AM	0	0	1	4	0	6	0	27	0	0	0	11	2	19	0	12	82
08:30 AM	0	0	0	2	0	10	0	33	0	0	0	12	0	11	0	20	88
08:45 AM	0	0	1	8	0	6	0	61	0	0	0	14	0	16	0	35	141
Total	0	0	2	19	0	31	0	140	0	0	0	39	2	56	0	76	365
Grand Total	0	1	3	29	0	40	0	223	1	0	0	46	3	95	0	122	563
Apprch %	0	3	9.1	87.9	0	15.2	0	84.8	2.1	0	0	97.9	1.4	43.2	0	55.5	
Total %	0	0.2	0.5	5.2	0	7.1	0	39.6	0.2	0	0	8.2	0.5	16.9	0	21.7	

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	5	5	0	9	0	19	28	0	0	0	2	2	0	10	0	9	19	54
08:15 AM	0	0	**1**	4	5	0	6	0	27	33	0	0	0	11	11	**2**	**19**	0	12	33	82
08:30 AM	0	0	0	2	2	0	**10**	0	33	43	0	0	0	12	12	0	11	0	20	31	88
08:45 AM	0	0	1	**8**	**9**	0	6	0	**61**	**67**	0	0	0	**14**	**14**	0	16	0	**35**	**51**	**141**
Total Volume	0	0	2	19	21	0	31	0	140	171	0	0	0	39	39	2	56	0	76	134	365
% App. Total	0	0	9.5	90.5		0	18.1	0	81.9		0	0	0	100		1.5	41.8	0	56.7		
PHF	.000	.000	.500	.594	.583	.000	.775	.000	.574	.638	.000	.000	.000	.696	.696	.250	.737	.000	.543	.657	.647

N/S: St. Mary Street
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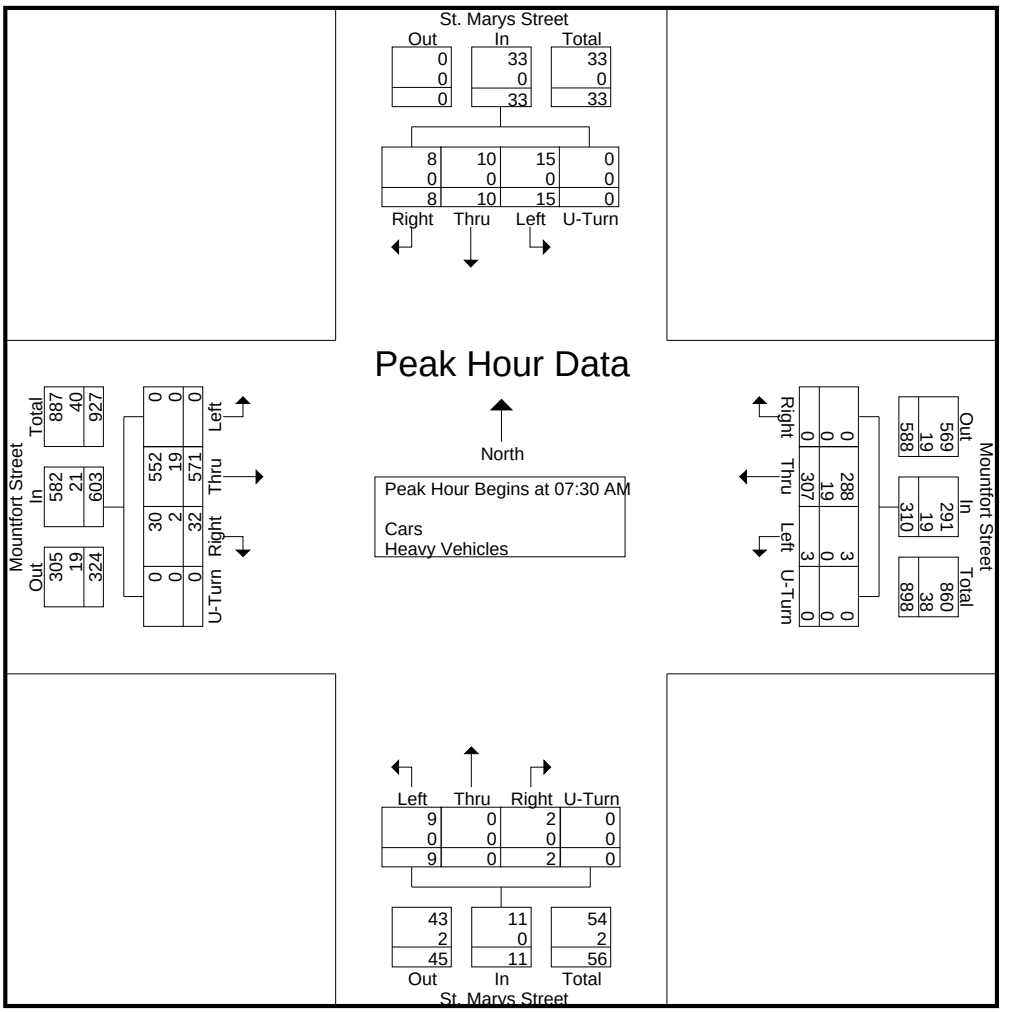
Page No : 1

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	1	1	0	2	0	**81**	**1**	0	**82**	**1**	0	1	0	2	6	**166**	0	0	**172**	**258**
07:45 AM	**3**	4	4	0	11	0	75	1	0	76	0	0	2	0	2	7	143	0	0	150	239
08:00 AM	3	**5**	**5**	0	**13**	0	80	0	0	80	1	0	**4**	0	**5**	**10**	126	0	0	136	234
08:15 AM	2	0	5	0	7	0	71	1	0	72	0	0	2	0	2	9	136	0	0	145	226
Total Volume	8	10	15	0	33	0	307	3	0	310	2	0	9	0	11	32	571	0	0	603	957
% App. Total	24.2	30.3	45.5	0		0	99	1	0		18.2	0	81.8	0		5.3	94.7	0	0		
PHF	.667	.500	.750	.000	.635	.000	.948	.750	.000	.945	.500	.000	.563	.000	.550	.800	.860	.000	.000	.876	.927
Cars	8	10	15	0	33	0	288	3	0	291	2	0	9	0	11	30	552	0	0	582	917
% Cars	100	100	100	0	100	0	93.8	100	0	93.9	100	0	100	0	100	93.8	96.7	0	0	96.5	95.8
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	6.2	0	0	6.1	0	0	0	0	0	6.3	3.3	0	0	3.5	4.2



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N/S: St. Mary Street
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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 NN
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	4	6	7	0	0	94	1	0	1	0	3	0	8	98	0	0	222
12:15 PM	4	5	7	0	0	94	2	0	1	0	3	0	9	94	0	0	219
12:30 PM	5	9	5	0	0	85	0	0	1	0	1	0	10	119	0	0	235
12:45 PM	6	6	4	0	0	70	1	0	1	0	3	0	13	100	0	0	204
Total	19	26	23	0	0	343	4	0	4	0	10	0	40	411	0	0	880
01:00 PM	4	8	6	0	0	71	1	0	0	0	4	0	6	96	0	0	196
01:15 PM	5	9	9	0	0	92	1	0	1	0	5	0	9	115	0	0	246
01:30 PM	6	7	7	0	0	83	1	0	0	0	4	0	10	99	0	0	217
01:45 PM	6	12	6	0	0	80	2	0	0	0	3	0	7	90	0	0	206
Total	21	36	28	0	0	326	5	0	1	0	16	0	32	400	0	0	865
Grand Total	40	62	51	0	0	669	9	0	5	0	26	0	72	811	0	0	1745
Apprch %	26.1	40.5	33.3	0	0	98.7	1.3	0	16.1	0	83.9	0	8.2	91.8	0	0	
Total %	2.3	3.6	2.9	0	0	38.3	0.5	0	0.3	0	1.5	0	4.1	46.5	0	0	
Cars	39	58	49	0	0	633	8	0	4	0	24	0	70	788	0	0	1673
% Cars	97.5	93.5	96.1	0	0	94.6	88.9	0	80	0	92.3	0	97.2	97.2	0	0	95.9
Heavy Vehicles	1	4	2	0	0	36	1	0	1	0	2	0	2	23	0	0	72
% Heavy Vehicles	2.5	6.5	3.9	0	0	5.4	11.1	0	20	0	7.7	0	2.8	2.8	0	0	4.1

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	5	**9**	5	0	19	0	85	0	0	85	**1**	0	1	0	2	10	**119**	0	0	**129**	235
12:45 PM	**6**	6	4	0	16	0	70	**1**	0	71	1	0	3	0	4	**13**	100	0	0	113	204
01:00 PM	4	8	6	0	18	0	71	1	0	72	0	0	4	0	4	6	96	0	0	102	196
01:15 PM	5	9	**9**	0	**23**	0	**92**	1	0	**93**	1	0	**5**	0	**6**	9	115	0	0	124	**246**
Total Volume	20	32	24	0	76	0	318	3	0	321	3	0	13	0	16	38	430	0	0	468	881
% App. Total	26.3	42.1	31.6	0		0	99.1	0.9	0		18.8	0	81.2	0		8.1	91.9	0	0		
PHF	.833	.889	.667	.000	.826	.000	.864	.750	.000	.863	.750	.000	.650	.000	.667	.731	.903	.000	.000	.907	.895
Cars	19	29	23	0	71	0	301	2	0	303	2	0	12	0	14	37	417	0	0	454	842
% Cars	95.0	90.6	95.8	0	93.4	0	94.7	66.7	0	94.4	66.7	0	92.3	0	87.5	97.4	97.0	0	0	97.0	95.6
Heavy Vehicles																					
% Heavy Vehicles	5.0	9.4	4.2	0	6.6	0	5.3	33.3	0	5.6	33.3	0	7.7	0	12.5	2.6	3.0	0	0	3.0	4.4

N/S: St. Mary Street
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Groups Printed- Cars

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	4	5	7	0	0	86	1	0	1	0	3	0	7	95	0	0	209
12:15 PM	4	5	6	0	0	92	2	0	1	0	3	0	9	92	0	0	214
12:30 PM	5	8	5	0	0	80	0	0	0	0	1	0	10	114	0	0	223
12:45 PM	6	6	4	0	0	64	1	0	1	0	3	0	12	98	0	0	195
Total	19	24	22	0	0	322	4	0	3	0	10	0	38	399	0	0	841
01:00 PM	3	7	6	0	0	68	1	0	0	0	3	0	6	92	0	0	186
01:15 PM	5	8	8	0	0	89	0	0	1	0	5	0	9	113	0	0	238
01:30 PM	6	7	7	0	0	80	1	0	0	0	3	0	10	95	0	0	209
01:45 PM	6	12	6	0	0	74	2	0	0	0	3	0	7	89	0	0	199
Total	20	34	27	0	0	311	4	0	1	0	14	0	32	389	0	0	832
Grand Total	39	58	49	0	0	633	8	0	4	0	24	0	70	788	0	0	1673
Apprch %	26.7	39.7	33.6	0	0	98.8	1.2	0	14.3	0	85.7	0	8.2	91.8	0	0	
Total %	2.3	3.5	2.9	0	0	37.8	0.5	0	0.2	0	1.4	0	4.2	47.1	0	0	

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	5	**8**	5	0	18	0	80	0	0	80	0	0	1	0	1	10	**114**	0	0	**124**	223
12:45 PM	**6**	6	4	0	16	0	64	**1**	0	65	**1**	0	3	0	4	**12**	98	0	0	110	195
01:00 PM	3	7	6	0	16	0	68	1	0	69	0	0	3	0	3	6	92	0	0	98	186
01:15 PM	5	8	**8**	0	**21**	0	**89**	0	0	**89**	1	0	**5**	0	**6**	9	113	0	0	122	**238**
Total Volume	19	29	23	0	71	0	301	2	0	303	2	0	12	0	14	37	417	0	0	454	842
% App. Total	26.8	40.8	32.4	0		0	99.3	0.7	0		14.3	0	85.7	0		8.1	91.9	0	0		
PHF	.792	.906	.719	.000	.845	.000	.846	.500	.000	.851	.500	.000	.600	.000	.583	.771	.914	.000	.000	.915	.884

PRECISION
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N/S: St. Mary Street
E/W: Mountfort Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 NN
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	1	0	0	0	8	0	0	0	0	0	0	1	3	0	0	13
12:15 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	2	0	0	5
12:30 PM	0	1	0	0	0	5	0	0	1	0	0	0	0	5	0	0	12
12:45 PM	0	0	0	0	0	6	0	0	0	0	0	0	1	2	0	0	9
Total	0	2	1	0	0	21	0	0	1	0	0	0	2	12	0	0	39
01:00 PM	1	1	0	0	0	3	0	0	0	0	1	0	0	4	0	0	10
01:15 PM	0	1	1	0	0	3	1	0	0	0	0	0	0	2	0	0	8
01:30 PM	0	0	0	0	0	3	0	0	0	0	1	0	0	4	0	0	8
01:45 PM	0	0	0	0	0	6	0	0	0	0	0	0	0	1	0	0	7
Total	1	2	1	0	0	15	1	0	0	0	2	0	0	11	0	0	33
Grand Total	1	4	2	0	0	36	1	0	1	0	2	0	2	23	0	0	72
Apprch %	14.3	57.1	28.6	0	0	97.3	2.7	0	33.3	0	66.7	0	8	92	0	0	
Total %	1.4	5.6	2.8	0	0	50	1.4	0	1.4	0	2.8	0	2.8	31.9	0	0	

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	**1**	0	0	**1**	0	**8**	0	0	**8**	0	0	0	0	0	**1**	3	0	0	4	**13**
12:15 PM	0	0	**1**	0	1	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	5
12:30 PM	0	1	0	0	1	0	5	0	0	5	**1**	0	0	0	**1**	0	**5**	0	0	**5**	12
12:45 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	1	2	0	0	3	9
Total Volume	0	2	1	0	3	0	21	0	0	21	1	0	0	0	1	2	12	0	0	14	39
% App. Total	0	66.7	33.3	0		0	100	0	0		100	0	0	0		14.3	85.7	0	0		
PHF	.000	.500	.250	.000	.750	.000	.656	.000	.000	.656	.250	.000	.000	.000	.250	.500	.600	.000	.000	.700	.750

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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 NN
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	1	1	1	2	0	2	0	48	0	0	0	9	1	7	0	19	91
12:15 PM	0	0	3	12	0	1	0	78	0	0	0	9	0	6	0	43	152
12:30 PM	1	3	1	8	0	4	0	65	0	0	0	8	0	3	0	51	144
12:45 PM	0	3	1	7	0	2	0	36	0	0	0	10	1	1	0	35	96
Total	2	7	6	29	0	9	0	227	0	0	0	36	2	17	0	148	483
01:00 PM	0	2	4	5	0	1	0	44	0	0	0	5	0	5	0	24	90
01:15 PM	0	0	2	7	0	5	0	42	0	0	0	9	1	6	0	19	91
01:30 PM	0	5	2	4	0	5	0	38	0	0	0	11	2	9	0	28	104
01:45 PM	0	3	4	6	0	3	0	87	0	0	0	10	1	3	0	55	172
Total	0	10	12	22	0	14	0	211	0	0	0	35	4	23	0	126	457
Grand Total	2	17	18	51	0	23	0	438	0	0	0	71	6	40	0	274	940
Apprch %	2.3	19.3	20.5	58	0	5	0	95	0	0	0	100	1.9	12.5	0	85.6	
Total %	0.2	1.8	1.9	5.4	0	2.4	0	46.6	0	0	0	7.6	0.6	4.3	0	29.1	

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	**1**	1	1	2	5	0	2	0	48	50	0	0	0	9	9	**1**	**7**	0	19	27	91
12:15 PM	0	0	**3**	**12**	**15**	0	1	0	**78**	**79**	0	0	0	9	9	0	6	0	43	49	**152**
12:30 PM	1	**3**	1	8	13	0	**4**	0	65	69	0	0	0	8	8	0	3	0	**51**	**54**	144
12:45 PM	0	3	1	7	11	0	2	0	36	38	0	0	0	**10**	**10**	1	1	0	35	37	96
Total Volume	2	7	6	29	44	0	9	0	227	236	0	0	0	36	36	2	17	0	148	167	483
% App. Total	4.5	15.9	13.6	65.9		0	3.8	0	96.2		0	0	0	100		1.2	10.2	0	88.6		
PHF	.500	.583	.500	.604	.733	.000	.563	.000	.728	.747	.000	.000	.000	.900	.900	.500	.607	.000	.725	.773	.794

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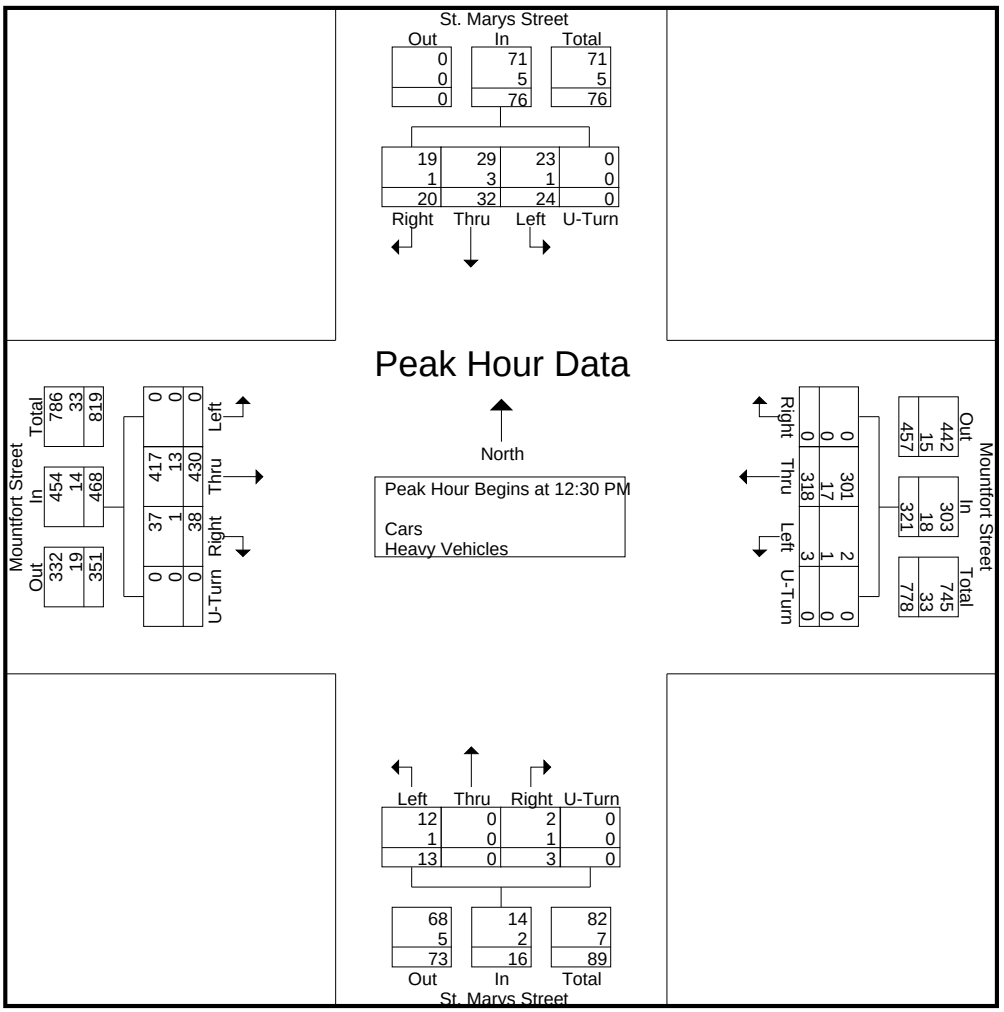
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 NN
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	5	**9**	5	0	19	0	85	0	0	85	**1**	0	1	0	2	10	**119**	0	0	**129**	235
12:45 PM	**6**	6	4	0	16	0	70	**1**	0	71	1	0	3	0	4	**13**	100	0	0	113	204
01:00 PM	4	8	6	0	18	0	71	1	0	72	0	0	4	0	4	6	96	0	0	102	196
01:15 PM	5	9	**9**	0	**23**	0	**92**	1	0	**93**	1	0	**5**	0	**6**	9	115	0	0	124	**246**
Total Volume	20	32	24	0	76	0	318	3	0	321	3	0	13	0	16	38	430	0	0	468	881
% App. Total	26.3	42.1	31.6	0		0	99.1	0.9	0		18.8	0	81.2	0		8.1	91.9	0	0		
PHF	.833	.889	.667	.000	.826	.000	.864	.750	.000	.863	.750	.000	.650	.000	.667	.731	.903	.000	.000	.907	.895
Cars	19	29	23	0	71	0	301	2	0	303	2	0	12	0	14	37	417	0	0	454	842
% Cars	95.0	90.6	95.8	0	93.4	0	94.7	66.7	0	94.4	66.7	0	92.3	0	87.5	97.4	97.0	0	0	97.0	95.6
Heavy Vehicles																					
% Heavy Vehicles	5.0	9.4	4.2	0	6.6	0	5.3	33.3	0	5.6	33.3	0	7.7	0	12.5	2.6	3.0	0	0	3.0	4.4



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E/W: Mountfort Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 NNN
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	3	2	5	0	0	115	0	0	3	0	6	0	15	140	0	0	289
04:15 PM	9	5	10	0	0	108	0	0	1	0	2	0	11	126	0	0	272
04:30 PM	8	11	10	0	0	141	1	0	0	0	4	0	12	136	0	0	323
04:45 PM	10	9	13	0	0	119	0	0	0	0	1	0	14	134	0	0	300
Total	30	27	38	0	0	483	1	0	4	0	13	0	52	536	0	0	1184
05:00 PM	9	13	26	0	0	115	0	0	0	0	2	0	9	132	0	0	306
05:15 PM	17	16	23	0	0	109	1	0	0	0	7	0	11	118	0	0	302
05:30 PM	14	11	9	0	0	121	0	0	1	0	4	0	15	123	0	0	298
05:45 PM	10	14	10	0	0	98	1	0	1	0	6	0	15	131	0	0	286
Total	50	54	68	0	0	443	2	0	2	0	19	0	50	504	0	0	1192
Grand Total	80	81	106	0	0	926	3	0	6	0	32	0	102	1040	0	0	2376
Apprch %	30	30.3	39.7	0	0	99.7	0.3	0	15.8	0	84.2	0	8.9	91.1	0	0	
Total %	3.4	3.4	4.5	0	0	39	0.1	0	0.3	0	1.3	0	4.3	43.8	0	0	
Cars	78	79	103	0	0	903	3	0	4	0	32	0	100	1024	0	0	2326
% Cars	97.5	97.5	97.2	0	0	97.5	100	0	66.7	0	100	0	98	98.5	0	0	97.9
Heavy Vehicles	2	2	3	0	0	23	0	0	2	0	0	0	2	16	0	0	50
% Heavy Vehicles	2.5	2.5	2.8	0	0	2.5	0	0	33.3	0	0	0	2	1.5	0	0	2.1

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	8	11	10	0	29	0	**141**	**1**	0	**142**	0	0	4	0	4	12	**136**	0	0	**148**	**323**
04:45 PM	10	9	13	0	32	0	119	0	0	119	0	0	1	0	1	**14**	134	0	0	148	300
05:00 PM	9	13	**26**	0	48	0	115	0	0	115	0	0	2	0	2	9	132	0	0	141	306
05:15 PM	**17**	**16**	23	0	**56**	0	109	1	0	110	0	0	**7**	0	**7**	11	118	0	0	129	302
Total Volume	44	49	72	0	165	0	484	2	0	486	0	0	14	0	14	46	520	0	0	566	1231
% App. Total	26.7	29.7	43.6	0		0	99.6	0.4	0		0	0	100	0		8.1	91.9	0	0		
PHF	.647	.766	.692	.000	.737	.000	.858	.500	.000	.856	.000	.000	.500	.000	.500	.821	.956	.000	.000	.956	.953
Cars	43	47	70	0	160	0	472	2	0	474	0	0	14	0	14	46	512	0	0	558	1206
% Cars	97.7	95.9	97.2	0	97.0	0	97.5	100	0	97.5	0	0	100	0	100	100	98.5	0	0	98.6	98.0
Heavy Vehicles																					
% Heavy Vehicles	2.3	4.1	2.8	0	3.0	0	2.5	0	0	2.5	0	0	0	0	0	0	1.5	0	0	1.4	2.0

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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 NNN
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	3	2	5	0	0	111	0	0	1	0	6	0	14	138	0	0	280
04:15 PM	8	5	9	0	0	106	0	0	1	0	2	0	11	124	0	0	266
04:30 PM	7	10	10	0	0	139	1	0	0	0	4	0	12	135	0	0	318
04:45 PM	10	9	11	0	0	117	0	0	0	0	1	0	14	131	0	0	293
Total	28	26	35	0	0	473	1	0	2	0	13	0	51	528	0	0	1157
05:00 PM	9	12	26	0	0	109	0	0	0	0	2	0	9	131	0	0	298
05:15 PM	17	16	23	0	0	107	1	0	0	0	7	0	11	115	0	0	297
05:30 PM	14	11	9	0	0	117	0	0	1	0	4	0	14	120	0	0	290
05:45 PM	10	14	10	0	0	97	1	0	1	0	6	0	15	130	0	0	284
Total	50	53	68	0	0	430	2	0	2	0	19	0	49	496	0	0	1169
Grand Total	78	79	103	0	0	903	3	0	4	0	32	0	100	1024	0	0	2326
Apprch %	30	30.4	39.6	0	0	99.7	0.3	0	11.1	0	88.9	0	8.9	91.1	0	0	
Total %	3.4	3.4	4.4	0	0	38.8	0.1	0	0.2	0	1.4	0	4.3	44	0	0	

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	7	10	10	0	27	0	**139**	**1**	0	**140**	0	0	4	0	4	12	**135**	0	0	**147**	**318**
04:45 PM	10	9	11	0	30	0	117	0	0	117	0	0	1	0	1	**14**	131	0	0	145	293
05:00 PM	9	12	**26**	0	47	0	109	0	0	109	0	0	2	0	2	9	131	0	0	140	298
05:15 PM	**17**	**16**	23	0	**56**	0	107	1	0	108	0	0	**7**	0	**7**	11	115	0	0	126	297
Total Volume	43	47	70	0	160	0	472	2	0	474	0	0	14	0	14	46	512	0	0	558	1206
% App. Total	26.9	29.4	43.8	0		0	99.6	0.4	0		0	0	100	0		8.2	91.8	0	0		
PHF	.632	.734	.673	.000	.714	.000	.849	.500	.000	.846	.000	.000	.500	.000	.500	.821	.948	.000	.000	.949	.948

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File Name : 122828 NNN
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Groups Printed- Heavy Vehicles

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	4	0	0	2	0	0	0	1	2	0	0	9
04:15 PM	1	0	1	0	0	2	0	0	0	0	0	0	0	2	0	0	6
04:30 PM	1	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0	5
04:45 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	3	0	0	7
Total	2	1	3	0	0	10	0	0	2	0	0	0	1	8	0	0	27
05:00 PM	0	1	0	0	0	6	0	0	0	0	0	0	0	1	0	0	8
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	5
05:30 PM	0	0	0	0	0	4	0	0	0	0	0	0	1	3	0	0	8
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
Total	0	1	0	0	0	13	0	0	0	0	0	0	1	8	0	0	23
Grand Total	2	2	3	0	0	23	0	0	2	0	0	0	2	16	0	0	50
Apprch %	28.6	28.6	42.9	0	0	100	0	0	100	0	0	0	11.1	88.9	0	0	
Total %	4	4	6	0	0	46	0	0	4	0	0	0	4	32	0	0	

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	**2**	0	**2**	0	2	0	0	2	0	0	0	0	0	0	**3**	0	0	3	7
05:00 PM	0	**1**	0	0	1	0	**6**	0	0	**6**	0	0	0	0	0	0	1	0	0	1	**8**
05:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
05:30 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	**1**	3	0	0	**4**	8
Total Volume	0	1	2	0	3	0	14	0	0	14	0	0	0	0	0	1	10	0	0	11	28
% App. Total	0	33.3	66.7	0		0	100	0	0		0	0	0	0		9.1	90.9	0	0		
PHF	.000	.250	.250	.000	.375	.000	.583	.000	.000	.583	.000	.000	.000	.000	.000	.250	.833	.000	.000	.688	.875

N/S: St. Mary Street
E/W: Mountfort Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 NNN
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Peds and Bicycles

	St. Marys Street From North				Mountfort Street From East				St. Marys Street From South				Mountfort Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	2	1	5	8	0	11	0	35	0	0	0	13	0	3	0	39	117
04:15 PM	0	1	0	6	0	14	0	41	0	0	0	13	1	5	0	22	103
04:30 PM	1	7	2	6	0	9	0	42	0	0	0	9	0	3	0	40	119
04:45 PM	1	4	6	13	0	5	0	72	0	0	2	12	0	5	0	41	161
Total	4	13	13	33	0	39	0	190	0	0	2	47	1	16	0	142	500
05:00 PM	1	4	2	5	0	8	0	60	0	0	0	20	1	9	0	26	136
05:15 PM	3	6	5	16	0	17	0	55	0	0	0	13	0	6	0	41	162
05:30 PM	3	9	5	11	0	14	0	52	0	0	0	10	0	7	0	37	148
05:45 PM	2	4	5	8	0	11	0	77	0	0	0	13	0	5	0	58	183
Total	9	23	17	40	0	50	0	244	0	0	0	56	1	27	0	162	629
Grand Total	13	36	30	73	0	89	0	434	0	0	2	103	2	43	0	304	1129
Apprch %	8.6	23.7	19.7	48	0	17	0	83	0	0	1.9	98.1	0.6	12.3	0	87.1	
Total %	1.2	3.2	2.7	6.5	0	7.9	0	38.4	0	0	0.2	9.1	0.2	3.8	0	26.9	

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	4	2	5	12	0	8	0	60	68	0	0	0	**20**	**20**	**1**	**9**	0	26	36	136
05:15 PM	**3**	6	**5**	**16**	**30**	0	**17**	0	55	72	0	0	0	13	13	0	6	0	41	47	162
05:30 PM	3	**9**	5	11	28	0	14	0	52	66	0	0	0	10	10	0	7	0	37	44	148
05:45 PM	2	4	5	8	19	0	11	0	**77**	**88**	0	0	0	13	13	0	5	0	**58**	**63**	**183**
Total Volume	9	23	17	40	89	0	50	0	244	294	0	0	0	56	56	1	27	0	162	190	629
% App. Total	10.1	25.8	19.1	44.9		0	17	0	83		0	0	0	100		0.5	14.2	0	85.3		
PHF	.750	.639	.850	.625	.742	.000	.735	.000	.792	.835	.000	.000	.000	.700	.700	.250	.750	.000	.698	.754	.859

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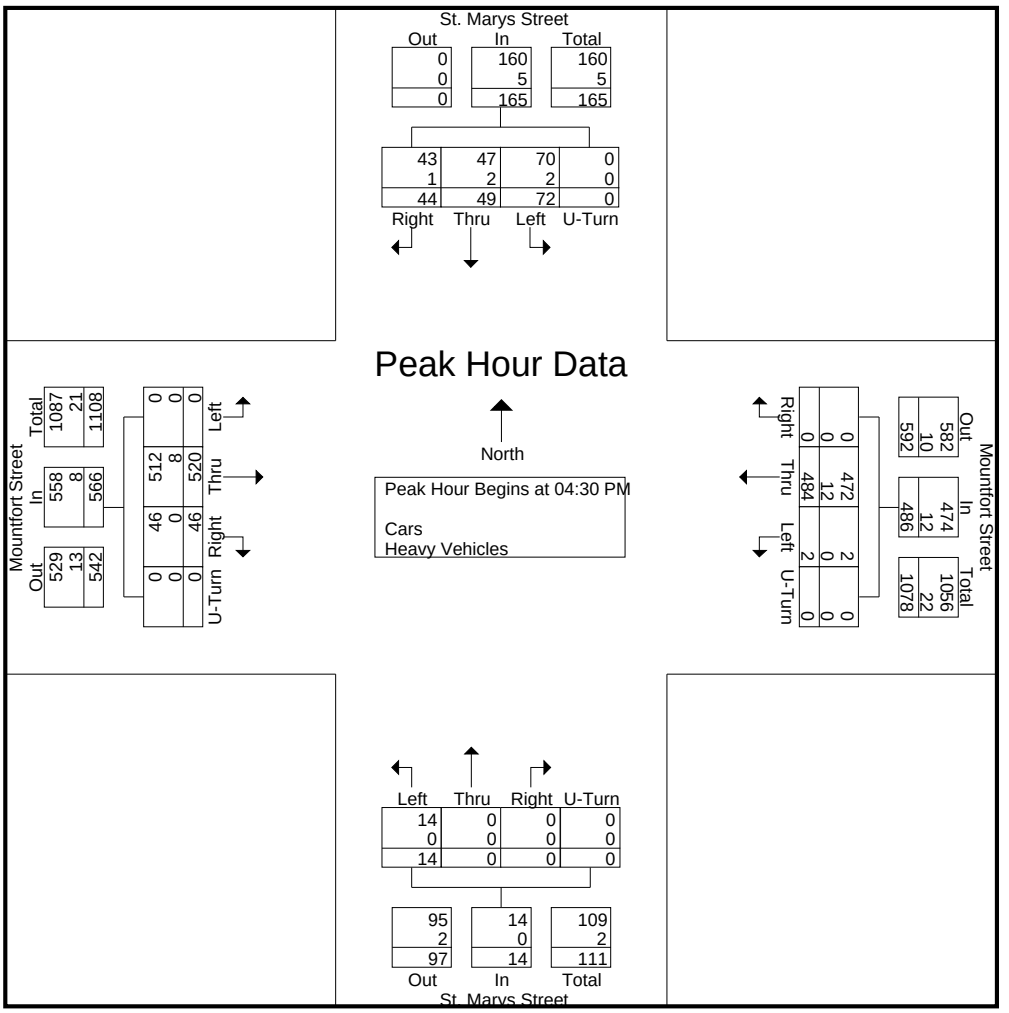
N/S: St. Mary Street
E/W: Mountfort Street
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 NNN
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	St. Marys Street From North					Mountfort Street From East					St. Marys Street From South					Mountfort Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	8	11	10	0	29	0	**141**	**1**	0	**142**	0	0	4	0	4	12	**136**	0	0	**148**	**323**
04:45 PM	10	9	13	0	32	0	119	0	0	119	0	0	1	0	1	**14**	134	0	0	148	300
05:00 PM	9	13	**26**	0	48	0	115	0	0	115	0	0	2	0	2	9	132	0	0	141	306
05:15 PM	**17**	**16**	23	0	**56**	0	109	1	0	110	0	0	**7**	0	**7**	11	118	0	0	129	302
Total Volume	44	49	72	0	165	0	484	2	0	486	0	0	14	0	14	46	520	0	0	566	1231
% App. Total	26.7	29.7	43.6	0		0	99.6	0.4	0		0	0	100	0		8.1	91.9	0	0		
PHF	.647	.766	.692	.000	.737	.000	.858	.500	.000	.856	.000	.000	.500	.000	.500	.821	.956	.000	.000	.956	.953
Cars	43	47	70	0	160	0	472	2	0	474	0	0	14	0	14	46	512	0	0	558	1206
% Cars	97.7	95.9	97.2	0	97.0	0	97.5	100	0	97.5	0	0	100	0	100	100	98.5	0	0	98.6	98.0
Heavy Vehicles																					
% Heavy Vehicles	2.3	4.1	2.8	0	3.0	0	2.5	0	0	2.5	0	0	0	0	0	0	1.5	0	0	1.4	2.0



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S: Cummington Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 O
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
07:00 AM	101	0	0	3	10	0	0	55	2	171
07:15 AM	92	0	0	2	2	0	0	105	0	201
07:30 AM	95	0	0	1	2	0	0	97	3	198
07:45 AM	138	0	0	3	2	0	0	136	8	287
Total	426	0	0	9	16	0	0	393	13	857
08:00 AM	127	0	0	2	6	0	0	136	7	278
08:15 AM	104	0	0	1	3	0	0	195	4	307
08:30 AM	130	0	0	2	7	0	0	148	8	295
08:45 AM	134	0	0	2	8	0	0	176	6	326
Total	495	0	0	7	24	0	0	655	25	1206
Grand Total	921	0	0	16	40	0	0	1048	38	2063
Apprch %	100	0	0	28.6	71.4	0	0	96.5	3.5	
Total %	44.6	0	0	0.8	1.9	0	0	50.8	1.8	
Cars	817	0	0	13	36	0	0	954	38	1858
% Cars	88.7	0	0	81.2	90	0	0	91	100	90.1
Heavy Vehicles	104	0	0	3	4	0	0	94	0	205
% Heavy Vehicles	11.3	0	0	18.8	10	0	0	9	0	9.9

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	127	0	0	127	**2**	6	0	8	0	136	7	143	278
08:15 AM	104	0	0	104	1	3	0	4	0	**195**	4	**199**	307
08:30 AM	130	0	0	130	2	7	0	9	0	148	**8**	156	295
08:45 AM	**134**	0	0	**134**	2	**8**	0	**10**	0	176	6	182	**326**
Total Volume	495	0	0	495	7	24	0	31	0	655	25	680	1206
% App. Total	100	0	0		22.6	77.4	0		0	96.3	3.7		
PHF	.924	.000	.000	.924	.875	.750	.000	.775	.000	.840	.781	.854	.925
Cars	442	0	0	442	4	22	0	26	0	602	25	627	1095
% Cars	89.3	0	0	89.3	57.1	91.7	0	83.9	0	91.9	100	92.2	90.8
Heavy Vehicles	53	0	0	53	3	2	0	5	0	53	0	53	111
% Heavy Vehicles	10.7	0	0	10.7	42.9	8.3	0	16.1	0	8.1	0	7.8	9.2

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S: Cummington Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 O
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
07:00 AM	90	0	0	3	10	0	0	50	2	155
07:15 AM	80	0	0	2	2	0	0	95	0	179
07:30 AM	87	0	0	1	2	0	0	82	3	175
07:45 AM	118	0	0	3	0	0	0	125	8	254
Total	375	0	0	9	14	0	0	352	13	763
08:00 AM	116	0	0	1	6	0	0	128	7	258
08:15 AM	95	0	0	1	2	0	0	178	4	280
08:30 AM	114	0	0	1	6	0	0	133	8	262
08:45 AM	117	0	0	1	8	0	0	163	6	295
Total	442	0	0	4	22	0	0	602	25	1095
Grand Total	817	0	0	13	36	0	0	954	38	1858
Apprch %	100	0	0	26.5	73.5	0	0	96.2	3.8	
Total %	44	0	0	0.7	1.9	0	0	51.3	2	

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	116	0	0	116	**1**	6	0	7	0	128	7	135	258
08:15 AM	95	0	0	95	1	2	0	3	0	**178**	4	**182**	280
08:30 AM	114	0	0	114	1	6	0	7	0	133	**8**	141	262
08:45 AM	**117**	0	0	**117**	1	**8**	0	**9**	0	163	6	169	**295**
Total Volume	442	0	0	442	4	22	0	26	0	602	25	627	1095
% App. Total	100	0	0		15.4	84.6	0		0	96	4		
PHF	.944	.000	.000	.944	1.00	.688	.000	.722	.000	.846	.781	.861	.928

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File Name : 122828 O
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
07:00 AM	11	0	0	0	0	0	0	5	0	16
07:15 AM	12	0	0	0	0	0	0	10	0	22
07:30 AM	8	0	0	0	0	0	0	15	0	23
07:45 AM	20	0	0	0	2	0	0	11	0	33
Total	51	0	0	0	2	0	0	41	0	94
08:00 AM	11	0	0	1	0	0	0	8	0	20
08:15 AM	9	0	0	0	1	0	0	17	0	27
08:30 AM	16	0	0	1	1	0	0	15	0	33
08:45 AM	17	0	0	1	0	0	0	13	0	31
Total	53	0	0	3	2	0	0	53	0	111
Grand Total	104	0	0	3	4	0	0	94	0	205
Apprch %	100	0	0	42.9	57.1	0	0	100	0	
Total %	50.7	0	0	1.5	2	0	0	45.9	0	

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	**20**	0	0	**20**	0	**2**	0	**2**	0	11	0	11	**33**
08:00 AM	11	0	0	11	**1**	0	0	1	0	8	0	8	20
08:15 AM	9	0	0	9	0	1	0	1	0	**17**	0	**17**	27
08:30 AM	16	0	0	16	1	1	0	2	0	15	0	15	33
Total Volume	56	0	0	56	2	4	0	6	0	51	0	51	113
% App. Total	100	0	0		33.3	66.7	0		0	100	0		
PHF	.700	.000	.000	.700	.500	.500	.000	.750	.000	.750	.000	.750	.856

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File Name : 122828 O
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	3	0	0	14	0	16	0	33
07:15 AM	2	0	6	0	0	17	0	10	0	35
07:30 AM	1	0	13	0	0	48	0	28	0	90
07:45 AM	4	0	107	0	0	85	0	24	5	225
Total	7	0	129	0	0	164	0	78	5	383
08:00 AM	2	0	27	0	0	46	0	26	1	102
08:15 AM	2	0	26	0	0	43	0	36	0	107
08:30 AM	4	0	21	0	0	61	0	54	0	140
08:45 AM	1	0	74	2	0	120	0	31	1	229
Total	9	0	148	2	0	270	0	147	2	578
Grand Total	16	0	277	2	0	434	0	225	7	961
Apprch %	5.5	0	94.5	0.5	0	99.5	0	97	3	
Total %	1.7	0	28.8	0.2	0	45.2	0	23.4	0.7	

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	2	0	27	29	0	0	46	46	0	26	**1**	27	102
08:15 AM	2	0	26	28	0	0	43	43	0	36	0	36	107
08:30 AM	**4**	0	21	25	0	0	61	61	0	**54**	0	**54**	140
08:45 AM	1	0	**74**	**75**	**2**	0	**120**	**122**	0	31	1	32	**229**
Total Volume	9	0	148	157	2	0	270	272	0	147	2	149	578
% App. Total	5.7	0	94.3		0.7	0	99.3		0	98.7	1.3		
PHF	.563	.000	.500	.523	.250	.000	.563	.557	.000	.681	.500	.690	.631

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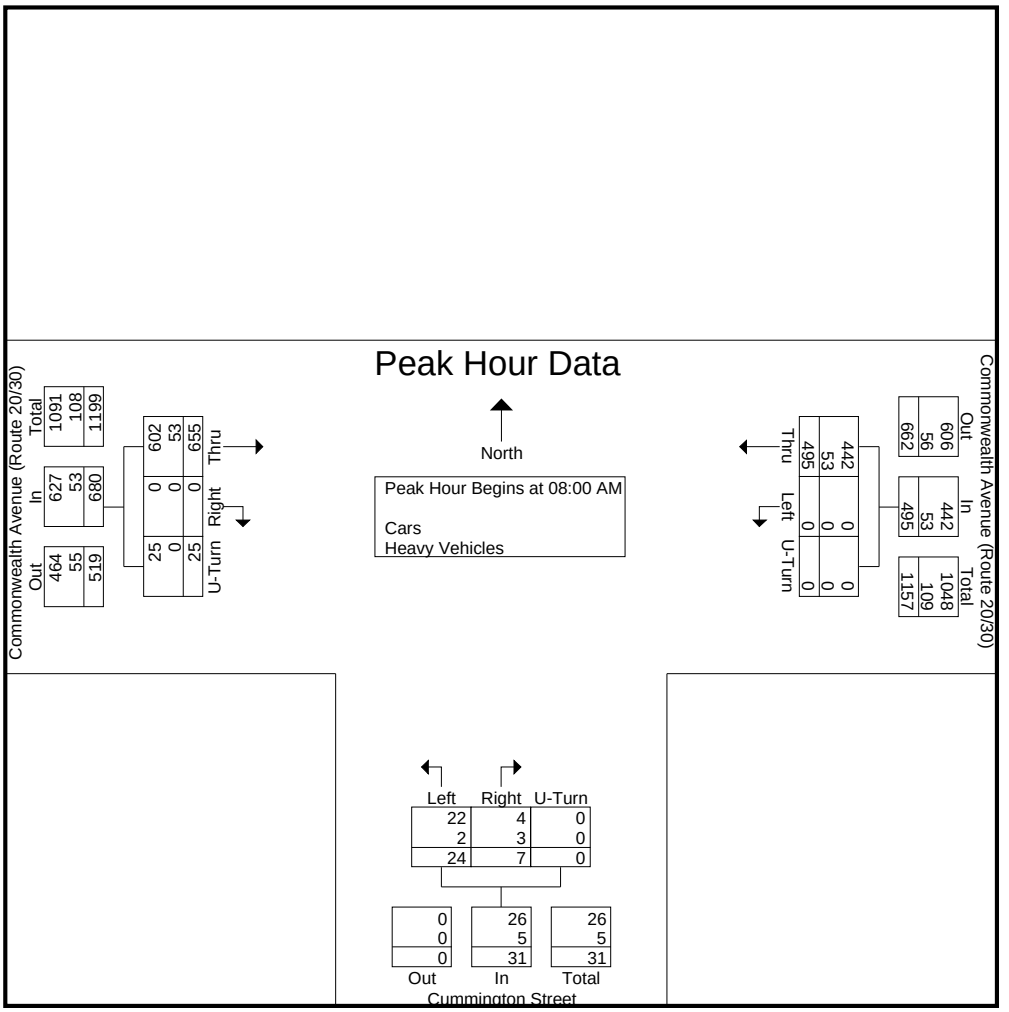
Start Date : 3/20/2012
Page No : 1

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	127	0	0	127	**2**	6	0	8	0	136	7	143	278
08:15 AM	104	0	0	104	1	3	0	4	0	**195**	4	**199**	307
08:30 AM	130	0	0	130	2	7	0	9	0	148	**8**	156	295
08:45 AM	**134**	0	0	**134**	2	**8**	0	**10**	0	176	6	182	**326**
Total Volume	495	0	0	495	7	24	0	31	0	655	25	680	1206
% App. Total	100	0	0		22.6	77.4	0		0	96.3	3.7		
PHF	.924	.000	.000	.924	.875	.750	.000	.775	.000	.840	.781	.854	.925
Cars	442	0	0	442	4	22	0	26	0	602	25	627	1095
% Cars	89.3	0	0	89.3	57.1	91.7	0	83.9	0	91.9	100	92.2	90.8
Heavy Vehicles	53	0	0	53	3	2	0	5	0	53	0	53	111
% Heavy Vehicles	10.7	0	0	10.7	42.9	8.3	0	16.1	0	8.1	0	7.8	9.2



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Site Code : 127-4220
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Groups Printed- Cars - Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
12:00 PM	130	0	0	2	9	0	0	142	8	291
12:15 PM	159	0	0	5	18	0	0	158	10	350
12:30 PM	170	0	0	3	7	0	0	136	11	327
12:45 PM	152	0	0	6	14	0	0	129	10	311
Total	611	0	0	16	48	0	0	565	39	1279
01:00 PM	142	0	0	3	7	0	0	127	7	286
01:15 PM	124	0	0	2	11	0	0	127	10	274
01:30 PM	145	0	0	5	7	0	0	127	8	292
01:45 PM	160	0	0	1	16	0	0	162	10	349
Total	571	0	0	11	41	0	0	543	35	1201
Grand Total	1182	0	0	27	89	0	0	1108	74	2480
Apprch %	100	0	0	23.3	76.7	0	0	93.7	6.3	
Total %	47.7	0	0	1.1	3.6	0	0	44.7	3	
Cars	1112	0	0	24	84	0	0	1006	72	2298
% Cars	94.1	0	0	88.9	94.4	0	0	90.8	97.3	92.7
Heavy Vehicles	70	0	0	3	5	0	0	102	2	182
% Heavy Vehicles	5.9	0	0	11.1	5.6	0	0	9.2	2.7	7.3

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	130	0	0	130	2	9	0	11	0	142	8	150	291
12:15 PM	159	0	0	159	5	**18**	0	**23**	0	**158**	10	**168**	**350**
12:30 PM	**170**	0	0	**170**	3	7	0	10	0	136	**11**	147	327
12:45 PM	152	0	0	152	**6**	14	0	20	0	129	10	139	311
Total Volume	611	0	0	611	16	48	0	64	0	565	39	604	1279
% App. Total	100	0	0		25	75	0		0	93.5	6.5		
PHF	.899	.000	.000	.899	.667	.667	.000	.696	.000	.894	.886	.899	.914
Cars	577	0	0	577	14	44	0	58	0	506	39	545	1180
% Cars	94.4	0	0	94.4	87.5	91.7	0	90.6	0	89.6	100	90.2	92.3
Heavy Vehicles	34	0	0	34	2	4	0	6	0	59	0	59	99
% Heavy Vehicles	5.6	0	0	5.6	12.5	8.3	0	9.4	0	10.4	0	9.8	7.7

PRECISION
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S: Cummington Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 OO
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
12:00 PM	125	0	0	2	9	0	0	127	8	271
12:15 PM	150	0	0	5	17	0	0	148	10	330
12:30 PM	159	0	0	3	7	0	0	120	11	300
12:45 PM	143	0	0	4	11	0	0	111	10	279
Total	577	0	0	14	44	0	0	506	39	1180
01:00 PM	132	0	0	2	7	0	0	116	7	264
01:15 PM	117	0	0	2	11	0	0	120	9	259
01:30 PM	135	0	0	5	6	0	0	115	7	268
01:45 PM	151	0	0	1	16	0	0	149	10	327
Total	535	0	0	10	40	0	0	500	33	1118
Grand Total	1112	0	0	24	84	0	0	1006	72	2298
Apprch %	100	0	0	22.2	77.8	0	0	93.3	6.7	
Total %	48.4	0	0	1	3.7	0	0	43.8	3.1	

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	125	0	0	125	2	9	0	11	0	127	8	135	271
12:15 PM	150	0	0	150	**5**	**17**	0	**22**	0	**148**	10	**158**	**330**
12:30 PM	**159**	0	0	**159**	3	7	0	10	0	120	**11**	131	300
12:45 PM	143	0	0	143	4	11	0	15	0	111	10	121	279
Total Volume	577	0	0	577	14	44	0	58	0	506	39	545	1180
% App. Total	100	0	0		24.1	75.9	0		0	92.8	7.2		
PHF	.907	.000	.000	.907	.700	.647	.000	.659	.000	.855	.886	.862	.894

S: Cummington Street
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File Name : 122828 OO
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
12:00 PM	5	0	0	0	0	0	0	15	0	20
12:15 PM	9	0	0	0	1	0	0	10	0	20
12:30 PM	11	0	0	0	0	0	0	16	0	27
12:45 PM	9	0	0	2	3	0	0	18	0	32
Total	34	0	0	2	4	0	0	59	0	99
01:00 PM	10	0	0	1	0	0	0	11	0	22
01:15 PM	7	0	0	0	0	0	0	7	1	15
01:30 PM	10	0	0	0	1	0	0	12	1	24
01:45 PM	9	0	0	0	0	0	0	13	0	22
Total	36	0	0	1	1	0	0	43	2	83
Grand Total	70	0	0	3	5	0	0	102	2	182
Apprch %	100	0	0	37.5	62.5	0	0	98.1	1.9	
Total %	38.5	0	0	1.6	2.7	0	0	56	1.1	

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:15 PM													
12:15 PM	9	0	0	9	0	1	0	1	0	10	0	10	20
12:30 PM	**11**	0	0	**11**	0	0	0	0	0	16	0	16	27
12:45 PM	9	0	0	9	**2**	**3**	0	**5**	0	**18**	0	**18**	**32**
01:00 PM	10	0	0	10	1	0	0	1	0	11	0	11	22
Total Volume	39	0	0	39	3	4	0	7	0	55	0	55	101
% App. Total	100	0	0		42.9	57.1	0		0	100	0		
PHF	.886	.000	.000	.886	.375	.333	.000	.350	.000	.764	.000	.764	.789

S: Cummington Street
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File Name : 122828 OO
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Page No : 1

Groups Printed- Peds and Bicycles

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
12:00 PM	6	0	137	0	1	186	0	13	6	349
12:15 PM	6	0	463	0	5	384	0	21	24	903
12:30 PM	10	0	162	1	2	256	0	16	6	453
12:45 PM	7	0	147	1	0	183	0	15	14	367
Total	29	0	909	2	8	1009	0	65	50	2072
01:00 PM	16	0	98	0	2	117	0	18	1	252
01:15 PM	7	0	81	0	0	134	0	17	0	239
01:30 PM	5	0	148	0	0	187	0	17	3	360
01:45 PM	9	0	419	0	3	405	0	20	13	869
Total	37	0	746	0	5	843	0	72	17	1720
Grand Total	66	0	1655	2	13	1852	0	137	67	3792
Apprch %	3.8	0	96.2	0.1	0.7	99.2	0	67.2	32.8	
Total %	1.7	0	43.6	0.1	0.3	48.8	0	3.6	1.8	

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	6	0	137	143	0	1	186	187	0	13	6	19	349
12:15 PM	6	0	**463**	**469**	0	**5**	**384**	**389**	0	**21**	**24**	**45**	**903**
12:30 PM	**10**	0	162	172	**1**	2	256	259	0	16	6	22	453
12:45 PM	7	0	147	154	1	0	183	184	0	15	14	29	367
Total Volume	29	0	909	938	2	8	1009	1019	0	65	50	115	2072
% App. Total	3.1	0	96.9		0.2	0.8	99		0	56.5	43.5		
PHF	.725	.000	.491	.500	.500	.400	.657	.655	.000	.774	.521	.639	.574

S: Cummington Street
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Client: Tetra Tech Rizzo/ M. Hall

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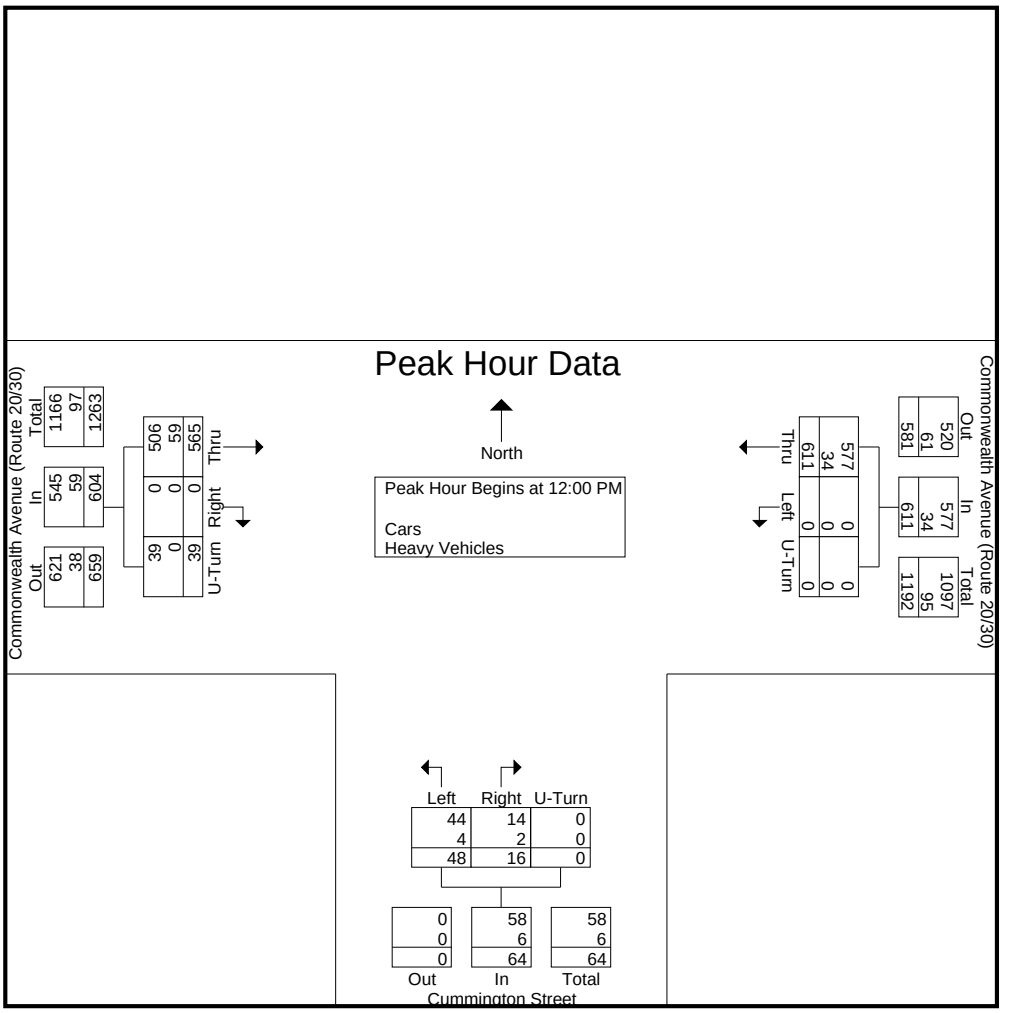
	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	130	0	0	130	2	9	0	11	0	142	8	150	291
12:15 PM	159	0	0	159	5	**18**	0	**23**	0	**158**	10	**168**	**350**
12:30 PM	**170**	0	0	**170**	3	7	0	10	0	136	**11**	147	327
12:45 PM	152	0	0	152	**6**	14	0	20	0	129	10	139	311
Total Volume	611	0	0	611	16	48	0	64	0	565	39	604	1279
% App. Total	100	0	0		25	75	0		0	93.5	6.5		
PHF	.899	.000	.000	.899	.667	.667	.000	.696	.000	.894	.886	.899	.914
Cars	577	0	0	577	14	44	0	58	0	506	39	545	1180
% Cars	94.4	0	0	94.4	87.5	91.7	0	90.6	0	89.6	100	90.2	92.3
Heavy Vehicles	34	0	0	34	2	4	0	6	0	59	0	59	99
% Heavy Vehicles	5.6	0	0	5.6	12.5	8.3	0	9.4	0	10.4	0	9.8	7.7



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Groups Printed- Cars - Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
04:00 PM	185	0	0	6	14	0	0	111	25	341
04:15 PM	161	0	0	3	15	0	0	146	7	332
04:30 PM	159	0	0	1	22	0	0	132	22	336
04:45 PM	191	0	0	9	24	0	0	150	11	385
Total	696	0	0	19	75	0	0	539	65	1394
05:00 PM	217	0	0	10	28	0	0	142	16	413
05:15 PM	237	0	0	9	26	0	0	180	11	463
05:30 PM	194	0	0	4	28	0	0	177	10	413
05:45 PM	215	0	0	10	26	0	0	156	10	417
Total	863	0	0	33	108	0	0	655	47	1706
Grand Total	1559	0	0	52	183	0	0	1194	112	3100
Apprch %	100	0	0	22.1	77.9	0	0	91.4	8.6	
Total %	50.3	0	0	1.7	5.9	0	0	38.5	3.6	
Cars	1489	0	0	49	180	0	0	1113	111	2942
% Cars	95.5	0	0	94.2	98.4	0	0	93.2	99.1	94.9
Heavy Vehicles	70	0	0	3	3	0	0	81	1	158
% Heavy Vehicles	4.5	0	0	5.8	1.6	0	0	6.8	0.9	5.1

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	217	0	0	217	**10**	**28**	0	**38**	0	142	**16**	158	413
05:15 PM	**237**	0	0	**237**	9	26	0	35	0	**180**	11	**191**	**463**
05:30 PM	194	0	0	194	4	28	0	32	0	177	10	187	413
05:45 PM	215	0	0	215	10	26	0	36	0	156	10	166	417
Total Volume	863	0	0	863	33	108	0	141	0	655	47	702	1706
% App. Total	100	0	0		23.4	76.6	0		0	93.3	6.7		
PHF	.910	.000	.000	.910	.825	.964	.000	.928	.000	.910	.734	.919	.921
Cars	829	0	0	829	30	106	0	136	0	615	47	662	1627
% Cars	96.1	0	0	96.1	90.9	98.1	0	96.5	0	93.9	100	94.3	95.4
Heavy Vehicles	34	0	0	34	3	2	0	5	0	40	0	40	79
% Heavy Vehicles	3.9	0	0	3.9	9.1	1.9	0	3.5	0	6.1	0	5.7	4.6

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S: Cummington Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 OOO
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
04:00 PM	175	0	0	6	13	0	0	99	25	318
04:15 PM	155	0	0	3	15	0	0	136	6	315
04:30 PM	148	0	0	1	22	0	0	124	22	317
04:45 PM	182	0	0	9	24	0	0	139	11	365
Total	660	0	0	19	74	0	0	498	64	1315
05:00 PM	206	0	0	10	28	0	0	127	16	387
05:15 PM	230	0	0	7	25	0	0	174	11	447
05:30 PM	187	0	0	3	28	0	0	165	10	393
05:45 PM	206	0	0	10	25	0	0	149	10	400
Total	829	0	0	30	106	0	0	615	47	1627
Grand Total	1489	0	0	49	180	0	0	1113	111	2942
Apprch %	100	0	0	21.4	78.6	0	0	90.9	9.1	
Total %	50.6	0	0	1.7	6.1	0	0	37.8	3.8	

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	206	0	0	206	**10**	**28**	0	**38**	0	127	**16**	143	387
05:15 PM	**230**	0	0	**230**	7	25	0	32	0	**174**	11	**185**	**447**
05:30 PM	187	0	0	187	3	28	0	31	0	165	10	175	393
05:45 PM	206	0	0	206	10	25	0	35	0	149	10	159	400
Total Volume	829	0	0	829	30	106	0	136	0	615	47	662	1627
% App. Total	100	0	0		22.1	77.9	0		0	92.9	7.1		
PHF	.901	.000	.000	.901	.750	.946	.000	.895	.000	.884	.734	.895	.910

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File Name : 122828 OOO
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Groups Printed- Heavy Vehicles

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
04:00 PM	10	0	0	0	1	0	0	12	0	23
04:15 PM	6	0	0	0	0	0	0	10	1	17
04:30 PM	11	0	0	0	0	0	0	8	0	19
04:45 PM	9	0	0	0	0	0	0	11	0	20
Total	36	0	0	0	1	0	0	41	1	79
05:00 PM	11	0	0	0	0	0	0	15	0	26
05:15 PM	7	0	0	2	1	0	0	6	0	16
05:30 PM	7	0	0	1	0	0	0	12	0	20
05:45 PM	9	0	0	0	1	0	0	7	0	17
Total	34	0	0	3	2	0	0	40	0	79
Grand Total	70	0	0	3	3	0	0	81	1	158
Apprch %	100	0	0	50	50	0	0	98.8	1.2	
Total %	44.3	0	0	1.9	1.9	0	0	51.3	0.6	

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	6	0	0	6	0	0	0	0	0	10	**1**	11	17
04:30 PM	**11**	0	0	**11**	0	0	0	0	0	8	0	8	19
04:45 PM	9	0	0	9	0	0	0	0	0	11	0	11	20
05:00 PM	11	0	0	11	0	0	0	0	0	**15**	0	**15**	**26**
Total Volume	37	0	0	37	0	0	0	0	0	44	1	45	82
% App. Total	100	0	0		0	0	0		0	97.8	2.2		
PHF	.841	.000	.000	.841	.000	.000	.000	.000	.000	.733	.250	.750	.788

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Groups Printed- Peds and Bicycles

	Commonwealth Avenue (Route 20/30) From East			Cummington Street From South			Commonwealth Avenue (Route 20/30) From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	8	0	85	0	0	160	0	20	6	279
04:15 PM	17	0	92	0	1	133	0	15	4	262
04:30 PM	12	0	80	1	0	113	0	21	1	228
04:45 PM	7	0	267	0	2	348	0	25	8	657
Total	44	0	524	1	3	754	0	81	19	1426
05:00 PM	17	0	145	2	3	186	0	14	1	368
05:15 PM	20	0	114	1	5	175	0	19	7	341
05:30 PM	29	0	116	0	4	177	0	18	3	347
05:45 PM	21	0	127	1	8	223	0	19	5	404
Total	87	0	502	4	20	761	0	70	16	1460
Grand Total	131	0	1026	5	23	1515	0	151	35	2886
Apprch %	11.3	0	88.7	0.3	1.5	98.2	0	81.2	18.8	
Total %	4.5	0	35.6	0.2	0.8	52.5	0	5.2	1.2	

	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	7	0	**267**	**274**	0	2	**348**	**350**	0	**25**	**8**	**33**	**657**
05:00 PM	17	0	145	162	**2**	3	186	191	0	14	1	15	368
05:15 PM	20	0	114	134	1	**5**	175	181	0	19	7	26	341
05:30 PM	**29**	0	116	145	0	4	177	181	0	18	3	21	347
Total Volume	73	0	642	715	3	14	886	903	0	76	19	95	1713
% App. Total	10.2	0	89.8		0.3	1.6	98.1		0	80	20		
PHF	.629	.000	.601	.652	.375	.700	.636	.645	.000	.760	.594	.720	.652

S: Cummington Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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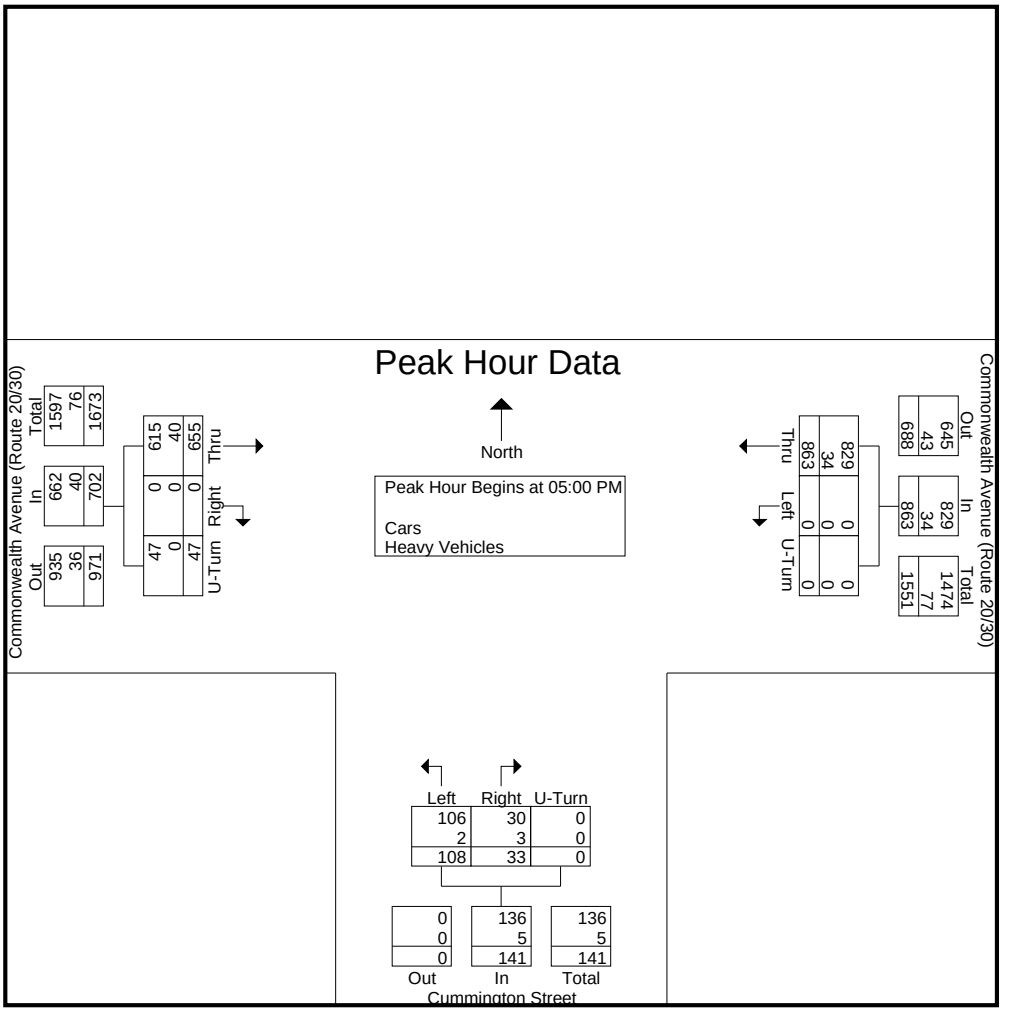
	Commonwealth Avenue (Route 20/30) From East				Cummington Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	217	0	0	217	**10**	**28**	0	**38**	0	142	**16**	158	413
05:15 PM	**237**	0	0	**237**	9	26	0	35	0	**180**	11	**191**	**463**
05:30 PM	194	0	0	194	4	28	0	32	0	177	10	187	413
05:45 PM	215	0	0	215	10	26	0	36	0	156	10	166	417
Total Volume	863	0	0	863	33	108	0	141	0	655	47	702	1706
% App. Total	100	0	0		23.4	76.6	0		0	93.3	6.7		
PHF	.910	.000	.000	.910	.825	.964	.000	.928	.000	.910	.734	.919	.921
Cars	829	0	0	829	30	106	0	136	0	615	47	662	1627
% Cars	96.1	0	0	96.1	90.9	98.1	0	96.5	0	93.9	100	94.3	95.4
Heavy Vehicles	34	0	0	34	3	2	0	5	0	40	0	40	79
% Heavy Vehicles	3.9	0	0	3.9	9.1	1.9	0	3.5	0	6.1	0	5.7	4.6



N: Granby Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 P
Site Code : 127-4220
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Groups Printed- Cars - Heavy Vehicles

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	Int. Total
07:00 AM	18	6	0	1	80	0	60	0	0	165
07:15 AM	11	5	0	0	86	0	107	0	0	209
07:30 AM	12	11	0	0	90	0	96	0	0	209
07:45 AM	15	9	0	0	116	0	142	0	0	282
Total	56	31	0	1	372	0	405	0	0	865
08:00 AM	19	10	0	0	107	1	139	0	0	276
08:15 AM	21	10	0	0	86	0	194	0	0	311
08:30 AM	19	11	0	1	107	0	159	0	0	297
08:45 AM	22	19	0	0	117	0	180	0	0	338
Total	81	50	0	1	417	1	672	0	0	1222
Grand Total	137	81	0	2	789	1	1077	0	0	2087
Apprch %	62.8	37.2	0	0.3	99.6	0.1	100	0	0	
Total %	6.6	3.9	0	0.1	37.8	0	51.6	0	0	
Cars	133	75	0	1	693	1	971	0	0	1874
% Cars	97.1	92.6	0	50	87.8	100	90.2	0	0	89.8
Heavy Vehicles	4	6	0	1	96	0	106	0	0	213
% Heavy Vehicles	2.9	7.4	0	50	12.2	0	9.8	0	0	10.2

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	19	10	0	29	0	107	**1**	108	139	0	0	139	276
08:15 AM	21	10	0	31	0	86	0	86	**194**	0	0	**194**	311
08:30 AM	19	11	0	30	**1**	107	0	108	159	0	0	159	297
08:45 AM	**22**	**19**	0	**41**	0	**117**	0	**117**	180	0	0	180	**338**
Total Volume	81	50	0	131	1	417	1	419	672	0	0	672	1222
% App. Total	61.8	38.2	0		0.2	99.5	0.2		100	0	0		
PHF	.920	.658	.000	.799	.250	.891	.250	.895	.866	.000	.000	.866	.904
Cars	79	48	0	127	1	369	1	371	612	0	0	612	1110
% Cars	97.5	96.0	0	96.9	100	88.5	100	88.5	91.1	0	0	91.1	90.8
Heavy Vehicles	2	2	0	4	0	48	0	48	60	0	0	60	112
% Heavy Vehicles	2.5	4.0	0	3.1	0	11.5	0	11.5	8.9	0	0	8.9	9.2

N: Granby Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 P
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	Int. Total
07:00 AM	17	5	0	0	71	0	55	0	0	148
07:15 AM	11	3	0	0	73	0	94	0	0	181
07:30 AM	11	10	0	0	81	0	81	0	0	183
07:45 AM	15	9	0	0	99	0	129	0	0	252
Total	54	27	0	0	324	0	359	0	0	764
08:00 AM	18	9	0	0	97	1	129	0	0	254
08:15 AM	21	10	0	0	74	0	176	0	0	281
08:30 AM	19	11	0	1	96	0	142	0	0	269
08:45 AM	21	18	0	0	102	0	165	0	0	306
Total	79	48	0	1	369	1	612	0	0	1110
Grand Total	133	75	0	1	693	1	971	0	0	1874
Apprch %	63.9	36.1	0	0.1	99.7	0.1	100	0	0	
Total %	7.1	4	0	0.1	37	0.1	51.8	0	0	

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	18	9	0	27	0	97	**1**	98	129	0	0	129	254
08:15 AM	**21**	10	0	31	0	74	0	74	**176**	0	0	**176**	281
08:30 AM	19	11	0	30	**1**	96	0	97	142	0	0	142	269
08:45 AM	21	**18**	0	**39**	0	**102**	0	**102**	165	0	0	165	**306**
Total Volume	79	48	0	127	1	369	1	371	612	0	0	612	1110
% App. Total	62.2	37.8	0		0.3	99.5	0.3		100	0	0		
PHF	.940	.667	.000	.814	.250	.904	.250	.909	.869	.000	.000	.869	.907

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N: Granby Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 P
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	Int. Total
07:00 AM	1	1	0	1	9	0	5	0	0	17
07:15 AM	0	2	0	0	13	0	13	0	0	28
07:30 AM	1	1	0	0	9	0	15	0	0	26
07:45 AM	0	0	0	0	17	0	13	0	0	30
Total	2	4	0	1	48	0	46	0	0	101
08:00 AM	1	1	0	0	10	0	10	0	0	22
08:15 AM	0	0	0	0	12	0	18	0	0	30
08:30 AM	0	0	0	0	11	0	17	0	0	28
08:45 AM	1	1	0	0	15	0	15	0	0	32
Total	2	2	0	0	48	0	60	0	0	112
Grand Total	4	6	0	1	96	0	106	0	0	213
Apprch %	40	60	0	1	99	0	100	0	0	
Total %	1.9	2.8	0	0.5	45.1	0	49.8	0	0	

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	**1**	**1**	0	**2**	0	10	0	10	10	0	0	10	22
08:15 AM	0	0	0	0	0	12	0	12	**18**	0	0	**18**	30
08:30 AM	0	0	0	0	0	11	0	11	17	0	0	17	28
08:45 AM	1	1	0	2	0	**15**	0	**15**	15	0	0	15	**32**
Total Volume	2	2	0	4	0	48	0	48	60	0	0	60	112
% App. Total	50	50	0		0	100	0		100	0	0		
PHF	.500	.500	.000	.500	.000	.800	.000	.800	.833	.000	.000	.833	.875

N: Granby Street
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Start Date : 3/20/2012
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Groups Printed- Peds and Bicycles

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
07:00 AM	0	0	7	0	0	6	17	0	7	37
07:15 AM	0	0	18	0	1	6	10	0	6	41
07:30 AM	1	0	33	0	1	23	25	0	26	109
07:45 AM	0	0	154	0	2	49	18	0	97	320
Total	1	0	212	0	4	84	70	0	136	507
08:00 AM	0	0	46	0	3	16	21	0	42	128
08:15 AM	0	0	33	0	3	19	33	0	38	126
08:30 AM	0	0	68	0	4	49	43	0	33	197
08:45 AM	1	0	98	0	2	80	30	0	78	289
Total	1	0	245	0	12	164	127	0	191	740
Grand Total	2	0	457	0	16	248	197	0	327	1247
Apprch %	0.4	0	99.6	0	6.1	93.9	37.6	0	62.4	
Total %	0.2	0	36.6	0	1.3	19.9	15.8	0	26.2	

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	0	**154**	**154**	0	2	**49**	51	18	0	**97**	**115**	**320**
08:00 AM	0	0	46	46	0	3	16	19	21	0	42	63	128
08:15 AM	0	0	33	33	0	3	19	22	33	0	38	71	126
08:30 AM	0	0	68	68	0	**4**	49	**53**	**43**	0	33	76	197
Total Volume	0	0	301	301	0	12	133	145	115	0	210	325	771
% App. Total	0	0	100		0	8.3	91.7		35.4	0	64.6		
PHF	.000	.000	.489	.489	.000	.750	.679	.684	.669	.000	.541	.707	.602

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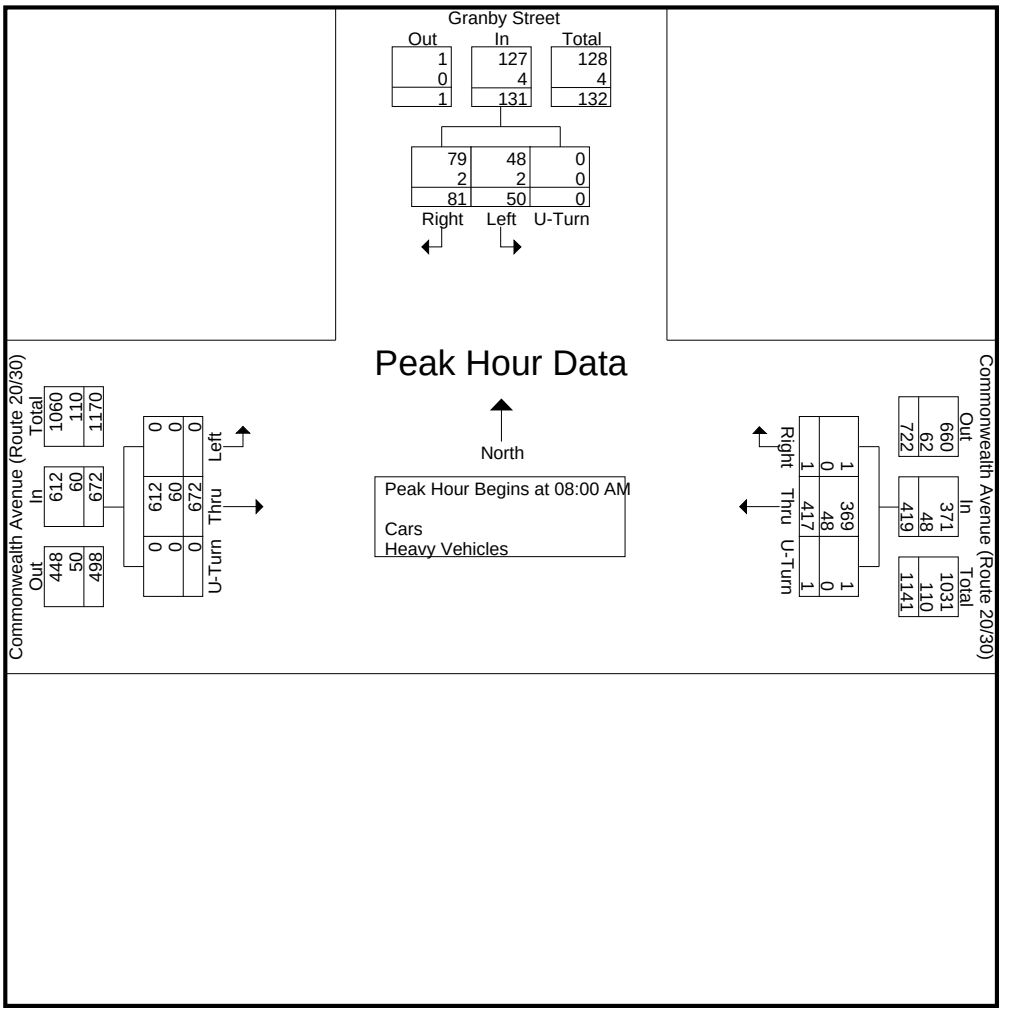
	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	19	10	0	29	0	107	**1**	108	139	0	0	139	276
08:15 AM	21	10	0	31	0	86	0	86	**194**	0	0	**194**	311
08:30 AM	19	11	0	30	**1**	107	0	108	159	0	0	159	297
08:45 AM	**22**	**19**	0	**41**	0	**117**	0	**117**	180	0	0	180	**338**
Total Volume	81	50	0	131	1	417	1	419	672	0	0	672	1222
% App. Total	61.8	38.2	0		0.2	99.5	0.2		100	0	0		
PHF	.920	.658	.000	.799	.250	.891	.250	.895	.866	.000	.000	.866	.904
Cars	79	48	0	127	1	369	1	371	612	0	0	612	1110
% Cars	97.5	96.0	0	96.9	100	88.5	100	88.5	91.1	0	0	91.1	90.8
Heavy Vehicles	2	2	0	4	0	48	0	48	60	0	0	60	112
% Heavy Vehicles	2.5	4.0	0	3.1	0	11.5	0	11.5	8.9	0	0	8.9	9.2



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File Name : 122828 PP
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Cars - Heavy Vehicles

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	Int. Total
12:00 PM	21	7	0	0	110	0	147	0	0	285
12:15 PM	26	14	0	0	140	0	156	0	0	336
12:30 PM	28	9	0	0	139	0	146	0	0	322
12:45 PM	20	6	0	0	134	0	142	0	0	302
Total	95	36	0	0	523	0	591	0	0	1245
01:00 PM	16	7	0	0	118	0	130	0	0	271
01:15 PM	16	4	0	0	99	0	130	0	0	249
01:30 PM	22	6	0	0	125	0	133	0	0	286
01:45 PM	20	14	0	0	127	0	151	0	0	312
Total	74	31	0	0	469	0	544	0	0	1118
Grand Total	169	67	0	0	992	0	1135	0	0	2363
Apprch %	71.6	28.4	0	0	100	0	100	0	0	
Total %	7.2	2.8	0	0	42	0	48	0	0	
Cars	167	61	0	0	920	0	1026	0	0	2174
% Cars	98.8	91	0	0	92.7	0	90.4	0	0	92
Heavy Vehicles	2	6	0	0	72	0	109	0	0	189
% Heavy Vehicles	1.2	9	0	0	7.3	0	9.6	0	0	8

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	21	7	0	28	0	110	0	110	147	0	0	147	285
12:15 PM	26	**14**	0	**40**	0	**140**	0	**140**	**156**	0	0	**156**	**336**
12:30 PM	**28**	9	0	37	0	139	0	139	146	0	0	146	322
12:45 PM	20	6	0	26	0	134	0	134	142	0	0	142	302
Total Volume	95	36	0	131	0	523	0	523	591	0	0	591	1245
% App. Total	72.5	27.5	0		0	100	0		100	0	0		
PHF	.848	.643	.000	.819	.000	.934	.000	.934	.947	.000	.000	.947	.926
Cars	95	33	0	128	0	486	0	486	528	0	0	528	1142
% Cars	100	91.7	0	97.7	0	92.9	0	92.9	89.3	0	0	89.3	91.7
Heavy Vehicles	0	3	0	3	0	37	0	37	63	0	0	63	103
% Heavy Vehicles	0	8.3	0	2.3	0	7.1	0	7.1	10.7	0	0	10.7	8.3

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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 PP
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Cars

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	Int. Total
12:00 PM	21	7	0	0	105	0	133	0	0	266
12:15 PM	26	12	0	0	129	0	148	0	0	315
12:30 PM	28	8	0	0	128	0	127	0	0	291
12:45 PM	20	6	0	0	124	0	120	0	0	270
Total	95	33	0	0	486	0	528	0	0	1142
01:00 PM	15	5	0	0	107	0	117	0	0	244
01:15 PM	15	4	0	0	93	0	122	0	0	234
01:30 PM	22	6	0	0	115	0	121	0	0	264
01:45 PM	20	13	0	0	119	0	138	0	0	290
Total	72	28	0	0	434	0	498	0	0	1032
Grand Total	167	61	0	0	920	0	1026	0	0	2174
Apprch %	73.2	26.8	0	0	100	0	100	0	0	
Total %	7.7	2.8	0	0	42.3	0	47.2	0	0	

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	21	7	0	28	0	105	0	105	133	0	0	133	266
12:15 PM	26	**12**	0	**38**	0	**129**	0	**129**	**148**	0	0	**148**	**315**
12:30 PM	**28**	8	0	36	0	128	0	128	127	0	0	127	291
12:45 PM	20	6	0	26	0	124	0	124	120	0	0	120	270
Total Volume	95	33	0	128	0	486	0	486	528	0	0	528	1142
% App. Total	74.2	25.8	0		0	100	0		100	0	0		
PHF	.848	.688	.000	.842	.000	.942	.000	.942	.892	.000	.000	.892	.906

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N: Granby Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 PP
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Heavy Vehicles

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	5	0	14	0	0	19
12:15 PM	0	2	0	0	11	0	8	0	0	21
12:30 PM	0	1	0	0	11	0	19	0	0	31
12:45 PM	0	0	0	0	10	0	22	0	0	32
Total	0	3	0	0	37	0	63	0	0	103
01:00 PM	1	2	0	0	11	0	13	0	0	27
01:15 PM	1	0	0	0	6	0	8	0	0	15
01:30 PM	0	0	0	0	10	0	12	0	0	22
01:45 PM	0	1	0	0	8	0	13	0	0	22
Total	2	3	0	0	35	0	46	0	0	86
Grand Total	2	6	0	0	72	0	109	0	0	189
Apprch %	25	75	0	0	100	0	100	0	0	
Total %	1.1	3.2	0	0	38.1	0	57.7	0	0	

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:15 PM													
12:15 PM	0	**2**	0	2	0	**11**	0	**11**	8	0	0	8	21
12:30 PM	0	1	0	1	0	11	0	11	19	0	0	19	31
12:45 PM	0	0	0	0	0	10	0	10	**22**	0	0	**22**	**32**
01:00 PM	**1**	2	0	**3**	0	11	0	11	13	0	0	13	27
Total Volume	1	5	0	6	0	43	0	43	62	0	0	62	111
% App. Total	16.7	83.3	0		0	100	0		100	0	0		
PHF	.250	.625	.000	.500	.000	.977	.000	.977	.705	.000	.000	.705	.867

PRECISION
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N: Granby Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 PP
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
12:00 PM	0	0	238	0	9	98	7	1	112	465
12:15 PM	0	1	532	0	9	329	17	0	273	1161
12:30 PM	1	0	218	0	8	132	17	0	107	483
12:45 PM	1	1	171	0	7	106	17	0	120	423
Total	2	2	1159	0	33	665	58	1	612	2532
01:00 PM	1	2	151	0	16	68	7	0	74	319
01:15 PM	1	0	127	0	8	78	12	0	80	306
01:30 PM	1	0	199	0	5	111	16	1	95	428
01:45 PM	0	2	494	1	18	359	17	0	355	1246
Total	3	4	971	1	47	616	52	1	604	2299
Grand Total	5	6	2130	1	80	1281	110	2	1216	4831
Apprch %	0.2	0.3	99.5	0.1	5.9	94.1	8.3	0.2	91.6	
Total %	0.1	0.1	44.1	0	1.7	26.5	2.3	0	25.2	

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	0	0	238	238	0	**9**	98	107	7	**1**	112	120	465
12:15 PM	0	**1**	**532**	**533**	0	9	**329**	**338**	**17**	0	**273**	**290**	**1161**
12:30 PM	**1**	0	218	219	0	8	132	140	17	0	107	124	483
12:45 PM	1	1	171	173	0	7	106	113	17	0	120	137	423
Total Volume	2	2	1159	1163	0	33	665	698	58	1	612	671	2532
% App. Total	0.2	0.2	99.7		0	4.7	95.3		8.6	0.1	91.2		
PHF	.500	.500	.545	.545	.000	.917	.505	.516	.853	.250	.560	.578	.545

N: Granby Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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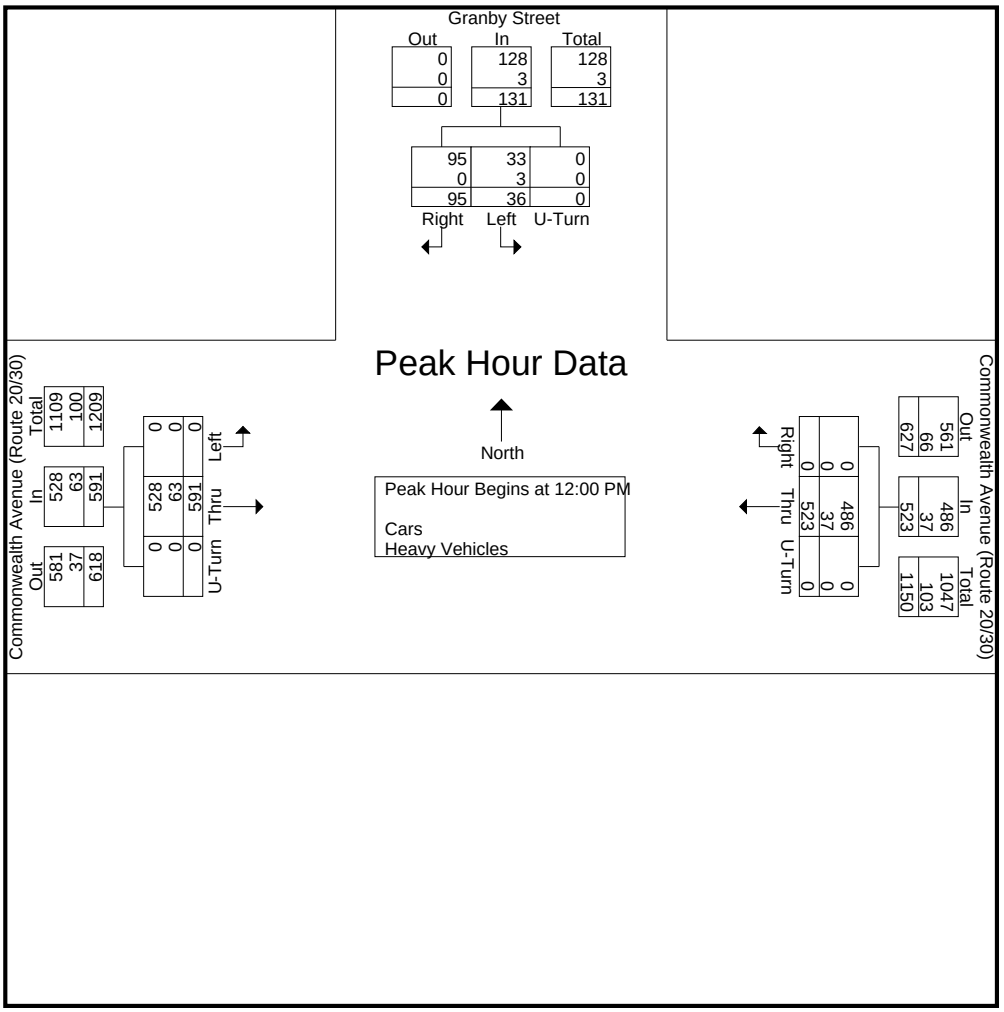
File Name : 122828 PP
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	21	7	0	28	0	110	0	110	147	0	0	147	285
12:15 PM	26	**14**	0	**40**	0	**140**	0	**140**	**156**	0	0	**156**	**336**
12:30 PM	**28**	9	0	37	0	139	0	139	146	0	0	146	322
12:45 PM	20	6	0	26	0	134	0	134	142	0	0	142	302
Total Volume	95	36	0	131	0	523	0	523	591	0	0	591	1245
% App. Total	72.5	27.5	0		0	100	0		100	0	0		
PHF	.848	.643	.000	.819	.000	.934	.000	.934	.947	.000	.000	.947	.926
Cars	95	33	0	128	0	486	0	486	528	0	0	528	1142
% Cars	100	91.7	0	97.7	0	92.9	0	92.9	89.3	0	0	89.3	91.7
Heavy Vehicles	0	3	0	3	0	37	0	37	63	0	0	63	103
% Heavy Vehicles	0	8.3	0	2.3	0	7.1	0	7.1	10.7	0	0	10.7	8.3



N: Granby Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 PPP
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	Int. Total
04:00 PM	36	9	0	0	152	0	110	0	0	307
04:15 PM	20	8	0	0	137	0	153	0	0	318
04:30 PM	23	10	0	0	142	0	135	0	0	310
04:45 PM	41	13	0	0	160	0	159	0	0	373
Total	120	40	0	0	591	0	557	0	0	1308
05:00 PM	42	20	0	0	170	0	151	0	0	383
05:15 PM	33	12	0	0	194	1	182	0	0	422
05:30 PM	34	16	0	0	157	0	187	0	0	394
05:45 PM	39	18	0	0	177	0	171	0	0	405
Total	148	66	0	0	698	1	691	0	0	1604
Grand Total	268	106	0	0	1289	1	1248	0	0	2912
Apprch %	71.7	28.3	0	0	99.9	0.1	100	0	0	
Total %	9.2	3.6	0	0	44.3	0	42.9	0	0	
Cars	262	100	0	0	1224	1	1166	0	0	2753
% Cars	97.8	94.3	0	0	95	100	93.4	0	0	94.5
Heavy Vehicles	6	6	0	0	65	0	82	0	0	159
% Heavy Vehicles	2.2	5.7	0	0	5	0	6.6	0	0	5.5

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	**42**	**20**	0	**62**	0	170	0	170	151	0	0	151	383
05:15 PM	33	12	0	45	0	**194**	**1**	**195**	182	0	0	182	**422**
05:30 PM	34	16	0	50	0	157	0	157	**187**	0	0	**187**	394
05:45 PM	39	18	0	57	0	177	0	177	171	0	0	171	405
Total Volume	148	66	0	214	0	698	1	699	691	0	0	691	1604
% App. Total	69.2	30.8	0		0	99.9	0.1		100	0	0		
PHF	.881	.825	.000	.863	.000	.899	.250	.896	.924	.000	.000	.924	.950
Cars	144	65	0	209	0	668	1	669	648	0	0	648	1526
% Cars	97.3	98.5	0	97.7	0	95.7	100	95.7	93.8	0	0	93.8	95.1
Heavy Vehicles	4	1	0	5	0	30	0	30	43	0	0	43	78
% Heavy Vehicles	2.7	1.5	0	2.3	0	4.3	0	4.3	6.2	0	0	6.2	4.9

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N: Granby Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 PPP
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	Int. Total
04:00 PM	35	9	0	0	143	0	99	0	0	286
04:15 PM	20	6	0	0	131	0	143	0	0	300
04:30 PM	23	8	0	0	131	0	127	0	0	289
04:45 PM	40	12	0	0	151	0	149	0	0	352
Total	118	35	0	0	556	0	518	0	0	1227
05:00 PM	40	20	0	0	162	0	138	0	0	360
05:15 PM	33	12	0	0	187	1	172	0	0	405
05:30 PM	33	16	0	0	148	0	174	0	0	371
05:45 PM	38	17	0	0	171	0	164	0	0	390
Total	144	65	0	0	668	1	648	0	0	1526
Grand Total	262	100	0	0	1224	1	1166	0	0	2753
Apprch %	72.4	27.6	0	0	99.9	0.1	100	0	0	
Total %	9.5	3.6	0	0	44.5	0	42.4	0	0	

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	**40**	**20**	0	**60**	0	162	0	162	138	0	0	138	360
05:15 PM	33	12	0	45	0	**187**	**1**	**188**	172	0	0	172	**405**
05:30 PM	33	16	0	49	0	148	0	148	**174**	0	0	**174**	371
05:45 PM	38	17	0	55	0	171	0	171	164	0	0	164	390
Total Volume	144	65	0	209	0	668	1	669	648	0	0	648	1526
% App. Total	68.9	31.1	0		0	99.9	0.1		100	0	0		
PHF	.900	.813	.000	.871	.000	.893	.250	.890	.931	.000	.000	.931	.942

N: Granby Street
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Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 PPP
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn	Int. Total
04:00 PM	1	0	0	0	9	0	11	0	0	21
04:15 PM	0	2	0	0	6	0	10	0	0	18
04:30 PM	0	2	0	0	11	0	8	0	0	21
04:45 PM	1	1	0	0	9	0	10	0	0	21
Total	2	5	0	0	35	0	39	0	0	81
05:00 PM	2	0	0	0	8	0	13	0	0	23
05:15 PM	0	0	0	0	7	0	10	0	0	17
05:30 PM	1	0	0	0	9	0	13	0	0	23
05:45 PM	1	1	0	0	6	0	7	0	0	15
Total	4	1	0	0	30	0	43	0	0	78
Grand Total	6	6	0	0	65	0	82	0	0	159
Apprch %	50	50	0	0	100	0	100	0	0	
Total %	3.8	3.8	0	0	40.9	0	51.6	0	0	

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	1	**1**	0	**2**	0	**9**	0	**9**	10	0	0	10	21
05:00 PM	**2**	0	0	2	0	8	0	8	**13**	0	0	**13**	**23**
05:15 PM	0	0	0	0	0	7	0	7	10	0	0	10	17
05:30 PM	1	0	0	1	0	9	0	9	13	0	0	13	23
Total Volume	4	1	0	5	0	33	0	33	46	0	0	46	84
% App. Total	80	20	0		0	100	0		100	0	0		
PHF	.500	.250	.000	.625	.000	.917	.000	.917	.885	.000	.000	.885	.913

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N: Granby Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 PPP
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Peds and Bicycles

	Granby Street From North			Commonwealth Avenue (Route 20/30) From East			Commonwealth Avenue (Route 20/30) From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
04:00 PM	0	0	155	0	12	69	18	0	77	331
04:15 PM	0	1	129	0	26	46	15	0	73	290
04:30 PM	0	1	133	0	18	46	20	0	53	271
04:45 PM	0	1	327	0	22	161	24	0	174	709
Total	0	3	744	0	78	322	77	0	377	1601
05:00 PM	0	1	254	0	18	88	22	0	78	461
05:15 PM	0	2	202	0	23	75	19	0	73	394
05:30 PM	1	1	184	0	24	84	17	0	67	378
05:45 PM	3	1	268	0	27	98	22	0	85	504
Total	4	5	908	0	92	345	80	0	303	1737
Grand Total	4	8	1652	0	170	667	157	0	680	3338
Apprch %	0.2	0.5	99.3	0	20.3	79.7	18.8	0	81.2	
Total %	0.1	0.2	49.5	0	5.1	20	4.7	0	20.4	

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	0	1	**327**	**328**	0	22	**161**	**183**	**24**	0	**174**	**198**	**709**
05:00 PM	0	1	254	255	0	18	88	106	22	0	78	100	461
05:15 PM	0	**2**	202	204	0	23	75	98	19	0	73	92	394
05:30 PM	**1**	1	184	186	0	**24**	84	108	17	0	67	84	378
Total Volume	1	5	967	973	0	87	408	495	82	0	392	474	1942
% App. Total	0.1	0.5	99.4		0	17.6	82.4		17.3	0	82.7		
PHF	.250	.625	.739	.742	.000	.906	.634	.676	.854	.000	.563	.598	.685

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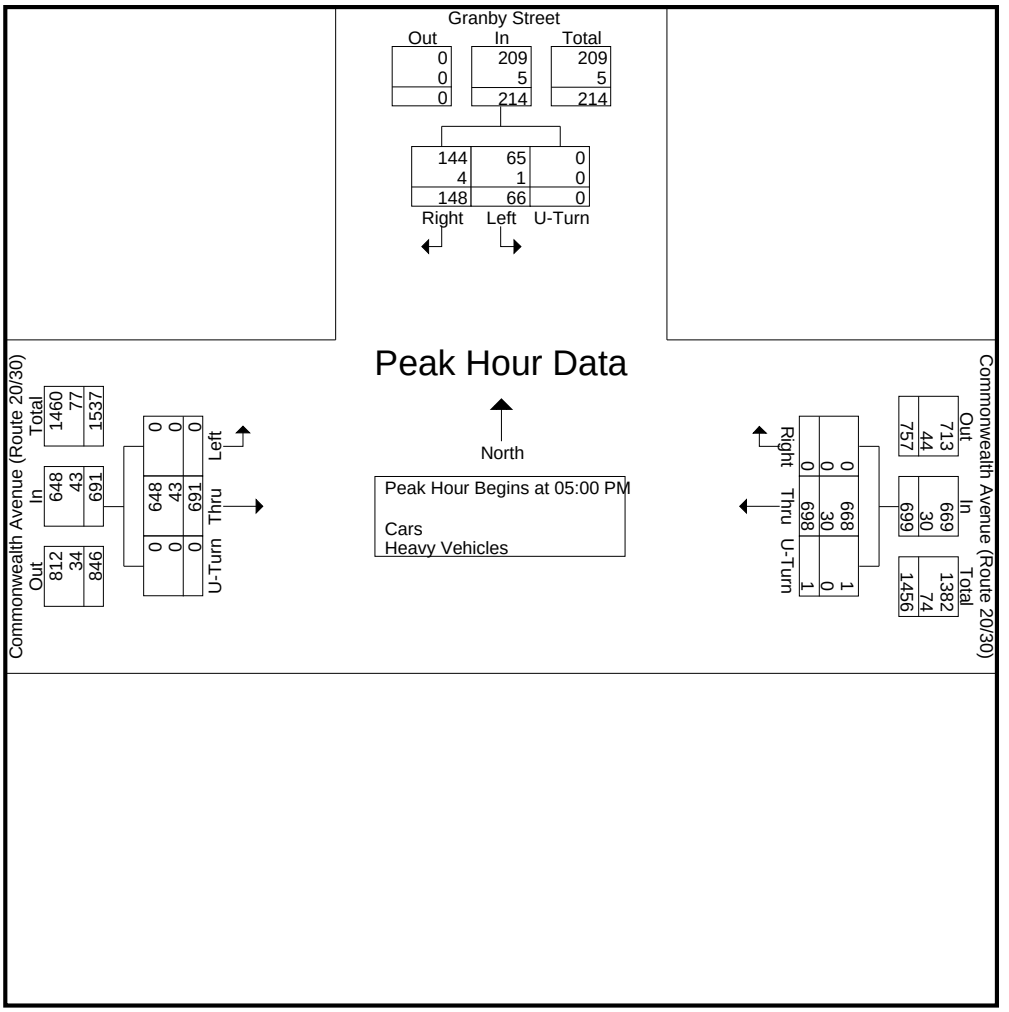
N: Granby Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 PPP
Site Code : 127-4220
Start Date : 3/20/2012

	Granby Street From North				Commonwealth Avenue (Route 20/30) From East				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	**42**	**20**	0	**62**	0	170	0	170	151	0	0	151	383
05:15 PM	33	12	0	45	0	**194**	**1**	**195**	182	0	0	182	**422**
05:30 PM	34	16	0	50	0	157	0	157	**187**	0	0	**187**	394
05:45 PM	39	18	0	57	0	177	0	177	171	0	0	171	405
Total Volume	148	66	0	214	0	698	1	699	691	0	0	691	1604
% App. Total	69.2	30.8	0		0	99.9	0.1		100	0	0		
PHF	.881	.825	.000	.863	.000	.899	.250	.896	.924	.000	.000	.924	.950
Cars	144	65	0	209	0	668	1	669	648	0	0	648	1526
% Cars	97.3	98.5	0	97.7	0	95.7	100	95.7	93.8	0	0	93.8	95.1
Heavy Vehicles	4	1	0	5	0	30	0	30	43	0	0	43	78
% Heavy Vehicles	2.7	1.5	0	2.3	0	4.3	0	4.3	6.2	0	0	6.2	4.9



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N/S: Granby Street
E/W: Bay Street Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 Q
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	1	0	0	1	6	10	0	0	0	0	0	11	0	1	0	30
07:15 AM	0	2	0	0	1	9	22	0	0	0	0	0	3	0	0	0	37
07:30 AM	0	1	0	0	0	6	19	0	0	0	0	0	0	0	0	0	26
07:45 AM	0	0	0	0	1	11	18	0	0	0	0	0	3	0	0	0	33
Total	0	4	0	0	3	32	69	0	0	0	0	0	17	0	1	0	126
08:00 AM	0	1	0	0	2	18	22	0	0	0	0	0	1	0	1	0	45
08:15 AM	0	0	0	0	1	25	28	0	0	0	0	0	3	0	1	0	58
08:30 AM	1	0	0	0	0	21	18	0	0	0	0	0	2	0	0	0	42
08:45 AM	0	0	0	0	3	22	14	0	0	0	0	0	6	0	1	0	46
Total	1	1	0	0	6	86	82	0	0	0	0	0	12	0	3	0	191
Grand Total	1	5	0	0	9	118	151	0	0	0	0	0	29	0	4	0	317
Apprch %	16.7	83.3	0	0	3.2	42.4	54.3	0	0	0	0	0	87.9	0	12.1	0	
Total %	0.3	1.6	0	0	2.8	37.2	47.6	0	0	0	0	0	9.1	0	1.3	0	
Cars	1	4	0	0	9	114	150	0	0	0	0	0	26	0	3	0	307
% Cars	100	80	0	0	100	96.6	99.3	0	0	0	0	0	89.7	0	75	0	96.8
Heavy Vehicles	0	1	0	0	0	4	1	0	0	0	0	0	3	0	1	0	10
% Heavy Vehicles	0	20	0	0	0	3.4	0.7	0	0	0	0	0	10.3	0	25	0	3.2

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	**1**	0	0	**1**	2	18	22	0	42	0	0	0	0	0	1	0	**1**	0	2	45
08:15 AM	0	0	0	0	0	1	**25**	**28**	0	**54**	0	0	0	0	0	3	0	1	0	4	**58**
08:30 AM	**1**	0	0	0	1	0	21	18	0	39	0	0	0	0	0	2	0	0	0	2	42
08:45 AM	0	0	0	0	0	**3**	22	14	0	39	0	0	0	0	0	**6**	0	1	0	**7**	46
Total Volume	1	1	0	0	2	6	86	82	0	174	0	0	0	0	0	12	0	3	0	15	191
% App. Total	50	50	0	0		3.4	49.4	47.1	0		0	0	0	0		80	0	20	0		
PHF	.250	.250	.000	.000	.500	.500	.860	.732	.000	.806	.000	.000	.000	.000	.000	.500	.000	.750	.000	.536	.823
Cars	1	1	0	0	2	6	84	82	0	172	0	0	0	0	0	11	0	2	0	13	187
% Cars	100	100	0	0	100	100	97.7	100	0	98.9	0	0	0	0	0	91.7	0	66.7	0	86.7	97.9
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	2.3	0	0	1.1	0	0	0	0	0	8.3	0	33.3	0	13.3	2.1

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N/S: Granby Street
E/W: Bay Street Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 Q
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Cars

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	1	0	0	1	6	10	0	0	0	0	0	11	0	1	0	30
07:15 AM	0	1	0	0	1	7	22	0	0	0	0	0	2	0	0	0	33
07:30 AM	0	1	0	0	0	6	19	0	0	0	0	0	0	0	0	0	26
07:45 AM	0	0	0	0	1	11	17	0	0	0	0	0	2	0	0	0	31
Total	0	3	0	0	3	30	68	0	0	0	0	0	15	0	1	0	120
08:00 AM	0	1	0	0	2	18	22	0	0	0	0	0	1	0	1	0	45
08:15 AM	0	0	0	0	1	24	28	0	0	0	0	0	3	0	1	0	57
08:30 AM	1	0	0	0	0	20	18	0	0	0	0	0	2	0	0	0	41
08:45 AM	0	0	0	0	3	22	14	0	0	0	0	0	5	0	0	0	44
Total	1	1	0	0	6	84	82	0	0	0	0	0	11	0	2	0	187
Grand Total	1	4	0	0	9	114	150	0	0	0	0	0	26	0	3	0	307
Apprch %	20	80	0	0	3.3	41.8	54.9	0	0	0	0	0	89.7	0	10.3	0	
Total %	0.3	1.3	0	0	2.9	37.1	48.9	0	0	0	0	0	8.5	0	1	0	

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	**1**	0	0	**1**	2	18	22	0	42	0	0	0	0	0	1	0	**1**	0	2	45
08:15 AM	0	0	0	0	0	1	**24**	**28**	0	**53**	0	0	0	0	0	3	0	1	0	4	**57**
08:30 AM	**1**	0	0	0	1	0	20	18	0	38	0	0	0	0	0	2	0	0	0	2	41
08:45 AM	0	0	0	0	0	**3**	22	14	0	39	0	0	0	0	0	**5**	0	0	0	**5**	44
Total Volume	1	1	0	0	2	6	84	82	0	172	0	0	0	0	0	11	0	2	0	13	187
% App. Total	50	50	0	0		3.5	48.8	47.7	0		0	0	0	0		84.6	0	15.4	0		
PHF	.250	.250	.000	.000	.500	.500	.875	.732	.000	.811	.000	.000	.000	.000	.000	.550	.000	.500	.000	.650	.820

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E/W: Bay Street Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 Q
Site Code : 127-4220
Start Date : 3/21/2012
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Groups Printed- Heavy Vehicles

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	2	0	0	0	0	0	0	1	0	0	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2
Total	0	1	0	0	0	2	1	0	0	0	0	0	2	0	0	0	6
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2
Total	0	0	0	0	0	2	0	0	0	0	0	0	1	0	1	0	4
Grand Total	0	1	0	0	0	4	1	0	0	0	0	0	3	0	1	0	10
Apprch %	0	100	0	0	0	80	20	0	0	0	0	0	75	0	25	0	
Total %	0	10	0	0	0	40	10	0	0	0	0	0	30	0	10	0	

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	**1**	0	0	**1**	0	**2**	0	0	**2**	0	0	0	0	0	**1**	0	0	0	**1**	**4**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	0	1	0	0	0	1	2
Total Volume	0	1	0	0	1	0	2	1	0	3	0	0	0	0	0	2	0	0	0	2	6
% App. Total	0	100	0	0		0	66.7	33.3	0		0	0	0	0		100	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.250	.250	.000	.375	.000	.000	.000	.000	.000	.500	.000	.000	.000	.500	.375

N/S: Granby Street
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File Name : 122828 Q
Site Code : 127-4220
Start Date : 3/21/2012
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Groups Printed- Peds and Bicycles

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	1	0	0	0	4	0	0	0	4	0	0	0	0	9
07:15 AM	0	0	0	2	0	0	2	6	0	0	0	3	0	0	1	0	14
07:30 AM	0	0	0	13	0	0	1	5	0	0	0	8	0	0	4	1	32
07:45 AM	0	0	0	13	0	0	1	14	0	0	0	24	1	0	2	7	62
Total	0	0	0	29	0	0	4	29	0	0	0	39	1	0	7	8	117
08:00 AM	0	0	0	7	0	0	1	11	0	0	0	13	0	0	0	1	33
08:15 AM	0	0	0	10	0	2	0	9	0	0	0	10	0	0	3	5	39
08:30 AM	0	0	0	13	0	0	0	7	0	0	0	22	0	0	4	3	49
08:45 AM	1	0	0	36	0	3	0	32	0	0	0	62	0	0	2	26	162
Total	1	0	0	66	0	5	1	59	0	0	0	107	0	0	9	35	283
Grand Total	1	0	0	95	0	5	5	88	0	0	0	146	1	0	16	43	400
Apprch %	1	0	0	99	0	5.1	5.1	89.8	0	0	0	100	1.7	0	26.7	71.7	
Total %	0.2	0	0	23.8	0	1.2	1.2	22	0	0	0	36.5	0.2	0	4	10.8	

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	7	7	0	0	**1**	11	12	0	0	0	13	13	0	0	0	1	1	33
08:15 AM	0	0	0	10	10	0	2	0	9	11	0	0	0	10	10	0	0	3	5	8	39
08:30 AM	0	0	0	13	13	0	0	0	7	7	0	0	0	22	22	0	0	**4**	3	7	49
08:45 AM	**1**	0	0	**36**	**37**	0	**3**	0	**32**	**35**	0	0	0	**62**	**62**	0	0	2	**26**	**28**	**162**
Total Volume	1	0	0	66	67	0	5	1	59	65	0	0	0	107	107	0	0	9	35	44	283
% App. Total	1.5	0	0	98.5		0	7.7	1.5	90.8		0	0	0	100		0	0	20.5	79.5		
PHF	.250	.000	.000	.458	.453	.000	.417	.250	.461	.464	.000	.000	.000	.431	.431	.000	.000	.563	.337	.393	.437

N/S: Granby Street
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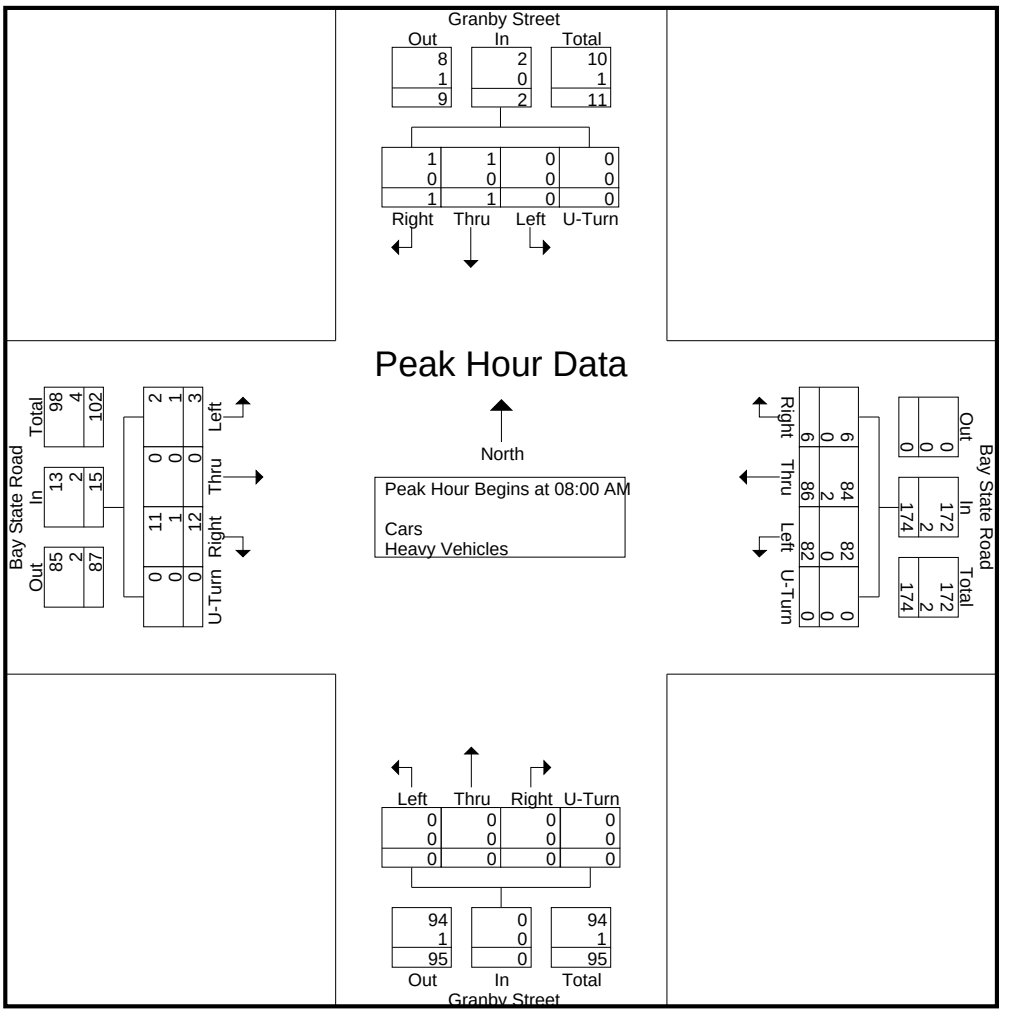
File Name : 122828 Q
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	**1**	0	0	**1**	2	18	22	0	42	0	0	0	0	0	1	0	**1**	0	2	45
08:15 AM	0	0	0	0	0	1	**25**	**28**	0	**54**	0	0	0	0	0	3	0	1	0	4	**58**
08:30 AM	**1**	0	0	0	1	0	21	18	0	39	0	0	0	0	0	2	0	0	0	2	42
08:45 AM	0	0	0	0	0	**3**	22	14	0	39	0	0	0	0	0	**6**	0	1	0	**7**	46
Total Volume	1	1	0	0	2	6	86	82	0	174	0	0	0	0	0	12	0	3	0	15	191
% App. Total	50	50	0	0		3.4	49.4	47.1	0		0	0	0	0		80	0	20	0		
PHF	.250	.250	.000	.000	.500	.500	.860	.732	.000	.806	.000	.000	.000	.000	.000	.500	.000	.750	.000	.536	.823
Cars	1	1	0	0	2	6	84	82	0	172	0	0	0	0	0	11	0	2	0	13	187
% Cars	100	100	0	0	100	100	97.7	100	0	98.9	0	0	0	0	0	91.7	0	66.7	0	86.7	97.9
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	2.3	0	0	1.1	0	0	0	0	0	8.3	0	33.3	0	13.3	2.1



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File Name : 122828 QQ
Site Code : 127-4220
Start Date : 3/21/2012
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Groups Printed- Cars - Heavy Vehicles

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	2	0	0	2	9	28	0	0	0	0	0	15	0	0	0	56
12:15 PM	0	2	0	0	0	5	20	0	0	0	0	0	10	0	2	0	39
12:30 PM	0	2	0	0	2	12	29	0	0	0	0	0	8	0	1	0	54
12:45 PM	2	1	0	0	2	5	22	0	0	0	0	0	8	0	4	0	44
Total	2	7	0	0	6	31	99	0	0	0	0	0	41	0	7	0	193
01:00 PM	1	0	0	0	1	4	23	0	0	0	0	0	8	0	0	0	37
01:15 PM	0	3	0	0	2	4	25	0	0	0	0	0	7	0	0	0	41
01:30 PM	0	2	0	0	0	6	22	0	0	0	0	0	7	0	0	0	37
01:45 PM	0	0	0	0	0	4	33	0	0	0	0	0	7	0	0	0	44
Total	1	5	0	0	3	18	103	0	0	0	0	0	29	0	0	0	159
Grand Total	3	12	0	0	9	49	202	0	0	0	0	0	70	0	7	0	352
Apprch %	20	80	0	0	3.5	18.8	77.7	0	0	0	0	0	90.9	0	9.1	0	
Total %	0.9	3.4	0	0	2.6	13.9	57.4	0	0	0	0	0	19.9	0	2	0	
Cars	3	12	0	0	9	46	198	0	0	0	0	0	56	0	6	0	330
% Cars	100	100	0	0	100	93.9	98	0	0	0	0	0	80	0	85.7	0	93.8
Heavy Vehicles	0	0	0	0	0	3	4	0	0	0	0	0	14	0	1	0	22
% Heavy Vehicles	0	0	0	0	0	6.1	2	0	0	0	0	0	20	0	14.3	0	6.2

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	**2**	0	0	2	**2**	9	28	0	39	0	0	0	0	0	**15**	0	0	0	**15**	**56**
12:15 PM	0	2	0	0	2	0	5	20	0	25	0	0	0	0	0	10	0	2	0	12	39
12:30 PM	0	2	0	0	2	2	**12**	**29**	0	**43**	0	0	0	0	0	8	0	1	0	9	54
12:45 PM	**2**	1	0	0	**3**	2	5	22	0	29	0	0	0	0	0	8	0	**4**	0	12	44
Total Volume	2	7	0	0	9	6	31	99	0	136	0	0	0	0	0	41	0	7	0	48	193
% App. Total	22.2	77.8	0	0		4.4	22.8	72.8	0		0	0	0	0		85.4	0	14.6	0		
PHF	.250	.875	.000	.000	.750	.750	.646	.853	.000	.791	.000	.000	.000	.000	.000	.683	.000	.438	.000	.800	.862
Cars	2	7	0	0	9	6	30	97	0	133	0	0	0	0	0	32	0	6	0	38	180
% Cars	100	100	0	0	100	100	96.8	98.0	0	97.8	0	0	0	0	0	78.0	0	85.7	0	79.2	93.3
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	3.2	2.0	0	2.2	0	0	0	0	0	22.0	0	14.3	0	20.8	6.7

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File Name : 122828 QQ
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Groups Printed- Cars

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	2	0	0	2	9	28	0	0	0	0	0	11	0	0	0	52
12:15 PM	0	2	0	0	0	5	18	0	0	0	0	0	9	0	2	0	36
12:30 PM	0	2	0	0	2	11	29	0	0	0	0	0	4	0	1	0	49
12:45 PM	2	1	0	0	2	5	22	0	0	0	0	0	8	0	3	0	43
Total	2	7	0	0	6	30	97	0	0	0	0	0	32	0	6	0	180
01:00 PM	1	0	0	0	1	4	22	0	0	0	0	0	7	0	0	0	35
01:15 PM	0	3	0	0	2	2	25	0	0	0	0	0	6	0	0	0	38
01:30 PM	0	2	0	0	0	6	21	0	0	0	0	0	5	0	0	0	34
01:45 PM	0	0	0	0	0	4	33	0	0	0	0	0	6	0	0	0	43
Total	1	5	0	0	3	16	101	0	0	0	0	0	24	0	0	0	150
Grand Total	3	12	0	0	9	46	198	0	0	0	0	0	56	0	6	0	330
Apprch %	20	80	0	0	3.6	18.2	78.3	0	0	0	0	0	90.3	0	9.7	0	
Total %	0.9	3.6	0	0	2.7	13.9	60	0	0	0	0	0	17	0	1.8	0	

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	**2**	0	0	2	**2**	9	28	0	39	0	0	0	0	0	**11**	0	0	0	**11**	**52**
12:15 PM	0	2	0	0	2	0	5	18	0	23	0	0	0	0	0	9	0	2	0	11	36
12:30 PM	0	2	0	0	2	2	**11**	**29**	0	**42**	0	0	0	0	0	4	0	1	0	5	49
12:45 PM	**2**	1	0	0	**3**	2	5	22	0	29	0	0	0	0	0	8	0	**3**	0	11	43
Total Volume	2	7	0	0	9	6	30	97	0	133	0	0	0	0	0	32	0	6	0	38	180
% App. Total	22.2	77.8	0	0		4.5	22.6	72.9	0		0	0	0	0		84.2	0	15.8	0		
PHF	.250	.875	.000	.000	.750	.750	.682	.836	.000	.792	.000	.000	.000	.000	.000	.727	.000	.500	.000	.864	.865

PRECISION
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N/S: Granby Street
E/W: Bay Street Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 QQ
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4
12:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	3
12:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	4	0	0	0	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	1	2	0	0	0	0	0	9	0	1	0	13
01:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2
01:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3
01:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	3
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	2	2	0	0	0	0	0	5	0	0	0	9
Grand Total	0	0	0	0	0	3	4	0	0	0	0	0	14	0	1	0	22
Apprch %	0	0	0	0	0	42.9	57.1	0	0	0	0	0	93.3	0	6.7	0	
Total %	0	0	0	0	0	13.6	18.2	0	0	0	0	0	63.6	0	4.5	0	

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	0	**4**	4
12:15 PM	0	0	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	1	0	0	0	1	3
12:30 PM	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0	0	4	0	0	0	4	**5**
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1	1
Total Volume	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	9	0	1	0	10	13
% App. Total	0	0	0	0		0	33.3	66.7	0		0	0	0	0		90	0	10	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.375	.000	.000	.000	.000	.000	.563	.000	.250	.000	.625	.650

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Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 QQ
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	0	0	47	0	2	0	28	0	0	0	75	0	0	0	17	169
12:15 PM	0	0	0	37	0	3	1	15	0	0	0	59	1	0	0	15	131
12:30 PM	1	0	0	43	0	1	1	20	0	0	0	79	1	0	1	20	167
12:45 PM	0	0	0	65	0	2	0	40	0	0	0	158	0	0	1	81	347
Total	1	0	0	192	0	8	2	103	0	0	0	371	2	0	2	133	814
01:00 PM	0	0	0	42	0	2	2	32	0	0	0	94	0	0	0	28	200
01:15 PM	0	0	0	39	0	2	4	21	0	0	0	72	1	0	0	16	155
01:30 PM	0	0	0	40	0	2	1	18	0	0	0	59	1	0	0	16	137
01:45 PM	0	0	0	67	0	6	0	47	0	0	0	154	4	0	0	41	319
Total	0	0	0	188	0	12	7	118	0	0	0	379	6	0	0	101	811
Grand Total	1	0	0	380	0	20	9	221	0	0	0	750	8	0	2	234	1625
Apprch %	0.3	0	0	99.7	0	8	3.6	88.4	0	0	0	100	3.3	0	0.8	95.9	
Total %	0.1	0	0	23.4	0	1.2	0.6	13.6	0	0	0	46.2	0.5	0	0.1	14.4	

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	**1**	0	0	43	44	0	1	1	20	22	0	0	0	79	79	**1**	0	**1**	20	22	167
12:45 PM	0	0	0	**65**	**65**	0	**2**	0	**40**	**42**	0	0	0	**158**	**158**	0	0	1	**81**	**82**	**347**
01:00 PM	0	0	0	42	42	0	2	2	32	36	0	0	0	94	94	0	0	0	28	28	200
01:15 PM	0	0	0	39	39	0	2	**4**	21	27	0	0	0	72	72	1	0	0	16	17	155
Total Volume	1	0	0	189	190	0	7	7	113	127	0	0	0	403	403	2	0	2	145	149	869
% App. Total	0.5	0	0	99.5		0	5.5	5.5	89		0	0	0	100		1.3	0	1.3	97.3		
PHF	.250	.000	.000	.727	.731	.000	.875	.438	.706	.756	.000	.000	.000	.638	.638	.500	.000	.500	.448	.454	.626

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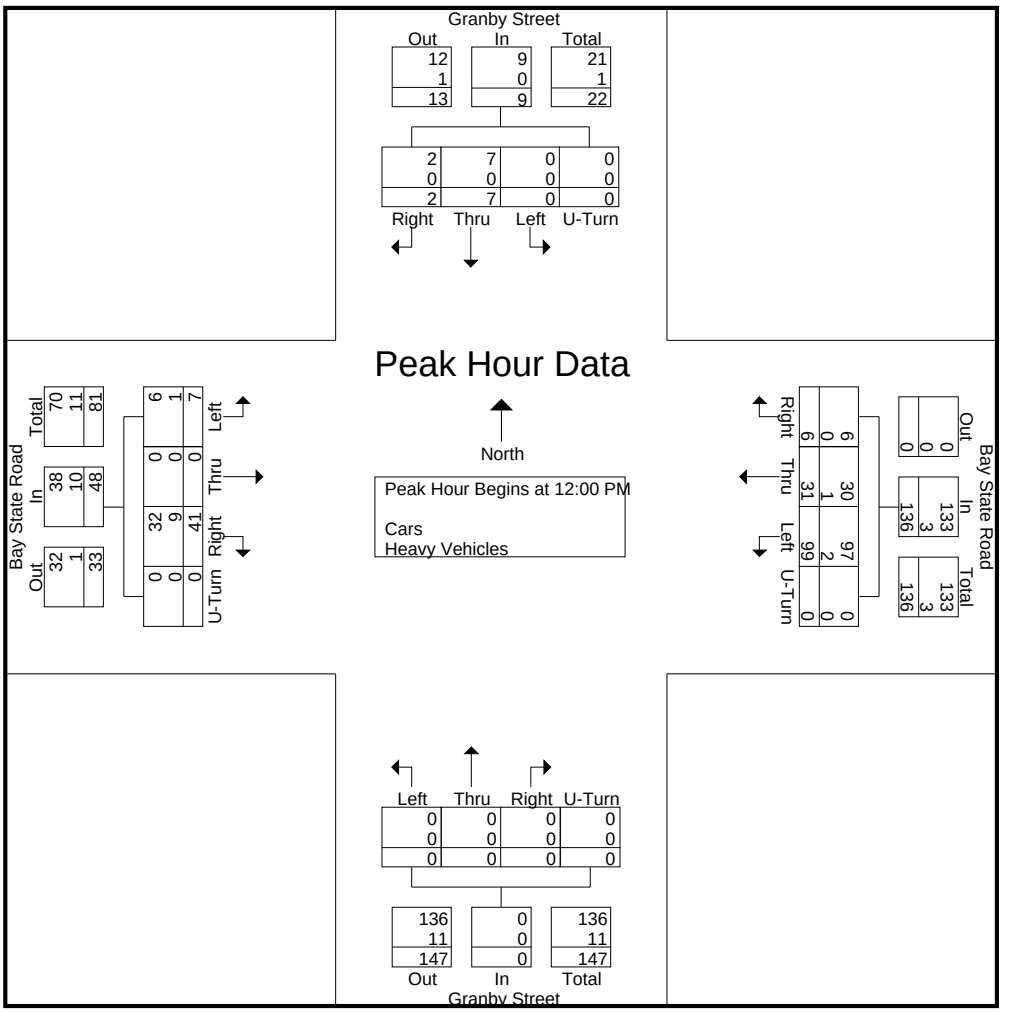
File Name : 122828 QQ
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	**2**	0	0	2	**2**	9	28	0	39	0	0	0	0	0	**15**	0	0	0	**15**	**56**
12:15 PM	0	2	0	0	2	0	5	20	0	25	0	0	0	0	0	10	0	2	0	12	39
12:30 PM	0	2	0	0	2	2	**12**	**29**	0	**43**	0	0	0	0	0	8	0	1	0	9	54
12:45 PM	**2**	1	0	0	**3**	2	5	22	0	29	0	0	0	0	0	8	0	**4**	0	12	44
Total Volume	2	7	0	0	9	6	31	99	0	136	0	0	0	0	0	41	0	7	0	48	193
% App. Total	22.2	77.8	0	0		4.4	22.8	72.8	0		0	0	0	0		85.4	0	14.6	0		
PHF	.250	.875	.000	.000	.750	.750	.646	.853	.000	.791	.000	.000	.000	.000	.000	.683	.000	.438	.000	.800	.862
Cars	2	7	0	0	9	6	30	97	0	133	0	0	0	0	0	32	0	6	0	38	180
% Cars	100	100	0	0	100	100	96.8	98.0	0	97.8	0	0	0	0	0	78.0	0	85.7	0	79.2	93.3
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	3.2	2.0	0	2.2	0	0	0	0	0	22.0	0	14.3	0	20.8	6.7



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File Name : 122828 QQQ
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	1	0	0	1	10	27	0	0	0	0	0	12	0	2	0	53
04:15 PM	3	2	0	0	0	18	24	0	0	0	0	0	15	0	1	0	63
04:30 PM	0	0	0	0	0	2	25	0	0	0	0	0	14	0	1	0	42
04:45 PM	0	3	0	0	1	10	40	0	0	0	0	0	15	0	1	0	70
Total	3	6	0	0	2	40	116	0	0	0	0	0	56	0	5	0	228
05:00 PM	0	2	0	0	2	7	34	0	0	0	0	0	12	0	0	0	57
05:15 PM	0	2	0	0	0	8	25	0	0	0	0	0	14	0	0	0	49
05:30 PM	0	2	0	0	1	8	35	0	0	0	0	0	15	0	0	0	61
05:45 PM	1	3	0	0	4	14	37	0	0	0	0	0	12	0	1	0	72
Total	1	9	0	0	7	37	131	0	0	0	0	0	53	0	1	0	239
Grand Total	4	15	0	0	9	77	247	0	0	0	0	0	109	0	6	0	467
Apprch %	21.1	78.9	0	0	2.7	23.1	74.2	0	0	0	0	0	94.8	0	5.2	0	
Total %	0.9	3.2	0	0	1.9	16.5	52.9	0	0	0	0	0	23.3	0	1.3	0	
Cars	4	15	0	0	9	74	244	0	0	0	0	0	103	0	6	0	455
% Cars	100	100	0	0	100	96.1	98.8	0	0	0	0	0	94.5	0	100	0	97.4
Heavy Vehicles	0	0	0	0	0	3	3	0	0	0	0	0	6	0	0	0	12
% Heavy Vehicles	0	0	0	0	0	3.9	1.2	0	0	0	0	0	5.5	0	0	0	2.6

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	2	0	0	2	2	7	34	0	43	0	0	0	0	0	12	0	0	0	12	57
05:15 PM	0	2	0	0	2	0	8	25	0	33	0	0	0	0	0	14	0	0	0	14	49
05:30 PM	0	2	0	0	2	1	8	35	0	44	0	0	0	0	0	**15**	0	0	0	**15**	61
05:45 PM	**1**	**3**	0	0	**4**	**4**	**14**	**37**	0	**55**	0	0	0	0	0	12	0	**1**	0	13	**72**
Total Volume	1	9	0	0	10	7	37	131	0	175	0	0	0	0	0	53	0	1	0	54	239
% App. Total	10	90	0	0		4	21.1	74.9	0		0	0	0	0		98.1	0	1.9	0		
PHF	.250	.750	.000	.000	.625	.438	.661	.885	.000	.795	.000	.000	.000	.000	.000	.883	.000	.250	.000	.900	.830
Cars	1	9	0	0	10	7	36	130	0	173	0	0	0	0	0	49	0	1	0	50	233
% Cars	100	100	0	0	100	100	97.3	99.2	0	98.9	0	0	0	0	0	92.5	0	100	0	92.6	97.5
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	2.7	0.8	0	1.1	0	0	0	0	0	7.5	0	0	0	7.4	2.5

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E/W: Bay Street Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 QQQ
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Cars

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	1	0	0	1	9	27	0	0	0	0	0	12	0	2	0	52
04:15 PM	3	2	0	0	0	18	22	0	0	0	0	0	13	0	1	0	59
04:30 PM	0	0	0	0	0	1	25	0	0	0	0	0	14	0	1	0	41
04:45 PM	0	3	0	0	1	10	40	0	0	0	0	0	15	0	1	0	70
Total	3	6	0	0	2	38	114	0	0	0	0	0	54	0	5	0	222
05:00 PM	0	2	0	0	2	6	34	0	0	0	0	0	10	0	0	0	54
05:15 PM	0	2	0	0	0	8	25	0	0	0	0	0	14	0	0	0	49
05:30 PM	0	2	0	0	1	8	34	0	0	0	0	0	14	0	0	0	59
05:45 PM	1	3	0	0	4	14	37	0	0	0	0	0	11	0	1	0	71
Total	1	9	0	0	7	36	130	0	0	0	0	0	49	0	1	0	233
Grand Total	4	15	0	0	9	74	244	0	0	0	0	0	103	0	6	0	455
Apprch %	21.1	78.9	0	0	2.8	22.6	74.6	0	0	0	0	0	94.5	0	5.5	0	
Total %	0.9	3.3	0	0	2	16.3	53.6	0	0	0	0	0	22.6	0	1.3	0	

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	2	0	0	2	2	6	34	0	42	0	0	0	0	0	10	0	0	0	10	54
05:15 PM	0	2	0	0	2	0	8	25	0	33	0	0	0	0	0	**14**	0	0	0	**14**	49
05:30 PM	0	2	0	0	2	1	8	34	0	43	0	0	0	0	0	14	0	0	0	14	59
05:45 PM	**1**	**3**	0	0	**4**	**4**	**14**	**37**	0	**55**	0	0	0	0	0	11	0	**1**	0	12	**71**
Total Volume	1	9	0	0	10	7	36	130	0	173	0	0	0	0	0	49	0	1	0	50	233
% App. Total	10	90	0	0		4	20.8	75.1	0		0	0	0	0		98	0	2	0		
PHF	.250	.750	.000	.000	.625	.438	.643	.878	.000	.786	.000	.000	.000	.000	.000	.875	.000	.250	.000	.893	.820

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Groups Printed- Heavy Vehicles

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	4
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	2	0	0	0	0	0	2	0	0	0	6
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	1	1	0	0	0	0	0	4	0	0	0	6
Grand Total	0	0	0	0	0	3	3	0	0	0	0	0	6	0	0	0	12
Apprch %	0	0	0	0	0	50	50	0	0	0	0	0	100	0	0	0	
Total %	0	0	0	0	0	25	25	0	0	0	0	0	50	0	0	0	

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	**2**	0	0	0	**2**	**4**
04:30 PM	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	3
Total Volume	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	4	0	0	0	4	8
% App. Total	0	0	0	0		0	50	50	0		0	0	0	0		100	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.500	.250	.000	.500	.000	.000	.000	.000	.000	.500	.000	.000	.000	.500	.500

N/S: Granby Street
E/W: Bay Street Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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File Name : 122828 QQQ
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Granby Street From North				Bay State Road From East				Granby Street From South				Bay State Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	41	0	4	1	24	0	0	0	73	1	0	1	22	167
04:15 PM	0	0	0	31	0	1	1	9	0	0	0	80	1	0	3	29	155
04:30 PM	0	2	0	34	0	2	2	19	0	0	0	66	0	0	1	14	140
04:45 PM	0	0	0	37	0	3	3	9	0	0	0	81	0	0	1	25	159
Total	0	2	0	143	0	10	7	61	0	0	0	300	2	0	6	90	621
05:00 PM	0	1	0	52	0	1	3	26	0	0	0	72	1	0	2	24	182
05:15 PM	1	1	0	31	0	9	2	35	0	0	0	58	0	0	0	33	170
05:30 PM	0	1	0	28	0	2	7	40	0	0	0	47	3	0	1	30	159
05:45 PM	0	0	0	49	0	2	6	43	0	0	0	90	0	0	1	42	233
Total	1	3	0	160	0	14	18	144	0	0	0	267	4	0	4	129	744
Grand Total	1	5	0	303	0	24	25	205	0	0	0	567	6	0	10	219	1365
Apprch %	0.3	1.6	0	98.1	0	9.4	9.8	80.7	0	0	0	100	2.6	0	4.3	93.2	
Total %	0.1	0.4	0	22.2	0	1.8	1.8	15	0	0	0	41.5	0.4	0	0.7	16	

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	**1**	0	**52**	**53**	0	1	3	26	30	0	0	0	72	72	1	0	**2**	24	27	182
05:15 PM	**1**	1	0	31	33	0	**9**	2	35	46	0	0	0	58	58	0	0	0	33	33	170
05:30 PM	0	1	0	28	29	0	2	**7**	40	49	0	0	0	47	47	**3**	0	1	30	34	159
05:45 PM	0	0	0	49	49	0	2	6	**43**	**51**	0	0	0	**90**	**90**	0	0	1	**42**	**43**	**233**
Total Volume	1	3	0	160	164	0	14	18	144	176	0	0	0	267	267	4	0	4	129	137	744
% App. Total	0.6	1.8	0	97.6		0	8	10.2	81.8		0	0	0	100		2.9	0	2.9	94.2		
PHF	.250	.750	.000	.769	.774	.000	.389	.643	.837	.863	.000	.000	.000	.742	.742	.333	.000	.500	.768	.797	.798

N/S: Granby Street
E/W: Bay Street Road
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Client: Tetra Tech Rizzo/ M. Hall

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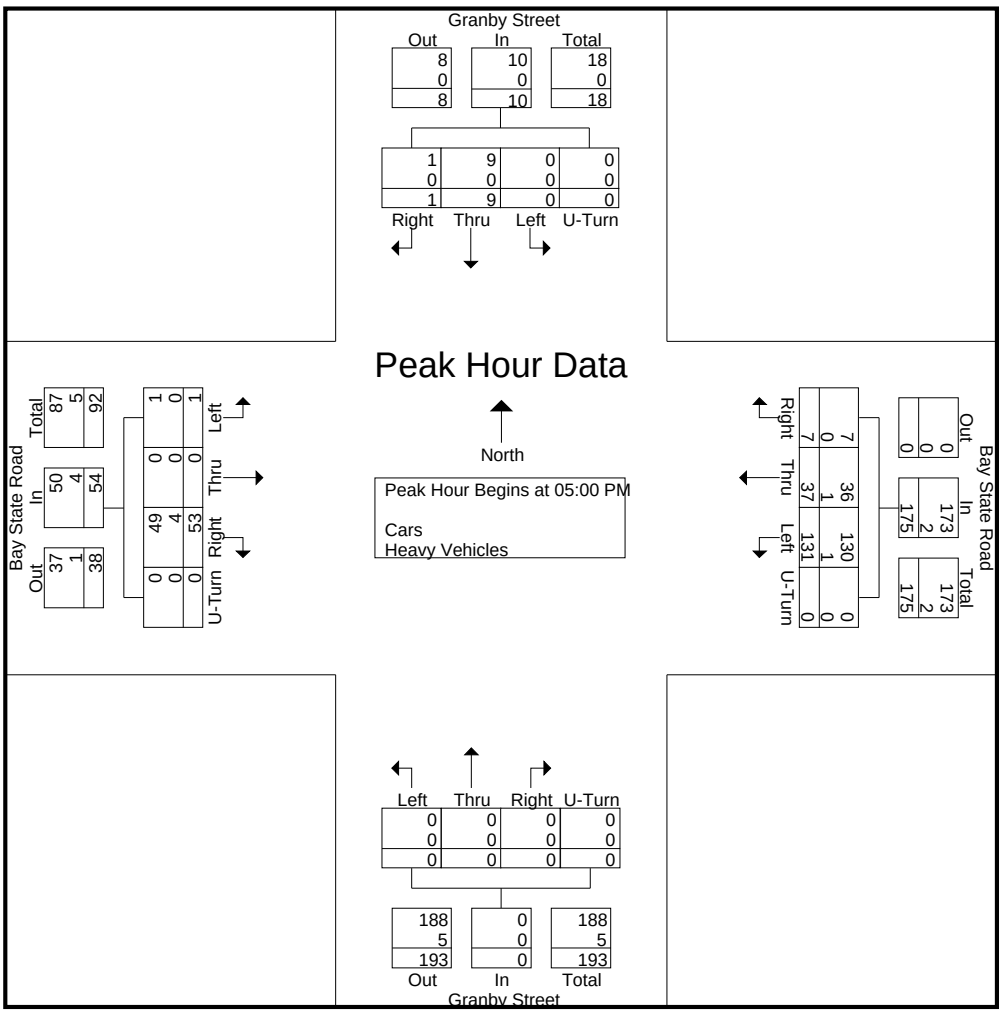
File Name : 122828 QQQ
Site Code : 127-4220
Start Date : 3/21/2012
Page No : 1

	Granby Street From North					Bay State Road From East					Granby Street From South					Bay State Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	2	0	0	2	2	7	34	0	43	0	0	0	0	0	12	0	0	0	12	57
05:15 PM	0	2	0	0	2	0	8	25	0	33	0	0	0	0	0	14	0	0	0	14	49
05:30 PM	0	2	0	0	2	1	8	35	0	44	0	0	0	0	0	**15**	0	0	0	**15**	61
05:45 PM	**1**	**3**	0	0	**4**	**4**	**14**	**37**	0	**55**	0	0	0	0	0	12	0	**1**	0	13	**72**
Total Volume	1	9	0	0	10	7	37	131	0	175	0	0	0	0	0	53	0	1	0	54	239
% App. Total	10	90	0	0		4	21.1	74.9	0		0	0	0	0		98.1	0	1.9	0		
PHF	.250	.750	.000	.000	.625	.438	.661	.885	.000	.795	.000	.000	.000	.000	.000	.883	.000	.250	.000	.900	.830
Cars	1	9	0	0	10	7	36	130	0	173	0	0	0	0	0	49	0	1	0	50	233
% Cars	100	100	0	0	100	100	97.3	99.2	0	98.9	0	0	0	0	0	92.5	0	100	0	92.6	97.5
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	2.7	0.8	0	1.1	0	0	0	0	0	7.5	0	0	0	7.4	2.5



N/S: Silber Way
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 R
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	1	1	0	0	1	15	22	0	0	3	6	0	0	0	0	0	49
07:15 AM	0	3	0	0	1	23	15	0	0	1	3	0	0	0	0	0	46
07:30 AM	1	0	0	0	1	17	20	0	0	5	7	0	0	0	0	0	51
07:45 AM	2	0	0	0	1	30	13	0	0	1	5	0	0	0	0	0	52
Total	4	4	0	0	4	85	70	0	0	10	21	0	0	0	0	0	198
08:00 AM	0	1	0	0	0	43	17	0	0	3	10	0	0	0	0	0	74
08:15 AM	2	0	0	0	1	33	21	0	0	6	18	1	0	0	0	0	82
08:30 AM	1	0	0	0	1	32	22	0	0	4	5	0	0	0	0	0	65
08:45 AM	0	1	0	0	4	42	41	0	0	2	11	0	0	0	0	0	101
Total	3	2	0	0	6	150	101	0	0	15	44	1	0	0	0	0	322
Grand Total	7	6	0	0	10	235	171	0	0	25	65	1	0	0	0	0	520
Apprch %	53.8	46.2	0	0	2.4	56.5	41.1	0	0	27.5	71.4	1.1	0	0	0	0	
Total %	1.3	1.2	0	0	1.9	45.2	32.9	0	0	4.8	12.5	0.2	0	0	0	0	
Cars	7	6	0	0	10	226	156	0	0	24	62	0	0	0	0	0	491
% Cars	100	100	0	0	100	96.2	91.2	0	0	96	95.4	0	0	0	0	0	94.4
Heavy Vehicles	0	0	0	0	0	9	15	0	0	1	3	1	0	0	0	0	29
% Heavy Vehicles	0	0	0	0	0	3.8	8.8	0	0	4	4.6	100	0	0	0	0	5.6

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	**1**	0	0	1	0	**43**	17	0	60	0	3	10	0	13	0	0	0	0	0	74
08:15 AM	**2**	0	0	0	**2**	1	33	21	0	55	0	**6**	**18**	**1**	**25**	0	0	0	0	0	82
08:30 AM	1	0	0	0	1	1	32	22	0	55	0	4	5	0	9	0	0	0	0	0	65
08:45 AM	0	1	0	0	1	**4**	42	**41**	0	**87**	0	2	11	0	13	0	0	0	0	0	**101**
Total Volume	3	2	0	0	5	6	150	101	0	257	0	15	44	1	60	0	0	0	0	0	322
% App. Total	60	40	0	0		2.3	58.4	39.3	0		0	25	73.3	1.7		0	0	0	0		
PHF	.375	.500	.000	.000	.625	.375	.872	.616	.000	.739	.000	.625	.611	.250	.600	.000	.000	.000	.000	.000	.797
Cars	3	2	0	0	5	6	146	91	0	243	0	14	43	0	57	0	0	0	0	0	305
% Cars	100	100	0	0	100	100	97.3	90.1	0	94.6	0	93.3	97.7	0	95.0	0	0	0	0	0	94.7
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	2.7	9.9	0	5.4	0	6.7	2.3	100	5.0	0	0	0	0	0	5.3

PRECISION
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N/S: Silber Way
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 R
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	1	1	0	0	1	13	21	0	0	3	5	0	0	0	0	0	45
07:15 AM	0	3	0	0	1	23	14	0	0	1	3	0	0	0	0	0	45
07:30 AM	1	0	0	0	1	15	19	0	0	5	6	0	0	0	0	0	47
07:45 AM	2	0	0	0	1	29	11	0	0	1	5	0	0	0	0	0	49
Total	4	4	0	0	4	80	65	0	0	10	19	0	0	0	0	0	186
08:00 AM	0	1	0	0	0	43	15	0	0	2	10	0	0	0	0	0	71
08:15 AM	2	0	0	0	1	33	21	0	0	6	17	0	0	0	0	0	80
08:30 AM	1	0	0	0	1	31	20	0	0	4	5	0	0	0	0	0	62
08:45 AM	0	1	0	0	4	39	35	0	0	2	11	0	0	0	0	0	92
Total	3	2	0	0	6	146	91	0	0	14	43	0	0	0	0	0	305
Grand Total	7	6	0	0	10	226	156	0	0	24	62	0	0	0	0	0	491
Apprch %	53.8	46.2	0	0	2.6	57.7	39.8	0	0	27.9	72.1	0	0	0	0	0	
Total %	1.4	1.2	0	0	2	46	31.8	0	0	4.9	12.6	0	0	0	0	0	

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	**1**	0	0	1	0	**43**	15	0	58	0	2	10	0	12	0	0	0	0	0	71
08:15 AM	**2**	0	0	0	**2**	1	33	21	0	55	0	**6**	**17**	0	**23**	0	0	0	0	0	80
08:30 AM	1	0	0	0	1	1	31	20	0	52	0	4	5	0	9	0	0	0	0	0	62
08:45 AM	0	1	0	0	1	**4**	39	**35**	0	**78**	0	2	11	0	13	0	0	0	0	0	**92**
Total Volume	3	2	0	0	5	6	146	91	0	243	0	14	43	0	57	0	0	0	0	0	305
% App. Total	60	40	0	0		2.5	60.1	37.4	0		0	24.6	75.4	0		0	0	0	0		
PHF	.375	.500	.000	.000	.625	.375	.849	.650	.000	.779	.000	.583	.632	.000	.620	.000	.000	.000	.000	.000	.829

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E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 R
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	4
07:45 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	5	5	0	0	0	2	0	0	0	0	0	12
08:00 AM	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
08:30 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3
08:45 AM	0	0	0	0	0	3	6	0	0	0	0	0	0	0	0	0	9
Total	0	0	0	0	0	4	10	0	0	1	1	1	0	0	0	0	17
Grand Total	0	0	0	0	0	9	15	0	0	1	3	1	0	0	0	0	29
Apprch %	0	0	0	0	0	37.5	62.5	0	0	20	60	20	0	0	0	0	
Total %	0	0	0	0	0	31	51.7	0	0	3.4	10.3	3.4	0	0	0	0	

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	2	0	2	0	**1**	0	0	1	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	3
08:45 AM	0	0	0	0	0	0	**3**	**6**	0	**9**	0	0	0	0	0	0	0	0	0	0	**9**
Total Volume	0	0	0	0	0	0	4	10	0	14	0	1	1	1	3	0	0	0	0	0	17
% App. Total	0	0	0	0		0	28.6	71.4	0		0	33.3	33.3	33.3		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.333	.417	.000	.389	.000	.250	.250	.250	.375	.000	.000	.000	.000	.000	.472

N/S: Silber Way
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File Name : 122828 R
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	3	0	5	1	0	0	7	0	4	0	5	0	0	0	6	31
07:15 AM	0	1	0	7	0	0	1	9	0	3	0	3	0	0	0	9	33
07:30 AM	0	4	0	10	0	0	1	4	0	6	0	14	0	0	0	2	41
07:45 AM	0	6	0	45	1	2	0	22	0	2	0	29	0	0	0	5	112
Total	0	14	0	67	2	2	2	42	0	15	0	51	0	0	0	22	217
08:00 AM	0	4	0	13	0	0	1	17	0	6	0	40	0	0	0	9	90
08:15 AM	1	1	0	14	0	2	1	18	0	4	0	16	0	0	0	4	61
08:30 AM	1	7	0	18	0	0	2	19	0	6	0	25	0	0	0	9	87
08:45 AM	1	2	0	33	0	1	1	29	0	6	0	34	0	0	0	14	121
Total	3	14	0	78	0	3	5	83	0	22	0	115	0	0	0	36	359
Grand Total	3	28	0	145	2	5	7	125	0	37	0	166	0	0	0	58	576
Apprch %	1.7	15.9	0	82.4	1.4	3.6	5	89.9	0	18.2	0	81.8	0	0	0	100	
Total %	0.5	4.9	0	25.2	0.3	0.9	1.2	21.7	0	6.4	0	28.8	0	0	0	10.1	

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	4	0	13	17	0	0	1	17	18	0	**6**	0	**40**	**46**	0	0	0	9	9	90
08:15 AM	**1**	1	0	14	16	0	**2**	1	18	21	0	4	0	16	20	0	0	0	4	4	61
08:30 AM	1	**7**	0	18	26	0	0	**2**	19	21	0	6	0	25	31	0	0	0	9	9	87
08:45 AM	1	2	0	**33**	**36**	0	1	1	**29**	**31**	0	6	0	34	40	0	0	0	**14**	**14**	**121**
Total Volume	3	14	0	78	95	0	3	5	83	91	0	22	0	115	137	0	0	0	36	36	359
% App. Total	3.2	14.7	0	82.1		0	3.3	5.5	91.2		0	16.1	0	83.9		0	0	0	100		
PHF	.750	.500	.000	.591	.660	.000	.375	.625	.716	.734	.000	.917	.000	.719	.745	.000	.000	.000	.643	.643	.742

N/S: Silber Way
E/W: Bay State Road
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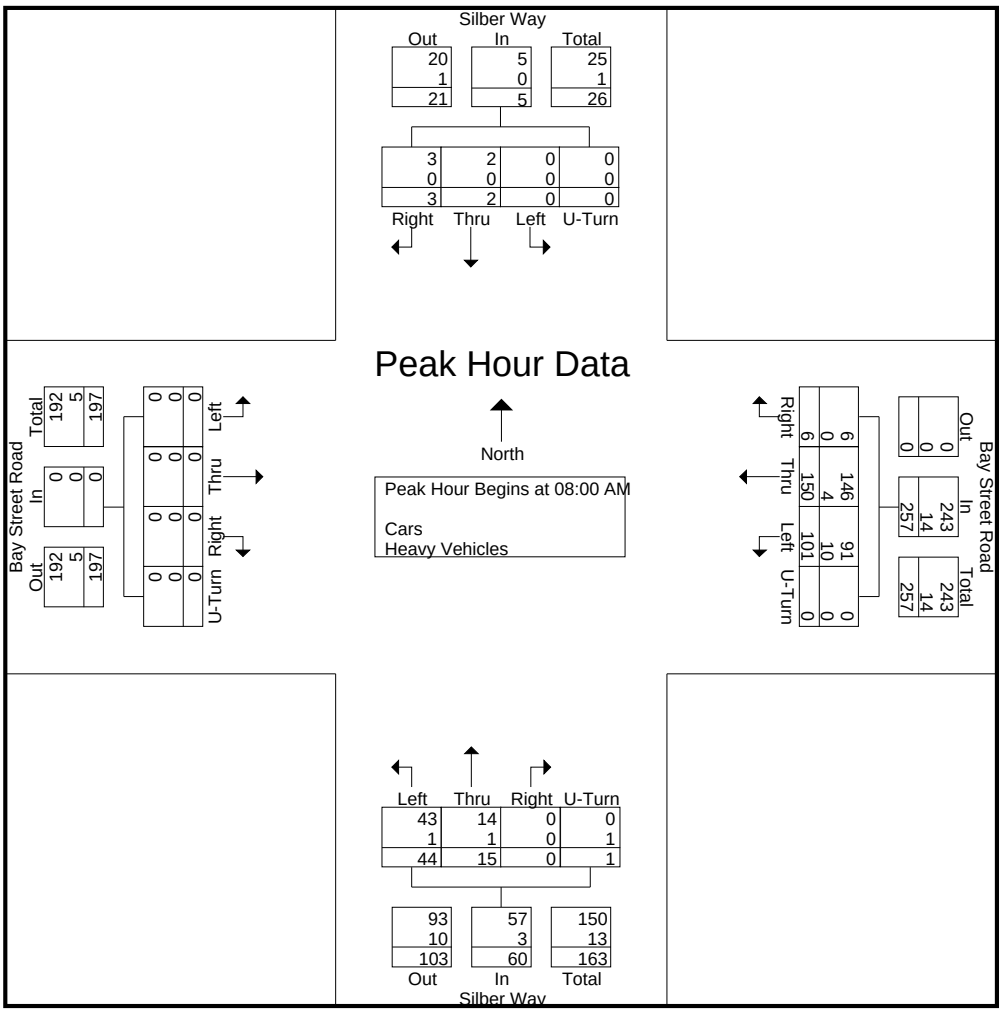
File Name : 122828 R
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	**1**	0	0	1	0	**43**	17	0	60	0	3	10	0	13	0	0	0	0	0	74
08:15 AM	**2**	0	0	0	**2**	1	33	21	0	55	0	**6**	**18**	**1**	**25**	0	0	0	0	0	82
08:30 AM	1	0	0	0	1	1	32	22	0	55	0	4	5	0	9	0	0	0	0	0	65
08:45 AM	0	1	0	0	1	**4**	42	**41**	0	**87**	0	2	11	0	13	0	0	0	0	0	**101**
Total Volume	3	2	0	0	5	6	150	101	0	257	0	15	44	1	60	0	0	0	0	0	322
% App. Total	60	40	0	0		2.3	58.4	39.3	0		0	25	73.3	1.7		0	0	0	0		
PHF	.375	.500	.000	.000	.625	.375	.872	.616	.000	.739	.000	.625	.611	.250	.600	.000	.000	.000	.000	.000	.797
Cars	3	2	0	0	5	6	146	91	0	243	0	14	43	0	57	0	0	0	0	0	305
% Cars	100	100	0	0	100	100	97.3	90.1	0	94.6	0	93.3	97.7	0	95.0	0	0	0	0	0	94.7
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	2.7	9.9	0	5.4	0	6.7	2.3	100	5.0	0	0	0	0	0	5.3



N/S: Silber Way
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122828 RR
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	1	1	0	0	5	14	22	0	0	4	7	2	0	0	0	0	56
12:15 PM	2	3	0	0	3	31	16	0	0	2	15	0	0	0	0	0	72
12:30 PM	1	5	0	0	1	22	18	0	0	3	14	0	0	0	0	0	64
12:45 PM	0	1	0	0	0	25	12	0	0	6	7	0	0	0	0	0	51
Total	4	10	0	0	9	92	68	0	0	15	43	2	0	0	0	0	243
01:00 PM	0	2	0	0	0	10	16	0	0	2	1	0	0	0	0	0	31
01:15 PM	1	1	0	0	1	22	14	0	0	2	12	0	0	0	0	0	53
01:30 PM	1	4	0	0	0	13	21	0	0	3	8	0	0	0	0	0	50
01:45 PM	1	4	0	0	1	17	19	0	0	2	7	0	0	0	0	0	51
Total	3	11	0	0	2	62	70	0	0	9	28	0	0	0	0	0	185
Grand Total	7	21	0	0	11	154	138	0	0	24	71	2	0	0	0	0	428
Apprch %	25	75	0	0	3.6	50.8	45.5	0	0	24.7	73.2	2.1	0	0	0	0	
Total %	1.6	4.9	0	0	2.6	36	32.2	0	0	5.6	16.6	0.5	0	0	0	0	
Cars	7	20	0	0	11	152	129	0	0	24	67	2	0	0	0	0	412
% Cars	100	95.2	0	0	100	98.7	93.5	0	0	100	94.4	100	0	0	0	0	96.3
Heavy Vehicles	0	1	0	0	0	2	9	0	0	0	4	0	0	0	0	0	16
% Heavy Vehicles	0	4.8	0	0	0	1.3	6.5	0	0	0	5.6	0	0	0	0	0	3.7

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	1	1	0	0	2	**5**	14	**22**	0	41	0	4	7	**2**	13	0	0	0	0	0	56
12:15 PM	**2**	3	0	0	5	3	**31**	16	0	**50**	0	2	**15**	0	**17**	0	0	0	0	0	**72**
12:30 PM	1	**5**	0	0	**6**	1	22	18	0	41	0	3	14	0	17	0	0	0	0	0	64
12:45 PM	0	1	0	0	1	0	25	12	0	37	0	**6**	7	0	13	0	0	0	0	0	51
Total Volume	4	10	0	0	14	9	92	68	0	169	0	15	43	2	60	0	0	0	0	0	243
% App. Total	28.6	71.4	0	0		5.3	54.4	40.2	0		0	25	71.7	3.3		0	0	0	0		
PHF	.500	.500	.000	.000	.583	.450	.742	.773	.000	.845	.000	.625	.717	.250	.882	.000	.000	.000	.000	.000	.844
Cars	4	9	0	0	13	9	92	63	0	164	0	15	41	2	58	0	0	0	0	0	235
% Cars	100	90.0	0	0	92.9	100	100	92.6	0	97.0	0	100	95.3	100	96.7	0	0	0	0	0	96.7
Heavy Vehicles																					
% Heavy Vehicles	0	10.0	0	0	7.1	0	0	7.4	0	3.0	0	0	4.7	0	3.3	0	0	0	0	0	3.3

PRECISION
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N/S: Silber Way
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 RR
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	1	1	0	0	5	14	20	0	0	4	7	2	0	0	0	0	54
12:15 PM	2	3	0	0	3	31	14	0	0	2	15	0	0	0	0	0	70
12:30 PM	1	4	0	0	1	22	17	0	0	3	13	0	0	0	0	0	61
12:45 PM	0	1	0	0	0	25	12	0	0	6	6	0	0	0	0	0	50
Total	4	9	0	0	9	92	63	0	0	15	41	2	0	0	0	0	235
01:00 PM	0	2	0	0	0	9	15	0	0	2	0	0	0	0	0	0	28
01:15 PM	1	1	0	0	1	21	14	0	0	2	12	0	0	0	0	0	52
01:30 PM	1	4	0	0	0	13	20	0	0	3	8	0	0	0	0	0	49
01:45 PM	1	4	0	0	1	17	17	0	0	2	6	0	0	0	0	0	48
Total	3	11	0	0	2	60	66	0	0	9	26	0	0	0	0	0	177
Grand Total	7	20	0	0	11	152	129	0	0	24	67	2	0	0	0	0	412
Apprch %	25.9	74.1	0	0	3.8	52.1	44.2	0	0	25.8	72	2.2	0	0	0	0	
Total %	1.7	4.9	0	0	2.7	36.9	31.3	0	0	5.8	16.3	0.5	0	0	0	0	

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	1	1	0	0	2	**5**	14	**20**	0	39	0	4	7	**2**	13	0	0	0	0	0	54
12:15 PM	**2**	3	0	0	**5**	3	**31**	14	0	**48**	0	2	**15**	0	**17**	0	0	0	0	0	**70**
12:30 PM	1	**4**	0	0	5	1	22	17	0	40	0	3	13	0	16	0	0	0	0	0	61
12:45 PM	0	1	0	0	1	0	25	12	0	37	0	**6**	6	0	12	0	0	0	0	0	50
Total Volume	4	9	0	0	13	9	92	63	0	164	0	15	41	2	58	0	0	0	0	0	235
% App. Total	30.8	69.2	0	0		5.5	56.1	38.4	0		0	25.9	70.7	3.4		0	0	0	0		
PHF	.500	.563	.000	.000	.650	.450	.742	.788	.000	.854	.000	.625	.683	.250	.853	.000	.000	.000	.000	.000	.839

PRECISION
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N/S: Silber Way
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 RR
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
12:30 PM	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	1	0	0	0	0	5	0	0	0	2	0	0	0	0	0	8
01:00 PM	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	3
01:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
01:45 PM	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	3
Total	0	0	0	0	0	2	4	0	0	0	2	0	0	0	0	0	8
Grand Total	0	1	0	0	0	2	9	0	0	0	4	0	0	0	0	0	16
Apprch %	0	100	0	0	0	18.2	81.8	0	0	0	100	0	0	0	0	0	
Total %	0	6.2	0	0	0	12.5	56.2	0	0	0	25	0	0	0	0	0	

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	0	0	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	0	**1**	0	0	**1**	0	0	1	0	1	0	0	**1**	0	**1**	0	0	0	0	0	**3**
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
01:00 PM	0	0	0	0	0	0	**1**	1	0	2	0	0	1	0	1	0	0	0	0	0	3
Total Volume	0	1	0	0	1	0	1	4	0	5	0	0	3	0	3	0	0	0	0	0	9
% App. Total	0	100	0	0		0	20	80	0		0	0	100	0		0	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.250	.500	.000	.625	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.750

N/S: Silber Way
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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File Name : 122828 RR
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	2	0	42	1	1	1	27	0	0	0	99	0	0	0	30	203
12:15 PM	3	4	0	119	0	3	1	66	0	0	1	124	0	0	0	51	372
12:30 PM	0	2	0	60	1	3	0	63	0	1	1	64	0	0	0	29	224
12:45 PM	3	2	0	52	1	2	1	27	0	3	1	50	0	0	0	28	170
Total	6	10	0	273	3	9	3	183	0	4	3	337	0	0	0	138	969
01:00 PM	0	1	0	53	0	3	0	58	0	5	1	79	0	0	0	22	222
01:15 PM	1	5	0	41	0	1	0	38	0	1	1	57	0	0	0	23	168
01:30 PM	0	8	0	33	0	2	0	44	0	3	1	77	0	0	0	31	199
01:45 PM	1	6	0	104	0	1	0	160	0	0	1	139	0	0	0	55	467
Total	2	20	0	231	0	7	0	300	0	9	4	352	0	0	0	131	1056
Grand Total	8	30	0	504	3	16	3	483	0	13	7	689	0	0	0	269	2025
Apprch %	1.5	5.5	0	93	0.6	3.2	0.6	95.6	0	1.8	1	97.2	0	0	0	100	
Total %	0.4	1.5	0	24.9	0.1	0.8	0.1	23.9	0	0.6	0.3	34	0	0	0	13.3	

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	0	1	0	53	54	0	**3**	0	58	61	0	**5**	**1**	79	85	0	0	0	22	22	222
01:15 PM	**1**	5	0	41	47	0	1	0	38	39	0	1	1	57	59	0	0	0	23	23	168
01:30 PM	0	**8**	0	33	41	0	2	0	44	46	0	3	1	77	81	0	0	0	31	31	199
01:45 PM	1	6	0	**104**	**111**	0	1	0	**160**	**161**	0	0	1	**139**	**140**	0	0	0	**55**	**55**	**467**
Total Volume	2	20	0	231	253	0	7	0	300	307	0	9	4	352	365	0	0	0	131	131	1056
% App. Total	0.8	7.9	0	91.3		0	2.3	0	97.7		0	2.5	1.1	96.4		0	0	0	100		
PHF	.500	.625	.000	.555	.570	.000	.583	.000	.469	.477	.000	.450	1.00	.633	.652	.000	.000	.000	.595	.595	.565

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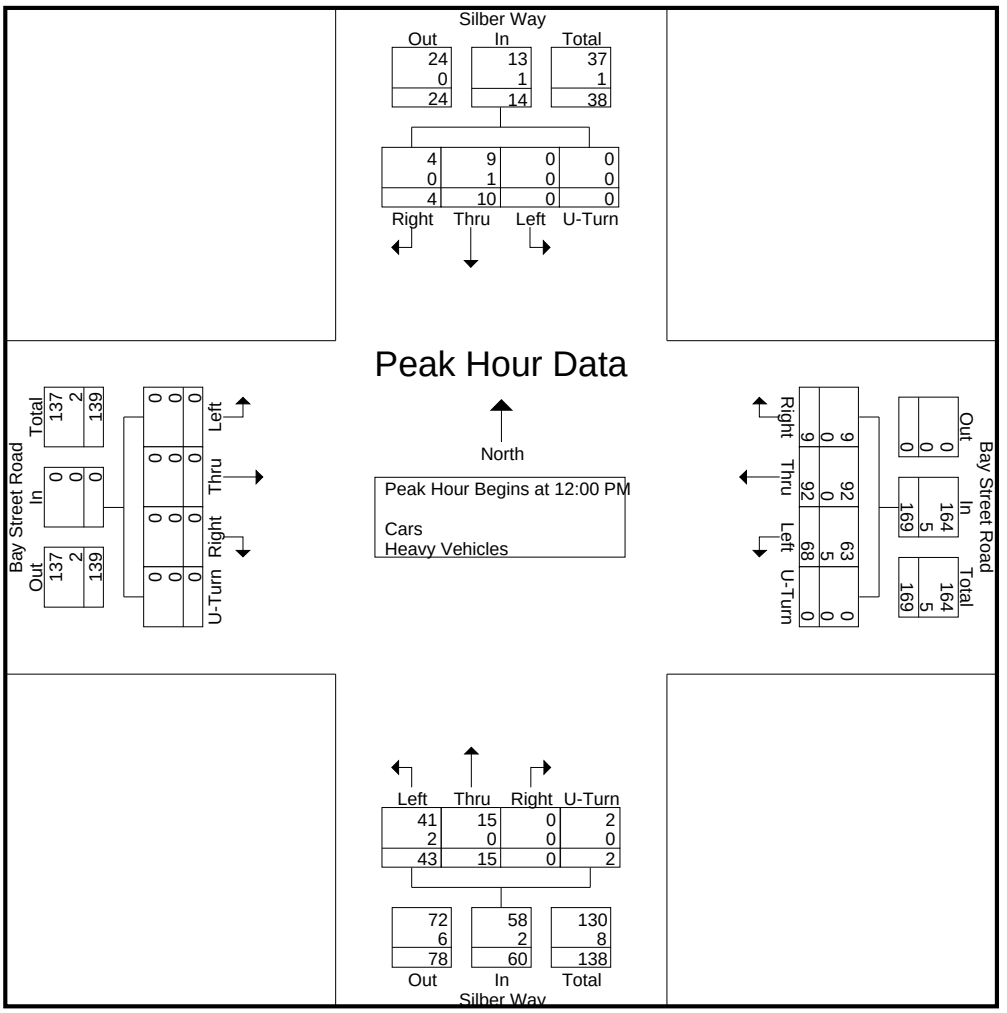
	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	1	1	0	0	2	**5**	14	**22**	0	41	0	4	7	**2**	13	0	0	0	0	0	56
12:15 PM	**2**	3	0	0	5	3	**31**	16	0	**50**	0	2	**15**	0	**17**	0	0	0	0	0	**72**
12:30 PM	1	**5**	0	0	**6**	1	22	18	0	41	0	3	14	0	17	0	0	0	0	0	64
12:45 PM	0	1	0	0	1	0	25	12	0	37	0	**6**	7	0	13	0	0	0	0	0	51
Total Volume	4	10	0	0	14	9	92	68	0	169	0	15	43	2	60	0	0	0	0	0	243
% App. Total	28.6	71.4	0	0		5.3	54.4	40.2	0		0	25	71.7	3.3		0	0	0	0		
PHF	.500	.500	.000	.000	.583	.450	.742	.773	.000	.845	.000	.625	.717	.250	.882	.000	.000	.000	.000	.000	.844
Cars	4	9	0	0	13	9	92	63	0	164	0	15	41	2	58	0	0	0	0	0	235
% Cars	100	90.0	0	0	92.9	100	100	92.6	0	97.0	0	100	95.3	100	96.7	0	0	0	0	0	96.7
Heavy Vehicles																					
% Heavy Vehicles	0	10.0	0	0	7.1	0	0	7.4	0	3.0	0	0	4.7	0	3.3	0	0	0	0	0	3.3



N/S: Silber Way
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File Name : 122828 RRR
Site Code : 127-4220
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Groups Printed- Cars - Heavy Vehicles

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	3	0	0	0	30	19	0	0	5	9	0	0	0	0	0	66
04:15 PM	0	3	0	0	2	22	13	0	0	2	9	0	0	0	0	0	51
04:30 PM	0	0	0	0	0	26	19	0	0	0	7	0	0	0	0	0	52
04:45 PM	1	1	0	0	1	34	26	0	0	6	8	1	0	0	0	0	78
Total	1	7	0	0	3	112	77	0	0	13	33	1	0	0	0	0	247
05:00 PM	1	5	0	0	3	37	15	0	0	19	22	1	0	0	0	0	103
05:15 PM	3	0	0	0	1	31	31	0	0	5	16	0	0	0	0	0	87
05:30 PM	2	2	0	0	0	40	15	0	0	13	18	0	0	0	0	0	90
05:45 PM	4	2	0	0	2	36	22	0	0	6	22	0	0	0	0	0	94
Total	10	9	0	0	6	144	83	0	0	43	78	1	0	0	0	0	374
Grand Total	11	16	0	0	9	256	160	0	0	56	111	2	0	0	0	0	621
Apprch %	40.7	59.3	0	0	2.1	60.2	37.6	0	0	33.1	65.7	1.2	0	0	0	0	
Total %	1.8	2.6	0	0	1.4	41.2	25.8	0	0	9	17.9	0.3	0	0	0	0	
Cars	10	16	0	0	9	251	157	0	0	56	108	2	0	0	0	0	609
% Cars	90.9	100	0	0	100	98	98.1	0	0	100	97.3	100	0	0	0	0	98.1
Heavy Vehicles	1	0	0	0	0	5	3	0	0	0	3	0	0	0	0	0	12
% Heavy Vehicles	9.1	0	0	0	0	2	1.9	0	0	0	2.7	0	0	0	0	0	1.9

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	**5**	0	0	**6**	**3**	37	15	0	55	0	**19**	**22**	**1**	**42**	0	0	0	0	0	**103**
05:15 PM	3	0	0	0	3	1	31	**31**	0	**63**	0	5	16	0	21	0	0	0	0	0	87
05:30 PM	2	2	0	0	4	0	**40**	15	0	55	0	13	18	0	31	0	0	0	0	0	90
05:45 PM	**4**	2	0	0	6	2	36	22	0	60	0	6	22	0	28	0	0	0	0	0	94
Total Volume	10	9	0	0	19	6	144	83	0	233	0	43	78	1	122	0	0	0	0	0	374
% App. Total	52.6	47.4	0	0		2.6	61.8	35.6	0		0	35.2	63.9	0.8		0	0	0	0		
PHF	.625	.450	.000	.000	.792	.500	.900	.669	.000	.925	.000	.566	.886	.250	.726	.000	.000	.000	.000	.000	.908
Cars	9	9	0	0	18	6	143	80	0	229	0	43	75	1	119	0	0	0	0	0	366
% Cars	90.0	100	0	0	94.7	100	99.3	96.4	0	98.3	0	100	96.2	100	97.5	0	0	0	0	0	97.9
Heavy Vehicles																					
% Heavy Vehicles	10.0	0	0	0	5.3	0	0.7	3.6	0	1.7	0	0	3.8	0	2.5	0	0	0	0	0	2.1

PRECISION
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N/S: Silber Way
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 RRR
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	3	0	0	0	29	19	0	0	5	9	0	0	0	0	0	65
04:15 PM	0	3	0	0	2	21	13	0	0	2	9	0	0	0	0	0	50
04:30 PM	0	0	0	0	0	25	19	0	0	0	7	0	0	0	0	0	51
04:45 PM	1	1	0	0	1	33	26	0	0	6	8	1	0	0	0	0	77
Total	1	7	0	0	3	108	77	0	0	13	33	1	0	0	0	0	243
05:00 PM	1	5	0	0	3	36	15	0	0	19	22	1	0	0	0	0	102
05:15 PM	3	0	0	0	1	31	29	0	0	5	15	0	0	0	0	0	84
05:30 PM	2	2	0	0	0	40	14	0	0	13	17	0	0	0	0	0	88
05:45 PM	3	2	0	0	2	36	22	0	0	6	21	0	0	0	0	0	92
Total	9	9	0	0	6	143	80	0	0	43	75	1	0	0	0	0	366
Grand Total	10	16	0	0	9	251	157	0	0	56	108	2	0	0	0	0	609
Apprch %	38.5	61.5	0	0	2.2	60.2	37.6	0	0	33.7	65.1	1.2	0	0	0	0	
Total %	1.6	2.6	0	0	1.5	41.2	25.8	0	0	9.2	17.7	0.3	0	0	0	0	

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	**5**	0	0	**6**	**3**	36	15	0	54	0	**19**	**22**	**1**	**42**	0	0	0	0	0	**102**
05:15 PM	**3**	0	0	0	3	1	31	**29**	0	**61**	0	5	15	0	20	0	0	0	0	0	84
05:30 PM	2	2	0	0	4	0	**40**	14	0	54	0	13	17	0	30	0	0	0	0	0	88
05:45 PM	3	2	0	0	5	2	36	22	0	60	0	6	21	0	27	0	0	0	0	0	92
Total Volume	9	9	0	0	18	6	143	80	0	229	0	43	75	1	119	0	0	0	0	0	366
% App. Total	50	50	0	0		2.6	62.4	34.9	0		0	36.1	63	0.8		0	0	0	0		
PHF	.750	.450	.000	.000	.750	.500	.894	.690	.000	.939	.000	.566	.852	.250	.708	.000	.000	.000	.000	.000	.897

N/S: Silber Way
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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 RRR
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Heavy Vehicles

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
05:45 PM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Total	1	0	0	0	0	1	3	0	0	0	3	0	0	0	0	0	8
Grand Total	1	0	0	0	0	5	3	0	0	0	3	0	0	0	0	0	12
Apprch %	100	0	0	0	0	62.5	37.5	0	0	0	100	0	0	0	0	0	
Total %	8.3	0	0	0	0	41.7	25	0	0	0	25	0	0	0	0	0	

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	**2**	0	**2**	0	0	**1**	0	**1**	0	0	0	0	0	**3**
05:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2
05:45 PM	**1**	0	0	0	**1**	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
Total Volume	1	0	0	0	1	0	1	3	0	4	0	0	3	0	3	0	0	0	0	0	8
% App. Total	100	0	0	0		0	25	75	0		0	0	100	0		0	0	0	0		
PHF	.250	.000	.000	.000	.250	.000	.250	.375	.000	.500	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.667

N/S: Silber Way
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 RRR
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Silber Way From North				Bay Street Road From East				Silber Way From South				Bay Street Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	4	0	0	32	0	0	0	17	0	3	0	79	0	0	0	40	175
04:15 PM	1	4	0	35	0	0	1	29	0	2	0	30	0	0	0	29	131
04:30 PM	2	4	0	41	1	1	0	32	0	5	0	52	0	0	0	31	169
04:45 PM	3	7	0	70	1	0	0	46	0	9	0	79	0	0	0	44	259
Total	10	15	0	178	2	1	1	124	0	19	0	240	0	0	0	144	734
05:00 PM	5	1	0	59	0	2	2	35	0	10	0	88	0	0	0	30	232
05:15 PM	3	6	0	38	2	2	1	34	0	7	1	77	0	0	0	32	203
05:30 PM	8	7	0	70	0	0	0	51	0	6	0	68	0	0	0	43	253
05:45 PM	6	8	0	40	0	3	0	42	0	8	1	59	0	0	0	55	222
Total	22	22	0	207	2	7	3	162	0	31	2	292	0	0	0	160	910
Grand Total	32	37	0	385	4	8	4	286	0	50	2	532	0	0	0	304	1644
Apprch %	7	8.1	0	84.8	1.3	2.6	1.3	94.7	0	8.6	0.3	91.1	0	0	0	100	
Total %	1.9	2.3	0	23.4	0.2	0.5	0.2	17.4	0	3	0.1	32.4	0	0	0	18.5	

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	3	**7**	0	**70**	80	1	0	0	46	47	0	9	0	79	88	0	0	0	**44**	**44**	**259**
05:00 PM	5	1	0	59	65	0	**2**	**2**	35	39	0	**10**	0	**88**	**98**	0	0	0	30	30	232
05:15 PM	3	6	0	38	47	**2**	2	1	34	39	0	7	**1**	77	85	0	0	0	32	32	203
05:30 PM	**8**	7	0	70	**85**	0	0	0	**51**	**51**	0	6	0	68	74	0	0	0	43	43	253
Total Volume	19	21	0	237	277	3	4	3	166	176	0	32	1	312	345	0	0	0	149	149	947
% App. Total	6.9	7.6	0	85.6		1.7	2.3	1.7	94.3		0	9.3	0.3	90.4		0	0	0	100		
PHF	.594	.750	.000	.846	.815	.375	.500	.375	.814	.863	.000	.800	.250	.886	.880	.000	.000	.000	.847	.847	.914

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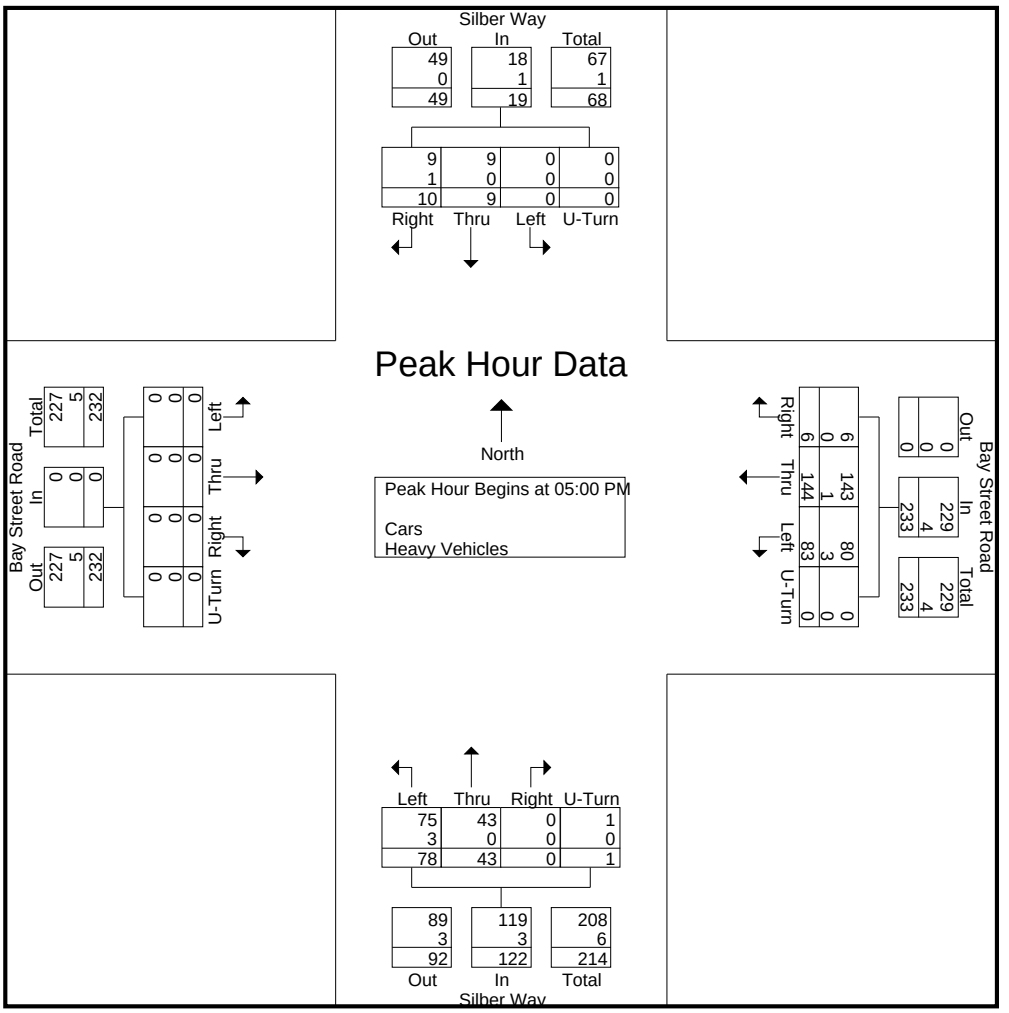
N/S: Silber Way
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 RRR
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Silber Way From North					Bay Street Road From East					Silber Way From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	**5**	0	0	**6**	**3**	37	15	0	55	0	**19**	**22**	**1**	**42**	0	0	0	0	0	**103**
05:15 PM	3	0	0	0	3	1	31	**31**	0	**63**	0	5	16	0	21	0	0	0	0	0	87
05:30 PM	2	2	0	0	4	0	**40**	15	0	55	0	13	18	0	31	0	0	0	0	0	90
05:45 PM	**4**	2	0	0	6	2	36	22	0	60	0	6	22	0	28	0	0	0	0	0	94
Total Volume	10	9	0	0	19	6	144	83	0	233	0	43	78	1	122	0	0	0	0	0	374
% App. Total	52.6	47.4	0	0		2.6	61.8	35.6	0		0	35.2	63.9	0.8		0	0	0	0		
PHF	.625	.450	.000	.000	.792	.500	.900	.669	.000	.925	.000	.566	.886	.250	.726	.000	.000	.000	.000	.000	.908
Cars	9	9	0	0	18	6	143	80	0	229	0	43	75	1	119	0	0	0	0	0	366
% Cars	90.0	100	0	0	94.7	100	99.3	96.4	0	98.3	0	100	96.2	100	97.5	0	0	0	0	0	97.9
Heavy Vehicles																					
% Heavy Vehicles	10.0	0	0	0	5.3	0	0.7	3.6	0	1.7	0	0	3.8	0	2.5	0	0	0	0	0	2.1



N/S: Silber Way/ Blandford Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 S
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	7	3	8	0	11	81	0	0	0	1	0	0	1	71	0	1	184
07:15 AM	4	3	10	0	5	83	0	0	0	0	0	0	0	84	0	0	189
07:30 AM	6	7	4	0	14	80	0	0	1	0	0	0	0	87	0	0	199
07:45 AM	5	2	4	0	9	121	0	0	0	0	0	0	4	126	0	0	271
Total	22	15	26	0	39	365	0	0	1	1	0	0	5	368	0	1	843
08:00 AM	1	4	12	0	17	109	0	0	0	0	1	0	4	120	0	0	268
08:15 AM	7	6	7	0	29	90	0	0	0	0	0	0	4	171	0	0	314
08:30 AM	7	7	6	0	16	113	0	0	0	0	1	0	3	141	0	0	294
08:45 AM	11	10	13	0	25	112	0	0	2	0	0	0	10	155	0	1	339
Total	26	27	38	0	87	424	0	0	2	0	2	0	21	587	0	1	1215
Grand Total	48	42	64	0	126	789	0	0	3	1	2	0	26	955	0	2	2058
Apprch %	31.2	27.3	41.6	0	13.8	86.2	0	0	50	16.7	33.3	0	2.6	97.2	0	0.2	
Total %	2.3	2	3.1	0	6.1	38.3	0	0	0.1	0	0.1	0	1.3	46.4	0	0.1	
Cars	44	42	54	0	119	690	0	0	3	1	2	0	25	851	0	2	1833
% Cars	91.7	100	84.4	0	94.4	87.5	0	0	100	100	100	0	96.2	89.1	0	100	89.1
Heavy Vehicles	4	0	10	0	7	99	0	0	0	0	0	0	1	104	0	0	225
% Heavy Vehicles	8.3	0	15.6	0	5.6	12.5	0	0	0	0	0	0	3.8	10.9	0	0	10.9

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	4	12	0	17	17	109	0	0	126	0	0	**1**	0	1	4	120	0	0	124	268
08:15 AM	7	6	7	0	20	**29**	90	0	0	119	0	0	0	0	0	4	**171**	0	0	**175**	314
08:30 AM	7	7	6	0	20	16	**113**	0	0	129	0	0	1	0	1	3	141	0	0	144	294
08:45 AM	**11**	**10**	**13**	0	**34**	25	112	0	0	**137**	**2**	0	0	0	**2**	**10**	155	0	**1**	166	**339**
Total Volume	26	27	38	0	91	87	424	0	0	511	2	0	2	0	4	21	587	0	1	609	1215
% App. Total	28.6	29.7	41.8	0		17	83	0	0		50	0	50	0		3.4	96.4	0	0.2		
PHF	.591	.675	.731	.000	.669	.750	.938	.000	.000	.932	.250	.000	.500	.000	.500	.525	.858	.000	.250	.870	.896
Cars	22	27	31	0	80	82	375	0	0	457	2	0	2	0	4	20	527	0	1	548	1089
% Cars	84.6	100	81.6	0	87.9	94.3	88.4	0	0	89.4	100	0	100	0	100	95.2	89.8	0	100	90.0	89.6
Heavy Vehicles																					
% Heavy Vehicles	15.4	0	18.4	0	12.1	5.7	11.6	0	0	10.6	0	0	0	0	0	4.8	10.2	0	0	10.0	10.4

N/S: Silber Way/ Blandford Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
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File Name : 122828 S
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Cars

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	7	3	8	0	10	69	0	0	0	1	0	0	1	65	0	1	165
07:15 AM	4	3	8	0	5	71	0	0	0	0	0	0	0	72	0	0	163
07:30 AM	6	7	4	0	13	71	0	0	1	0	0	0	0	73	0	0	175
07:45 AM	5	2	3	0	9	104	0	0	0	0	0	0	4	114	0	0	241
Total	22	15	23	0	37	315	0	0	1	1	0	0	5	324	0	1	744
08:00 AM	1	4	9	0	15	99	0	0	0	0	1	0	4	108	0	0	241
08:15 AM	7	6	7	0	27	78	0	0	0	0	0	0	4	154	0	0	283
08:30 AM	5	7	5	0	15	99	0	0	0	0	1	0	3	127	0	0	262
08:45 AM	9	10	10	0	25	99	0	0	2	0	0	0	9	138	0	1	303
Total	22	27	31	0	82	375	0	0	2	0	2	0	20	527	0	1	1089
Grand Total	44	42	54	0	119	690	0	0	3	1	2	0	25	851	0	2	1833
Apprch %	31.4	30	38.6	0	14.7	85.3	0	0	50	16.7	33.3	0	2.8	96.9	0	0.2	
Total %	2.4	2.3	2.9	0	6.5	37.6	0	0	0.2	0.1	0.1	0	1.4	46.4	0	0.1	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	4	9	0	14	15	**99**	0	0	114	0	0	**1**	0	1	4	108	0	0	112	241
08:15 AM	7	6	7	0	20	**27**	78	0	0	105	0	0	0	0	0	4	**154**	0	0	**158**	283
08:30 AM	5	7	5	0	17	15	99	0	0	114	0	0	1	0	1	3	127	0	0	130	262
08:45 AM	**9**	**10**	**10**	0	**29**	25	99	0	0	**124**	**2**	0	0	0	**2**	**9**	138	0	**1**	148	**303**
Total Volume	22	27	31	0	80	82	375	0	0	457	2	0	2	0	4	20	527	0	1	548	1089
% App. Total	27.5	33.8	38.8	0		17.9	82.1	0	0		50	0	50	0		3.6	96.2	0	0.2		
PHF	.611	.675	.775	.000	.690	.759	.947	.000	.000	.921	.250	.000	.500	.000	.500	.556	.856	.000	.250	.867	.899

N/S: Silber Way/ Blandford Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 S
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Heavy Vehicles

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	1	12	0	0	0	0	0	0	0	6	0	0	19
07:15 AM	0	0	2	0	0	12	0	0	0	0	0	0	0	12	0	0	26
07:30 AM	0	0	0	0	1	9	0	0	0	0	0	0	0	14	0	0	24
07:45 AM	0	0	1	0	0	17	0	0	0	0	0	0	0	12	0	0	30
Total	0	0	3	0	2	50	0	0	0	0	0	0	0	44	0	0	99
08:00 AM	0	0	3	0	2	10	0	0	0	0	0	0	0	12	0	0	27
08:15 AM	0	0	0	0	2	12	0	0	0	0	0	0	0	17	0	0	31
08:30 AM	2	0	1	0	1	14	0	0	0	0	0	0	0	14	0	0	32
08:45 AM	2	0	3	0	0	13	0	0	0	0	0	0	1	17	0	0	36
Total	4	0	7	0	5	49	0	0	0	0	0	0	1	60	0	0	126
Grand Total	4	0	10	0	7	99	0	0	0	0	0	0	1	104	0	0	225
Apprch %	28.6	0	71.4	0	6.6	93.4	0	0	0	0	0	0	1	99	0	0	
Total %	1.8	0	4.4	0	3.1	44	0	0	0	0	0	0	0.4	46.2	0	0	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	**3**	0	3	**2**	10	0	0	12	0	0	0	0	0	0	12	0	0	12	27
08:15 AM	0	0	0	0	0	2	12	0	0	14	0	0	0	0	0	0	**17**	0	0	17	31
08:30 AM	**2**	0	1	0	3	1	**14**	0	0	**15**	0	0	0	0	0	0	14	0	0	14	32
08:45 AM	2	0	3	0	**5**	0	13	0	0	13	0	0	0	0	0	**1**	17	0	0	**18**	**36**
Total Volume	4	0	7	0	11	5	49	0	0	54	0	0	0	0	0	1	60	0	0	61	126
% App. Total	36.4	0	63.6	0		9.3	90.7	0	0		0	0	0	0		1.6	98.4	0	0		
PHF	.500	.000	.583	.000	.550	.625	.875	.000	.000	.900	.000	.000	.000	.000	.000	.250	.882	.000	.000	.847	.875

N/S: Silber Way/ Blandford Street
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File Name : 122828 S
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Peds and Bicycles

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	2	11	0	0	0	10	0	1	0	7	1	12	1	1	46
07:15 AM	0	0	0	22	0	1	0	16	0	2	0	14	0	7	1	5	68
07:30 AM	0	0	2	52	0	1	0	40	0	2	0	18	0	20	3	10	148
07:45 AM	0	2	1	116	1	1	0	162	0	1	0	69	0	12	1	86	452
Total	0	2	5	201	1	3	0	228	0	6	0	108	1	51	6	102	714
08:00 AM	1	0	1	90	2	2	0	158	0	3	0	62	1	12	0	52	384
08:15 AM	0	0	1	41	0	3	0	65	0	2	1	40	1	27	0	19	200
08:30 AM	0	2	3	72	0	3	0	50	0	2	0	53	1	32	3	26	247
08:45 AM	1	0	0	116	0	1	1	111	0	1	1	61	4	22	1	49	369
Total	2	2	5	319	2	9	1	384	0	8	2	216	7	93	4	146	1200
Grand Total	2	4	10	520	3	12	1	612	0	14	2	324	8	144	10	248	1914
Apprch %	0.4	0.7	1.9	97	0.5	1.9	0.2	97.5	0	4.1	0.6	95.3	2	35.1	2.4	60.5	
Total %	0.1	0.2	0.5	27.2	0.2	0.6	0.1	32	0	0.7	0.1	16.9	0.4	7.5	0.5	13	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	**2**	1	**116**	**119**	1	1	0	**162**	**164**	0	1	0	**69**	**70**	0	12	1	**86**	**99**	**452**
08:00 AM	**1**	0	1	90	92	**2**	2	0	158	162	0	**3**	0	62	65	**1**	12	0	52	65	384
08:15 AM	0	0	1	41	42	0	**3**	0	65	68	0	2	**1**	40	43	1	27	0	19	47	200
08:30 AM	0	2	**3**	72	77	0	3	0	50	53	0	2	0	53	55	1	**32**	**3**	26	62	247
Total Volume	1	4	6	319	330	3	9	0	435	447	0	8	1	224	233	3	83	4	183	273	1283
% App. Total	0.3	1.2	1.8	96.7		0.7	2	0	97.3		0	3.4	0.4	96.1		1.1	30.4	1.5	67		
PHF	.250	.500	.500	.688	.693	.375	.750	.000	.671	.681	.000	.667	.250	.812	.832	.750	.648	.333	.532	.689	.710

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File Name : 122828 S
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Trains

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	4
07:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	5
07:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	3
07:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	6
Total	0	0	0	0	0	9	0	0	0	0	0	0	0	9	0	0	18
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
08:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	6
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
08:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	6
Total	0	0	0	0	0	8	0	0	0	0	0	0	0	10	0	0	18
Grand Total	0	0	0	0	0	17	0	0	0	0	0	0	0	19	0	0	36
Apprch %	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	47.2	0	0	0	0	0	0	0	52.8	0	0	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
07:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	**3**	0	0	**3**	5
07:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
07:45 AM	0	0	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	0	3	0	0	3	**6**
Total Volume	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	9	0	0	9	18
% App. Total	0	0	0	0		0	100	0	0		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750	.750

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Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 S
Site Code : 127-4220
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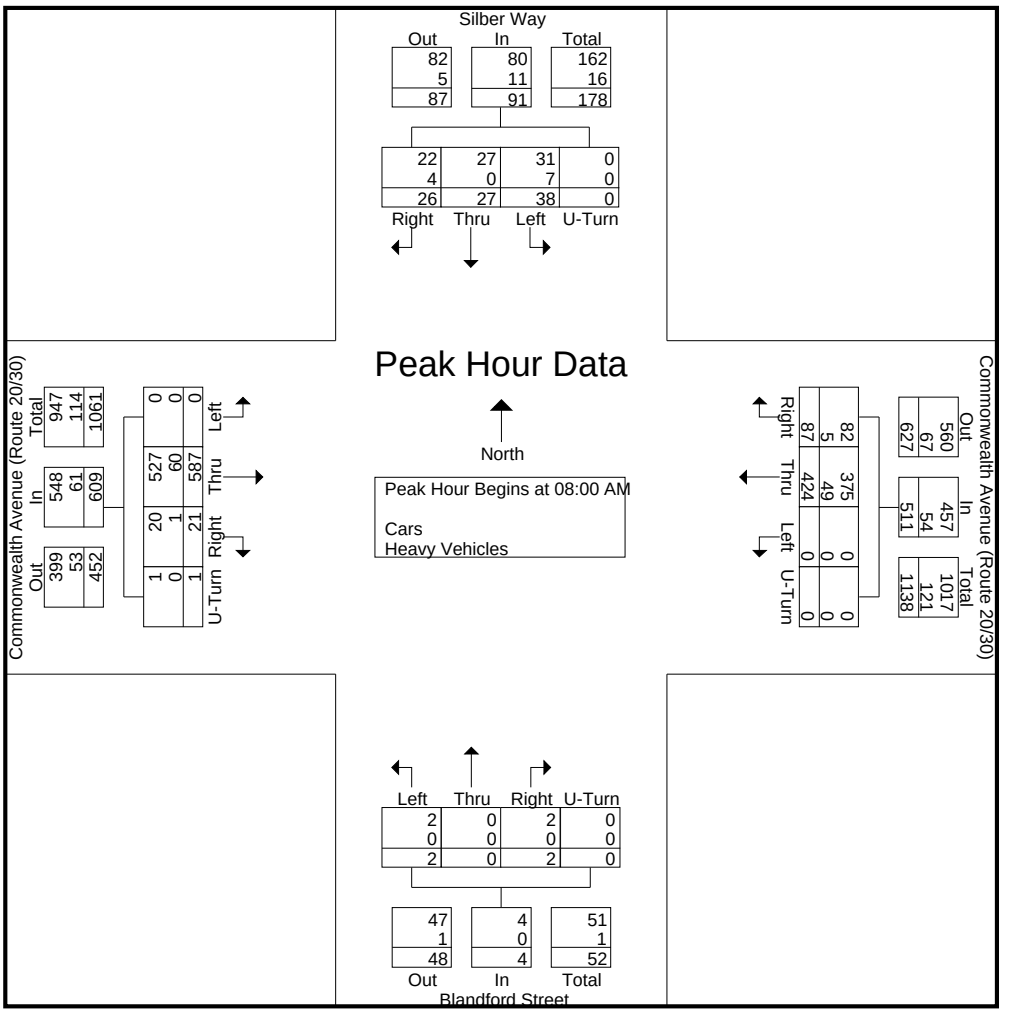
	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	4	12	0	17	17	109	0	0	126	0	0	**1**	0	1	4	120	0	0	124	268
08:15 AM	7	6	7	0	20	**29**	90	0	0	119	0	0	0	0	0	4	**171**	0	0	**175**	314
08:30 AM	7	7	6	0	20	16	**113**	0	0	129	0	0	1	0	1	3	141	0	0	144	294
08:45 AM	**11**	**10**	**13**	0	**34**	25	112	0	0	**137**	**2**	0	0	0	**2**	**10**	155	0	**1**	166	**339**
Total Volume	26	27	38	0	91	87	424	0	0	511	2	0	2	0	4	21	587	0	1	609	1215
% App. Total	28.6	29.7	41.8	0		17	83	0	0		50	0	50	0		3.4	96.4	0	0.2		
PHF	.591	.675	.731	.000	.669	.750	.938	.000	.000	.932	.250	.000	.500	.000	.500	.525	.858	.000	.250	.870	.896
Cars	22	27	31	0	80	82	375	0	0	457	2	0	2	0	4	20	527	0	1	548	1089
% Cars	84.6	100	81.6	0	87.9	94.3	88.4	0	0	89.4	100	0	100	0	100	95.2	89.8	0	100	90.0	89.6
Heavy Vehicles																					
% Heavy Vehicles	15.4	0	18.4	0	12.1	5.7	11.6	0	0	10.6	0	0	0	0	0	4.8	10.2	0	0	10.0	10.4



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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 SS
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	6	8	10	0	17	98	0	0	0	0	1	0	10	144	0	0	294
12:15 PM	5	5	15	0	24	146	0	0	2	0	0	0	9	147	0	0	353
12:30 PM	6	3	9	0	16	124	0	0	0	0	0	0	7	147	0	0	312
12:45 PM	9	5	4	0	14	119	0	0	0	0	0	0	8	126	0	0	285
Total	26	21	38	0	71	487	0	0	2	0	1	0	34	564	0	0	1244
01:00 PM	6	4	8	0	6	119	0	0	0	0	0	0	5	136	0	0	284
01:15 PM	5	2	7	0	14	99	0	0	1	0	1	0	2	119	0	0	250
01:30 PM	9	9	12	0	13	113	0	0	1	0	0	0	5	137	0	0	299
01:45 PM	7	8	13	0	11	131	0	0	2	0	2	0	9	159	0	0	342
Total	27	23	40	0	44	462	0	0	4	0	3	0	21	551	0	0	1175
Grand Total	53	44	78	0	115	949	0	0	6	0	4	0	55	1115	0	0	2419
Apprch %	30.3	25.1	44.6	0	10.8	89.2	0	0	60	0	40	0	4.7	95.3	0	0	
Total %	2.2	1.8	3.2	0	4.8	39.2	0	0	0.2	0	0.2	0	2.3	46.1	0	0	
Cars	52	42	71	0	110	878	0	0	6	0	4	0	49	1008	0	0	2220
% Cars	98.1	95.5	91	0	95.7	92.5	0	0	100	0	100	0	89.1	90.4	0	0	91.8
Heavy Vehicles	1	2	7	0	5	71	0	0	0	0	0	0	6	107	0	0	199
% Heavy Vehicles	1.9	4.5	9	0	4.3	7.5	0	0	0	0	0	0	10.9	9.6	0	0	8.2

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	6	**8**	10	0	24	17	98	0	0	115	0	0	**1**	0	1	**10**	144	0	0	154	294
12:15 PM	5	5	**15**	0	**25**	**24**	**146**	0	0	**170**	**2**	0	0	0	**2**	9	**147**	0	0	**156**	**353**
12:30 PM	6	3	9	0	18	16	124	0	0	140	0	0	0	0	0	7	147	0	0	154	312
12:45 PM	**9**	5	4	0	18	14	119	0	0	133	0	0	0	0	0	8	126	0	0	134	285
Total Volume	26	21	38	0	85	71	487	0	0	558	2	0	1	0	3	34	564	0	0	598	1244
% App. Total	30.6	24.7	44.7	0		12.7	87.3	0	0		66.7	0	33.3	0		5.7	94.3	0	0		
PHF	.722	.656	.633	.000	.850	.740	.834	.000	.000	.821	.250	.000	.250	.000	.375	.850	.959	.000	.000	.958	.881
Cars	26	20	35	0	81	68	448	0	0	516	2	0	1	0	3	30	503	0	0	533	1133
% Cars	100	95.2	92.1	0	95.3	95.8	92.0	0	0	92.5	100	0	100	0	100	88.2	89.2	0	0	89.1	91.1
Heavy Vehicles																					
% Heavy Vehicles	0	4.8	7.9	0	4.7	4.2	8.0	0	0	7.5	0	0	0	0	0	11.8	10.8	0	0	10.9	8.9

N/S: Silber Way/ Blandford Street
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Groups Printed- Cars

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	6	8	10	0	17	92	0	0	0	0	1	0	9	129	0	0	272
12:15 PM	5	4	13	0	24	133	0	0	2	0	0	0	8	140	0	0	329
12:30 PM	6	3	8	0	15	114	0	0	0	0	0	0	6	127	0	0	279
12:45 PM	9	5	4	0	12	109	0	0	0	0	0	0	7	107	0	0	253
Total	26	20	35	0	68	448	0	0	2	0	1	0	30	503	0	0	1133
01:00 PM	6	4	7	0	5	108	0	0	0	0	0	0	4	121	0	0	255
01:15 PM	5	2	6	0	14	93	0	0	1	0	1	0	2	112	0	0	236
01:30 PM	8	8	11	0	13	105	0	0	1	0	0	0	4	125	0	0	275
01:45 PM	7	8	12	0	10	124	0	0	2	0	2	0	9	147	0	0	321
Total	26	22	36	0	42	430	0	0	4	0	3	0	19	505	0	0	1087
Grand Total	52	42	71	0	110	878	0	0	6	0	4	0	49	1008	0	0	2220
Apprch %	31.5	25.5	43	0	11.1	88.9	0	0	60	0	40	0	4.6	95.4	0	0	
Total %	2.3	1.9	3.2	0	5	39.5	0	0	0.3	0	0.2	0	2.2	45.4	0	0	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	6	**8**	10	0	**24**	17	92	0	0	109	0	0	**1**	0	1	**9**	129	0	0	138	272
12:15 PM	5	4	**13**	0	22	**24**	**133**	0	0	**157**	**2**	0	0	0	**2**	8	**140**	0	0	**148**	**329**
12:30 PM	6	3	8	0	17	15	114	0	0	129	0	0	0	0	0	6	127	0	0	133	279
12:45 PM	**9**	5	4	0	18	12	109	0	0	121	0	0	0	0	0	7	107	0	0	114	253
Total Volume	26	20	35	0	81	68	448	0	0	516	2	0	1	0	3	30	503	0	0	533	1133
% App. Total	32.1	24.7	43.2	0		13.2	86.8	0	0		66.7	0	33.3	0		5.6	94.4	0	0		
PHF	.722	.625	.673	.000	.844	.708	.842	.000	.000	.822	.250	.000	.250	.000	.375	.833	.898	.000	.000	.900	.861

N/S: Silber Way/ Blandford Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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File Name : 122828 SS
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Heavy Vehicles

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	6	0	0	0	0	0	0	1	15	0	0	22
12:15 PM	0	1	2	0	0	13	0	0	0	0	0	0	1	7	0	0	24
12:30 PM	0	0	1	0	1	10	0	0	0	0	0	0	1	20	0	0	33
12:45 PM	0	0	0	0	2	10	0	0	0	0	0	0	1	19	0	0	32
Total	0	1	3	0	3	39	0	0	0	0	0	0	4	61	0	0	111
01:00 PM	0	0	1	0	1	11	0	0	0	0	0	0	1	15	0	0	29
01:15 PM	0	0	1	0	0	6	0	0	0	0	0	0	0	7	0	0	14
01:30 PM	1	1	1	0	0	8	0	0	0	0	0	0	1	12	0	0	24
01:45 PM	0	0	1	0	1	7	0	0	0	0	0	0	0	12	0	0	21
Total	1	1	4	0	2	32	0	0	0	0	0	0	2	46	0	0	88
Grand Total	1	2	7	0	5	71	0	0	0	0	0	0	6	107	0	0	199
Apprch %	10	20	70	0	6.6	93.4	0	0	0	0	0	0	5.3	94.7	0	0	
Total %	0.5	1	3.5	0	2.5	35.7	0	0	0	0	0	0	3	53.8	0	0	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	0	**1**	**2**	0	**3**	0	**13**	0	0	**13**	0	0	0	0	0	**1**	7	0	0	8	24
12:30 PM	0	0	1	0	1	1	10	0	0	11	0	0	0	0	0	1	**20**	0	0	**21**	**33**
12:45 PM	0	0	0	0	0	**2**	10	0	0	12	0	0	0	0	0	1	19	0	0	20	32
01:00 PM	0	0	1	0	1	1	11	0	0	12	0	0	0	0	0	1	15	0	0	16	29
Total Volume	0	1	4	0	5	4	44	0	0	48	0	0	0	0	0	4	61	0	0	65	118
% App. Total	0	20	80	0		8.3	91.7	0	0		0	0	0	0		6.2	93.8	0	0		
PHF	.000	.250	.500	.000	.417	.500	.846	.000	.000	.923	.000	.000	.000	.000	.000	1.00	.763	.000	.000	.774	.894

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N/S: Silber Way/ Blandford Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 SS
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	1	0	208	0	8	0	115	0	0	0	107	0	7	1	90	537
12:15 PM	0	0	2	667	0	4	0	342	1	1	3	281	1	9	1	355	1667
12:30 PM	0	0	0	195	0	7	0	156	0	0	0	125	1	10	0	88	582
12:45 PM	1	0	0	120	1	2	0	147	0	0	1	150	2	8	0	84	516
Total	1	1	2	1190	1	21	0	760	1	1	4	663	4	34	2	617	3302
01:00 PM	1	0	1	116	1	9	0	81	0	2	1	63	0	14	1	43	333
01:15 PM	0	1	0	146	1	3	0	86	0	0	0	102	1	14	0	70	424
01:30 PM	0	0	3	230	0	3	0	106	0	3	0	136	0	15	0	137	633
01:45 PM	0	0	2	548	0	6	1	350	0	0	1	367	3	9	2	371	1660
Total	1	1	6	1040	2	21	1	623	0	5	2	668	4	52	3	621	3050
Grand Total	2	2	8	2230	3	42	1	1383	1	6	6	1331	8	86	5	1238	6352
Apprch %	0.1	0.1	0.4	99.5	0.2	2.9	0.1	96.8	0.1	0.4	0.4	99	0.6	6.4	0.4	92.6	
Total %	0	0	0.1	35.1	0	0.7	0	21.8	0	0.1	0.1	21	0.1	1.4	0.1	19.5	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	**1**	0	208	209	0	**8**	0	115	123	0	0	0	107	107	0	7	**1**	90	98	537
12:15 PM	0	0	**2**	**667**	**669**	0	4	0	**342**	**346**	**1**	**1**	**3**	**281**	**286**	1	9	1	**355**	**366**	**1667**
12:30 PM	0	0	0	195	195	0	7	0	156	163	0	0	0	125	125	1	**10**	0	88	99	582
12:45 PM	**1**	0	0	120	121	**1**	2	0	147	150	0	0	1	150	151	**2**	8	0	84	94	516
Total Volume	1	1	2	1190	1194	1	21	0	760	782	1	1	4	663	669	4	34	2	617	657	3302
% App. Total	0.1	0.1	0.2	99.7		0.1	2.7	0	97.2		0.1	0.1	0.6	99.1		0.6	5.2	0.3	93.9		
PHF	.250	.250	.250	.446	.446	.250	.656	.000	.556	.565	.250	.250	.333	.590	.585	.500	.850	.500	.435	.449	.495

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File Name : 122828 SS
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Trains

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0	6
12:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
12:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	4
Total	0	0	0	0	0	6	0	0	0	0	0	0	0	8	0	0	14
01:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	3
01:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0	5
01:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	3
01:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	3
Total	0	0	0	0	0	9	0	0	0	0	0	0	0	5	0	0	14
Grand Total	0	0	0	0	0	15	0	0	0	0	0	0	0	13	0	0	28
Apprch %	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	53.6	0	0	0	0	0	0	0	46.4	0	0	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	**2**	0	0	**2**	3
12:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
01:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
01:15 PM	0	0	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	0	2	0	0	2	**5**
Total Volume	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	15
% App. Total	0	0	0	0		0	100	0	0		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.667	.000	.000	.667	.000	.000	.000	.000	.000	.000	.875	.000	.000	.875	.750

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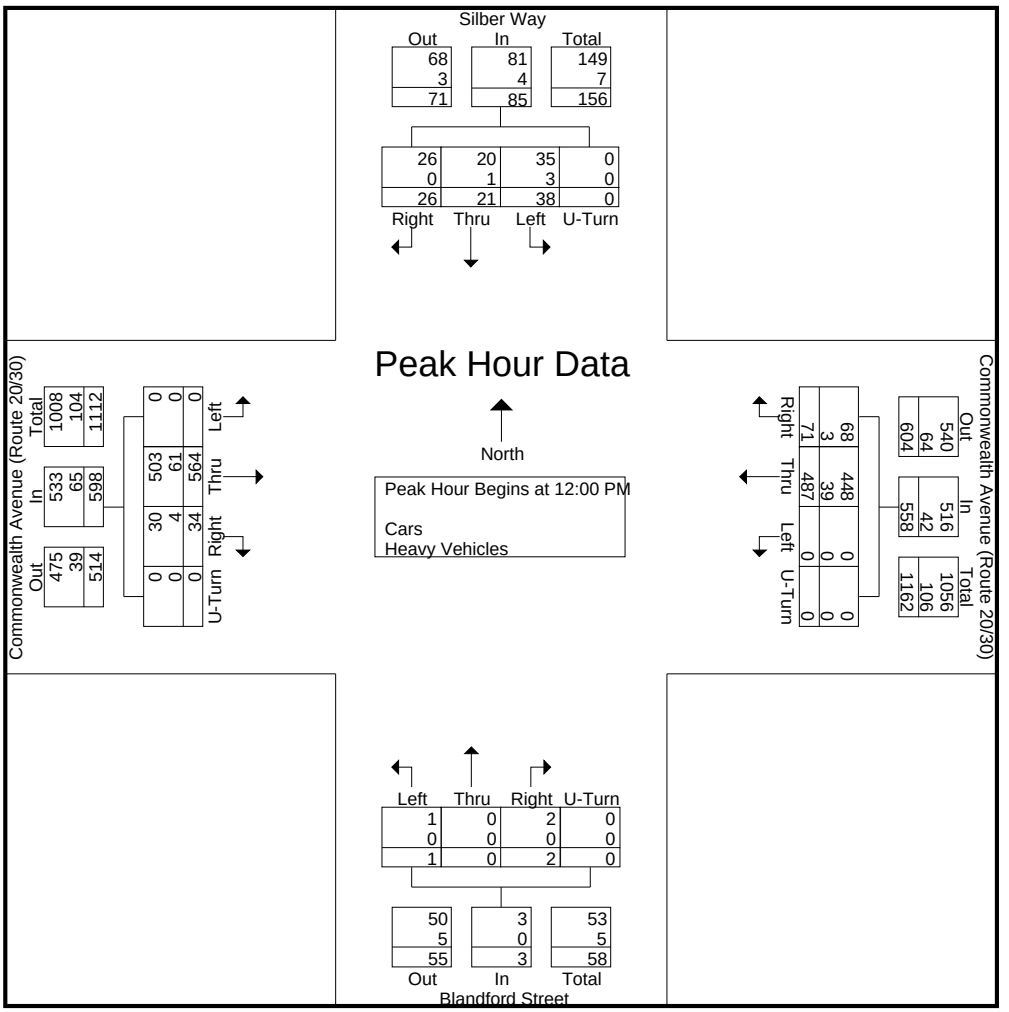
	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	6	**8**	10	0	24	17	98	0	0	115	0	0	**1**	0	1	**10**	144	0	0	154	294
12:15 PM	5	5	**15**	0	**25**	**24**	**146**	0	0	**170**	**2**	0	0	0	**2**	9	**147**	0	0	**156**	**353**
12:30 PM	6	3	9	0	18	16	124	0	0	140	0	0	0	0	0	7	147	0	0	154	312
12:45 PM	**9**	5	4	0	18	14	119	0	0	133	0	0	0	0	0	8	126	0	0	134	285
Total Volume	26	21	38	0	85	71	487	0	0	558	2	0	1	0	3	34	564	0	0	598	1244
% App. Total	30.6	24.7	44.7	0		12.7	87.3	0	0		66.7	0	33.3	0		5.7	94.3	0	0		
PHF	.722	.656	.633	.000	.850	.740	.834	.000	.000	.821	.250	.000	.250	.000	.375	.850	.959	.000	.000	.958	.881
Cars	26	20	35	0	81	68	448	0	0	516	2	0	1	0	3	30	503	0	0	533	1133
% Cars	100	95.2	92.1	0	95.3	95.8	92.0	0	0	92.5	100	0	100	0	100	88.2	89.2	0	0	89.1	91.1
Heavy Vehicles																					
% Heavy Vehicles	0	4.8	7.9	0	4.7	4.2	8.0	0	0	7.5	0	0	0	0	0	11.8	10.8	0	0	10.9	8.9



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Groups Printed- Cars - Heavy Vehicles

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	8	4	13	0	22	134	0	0	0	0	0	0	3	129	0	1	314
04:15 PM	5	3	9	0	14	129	0	0	0	0	1	0	6	152	0	0	319
04:30 PM	6	8	4	0	8	134	0	0	0	0	0	0	3	135	0	0	298
04:45 PM	18	5	10	0	22	140	0	0	0	1	1	0	17	171	0	0	385
Total	37	20	36	0	66	537	0	0	0	1	2	0	29	587	0	1	1316
05:00 PM	15	5	18	0	44	153	0	0	0	0	0	0	5	182	0	0	422
05:15 PM	11	11	11	0	17	185	0	0	0	1	0	0	6	182	0	0	424
05:30 PM	9	5	13	0	39	147	0	0	0	0	1	0	13	193	0	0	420
05:45 PM	8	12	10	0	32	165	0	0	1	0	1	0	17	145	0	0	391
Total	43	33	52	0	132	650	0	0	1	1	2	0	41	702	0	0	1657
Grand Total	80	53	88	0	198	1187	0	0	1	2	4	0	70	1289	0	1	2973
Apprch %	36.2	24	39.8	0	14.3	85.7	0	0	14.3	28.6	57.1	0	5.1	94.8	0	0.1	
Total %	2.7	1.8	3	0	6.7	39.9	0	0	0	0.1	0.1	0	2.4	43.4	0	0	
Cars	80	51	87	0	196	1120	0	0	1	1	4	0	67	1202	0	1	2810
% Cars	100	96.2	98.9	0	99	94.4	0	0	100	50	100	0	95.7	93.3	0	100	94.5
Heavy Vehicles	0	2	1	0	2	67	0	0	0	1	0	0	3	87	0	0	163
% Heavy Vehicles	0	3.8	1.1	0	1	5.6	0	0	0	50	0	0	4.3	6.7	0	0	5.5

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**15**	5	**18**	0	**38**	**44**	153	0	0	197	0	0	0	0	0	5	182	0	0	187	422
05:15 PM	11	11	11	0	33	17	**185**	0	0	**202**	0	**1**	0	0	1	6	182	0	0	188	**424**
05:30 PM	9	5	13	0	27	39	147	0	0	186	0	0	**1**	0	1	13	**193**	0	0	**206**	420
05:45 PM	8	**12**	10	0	30	32	165	0	0	197	**1**	0	1	0	**2**	**17**	145	0	0	162	391
Total Volume	43	33	52	0	128	132	650	0	0	782	1	1	2	0	4	41	702	0	0	743	1657
% App. Total	33.6	25.8	40.6	0		16.9	83.1	0	0		25	25	50	0		5.5	94.5	0	0		
PHF	.717	.688	.722	.000	.842	.750	.878	.000	.000	.968	.250	.250	.500	.000	.500	.603	.909	.000	.000	.902	.977
Cars	43	31	51	0	125	130	617	0	0	747	1	0	2	0	3	39	656	0	0	695	1570
% Cars	100	93.9	98.1	0	97.7	98.5	94.9	0	0	95.5	100	0	100	0	75.0	95.1	93.4	0	0	93.5	94.7
Heavy Vehicles																					
% Heavy Vehicles	0	6.1	1.9	0	2.3	1.5	5.1	0	0	4.5	0	100	0	0	25.0	4.9	6.6	0	0	6.5	5.3

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Groups Printed- Cars

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	8	4	13	0	22	123	0	0	0	0	0	0	3	117	0	1	291
04:15 PM	5	3	9	0	14	124	0	0	0	0	1	0	6	141	0	0	303
04:30 PM	6	8	4	0	8	125	0	0	0	0	0	0	3	125	0	0	279
04:45 PM	18	5	10	0	22	131	0	0	0	1	1	0	16	163	0	0	367
Total	37	20	36	0	66	503	0	0	0	1	2	0	28	546	0	1	1240
05:00 PM	15	4	18	0	43	143	0	0	0	0	0	0	5	166	0	0	394
05:15 PM	11	10	10	0	17	178	0	0	0	0	0	0	4	174	0	0	404
05:30 PM	9	5	13	0	39	137	0	0	0	0	1	0	13	178	0	0	395
05:45 PM	8	12	10	0	31	159	0	0	1	0	1	0	17	138	0	0	377
Total	43	31	51	0	130	617	0	0	1	0	2	0	39	656	0	0	1570
Grand Total	80	51	87	0	196	1120	0	0	1	1	4	0	67	1202	0	1	2810
Apprch %	36.7	23.4	39.9	0	14.9	85.1	0	0	16.7	16.7	66.7	0	5.3	94.6	0	0.1	
Total %	2.8	1.8	3.1	0	7	39.9	0	0	0	0	0.1	0	2.4	42.8	0	0	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**15**	4	**18**	0	**37**	**43**	143	0	0	186	0	0	0	0	0	5	166	0	0	171	394
05:15 PM	11	10	10	0	31	17	**178**	0	0	**195**	0	0	0	0	0	4	174	0	0	178	**404**
05:30 PM	9	5	13	0	27	39	137	0	0	176	0	0	**1**	0	1	13	**178**	0	0	**191**	395
05:45 PM	8	**12**	10	0	30	31	159	0	0	190	**1**	0	1	0	**2**	**17**	138	0	0	155	377
Total Volume	43	31	51	0	125	130	617	0	0	747	1	0	2	0	3	39	656	0	0	695	1570
% App. Total	34.4	24.8	40.8	0		17.4	82.6	0	0		33.3	0	66.7	0		5.6	94.4	0	0		
PHF	.717	.646	.708	.000	.845	.756	.867	.000	.000	.958	.250	.000	.500	.000	.375	.574	.921	.000	.000	.910	.972

N/S: Silber Way/ Blandford Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 SSS
Site Code : 127-4220
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Groups Printed- Heavy Vehicles

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	11	0	0	0	0	0	0	0	12	0	0	23
04:15 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	11	0	0	16
04:30 PM	0	0	0	0	0	9	0	0	0	0	0	0	0	10	0	0	19
04:45 PM	0	0	0	0	0	9	0	0	0	0	0	0	1	8	0	0	18
Total	0	0	0	0	0	34	0	0	0	0	0	0	1	41	0	0	76
05:00 PM	0	1	0	0	1	10	0	0	0	0	0	0	0	16	0	0	28
05:15 PM	0	1	1	0	0	7	0	0	0	1	0	0	2	8	0	0	20
05:30 PM	0	0	0	0	0	10	0	0	0	0	0	0	0	15	0	0	25
05:45 PM	0	0	0	0	1	6	0	0	0	0	0	0	0	7	0	0	14
Total	0	2	1	0	2	33	0	0	0	1	0	0	2	46	0	0	87
Grand Total	0	2	1	0	2	67	0	0	0	1	0	0	3	87	0	0	163
Apprch %	0	66.7	33.3	0	2.9	97.1	0	0	0	100	0	0	3.3	96.7	0	0	
Total %	0	1.2	0.6	0	1.2	41.1	0	0	0	0.6	0	0	1.8	53.4	0	0	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	1	8	0	0	9	18
05:00 PM	0	**1**	0	0	1	**1**	**10**	0	0	**11**	0	0	0	0	0	0	**16**	0	0	**16**	**28**
05:15 PM	0	1	**1**	0	**2**	0	7	0	0	7	0	**1**	0	0	**1**	**2**	8	0	0	10	20
05:30 PM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	15	0	0	15	25
Total Volume	0	2	1	0	3	1	36	0	0	37	0	1	0	0	1	3	47	0	0	50	91
% App. Total	0	66.7	33.3	0		2.7	97.3	0	0		0	100	0	0		6	94	0	0		
PHF	.000	.500	.250	.000	.375	.250	.900	.000	.000	.841	.000	.250	.000	.000	.250	.375	.734	.000	.000	.781	.813

N/S: Silber Way/ Blandford Street
E/W: Commonwealth Avenue (Route 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 SSS
Site Code : 127-4220
Start Date : 3/20/2012
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Groups Printed- Peds and Bicycles

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	169	0	9	0	92	0	0	0	119	1	14	0	77	481
04:15 PM	1	1	3	147	0	18	0	83	0	0	0	75	0	13	0	76	417
04:30 PM	0	1	1	138	0	13	0	121	0	4	0	116	0	20	0	61	475
04:45 PM	1	0	0	362	0	14	0	234	0	0	1	233	1	9	0	241	1096
Total	2	2	4	816	0	54	0	530	0	4	1	543	2	56	0	455	2469
05:00 PM	0	0	3	200	0	18	0	164	0	2	0	180	0	15	0	93	675
05:15 PM	1	2	1	196	0	16	0	139	0	5	0	141	0	17	0	73	591
05:30 PM	1	3	0	186	1	22	0	121	0	3	1	144	0	17	0	78	577
05:45 PM	0	2	0	197	2	25	0	169	0	0	0	190	0	15	0	164	764
Total	2	7	4	779	3	81	0	593	0	10	1	655	0	64	0	408	2607
Grand Total	4	9	8	1595	3	135	0	1123	0	14	2	1198	2	120	0	863	5076
Apprch %	0.2	0.6	0.5	98.7	0.2	10.7	0	89.1	0	1.2	0.2	98.7	0.2	12.2	0	87.6	
Total %	0.1	0.2	0.2	31.4	0.1	2.7	0	22.1	0	0.3	0	23.6	0	2.4	0	17	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**1**	0	0	**362**	**363**	0	14	0	**234**	**248**	0	0	**1**	**233**	**234**	**1**	9	0	**241**	**251**	**1096**
05:00 PM	0	0	**3**	200	203	0	18	0	164	182	0	2	0	180	182	0	15	0	93	108	675
05:15 PM	1	2	1	196	200	0	16	0	139	155	0	**5**	0	141	146	0	**17**	0	73	90	591
05:30 PM	1	**3**	0	186	190	**1**	**22**	0	121	144	0	3	1	144	148	0	17	0	78	95	577
Total Volume	3	5	4	944	956	1	70	0	658	729	0	10	2	698	710	1	58	0	485	544	2939
% App. Total	0.3	0.5	0.4	98.7		0.1	9.6	0	90.3		0	1.4	0.3	98.3		0.2	10.7	0	89.2		
PHF	.750	.417	.333	.652	.658	.250	.795	.000	.703	.735	.000	.500	.500	.749	.759	.250	.853	.000	.503	.542	.670

N/S: Silber Way/ Blandford Street
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File Name : 122828 SSS
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Trains

	Silber Way From North				Commonwealth Avenue (Route 20/30) From East				Blandford Street From South				Commonwealth Avenue (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	5
04:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	6
04:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	6
04:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	5
Total	0	0	0	0	0	10	0	0	0	0	0	0	0	12	0	0	22
05:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0	5
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	4
05:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0	5
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	0	0	9	0	0	0	0	0	0	0	8	0	0	17
Grand Total	0	0	0	0	0	19	0	0	0	0	0	0	0	20	0	0	39
Apprch %	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	48.7	0	0	0	0	0	0	0	51.3	0	0	

	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	**3**	0	0	**3**	5
04:15 PM	0	0	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	0	3	0	0	3	**6**
04:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
04:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
Total Volume	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	12	0	0	12	22
% App. Total	0	0	0	0		0	100	0	0		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.833	.000	.000	.833	.000	.000	.000	.000	.000	.000	1.00	.000	.000	1.00	.917

N/S: Silber Way/ Blandford Street
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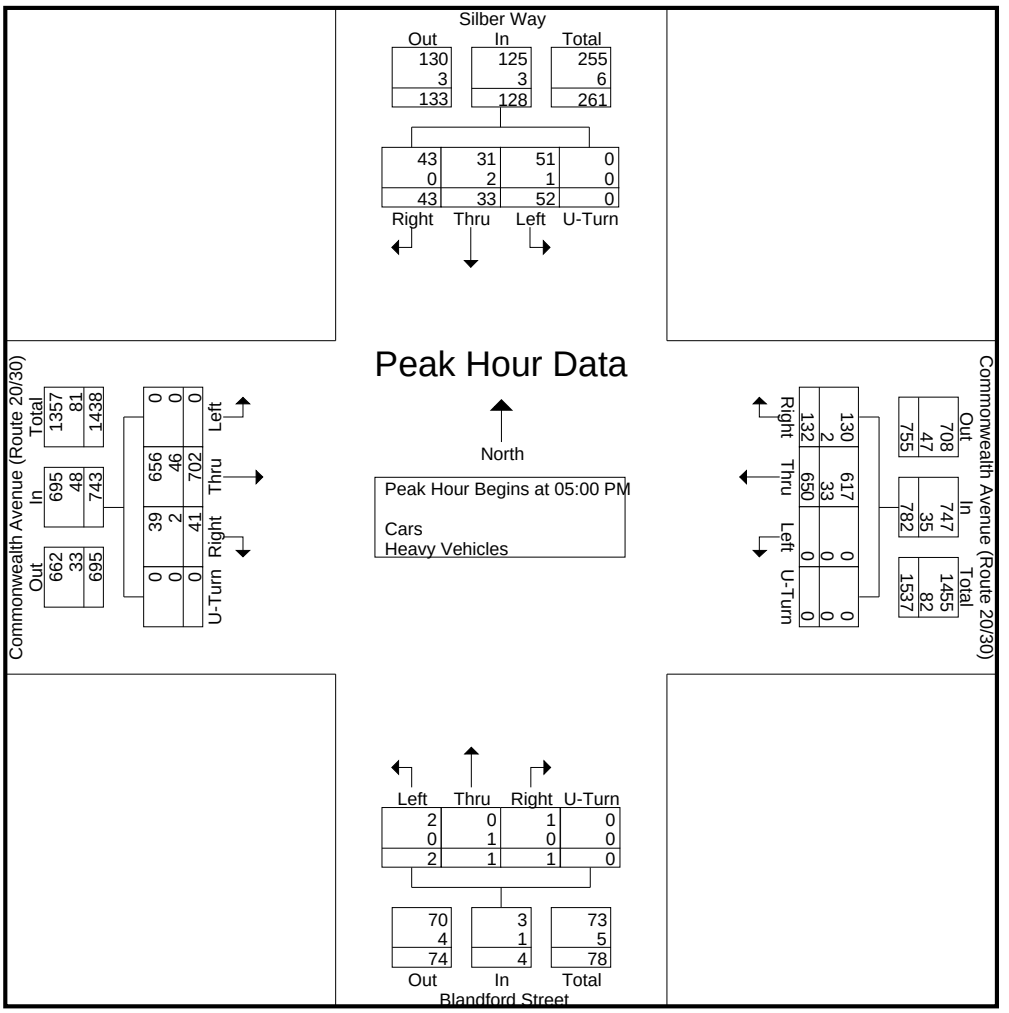
	Silber Way From North					Commonwealth Avenue (Route 20/30) From East					Blandford Street From South					Commonwealth Avenue (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**15**	5	**18**	0	**38**	**44**	153	0	0	197	0	0	0	0	0	5	182	0	0	187	422
05:15 PM	11	11	11	0	33	17	**185**	0	0	**202**	0	**1**	0	0	1	6	182	0	0	188	**424**
05:30 PM	9	5	13	0	27	39	147	0	0	186	0	0	**1**	0	1	13	**193**	0	0	**206**	420
05:45 PM	8	**12**	10	0	30	32	165	0	0	197	**1**	0	1	0	**2**	**17**	145	0	0	162	391
Total Volume	43	33	52	0	128	132	650	0	0	782	1	1	2	0	4	41	702	0	0	743	1657
% App. Total	33.6	25.8	40.6	0		16.9	83.1	0	0		25	25	50	0		5.5	94.5	0	0		
PHF	.717	.688	.722	.000	.842	.750	.878	.000	.000	.968	.250	.250	.500	.000	.500	.603	.909	.000	.000	.902	.977
Cars	43	31	51	0	125	130	617	0	0	747	1	0	2	0	3	39	656	0	0	695	1570
% Cars	100	93.9	98.1	0	97.7	98.5	94.9	0	0	95.5	100	0	100	0	75.0	95.1	93.4	0	0	93.5	94.7
Heavy Vehicles																					
% Heavy Vehicles	0	6.1	1.9	0	2.3	1.5	5.1	0	0	4.5	0	100	0	0	25.0	4.9	6.6	0	0	6.5	5.3



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N/S: Deerfield Street
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 T
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	8	0	0	0	1	27	1	0	0	0	2	0	0	0	0	0	39
07:15 AM	3	0	0	0	3	34	1	0	0	2	3	0	0	0	0	0	46
07:30 AM	4	1	0	0	2	32	2	0	0	0	4	0	0	0	0	0	45
07:45 AM	0	1	0	0	0	43	6	0	0	0	2	0	0	0	0	0	52
Total	15	2	0	0	6	136	10	0	0	2	11	0	0	0	0	0	182
08:00 AM	1	0	0	0	3	54	6	0	0	1	2	0	0	0	0	0	67
08:15 AM	3	2	0	0	1	59	3	0	0	1	4	0	0	0	0	0	73
08:30 AM	3	0	0	0	2	51	6	0	0	0	6	0	0	0	0	0	68
08:45 AM	5	0	0	0	2	72	7	0	0	2	8	0	0	0	0	0	96
Total	12	2	0	0	8	236	22	0	0	4	20	0	0	0	0	0	304
Grand Total	27	4	0	0	14	372	32	0	0	6	31	0	0	0	0	0	486
Apprch %	87.1	12.9	0	0	3.3	89	7.7	0	0	16.2	83.8	0	0	0	0	0	
Total %	5.6	0.8	0	0	2.9	76.5	6.6	0	0	1.2	6.4	0	0	0	0	0	
Cars	24	4	0	0	13	357	31	0	0	6	23	0	0	0	0	0	458
% Cars	88.9	100	0	0	92.9	96	96.9	0	0	100	74.2	0	0	0	0	0	94.2
Heavy Vehicles	3	0	0	0	1	15	1	0	0	0	8	0	0	0	0	0	28
% Heavy Vehicles	11.1	0	0	0	7.1	4	3.1	0	0	0	25.8	0	0	0	0	0	5.8

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	0	0	0	1	**3**	54	6	0	63	0	1	2	0	3	0	0	0	0	0	67
08:15 AM	3	**2**	0	0	**5**	1	59	3	0	63	0	1	4	0	5	0	0	0	0	0	73
08:30 AM	3	0	0	0	3	2	51	6	0	59	0	0	6	0	6	0	0	0	0	0	68
08:45 AM	**5**	0	0	0	5	2	**72**	**7**	0	**81**	0	**2**	**8**	0	**10**	0	0	0	0	0	**96**
Total Volume	12	2	0	0	14	8	236	22	0	266	0	4	20	0	24	0	0	0	0	0	304
% App. Total	85.7	14.3	0	0		3	88.7	8.3	0		0	16.7	83.3	0		0	0	0	0		
PHF	.600	.250	.000	.000	.700	.667	.819	.786	.000	.821	.000	.500	.625	.000	.600	.000	.000	.000	.000	.000	.792
Cars	10	2	0	0	12	7	227	21	0	255	0	4	16	0	20	0	0	0	0	0	287
% Cars	83.3	100	0	0	85.7	87.5	96.2	95.5	0	95.9	0	100	80.0	0	83.3	0	0	0	0	0	94.4
Heavy Vehicles																					
% Heavy Vehicles	16.7	0	0	0	14.3	12.5	3.8	4.5	0	4.1	0	0	20.0	0	16.7	0	0	0	0	0	5.6

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Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 T
Site Code : 127-4220
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Groups Printed- Cars

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	8	0	0	0	1	25	1	0	0	0	1	0	0	0	0	0	36
07:15 AM	3	0	0	0	3	34	1	0	0	2	2	0	0	0	0	0	45
07:30 AM	3	1	0	0	2	30	2	0	0	0	4	0	0	0	0	0	42
07:45 AM	0	1	0	0	0	41	6	0	0	0	0	0	0	0	0	0	48
Total	14	2	0	0	6	130	10	0	0	2	7	0	0	0	0	0	171
08:00 AM	1	0	0	0	3	51	6	0	0	1	1	0	0	0	0	0	63
08:15 AM	3	2	0	0	1	59	3	0	0	1	4	0	0	0	0	0	73
08:30 AM	2	0	0	0	1	50	6	0	0	0	5	0	0	0	0	0	64
08:45 AM	4	0	0	0	2	67	6	0	0	2	6	0	0	0	0	0	87
Total	10	2	0	0	7	227	21	0	0	4	16	0	0	0	0	0	287
Grand Total	24	4	0	0	13	357	31	0	0	6	23	0	0	0	0	0	458
Apprch %	85.7	14.3	0	0	3.2	89	7.7	0	0	20.7	79.3	0	0	0	0	0	
Total %	5.2	0.9	0	0	2.8	77.9	6.8	0	0	1.3	5	0	0	0	0	0	

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	0	0	0	1	**3**	51	**6**	0	60	0	1	1	0	2	0	0	0	0	0	63
08:15 AM	3	**2**	0	0	**5**	1	59	3	0	63	0	1	4	0	5	0	0	0	0	0	73
08:30 AM	2	0	0	0	2	1	50	6	0	57	0	0	5	0	5	0	0	0	0	0	64
08:45 AM	**4**	0	0	0	4	2	**67**	6	0	**75**	0	**2**	**6**	0	**8**	0	0	0	0	0	**87**
Total Volume	10	2	0	0	12	7	227	21	0	255	0	4	16	0	20	0	0	0	0	0	287
% App. Total	83.3	16.7	0	0		2.7	89	8.2	0		0	20	80	0		0	0	0	0		
PHF	.625	.250	.000	.000	.600	.583	.847	.875	.000	.850	.000	.500	.667	.000	.625	.000	.000	.000	.000	.000	.825

PRECISION
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N/S: Deerfield Street
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 T
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Heavy Vehicles

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
07:30 AM	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
07:45 AM	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	4
Total	1	0	0	0	0	6	0	0	0	0	4	0	0	0	0	0	11
08:00 AM	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	4
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	4
08:45 AM	1	0	0	0	0	5	1	0	0	0	2	0	0	0	0	0	9
Total	2	0	0	0	1	9	1	0	0	0	4	0	0	0	0	0	17
Grand Total	3	0	0	0	1	15	1	0	0	0	8	0	0	0	0	0	28
Apprch %	100	0	0	0	5.9	88.2	5.9	0	0	0	100	0	0	0	0	0	
Total %	10.7	0	0	0	3.6	53.6	3.6	0	0	0	28.6	0	0	0	0	0	

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	0	0	0	0	4
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	**1**	0	0	0	**1**	**1**	1	0	0	2	0	0	1	0	1	0	0	0	0	0	4
08:45 AM	1	0	0	0	1	0	**5**	**1**	0	**6**	0	0	**2**	0	**2**	0	0	0	0	0	**9**
Total Volume	2	0	0	0	2	1	9	1	0	11	0	0	4	0	4	0	0	0	0	0	17
% App. Total	100	0	0	0		9.1	81.8	9.1	0		0	0	100	0		0	0	0	0		
PHF	.500	.000	.000	.000	.500	.250	.450	.250	.000	.458	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.472

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File Name : 122828 T
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	13	0	1	0	10	0	0	0	8	0	0	0	0	32
07:15 AM	0	0	0	10	0	1	0	7	0	0	0	13	0	0	0	0	31
07:30 AM	0	1	0	26	0	1	0	10	0	0	0	1	0	0	0	1	40
07:45 AM	0	1	0	64	0	2	0	27	0	0	0	4	0	0	0	0	98
Total	0	2	0	113	0	5	0	54	0	0	0	26	0	0	0	1	201
08:00 AM	0	0	0	32	0	0	0	19	0	0	0	2	0	0	0	1	54
08:15 AM	0	0	0	20	0	5	0	19	0	1	0	0	0	0	0	0	45
08:30 AM	0	0	1	29	0	2	0	14	0	0	0	0	0	0	0	0	46
08:45 AM	0	1	0	34	0	1	0	28	0	0	1	3	0	0	0	0	68
Total	0	1	1	115	0	8	0	80	0	1	1	5	0	0	0	1	213
Grand Total	0	3	1	228	0	13	0	134	0	1	1	31	0	0	0	2	414
Apprch %	0	1.3	0.4	98.3	0	8.8	0	91.2	0	3	3	93.9	0	0	0	100	
Total %	0	0.7	0.2	55.1	0	3.1	0	32.4	0	0.2	0.2	7.5	0	0	0	0.5	

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	**1**	0	**64**	**65**	0	2	0	**27**	**29**	0	0	0	**4**	**4**	0	0	0	0	0	**98**
08:00 AM	0	0	0	32	32	0	0	0	19	19	0	0	0	2	2	0	0	0	**1**	**1**	54
08:15 AM	0	0	0	20	20	0	**5**	0	19	24	0	**1**	0	0	1	0	0	0	0	0	45
08:30 AM	0	0	**1**	29	30	0	2	0	14	16	0	0	0	0	0	0	0	0	0	0	46
Total Volume	0	1	1	145	147	0	9	0	79	88	0	1	0	6	7	0	0	0	1	1	243
% App. Total	0	0.7	0.7	98.6		0	10.2	0	89.8		0	14.3	0	85.7		0	0	0	100		
PHF	.000	.250	.250	.566	.565	.000	.450	.000	.731	.759	.000	.250	.000	.375	.438	.000	.000	.000	.250	.250	.620

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Start Date : 3/20/2012
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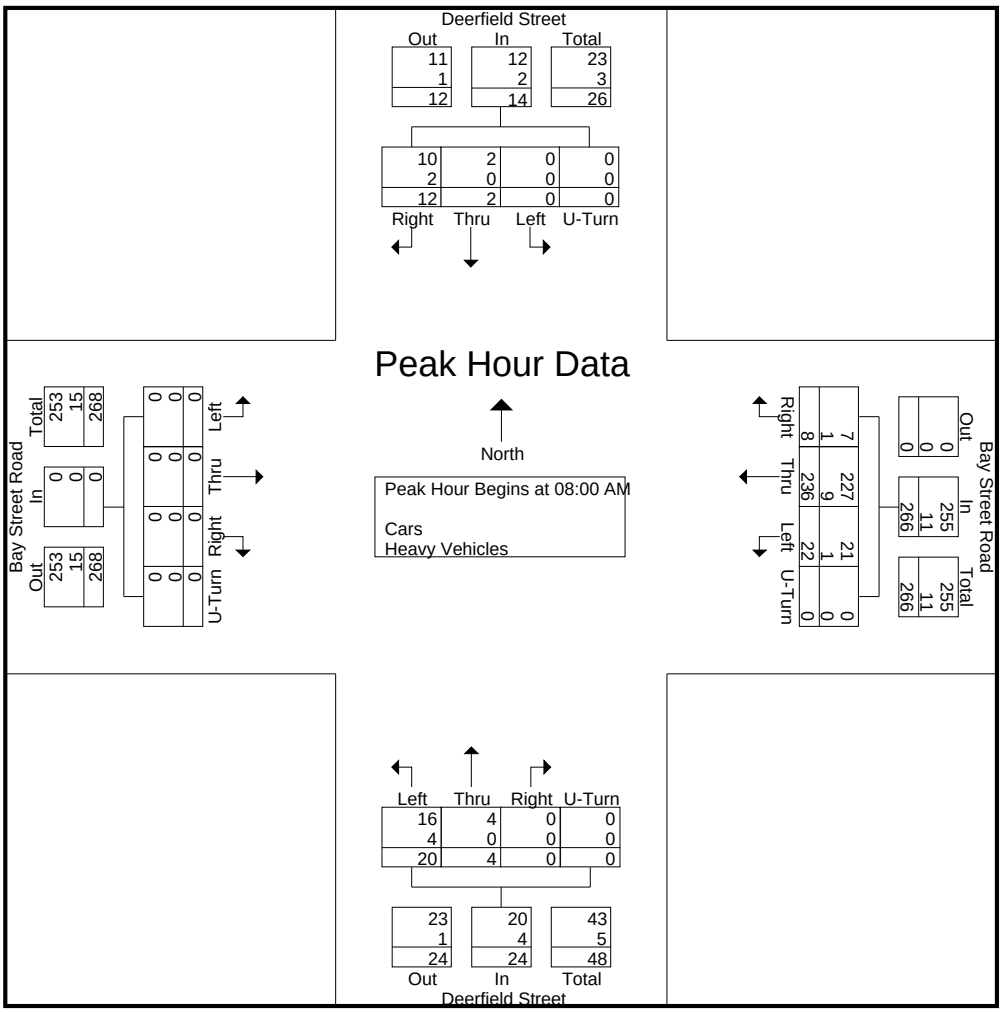
	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	0	0	0	1	**3**	54	6	0	63	0	1	2	0	3	0	0	0	0	0	67
08:15 AM	3	**2**	0	0	**5**	1	59	3	0	63	0	1	4	0	5	0	0	0	0	0	73
08:30 AM	3	0	0	0	3	2	51	6	0	59	0	0	6	0	6	0	0	0	0	0	68
08:45 AM	**5**	0	0	0	5	2	**72**	**7**	0	**81**	0	**2**	**8**	0	**10**	0	0	0	0	0	**96**
Total Volume	12	2	0	0	14	8	236	22	0	266	0	4	20	0	24	0	0	0	0	0	304
% App. Total	85.7	14.3	0	0		3	88.7	8.3	0		0	16.7	83.3	0		0	0	0	0		
PHF	.600	.250	.000	.000	.700	.667	.819	.786	.000	.821	.000	.500	.625	.000	.600	.000	.000	.000	.000	.000	.792
Cars	10	2	0	0	12	7	227	21	0	255	0	4	16	0	20	0	0	0	0	0	287
% Cars	83.3	100	0	0	85.7	87.5	96.2	95.5	0	95.9	0	100	80.0	0	83.3	0	0	0	0	0	94.4
Heavy Vehicles																					
% Heavy Vehicles	16.7	0	0	0	14.3	12.5	3.8	4.5	0	4.1	0	0	20.0	0	16.7	0	0	0	0	0	5.6



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Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 TT
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	4	2	0	0	3	28	2	0	0	5	5	1	0	0	0	0	50
12:15 PM	0	0	0	0	5	38	6	0	0	1	6	0	0	0	0	0	56
12:30 PM	1	0	0	0	3	31	1	0	0	0	7	0	0	0	0	0	43
12:45 PM	5	3	0	0	1	36	3	0	0	1	3	0	0	0	0	0	52
Total	10	5	0	0	12	133	12	0	0	7	21	1	0	0	0	0	201
01:00 PM	2	0	0	0	1	20	5	0	0	4	9	0	0	0	0	0	41
01:15 PM	3	0	0	0	3	27	1	0	0	2	3	0	0	0	0	0	39
01:30 PM	1	1	0	0	3	29	3	0	0	4	5	0	0	0	0	0	46
01:45 PM	3	0	0	0	2	34	4	0	0	2	5	0	0	0	0	0	50
Total	9	1	0	0	9	110	13	0	0	12	22	0	0	0	0	0	176
Grand Total	19	6	0	0	21	243	25	0	0	19	43	1	0	0	0	0	377
Apprch %	76	24	0	0	7.3	84.1	8.7	0	0	30.2	68.3	1.6	0	0	0	0	
Total %	5	1.6	0	0	5.6	64.5	6.6	0	0	5	11.4	0.3	0	0	0	0	
Cars	17	6	0	0	21	239	25	0	0	17	39	0	0	0	0	0	364
% Cars	89.5	100	0	0	100	98.4	100	0	0	89.5	90.7	0	0	0	0	0	96.6
Heavy Vehicles	2	0	0	0	0	4	0	0	0	2	4	1	0	0	0	0	13
% Heavy Vehicles	10.5	0	0	0	0	1.6	0	0	0	10.5	9.3	100	0	0	0	0	3.4

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	4	2	0	0	6	3	28	2	0	33	0	**5**	5	**1**	**11**	0	0	0	0	0	50
12:15 PM	0	0	0	0	0	**5**	**38**	**6**	0	**49**	0	1	6	0	7	0	0	0	0	0	**56**
12:30 PM	1	0	0	0	1	3	31	1	0	35	0	0	**7**	0	7	0	0	0	0	0	43
12:45 PM	**5**	**3**	0	0	**8**	1	36	3	0	40	0	1	3	0	4	0	0	0	0	0	52
Total Volume	10	5	0	0	15	12	133	12	0	157	0	7	21	1	29	0	0	0	0	0	201
% App. Total	66.7	33.3	0	0		7.6	84.7	7.6	0		0	24.1	72.4	3.4		0	0	0	0		
PHF	.500	.417	.000	.000	.469	.600	.875	.500	.000	.801	.000	.350	.750	.250	.659	.000	.000	.000	.000	.000	.897
Cars	9	5	0	0	14	12	131	12	0	155	0	6	19	0	25	0	0	0	0	0	194
% Cars	90.0	100	0	0	93.3	100	98.5	100	0	98.7	0	85.7	90.5	0	86.2	0	0	0	0	0	96.5
Heavy Vehicles																					
% Heavy Vehicles	10.0	0	0	0	6.7	0	1.5	0	0	1.3	0	14.3	9.5	100	13.8	0	0	0	0	0	3.5

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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 TT
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	4	2	0	0	3	27	2	0	0	4	4	0	0	0	0	0	46
12:15 PM	0	0	0	0	5	37	6	0	0	1	5	0	0	0	0	0	54
12:30 PM	1	0	0	0	3	31	1	0	0	0	7	0	0	0	0	0	43
12:45 PM	4	3	0	0	1	36	3	0	0	1	3	0	0	0	0	0	51
Total	9	5	0	0	12	131	12	0	0	6	19	0	0	0	0	0	194
01:00 PM	2	0	0	0	1	20	5	0	0	4	8	0	0	0	0	0	40
01:15 PM	2	0	0	0	3	26	1	0	0	1	3	0	0	0	0	0	36
01:30 PM	1	1	0	0	3	29	3	0	0	4	5	0	0	0	0	0	46
01:45 PM	3	0	0	0	2	33	4	0	0	2	4	0	0	0	0	0	48
Total	8	1	0	0	9	108	13	0	0	11	20	0	0	0	0	0	170
Grand Total	17	6	0	0	21	239	25	0	0	17	39	0	0	0	0	0	364
Apprch %	73.9	26.1	0	0	7.4	83.9	8.8	0	0	30.4	69.6	0	0	0	0	0	
Total %	4.7	1.6	0	0	5.8	65.7	6.9	0	0	4.7	10.7	0	0	0	0	0	

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	**4**	2	0	0	6	3	27	2	0	32	0	**4**	4	0	**8**	0	0	0	0	0	46
12:15 PM	0	0	0	0	0	**5**	**37**	**6**	0	**48**	0	1	5	0	6	0	0	0	0	0	**54**
12:30 PM	1	0	0	0	1	3	31	1	0	35	0	0	**7**	0	7	0	0	0	0	0	43
12:45 PM	4	**3**	0	0	**7**	1	36	3	0	40	0	1	3	0	4	0	0	0	0	0	51
Total Volume	9	5	0	0	14	12	131	12	0	155	0	6	19	0	25	0	0	0	0	0	194
% App. Total	64.3	35.7	0	0		7.7	84.5	7.7	0		0	24	76	0		0	0	0	0		
PHF	.563	.417	.000	.000	.500	.600	.885	.500	.000	.807	.000	.375	.679	.000	.781	.000	.000	.000	.000	.000	.898

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Groups Printed- Heavy Vehicles

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	4
12:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	0	2	0	0	0	1	2	1	0	0	0	0	7
01:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
01:15 PM	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Total	1	0	0	0	0	2	0	0	0	1	2	0	0	0	0	0	6
Grand Total	2	0	0	0	0	4	0	0	0	2	4	1	0	0	0	0	13
Apprch %	100	0	0	0	0	100	0	0	0	28.6	57.1	14.3	0	0	0	0	
Total %	15.4	0	0	0	0	30.8	0	0	0	15.4	30.8	7.7	0	0	0	0	

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	0	**1**	0	0	**1**	0	**1**	**1**	**1**	**3**	0	0	0	0	0	**4**
12:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	**1**	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	0	1	0	2	0	0	2	0	1	2	1	4	0	0	0	0	0	7
% App. Total	100	0	0	0		0	100	0	0		0	25	50	25		0	0	0	0		
PHF	.250	.000	.000	.000	.250	.000	.500	.000	.000	.500	.000	.250	.500	.250	.333	.000	.000	.000	.000	.000	.438

N/S: Deerfield Street
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION
D A T A
INDUSTRIES, LLC
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File Name : 122828 TT
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	0	0	74	0	1	0	47	0	0	1	1	0	0	0	0	124
12:15 PM	0	0	0	138	0	1	0	85	0	1	0	10	0	0	0	0	235
12:30 PM	0	0	0	116	0	1	0	79	0	0	2	11	0	0	0	0	209
12:45 PM	0	0	0	85	0	1	0	46	0	0	0	7	0	0	0	0	139
Total	0	0	0	413	0	4	0	257	0	1	3	29	0	0	0	0	707
01:00 PM	0	0	0	99	0	0	0	89	0	0	0	5	0	0	0	0	193
01:15 PM	0	0	0	96	1	1	0	85	0	0	0	5	0	0	0	0	188
01:30 PM	0	0	0	60	0	0	0	45	0	0	0	8	0	0	0	0	113
01:45 PM	0	0	0	158	0	1	2	66	0	0	0	5	0	0	0	0	232
Total	0	0	0	413	1	2	2	285	0	0	0	23	0	0	0	0	726
Grand Total	0	0	0	826	1	6	2	542	0	1	3	52	0	0	0	0	1433
Apprch %	0	0	0	100	0.2	1.1	0.4	98.4	0	1.8	5.4	92.9	0	0	0	0	
Total %	0	0	0	57.6	0.1	0.4	0.1	37.8	0	0.1	0.2	3.6	0	0	0	0	

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	0	0	0	**138**	**138**	0	**1**	0	85	86	0	**1**	0	10	11	0	0	0	0	0	**235**
12:30 PM	0	0	0	116	116	0	1	0	79	80	0	0	**2**	**11**	**13**	0	0	0	0	0	209
12:45 PM	0	0	0	85	85	0	1	0	46	47	0	0	0	7	7	0	0	0	0	0	139
01:00 PM	0	0	0	99	99	0	0	0	**89**	**89**	0	0	0	5	5	0	0	0	0	0	193
Total Volume	0	0	0	438	438	0	3	0	299	302	0	1	2	33	36	0	0	0	0	0	776
% App. Total	0	0	0	100		0	1	0	99		0	2.8	5.6	91.7		0	0	0	0		
PHF	.000	.000	.000	.793	.793	.000	.750	.000	.840	.848	.000	.250	.250	.750	.692	.000	.000	.000	.000	.000	.826

N/S: Deerfield Street
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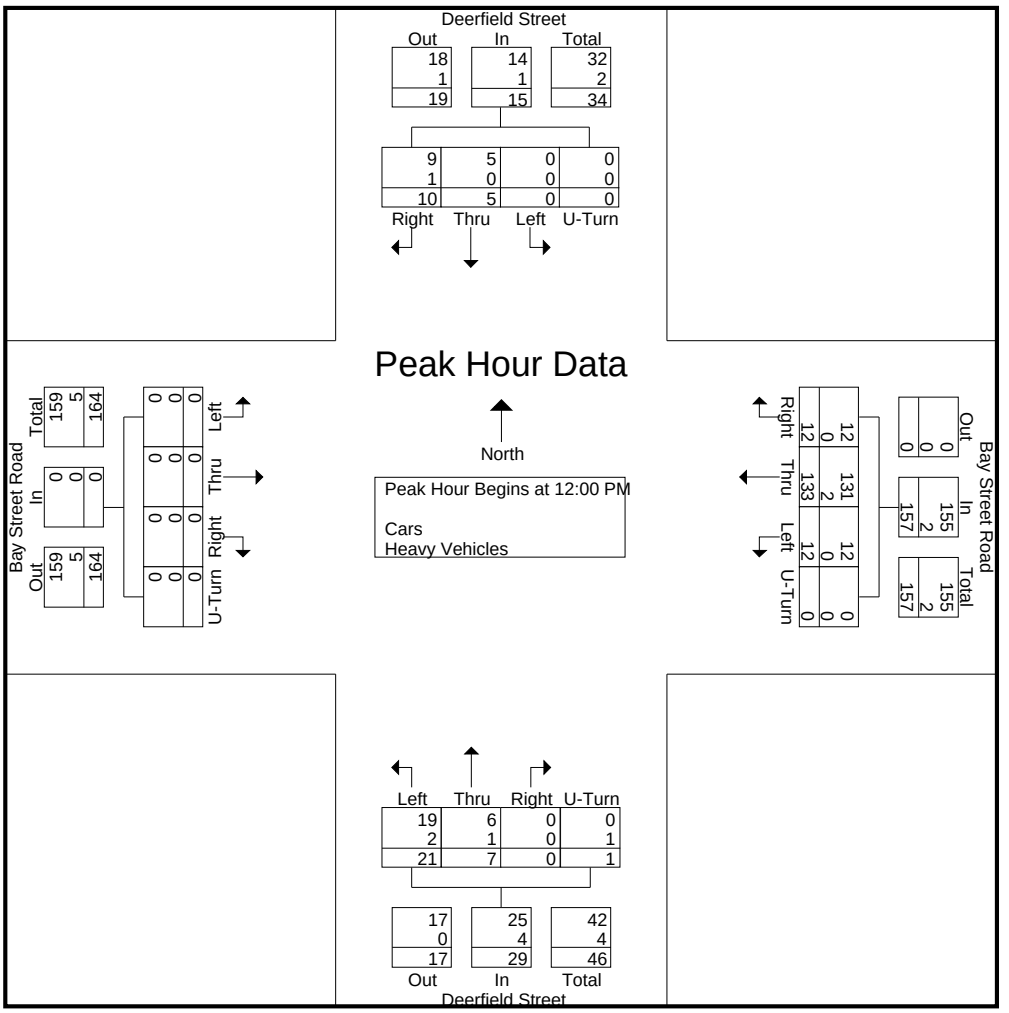
File Name : 122828 TT
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	4	2	0	0	6	3	28	2	0	33	0	**5**	5	**1**	**11**	0	0	0	0	0	50
12:15 PM	0	0	0	0	0	**5**	**38**	**6**	0	**49**	0	1	6	0	7	0	0	0	0	0	**56**
12:30 PM	1	0	0	0	1	3	31	1	0	35	0	0	**7**	0	7	0	0	0	0	0	43
12:45 PM	**5**	**3**	0	0	**8**	1	36	3	0	40	0	1	3	0	4	0	0	0	0	0	52
Total Volume	10	5	0	0	15	12	133	12	0	157	0	7	21	1	29	0	0	0	0	0	201
% App. Total	66.7	33.3	0	0		7.6	84.7	7.6	0		0	24.1	72.4	3.4		0	0	0	0		
PHF	.500	.417	.000	.000	.469	.600	.875	.500	.000	.801	.000	.350	.750	.250	.659	.000	.000	.000	.000	.000	.897
Cars	9	5	0	0	14	12	131	12	0	155	0	6	19	0	25	0	0	0	0	0	194
% Cars	90.0	100	0	0	93.3	100	98.5	100	0	98.7	0	85.7	90.5	0	86.2	0	0	0	0	0	96.5
Heavy Vehicles																					
% Heavy Vehicles	10.0	0	0	0	6.7	0	1.5	0	0	1.3	0	14.3	9.5	100	13.8	0	0	0	0	0	3.5



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N/S: Deerfield Street
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 TTT
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	4	0	0	0	2	35	0	0	0	5	5	0	0	0	0	0	51
04:15 PM	6	0	0	0	2	24	1	0	0	2	4	0	0	0	0	0	39
04:30 PM	0	2	0	0	2	43	1	0	0	3	2	0	0	0	0	0	53
04:45 PM	4	0	0	0	1	52	7	0	0	5	4	0	0	0	0	0	73
Total	14	2	0	0	7	154	9	0	0	15	15	0	0	0	0	0	216
05:00 PM	4	0	0	0	3	46	3	0	0	5	2	0	0	0	0	0	63
05:15 PM	3	1	0	0	0	49	3	0	0	4	9	1	0	0	0	0	70
05:30 PM	1	3	0	0	0	54	11	0	0	1	4	0	0	0	0	0	74
05:45 PM	9	3	0	0	1	48	6	0	0	1	5	0	0	0	0	0	73
Total	17	7	0	0	4	197	23	0	0	11	20	1	0	0	0	0	280
Grand Total	31	9	0	0	11	351	32	0	0	26	35	1	0	0	0	0	496
Apprch %	77.5	22.5	0	0	2.8	89.1	8.1	0	0	41.9	56.5	1.6	0	0	0	0	
Total %	6.2	1.8	0	0	2.2	70.8	6.5	0	0	5.2	7.1	0.2	0	0	0	0	
Cars	31	9	0	0	11	344	32	0	0	26	34	1	0	0	0	0	488
% Cars	100	100	0	0	100	98	100	0	0	100	97.1	100	0	0	0	0	98.4
Heavy Vehicles	0	0	0	0	0	7	0	0	0	0	1	0	0	0	0	0	8
% Heavy Vehicles	0	0	0	0	0	2	0	0	0	0	2.9	0	0	0	0	0	1.6

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**4**	0	0	0	**4**	1	52	7	0	60	0	**5**	4	0	9	0	0	0	0	0	73
05:00 PM	4	0	0	0	4	**3**	46	3	0	52	0	5	2	0	7	0	0	0	0	0	63
05:15 PM	3	1	0	0	4	0	49	3	0	52	0	4	**9**	**1**	**14**	0	0	0	0	0	70
05:30 PM	1	**3**	0	0	4	0	**54**	**11**	0	**65**	0	1	4	0	5	0	0	0	0	0	**74**
Total Volume	12	4	0	0	16	4	201	24	0	229	0	15	19	1	35	0	0	0	0	0	280
% App. Total	75	25	0	0		1.7	87.8	10.5	0		0	42.9	54.3	2.9		0	0	0	0		
PHF	.750	.333	.000	.000	1.00	.333	.931	.545	.000	.881	.000	.750	.528	.250	.625	.000	.000	.000	.000	.000	.946
Cars	12	4	0	0	16	4	198	24	0	226	0	15	18	1	34	0	0	0	0	0	276
% Cars	100	100	0	0	100	100	98.5	100	0	98.7	0	100	94.7	100	97.1	0	0	0	0	0	98.6
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	1.5	0	0	1.3	0	0	5.3	0	2.9	0	0	0	0	0	1.4

N/S: Deerfield Street
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 TTT
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	4	0	0	0	2	34	0	0	0	5	5	0	0	0	0	0	50
04:15 PM	6	0	0	0	2	23	1	0	0	2	4	0	0	0	0	0	38
04:30 PM	0	2	0	0	2	42	1	0	0	3	2	0	0	0	0	0	52
04:45 PM	4	0	0	0	1	51	7	0	0	5	4	0	0	0	0	0	72
Total	14	2	0	0	7	150	9	0	0	15	15	0	0	0	0	0	212
05:00 PM	4	0	0	0	3	45	3	0	0	5	2	0	0	0	0	0	62
05:15 PM	3	1	0	0	0	48	3	0	0	4	8	1	0	0	0	0	68
05:30 PM	1	3	0	0	0	54	11	0	0	1	4	0	0	0	0	0	74
05:45 PM	9	3	0	0	1	47	6	0	0	1	5	0	0	0	0	0	72
Total	17	7	0	0	4	194	23	0	0	11	19	1	0	0	0	0	276
Grand Total	31	9	0	0	11	344	32	0	0	26	34	1	0	0	0	0	488
Apprch %	77.5	22.5	0	0	2.8	88.9	8.3	0	0	42.6	55.7	1.6	0	0	0	0	
Total %	6.4	1.8	0	0	2.3	70.5	6.6	0	0	5.3	7	0.2	0	0	0	0	

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**4**	0	0	0	**4**	1	51	7	0	59	0	**5**	4	0	9	0	0	0	0	0	72
05:00 PM	4	0	0	0	4	**3**	45	3	0	51	0	5	2	0	7	0	0	0	0	0	62
05:15 PM	3	1	0	0	4	0	48	3	0	51	0	4	**8**	**1**	**13**	0	0	0	0	0	68
05:30 PM	1	**3**	0	0	4	0	**54**	**11**	0	**65**	0	1	4	0	5	0	0	0	0	0	**74**
Total Volume	12	4	0	0	16	4	198	24	0	226	0	15	18	1	34	0	0	0	0	0	276
% App. Total	75	25	0	0		1.8	87.6	10.6	0		0	44.1	52.9	2.9		0	0	0	0		
PHF	.750	.333	.000	.000	1.00	.333	.917	.545	.000	.869	.000	.750	.563	.250	.654	.000	.000	.000	.000	.000	.932

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N/S: Deerfield Street
E/W: Bay State Road
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 TTT
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Heavy Vehicles

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	4
Grand Total	0	0	0	0	0	7	0	0	0	0	1	0	0	0	0	0	8
Apprch %	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0	
Total %	0	0	0	0	0	87.5	0	0	0	0	12.5	0	0	0	0	0	

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	**1**	0	**1**	0	0	0	0	0	**2**
Total Volume	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	0	0	0	0	5
% App. Total	0	0	0	0		0	100	0	0		0	0	100	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	1.00	.000	.000	1.00	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.625

N/S: Deerfield Street
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Page No : 1

Groups Printed- Peds and Bicycles

	Deerfield Street From North				Bay Street Road From East				Deerfield Street From South				Bay Street Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	92	0	2	0	49	0	1	1	0	0	0	0	0	145
04:15 PM	0	0	0	64	1	2	0	35	0	3	1	0	0	0	0	0	106
04:30 PM	0	0	0	77	1	1	0	47	0	0	1	2	0	0	0	0	129
04:45 PM	0	0	1	106	0	0	3	53	0	0	0	0	0	0	0	0	163
Total	0	0	1	339	2	5	3	184	0	4	3	2	0	0	0	0	543
05:00 PM	0	0	0	121	0	4	0	71	0	2	0	2	0	0	0	0	200
05:15 PM	0	5	0	75	1	4	0	45	0	4	2	3	2	0	0	0	141
05:30 PM	0	0	0	105	0	0	0	53	0	0	1	1	0	0	0	0	160
05:45 PM	0	1	0	79	0	2	0	54	0	2	3	2	1	0	0	0	144
Total	0	6	0	380	1	10	0	223	0	8	6	8	3	0	0	0	645
Grand Total	0	6	1	719	3	15	3	407	0	12	9	10	3	0	0	0	1188
Apprch %	0	0.8	0.1	99	0.7	3.5	0.7	95.1	0	38.7	29	32.3	100	0	0	0	
Total %	0	0.5	0.1	60.5	0.3	1.3	0.3	34.3	0	1	0.8	0.8	0.3	0	0	0	

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	**1**	106	107	0	0	**3**	53	56	0	0	0	0	0	0	0	0	0	0	163
05:00 PM	0	0	0	**121**	**121**	0	**4**	0	**71**	**75**	0	2	0	2	4	0	0	0	0	0	**200**
05:15 PM	0	**5**	0	75	80	**1**	4	0	45	50	0	**4**	**2**	**3**	**9**	**2**	0	0	0	**2**	141
05:30 PM	0	0	0	105	105	0	0	0	53	53	0	0	1	1	2	0	0	0	0	0	160
Total Volume	0	5	1	407	413	1	8	3	222	234	0	6	3	6	15	2	0	0	0	2	664
% App. Total	0	1.2	0.2	98.5		0.4	3.4	1.3	94.9		0	40	20	40		100	0	0	0		
PHF	.000	.250	.250	.841	.853	.250	.500	.250	.782	.780	.000	.375	.375	.500	.417	.250	.000	.000	.000	.250	.830

N/S: Deerfield Street
E/W: Bay State Road
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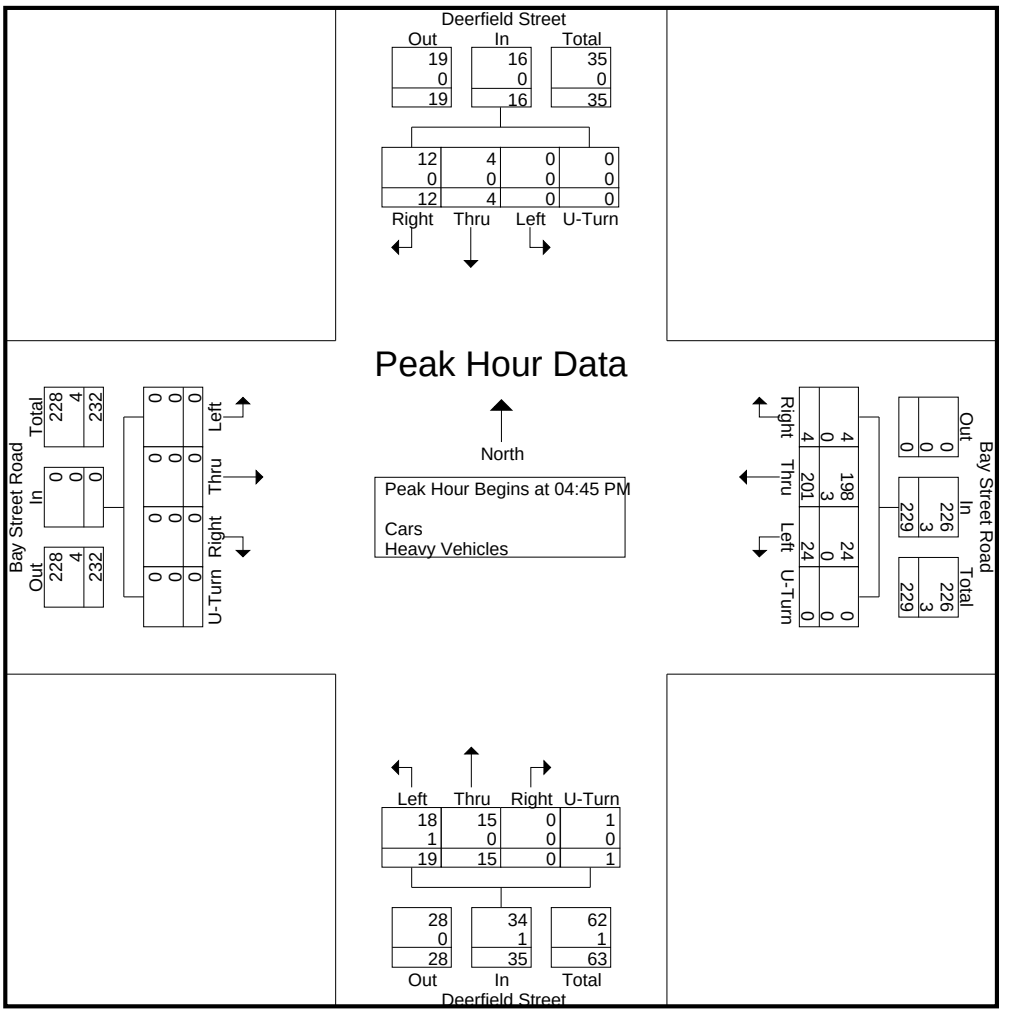
Start Date : 3/20/2012
Page No : 1

	Deerfield Street From North					Bay Street Road From East					Deerfield Street From South					Bay Street Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**4**	0	0	0	**4**	1	52	7	0	60	0	**5**	4	0	9	0	0	0	0	0	73
05:00 PM	4	0	0	0	4	**3**	46	3	0	52	0	5	2	0	7	0	0	0	0	0	63
05:15 PM	3	1	0	0	4	0	49	3	0	52	0	4	**9**	**1**	**14**	0	0	0	0	0	70
05:30 PM	1	**3**	0	0	4	0	**54**	**11**	0	**65**	0	1	4	0	5	0	0	0	0	0	**74**
Total Volume	12	4	0	0	16	4	201	24	0	229	0	15	19	1	35	0	0	0	0	0	280
% App. Total	75	25	0	0		1.7	87.8	10.5	0		0	42.9	54.3	2.9		0	0	0	0		
PHF	.750	.333	.000	.000	1.00	.333	.931	.545	.000	.881	.000	.750	.528	.250	.625	.000	.000	.000	.000	.000	.946
Cars	12	4	0	0	16	4	198	24	0	226	0	15	18	1	34	0	0	0	0	0	276
% Cars	100	100	0	0	100	100	98.5	100	0	98.7	0	100	94.7	100	97.1	0	0	0	0	0	98.6
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	1.5	0	0	1.3	0	0	5.3	0	2.9	0	0	0	0	0	1.4



N/S: Deerfield Street/ Brookline Avenue
E/SW/W/SE: Beacon St/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122828 U
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	0	0	0	0	0	4	86	153	68	7	0	0	0	0	0	0	0	40	0	0	0	0	0	2	86	0	0	0	0	5	4	47	0	14	518
07:15 AM	0	0	0	0	0	0	5	89	162	80	10	0	0	0	0	0	0	0	41	0	0	0	0	0	4	109	0	0	0	0	2	9	73	0	14	598
07:30 AM	4	0	0	0	0	0	4	95	163	72	14	0	0	0	0	0	0	0	51	0	0	0	0	0	5	141	0	0	0	0	3	7	65	0	20	644
07:45 AM	5	0	0	0	0	0	3	121	167	72	16	0	0	0	0	0	0	0	71	0	0	0	0	0	7	156	0	0	0	0	5	10	83	0	32	748
Total	11	0	0	0	0	0	16	391	645	292	47	0	0	0	0	0	0	0	203	0	0	0	0	0	18	492	0	0	0	0	15	30	268	0	80	2508
08:00 AM	6	0	0	0	0	0	8	117	177	79	16	0	0	0	0	0	0	0	59	0	0	0	0	0	11	190	0	0	0	0	2	8	102	0	31	806
08:15 AM	3	0	0	0	0	0	5	119	167	98	15	0	0	0	0	0	0	0	65	0	0	0	0	0	12	180	0	0	0	0	3	9	110	0	53	839
08:30 AM	6	0	0	0	0	0	4	131	132	92	11	0	0	0	0	0	0	0	59	0	0	0	0	0	4	178	0	0	0	0	7	6	109	0	26	765
08:45 AM	8	0	0	0	0	0	8	141	173	71	9	0	0	0	0	0	0	0	55	0	0	0	0	0	7	161	0	0	0	0	5	10	112	0	45	805
Total	23	0	0	0	0	0	25	508	649	340	51	0	0	0	0	0	0	0	238	0	0	0	0	0	34	709	0	0	0	0	17	33	433	0	155	3215
Grand Total	34	0	0	0	0	0	41	899	1294	632	98	0	0	0	0	0	0	0	441	0	0	0	0	0	52	1201	0	0	0	0	32	63	701	0	235	5723
Apprch %	100	0	0	0	0	0	1.4	30.3	43.7	21.3	3.3	0	0	0	0	0	0	0	100	0	0	0	0	0	4.2	95.8	0	0	0	0	3.1	6.1	68	0	22.8	
Total %	0.6	0	0	0	0	0	0.7	15.7	22.6	11	1.7	0	0	0	0	0	0	0	7.7	0	0	0	0	0	0.9	21	0	0	0	0	0.6	1.1	12.2	0	4.1	
Cars	32	0	0	0	0	0	30	819	1253	565	91	0	0	0	0	0	0	0	368	0	0	0	0	0	45	1187	0	0	0	0	27	54	624	0	231	5326
% Cars	94.1	0	0	0	0	0	73.2	91.1	96.8	89.4	92.9	0	0	0	0	0	0	0	83.4	0	0	0	0	0	86.5	98.8	0	0	0	0	84.4	85.7	89	0	98.3	93.1
Heavy Vehicles	2	0	0	0	0	0	11	80	41	67	7	0	0	0	0	0	0	0	73	0	0	0	0	0	7	14	0	0	0	0	5	9	77	0	4	397
% Heavy Vehicles	5.9	0	0	0	0	0	26.8	8.9	3.2	10.6	7.1	0	0	0	0	0	0	0	16.6	0	0	0	0	0	13.5	1.2	0	0	0	0	15.6	14.3	11	0	1.7	6.9

	Deerfield Street From North							Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 08:00 AM																																									
08:00 AM	6	0	0	0	0	0	6	**8**	117	177	79	**16**	0	397	0	0	0	0	0	0	0	59	0	0	0	0	0	59	11	**190**	0	0	0	0	**201**	2	8	102	0	0	31	143	806
08:15 AM	3	0	0	0	0	0	3	5	119	167	**98**	15	0	**404**	0	0	0	0	0	0	0	**65**	0	0	0	0	0	**65**	**12**	180	0	0	0	0	192	3	9	110	0	0	**53**	**175**	**839**
08:30 AM	6	0	0	0	0	0	6	4	131	132	92	11	0	370	0	0	0	0	0	0	0	59	0	0	0	0	0	59	4	178	0	0	0	0	182	**7**	6	109	0	0	26	148	765
08:45 AM	**8**	0	0	0	0	0	**8**	8	**141**	173	71	9	0	402	0	0	0	0	0	0	0	55	0	0	0	0	0	55	7	161	0	0	0	0	168	5	**10**	**112**	0	0	45	172	805
Total Volume	23	0	0	0	0	0	23	25	508	649	340	51	0	1573	0	0	0	0	0	0	0	238	0	0	0	0	0	238	34	709	0	0	0	0	743	17	33	433	0	0	155	638	3215
% App. Total	100	0	0	0	0	0		1.6	32.3	41.3	21.6	3.2	0		0	0	0	0	0	0		100	0	0	0	0	0		4.6	95.4	0	0	0	0		2.7	5.2	67.9	0	0	24.3		
PHF	.719	.000	.000	.000	.000	.000	.000	.781	.901	.917	.867	.797	.000	.973	.000	.000	.000	.000	.000	.000	.000	.915	.000	.000	.000	.000	.000	.915	.708	.933	.000	.000	.000	.000	.924	.607	.825	.967	.000	.000	.731	.911	.958
Cars	21	0	0	0	0	0	21	20	467	625	302	49	0	1463	0	0	0	0	0	0	0	200	0	0	0	0	0	200	29	701	0	0	0	0	730	15	28	387	0	0	154	584	2998
% Cars	91.3	0	0	0	0	0	91.3	80.0	91.9	96.3	88.8	96.1	0	93.0	0	0	0	0	0	0	0	84.0	0	0	0	0	0	84.0	85.3	98.9	0	0	0	0	98.3	88.2	84.8	89.4	0	0	99.4	91.5	93.3
Heavy Vehicles	2	0	0	0	0	0	2	5	41	24	38	2	0	110	0	0	0	0	0	0	0	38	0	0	0	0	0	38	5	8	0	0	0	0	13	2	5	46	0	0	1	54	217
% Heavy Vehicles	8.7	0	0	0	0	0	8.7	20.0	8.1	3.7	11.2	3.9	0	7.0	0	0	0	0	0	0	0	16.0	0	0	0	0	0	16.0	14.7	1.1	0	0	0	0	1.7	11.8	15.2	10.6	0	0	0.6	8.5	6.7

N/S: Deerfield Street/ Brookline Avenue
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Groups Printed- Cars

	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West					
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	0	0	0	0	0	2	78	148	62	7	0	0	0	0	0	0	0	32	0	0	0	0	0	2	86	0	0	0	0	4	4	42	0	0	13	482
07:15 AM	0	0	0	0	0	0	3	79	158	69	9	0	0	0	0	0	0	0	33	0	0	0	0	0	4	106	0	0	0	0	2	7	65	0	0	14	549
07:30 AM	4	0	0	0	0	0	4	87	160	65	10	0	0	0	0	0	0	0	43	0	0	0	0	0	4	140	0	0	0	0	3	6	54	0	0	18	598
07:45 AM	5	0	0	0	0	0	1	108	162	67	16	0	0	0	0	0	0	0	60	0	0	0	0	0	6	154	0	0	0	0	3	9	76	0	0	32	699
Total	11	0	0	0	0	0	10	352	628	263	42	0	0	0	0	0	0	0	168	0	0	0	0	0	16	486	0	0	0	0	12	26	237	0	0	77	2328
08:00 AM	5	0	0	0	0	0	4	106	175	69	16	0	0	0	0	0	0	0	47	0	0	0	0	0	8	190	0	0	0	0	1	8	89	0	0	31	749
08:15 AM	3	0	0	0	0	0	4	109	160	85	15	0	0	0	0	0	0	0	55	0	0	0	0	0	11	178	0	0	0	0	3	8	101	0	0	52	784
08:30 AM	6	0	0	0	0	0	4	120	126	85	11	0	0	0	0	0	0	0	51	0	0	0	0	0	4	175	0	0	0	0	7	4	96	0	0	26	715
08:45 AM	7	0	0	0	0	0	8	132	164	63	7	0	0	0	0	0	0	0	47	0	0	0	0	0	6	158	0	0	0	0	4	8	101	0	0	45	750
Total	21	0	0	0	0	0	20	467	625	302	49	0	0	0	0	0	0	0	200	0	0	0	0	0	29	701	0	0	0	0	15	28	387	0	0	154	2998
Grand Total	32	0	0	0	0	0	30	819	1253	565	91	0	0	0	0	0	0	0	368	0	0	0	0	0	45	1187	0	0	0	0	27	54	624	0	0	231	5326
Apprch %	100	0	0	0	0	0	1.1	29.7	45.4	20.5	3.3	0	0	0	0	0	0	0	100	0	0	0	0	0	3.7	96.3	0	0	0	0	2.9	5.8	66.7	0	0	24.7	
Total %	0.6	0	0	0	0	0	0.6	15.4	23.5	10.6	1.7	0	0	0	0	0	0	0	6.9	0	0	0	0	0	0.8	22.3	0	0	0	0	0.5	1	11.7	0	0	4.3	

	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																										
Peak Hour for Entire Intersection Begins at 08:00 AM																																										
08:00 AM	5	0	0	0	0	0	5	4	106	175	69	16	0	370	0	0	0	0	0	0	0	47	0	0	0	0	0	47	8	190	0	0	0	0	198	1	8	89	0	0	31	129	749
08:15 AM	3	0	0	0	0	0	3	4	109	160	85	15	0	373	0	0	0	0	0	0	0	55	0	0	0	0	0	55	11	178	0	0	0	0	189	3	8	101	0	0	52	164	784
08:30 AM	6	0	0	0	0	0	6	4	120	126	85	11	0	346	0	0	0	0	0	0	0	51	0	0	0	0	0	51	4	175	0	0	0	0	179	7	4	96	0	0	26	133	715
08:45 AM	7	0	0	0	0	0	7	8	132	164	63	7	0	374	0	0	0	0	0	0	0	47	0	0	0	0	0	47	6	158	0	0	0	0	164	4	8	101	0	0	45	158	750
Total Volume	21	0	0	0	0	0	21	20	467	625	302	49	0	1463	0	0	0	0	0	0	0	200	0	0	0	0	0	200	29	701	0	0	0	0	730	15	28	387	0	0	154	584	2998
% App. Total	100	0	0	0	0	0		1.4	31.9	42.7	20.6	3.3	0		0	0	0	0	0	0		100	0	0	0	0	0		4	96	0	0	0	0		2.6	4.8	66.3	0	0	26.4		
PHF	.750	.000	.000	.000	.000	.000	.750	.625	.884	.893	.888	.766	.000	.978	.000	.000	.000	.000	.000	.000	.000	.909	.000	.000	.000	.000	.000	.909	.659	.922	.000	.000	.000	.000	.922	.536	.875	.958	.000	.000	.740	.890	.956

N/S: Deerfield Street/ Brookline Avenue
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Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	0	2	8	5	6	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	1	36
07:15 AM	0	0	0	0	0	0	2	10	4	11	1	0	0	0	0	0	0	0	8	0	0	0	0	0	0	3	0	0	0	0	0	2	8	0	0	0	49
07:30 AM	0	0	0	0	0	0	0	8	3	7	4	0	0	0	0	0	0	0	8	0	0	0	0	0	1	1	0	0	0	0	0	1	11	0	0	2	46
07:45 AM	0	0	0	0	0	0	2	13	5	5	0	0	0	0	0	0	0	0	11	0	0	0	0	0	1	2	0	0	0	0	2	1	7	0	0	0	49
Total	0	0	0	0	0	0	6	39	17	29	5	0	0	0	0	0	0	0	35	0	0	0	0	0	2	6	0	0	0	0	3	4	31	0	0	3	180
08:00 AM	1	0	0	0	0	0	4	11	2	10	0	0	0	0	0	0	0	0	12	0	0	0	0	0	3	0	0	0	0	0	1	0	13	0	0	0	57
08:15 AM	0	0	0	0	0	0	1	10	7	13	0	0	0	0	0	0	0	0	10	0	0	0	0	0	1	2	0	0	0	0	0	1	9	0	0	1	55
08:30 AM	0	0	0	0	0	0	0	11	6	7	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	3	0	0	0	0	0	2	13	0	0	0	50
08:45 AM	1	0	0	0	0	0	0	9	9	8	2	0	0	0	0	0	0	0	8	0	0	0	0	0	1	3	0	0	0	0	1	2	11	0	0	0	55
Total	2	0	0	0	0	0	5	41	24	38	2	0	0	0	0	0	0	0	38	0	0	0	0	0	5	8	0	0	0	0	2	5	46	0	0	1	217
Grand Total	2	0	0	0	0	0	11	80	41	67	7	0	0	0	0	0	0	0	73	0	0	0	0	0	7	14	0	0	0	0	5	9	77	0	0	4	397
Apprch %	100	0	0	0	0	0	5.3	38.8	19.9	32.5	3.4	0	0	0	0	0	0	0	100	0	0	0	0	0	33.3	66.7	0	0	0	0	5.3	9.5	81.1	0	0	4.2	
Total %	0.5	0	0	0	0	0	2.8	20.2	10.3	16.9	1.8	0	0	0	0	0	0	0	18.4	0	0	0	0	0	1.8	3.5	0	0	0	0	1.3	2.3	19.4	0	0	1	

	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 08:00 AM																																									
08:00 AM	**1**	0	0	0	0	0	**1**	**4**	11	2	10	0	0	27	0	0	0	0	0	0	0	12	0	0	0	0	0	**12**	**3**	0	0	0	0	0	3	**1**	0	13	0	0	0	14	**57**
08:15 AM	0	0	0	0	0	0	0	1	10	7	13	0	0	**31**	0	0	0	0	0	0	0	10	0	0	0	0	0	10	1	2	0	0	0	0	3	0	1	9	0	0	**1**	11	55
08:30 AM	0	0	0	0	0	0	0	0	11	6	7	0	0	24	0	0	0	0	0	0	0	8	0	0	0	0	0	8	0	**3**	0	0	0	0	3	0	**2**	13	0	0	0	**15**	50
08:45 AM	1	0	0	0	0	0	1	0	9	**9**	8	**2**	0	28	0	0	0	0	0	0	0	8	0	0	0	0	0	8	1	3	0	0	0	0	**4**	1	2	11	0	0	0	14	55
Total Volume	2	0	0	0	0	0	2	5	41	24	38	2	0	110	0	0	0	0	0	0	0	38	0	0	0	0	0	38	5	8	0	0	0	0	13	2	5	46	0	0	1	54	217
% App. Total	100	0	0	0	0	0		4.5	37.3	21.8	34.5	1.8	0		0	0	0	0	0	0		100	0	0	0	0	0		38.5	61.5	0	0	0	0		3.7	9.3	85.2	0	0	1.9		
PHF	.500	.000	.000	.000	.000	.000	.500	.313	.932	.667	.731	.250	.000	.887	.000	.000	.000	.000	.000	.000	.000	.792	.000	.000	.000	.000	.000	.792	.417	.667	.000	.000	.000	.000	.813	.500	.625	.885	.000	.000	.250	.900	.952

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Deerfield Street/ Brookline Avenue
E/SW/W/SE: Beacon St/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 U
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						
Start Time	Right	Bear Right	Thru	Bear Left	Left	Peds	Right	Thru	Bear Left	Left	Hard Le ft	Peds	Hard Ri ght	Bear Ri ght	Bear Left	Left	Hard Le ft	Peds	Hard Ri ght	Right	Thru	Left	Hard Le ft	Peds	Hard Ri ght	Right	Bear Ri ght	Bear Left	Hard Le ft	Peds	Hard Ri ght	Right	Bear Ri ght	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	9	0	0	0	1	0	7	0	0	0	0	0	9	3	0	0	0	0	20	0	8	0	0	0	19	1	1	10	0	0	4	92
07:15 AM	0	0	0	0	0	29	0	1	2	3	0	18	0	0	0	0	0	18	1	0	0	0	0	24	1	7	0	0	0	9	1	0	7	0	0	5	126
07:30 AM	0	0	0	0	0	54	0	2	1	2	0	18	0	0	0	0	0	16	2	0	0	0	0	34	1	16	0	0	0	17	2	1	17	0	0	13	196
07:45 AM	0	0	0	0	0	106	0	7	5	0	0	22	0	0	0	0	0	25	2	0	0	0	0	50	0	21	0	0	0	26	0	2	11	0	0	13	290
Total	0	0	0	0	0	198	0	10	8	6	0	65	0	0	0	0	0	68	8	0	0	0	0	128	2	52	0	0	0	71	4	4	45	0	0	35	704
08:00 AM	0	0	0	0	0	49	0	5	1	1	0	8	0	0	0	0	0	23	2	0	0	0	0	49	0	20	0	0	0	22	1	2	11	0	0	11	205
08:15 AM	0	0	0	0	0	66	1	2	5	3	0	1	0	0	0	0	0	26	3	0	0	0	0	42	0	25	0	0	0	18	0	1	23	0	0	13	229
08:30 AM	0	0	0	0	0	104	1	8	0	4	0	12	0	0	0	0	0	38	1	0	0	0	0	60	0	29	0	0	0	32	3	0	24	0	0	12	328
08:45 AM	0	0	0	0	0	138	0	7	2	1	0	5	0	0	0	0	0	53	0	0	0	0	0	70	0	16	0	0	0	37	1	2	24	0	0	18	374
Total	0	0	0	0	0	357	2	22	8	9	0	26	0	0	0	0	0	140	6	0	0	0	0	221	0	90	0	0	0	109	5	5	82	0	0	54	1136
Grand Total	0	0	0	0	0	555	2	32	16	15	0	91	0	0	0	0	0	208	14	0	0	0	0	349	2	142	0	0	0	180	9	9	127	0	0	89	1840
Apprch %	0	0	0	0	0	100	1.3	20.5	10.3	9.6	0	58.3	0	0	0	0	0	100	3.9	0	0	0	0	96.1	0.6	43.8	0	0	0	55.6	3.8	3.8	54.3	0	0	38	
Total %	0	0	0	0	0	30.2	0.1	1.7	0.9	0.8	0	4.9	0	0	0	0	0	11.3	0.8	0	0	0	0	19	0.1	7.7	0	0	0	9.8	0.5	0.5	6.9	0	0	4.8	

	Deerfield Street From North							Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						
Start Time	Right	Bear Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Hard Ri ght	Peds	App. Total	Hard Ri ght	Bear Ri ght	Bear Left	Left	Hard Le ft	Peds	App. Total	Hard Ri ght	Right	Thru	Left	Hard Le ft	Peds	App. Total	Hard Ri ght	Right	Bear Ri ght	Bear Left	Hard Le ft	Peds	App. Total	Hard Ri ght	Right	Bear Ri ght	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 08:00 AM																																									
08:00 AM	0	0	0	0	0	49	49	0	5	1	1	0	8	15	0	0	0	0	0	23	23	2	0	0	0	0	49	51	0	20	0	0	0	22	42	1	**2**	11	0	0	11	25	205
08:15 AM	0	0	0	0	0	66	66	**1**	2	**5**	3	0	1	12	0	0	0	0	0	26	26	**3**	0	0	0	0	42	45	0	25	0	0	0	18	43	0	1	23	0	0	13	37	229
08:30 AM	0	0	0	0	0	104	104	1	**8**	0	**4**	0	**12**	**25**	0	0	0	0	0	38	38	1	0	0	0	0	60	61	0	**29**	0	0	0	32	**61**	**3**	0	**24**	0	0	12	39	328
08:45 AM	0	0	0	0	0	**138**	**138**	0	7	2	1	0	5	15	0	0	0	0	0	**53**	**53**	0	0	0	0	0	**70**	**70**	0	16	0	0	0	**37**	53	1	2	24	0	0	**18**	**45**	**374**
Total Volume	0	0	0	0	0	357	357	2	22	8	9	0	26	67	0	0	0	0	0	140	140	6	0	0	0	0	221	227	0	90	0	0	0	109	199	5	5	82	0	0	54	146	1136
% App. Total	0	0	0	0	0			3				0			0	0	0	0	0			2.6	0	0	0	0			0							3.4	3.4		0	0	37		
PHF	.000	.000	.000	.000	.000	.647	.647	.500	.688	.400	.563	.000	.542	.670	.000	.000	.000	.000	.000	.663	.660	.500	.000	.000	.000	.000	.789	.811	.000	.776	.000	.000	.000	.736	.816	.417	.625	.854	.000	.000	.750	.811	.759

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Start Date : 3/20/2012
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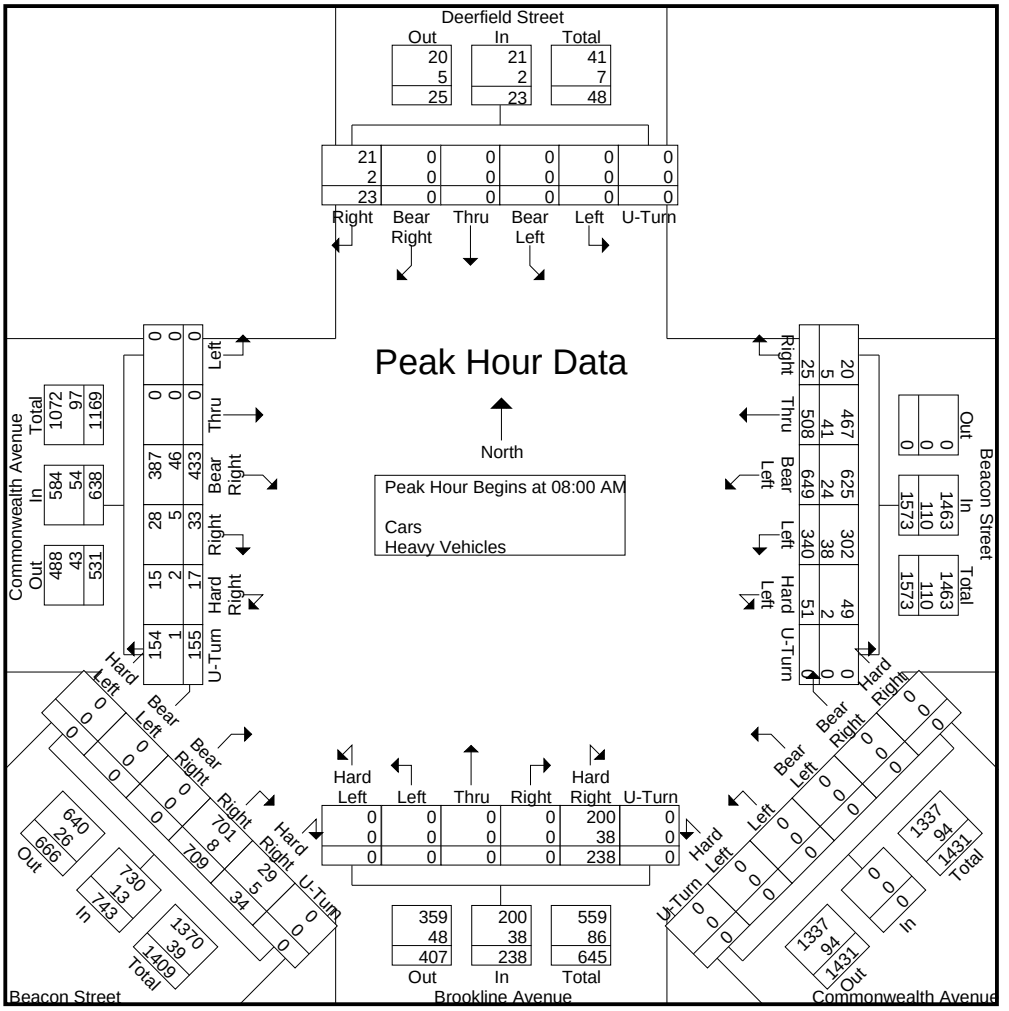
Start Time	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							
	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Left	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 08:00 AM																																									
08:00 AM	6	0	0	0	0	0	6	**8**	117	**177**	79	**16**	0	397	0	0	0	0	0	0	0	59	0	0	0	0	0	59	11	**190**	0	0	0	0	**201**	2	8	102	0	0	31	143	806
08:15 AM	3	0	0	0	0	0	3	5	119	167	**98**	15	0	**404**	0	0	0	0	0	0	0	**65**	0	0	0	0	0	**65**	**12**	180	0	0	0	0	192	3	9	110	0	0	**53**	**175**	**839**
08:30 AM	6	0	0	0	0	0	6	4	131	132	92	11	0	370	0	0	0	0	0	0	0	59	0	0	0	0	0	59	4	178	0	0	0	0	182	**7**	6	109	0	0	26	148	765
08:45 AM	**8**	0	0	0	0	0	**8**	8	**141**	173	71	9	0	402	0	0	0	0	0	0	0	55	0	0	0	0	0	55	7	161	0	0	0	0	168	5	**10**	**112**	0	0	45	172	805
Total Volume	23	0	0	0	0	0	23	25	508	649	340	51	0	1573	0	0	0	0	0	0	0	238	0	0	0	0	0	238	34	709	0	0	0	0	743	17	33	433	0	0	155	638	3215
% App. Total	100	0	0	0	0	0		1.6	32.3	41.3	21.6	3.2	0		0	0	0	0	0	0		100	0	0	0	0	0		4.6	95.4	0	0	0	0		2.7	5.2	67.9	0	0	24.3		
PHF	.719	.000	.000	.000	.000	.000	.719	.781	.901	.917	.867	.797	.000	.973	.000	.000	.000	.000	.000	.000	.000	.915	.000	.000	.000	.000	.000	.915	.708	.933	.000	.000	.000	.000	.924	.607	.825	.967	.000	.000	.731	.911	.958
Cars	21	0	0	0	0	0	21	20	467	625	302	49	0	1463	0	0	0	0	0	0	0	200	0	0	0	0	0	200	29	701	0	0	0	0	730	15	28	387	0	0	154	584	2998
% Cars	91.3	0	0	0	0	0	91.3	80.0	91.9	96.3	88.8	96.1	0	93.0	0	0	0	0	0	0	0	84.0	0	0	0	0	0	84.0	85.3	98.9	0	0	0	0	98.3	88.2	84.8	89.4	0	0	99.4	91.5	93.3
Heavy Vehicles	2	0	0	0	0	0	2	5	41	24	38	2	0	110	0	0	0	0	0	0	0	38	0	0	0	0	0	38	5	8	0	0	0	0	13	2	5	46	0	0	1	54	217
% Heavy Vehicles	8.7	0	0	0	0	0	8.7	20.0	8.1	3.7	11.2	3.9	0	7.0	0	0	0	0	0	0	0	16.0	0	0	0	0	0	16.0	14.7	1.1	0	0	0	0	1.7	11.8	15.2	10.6	0	0	0.6	8.5	6.7



N/S: Deerfield Street/ Brookline Avenue
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City, State: Boston, MA
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File Name : 122828 UU
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Int. Total
12:00 PM	6	0	0	0	0	1	10	90	141	62	10	0	0	0	0	0	0	0	89	0	0	0	0	0	3	115	0	0	0	0	9	14	101	0	0	23	674
12:15 PM	2	0	0	0	0	0	4	135	120	61	9	0	0	0	0	0	0	0	79	0	0	0	0	0	5	80	0	0	0	0	5	12	112	0	0	33	657
12:30 PM	1	0	0	0	0	0	4	113	137	65	15	0	0	0	0	0	0	0	94	0	0	0	0	0	12	85	0	0	0	0	12	10	119	0	0	23	690
12:45 PM	5	0	0	0	0	0	3	108	131	73	14	0	0	0	0	0	0	0	75	0	0	0	0	0	5	97	0	0	0	0	12	9	95	0	0	14	641
Total	14	0	0	0	0	1	21	446	529	261	48	0	0	0	0	0	0	0	337	0	0	0	0	0	25	377	0	0	0	0	38	45	427	0	0	93	2662
01:00 PM	4	0	0	0	0	0	13	105	136	46	12	0	0	0	0	0	0	0	77	0	0	0	0	0	9	85	0	0	0	0	14	8	108	0	0	13	630
01:15 PM	2	0	0	0	0	0	5	90	115	59	11	0	0	0	0	0	0	0	78	0	0	0	0	0	7	79	0	0	0	0	6	7	90	0	0	18	567
01:30 PM	3	0	0	0	0	0	3	105	154	74	13	0	0	0	0	0	0	0	73	0	0	0	0	0	10	73	0	0	0	0	9	9	113	0	0	23	662
01:45 PM	5	0	0	0	0	0	6	118	162	68	12	0	0	0	0	0	0	0	80	0	0	0	0	0	9	98	0	0	0	0	15	13	108	0	0	31	725
Total	14	0	0	0	0	0	27	418	567	247	48	0	0	0	0	0	0	0	308	0	0	0	0	0	35	335	0	0	0	0	44	37	419	0	0	85	2584
Grand Total	28	0	0	0	0	1	48	864	1096	508	96	0	0	0	0	0	0	0	645	0	0	0	0	0	60	712	0	0	0	0	82	82	846	0	0	178	5246
Apprch %	96.6	0	0	0	0	3.4	1.8	33.1	42	19.4	3.7	0	0	0	0	0	0	0	100	0	0	0	0	0	7.8	92.2	0	0	0	0	6.9	6.9	71.2	0	0	15	
Total %	0.5	0	0	0	0	0	0.9	16.5	20.9	9.7	1.8	0	0	0	0	0	0	0	12.3	0	0	0	0	0	1.1	13.6	0	0	0	0	1.6	1.6	16.1	0	0	3.4	
Cars	28	0	0	0	0	1	43	804	1060	461	89	0	0	0	0	0	0	0	599	0	0	0	0	0	54	687	0	0	0	0	75	80	766	0	0	171	4918
% Cars	100	0	0	0	0	100	89.6	93.1	96.7	90.7	92.7	0	0	0	0	0	0	0	92.9	0	0	0	0	0	90	96.5	0	0	0	0	91.5	97.6	90.5	0	0	96.1	93.7
Heavy Vehicles	0	0	0	0	0	0	5	60	36	47	7	0	0	0	0	0	0	0	46	0	0	0	0	0	6	25	0	0	0	0	7	2	80	0	0	7	328
% Heavy Vehicles	0	0	0	0	0	0	10.4	6.9	3.3	9.3	7.3	0	0	0	0	0	0	0	7.1	0	0	0	0	0	10	3.5	0	0	0	0	8.5	2.4	9.5	0	0	3.9	6.3

	Deerfield Street From North							Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 12:00 PM																																									
12:00 PM	**6**	0	0	0	0	**1**	7	**10**	90	**141**	62	10	0	313	0	0	0	0	0	0	0	89	0	0	0	0	0	89	3	**115**	0	0	0	0	**118**	9	**14**	101	0	0	23	147	674
12:15 PM	2	0	0	0	0	0	2	4	**135**	120	61	9	0	329	0	0	0	0	0	0	0	79	0	0	0	0	0	79	5	80	0	0	0	0	85	5	12	112	0	0	**33**	162	657
12:30 PM	1	0	0	0	0	0	1	4	113	137	**65**	**15**	0	**334**	0	0	0	0	0	0	0	**94**	0	0	0	0	0	**94**	**12**	85	0	0	0	0	97	**12**	10	**119**	0	0	23	**164**	**690**
12:45 PM	5	0	0	0	0	0	5	3	108	131	**73**	14	0	329	0	0	0	0	0	0	0	75	0	0	0	0	0	75	5	97	0	0	0	0	102	12	9	95	0	0	14	130	641
Total Volume	14	0	0	0	0	1	15	21	446	529	261	48	0	1305	0	0	0	0	0	0	0	337	0	0	0	0	0	337	25	377	0	0	0	0	402	38	45	427	0	0	93	603	2662
% App. Total	93.3	0	0	0	0	6.7		1.6	34.2	40.5	20	3.7	0		0	0	0	0	0	0		100	0	0	0	0	0		6.2	93.8	0	0	0	0		6.3	7.5	70.8	0	0	15.4		
PHF	.583	.000	.000	.000	.000	.250	.536	.525	.826	.938	.894	.800	.000	.977	.000	.000	.000	.000	.000	.000	.000	.896	.000	.000	.000	.000	.000	.896	.521	.820	.000	.000	.000	.000	.852	.792	.804	.897	.000	.000	.705	.919	.964
Cars	14	0	0	0	0	1	15	19	410	513	234	46	0	1222	0	0	0	0	0	0	0	317	0	0	0	0	0	317	23	360	0	0	0	0	383	34	44	385	0	0	89	552	2489
% Cars	100	0	0	0	0	100	100	90.5	91.9	97.0	89.7	95.8	0	93.6	0	0	0	0	0	0	0	94.1	0	0	0	0	0	94.1	92.0	95.5	0	0	0	0	95.3	89.5	97.8	90.2	0	0	95.7	91.5	93.5
Heavy Vehicles	0	0	0	0	0	0	0	2	36	16	27	2	0	83	0	0	0	0	0	0	0	20	0	0	0	0	0	20	2	17	0	0	0	0	19	4	1	42	0	0	4	51	173
% Heavy Vehicles	0	0	0	0	0	0	0	9.5	8.1	3.0	10.3	4.2	0	6.4	0	0	0	0	0	0	0	5.9	0	0	0	0	0	5.9	8.0	4.5	0	0	0	0	4.7	10.5	2.2	9.8	0	0	4.3	8.5	6.5

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Page No : 1

Groups Printed- Cars

	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Int. Total
12:00 PM	6	0	0	0	0	1	9	86	137	56	9	0	0	0	0	0	0	0	85	0	0	0	0	0	3	109	0	0	0	0	8	14	91	0	0	23	637
12:15 PM	2	0	0	0	0	0	3	120	116	55	9	0	0	0	0	0	0	0	74	0	0	0	0	0	4	78	0	0	0	0	5	12	106	0	0	32	616
12:30 PM	1	0	0	0	0	0	4	104	133	57	15	0	0	0	0	0	0	0	91	0	0	0	0	0	11	79	0	0	0	0	11	10	106	0	0	22	644
12:45 PM	5	0	0	0	0	0	3	100	127	66	13	0	0	0	0	0	0	0	67	0	0	0	0	0	5	94	0	0	0	0	10	8	82	0	0	12	592
Total	14	0	0	0	0	1	19	410	513	234	46	0	0	0	0	0	0	0	317	0	0	0	0	0	23	360	0	0	0	0	34	44	385	0	0	89	2489
01:00 PM	4	0	0	0	0	0	11	97	128	40	10	0	0	0	0	0	0	0	71	0	0	0	0	0	8	83	0	0	0	0	13	8	95	0	0	12	580
01:15 PM	2	0	0	0	0	0	4	85	112	56	10	0	0	0	0	0	0	0	71	0	0	0	0	0	6	77	0	0	0	0	6	6	85	0	0	18	538
01:30 PM	3	0	0	0	0	0	3	100	148	67	13	0	0	0	0	0	0	0	64	0	0	0	0	0	8	69	0	0	0	0	9	9	102	0	0	23	618
01:45 PM	5	0	0	0	0	0	6	112	159	64	10	0	0	0	0	0	0	0	76	0	0	0	0	0	9	98	0	0	0	0	13	13	99	0	0	29	693
Total	14	0	0	0	0	0	24	394	547	227	43	0	0	0	0	0	0	0	282	0	0	0	0	0	31	327	0	0	0	0	41	36	381	0	0	82	2429
Grand Total	28	0	0	0	0	1	43	804	1060	461	89	0	0	0	0	0	0	0	599	0	0	0	0	0	54	687	0	0	0	0	75	80	766	0	0	171	4918
Apprch %	96.6	0	0	0	0	3.4	1.8	32.7	43.1	18.8	3.6	0	0	0	0	0	0	0	100	0	0	0	0	0	7.3	92.7	0	0	0	0	6.9	7.3	70.1	0	0	15.7	
Total %	0.6	0	0	0	0	0	0.9	16.3	21.6	9.4	1.8	0	0	0	0	0	0	0	12.2	0	0	0	0	0	1.1	14	0	0	0	0	1.5	1.6	15.6	0	0	3.5	

	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 12:00 PM																																								
12:00 PM	**6**	0	0	0	0	**1**	**7**	**9**	86	**137**	56	9	0	297	0	0	0	0	0	0	0	85	0	0	0	0	0	85	3	**109**	0	0	0	0	**112**	8	**14**	91	0	0	23	136	637
12:15 PM	2	0	0	0	0	0	2	3	**120**	116	55	9	0	303	0	0	0	0	0	0	0	74	0	0	0	0	0	74	4	78	0	0	0	0	82	5	12	**106**	0	0	**32**	**155**	616
12:30 PM	1	0	0	0	0	0	1	4	104	133	57	**15**	0	**313**	0	0	0	0	0	0	0	**91**	0	0	0	0	0	**91**	**11**	79	0	0	0	0	90	**11**	10	106	0	0	22	149	**644**
12:45 PM	5	0	0	0	0	0	5	3	100	127	**66**	13	0	309	0	0	0	0	0	0	0	67	0	0	0	0	0	67	5	94	0	0	0	0	99	10	8	82	0	0	12	112	592
Total Volume	14	0	0	0	0	1	15	19	410	513	234	46	0	1222	0	0	0	0	0	0	0	317	0	0	0	0	0	317	23	360	0	0	0	0	383	34	44	385	0	0	89	552	2489
% App. Total	93.3	0	0	0	0	6.7		1.6	33.6	42	19.1	3.8	0		0	0	0	0	0	0		100	0	0	0	0	0		6	94	0	0	0	0		6.2	8	69.7	0	0	16.1		
PHF	.583	.000	.000	.000	.000	.250	.536	.528	.854	.936	.886	.767	.000	.976	.000	.000	.000	.000	.000	.000	.000	.871	.000	.000	.000	.000	.000	.871	.523	.826	.000	.000	.000	.000	.855	.773	.786	.908	.000	.000	.695	.890	.966

N/S: Deerfield Street/ Brookline Avenue
E/SW/W/SE: Beacon St/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122828 UU
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						Int. Total
	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Thru	Left	U-Turn	
12:00 PM	0	0	0	0	0	0	1	4	4	6	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	6	0	0	0	0	1	0	10	0	0	0	37
12:15 PM	0	0	0	0	0	0	1	15	4	6	0	0	0	0	0	0	0	0	5	0	0	0	0	0	1	2	0	0	0	0	0	0	6	0	0	1	41
12:30 PM	0	0	0	0	0	0	0	9	4	8	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	6	0	0	0	0	1	0	13	0	0	1	46
12:45 PM	0	0	0	0	0	0	0	8	4	7	1	0	0	0	0	0	0	0	8	0	0	0	0	0	0	3	0	0	0	0	2	1	13	0	0	2	49
Total	0	0	0	0	0	0	2	36	16	27	2	0	0	0	0	0	0	0	20	0	0	0	0	0	2	17	0	0	0	0	4	1	42	0	0	4	173
01:00 PM	0	0	0	0	0	0	2	8	8	6	2	0	0	0	0	0	0	0	6	0	0	0	0	0	1	2	0	0	0	0	1	0	13	0	0	1	50
01:15 PM	0	0	0	0	0	0	1	5	3	3	1	0	0	0	0	0	0	0	7	0	0	0	0	0	1	2	0	0	0	0	0	1	5	0	0	0	29
01:30 PM	0	0	0	0	0	0	0	5	6	7	0	0	0	0	0	0	0	0	9	0	0	0	0	0	2	4	0	0	0	0	0	0	11	0	0	0	44
01:45 PM	0	0	0	0	0	0	0	6	3	4	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	2	0	9	0	0	2	32
Total	0	0	0	0	0	0	3	24	20	20	5	0	0	0	0	0	0	0	26	0	0	0	0	0	4	8	0	0	0	0	3	1	38	0	0	3	155
Grand Total	0	0	0	0	0	0	5	60	36	47	7	0	0	0	0	0	0	0	46	0	0	0	0	0	6	25	0	0	0	0	7	2	80	0	0	7	328
Apprch %	0	0	0	0	0	0	3.2	38.7	23.2	30.3	4.5	0	0	0	0	0	0	0	100	0	0	0	0	0	19.4	80.6	0	0	0	0	7.3	2.1	83.3	0	0	7.3	
Total %	0	0	0	0	0	0	1.5	18.3	11	14.3	2.1	0	0	0	0	0	0	0	14	0	0	0	0	0	1.8	7.6	0	0	0	0	2.1	0.6	24.4	0	0	2.1	

Start Time	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							Int. Total
	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 12:15 PM																																									
12:15 PM	0	0	0	0	0	0	0	1	15	4	6	0	0	**26**	0	0	0	0	0	0	0	5	0	0	0	0	0	5	**1**	2	0	0	0	0	3	0	0	6	0	0	1	7	41
12:30 PM	0	0	0	0	0	0	0	0	9	4	**8**	0	0	21	0	0	0	0	0	0	0	3	0	0	0	0	0	3	1	**6**	0	0	0	0	**7**	1	0	13	0	0	1	15	46
12:45 PM	0	0	0	0	0	0	0	0	8	4	7	1	0	20	0	0	0	0	0	0	0	**8**	0	0	0	0	0	**8**	0	3	0	0	0	0	3	**2**	**1**	13	0	0	**2**	**18**	49
01:00 PM	0	0	0	0	0	0	0	**2**	8	**8**	6	**2**	0	26	0	0	0	0	0	0	0	6	0	0	0	0	0	6	1	2	0	0	0	0	3	1	0	13	0	0	1	15	**50**
Total Volume	0	0	0	0	0	0	0	3	40	20	27	3	0	93	0	0	0	0	0	0	0	22	0	0	0	0	0	22	3	13	0	0	0	0	16	4	1	45	0	0	5	55	186
% App. Total	0	0	0	0	0	0		3.2	43	21.5	29	3.2	0		0	0	0	0	0	0		100	0	0	0	0	0		18.8	81.2	0	0	0	0		7.3	1.8	81.8	0	0	9.1		
PHF	.000	.000	.000	.000	.000	.000	.000	.375	.667	.625	.844	.375	.000	.894	.000	.000	.000	.000	.000	.000	.000	.688	.000	.000	.000	.000	.000	.688	.750	.542	.000	.000	.000	.000	.571	.500	.250	.865	.000	.000	.625	.764	.930

N/S: Deerfield Street/ Brookline Avenue
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File Name : 122828 UU
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

Start Time	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						
	Right	Bear Right	Thru	Bear Left	Left	Peds	Right	Thru	Bear Left	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Hard Left	Peds	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Bear Right	Thru	Left	Peds	Int. Total
12:00 PM	0	0	0	0	0	215	0	9	0	2	0	141	0	0	0	0	0	129	1	0	0	0	0	111	1	4	0	0	0	93	0	1	3	0	0	46	756
12:15 PM	0	0	0	0	0	338	1	4	5	3	0	110	0	0	0	0	0	118	2	0	0	0	0	96	0	4	0	0	0	117	2	1	6	0	0	66	873
12:30 PM	0	0	0	0	0	238	2	5	3	4	0	83	0	0	0	0	0	121	2	0	0	0	0	68	0	2	0	0	0	74	2	0	7	0	0	57	668
12:45 PM	0	0	0	0	0	178	0	5	3	1	0	106	0	0	0	0	0	98	1	0	0	0	0	87	0	2	0	0	0	79	1	0	5	0	0	51	617
Total	0	0	0	0	0	969	3	23	11	10	0	440	0	0	0	0	0	466	6	0	0	0	0	362	1	12	0	0	0	363	5	2	21	0	0	220	2914
01:00 PM	0	0	0	0	0	148	2	9	2	1	0	60	0	0	0	0	0	108	3	0	0	0	0	75	0	6	0	0	0	57	0	1	10	0	0	42	524
01:15 PM	0	0	0	0	0	162	0	8	2	1	0	63	0	0	0	0	0	131	1	0	0	0	0	126	0	6	0	0	0	73	2	0	9	0	0	47	631
01:30 PM	0	0	0	0	0	198	0	1	0	5	0	42	0	0	0	0	0	77	0	0	0	0	0	79	0	4	0	0	0	65	1	3	11	0	0	39	525
01:45 PM	0	0	0	0	0	297	0	11	7	5	0	21	0	0	0	0	0	47	2	0	0	0	0	128	1	3	0	0	0	102	1	1	5	0	0	67	698
Total	0	0	0	0	0	805	2	29	11	12	0	186	0	0	0	0	0	363	6	0	0	0	0	408	1	19	0	0	0	297	4	5	35	0	0	195	2378
Grand Total	0	0	0	0	0	1774	5	52	22	22	0	626	0	0	0	0	0	829	12	0	0	0	0	770	2	31	0	0	0	660	9	7	56	0	0	415	5292
Apprch %	0	0	0	0	0	100	0.7	7.2	3	3	0	86.1	0	0	0	0	0	100	1.5	0	0	0	0	98.5	0.3	4.5	0	0	0	95.2	1.8	1.4	11.5	0	0	85.2	
Total %	0	0	0	0	0	33.5	0.1	1	0.4	0.4	0	11.8	0	0	0	0	0	15.7	0.2	0	0	0	0	14.6	0	0.6	0	0	0	12.5	0.2	0.1	1.1	0	0	7.8	

Start Time	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							
	Right	Bear Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Right	Bear Right	Thru	Left	Peds	App. Total	Hard Right	Right	Bear Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 12:00 PM																																									
12:00 PM	0	0	0	0	0	215	215	0	**9**	0	2	0	**141**	**152**	0	0	0	0	0	**129**	**129**	1	0	0	0	0	**111**	**112**	**1**	**4**	0	0	0	93	98	0	**1**	3	0	0	46	50	756
12:15 PM	0	0	0	0	0	**338**	**338**	1	4	**5**	3	0	110	123	0	0	0	0	0	118	118	**2**	0	0	0	0	96	98	0	4	0	0	0	**117**	**121**	**2**	1	6	0	0	**66**	**75**	**873**
12:30 PM	0	0	0	0	0	238	238	**2**	5	3	**4**	0	83	97	0	0	0	0	0	121	121	2	0	0	0	0	68	70	0	2	0	0	0	74	76	2	0	**7**	0	0	57	66	668
12:45 PM	0	0	0	0	0	178	178	0	5	3	1	0	106	115	0	0	0	0	0	98	98	1	0	0	0	0	87	88	0	2	0	0	0	79	81	1	0	5	0	0	51	57	617
Total Volume	0	0	0	0	0	969	969	3	23	11	10	0	440	487	0	0	0	0	0	466	466	6	0	0	0	0	362	368	1	12	0	0	0	363	376	5	2	21	0	0	220	248	2914
% App. Total	0	0	0	0	0	100		0.6	4.7	2.3	2.1	0	90.3		0	0	0	0	0	100		1.6	0	0	0	0	98.4		0.3	3.2	0	0	0	96.5		2	0.8	8.5	0	0	88.7		
PHF	.000	.000	.000	.000	.000	.717	.717	.375	.639	.550	.625	.000	.780	.801	.000	.000	.000	.000	.000	.903	.903	.750	.000	.000	.000	.000	.815	.821	.250	.750	.000	.000	.000	.776	.777	.625	.500	.750	.000	.000	.833	.827	.834

N/S: Deerfield Street/ Brookline Avenue
E/SW/W/SE: Beacon St/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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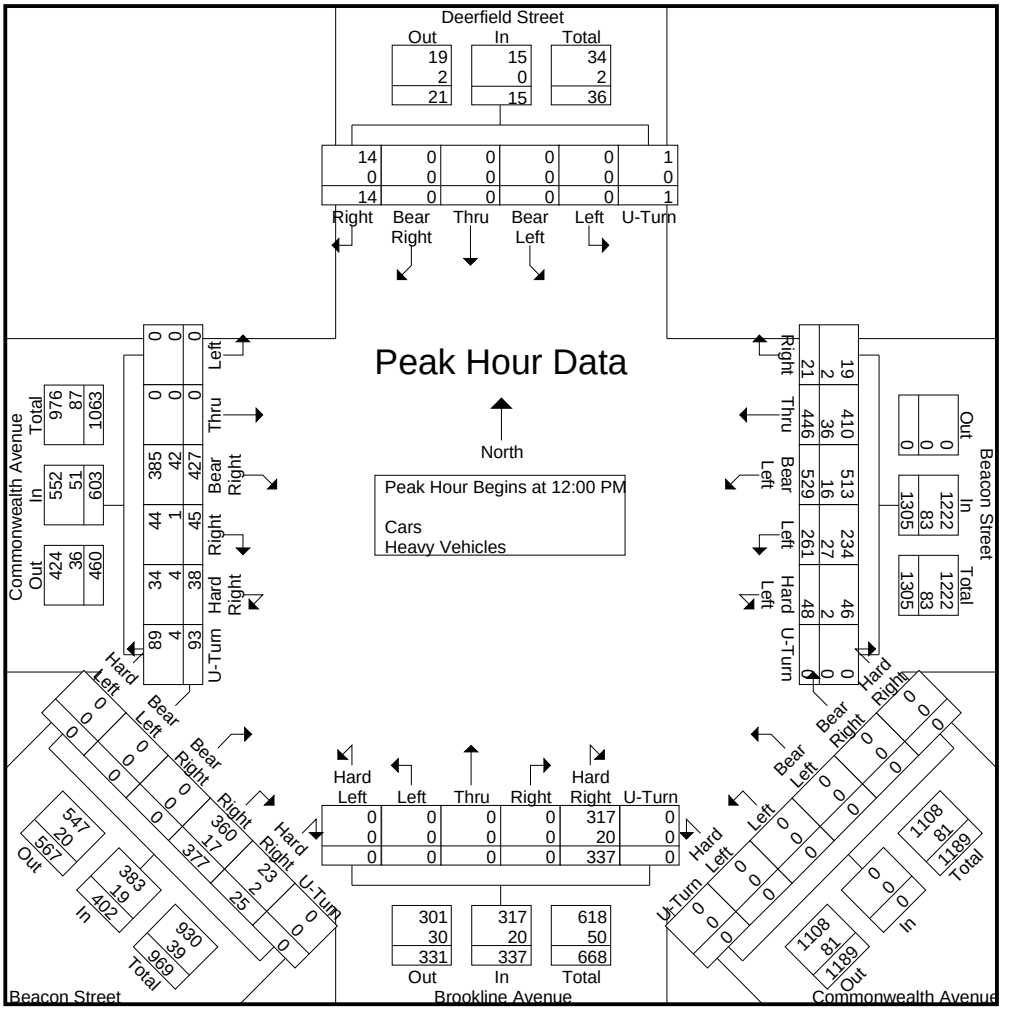
	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Left	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 12:00 PM																																									
12:00 PM	**6**	0	0	0	0	**1**	**7**	**10**	90	**141**	62	10	0	313	0	0	0	0	0	0	0	89	0	0	0	0	0	89	3	**115**	0	0	0	0	**118**	9	**14**	**101**	0	0	23	147	674
12:15 PM	2	0	0	0	0	0	2	4	**135**	120	61	9	0	329	0	0	0	0	0	0	0	79	0	0	0	0	0	79	5	80	0	0	0	0	85	5	12	**112**	0	0	**33**	162	657
12:30 PM	1	0	0	0	0	0	1	4	113	137	65	**15**	0	**334**	0	0	0	0	0	0	0	**94**	0	0	0	0	0	**94**	**12**	85	0	0	0	0	97	**12**	10	**119**	0	0	23	**164**	**690**
12:45 PM	5	0	0	0	0	0	5	3	108	131	**73**	14	0	329	0	0	0	0	0	0	0	75	0	0	0	0	0	75	5	97	0	0	0	0	102	12	9	95	0	0	14	130	641
Total Volume	14	0	0	0	0	1	15	21	446	529	261	48	0	1305	0	0	0	0	0	0	0	337	0	0	0	0	0	337	25	377	0	0	0	0	402	38	45	427	0	0	93	603	2662
% App. Total	93.3	0	0	0	0	6.7		1.6	34.2	40.5	20	3.7	0		0	0	0	0	0	0		100	0	0	0	0	0		6.2	93.8	0	0	0	0		6.3	7.5	70.8	0	0	15.4		
PHF	.583	.000	.000	.000	.000	.250	.536	.525	.826	.938	.891	.800	.000	.977	.000	.000	.000	.000	.000	.000	.000	.896	.000	.000	.000	.000	.000	.896	.521	.820	.000	.000	.000	.000	.852	.792	.804	.897	.000	.000	.705	.919	.964
Cars	14	0	0	0	0	1	15	19	410	513	234	46	0	1222	0	0	0	0	0	0	0	317	0	0	0	0	0	317	23	360	0	0	0	0	383	34	44	385	0	0	89	552	2489
% Cars	100	0	0	0	0	100	100	90.5	91.9	97.0	89.7	95.8	0	93.6	0	0	0	0	0	0	0	94.1	0	0	0	0	0	94.1	92.0	95.5	0	0	0	0	95.3	89.5	97.8	90.2	0	0	95.7	91.5	93.5
Heavy Vehicles	0	0	0	0	0	0	0	2	36	16	27	2	0	83	0	0	0	0	0	0	0	20	0	0	0	0	0	20	2	17	0	0	0	0	19	4	1	42	0	0	4	51	173
% Heavy Vehicles	0	0	0	0	0	0	0	9.5	8.1	3.0	10.3	4.2	0	6.4	0	0	0	0	0	0	0	5.9	0	0	0	0	0	5.9	8.0	4.5	0	0	0	0	4.7	10.5	2.2	9.8	0	0	4.3	8.5	6.5



N/S: Deerfield Street/ Brookline Avenue
E/SW/W/SE: Beacon St/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122828 UUU
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Int. Total
04:00 PM	1	0	0	0	0	0	3	123	180	66	10	0	0	0	0	0	0	0	105	0	0	0	0	0	2	118	0	0	0	0	12	12	100	0	0	22	754
04:15 PM	5	0	0	0	0	0	6	115	166	49	8	0	0	0	0	0	0	0	106	0	0	0	0	0	10	135	0	0	0	0	14	20	111	0	0	22	767
04:30 PM	3	0	0	0	0	0	2	128	169	50	10	0	0	0	0	0	0	0	125	0	0	0	0	0	7	152	0	0	0	0	10	8	96	0	0	14	774
04:45 PM	4	0	0	0	0	0	8	137	209	50	10	0	0	0	0	0	0	0	117	0	0	0	0	0	5	158	0	0	0	0	12	13	115	0	0	26	864
Total	13	0	0	0	0	0	19	503	724	215	38	0	0	0	0	0	0	0	453	0	0	0	0	0	24	563	0	0	0	0	48	53	422	0	0	84	3159
05:00 PM	11	0	0	0	0	0	3	155	219	59	13	0	0	0	0	0	0	0	109	0	0	0	0	0	4	147	0	0	0	0	14	11	151	0	0	29	925
05:15 PM	3	0	0	0	0	0	10	162	222	45	11	0	0	0	0	0	0	0	117	0	0	0	0	0	5	151	0	0	0	0	8	11	154	0	0	24	923
05:30 PM	15	0	0	0	0	0	7	154	215	76	21	0	0	0	0	0	0	0	106	0	0	0	0	0	8	121	0	0	0	0	13	9	134	0	0	38	917
05:45 PM	8	0	0	0	0	0	4	175	219	52	19	0	0	0	0	0	0	0	92	0	0	0	0	0	6	139	0	0	0	0	9	12	116	0	0	29	880
Total	37	0	0	0	0	0	24	646	875	232	64	0	0	0	0	0	0	0	424	0	0	0	0	0	23	558	0	0	0	0	44	43	555	0	0	120	3645
Grand Total	50	0	0	0	0	0	43	1149	1599	447	102	0	0	0	0	0	0	0	877	0	0	0	0	0	47	1121	0	0	0	0	92	96	977	0	0	204	6804
Apprch %	100	0	0	0	0	0	1.3	34.4	47.9	13.4	3.1	0	0	0	0	0	0	0	100	0	0	0	0	0	4	96	0	0	0	0	6.7	7	71.4	0	0	14.9	
Total %	0.7	0	0	0	0	0	0.6	16.9	23.5	6.6	1.5	0	0	0	0	0	0	0	12.9	0	0	0	0	0	0.7	16.5	0	0	0	0	1.4	1.4	14.4	0	0	3	
Cars	50	0	0	0	0	0	41	1101	1577	413	100	0	0	0	0	0	0	0	829	0	0	0	0	0	46	1106	0	0	0	0	87	93	916	0	0	201	6560
% Cars	100	0	0	0	0	0	95.3	95.8	98.6	92.4	98	0	0	0	0	0	0	0	94.5	0	0	0	0	0	97.9	98.7	0	0	0	0	94.6	96.9	93.8	0	0	98.5	96.4
Heavy Vehicles	0	0	0	0	0	0	2	48	22	34	2	0	0	0	0	0	0	0	48	0	0	0	0	0	1	15	0	0	0	0	5	3	61	0	0	3	244
% Heavy Vehicles	0	0	0	0	0	0	4.7	4.2	1.4	7.6	2	0	0	0	0	0	0	0	5.5	0	0	0	0	0	2.1	1.3	0	0	0	0	5.4	3.1	6.2	0	0	1.5	3.6

	Deerfield Street From North							Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West							
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 05:00 PM																																									
05:00 PM	11	0	0	0	0	0	11	3	155	219	59	13	0	449	0	0	0	0	0	0	0	109	0	0	0	0	0	109	4	147	0	0	0	0	151	14	11	151	0	0	29	205	925
05:15 PM	3	0	0	0	0	0	3	10	162	222	45	11	0	450	0	0	0	0	0	0	0	117	0	0	0	0	0	117	5	151	0	0	0	0	156	8	11	154	0	0	24	197	923
05:30 PM	15	0	0	0	0	0	15	7	154	215	76	21	0	473	0	0	0	0	0	0	0	106	0	0	0	0	0	106	8	121	0	0	0	0	129	13	9	134	0	0	38	194	917
05:45 PM	8	0	0	0	0	0	8	4	175	219	52	19	0	469	0	0	0	0	0	0	0	92	0	0	0	0	0	92	6	139	0	0	0	0	145	9	12	116	0	0	29	166	880
Total Volume	37	0	0	0	0	0	37	24	646	875	232	64	0	1841	0	0	0	0	0	0	0	424	0	0	0	0	0	424	23	558	0	0	0	0	581	44	43	555	0	0	120	762	3645
% App. Total	100	0	0	0	0	0		1.3	35.1	47.5	12.6	3.5	0		0	0	0	0	0	0		100	0	0	0	0	0		4	96	0	0	0	0		5.8	5.6	72.8	0	0	15.7		
PHF	.617	.000	.000	.000	.000	.000	.617	.600	.923	.985	.763	.762	.000	.973	.000	.000	.000	.000	.000	.000	.000	.906	.000	.000	.000	.000	.000	.906	.719	.924	.000	.000	.000	.000	.931	.786	.896	.901	.000	.000	.781	.929	.985
Cars	37	0	0	0	0	0	37	23	621	863	214	62	0	1783	0	0	0	0	0	0	0	401	0	0	0	0	0	401	23	554	0	0	0	0	577	41	41	524	0	0	118	724	3522
% Cars	100	0	0	0	0	0	100	95.8	96.1	98.6	92.2	96.9	0	96.8	0	0	0	0	0	0	0	94.6	0	0	0	0	0	94.6	100	99.3	0	0	0	0	99.3	93.2	95.3	94.4	0	0	98.3	95.0	96.6
Heavy Vehicles	0	0	0	0	0	0	0	1	25	12	18	2	0	58	0	0	0	0	0	0	0	23	0	0	0	0	0	23	0	4	0	0	0	0	4	3	2	31	0	0	2	38	123
% Heavy Vehicles	0	0	0	0	0	0	0	4.2	3.9	1.4	7.8	3.1	0	3.2	0	0	0	0	0	0	0	5.4	0	0	0	0	0	5.4	0	0.7	0	0	0	0	0.7	6.8	4.7	5.6	0	0	1.7	5.0	3.4

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N/S: Deerfield Street/ Brookline Avenue
E/SW/W/SE: Beacon St/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 UUU
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Cars

	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West					
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Thru	Left	U-Turn	Int. Total
04:00 PM	1	0	0	0	0	0	3	117	177	60	10	0	0	0	0	0	0	0	101	0	0	0	0	0	1	118	0	0	0	0	12	11	91	0	0	21	723
04:15 PM	5	0	0	0	0	0	6	112	164	47	8	0	0	0	0	0	0	0	96	0	0	0	0	0	10	130	0	0	0	0	13	20	103	0	0	22	736
04:30 PM	3	0	0	0	0	0	2	120	165	45	10	0	0	0	0	0	0	0	122	0	0	0	0	0	7	149	0	0	0	0	10	8	89	0	0	14	744
04:45 PM	4	0	0	0	0	0	7	131	208	47	10	0	0	0	0	0	0	0	109	0	0	0	0	0	5	155	0	0	0	0	11	13	109	0	0	26	835
Total	13	0	0	0	0	0	18	480	714	199	38	0	0	0	0	0	0	0	428	0	0	0	0	0	23	552	0	0	0	0	46	52	392	0	0	83	3038
05:00 PM	11	0	0	0	0	0	2	147	215	55	13	0	0	0	0	0	0	0	99	0	0	0	0	0	4	146	0	0	0	0	13	9	141	0	0	29	884
05:15 PM	3	0	0	0	0	0	10	156	220	41	10	0	0	0	0	0	0	0	114	0	0	0	0	0	5	151	0	0	0	0	7	11	148	0	0	24	900
05:30 PM	15	0	0	0	0	0	7	150	213	68	20	0	0	0	0	0	0	0	102	0	0	0	0	0	8	120	0	0	0	0	13	9	125	0	0	37	887
05:45 PM	8	0	0	0	0	0	4	168	215	50	19	0	0	0	0	0	0	0	86	0	0	0	0	0	6	137	0	0	0	0	8	12	110	0	0	28	851
Total	37	0	0	0	0	0	23	621	863	214	62	0	0	0	0	0	0	0	401	0	0	0	0	0	23	554	0	0	0	0	41	41	524	0	0	118	3522
Grand Total	50	0	0	0	0	0	41	1101	1577	413	100	0	0	0	0	0	0	0	829	0	0	0	0	0	46	1106	0	0	0	0	87	93	916	0	0	201	6560
Apprch %	100	0	0	0	0	0	1.3	34.1	48.8	12.8	3.1	0	0	0	0	0	0	0	100	0	0	0	0	0	4	96	0	0	0	0	6.7	7.2	70.6	0	0	15.5	
Total %	0.8	0	0	0	0	0	0.6	16.8	24	6.3	1.5	0	0	0	0	0	0	0	12.6	0	0	0	0	0	0.7	16.9	0	0	0	0	1.3	1.4	14	0	0	3.1	

	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																										
Peak Hour for Entire Intersection Begins at 05:00 PM																																										
05:00 PM	11	0	0	0	0	0	11	2	147	215	55	13	0	432	0	0	0	0	0	0	0	99	0	0	0	0	0	99	4	146	0	0	0	0	150	13	9	141	0	0	29	192	884
05:15 PM	3	0	0	0	0	0	3	10	156	220	41	10	0	437	0	0	0	0	0	0	0	114	0	0	0	0	0	114	5	151	0	0	0	0	156	7	11	148	0	0	24	190	900
05:30 PM	15	0	0	0	0	0	15	7	150	213	68	20	0	458	0	0	0	0	0	0	0	102	0	0	0	0	0	102	8	120	0	0	0	0	128	13	9	125	0	0	37	184	887
05:45 PM	8	0	0	0	0	0	8	4	168	215	50	19	0	456	0	0	0	0	0	0	0	86	0	0	0	0	0	86	6	137	0	0	0	0	143	8	12	110	0	0	28	158	851
Total Volume	37	0	0	0	0	0	37	23	621	863	214	62	0	1783	0	0	0	0	0	0	0	401	0	0	0	0	0	401	23	554	0	0	0	0	577	41	41	524	0	0	118	724	3522
% App. Total	100	0	0	0	0	0		1.3	34.8	48.4	12	3.5	0		0	0	0	0	0	0		100	0	0	0	0	0		4	96	0	0	0	0		5.7	5.7	72.4	0	0	16.3		
PHF	.617	.000	.000	.000	.000	.000	.617	.575	.924	.981	.787	.775	.000	.973	.000	.000	.000	.000	.000	.000	.000	.879	.000	.000	.000	.000	.000	.879	.719	.917	.000	.000	.000	.000	.925	.788	.854	.885	.000	.000	.797	.943	.978

N/S: Deerfield Street/ Brookline Avenue
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File Name : 122828 UUU
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Groups Printed- Heavy Vehicles

Start Time	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						Int. Total
	Right	Bear Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Bear Left	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Bear Right	Thru	Left	U-Turn	
04:00 PM	0	0	0	0	0	0	0	6	3	6	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	0	1	9	0	0	1	31
04:15 PM	0	0	0	0	0	0	0	3	2	2	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	5	0	0	0	0	1	0	8	0	0	0	31
04:30 PM	0	0	0	0	0	0	0	8	4	5	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	7	0	0	0	30
04:45 PM	0	0	0	0	0	0	1	6	1	3	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	3	0	0	0	0	1	0	6	0	0	0	29
Total	0	0	0	0	0	0	1	23	10	16	0	0	0	0	0	0	0	0	25	0	0	0	0	0	1	11	0	0	0	0	2	1	30	0	0	1	121
05:00 PM	0	0	0	0	0	0	1	8	4	4	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	1	0	0	0	0	1	2	10	0	0	0	41
05:15 PM	0	0	0	0	0	0	0	6	2	4	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	23
05:30 PM	0	0	0	0	0	0	0	4	2	8	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	9	0	0	1	30
05:45 PM	0	0	0	0	0	0	0	7	4	2	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	2	0	0	0	0	1	0	6	0	0	1	29
Total	0	0	0	0	0	0	1	25	12	18	2	0	0	0	0	0	0	0	23	0	0	0	0	0	0	4	0	0	0	0	3	2	31	0	0	2	123
Grand Total	0	0	0	0	0	0	2	48	22	34	2	0	0	0	0	0	0	0	48	0	0	0	0	0	1	15	0	0	0	0	5	3	61	0	0	3	244
Apprch %	0	0	0	0	0	0	1.9	44.4	20.4	31.5	1.9	0	0	0	0	0	0	0	100	0	0	0	0	0	6.2	93.8	0	0	0	0	6.9	4.2	84.7	0	0	4.2	
Total %	0	0	0	0	0	0	0.8	19.7	9	13.9	0.8	0	0	0	0	0	0	0	19.7	0	0	0	0	0	0.4	6.1	0	0	0	0	2	1.2	25	0	0	1.2	

Start Time	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							Int. Total
	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 04:15 PM																																									
04:15 PM	0	0	0	0	0	0	0	0	3	2	2	0	0	7	0	0	0	0	0	0	0	**10**	0	0	0	0	0	**10**	0	**5**	0	0	0	0	**5**	**1**	0	8	0	0	0	9	31
04:30 PM	0	0	0	0	0	0	0	0	**8**	**4**	**5**	0	0	**17**	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	3	0	0	0	0	3	0	0	7	0	0	0	7	30
04:45 PM	0	0	0	0	0	0	0	**1**	6	1	3	0	0	11	0	0	0	0	0	0	0	8	0	0	0	0	0	8	0	3	0	0	0	0	3	1	0	6	0	0	0	7	29
05:00 PM	0	0	0	0	0	0	0	1	8	4	4	0	0	17	0	0	0	0	0	0	0	10	0	0	0	0	0	10	0	1	0	0	0	0	1	1	**2**	**10**	0	0	0	**13**	**41**
Total	0	0	0	0	0	0	0	2	25	11	14	0	0	52	0	0	0	0	0	0	0	31	0	0	0	0	0	31	0	12	0	0	0	0	12	3	2	31	0	0	0	36	131
Volume																																										
% App. Total	0	0	0	0	0	0		3.8	48.1	21.2	26.9	0	0		0	0	0	0	0	0		100	0	0	0	0	0		0	100	0	0	0	0		8.3	5.6	86.1	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.500	.781	.688	.700	.000	.000	.765	.000	.000	.000	.000	.000	.000	.000	.775	.000	.000	.000	.000	.000	.775	.000	.600	.000	.000	.000	.000	.600	.750	.250	.775	.000	.000	.000	.692	.799

N/S: Deerfield Street/ Brookline Avenue
E/SW/W/SE: Beacon St/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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

File Name : 122828 UUU
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Deerfield Street From North						Beacon Street From East						Commonwealth Avenue From Southeast						Brookline Avenue From South						Beacon Street From Southwest						Commonwealth Avenue From West						
Start Time	Right	Bear Right	Thru	Bear Left	Left	Peds	Right	Thru	Bear Left	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Hard Left	Peds	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Bear Right	Thru	Left	Peds	Int. Total
04:00 PM	1	0	0	0	0	171	2	13	3	4	0	6	0	0	0	0	0	71	3	0	0	0	0	91	1	3	0	0	0	74	2	1	4	0	0	47	497
04:15 PM	0	0	0	0	0	116	2	21	5	0	0	9	0	0	0	0	0	58	2	0	0	0	0	85	1	6	0	0	0	87	0	3	11	0	0	48	454
04:30 PM	0	0	0	0	0	174	2	12	14	1	0	12	0	0	0	0	0	81	5	0	0	0	0	93	1	6	0	0	0	99	1	1	16	0	0	41	559
04:45 PM	0	0	0	0	0	262	0	15	15	0	0	20	0	0	0	0	0	72	2	0	0	0	0	121	0	10	0	0	0	97	0	1	9	0	0	77	701
Total	1	0	0	0	0	723	6	61	37	5	0	47	0	0	0	0	0	282	12	0	0	0	0	390	3	25	0	0	0	357	3	6	40	0	0	213	2211
05:00 PM	0	0	0	0	0	260	2	23	22	2	0	59	0	0	0	0	0	84	4	0	0	0	0	119	0	3	0	0	0	89	5	2	17	0	0	50	741
05:15 PM	0	0	0	0	0	204	4	31	20	10	1	62	0	0	0	0	0	82	1	0	0	0	0	124	0	6	0	0	0	117	3	3	11	0	0	63	742
05:30 PM	0	0	0	0	0	270	0	34	17	4	0	67	0	0	0	0	0	92	7	0	0	0	0	81	0	6	0	0	0	108	1	2	10	0	0	49	748
05:45 PM	1	0	0	0	0	254	3	27	14	4	0	73	0	0	0	0	0	106	3	0	0	0	0	99	2	5	0	0	0	102	1	1	11	0	0	40	746
Total	1	0	0	0	0	988	9	115	73	20	1	261	0	0	0	0	0	364	15	0	0	0	0	423	2	20	0	0	0	416	10	8	49	0	0	202	2977
Grand Total	2	0	0	0	0	1711	15	176	110	25	1	308	0	0	0	0	0	646	27	0	0	0	0	813	5	45	0	0	0	773	13	14	89	0	0	415	5188
Apprch %	0.1	0	0	0	0	99.9	2.4	27.7	17.3	3.9	0.2	48.5	0	0	0	0	0	100	3.2	0	0	0	0	96.8	0.6	5.5	0	0	0	93.9	2.4	2.6	16.8	0	0	78.2	
Total %	0	0	0	0	0	33	0.3	3.4	2.1	0.5	0	5.9	0	0	0	0	0	12.5	0.5	0	0	0	0	15.7	0.1	0.9	0	0	0	14.9	0.3	0.3	1.7	0	0	8	

	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							
Start Time	Right	Bear Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Bear Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																										
Peak Hour for Entire Intersection Begins at 05:00 PM																																										
05:00 PM	0	0	0	0	0	260	260	2	23	**22**	2	0	59	108	0	0	0	0	0	84	84	4	0	0	0	0	119	123	0	3	0	0	0	89	92	**5**	2	**17**	0	0	50	74	741
05:15 PM	0	0	0	0	0	204	204	**4**	31	20	**10**	**1**	62	**128**	0	0	0	0	0	82	82	1	0	0	0	0	**124**	**125**	0	**6**	0	0	0	**117**	**123**	3	**3**	11	0	0	**63**	**80**	742
05:30 PM	0	0	0	0	0	**270**	**270**	0	**34**	17	4	0	67	122	0	0	0	0	0	92	92	**7**	0	0	0	0	81	88	0	6	0	0	0	108	114	1	2	10	0	0	49	62	**748**
05:45 PM	**1**	0	0	0	0	254	255	3	27	14	4	0	**73**	121	0	0	0	0	0	**106**	**106**	3	0	0	0	0	99	102	**2**	5	0	0	0	102	109	1	1	11	0	0	40	53	746
Total Volume	1	0	0	0	0	988	989	9	115	73	20	1	261	479	0	0	0	0	0	364	364	15	0	0	0	0	423	438	2	20	0	0	0	416	438	10	8	49	0	0	202	269	2977
% App. Total	0.1	0	0	0	0	99.9		1.9	24	15.2	4.2	0.2	54.5		0	0	0	0	0	100		3.4	0	0	0	0	96.6		0.5	4.6	0	0	0	95		3.7	3	18.2	0	0	75.1		
PHF	.250	.000	.000	.000	.000	.915	.916	.563	.846	.830	.500	.250	.894	.936	.000	.000	.000	.000	.000	.858	.858	.536	.000	.000	.000	.000	.853	.876	.250	.833	.000	.000	.000	.889	.890	.500	.667	.721	.000	.000	.802	.841	.995

N/S: Deerfield Street/ Brookline Avenue
E/SW/W/SE: Beacon St/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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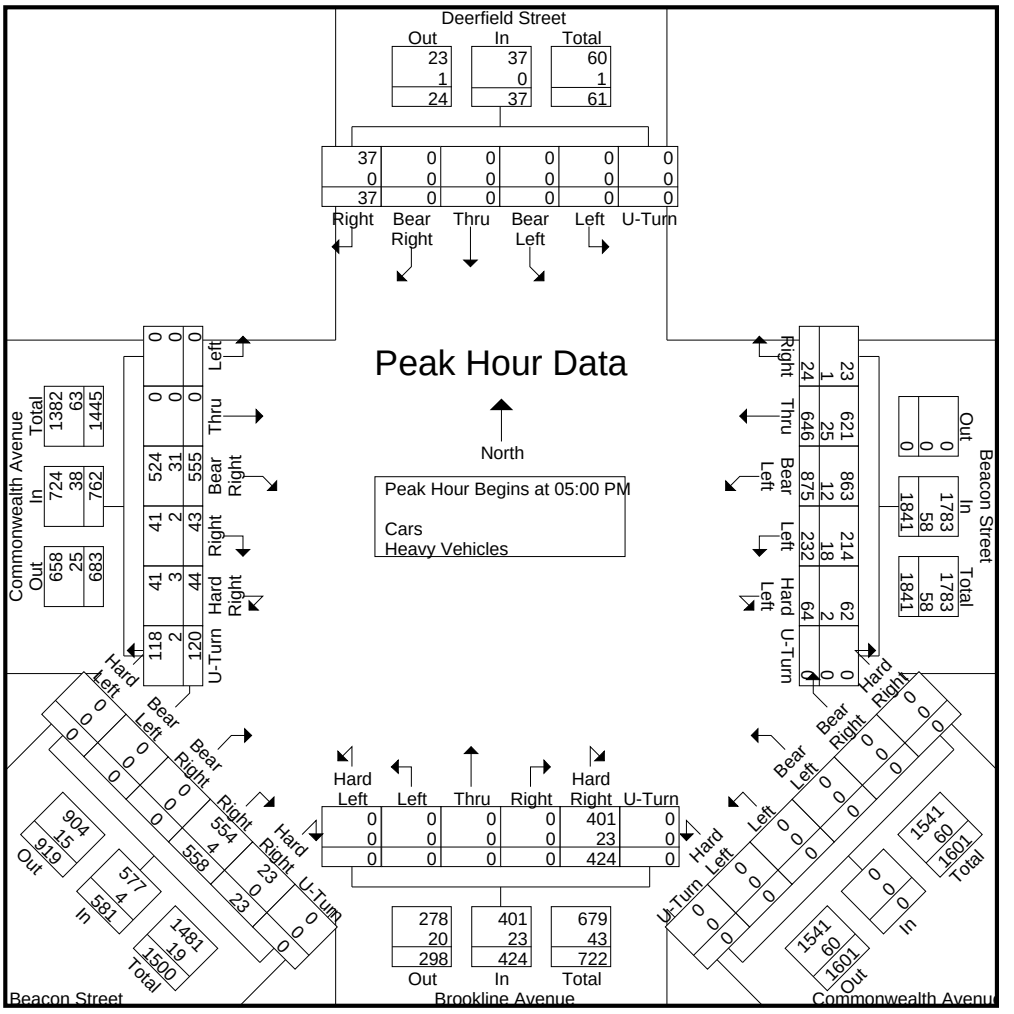
	Deerfield Street From North							Beacon Street From East							Commonwealth Avenue From Southeast							Brookline Avenue From South							Beacon Street From Southwest							Commonwealth Avenue From West							
Start Time	Right	Bear Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Hard Right	Right	Bear Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 05:00 PM																																									
05:00 PM	11	0	0	0	0	0	11	3	15	21	59	13	0	449	0	0	0	0	0	0	0	10	0	0	0	0	0	109	4	14	0	0	0	0	151	14	11	15	0	0	29	205	925
05:15 PM	3	0	0	0	0	0	3	10	16	22	45	11	0	450	0	0	0	0	0	0	0	11	0	0	0	0	0	117	5	15	0	0	0	0	156	8	11	15	0	0	24	197	923
05:30 PM	15	0	0	0	0	0	15	7	15	21	76	21	0	473	0	0	0	0	0	0	0	10	0	0	0	0	0	106	8	12	0	0	0	0	129	13	9	13	0	0	38	194	917
05:45 PM	8	0	0	0	0	0	8	4	17	21	52	19	0	469	0	0	0	0	0	0	0	92	0	0	0	0	0	92	6	13	0	0	0	0	145	9	12	11	0	0	29	166	880
Total Volume	37	0	0	0	0	0	37	24	64	87	23	64	0	1841	0	0	0	0	0	0	0	42	0	0	0	0	0	424	23	55	0	0	0	0	581	44	43	55	0	0	12	762	3645
% App. Total	10	0	0	0	0	0		1.3	35.	47.	12.	3.5	0		0	0	0	0	0	0		10	0	0	0	0	0		4	96	0	0	0	0		5.8	5.6	72.	0	0	15.		
PHF	.61	.00	.00	.00	.00	.00	.617	.60	.92	.98	.76	.76	.00	.973	.00	.00	.00	.00	.00	.00	.000	.90	.00	.00	.00	.00	.00	.906	.71	.92	.00	.00	.00	.00	.931	.78	.89	.90	.00	.00	.78	.929	.985
Cars	37	0	0	0	0	0	37	23	62	86	21	62	0	1783	0	0	0	0	0	0	0	40	0	0	0	0	0	401	23	55	0	0	0	0	577	41	41	52	0	0	11	724	3522
% Cars	10	0	0	0	0	0	100	95.	96.	98.	92.	96.	0	96.8	0	0	0	0	0	0	0	94.	0	0	0	0	0	94.6	10	99.	0	0	0	0	99.3	93.	95.	94.	0	0	98.	95.0	96.6
Heavy Vehicles	0	0	0	0	0	0	0	1	25	12	18	2	0	58	0	0	0	0	0	0	0	23	0	0	0	0	0	23	0	4	0	0	0	0	4	3	2	31	0	0	2	38	123
% Heavy Vehicles	0	0	0	0	0	0	0	4.2	3.9	1.4	7.8	3.1	0	3.2	0	0	0	0	0	0	0	5.4	0	0	0	0	0	5.4	0	0.7	0	0	0	0	0.7	6.8	4.7	5.6	0	0	1.7	5.0	3.4



N/S/SW: Raleigh St/ Kenmore St/Bus Exit
NE/E/W: Beacon Street/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122828 V
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
07:00 AM	1	0	0	0	0	0	268	0	0	0	0	0	41	0	0	0	0	3	11	0	0	0	0	0	5	329
07:15 AM	0	0	0	0	0	0	265	0	0	0	0	1	69	0	0	0	0	3	17	0	0	0	0	0	6	361
07:30 AM	2	0	0	0	0	0	244	0	0	0	0	0	75	0	0	0	0	3	19	0	0	0	0	0	11	354
07:45 AM	4	0	0	0	0	0	288	0	0	0	0	0	70	0	0	0	0	3	15	0	0	0	0	0	5	385
Total	7	0	0	0	0	0	1065	0	0	0	0	1	255	0	0	0	0	12	62	0	0	0	0	0	27	1429
08:00 AM	5	0	0	0	0	0	283	0	0	0	0	0	98	0	0	0	0	5	20	0	0	0	0	0	8	419
08:15 AM	1	0	0	0	0	0	281	0	0	0	0	1	93	0	0	0	0	7	25	0	0	0	0	0	4	412
08:30 AM	3	0	0	0	0	2	251	0	0	0	0	0	69	0	0	0	0	11	32	0	0	0	0	0	9	377
08:45 AM	1	0	0	0	0	0	269	0	0	0	0	2	106	0	0	0	0	6	36	0	0	0	0	0	6	426
Total	10	0	0	0	0	2	1084	0	0	0	0	3	366	0	0	0	0	29	113	0	0	0	0	0	27	1634
Grand Total	17	0	0	0	0	2	2149	0	0	0	0	4	621	0	0	0	0	41	175	0	0	0	0	0	54	3063
Apprch %	100	0	0	0	0	0.1	99.9	0	0	0	0	0.6	99.4	0	0	0	0	19	81	0	0	0	0	0	100	
Total %	0.6	0	0	0	0	0.1	70.2	0	0	0	0	0.1	20.3	0	0	0	0	1.3	5.7	0	0	0	0	0	1.8	
Cars	17	0	0	0	0	1	2039	0	0	0	0	4	587	0	0	0	0	36	158	0	0	0	0	0	0	2842
% Cars	100	0	0	0	0	50	94.9	0	0	0	0	100	94.5	0	0	0	0	87.8	90.3	0	0	0	0	0	0	92.8
Heavy Vehicles	0	0	0	0	0	1	110	0	0	0	0	0	34	0	0	0	0	5	17	0	0	0	0	0	54	221
% Heavy Vehicles	0	0	0	0	0	50	5.1	0	0	0	0	0	5.5	0	0	0	0	12.2	9.7	0	0	0	0	0	100	7.2

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 08:00 AM																															
08:00 AM	**5**	0	0	0	0	**5**	0	**283**	0	0	0	**283**																			419
08:15 AM	1	0	0	0	0	1	0	281	0	0	0	281	0	1	93	0	0	94	0	0	7	25	0	32	0	0	0	0	4	4	412
08:30 AM	3	0	0	0	0	3	**2**	251	0	0	0	253	0	0	69	0	0	69	0	0	**11**	32	0	**43**	0	0	0	0	**9**	**9**	377
08:45 AM	1	0	0	0	0	1	0	269	0	0	0	269	0	**2**	**106**	0	0	**108**				**36**	0	42	0	0	0	0	6	6	**426**
Total Volume	10	0	0	0	0	10	2	1084	0	0	0	1086	0	3	366	0	0	369	0	0	29	113	0	142	0	0	0	0	27	27	1634
% App. Total	100	0	0	0	0		0.2	99.8	0	0	0		0	0.8	99.2	0	0		0	0	20.4	79.6	0		0	0	0	0	100		
PHF	.500	.000	.000	.000	.000	.500	.250	.958	.000	.000	.000	.959	.000	.375	.863	.000	.000	.854	.000	.000	.659	.785	.000	.826	.000	.000	.000	.000	.750	.750	.959
Cars	10	0	0	0	0	10	1	1024	0	0	0	1025	0	3	348	0	0	351	0	0	26	106	0	132	0	0	0	0	0	0	1518
% Cars	100	0	0	0	0	100	50.0	94.5	0	0	0	94.4	0	100	95.1	0	0	95.1	0	0	89.7	93.8	0	93.0	0	0	0	0	0	0	92.9
Heavy Vehicles	0	0	0	0	0	0	1	60	0	0	0	61	0	0	18	0	0	18	0	0	3	7	0	10	0	0	0	0	27	27	116
% Heavy Vehicles	0	0	0	0	0	0	50.0	5.5	0	0	0	5.6	0	0	4.9	0	0	4.9	0	0	10.3	6.2	0	7.0	0	0	0	0	100	100	7.1

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N/S/SW: Raleigh St/ Kenmore St/Bus Exit
NE/E/W: Beacon Street/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 V
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Cars

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
07:00 AM	1	0	0	0	0	0	255	0	0	0	0	0	40	0	0	0	0	2	9	0	0	0	0	0	0	307
07:15 AM	0	0	0	0	0	0	253	0	0	0	0	1	61	0	0	0	0	3	13	0	0	0	0	0	0	331
07:30 AM	2	0	0	0	0	0	233	0	0	0	0	0	73	0	0	0	0	3	19	0	0	0	0	0	0	330
07:45 AM	4	0	0	0	0	0	274	0	0	0	0	0	65	0	0	0	0	2	11	0	0	0	0	0	0	356
Total	7	0	0	0	0	0	1015	0	0	0	0	1	239	0	0	0	0	10	52	0	0	0	0	0	0	1324
08:00 AM	5	0	0	0	0	0	268	0	0	0	0	0	93	0	0	0	0	5	17	0	0	0	0	0	0	388
08:15 AM	1	0	0	0	0	0	264	0	0	0	0	1	90	0	0	0	0	7	24	0	0	0	0	0	0	387
08:30 AM	3	0	0	0	0	1	235	0	0	0	0	0	66	0	0	0	0	8	31	0	0	0	0	0	0	344
08:45 AM	1	0	0	0	0	0	257	0	0	0	0	2	99	0	0	0	0	6	34	0	0	0	0	0	0	399
Total	10	0	0	0	0	1	1024	0	0	0	0	3	348	0	0	0	0	26	106	0	0	0	0	0	0	1518
Grand Total	17	0	0	0	0	1	2039	0	0	0	0	4	587	0	0	0	0	36	158	0	0	0	0	0	0	2842
Apprch %	100	0	0	0	0	0	100	0	0	0	0	0.7	99.3	0	0	0	0	18.6	81.4	0	0	0	0	0	0	
Total %	0.6	0	0	0	0	0	71.7	0	0	0	0	0.1	20.7	0	0	0	0	1.3	5.6	0	0	0	0	0	0	

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 08:00 AM																															
08:00 AM	**5**	0	0	0	0	**5**	0	**268**	0	0	0	**268**																			388
08:15 AM	1	0	0	0	0	1	0	264	0	0	0	264	0	1	90	0	0	91	0	0	7	24	0	31	0	0	0	0	0	0	387
08:30 AM	3	0	0	0	0	3	**1**	235	0	0	0	236	0	0	66	0	0	66	0	0	**8**	31	0	39	0	0	0	0	0	0	344
08:45 AM	1	0	0	0	0	1	0	257	0	0	0	257	0	**2**	**99**	0	0	**101**				**34**	0	**40**	0	0	0	0	0	0	**399**
Total Volume	10	0	0	0	0	10	1	1024	0	0	0	1025	0	3	348	0	0	351	0	0	26	106	0	132	0	0	0	0	0	0	1518
% App. Total	100	0	0	0	0		0.1	99.9	0	0	0		0	0.9	99.1	0	0		0	0	19.7	80.3	0		0	0	0	0	0		
PHF	.500	.000	.000	.000	.000	.500	.250	.955	.000	.000	.000	.956	.000	.375	.879	.000	.000	.869	.000	.000	.813	.779	.000	.825	.000	.000	.000	.000	.000	.000	.951

PRECISION DATA INDUSTRIES, LLC
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N/S/SW: Raleigh St/ Kenmore St/Bus Exit
NE/E/W: Beacon Street/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 V
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	0	13	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0	5	22
07:15 AM	0	0	0	0	0	0	12	0	0	0	0	0	8	0	0	0	0	0	4	0	0	0	0	0	6	30
07:30 AM	0	0	0	0	0	0	11	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	11	24
07:45 AM	0	0	0	0	0	0	14	0	0	0	0	0	5	0	0	0	0	1	4	0	0	0	0	0	5	29
Total	0	0	0	0	0	0	50	0	0	0	0	0	16	0	0	0	0	2	10	0	0	0	0	0	27	105
08:00 AM	0	0	0	0	0	0	15	0	0	0	0	0	5	0	0	0	0	0	3	0	0	0	0	0	8	31
08:15 AM	0	0	0	0	0	0	17	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	4	25
08:30 AM	0	0	0	0	0	1	16	0	0	0	0	0	3	0	0	0	0	3	1	0	0	0	0	0	9	33
08:45 AM	0	0	0	0	0	0	12	0	0	0	0	0	7	0	0	0	0	0	2	0	0	0	0	0	6	27
Total	0	0	0	0	0	1	60	0	0	0	0	0	18	0	0	0	0	3	7	0	0	0	0	0	27	116
Grand Total	0	0	0	0	0	1	110	0	0	0	0	0	34	0	0	0	0	5	17	0	0	0	0	0	54	221
Apprch %	0	0	0	0	0	0.9	99.1	0	0	0	0	0	100	0	0	0	0	22.7	77.3	0	0	0	0	0	100	
Total %	0	0	0	0	0	0.5	49.8	0	0	0	0	0	15.4	0	0	0	0	2.3	7.7	0	0	0	0	0	24.4	

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:45 AM																															
07:45 AM	0	0	0	0	0	0	0	14	0	0	0	14	0	0	**5**	0	0	**5**	0	0	1	**4**	0	**5**	0	0	0	0	5	5	29
08:00 AM	0	0	0	0	0	0	0	15	0	0	0	15	0	0	5	0	0	5	0	0	0	3	0	3	0	0	0	0	8	8	31
08:15 AM	0	0	0	0	0	0	0	**17**	0	0	0	**17**	0	0	3	0	0	3	0	0	0	1	0	1	0	0	0	0	4	4	25
08:30 AM	0	0	0	0	0	0	**1**	16	0	0	0	17	0	0	3	0	0	3	0	0	**3**	1	0	4	0	0	0	0	**9**	**9**	**33**
Total Volume	0	0	0	0	0	0	1	62	0	0	0	63	0	0	16	0	0	16	0	0	4	9	0	13	0	0	0	0	26	26	118
% App. Total	0	0	0	0	0		1.6	98.4	0	0	0		0	0	100	0	0		0	0	30.8	69.2	0		0	0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.250	.912	.000	.000	.000	.926	.000	.000	.800	.000	.000	.800	.000	.000	.333	.563	.000	.650	.000	.000	.000	.000	.722	.722	.894

N/S/SW: Raleigh St/ Kenmore St/Bus Exit
NE/E/W: Beacon Street/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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Site Code : 127-4220
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Page No : 1

Groups Printed- Peds and Bicycles

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Peds	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Int. Total
07:00 AM	0	0	0	0	7	0	1	0	0	4	0	0	1	0	13	0	0	1	0	7	0	0	0	0	2	36
07:15 AM	0	0	0	0	18	0	3	0	0	8	0	0	2	0	12	0	0	0	0	8	0	0	0	0	10	61
07:30 AM	0	0	0	0	34	0	1	0	0	6	0	0	3	0	7	0	0	0	0	7	0	0	0	0	10	68
07:45 AM	0	0	0	0	63	0	6	0	0	12	0	0	3	0	8	0	0	0	0	4	0	0	0	0	17	113
Total	0	0	0	0	122	0	11	0	0	30	0	0	9	0	40	0	0	1	0	26	0	0	0	0	39	278
08:00 AM	0	0	0	0	44	0	3	0	0	10	0	0	3	0	8	0	0	0	1	2	0	0	0	0	10	81
08:15 AM	0	0	0	0	38	0	8	0	0	16	0	0	1	0	7	0	0	1	0	4	0	0	0	0	19	94
08:30 AM	0	0	0	0	50	0	7	0	0	16	0	0	4	0	14	0	0	0	0	8	0	0	0	0	19	118
08:45 AM	0	0	0	0	60	0	9	0	0	10	0	0	2	0	6	0	0	0	0	3	0	0	0	0	17	107
Total	0	0	0	0	192	0	27	0	0	52	0	0	10	0	35	0	0	1	1	17	0	0	0	0	65	400
Grand Total	0	0	0	0	314	0	38	0	0	82	0	0	19	0	75	0	0	2	1	43	0	0	0	0	104	678
Apprch %	0	0	0	0	100	0	31.7	0	0	68.3	0	0	20.2	0	79.8	0	0	4.3	2.2	93.5	0	0	0	0	100	
Total %	0	0	0	0	46.3	0	5.6	0	0	12.1	0	0	2.8	0	11.1	0	0	0.3	0.1	6.3	0	0	0	0	15.3	

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:45 AM																															
07:45 AM	0	0	0	0	**63**	**63**	0	6	0	0	12	18	0	0	3	0	8	11	0	0	0	0	4	4	0	0	0	0	17	17	113
08:00 AM	0	0	0	0	44	44	0	3	0	0	10	13	0	0	3	0	8	11	0	0	0	**1**	2	3	0	0	0	0	10	10	81
08:15 AM	0	0	0	0	38	38	0	**8**	0	0	**16**	**24**	0	0	1	0	7	8	0	0	**1**	0	4	5	0	0	0	0	**19**	**19**	94
08:30 AM	0	0	0	0	50	50	0	7	0	0	16	23	0	0	**4**	0	**14**	**18**	0	0	0	0	**8**	**8**	0	0	0	0	19	19	**118**
Total Volume	0	0	0	0	195	195	0	24	0	0	54	78	0	0	11	0	37	48	0	0	1	1	18	20	0	0	0	0	65	65	406
% App. Total	0	0	0	0	100		0	30.8	0	0	69.2		0	0	22.9	0	77.1		0	0	5	5	90		0	0	0	0	100		
PHF	.000	.000	.000	.000	.774	.774	.000	.750	.000	.000	.844	.813	.000	.000	.688	.000	.661	.667	.000	.000	.250	.250	.563	.625	.000	.000	.000	.000	.855	.855	.860

N/S/SW: Raleigh St/ Kenmore St/Bus Exit
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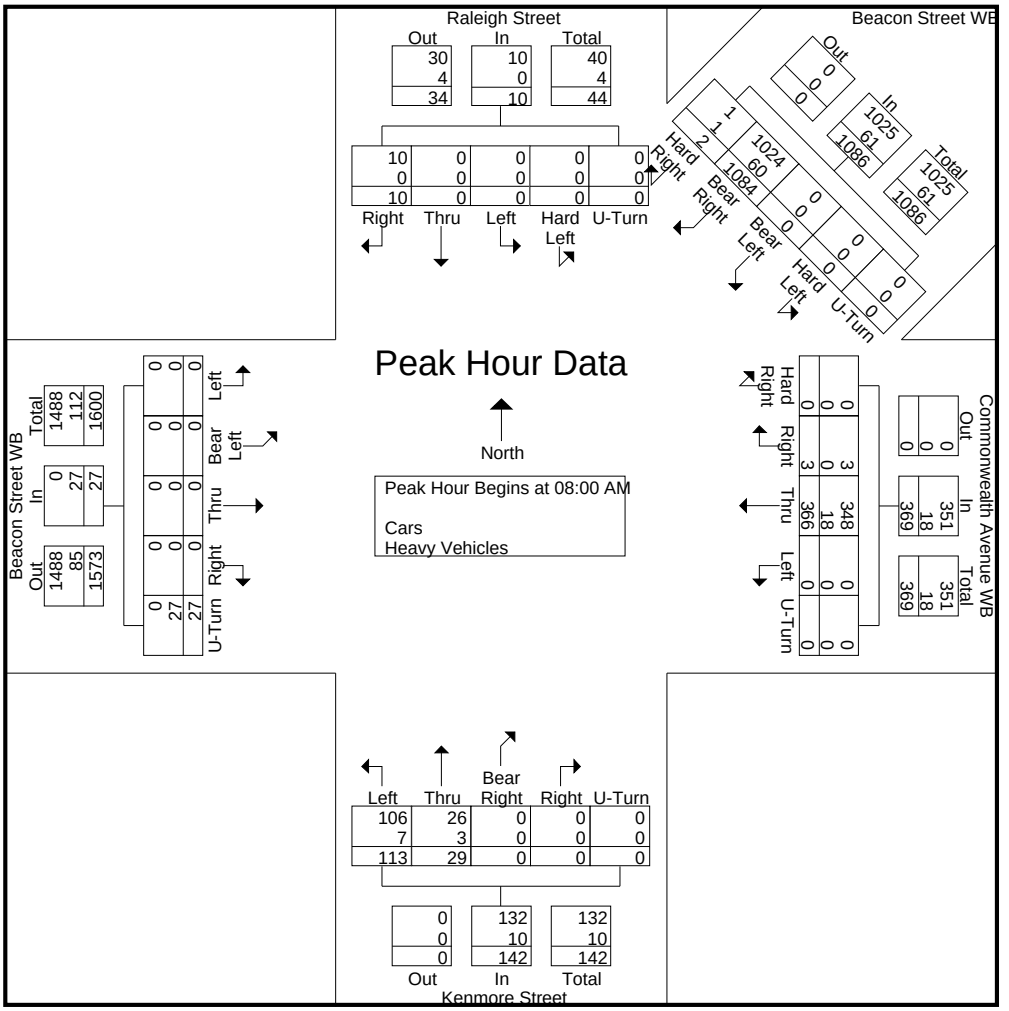
	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 08:00 AM																															
08:00 AM	**5**	0	0	0	0	**5**	0	**283**	0	0	0	**283**																			419
08:15 AM	1	0	0	0	0	1	0	281	0	0	0	281	0	1	93	0	0	94	0	0	7	25	0	32	0	0	0	0	4	4	412
08:30 AM	3	0	0	0	0	3	**2**	251	0	0	0	253	0	0	69	0	0	69	0	0	**11**	32	0	**43**	0	0	0	0	**9**	**9**	377
08:45 AM	1	0	0	0	0	1	0	269	0	0	0	269	0	**2**	**106**	0	0	**108**				**36**	0	42	0	0	0	0	6	6	**426**
Total Volume	10	0	0	0	0	10	2	1084	0	0	0	1086	0	3	366	0	0	369	0	0	29	113	0	142	0	0	0	0	27	27	1634
% App. Total	100	0	0	0	0		0.2	99.8	0	0	0		0	0.8	99.2	0	0		0	0	20.4	79.6	0		0	0	0	0	100		
PHF	.500	.000	.000	.000	.000	.500	.250	.958	.000	.000	.000	.959	.000	.375	.863	.000	.000	.854	.000	.000	.659	.785	.000	.826	.000	.000	.000	.000	.750	.750	.959
Cars	10	0	0	0	0	10	1	1024	0	0	0	1025	0	3	348	0	0	351	0	0	26	106	0	132	0	0	0	0	0	0	1518
% Cars	100	0	0	0	0	100	50.0	94.5	0	0	0	94.4	0	100	95.1	0	0	95.1	0	0	89.7	93.8	0	93.0	0	0	0	0	0	0	92.9
Heavy Vehicles	0	0	0	0	0	0	1	60	0	0	0	61	0	0	18	0	0	18	0	0	3	7	0	10	0	0	0	0	27	27	116
% Heavy Vehicles	0	0	0	0	0	0	50.0	5.5	0	0	0	5.6	0	0	4.9	0	0	4.9	0	0	10.3	6.2	0	7.0	0	0	0	0	100	100	7.1



N/S/SW: Raleigh St/ Kenmore St/Bus Exit
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Groups Printed- Cars - Heavy Vehicles

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
12:00 PM	2	0	0	0	0	0	200	0	0	0	0	0	86	0	0	0	0	6	29	0	0	0	0	0	2	325
12:15 PM	4	0	0	0	0	0	201	0	0	0	0	3	89	0	0	0	0	4	28	0	0	0	0	0	4	333
12:30 PM	5	0	0	0	0	0	200	0	0	0	0	1	96	0	0	0	0	10	24	0	0	0	0	0	2	338
12:45 PM	2	0	0	0	0	1	190	0	0	0	0	0	112	0	0	0	0	7	17	0	0	0	0	0	4	333
Total	13	0	0	0	0	1	791	0	0	0	0	4	383	0	0	0	0	27	98	0	0	0	0	0	12	1329
01:00 PM	1	0	0	0	0	0	179	0	0	0	0	2	92	0	0	0	0	8	27	0	0	0	0	0	5	314
01:15 PM	0	0	0	0	0	1	186	0	0	0	0	1	84	0	0	0	0	3	17	0	0	0	0	0	4	296
01:30 PM	3	0	0	0	0	4	215	0	0	0	0	1	92	0	0	0	0	8	22	0	0	0	0	0	4	349
01:45 PM	4	0	0	0	0	1	217	0	0	0	0	1	97	0	0	0	0	5	27	0	0	0	0	0	4	356
Total	8	0	0	0	0	6	797	0	0	0	0	5	365	0	0	0	0	24	93	0	0	0	0	0	17	1315
Grand Total	21	0	0	0	0	7	1588	0	0	0	0	9	748	0	0	0	0	51	191	0	0	0	0	0	29	2644
Apprch %	100	0	0	0	0	0.4	99.6	0	0	0	0	1.2	98.8	0	0	0	0	21.1	78.9	0	0	0	0	0	100	
Total %	0.8	0	0	0	0	0.3	60.1	0	0	0	0	0.3	28.3	0	0	0	0	1.9	7.2	0	0	0	0	0	1.1	
Cars	21	0	0	0	0	6	1507	0	0	0	0	9	717	0	0	0	0	48	179	0	0	0	0	0	2	2489
% Cars	100	0	0	0	0	85.7	94.9	0	0	0	0	100	95.9	0	0	0	0	94.1	93.7	0	0	0	0	0	6.9	94.1
Heavy Vehicles	0	0	0	0	0	1	81	0	0	0	0	0	31	0	0	0	0	3	12	0	0	0	0	0	27	155
% Heavy Vehicles	0	0	0	0	0	14.3	5.1	0	0	0	0	0	4.1	0	0	0	0	5.9	6.3	0	0	0	0	0	93.1	5.9

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00 PM																															
12:00 PM	2	0	0	0	0	2	0	200	0	0	0	200	0	0	86	0	0	86	0	0	6	**29**	0	**35**	0	0	0	0	2	2	325
12:15 PM	4	0	0	0	0	4	0	**201**	0	0	0	**201**		**3**	89	0	0	92	0	0	4	28	0	32	0	0	0	0	**4**	**4**	333
12:30 PM	**5**	0	0	0	0	**5**	0	200	0	0	0	200	0	1	96	0	0	97	0	0	**10**	24	0	34	0	0	0	0	2	2	**338**
12:45 PM	2	0	0	0	0	2	**1**	190	0	0	0	191	0	0	**112**	0	0	**112**	**0**	**0**	**7**	**17**	**0**	**24**	**0**	**0**	**0**	**0**	**4**	**4**	333
Total Volume	13	0	0	0	0	13	1	791	0	0	0	792	0	4	383	0	0	387	0	0	27	98	0	125	0	0	0	0	12	12	1329
% App. Total	100	0	0	0	0		0.1	99.9	0	0	0		0	1	99	0	0		0	0	21.6	78.4	0		0	0	0	0	100		
PHF	.650	.000	.000	.000	.000	.650	.250	.984	.000	.000	.000	.985	.000	.333	.855	.000	.000	.864	.000	.000	.675	.845	.000	.893	.000	.000	.000	.000	.750	.750	.983
Cars	13	0	0	0	0	13	1	747	0	0	0	748	0	4	366	0	0	370	0	0	25	92	0	117	0	0	0	0	0	0	1248
% Cars	100	0	0	0	0	100	100	94.4	0	0	0	94.4	0	100	95.6	0	0	95.6	0	0	92.6	93.9	0	93.6	0	0	0	0	0	0	93.9
Heavy Vehicles	0	0	0	0	0	0	0	44	0	0	0	44	0	0	17	0	0	17	0	0	2	6	0	8	0	0	0	0	12	12	81
% Heavy Vehicles	0	0	0	0	0	0	0	5.6	0	0	0	5.6	0	0	4.4	0	0	4.4	0	0	7.4	6.1	0	6.4	0	0	0	0	100	100	6.1

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Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
12:00 PM	2	0	0	0	0	0	192	0	0	0	0	0	83	0	0	0	0	5	27	0	0	0	0	0	0	309
12:15 PM	4	0	0	0	0	0	186	0	0	0	0	3	84	0	0	0	0	4	26	0	0	0	0	0	0	307
12:30 PM	5	0	0	0	0	0	190	0	0	0	0	1	91	0	0	0	0	10	23	0	0	0	0	0	0	320
12:45 PM	2	0	0	0	0	1	179	0	0	0	0	0	108	0	0	0	0	6	16	0	0	0	0	0	0	312
Total	13	0	0	0	0	1	747	0	0	0	0	4	366	0	0	0	0	25	92	0	0	0	0	0	0	1248
01:00 PM	1	0	0	0	0	0	168	0	0	0	0	2	87	0	0	0	0	8	25	0	0	0	0	0	0	291
01:15 PM	0	0	0	0	0	1	180	0	0	0	0	1	83	0	0	0	0	3	17	0	0	0	0	0	0	285
01:30 PM	3	0	0	0	0	3	202	0	0	0	0	1	90	0	0	0	0	7	19	0	0	0	0	0	1	326
01:45 PM	4	0	0	0	0	1	210	0	0	0	0	1	91	0	0	0	0	5	26	0	0	0	0	0	1	339
Total	8	0	0	0	0	5	760	0	0	0	0	5	351	0	0	0	0	23	87	0	0	0	0	0	2	1241
Grand Total	21	0	0	0	0	6	1507	0	0	0	0	9	717	0	0	0	0	48	179	0	0	0	0	0	2	2489
Apprch %	100	0	0	0	0	0.4	99.6	0	0	0	0	1.2	98.8	0	0	0	0	21.1	78.9	0	0	0	0	0	100	
Total %	0.8	0	0	0	0	0.2	60.5	0	0	0	0	0.4	28.8	0	0	0	0	1.9	7.2	0	0	0	0	0	0.1	

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00 PM																															
12:00 PM	2	0	0	0	0	2	0	**192**	0	0	0	**192**										**27**	0	32	0	0	0	0	0	0	309
12:15 PM	4	0	0	0	0	4	0	186	0	0	0	186	0	**3**	84	0	0	87	0	0	4	26	0	30	0	0	0	0	0	0	307
12:30 PM	**5**	0	0	0	0	**5**	0	190	0	0	0	190	0	1	91	0	0	92	0	0	**10**	23	0	**33**	0	0	0	0	0	0	**320**
12:45 PM	2	0	0	0	0	2	**1**	179	0	0	0	180	0	0	**108**	0	0	**108**	**0**	**0**	**6**	**16**	**0**	**22**	**0**	**0**	**0**	**0**	**0**	**0**	312
Total Volume	13	0	0	0	0	13	1	747	0	0	0	748	0	4	366	0	0	370	0	0	25	92	0	117	0	0	0	0	0	0	1248
% App. Total	100	0	0	0	0		0.1	99.9	0	0	0		0	1.1	98.9	0	0		0	0	21.4	78.6	0		0	0	0	0	0		
PHF	.650	.000	.000	.000	.000	.650	.250	.973	.000	.000	.000	.974	.000	.333	.847	.000	.000	.856	.000	.000	.625	.852	.000	.886	.000	.000	.000	.000	.000	.000	.975

N/S/SW: Raleigh St/ Kenmore St/Bus Exit
NE/E/W: Beacon Street/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 122828 VV
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	0	8	0	0	0	0	0	3	0	0	0	0	1	2	0	0	0	0	0	2	16
12:15 PM	0	0	0	0	0	0	15	0	0	0	0	0	5	0	0	0	0	0	2	0	0	0	0	0	4	26
12:30 PM	0	0	0	0	0	0	10	0	0	0	0	0	5	0	0	0	0	0	1	0	0	0	0	0	2	18
12:45 PM	0	0	0	0	0	0	11	0	0	0	0	0	4	0	0	0	0	1	1	0	0	0	0	0	4	21
Total	0	0	0	0	0	0	44	0	0	0	0	0	17	0	0	0	0	2	6	0	0	0	0	0	12	81
01:00 PM	0	0	0	0	0	0	11	0	0	0	0	0	5	0	0	0	0	0	2	0	0	0	0	0	5	23
01:15 PM	0	0	0	0	0	0	6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	11
01:30 PM	0	0	0	0	0	1	13	0	0	0	0	0	2	0	0	0	0	1	3	0	0	0	0	0	3	23
01:45 PM	0	0	0	0	0	0	7	0	0	0	0	0	6	0	0	0	0	0	1	0	0	0	0	0	3	17
Total	0	0	0	0	0	1	37	0	0	0	0	0	14	0	0	0	0	1	6	0	0	0	0	0	15	74
Grand Total	0	0	0	0	0	1	81	0	0	0	0	0	31	0	0	0	0	3	12	0	0	0	0	0	27	155
Apprch %	0	0	0	0	0	1.2	98.8	0	0	0	0	0	100	0	0	0	0	20	80	0	0	0	0	0	100	
Total %	0	0	0	0	0	0.6	52.3	0	0	0	0	0	20	0	0	0	0	1.9	7.7	0	0	0	0	0	17.4	

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:15 PM																															
12:15 PM	0	0	0	0	0	0	0	**15**	0	0	0	**15**	0	0	**5**	0	0	**5**	0	0	0	**2**	0	**2**	0	0	0	0	4	4	**26**
12:30 PM	0	0	0	0	0	0	0	10	0	0	0	10	0	0	5	0	0	5	0	0	0	1	0	1	0	0	0	0	2	2	18
12:45 PM	0	0	0	0	0	0	0	11	0	0	0	11	0	0	4	0	0	4	0	0	**1**	1	0	2	0	0	0	0	4	4	21
01:00 PM	0	0	0	0	0	0	0	11	0	0	0	11	0	0	5	0	0	5	0	0	0	2	0	2	0	0	0	0	**5**	**5**	23
Total Volume	0	0	0	0	0	0	0	47	0	0	0	47	0	0	19	0	0	19	0	0	1	6	0	7	0	0	0	0	15	15	88
% App. Total	0	0	0	0	0		0	100	0	0	0		0	0	100	0	0		0	0	14.3	85.7	0		0	0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.783	.000	.000	.000	.783	.000	.000	.950	.000	.000	.950	.000	.000	.250	.750	.000	.875	.000	.000	.000	.000	.750	.750	.846

N/S/SW: Raleigh St/ Kenmore St/Bus Exit
NE/E/W: Beacon Street/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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File Name : 122828 VV
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Peds	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Int. Total
12:00 PM	0	0	0	0	62	0	3	0	0	20	0	0	4	0	22	0	0	0	1	13	0	0	0	0	30	155
12:15 PM	1	0	0	0	105	0	5	0	0	19	0	0	6	0	9	0	0	1	0	6	0	0	0	0	41	193
12:30 PM	0	0	0	0	103	0	8	0	0	24	0	0	3	0	15	0	0	0	2	2	0	0	0	0	35	192
12:45 PM	0	0	0	0	75	0	3	0	0	19	0	0	4	0	18	0	0	0	0	4	0	0	0	0	32	155
Total	1	0	0	0	345	0	19	0	0	82	0	0	17	0	64	0	0	1	3	25	0	0	0	0	138	695
01:00 PM	0	0	0	0	65	0	5	0	0	22	0	0	5	0	10	0	0	0	0	7	0	0	0	0	47	161
01:15 PM	1	0	0	0	74	0	5	0	0	19	0	1	4	0	19	0	0	0	0	6	0	0	0	0	37	166
01:30 PM	0	0	0	0	107	0	6	0	0	16	0	0	4	0	9	0	0	0	0	6	0	0	0	0	27	175
01:45 PM	0	0	0	0	123	0	12	0	0	28	0	0	9	0	17	0	0	0	2	3	0	0	0	0	27	221
Total	1	0	0	0	369	0	28	0	0	85	0	1	22	0	55	0	0	0	2	22	0	0	0	0	138	723
Grand Total	2	0	0	0	714	0	47	0	0	167	0	1	39	0	119	0	0	1	5	47	0	0	0	0	276	1418
Apprch %	0.3	0	0	0	99.7	0	22	0	0	78	0	0.6	24.5	0	74.8	0	0	1.9	9.4	88.7	0	0	0	0	100	
Total %	0.1	0	0	0	50.4	0	3.3	0	0	11.8	0	0.1	2.8	0	8.4	0	0	0.1	0.4	3.3	0	0	0	0	19.5	

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 01:00 PM																															
01:00 PM	0	0	0	0	65	65	0	5	0	0	22	27	0	0	5	0	10	15	0	0	0	0	**7**	**7**	0	0	0	0	**47**	**47**	161
01:15 PM	**1**	0	0	0	74	75	0	5	0	0	19	24	0	**1**	4	0	**19**	24	0	0	0	0	6	6	0	0	0	0	37	37	166
01:30 PM	0	0	0	0	107	107	0	6	0	0	16	22	0	0	4	0	9	13	0	0	0	0	6	6	0	0	0	0	27	27	175
01:45 PM	0	0	0	0	**123**	**123**		**12**	0	0	**28**	**40**	0	0	**9**	0	17	**26**	0	0	0	**2**	3	5	0	0	0	0	27	27	**221**
Total Volume	1	0	0	0	369	370	0	28	0	0	85	113	0	1	22	0	55	78	0	0	0	2	22	24	0	0	0	0	138	138	723
% App. Total	0.3	0	0	0	99.7		0	24.8	0	0	75.2		0	1.3	28.2	0	70.5		0	0	0	8.3	91.7		0	0	0	0	100		
PHF	.250	.000	.000	.000	.750	.752	.000	.583	.000	.000	.759	.706	.000	.250	.611	.000	.724	.750	.000	.000	.000	.250	.786	.857	.000	.000	.000	.000	.734	.734	.818

N/S/SW: Raleigh St/ Kenmore St/Bus Exit
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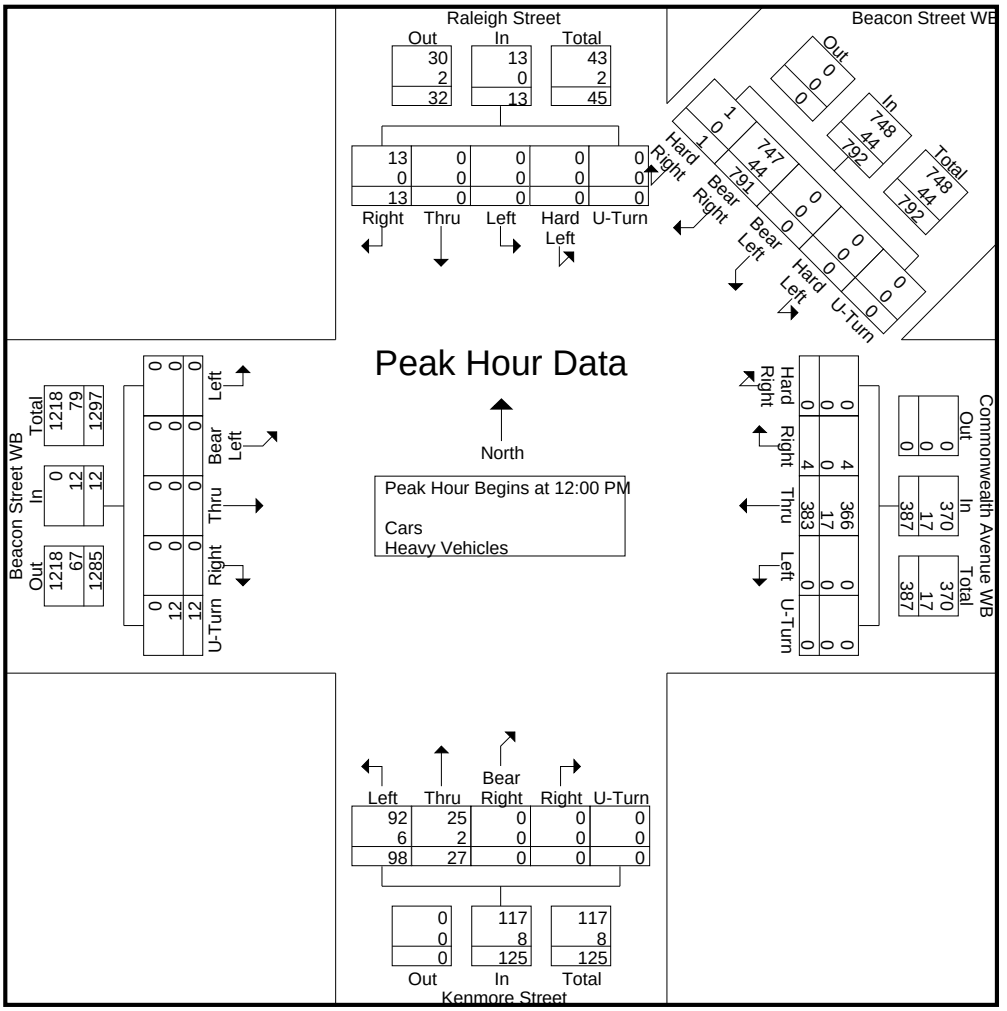
	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00 PM																															
12:00 PM	2	0	0	0	0	2	0	200	0	0	0	200	0	0	86	0	0	86	0	0	6	**29**	0	**35**	0	0	0	0	2	2	325
12:15 PM	4	0	0	0	0	4	0	**201**	0	0	0	**201**		**3**	89	0	0	92	0	0	4	28	0	32	0	0	0	0	**4**	**4**	333
12:30 PM	**5**	0	0	0	0	**5**	0	200	0	0	0	200	0	1	96	0	0	97	0	0	**10**	24	0	34	0	0	0	0	2	2	**338**
12:45 PM	2	0	0	0	0	2	**1**	190	0	0	0	191	0	0	**112**	0	0	**112**	**0**	**0**	7	**17**	**0**	**24**	**0**	**0**	**0**	**0**	**4**	**4**	333
Total Volume	13	0	0	0	0	13	1	791	0	0	0	792	0	4	383	0	0	387	0	0	27	98	0	125	0	0	0	0	12	12	1329
% App. Total	100	0	0	0	0		0.1	99.9	0	0	0		0	1	99	0	0		0	0	21.6	78.4	0		0	0	0	0	100		
PHF	.650	.000	.000	.000	.000	.650	.250	.984	.000	.000	.000	.985	.000	.333	.855	.000	.000	.864	.000	.000	.675	.845	.000	.893	.000	.000	.000	.000	.750	.750	.983
Cars	13	0	0	0	0	13	1	747	0	0	0	748	0	4	366	0	0	370	0	0	25	92	0	117	0	0	0	0	0	0	1248
% Cars	100	0	0	0	0	100	100	94.4	0	0	0	94.4	0	100	95.6	0	0	95.6	0	0	92.6	93.9	0	93.6	0	0	0	0	0	0	93.9
Heavy Vehicles	0	0	0	0	0	0	0	44	0	0	0	44	0	0	17	0	0	17	0	0	2	6	0	8	0	0	0	0	12	12	81
% Heavy Vehicles	0	0	0	0	0	0	0	5.6	0	0	0	5.6	0	0	4.4	0	0	4.4	0	0	7.4	6.1	0	6.4	0	0	0	0	100	100	6.1



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Groups Printed- Cars - Heavy Vehicles

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
04:00 PM	4	0	0	0	0	1	234	0	0	0	0	3	113	0	0	0	0	3	12	0	0	0	0	0	6	376
04:15 PM	2	0	0	0	0	0	214	0	0	0	0	0	102	0	0	0	0	4	20	0	0	0	0	0	5	347
04:30 PM	5	0	0	0	0	0	232	0	0	0	0	0	92	0	0	0	0	5	28	0	0	0	0	0	7	369
04:45 PM	5	0	0	0	0	0	277	0	0	0	0	1	115	0	0	0	0	7	27	0	0	0	0	0	5	437
Total	16	0	0	0	0	1	957	0	0	0	0	4	422	0	0	0	0	19	87	0	0	0	0	0	23	1529
05:00 PM	8	0	0	0	0	1	288	0	0	0	0	0	117	0	0	0	0	7	19	0	0	0	0	0	5	445
05:15 PM	1	0	0	0	0	0	275	0	0	0	0	0	144	0	0	0	0	4	26	0	0	0	0	0	6	456
05:30 PM	1	0	0	0	0	0	298	0	0	0	0	0	150	0	0	0	0	7	31	0	0	0	0	0	7	494
05:45 PM	3	0	0	0	0	0	296	0	0	0	0	0	123	0	0	0	0	6	30	0	0	0	0	0	6	464
Total	13	0	0	0	0	1	1157	0	0	0	0	0	534	0	0	0	0	24	106	0	0	0	0	0	24	1859
Grand Total	29	0	0	0	0	2	2114	0	0	0	0	4	956	0	0	0	0	43	193	0	0	0	0	0	47	3388
Apprch %	100	0	0	0	0	0.1	99.9	0	0	0	0	0.4	99.6	0	0	0	0	18.2	81.8	0	0	0	0	0	100	
Total %	0.9	0	0	0	0	0.1	62.4	0	0	0	0	0.1	28.2	0	0	0	0	1.3	5.7	0	0	0	0	0	1.4	
Cars	29	0	0	0	0	2	2073	0	0	0	0	4	938	0	0	0	0	41	185	0	0	0	0	0	2	3274
% Cars	100	0	0	0	0	100	98.1	0	0	0	0	100	98.1	0	0	0	0	95.3	95.9	0	0	0	0	0	4.3	96.6
Heavy Vehicles	0	0	0	0	0	0	41	0	0	0	0	0	18	0	0	0	0	2	8	0	0	0	0	0	45	114
% Heavy Vehicles	0	0	0	0	0	0	1.9	0	0	0	0	0	1.9	0	0	0	0	4.7	4.1	0	0	0	0	0	95.7	3.4

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	**8**	0	0	0	0	**8**	**1**	288	0	0	0	289	0	0	117	0	0	117	0	0	**7**	19	0	26	0	0	0	0	5	5	445
05:15 PM	1	0	0	0	0	1	0	275	0	0	0	275	0	0	144	0	0	144	0	0	4	26	0	30	0	0	0	0	6	6	456
05:30 PM	1	0	0	0	0	1	0	**298**	0	0	0	**298**			**150**	0	0	**150**				**31**	0	**38**	0	0	0	0	**7**	**7**	**494**
05:45 PM	3	0	0	0	0	3	0	296	0	0	0	296	0	0	123	0	0	123	0	0	6	30	0	36	0	0	0	0	6	6	464
Total Volume	13	0	0	0	0	13	1	1157	0	0	0	1158	0	0	534	0	0	534	0	0	24	106	0	130	0	0	0	0	24	24	1859
% App. Total	100	0	0	0	0		0.1	99.9	0	0	0		0	0	100	0	0		0	0	18.5	81.5	0		0	0	0	0	100		
PHF	.406	.000	.000	.000	.000	.406	.250	.971	.000	.000	.000	.971	.000	.000	.890	.000	.000	.890	.000	.000	.857	.855	.000	.855	.000	.000	.000	.000	.857	.857	.941
Cars	13	0	0	0	0	13	1	1137	0	0	0	1138	0	0	524	0	0	524	0	0	23	100	0	123	0	0	0	0	2	2	1800
% Cars	100	0	0	0	0	100	100	98.3	0	0	0	98.3	0	0	98.1	0	0	98.1	0	0	95.8	94.3	0	94.6	0	0	0	0	8.3	8.3	96.8
Heavy Vehicles	0	0	0	0	0	0	0	20	0	0	0	20	0	0	10	0	0	10	0	0	1	6	0	7	0	0	0	0	22	22	59
% Heavy Vehicles	0	0	0	0	0	0	0	1.7	0	0	0	1.7	0	0	1.9	0	0	1.9	0	0	4.2	5.7	0	5.4	0	0	0	0	91.7	91.7	3.2

N/S/SW: Raleigh St/ Kenmore St/Bus Exit
NE/E/W: Beacon Street/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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File Name : 122828 VVV
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
04:00 PM	4	0	0	0	0	1	228	0	0	0	0	3	109	0	0	0	0	2	12	0	0	0	0	0	0	359
04:15 PM	2	0	0	0	0	0	210	0	0	0	0	0	102	0	0	0	0	4	19	0	0	0	0	0	0	337
04:30 PM	5	0	0	0	0	0	227	0	0	0	0	0	89	0	0	0	0	5	27	0	0	0	0	0	0	353
04:45 PM	5	0	0	0	0	0	271	0	0	0	0	1	114	0	0	0	0	7	27	0	0	0	0	0	0	425
Total	16	0	0	0	0	1	936	0	0	0	0	4	414	0	0	0	0	18	85	0	0	0	0	0	0	1474
05:00 PM	8	0	0	0	0	1	284	0	0	0	0	0	114	0	0	0	0	7	17	0	0	0	0	0	0	431
05:15 PM	1	0	0	0	0	0	270	0	0	0	0	0	141	0	0	0	0	4	26	0	0	0	0	0	1	443
05:30 PM	1	0	0	0	0	0	292	0	0	0	0	0	147	0	0	0	0	7	30	0	0	0	0	0	1	478
05:45 PM	3	0	0	0	0	0	291	0	0	0	0	0	122	0	0	0	0	5	27	0	0	0	0	0	0	448
Total	13	0	0	0	0	1	1137	0	0	0	0	0	524	0	0	0	0	23	100	0	0	0	0	0	2	1800
Grand Total	29	0	0	0	0	2	2073	0	0	0	0	4	938	0	0	0	0	41	185	0	0	0	0	0	2	3274
Apprch %	100	0	0	0	0	0.1	99.9	0	0	0	0	0.4	99.6	0	0	0	0	18.1	81.9	0	0	0	0	0	100	
Total %	0.9	0	0	0	0	0.1	63.3	0	0	0	0	0.1	28.6	0	0	0	0	1.3	5.7	0	0	0	0	0	0.1	

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	**8**	0	0	0	0	**8**	**1**	284	0	0	0	285	0	0	114	0	0	114	0	0	**7**	17	0	24	0	0	0	0	0	0	431
05:15 PM	1	0	0	0	0	1	0	270	0	0	0	270	0	0	141	0	0	141	0	0	4	26	0	30	0	0	0	0	**1**	**1**	443
05:30 PM	1	0	0	0	0	1	0	**292**	0	0	0	**292**			**147**	0	0	**147**				**30**	0	**37**	0	0	0	0	1	1	**478**
05:45 PM	3	0	0	0	0	3	0	291	0	0	0	291	0	0	122	0	0	122	0	0	5	27	0	32	0	0	0	0	0	0	448
Total Volume	13	0	0	0	0	13	1	1137	0	0	0	1138	0	0	524	0	0	524	0	0	23	100	0	123	0	0	0	0	2	2	1800
% App. Total	100	0	0	0	0		0.1	99.9	0	0	0		0	0	100	0	0		0	0	18.7	81.3	0		0	0	0	0	100		
PHF	.406	.000	.000	.000	.000	.406	.250	.973	.000	.000	.000	.974	.000	.000	.891	.000	.000	.891	.000	.000	.821	.833	.000	.831	.000	.000	.000	.000	.500	.500	.941

N/S/SW: Raleigh St/ Kenmore St/Bus Exit
NE/E/W: Beacon Street/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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

File Name : 122828 VVV
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	0	6	0	0	0	0	0	4	0	0	0	0	1	0	0	0	0	0	0	6	17
04:15 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	10
04:30 PM	0	0	0	0	0	0	5	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	7	16
04:45 PM	0	0	0	0	0	0	6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	12
Total	0	0	0	0	0	0	21	0	0	0	0	0	8	0	0	0	0	1	2	0	0	0	0	0	23	55
05:00 PM	0	0	0	0	0	0	4	0	0	0	0	0	3	0	0	0	0	0	2	0	0	0	0	0	5	14
05:15 PM	0	0	0	0	0	0	5	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	5	13
05:30 PM	0	0	0	0	0	0	6	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	6	16
05:45 PM	0	0	0	0	0	0	5	0	0	0	0	0	1	0	0	0	0	1	3	0	0	0	0	0	6	16
Total	0	0	0	0	0	0	20	0	0	0	0	0	10	0	0	0	0	1	6	0	0	0	0	0	22	59
Grand Total	0	0	0	0	0	0	41	0	0	0	0	0	18	0	0	0	0	2	8	0	0	0	0	0	45	114
Apprch %	0	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	0	20	80	0	0	0	0	0	100	
Total %	0	0	0	0	0	0	36	0	0	0	0	0	15.8	0	0	0	0	1.8	7	0	0	0	0	0	39.5	

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	**3**	0	0	**3**	0	0	0	2	0	2	0	0	0	0	5	5	14
05:15 PM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	5	5	13
05:30 PM	0	0	0	0	0	0	0	**6**	0	0	0	**6**	0	0	3	0	0	3	0	0	0	1	0	1	0	0	0	0	**6**	**6**	**16**
05:45 PM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	1	0	0	1	0	0	**1**	**3**	0	**4**	0	0	0	0	6	6	16
Total Volume	0	0	0	0	0	0	0	20	0	0	0	20	0	0	10	0	0	10	0	0	1	6	0	7	0	0	0	0	22	22	59
% App. Total	0	0	0	0	0		0	100	0	0	0		0	0	100	0	0		0	0	14.3	85.7	0		0	0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.833	.000	.000	.000	.833	.000	.000	.833	.000	.000	.833	.000	.000	.250	.500	.000	.438	.000	.000	.000	.000	.917	.917	.922

N/S/SW: Raleigh St/ Kenmore St/Bus Exit
NE/E/W: Beacon Street/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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

File Name : 122828 VVV
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Raleigh Street From North					Beacon Street WB From Northeast					Commonwealth Avenue WB From East					Kenmore Street From South					Beacon Street WB From West					
Start Time	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	Peds	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds	Int. Total
04:00 PM	0	0	0	0	80	0	5	0	0	22	0	0	18	0	20	0	0	0	1	0	0	0	0	0	23	169
04:15 PM	0	0	0	0	70	0	10	0	0	23	0	0	11	0	17	0	0	0	1	2	0	0	0	0	31	165
04:30 PM	0	0	0	0	84	0	11	0	0	19	0	0	17	0	12	0	0	0	1	5	0	0	0	0	27	176
04:45 PM	0	0	0	0	133	0	9	0	0	19	0	0	18	0	18	0	0	0	3	1	0	0	0	0	44	245
Total	0	0	0	0	367	0	35	0	0	83	0	0	64	0	67	0	0	0	6	8	0	0	0	0	125	755
05:00 PM	0	0	0	0	93	0	12	0	0	40	0	0	24	0	22	0	0	0	1	5	0	0	0	0	40	237
05:15 PM	0	0	0	0	108	0	27	0	0	40	0	0	27	0	22	0	0	0	0	7	0	0	0	0	53	284
05:30 PM	0	0	0	0	97	0	23	0	0	43	0	0	22	0	32	0	0	0	2	5	0	0	0	0	46	270
05:45 PM	0	0	0	0	114	0	21	0	0	30	0	0	12	0	33	0	0	0	1	13	0	0	0	0	58	282
Total	0	0	0	0	412	0	83	0	0	153	0	0	85	0	109	0	0	0	4	30	0	0	0	0	197	1073
Grand Total	0	0	0	0	779	0	118	0	0	236	0	0	149	0	176	0	0	0	10	38	0	0	0	0	322	1828
Apprch %	0	0	0	0	100	0	33.3	0	0	66.7	0	0	45.8	0	54.2	0	0	0	20.8	79.2	0	0	0	0	100	
Total %	0	0	0	0	42.6	0	6.5	0	0	12.9	0	0	8.2	0	9.6	0	0	0	0.5	2.1	0	0	0	0	17.6	

U-Turn Movements from the West are Buses and a few cars exiting the Bus Station onto Beacon Street WB

	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	0	0	0	0	93	93	0	12	0	0	40	52	0	0	24	0	22	46	0	0	0	1	5	6	0	0	0	0	40	40	237
05:15 PM	0	0	0	0	108	108	0	**27**	0	0	40	**67**	0	0	**27**	0	22	49	0	0	0	0	7	7	0	0	0	0	53	53	**284**
05:30 PM	0	0	0	0	97	97	0	23	0	0	**43**	66	0	0	22	0	32	**54**	0	0	0	**2**	5	7	0	0	0	0	46	46	270
05:45 PM	0	0	0	0	**114**	**114**											**33**	45	0	0	0	1	**13**	**14**	0	0	0	0	**58**	**58**	282
Total Volume	0	0	0	0	412	412	0	83	0	0	153	236	0	0	85	0	109	194	0	0	0	4	30	34	0	0	0	0	197	197	1073
% App. Total	0	0	0	0	100		0	35.2	0	0	64.8		0	0	43.8	0	56.2		0	0	0	11.8	88.2		0	0	0	0	100		
PHF	.000	.000	.000	.000	.904	.904	.000	.769	.000	.000	.890	.881	.000	.000	.787	.000	.826	.898	.000	.000	.000	.500	.577	.607	.000	.000	.000	.000	.849	.849	.945

N/S/SW: Raleigh St/ Kenmore St/Bus Exit
NE/E/W: Beacon Street/ Commonwealth Ave
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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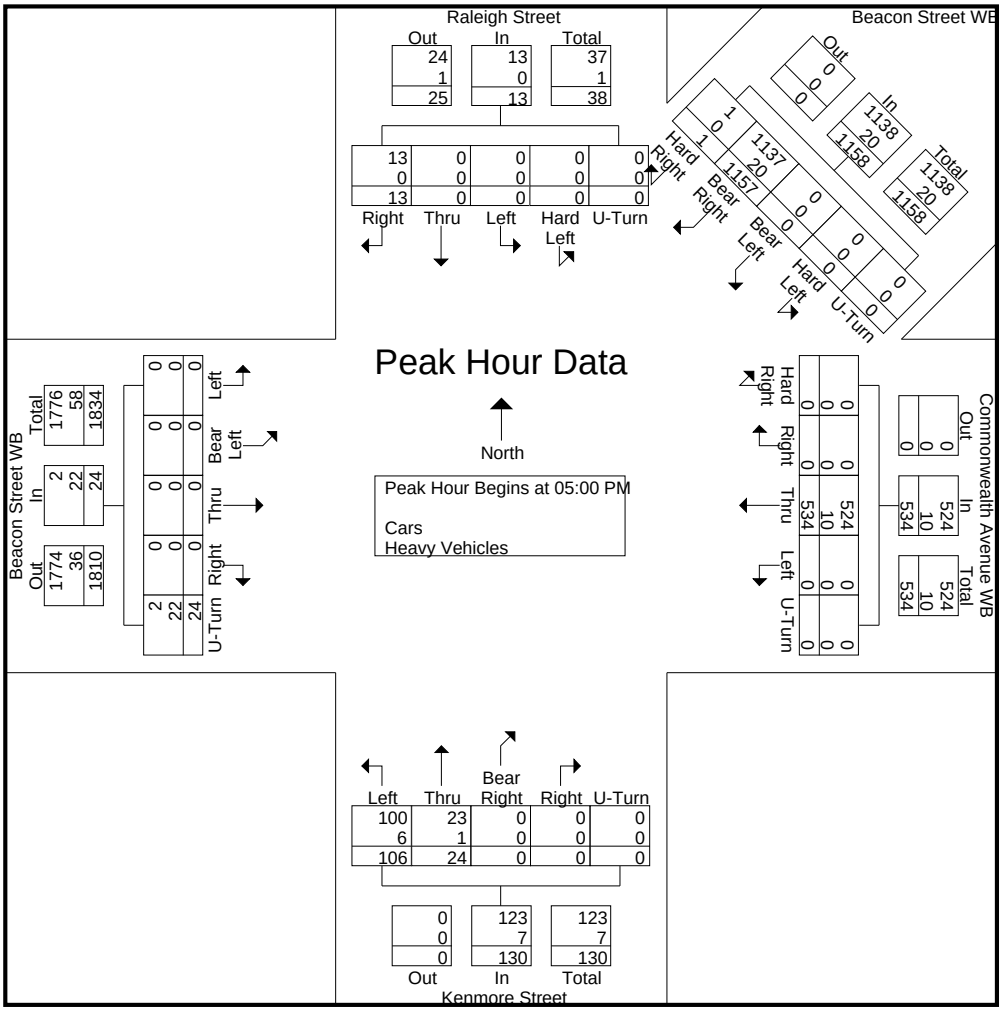
	Raleigh Street From North						Beacon Street WB From Northeast						Commonwealth Avenue WB From East						Kenmore Street From South						Beacon Street WB From West						
Start Time	Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	U-Turn	App. Total	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	**8**	0	0	0	0	**8**	**1**	288	0	0	0	289	0	0	117	0	0	117	0	0	**7**	19	0	26	0	0	0	0	5	5	445
05:15 PM	1	0	0	0	0	1	0	275	0	0	0	275	0	0	144	0	0	144	0	0	4	26	0	30	0	0	0	0	6	6	456
05:30 PM	1	0	0	0	0	1	0	**298**	0	0	0	**298**			**150**	0	0	**150**				**31**	0	**38**	0	0	0	0	**7**	**7**	**494**
05:45 PM	3	0	0	0	0	3	0	296	0	0	0	296	0	0	123	0	0	123	0	0	6	30	0	36	0	0	0	0	6	6	464
Total Volume	13	0	0	0	0	13	1	1157	0	0	0	1158	0	0	534	0	0	534	0	0	24	106	0	130	0	0	0	0	24	24	1859
% App. Total	100	0	0	0	0		0.1	99.9	0	0	0		0	0	100	0	0		0	0	18.5	81.5	0		0	0	0	0	100		
PHF	.406	.000	.000	.000	.000	.406	.250	.971	.000	.000	.000	.971	.000	.000	.890	.000	.000	.890	.000	.000	.857	.855	.000	.855	.000	.000	.000	.000	.857	.857	.941
Cars	13	0	0	0	0	13	1	1137	0	0	0	1138	0	0	524	0	0	524	0	0	23	100	0	123	0	0	0	0	2	2	1800
% Cars	100	0	0	0	0	100	100	98.3	0	0	0	98.3	0	0	98.1	0	0	98.1	0	0	95.8	94.3	0	94.6	0	0	0	0	8.3	8.3	96.8
Heavy Vehicles	0	0	0	0	0	0	0	20	0	0	0	20	0	0	10	0	0	10	0	0	1	6	0	7	0	0	0	0	22	22	59
% Heavy Vehicles	0	0	0	0	0	0	0	1.7	0	0	0	1.7	0	0	1.9	0	0	1.9	0	0	4.2	5.7	0	5.4	0	0	0	0	91.7	91.7	3.2



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N/S: Kenmore Street
E/W: Commonwealth Avenue EB (Rte 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 W
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	4	1	0	0	2	159	16	0	182
07:15 AM	0	0	0	0	0	0	0	0	6	0	0	0	1	207	18	0	232
07:30 AM	0	0	0	0	0	0	0	0	8	2	0	0	4	245	20	0	279
07:45 AM	0	0	0	0	0	0	0	0	4	0	0	0	5	291	21	0	321
Total	0	0	0	0	0	0	0	0	22	3	0	0	12	902	75	0	1014
08:00 AM	0	0	0	0	0	0	0	0	6	0	0	0	1	330	25	0	362
08:15 AM	0	0	0	0	0	0	0	0	4	1	0	0	12	313	36	0	366
08:30 AM	0	0	0	0	0	0	0	0	7	3	0	0	2	305	44	0	361
08:45 AM	0	0	0	0	0	0	0	0	6	1	0	0	1	288	38	0	334
Total	0	0	0	0	0	0	0	0	23	5	0	0	16	1236	143	0	1423
Grand Total	0	0	0	0	0	0	0	0	45	8	0	0	28	2138	218	0	2437
Apprch %	0	0	0	0	0	0	0	0	84.9	15.1	0	0	1.2	89.7	9.1	0	
Total %	0	0	0	0	0	0	0	0	1.8	0.3	0	0	1.1	87.7	8.9	0	
Cars	0	0	0	0	0	0	0	0	43	7	0	0	25	2056	196	0	2327
% Cars	0	0	0	0	0	0	0	0	95.6	87.5	0	0	89.3	96.2	89.9	0	95.5
Heavy Vehicles	0	0	0	0	0	0	0	0	2	1	0	0	3	82	22	0	110
% Heavy Vehicles	0	0	0	0	0	0	0	0	4.4	12.5	0	0	10.7	3.8	10.1	0	4.5

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	1	**330**	25	0	356	362
08:15 AM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	**12**	313	36	0	**361**	**366**
08:30 AM	0	0	0	0	0	0	0	0	0	0	**7**	**3**	0	0	**10**	2	305	**44**	0	351	361
08:45 AM	0	0	0	0	0	0	0	0	0	0	6	1	0	0	7	1	288	38	0	327	334
Total Volume	0	0	0	0	0	0	0	0	0	0	23	5	0	0	28	16	1236	143	0	1395	1423
% App. Total	0	0	0	0		0	0	0	0		82.1	17.9	0	0		1.1	88.6	10.3	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.821	.417	.000	.000	.700	.333	.936	.813	.000	.966	.972
Cars	0	0	0	0	0	0	0	0	0	0	23	4	0	0	27	13	1187				
% Cars	0	0	0	0	0	0	0	0	0	0	100	80.0	0	0	96.4	81.3	96.0	93.0	0	95.6	95.6
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	49	10	0	62	63
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	20.0	0	0	3.6	18.8	4.0	7.0	0	4.4	4.4

PRECISION
D A T A
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N/S: Kenmore Street
E/W: Commonwealth Avenue EB (Rte 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 W
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	3	1	0	0	2	153	13	0	172
07:15 AM	0	0	0	0	0	0	0	0	6	0	0	0	1	199	14	0	220
07:30 AM	0	0	0	0	0	0	0	0	7	2	0	0	4	235	20	0	268
07:45 AM	0	0	0	0	0	0	0	0	4	0	0	0	5	282	16	0	307
Total	0	0	0	0	0	0	0	0	20	3	0	0	12	869	63	0	967
08:00 AM	0	0	0	0	0	0	0	0	6	0	0	0	1	314	21	0	342
08:15 AM	0	0	0	0	0	0	0	0	4	0	0	0	9	302	35	0	350
08:30 AM	0	0	0	0	0	0	0	0	7	3	0	0	2	297	40	0	349
08:45 AM	0	0	0	0	0	0	0	0	6	1	0	0	1	274	37	0	319
Total	0	0	0	0	0	0	0	0	23	4	0	0	13	1187	133	0	1360
Grand Total	0	0	0	0	0	0	0	0	43	7	0	0	25	2056	196	0	2327
Apprch %	0	0	0	0	0	0	0	0	86	14	0	0	1.1	90.3	8.6	0	
Total %	0	0	0	0	0	0	0	0	1.8	0.3	0	0	1.1	88.4	8.4	0	

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	1	**314**	21	0	336	342
08:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	**9**	302	35	0	**346**	**350**
08:30 AM	0	0	0	0	0	0	0	0	0	0	**7**	**3**	0	0	**10**	2	297	**40**	0	339	349
08:45 AM	0	0	0	0	0	0	0	0	0	0	6	1	0	0	7	1	274	37	0	312	319
Total Volume	0	0	0	0	0	0	0	0	0	0	23	4	0	0	27	13	1187	133	0	1333	1360
% App. Total	0	0	0	0		0	0	0	0		85.2	14.8	0	0		1	89	10	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.821	.333	.000	.000	.675	.361	.945	.831	.000	.963	.971

PRECISION
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N/S: Kenmore Street
E/W: Commonwealth Avenue EB (Rte 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 W
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	6	3	0	10
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4	0	12
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	10	0	0	11
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	9	5	0	14
Total	0	0	0	0	0	0	0	0	2	0	0	0	0	33	12	0	47
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	16	4	0	20
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	3	11	1	0	16
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4	0	12
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1	0	15
Total	0	0	0	0	0	0	0	0	0	1	0	0	3	49	10	0	63
Grand Total	0	0	0	0	0	0	0	0	2	1	0	0	3	82	22	0	110
Apprch %	0	0	0	0	0	0	0	0	66.7	33.3	0	0	2.8	76.6	20.6	0	
Total %	0	0	0	0	0	0	0	0	1.8	0.9	0	0	2.7	74.5	20	0	

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**16**	**4**	0	**20**	**20**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**3**	11	1	0	15	16
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4	0	12	12
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1	0	15	15
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	49	10	0	62	63
% App. Total	0	0	0	0		0	0	0	0		0	100	0	0		4.8	79	16.1	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250	.766	.625	.000	.775	.788

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N/S: Kenmore Street
E/W: Commonwealth Avenue EB (Rte 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 W
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	9	0	0	0	13	0	0	0	32	0	19	1	3	77
07:15 AM	0	0	0	4	0	0	0	3	0	0	0	23	0	16	0	25	71
07:30 AM	0	0	0	6	0	0	0	5	1	0	0	37	0	34	1	26	110
07:45 AM	0	0	0	3	0	0	0	1	1	0	0	31	0	31	1	15	83
Total	0	0	0	22	0	0	0	22	2	0	0	123	0	100	3	69	341
08:00 AM	0	0	0	3	0	0	0	9	1	0	0	48	0	31	0	16	108
08:15 AM	0	0	0	1	0	0	0	8	0	0	0	50	0	50	0	19	128
08:30 AM	0	0	0	2	0	0	0	4	0	0	0	50	0	55	0	33	144
08:45 AM	0	0	0	4	0	0	0	8	0	0	0	55	0	40	1	16	124
Total	0	0	0	10	0	0	0	29	1	0	0	203	0	176	1	84	504
Grand Total	0	0	0	32	0	0	0	51	3	0	0	326	0	276	4	153	845
Apprch %	0	0	0	100	0	0	0	100	0.9	0	0	99.1	0	63.7	0.9	35.3	
Total %	0	0	0	3.8	0	0	0	6	0.4	0	0	38.6	0	32.7	0.5	18.1	

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	3	3	0	0	0	**9**	**9**	**1**	0	0	48	49	0	31	0	16	47	108
08:15 AM	0	0	0	1	1	0	0	0	8	8	0	0	0	50	50	0	50	0	19	69	128
08:30 AM	0	0	0	2	2	0	0	0	4	4	0	0	0	50	50	0	**55**	0	**33**	**88**	**144**
08:45 AM	0	0	0	**4**	**4**	0	0	0	8	8	0	0	0	**55**	**55**	0	40	**1**	16	57	124
Total Volume	0	0	0	10	10	0	0	0	29	29	1	0	0	203	204	0	176	1	84	261	504
% App. Total	0	0	0	100		0	0	0	100		0.5	0	0	99.5		0	67.4	0.4	32.2		
PHF	.000	.000	.000	.625	.625	.000	.000	.000	.806	.806	.250	.000	.000	.923	.927	.000	.800	.250	.636	.741	.875

N/S: Kenmore Street
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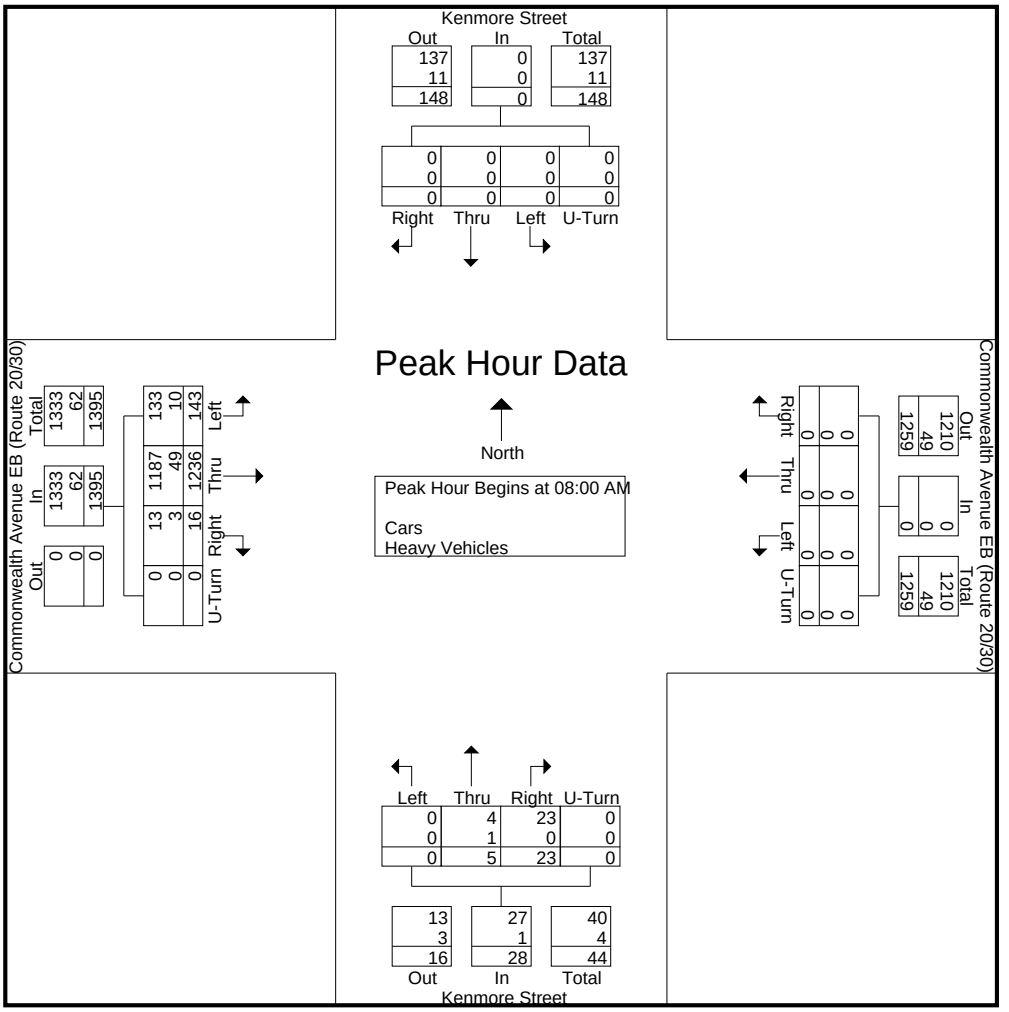
File Name : 122828 W
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	1	**330**	25	0	356	362
08:15 AM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	**12**	313	36	0	**361**	**366**
08:30 AM	0	0	0	0	0	0	0	0	0	0	**7**	**3**	0	0	**10**	2	305	**44**	0	351	361
08:45 AM	0	0	0	0	0	0	0	0	0	0	6	1	0	0	7	1	288	38	0	327	334
Total Volume	0	0	0	0	0	0	0	0	0	0	23	5	0	0	28	16	1236	143	0	1395	1423
% App. Total	0	0	0	0		0	0	0	0		82.1	17.9	0	0		1.1	88.6	10.3	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.821	.417	.000	.000	.700	.333	.936	.813	.000	.966	.972
Cars	0	0	0	0	0	0	0	0	0	0	23	4	0	0	27	13	1187				
% Cars	0	0	0	0	0	0	0	0	0	0	100	80.0	0	0	96.4	81.3	96.0	93.0	0	95.6	95.6
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	49	10	0	62	63
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	20.0	0	0	3.6	18.8	4.0	7.0	0	4.4	4.4



N/S: Kenmore Street
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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

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File Name : 122828 WW
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	0	0	0	11	7	0	0	4	271	28	0	321
12:15 PM	0	0	0	0	0	0	0	0	6	5	0	0	5	246	29	0	291
12:30 PM	0	0	0	0	0	0	0	0	13	3	0	0	5	270	31	0	322
12:45 PM	0	0	0	0	0	0	0	0	8	2	0	0	4	254	22	0	290
Total	0	0	0	0	0	0	0	0	38	17	0	0	18	1041	110	0	1224
01:00 PM	0	0	0	0	0	0	0	0	10	7	0	0	3	240	31	0	291
01:15 PM	0	0	0	0	0	0	0	0	10	3	0	0	4	229	18	0	264
01:30 PM	0	0	0	0	0	0	0	0	12	4	0	0	3	230	28	0	277
01:45 PM	0	0	0	0	0	0	0	0	12	6	0	0	0	274	25	0	317
Total	0	0	0	0	0	0	0	0	44	20	0	0	10	973	102	0	1149
Grand Total	0	0	0	0	0	0	0	0	82	37	0	0	28	2014	212	0	2373
Apprch %	0	0	0	0	0	0	0	0	68.9	31.1	0	0	1.2	89.4	9.4	0	
Total %	0	0	0	0	0	0	0	0	3.5	1.6	0	0	1.2	84.9	8.9	0	
Cars	0	0	0	0	0	0	0	0	74	34	0	0	26	1893	197	0	2224
% Cars	0	0	0	0	0	0	0	0	90.2	91.9	0	0	92.9	94	92.9	0	93.7
Heavy Vehicles	0	0	0	0	0	0	0	0	8	3	0	0	2	121	15	0	149
% Heavy Vehicles	0	0	0	0	0	0	0	0	9.8	8.1	0	0	7.1	6	7.1	0	6.3

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	0	0	0	0	0	11	**7**	0	0	**18**	4	**271**	28	0	303	321
12:15 PM	0	0	0	0	0	0	0	0	0	0	6	5	0	0	11	**5**	246	29	0	280	291
12:30 PM	0	0	0	0	0	0	0	0	0	0	**13**	3	0	0	16	5	270	**31**	0	**306**	**322**
12:45 PM	0	0	0	0	0	0	0	0	0	0	8	2	0	0	10	4	254	22	0	280	290
Total Volume	0	0	0	0	0	0	0	0	0	0	38	17	0	0	55	18	1041	110	0	1169	1224
% App. Total	0	0	0	0		0	0	0	0		69.1	30.9	0	0		1.5	89.1	9.4	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.731	.607	.000	.000	.764	.900	.960	.887	.000	.955	.950
Cars	0	0	0	0	0	0	0	0	0	0	36	16	0	0	52	17	975	101	0	1093	1145
% Cars	0	0	0	0	0	0	0	0	0	0	94.7	94.1	0	0	94.5	94.4	93.7	91.8	0	93.5	93.5
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	5.3	5.9	0	0	5.5	5.6	6.3	8.2	0	6.5	6.5

N/S: Kenmore Street
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Page No : 1

Groups Printed- Cars

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	0	0	0	11	7	0	0	4	255	25	0	302
12:15 PM	0	0	0	0	0	0	0	0	6	5	0	0	4	232	27	0	274
12:30 PM	0	0	0	0	0	0	0	0	11	3	0	0	5	253	28	0	300
12:45 PM	0	0	0	0	0	0	0	0	8	1	0	0	4	235	21	0	269
Total	0	0	0	0	0	0	0	0	36	16	0	0	17	975	101	0	1145
01:00 PM	0	0	0	0	0	0	0	0	8	6	0	0	3	220	29	0	266
01:15 PM	0	0	0	0	0	0	0	0	9	3	0	0	3	220	18	0	253
01:30 PM	0	0	0	0	0	0	0	0	9	4	0	0	3	215	24	0	255
01:45 PM	0	0	0	0	0	0	0	0	12	5	0	0	0	263	25	0	305
Total	0	0	0	0	0	0	0	0	38	18	0	0	9	918	96	0	1079
Grand Total	0	0	0	0	0	0	0	0	74	34	0	0	26	1893	197	0	2224
Apprch %	0	0	0	0	0	0	0	0	68.5	31.5	0	0	1.2	89.5	9.3	0	
Total %	0	0	0	0	0	0	0	0	3.3	1.5	0	0	1.2	85.1	8.9	0	

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	0	0	0	0	0	**11**	**7**	0	0	**18**	4	**255**	25	0	284	**302**
12:15 PM	0	0	0	0	0	0	0	0	0	0	6	5	0	0	11	4	232	27	0	263	274
12:30 PM	0	0	0	0	0	0	0	0	0	0	11	3	0	0	14	**5**	253	**28**	0	**286**	300
12:45 PM	0	0	0	0	0	0	0	0	0	0	8	1	0	0	9	4	235	21	0	260	269
Total Volume	0	0	0	0	0	0	0	0	0	0	36	16	0	0	52	17	975	101	0	1093	1145
% App. Total	0	0	0	0		0	0	0	0		69.2	30.8	0	0		1.6	89.2	9.2	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.818	.571	.000	.000	.722	.850	.956	.902	.000	.955	.948

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Kenmore Street
E/W: Commonwealth Avenue EB (Rte 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 WW
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Heavy Vehicles

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	16	3	0	19
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	14	2	0	17
12:30 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	17	3	0	22
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	19	1	0	21
Total	0	0	0	0	0	0	0	0	2	1	0	0	1	66	9	0	79
01:00 PM	0	0	0	0	0	0	0	0	2	1	0	0	0	20	2	0	25
01:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	9	0	0	11
01:30 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	15	4	0	22
01:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	11	0	0	12
Total	0	0	0	0	0	0	0	0	6	2	0	0	1	55	6	0	70
Grand Total	0	0	0	0	0	0	0	0	8	3	0	0	2	121	15	0	149
Apprch %	0	0	0	0	0	0	0	0	72.7	27.3	0	0	1.4	87.7	10.9	0	
Total %	0	0	0	0	0	0	0	0	5.4	2	0	0	1.3	81.2	10.1	0	

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	14	2	0	17	17
12:30 PM	0	0	0	0	0	0	0	0	0	0	**2**	0	0	0	2	0	17	**3**	0	20	22
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	1	0	19	1	0	20	21
01:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	**3**	0	**20**	2	0	**22**	**25**
Total Volume	0	0	0	0	0	0	0	0	0	0	4	2	0	0	6	1	70	8	0	79	85
% App. Total	0	0	0	0		0	0	0	0		66.7	33.3	0	0		1.3	88.6	10.1	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.500	.250	.875	.667	.000	.898	.850

PRECISION
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N/S: Kenmore Street
E/W: Commonwealth Avenue EB (Rte 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 WW
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
12:00 PM	0	0	0	10	0	0	0	26	0	1	0	72	0	10	0	19	138
12:15 PM	0	0	0	14	0	0	0	26	0	0	0	85	0	16	0	32	173
12:30 PM	0	0	0	2	0	0	0	15	0	0	0	106	1	11	0	45	180
12:45 PM	0	0	0	4	0	0	0	31	0	0	0	89	0	9	0	19	152
Total	0	0	0	30	0	0	0	98	0	1	0	352	1	46	0	115	643
01:00 PM	0	0	0	5	0	0	0	20	0	0	0	81	0	17	0	30	153
01:15 PM	0	0	0	9	0	0	0	17	1	0	0	99	0	16	0	34	176
01:30 PM	0	0	0	7	0	0	0	11	0	0	0	106	0	14	0	28	166
01:45 PM	0	0	0	4	0	0	0	16	0	0	0	93	0	10	0	26	149
Total	0	0	0	25	0	0	0	64	1	0	0	379	0	57	0	118	644
Grand Total	0	0	0	55	0	0	0	162	1	1	0	731	1	103	0	233	1287
Apprch %	0	0	0	100	0	0	0	100	0.1	0.1	0	99.7	0.3	30.6	0	69.1	
Total %	0	0	0	4.3	0	0	0	12.6	0.1	0.1	0	56.8	0.1	8	0	18.1	

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	0	0	0	2	2	0	0	0	15	15	0	0	0	**106**	**106**	**1**	11	0	**45**	**57**	**180**
12:45 PM	0	0	0	4	4	0	0	0	**31**	**31**	0	0	0	89	89	0	9	0	19	28	152
01:00 PM	0	0	0	5	5	0	0	0	20	20	0	0	0	81	81	0	**17**	0	30	47	153
01:15 PM	0	0	0	**9**	**9**	0	0	0	17	17	**1**	0	0	99	100	0	16	0	34	50	176
Total Volume	0	0	0	20	20	0	0	0	83	83	1	0	0	375	376	1	53	0	128	182	661
% App. Total	0	0	0	100		0	0	0	100		0.3	0	0	99.7		0.5	29.1	0	70.3		
PHF	.000	.000	.000	.556	.556	.000	.000	.000	.669	.669	.250	.000	.000	.884	.887	.250	.779	.000	.711	.798	.918

N/S: Kenmore Street
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City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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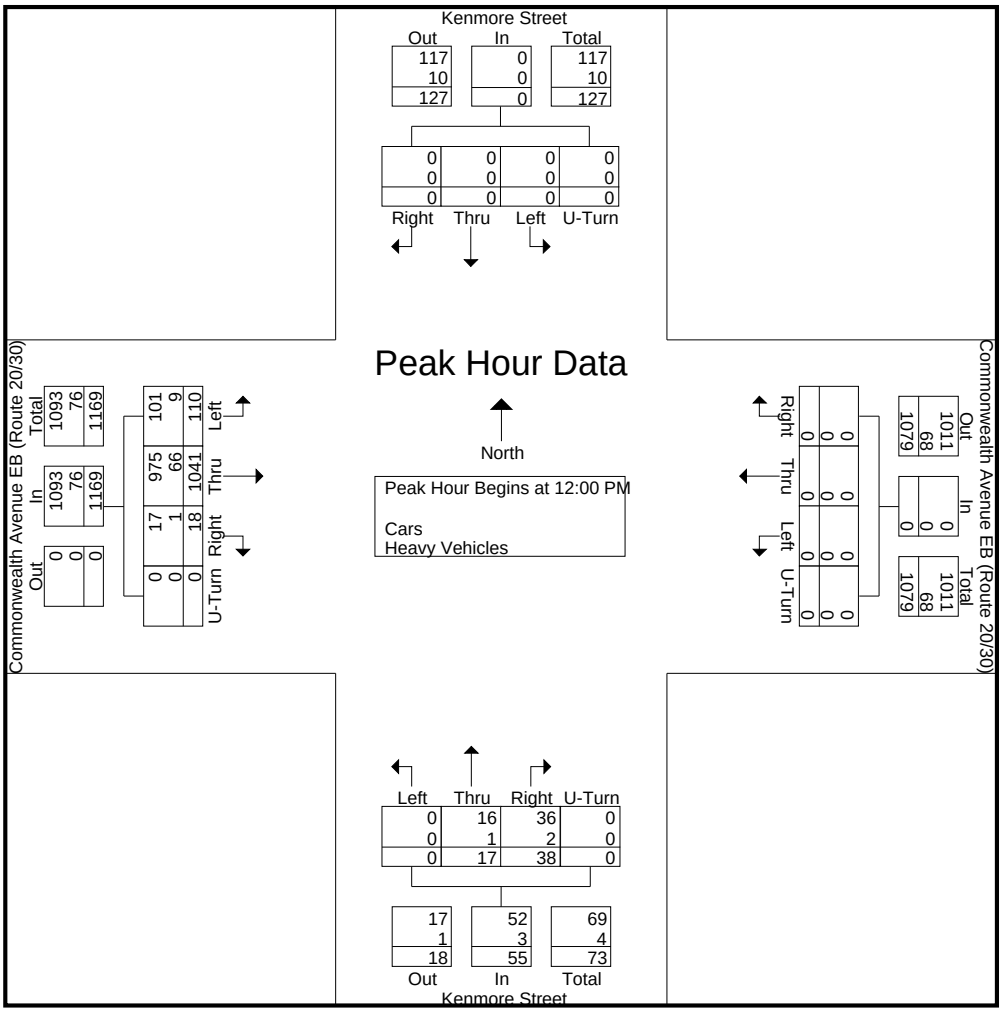
File Name : 122828 WW
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	0	0	0	0	0	11	**7**	0	0	**18**	4	**271**	28	0	303	321
12:15 PM	0	0	0	0	0	0	0	0	0	0	6	5	0	0	11	**5**	246	29	0	280	291
12:30 PM	0	0	0	0	0	0	0	0	0	0	**13**	3	0	0	16	5	270	**31**	0	**306**	**322**
12:45 PM	0	0	0	0	0	0	0	0	0	0	8	2	0	0	10	4	254	22	0	280	290
Total Volume	0	0	0	0	0	0	0	0	0	0	38	17	0	0	55	18	1041	110	0	1169	1224
% App. Total	0	0	0	0		0	0	0	0		69.1	30.9	0	0		1.5	89.1	9.4	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.731	.607	.000	.000	.764	.900	.960	.887	.000	.955	.950
Cars	0	0	0	0	0	0	0	0	0	0	36	16	0	0	52	17	975	101	0	1093	1145
% Cars	0	0	0	0	0	0	0	0	0	0	94.7	94.1	0	0	94.5	94.4	93.7	91.8	0	93.5	93.5
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	5.3	5.9	0	0	5.5	5.6	6.3	8.2	0	6.5	6.5



N/S: Kenmore Street
E/W: Commonwealth Avenue EB (Rte 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

File Name : 122828 WWW
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	14	1	0	0	1	310	14	0	340
04:15 PM	0	0	0	0	0	0	0	0	8	2	0	0	5	329	22	0	366
04:30 PM	0	0	0	0	0	0	0	0	10	4	0	0	4	345	30	0	393
04:45 PM	0	0	0	0	0	0	0	0	13	1	0	0	4	336	33	0	387
Total	0	0	0	0	0	0	0	0	45	8	0	0	14	1320	99	0	1486
05:00 PM	0	0	0	0	0	0	0	0	12	3	0	1	1	379	25	0	421
05:15 PM	0	0	0	0	0	0	0	0	13	5	0	0	1	398	26	0	443
05:30 PM	0	0	0	0	0	0	0	0	11	7	0	0	4	351	35	0	408
05:45 PM	0	0	0	0	0	0	0	0	15	3	0	0	5	314	37	0	374
Total	0	0	0	0	0	0	0	0	51	18	0	1	11	1442	123	0	1646
Grand Total	0	0	0	0	0	0	0	0	96	26	0	1	25	2762	222	0	3132
Apprch %	0	0	0	0	0	0	0	0	78	21.1	0	0.8	0.8	91.8	7.4	0	
Total %	0	0	0	0	0	0	0	0	3.1	0.8	0	0	0.8	88.2	7.1	0	
Cars	0	0	0	0	0	0	0	0	94	25	0	1	24	2692	213	0	3049
% Cars	0	0	0	0	0	0	0	0	97.9	96.2	0	100	96	97.5	95.9	0	97.3
Heavy Vehicles	0	0	0	0	0	0	0	0	2	1	0	0	1	70	9	0	83
% Heavy Vehicles	0	0	0	0	0	0	0	0	2.1	3.8	0	0	4	2.5	4.1	0	2.7

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	0	0	0	0	**13**	1	0	0	14	**4**	336	33	0	373	387
05:00 PM	0	0	0	0	0	0	0	0	0	0	12	3	0	**1**	16	1	379	25	0	405	421
05:15 PM	0	0	0	0	0	0	0	0	0	0	13	5	0	0	**18**	1	**398**	26	0	**425**	**443**
05:30 PM	0	0	0	0	0	0	0	0	0	0	11	**7**	0	0	18	4	351	**35**	0	390	408
Total Volume	0	0	0	0	0	0	0	0	0	0	49	16	0	1	66	10	1464	119	0	1593	1659
% App. Total	0	0	0	0		0	0	0	0		74.2	24.2	0	1.5		0.6	91.9	7.5	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.942	.571	.000	.250	.917	.625	.920	.850	.000	.937	.936
Cars	0	0	0	0	0	0	0	0	0	0	47	16	0	1	64	9	1429				
% Cars	0	0	0	0	0	0	0	0	0	0	95.9	100	0	100	97.0	90.0	97.6	96.6	0	97.5	97.5
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	35	4	0	40	42
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	4.1	0	0	0	3.0	10.0	2.4	3.4	0	2.5	2.5

N/S: Kenmore Street
E/W: Commonwealth Avenue EB (Rte 20/30)
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File Name : 122828 WWW
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Cars

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	14	1	0	0	1	303	13	0	332
04:15 PM	0	0	0	0	0	0	0	0	8	2	0	0	5	317	21	0	353
04:30 PM	0	0	0	0	0	0	0	0	10	4	0	0	4	337	29	0	384
04:45 PM	0	0	0	0	0	0	0	0	12	1	0	0	3	324	33	0	373
Total	0	0	0	0	0	0	0	0	44	8	0	0	13	1281	96	0	1442
05:00 PM	0	0	0	0	0	0	0	0	12	3	0	1	1	370	23	0	410
05:15 PM	0	0	0	0	0	0	0	0	13	5	0	0	1	393	26	0	438
05:30 PM	0	0	0	0	0	0	0	0	10	7	0	0	4	342	33	0	396
05:45 PM	0	0	0	0	0	0	0	0	15	2	0	0	5	306	35	0	363
Total	0	0	0	0	0	0	0	0	50	17	0	1	11	1411	117	0	1607
Grand Total	0	0	0	0	0	0	0	0	94	25	0	1	24	2692	213	0	3049
Apprch %	0	0	0	0	0	0	0	0	78.3	20.8	0	0.8	0.8	91.9	7.3	0	
Total %	0	0	0	0	0	0	0	0	3.1	0.8	0	0	0.8	88.3	7	0	

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	0	0	0	0	12	1	0	0	13	3	324	**33**	0	360	373
05:00 PM	0	0	0	0	0	0	0	0	0	0	12	3	0	**1**	16	1	370	23	0	394	410
05:15 PM	0	0	0	0	0	0	0	0	0	0	**13**	5	0	0	**18**	1	**393**	26	0	**420**	**438**
05:30 PM	0	0	0	0	0	0	0	0	0	0	10	**7**	0	0	17	**4**	342	33	0	379	396
Total Volume	0	0	0	0	0	0	0	0	0	0	47	16	0	1	64	9	1429	115	0	1553	1617
% App. Total	0	0	0	0		0	0	0	0		73.4	25	0	1.6		0.6	92	7.4	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.904	.571	.000	.250	.889	.563	.909	.871	.000	.924	.923

PRECISION
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E/W: Commonwealth Avenue EB (Rte 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 WWW
Site Code : 127-4220
Start Date : 3/20/2012

Groups Printed- Heavy Vehicles

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	12	1	0	13
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	9
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	12	0	0	14
Total	0	0	0	0	0	0	0	0	1	0	0	0	1	39	3	0	44
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	9	2	0	11
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	9	2	0	12
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	8	2	0	11
Total	0	0	0	0	0	0	0	0	1	1	0	0	0	31	6	0	39
Grand Total	0	0	0	0	0	0	0	0	2	1	0	0	1	70	9	0	83
Apprch %	0	0	0	0	0	0	0	0	66.7	33.3	0	0	1.2	87.5	11.2	0	
Total %	0	0	0	0	0	0	0	0	2.4	1.2	0	0	1.2	84.3	10.8	0	

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**12**	1	0	**13**	13
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	9	9
04:45 PM	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	**1**	**1**	12	0	0	13	**14**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	**2**	0	11	11
Total Volume	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	41	4	0	46	47
% App. Total	0	0	0	0		0	0	0	0		100	0	0	0		2.2	89.1	8.7	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.250	.854	.500	.000	.885	.839

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Kenmore Street
E/W: Commonwealth Avenue EB (Rte 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

File Name : 122828 WWW
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

Groups Printed- Peds and Bicycles

	Kenmore Street From North				Commonwealth Avenue EB (Route 20/30) From East				Kenmore Street From South				Commonwealth Avenue EB (Route 20/30) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	7	0	0	0	14	0	1	0	53	0	10	1	18	104
04:15 PM	0	0	0	4	0	0	0	15	0	0	0	59	0	21	0	22	121
04:30 PM	0	0	0	4	0	0	0	15	1	0	0	69	0	24	0	20	133
04:45 PM	0	0	0	7	0	0	0	18	1	1	0	74	0	17	0	50	168
Total	0	0	0	22	0	0	0	62	2	2	0	255	0	72	1	110	526
05:00 PM	0	0	0	4	0	0	0	17	0	0	0	87	0	23	0	44	175
05:15 PM	0	0	0	2	0	0	0	17	3	0	0	92	1	19	0	60	194
05:30 PM	0	0	0	5	0	0	0	31	0	0	0	103	0	23	0	47	209
05:45 PM	0	0	0	4	0	0	0	23	2	0	0	90	0	20	0	54	193
Total	0	0	0	15	0	0	0	88	5	0	0	372	1	85	0	205	771
Grand Total	0	0	0	37	0	0	0	150	7	2	0	627	1	157	1	315	1297
Apprch %	0	0	0	100	0	0	0	100	1.1	0.3	0	98.6	0.2	33.1	0.2	66.5	
Total %	0	0	0	2.9	0	0	0	11.6	0.5	0.2	0	48.3	0.1	12.1	0.1	24.3	

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	4	4	0	0	0	17	17	0	0	0	87	87	0	**23**	0	44	67	175
05:15 PM	0	0	0	2	2	0	0	0	17	17	**3**	0	0	92	95	**1**	19	0	**60**	**80**	194
05:30 PM	0	0	0	**5**	**5**	0	0	0	**31**	**31**	0	0	0	**103**	**103**	0	23	0	47	70	**209**
05:45 PM	0	0	0	4	4	0	0	0	23	23	2	0	0	90	92	0	20	0	54	74	193
Total Volume	0	0	0	15	15	0	0	0	88	88	5	0	0	372	377	1	85	0	205	291	771
% App. Total	0	0	0	100		0	0	0	100		1.3	0	0	98.7		0.3	29.2	0	70.4		
PHF	.000	.000	.000	.750	.750	.000	.000	.000	.710	.710	.417	.000	.000	.903	.915	.250	.924	.000	.854	.909	.922

N/S: Kenmore Street
E/W: Commonwealth Avenue EB (Rte 20/30)
City, State: Boston, MA
Client: Tetra Tech Rizzo/ M. Hall

PRECISION DATA INDUSTRIES, LLC
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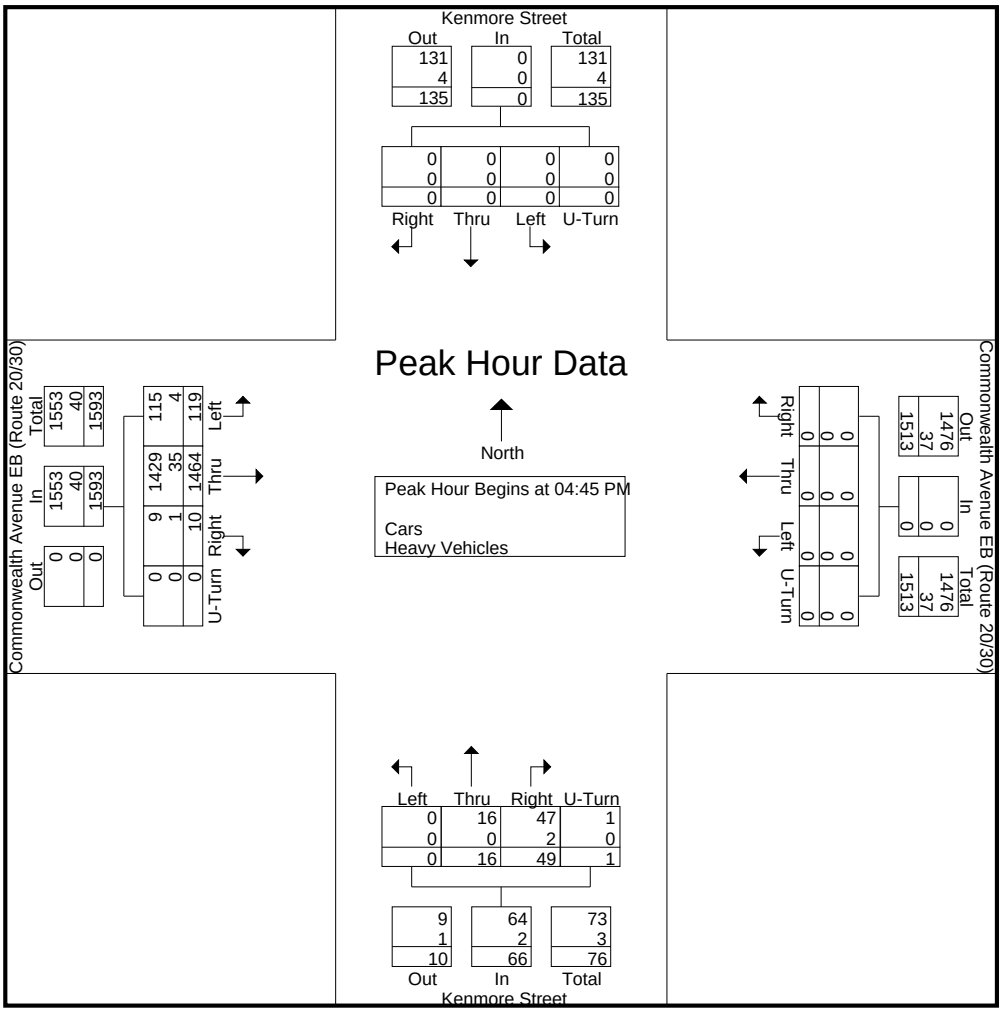
File Name : 122828 WWW
Site Code : 127-4220
Start Date : 3/20/2012
Page No : 1

	Kenmore Street From North					Commonwealth Avenue EB (Route 20/30) From East					Kenmore Street From South					Commonwealth Avenue EB (Route 20/30) From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	0	0	0	0	**13**	1	0	0	14	**4**	336	33	0	373	387
05:00 PM	0	0	0	0	0	0	0	0	0	0	12	3	0	**1**	16	1	379	25	0	405	421
05:15 PM	0	0	0	0	0	0	0	0	0	0	13	5	0	0	**18**	1	**398**	26	0	**425**	**443**
05:30 PM	0	0	0	0	0	0	0	0	0	0	11	**7**	0	0	18	4	351	**35**	0	390	408
Total Volume	0	0	0	0	0	0	0	0	0	0	49	16	0	1	66	10	1464	119	0	1593	1659
% App. Total	0	0	0	0		0	0	0	0		74.2	24.2	0	1.5		0.6	91.9	7.5	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.942	.571	.000	.250	.917	.625	.920	.850	.000	.937	.936
Cars	0	0	0	0	0	0	0	0	0	0	47	16	0	1	64	9	1429				
% Cars	0	0	0	0	0	0	0	0	0	0	95.9	100	0	100	97.0	90.0	97.6	96.6	0	97.5	97.5
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	35	4	0	40	42
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	4.1	0	0	0	3.0	10.0	2.4	3.4	0	2.5	2.5



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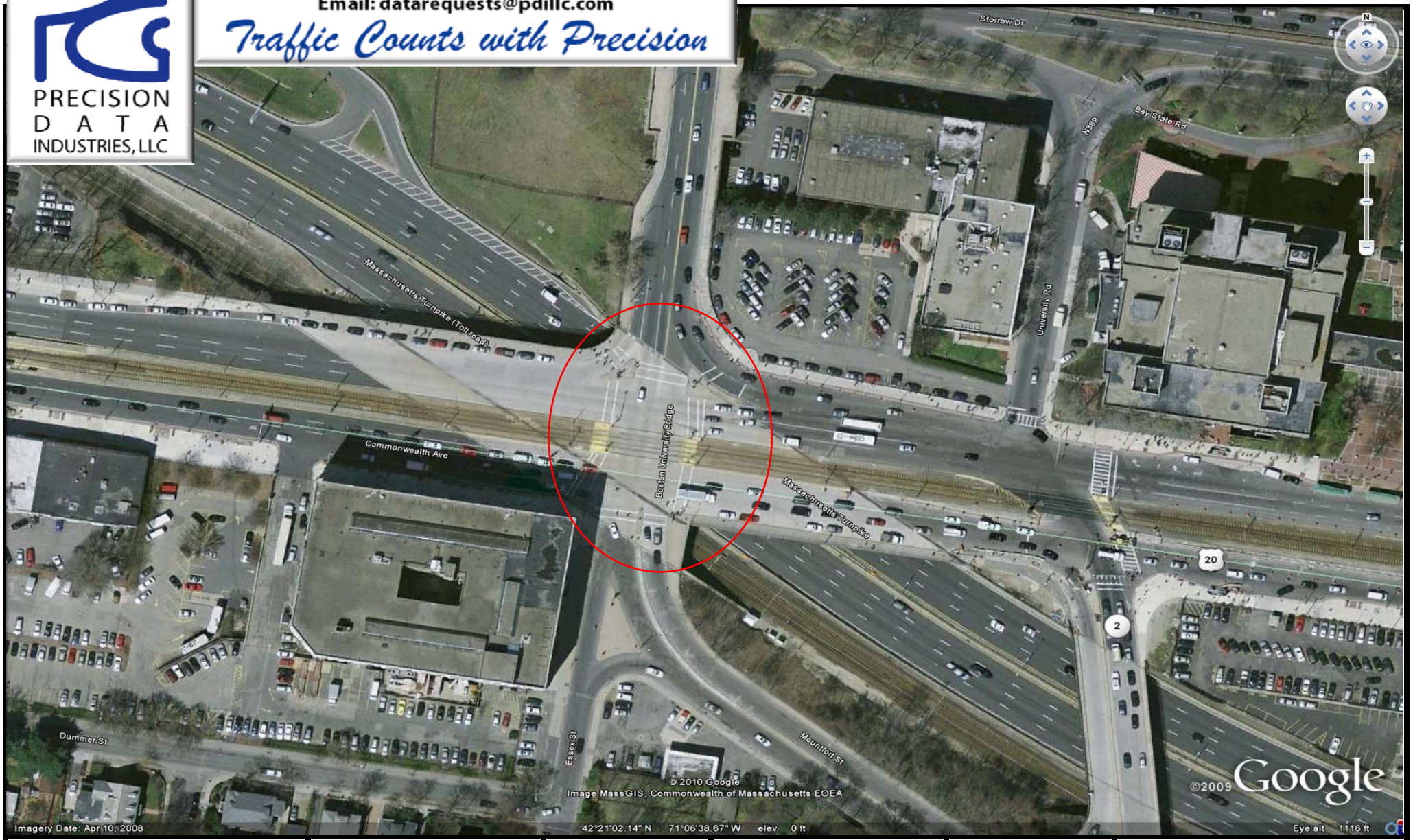
Traffic Counts with Precision



Client:	Engineer:	Site Code:	Date:	PDI Job Number:	City, State:
S. Wood	Tetra Tech Rizzo	1275460006	Tuesday 4/13/2010	102152	Boston, MA

PRECISION
D A T A
INDUSTRIES, LLC
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N/S: BU Bridge/ Exeter Street
E/W: Commonwealth Avenue
City, State: Boston, MA
Client: Tetra Tech Rizzo/ S. Wood

File Name : 102152 A
Site Code : 5460006
Start Date : 4/13/2010

Groups Printed- Bicycles

	BU Bridge From North				Commonwealth Avenue From East			Exeter Street From South			Commonwealth Avenue From West			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	6	1	0	2	2	0	0	1	0	1	10	2	26
07:15 AM	3	10	0	0	1	2	0	0	0	0	0	15	1	32
07:30 AM	0	15	0	0	4	2	0	0	2	0	0	18	7	48
07:45 AM	1	24	1	1	3	3	0	0	0	0	2	37	4	76
Total	5	55	2	1	10	9	0	0	3	0	3	80	14	182
08:00 AM	2	16	1	1	10	1	0	0	5	0	6	30	3	75
08:15 AM	0	15	3	5	5	0	0	0	4	0	2	32	5	71
08:30 AM	1	22	0	0	11	4	0	1	6	0	3	32	1	81
08:45 AM	4	31	0	1	8	1	0	0	1	0	7	51	9	113
Total	7	84	4	7	34	6	0	1	16	0	18	145	18	340
09:00 AM	3	20	2	2	4	5	0	0	2	0	6	18	3	65
09:15 AM	4	21	2	1	3	4	0	0	0	0	0	49	8	92
09:30 AM	4	19	2	4	3	2	0	1	4	0	0	46	3	88
09:45 AM	5	16	8	2	8	8	0	0	11	0	0	48	2	108
Total	16	76	14	9	18	19	0	1	17	0	6	161	16	353
10:00 AM	1	16	2	2	4	7	0	0	4	0	0	28	2	66
10:15 AM	1	12	1	0	1	10	0	0	3	0	4	31	3	66
10:30 AM	1	14	1	3	3	4	0	2	4	0	5	36	5	78
10:45 AM	1	12	2	1	3	15	0	0	1	0	1	68	0	104
Total	4	54	6	6	11	36	0	2	12	0	10	163	10	314
11:00 AM	0	11	1	0	2	9	0	0	1	0	1	30	0	55
11:15 AM	1	4	1	1	7	11	0	0	0	0	5	18	0	48
11:30 AM	0	11	3	0	5	9	0	0	0	0	1	20	1	50
11:45 AM	1	4	0	1	2	14	0	0	2	0	0	23	1	48
Total	2	30	5	2	16	43	0	0	3	0	7	91	2	201
12:00 PM	0	6	1	1	2	10	0	0	1	0	1	23	1	46
12:15 PM	1	5	0	1	5	20	0	0	1	0	1	13	0	47
12:30 PM	0	3	2	0	4	17	0	3	6	0	2	22	1	60
12:45 PM	1	1	0	1	4	7	0	0	4	0	2	21	2	43
Total	2	15	3	3	15	54	0	3	12	0	6	79	4	196
01:00 PM	0	3	0	1	5	17	2	0	2	0	2	18	0	50
01:15 PM	0	2	0	0	4	13	0	0	1	0	2	15	0	37
01:30 PM	1	3	1	0	3	21	0	0	0	0	4	18	1	52
01:45 PM	1	4	0	0	2	25	0	0	3	0	2	38	1	76
Total	2	12	1	1	14	76	2	0	6	0	10	89	2	215
02:00 PM	0	3	0	0	5	23	0	0	1	0	1	20	0	53
02:15 PM	0	1	1	1	4	11	0	0	1	0	2	11	2	34
02:30 PM	1	3	1	2	4	12	0	0	1	0	2	11	1	38
02:45 PM	5	2	0	0	5	20	0	0	0	0	2	12	2	48
Total	6	9	2	3	18	66	0	0	3	0	7	54	5	173
03:00 PM	0	2	0	3	8	25	0	0	4	0	0	15	2	59
03:15 PM	1	3	0	2	10	37	0	0	4	0	1	20	2	80
03:30 PM	1	3	0	0	7	23	0	0	0	0	1	17	1	53
03:45 PM	2	4	0	0	14	34	0	0	0	0	0	20	1	75
Total	4	12	0	5	39	119	0	0	8	0	2	72	6	267
04:00 PM	2	2	0	0	10	37	0	2	2	0	4	23	1	83

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N/S: BU Bridge/ Exeter Street
E/W: Commonwealth Avenue
City, State: Boston, MA
Client: Tetra Tech Rizzo/ S. Wood

File Name : 102152 A
Site Code : 5460006
Start Date : 4/13/2010

Groups Printed- Bicycles

	BU Bridge From North				Commonwealth Avenue From East			Exeter Street From South			Commonwealth Avenue From West			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:15 PM	2	3	2	0	6	26	0	0	4	0	1	15	5	64
04:30 PM	3	7	0	1	17	28	0	0	4	0	0	14	0	74
04:45 PM	4	16	1	1	19	35	1	0	2	0	4	15	4	102
Total	11	28	3	2	52	126	1	2	12	0	9	67	10	323
05:00 PM	3	11	0	1	19	53	0	0	3	0	5	25	0	120
05:15 PM	10	15	0	0	28	55	0	1	2	0	2	12	0	125
05:30 PM	2	21	0	0	18	53	0	0	4	0	3	16	1	118
05:45 PM	4	23	0	0	15	34	0	0	3	0	2	23	0	104
Total	19	70	0	1	80	195	0	1	12	0	12	76	1	467
Grand Total	78	445	40	40	307	749	3	10	104	0	90	1077	88	3031
Apprch %	12.9	73.8	6.6	6.6	29	70.7	0.3	8.8	91.2	0	7.2	85.8	7	
Total %	2.6	14.7	1.3	1.3	10.1	24.7	0.1	0.3	3.4	0	3	35.5	2.9	

	BU Bridge From North					Commonwealth Avenue From East				Exeter Street From South				Commonwealth Avenue From West				
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 05:00 PM																		
05:00 PM	3	11	0	**1**	15	19	53	0	72	0	3	0	3	**5**	**25**	0	**30**	120
05:15 PM	**10**	15	0	0	25	**28**	**55**	0	**83**	**1**								**125**
05:30 PM	2	21	0	0	23	18	53	0	71	0	**4**	0	**4**	3	16	**1**	20	118
05:45 PM	4	**23**	0	0	**27**	15	34	0	49	0	3	0	3	2	23	0	25	104
Total Volume	19	70	0	1	90	80	195	0	275	1	12	0	13	12	76	1	89	467
% App. Total	21.1	77.8	0	1.1		29.1	70.9	0		7.7	92.3	0		13.5	85.4	1.1		
PHF	.475	.761	.000	.250	.833	.714	.886	.000	.828	.250	.750	.000	.813	.600	.760	.250	.742	.934

PRECISION DATA INDUSTRIES, LLC
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N/S: BU Bridge/ Exeter Street
E/W: Commonwealth Avenue
City, State: Boston, MA
Client: Tetra Tech Rizzo/ S. Wood

File Name : 102152 A
Site Code : 5460006
Start Date : 4/13/2010
Page No : 1

Groups Printed- Bicycles in Crosswalks

	BU Bridge From North						Commonwealth Avenue From East		Exeter Street From South		Commonwealth Avenue From West		
Start Time	West X-Walk WB	West X-Walk EB	East X-Walk WB	East X-Walk EB	Main X-Walk WB	Main X-Walk EB	X-Walk NB	X-Walk SB	X-Walk WB	X-Walk EB	X-Walk NB	X-Walk SB	Int. Total
07:00 AM	0	1	1	4	2	4	0	0	0	0	2	0	14
07:15 AM	1	2	0	3	0	3	0	0	0	0	1	0	10
07:30 AM	1	2	1	6	1	8	0	0	0	0	1	1	21
07:45 AM	2	7	0	10	0	13	0	2	0	0	2	0	36
Total	4	12	2	23	3	28	0	2	0	0	6	1	81
08:00 AM	3	8	0	8	0	7	1	0	0	0	0	0	27
08:15 AM	4	5	0	12	1	13	2	0	0	1	4	0	42
08:30 AM	6	2	1	10	1	7	2	0	0	0	6	0	35
08:45 AM	1	1	1	6	1	7	0	2	0	1	4	3	27
Total	14	16	2	36	3	34	5	2	0	2	14	3	131
09:00 AM	3	4	3	8	5	10	0	1	0	0	3	0	37
09:15 AM	9	15	0	0	0	0	0	0	0	1	7	0	32
09:30 AM	2	6	3	3	4	5	0	0	0	0	2	0	25
09:45 AM	0	3	0	4	0	5	0	0	0	0	0	0	12
Total	14	28	6	15	9	20	0	1	0	1	12	0	106
10:00 AM	1	2	1	3	2	3	0	0	0	0	1	0	13
10:15 AM	1	1	0	3	1	3	0	0	0	0	1	0	10
10:30 AM	1	4	0	4	0	9	0	1	0	0	1	0	20
10:45 AM	1	2	0	7	0	6	0	0	0	0	1	0	17
Total	4	9	1	17	3	21	0	1	0	0	4	0	60
11:00 AM	0	0	1	3	1	3	0	0	0	0	0	0	8
11:15 AM	2	1	0	3	0	7	0	0	0	0	2	0	15
11:30 AM	0	1	3	1	2	2	0	1	0	0	0	0	10
11:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	2
Total	3	2	4	8	3	12	0	1	0	0	2	0	35
12:00 PM	0	1	1	2	1	1	0	0	0	1	0	0	7
12:15 PM	0	0	2	2	0	2	0	0	0	0	0	0	6
12:30 PM	0	6	1	2	1	3	0	0	0	0	0	0	13
12:45 PM	0	0	1	3	0	3	0	0	0	0	0	0	7
Total	0	7	5	9	2	9	0	0	0	1	0	0	33
01:00 PM	1	0	1	2	0	2	0	0	0	0	1	0	7
01:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	4
01:30 PM	0	3	0	3	0	3	0	0	0	0	0	0	9
01:45 PM	1	1	2	5	3	5	0	0	0	0	1	1	19
Total	2	6	3	12	3	10	0	0	0	0	2	1	39
02:00 PM	0	0	1	2	2	1	0	0	1	0	0	0	7
02:15 PM	0	1	2	1	2	2	0	0	2	0	0	0	10
02:30 PM	0	0	0	2	0	3	0	0	1	0	0	0	6
02:45 PM	0	2	3	3	3	4	0	0	0	1	0	0	16
Total	0	3	6	8	7	10	0	0	4	1	0	0	39
03:00 PM	1	1	3	1	5	2	1	0	1	0	1	0	16
03:15 PM	0	2	2	0	1	6	0	0	0	0	0	0	11
03:30 PM	0	1	8	0	6	1	0	0	0	0	0	0	16
03:45 PM	0	1	7	3	9	3	0	0	0	0	0	0	23
Total	1	5	20	4	21	12	1	0	1	0	1	0	66

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N/S: BU Bridge/ Exeter Street
E/W: Commonwealth Avenue
City, State: Boston, MA
Client: Tetra Tech Rizzo/ S. Wood

File Name : 102152 A
Site Code : 5460006
Start Date : 4/13/2010

Groups Printed- Bicycles in Crosswalks

	BU Bridge From North						Commonwealth Avenue From East		Exeter Street From South		Commonwealth Avenue From West		
Start Time	West X-Walk WB	West X-Walk EB	East X-Walk WB	East X-Walk EB	Main X-Walk WB	Main X-Walk EB	X-Walk NB	X-Walk SB	X-Walk WB	X-Walk EB	X-Walk NB	X-Walk SB	Int. Total
04:00 PM	2	2	2	4	0	5	0	0	1	0	0	0	16
04:15 PM	0	2	2	2	2	1	0	0	0	0	0	0	9
04:30 PM	0	0	1	1	1	2	0	0	1	0	0	0	6
04:45 PM	1	4	5	4	6	5	0	0	1	1	1	0	28
Total	3	8	10	11	9	13	0	0	3	1	1	0	59
05:00 PM	0	0	10	3	10	4	0	0	1	1	0	0	29
05:15 PM	0	0	10	6	10	7	0	0	1	0	0	0	34
05:30 PM	0	2	6	3	9	2	0	0	2	0	0	0	24
05:45 PM	0	8	8	0	8	0	0	0	2	0	0	0	26
Total	0	10	34	12	37	13	0	0	6	1	0	0	113
Grand Total	45	106	93	155	100	182	6	7	14	7	42	5	762
Apprch %	6.6	15.6	13.7	22.8	14.7	26.7	46.2	53.8	66.7	33.3	89.4	10.6	
Total %	5.9	13.9	12.2	20.3	13.1	23.9	0.8	0.9	1.8	0.9	5.5	0.7	

	BU Bridge From North							Commonwealth Avenue From East			Exeter Street From South			Commonwealth Avenue From West			
Start Time	West X-Walk WB	West X-Walk EB	East X-Walk WB	East X-Walk EB	Main X-Walk WB	Main X-Walk EB	App. Total	X-Walk NB	X-Walk SB	App. Total	X-Walk WB	X-Walk EB	App. Total	X-Walk NB	X-Walk SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:15 AM																	
08:15 AM	4	**5**	0	**12**	1	**13**	**35**	**2**	0	**2**	0	**1**	**1**	4	0	4	**42**
08:30 AM	**6**	2	1	10	1	7	27	2	0	2	0	0	0	**6**	0	6	35
08:45 AM	1	1	1	6	1	7	17	0	**2**	2	0	1	1	4	**3**	**7**	27
09:00 AM	3	4	**3**	8	**5**	10	33	0	1	1	0	0	0	3	0	3	37
Total Volume	14	12	5	36	8	37	112	4	3	7	0	2	2	17	3	20	141
% App. Total	12.5	10.7	4.5	32.1	7.1	33		57.1	42.9		0	100		85	15		
PHF	.583	.600	.417	.750	.400	.712	.800	.500	.375	.875	.000	.500	.500	.708	.250	.714	.839

Source:

BETA Counts (2009)

PRECISION DATA INDUSTRIES, LLC
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Traffic Counts with Precision



Client:	Engineer:	Site Code:	Date:	PDI Job Number:	City, State:
BETA	J. Freudberg	TBA	Tues 11/17 thru Wed 11/18/09	92031	Boston, MA

Commonwealth Avenue (EB and WB)
west of Babcock Street
City, State: Boston, MA
Client: BETA / J. Freudberg

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

PDI File #: 92031 A volume
Site Code: TBA

Volume Report

Tuesday, November 17, 2009

	Eastbound				Westbound				Combined			
Time	**A.M.**		**P.M.**		**Time**	**A.M.**		**P.M.**		**Time**	**A.M.**		**P.M.**	
12:00	41		160		**12:00**	67		211		**12:00**	108		371	
12:15	60		163		**12:15**	74		231		**12:15**	134		394	
12:30	35		159		**12:30**	64		241		**12:30**	99		400	
12:45	36	172	157	639	**12:45**	65	270	218	901	**12:45**	101	442	375	1540
1:00	48		161		**1:00**	56		214		**1:00**	104		375	
1:15	32		162		**1:15**	37		240		**1:15**	69		402	
1:30	32		157		**1:30**	41		230		**1:30**	73		387	
1:45	28	140	165	645	**1:45**	41	175	231	915	**1:45**	69	315	396	1560
2:00	23		165		**2:00**	35		243		**2:00**	58		408	
2:15	24		157		**2:15**	37		223		**2:15**	61		380	
2:30	30		163		**2:30**	22		230		**2:30**	52		393	
2:45	16	93	158	643	**2:45**	19	113	239	935	**2:45**	35	206	397	1578
3:00	21		150		**3:00**	24		248		**3:00**	45		398	
3:15	10		180		**3:15**	23		240		**3:15**	33		420	
3:30	22		159		**3:30**	20		272		**3:30**	42		431	
3:45	19	72	155	644	**3:45**	31	98	269	1029	**3:45**	50	170	424	1673
4:00	20		169		**4:00**	22		278		**4:00**	42		447	
4:15	16		158		**4:15**	13		312		**4:15**	29		470	
4:30	9		149		**4:30**	28		294		**4:30**	37		443	
4:45	22	67	147	623	**4:45**	22	85	260	1144	**4:45**	44	152	407	1767
5:00	21		162		**5:00**	22		325		**5:00**	43		487	
5:15	31		120		**5:15**	43		309		**5:15**	74		429	
5:30	37		138		**5:30**	29		350		**5:30**	66		488	
5:45	43	132	164	584	**5:45**	39	133	322	1306	**5:45**	82	265	486	1890
6:00	40		165		**6:00**	44		301		**6:00**	84		466	
6:15	63		166		**6:15**	60		328		**6:15**	123		494	
6:30	95		160		**6:30**	73		323		**6:30**	168		483	
6:45	120	318	182	673	**6:45**	103	280	290	1242	**6:45**	223	598	472	1915
7:00	121		172		**7:00**	153		297		**7:00**	274		469	
7:15	154		160		**7:15**	143		245		**7:15**	297		405	
7:30	180		142		**7:30**	173		212		**7:30**	353		354	
7:45	206	661	157	631	**7:45**	203	672	213	967	**7:45**	409	1333	370	1598
8:00	187		130		**8:00**	211		234		**8:00**	398		364	
8:15	202		138		**8:15**	199		225		**8:15**	401		363	
8:30	233		138		**8:30**	203		208		**8:30**	436		346	
8:45	228	850	141	547	**8:45**	233	846	213	880	**8:45**	461	1696	354	1427
9:00	217		166		**9:00**	197		231		**9:00**	414		397	
9:15	191		121		**9:15**	201		196		**9:15**	392		317	
9:30	201		132		**9:30**	201		230		**9:30**	402		362	
9:45	165	774	112	531	**9:45**	160	759	161	818	**9:45**	325	1533	273	1349
10:00	138		111		**10:00**	188		159		**10:00**	326		270	
10:15	166		112		**10:15**	182		154		**10:15**	348		266	
10:30	163		91		**10:30**	193		163		**10:30**	356		254	
10:45	166	633	94	408	**10:45**	233	796	118	594	**10:45**	399	1429	212	1002
11:00	136		92		**11:00**	198		136		**11:00**	334		228	
11:15	159		86		**11:15**	205		131		**11:15**	364		217	
11:30	137		74		**11:30**	205		115		**11:30**	342		189	
11:45	171	603	71	323	**11:45**	243	851	98	480	**11:45**	414	1454	169	803
Total	**4515**		**6891**		**Total**	**5078**		**11211**		**Total**	**9593**		**18102**	
Percent	47.1%		38.1%		Percent	52.9%		61.9%						
Day Total		**11406**			**Day Total**		**16289**			**Day Total**		**27695**		
Peak Hour	8:15		6:15		Peak Hour	11:00		5:00		Peak Hour	8:15		5:30	
Volume	880		680		Volume	851		1306		Volume	1712		1934	
P.H.F.	0.944		0.934		P.H.F.	0.876		0.933		P.H.F.	0.928		0.979	

Commonwealth Avenue (EB and WB)
west of Babcock Street
City, State: Boston, MA
Client: BETA / J. Freudberg

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

PDI File #: 92031 A volume
Site Code: TBA

Volume Report

Wednesday, November 18, 2009

Eastbound					Westbound					Combined				
Time	A.M.		P.M.		Time	A.M.		P.M.		Time	A.M.		P.M.	
12:00	39		162		**12:00**	94		236		**12:00**	133		398	
12:15	59		171		**12:15**	96		237		**12:15**	155		408	
12:30	53		173		**12:30**	81		215		**12:30**	134		388	
12:45	57	208	180	686	**12:45**	62	333	208	896	**12:45**	119	541	388	1582
1:00	47		171		**1:00**	55		226		**1:00**	102		397	
1:15	33		148		**1:15**	53		224		**1:15**	86		372	
1:30	36		156		**1:30**	46		197		**1:30**	82		353	
1:45	29	145	153	628	**1:45**	39	193	212	859	**1:45**	68	338	365	1487
2:00	22		155		**2:00**	29		245		**2:00**	51		400	
2:15	39		163		**2:15**	44		212		**2:15**	83		375	
2:30	31		174		**2:30**	35		258		**2:30**	66		432	
2:45	24	116	152	644	**2:45**	20	128	263	978	**2:45**	44	244	415	1622
3:00	19		131		**3:00**	17		268		**3:00**	36		399	
3:15	12		161		**3:15**	22		256		**3:15**	34		417	
3:30	10		154		**3:30**	6		273		**3:30**	16		427	
3:45	9	50	163	609	**3:45**	19	64	258	1055	**3:45**	28	114	421	1664
4:00	10		157		**4:00**	19		302		**4:00**	29		459	
4:15	20		170		**4:15**	17		318		**4:15**	37		488	
4:30	11		161		**4:30**	28		302		**4:30**	39		463	
4:45	15	56	175	663	**4:45**	21	85	320	1242	**4:45**	36	141	495	1905
5:00	17		155		**5:00**	19		329		**5:00**	36		484	
5:15	21		170		**5:15**	36		308		**5:15**	57		478	
5:30	38		173		**5:30**	34		349		**5:30**	72		522	
5:45	40	116	179	677	**5:45**	46	135	331	1317	**5:45**	86	251	510	1994
6:00	37		167		**6:00**	39		335		**6:00**	76		502	
6:15	77		169		**6:15**	71		310		**6:15**	148		479	
6:30	90		177		**6:30**	87		315		**6:30**	177		492	
6:45	114	318	167	680	**6:45**	107	304	281	1241	**6:45**	221	622	448	1921
7:00	119		178		**7:00**	149		267		**7:00**	268		445	
7:15	166		176		**7:15**	160		250		**7:15**	326		426	
7:30	183		123		**7:30**	160		238		**7:30**	343		361	
7:45	198	666	133	610	**7:45**	198	667	219	974	**7:45**	396	1333	352	1584
8:00	179		110		**8:00**	211		206		**8:00**	390		316	
8:15	205		124		**8:15**	217		232		**8:15**	422		356	
8:30	198		100		**8:30**	209		209		**8:30**	407		309	
8:45	236	818	123	457	**8:45**	210	847	225	872	**8:45**	446	1665	348	1329
9:00	206		160		**9:00**	206		229		**9:00**	412		389	
9:15	220		121		**9:15**	203		194		**9:15**	423		315	
9:30	191		122		**9:30**	188		178		**9:30**	379		300	
9:45	182	799	103	506	**9:45**	170	767	155	756	**9:45**	352	1566	258	1262
10:00	152		96		**10:00**	170		177		**10:00**	322		273	
10:15	143		88		**10:15**	196		168		**10:15**	339		256	
10:30	135		110		**10:30**	178		172		**10:30**	313		282	
10:45	168	598	99	393	**10:45**	165	709	150	667	**10:45**	333	1307	249	1060
11:00	167		105		**11:00**	207		158		**11:00**	374		263	
11:15	154		79		**11:15**	177		144		**11:15**	331		223	
11:30	151		68		**11:30**	210		108		**11:30**	361		176	
11:45	191	663	72	324	**11:45**	238	832	123	533	**11:45**	429	1495	195	857
Total	**4553**		**6877**		**Total**	**5064**		**11390**		**Total**	**9617**		**18267**	
Percent	47.3%		37.6%		Percent	52.7%		62.4%						
Day Total		**11430**			**Day Total**		**16454**			**Day Total**		**27884**		
Peak Hour	8:30		6:30		Peak Hour	8:00		5:30		Peak Hour	8:30		5:30	
Volume	860		698		Volume	847		1325		Volume	1688		2013	
P.H.F.	0.911		0.980		P.H.F.	0.976		0.949		P.H.F.	0.946		0.964	

Commonwealth Avenue (EB and WB)
west of Babcock Street
City, State: Boston, MA
Client: BETA / J. Freudberg

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P.O.Box 301 Berlin, MA 01503
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PDI File #: 92031 A speed
Site Code: TBA

Speed Report

Tuesday, November 17, 2009

Eastbound

Time	0--15	16--20	21--25	26--30	31--35	36--40	41--45	46--50	51--55	56--60	61--65	66--70	71--75	76-plus	Total	AVE
12:00 AM	4	13	49	67	33	5	1	0	0	0	0	0	0	0	172	26.90
1:00 AM	2	14	42	64	15	3	0	0	0	0	0	0	0	0	140	26.21
2:00 AM	2	12	26	44	8	1	0	0	0	0	0	0	0	0	93	25.73
3:00 AM	3	3	18	26	16	4	2	0	0	0	0	0	0	0	72	27.75
4:00 AM	1	4	20	27	13	2	0	0	0	0	0	0	0	0	67	26.91
5:00 AM	8	6	23	49	30	12	2	2	0	0	0	0	0	0	132	28.27
6:00 AM	16	30	72	98	56	35	10	1	0	0	0	0	0	0	318	27.54
7:00 AM	81	146	198	125	82	23	6	0	0	0	0	0	0	0	661	23.46
8:00 AM	135	234	245	150	55	24	7	0	0	0	0	0	0	0	850	22.09
9:00 AM	178	238	204	109	36	7	1	1	0	0	0	0	0	0	774	20.26
10:00 AM	122	179	176	111	33	10	0	1	1	0	0	0	0	0	633	21.05
11:00 AM	102	173	177	101	35	14	1	0	0	0	0	0	0	0	603	21.65
12:00 PM	162	232	148	77	20	0	0	0	0	0	0	0	0	0	639	19.36
1:00 PM	148	220	169	74	25	9	0	0	0	0	0	0	0	0	645	19.98
2:00 PM	112	191	188	102	42	7	1	0	0	0	0	0	0	0	643	21.25
3:00 PM	99	188	179	122	41	12	3	0	0	0	0	0	0	0	644	21.81
4:00 PM	137	213	145	83	35	5	3	2	0	0	0	0	0	0	623	20.56
5:00 PM	118	224	144	63	25	7	2	1	0	0	0	0	0	0	584	20.18
6:00 PM	173	248	140	90	16	5	1	0	0	0	0	0	0	0	673	19.63
7:00 PM	128	189	180	95	32	5	2	0	0	0	0	0	0	0	631	20.73
8:00 PM	86	139	170	92	49	10	1	0	0	0	0	0	0	0	547	22.05
9:00 PM	63	159	213	72	20	3	1	0	0	0	0	0	0	0	531	21.47
10:00 PM	37	80	149	97	37	8	0	0	0	0	0	0	0	0	408	23.37
11:00 PM	19	42	118	101	33	9	1	0	0	0	0	0	0	0	323	24.80
Total	1936	3177	3193	2039	787	220	45	8	1	0	0	0	0	0	11406	21.76
Percent	16.97%	27.85%	27.99%	17.88%	6.90%	1.93%	0.39%	0.07%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%		

	MPH					
					Volume	Ave
15th Percentile	15.00	Posted Speed Limit	30 MPH	AM Peak Hour	8:00 AM	850	22.09
85th Percentile	29.00	# Faster than Speed Limit	1061	Midday Peak Hour	1:00 PM	645	19.98
Average Speed	21.76	% Faster than Speed Limit	9.30%	PM Peak Hour	6:00 PM	673	19.63

Westbound

Time	0--15	16--20	21--25	26--30	31--35	36--40	41--45	46--50	51--55	56--60	61--65	66--70	71--75	76-plus	Total	AVE
12:00 AM	2	11	23	74	106	45	7	2	0	0	0	0	0	0	270	31.13
1:00 AM	4	7	13	41	65	35	9	1	0	0	0	0	0	0	175	31.54
2:00 AM	1	4	12	34	41	18	3	0	0	0	0	0	0	0	113	30.94
3:00 AM	6	7	5	17	28	26	6	3	0	0	0	0	0	0	98	31.56
4:00 AM	1	2	5	19	25	25	8	0	0	0	0	0	0	0	85	32.89
5:00 AM	0	2	8	14	50	38	16	4	1	0	0	0	0	0	133	34.74
6:00 AM	2	10	15	46	108	77	17	5	0	0	0	0	0	0	280	33.29
7:00 AM	5	23	38	160	292	126	26	2	0	0	0	0	0	0	672	31.97
8:00 AM	15	22	82	237	313	146	27	3	1	0	0	0	0	0	846	31.06
9:00 AM	7	39	48	228	284	124	24	3	2	0	0	0	0	0	759	31.06
10:00 AM	6	43	105	261	267	85	25	4	0	0	0	0	0	0	796	29.98
11:00 AM	11	49	102	290	279	98	21	1	0	0	0	0	0	0	851	29.82
12:00 PM	21	49	111	329	277	92	19	3	0	0	0	0	0	0	901	29.35
1:00 PM	12	43	116	350	287	89	16	2	0	0	0	0	0	0	915	29.57
2:00 PM	13	47	115	303	306	129	18	4	0	0	0	0	0	0	935	30.06
3:00 PM	20	83	179	350	280	97	15	4	1	0	0	0	0	0	1029	28.69
4:00 PM	40	127	274	370	262	59	9	3	0	0	0	0	0	0	1144	26.92
5:00 PM	59	163	296	426	263	81	12	5	0	1	0	0	0	0	1306	26.70
6:00 PM	63	135	277	466	221	71	8	1	0	0	0	0	0	0	1242	26.60
7:00 PM	38	65	150	378	264	61	9	2	0	0	0	0	0	0	967	28.10
8:00 PM	27	61	127	337	234	76	16	2	0	0	0	0	0	0	880	28.59
9:00 PM	16	65	121	318	230	53	13	1	1	0	0	0	0	0	818	28.47
10:00 PM	10	25	71	206	197	70	13	1	1	0	0	0	0	0	594	30.01
11:00 PM	2	11	41	141	184	80	20	1	0	0	0	0	0	0	480	31.49
Total	381	1093	2334	5395	4863	1801	357	57	7	1	0	0	0	0	16289	29.24
Percent	2.34%	6.71%	14.33%	33.12%	29.85%	11.06%	2.19%	0.35%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%		

	MPH					
					Volume	Ave
15th Percentile	23.00	Posted Speed Limit	30 MPH	AM Peak Hour	8:00 AM	846	31.06
85th Percentile	35.00	# Faster than Speed Limit	7086	Midday Peak Hour	2:00 PM	935	28.69
Average Speed	29.24	% Faster than Speed Limit	43.50%	PM Peak Hour	5:00 PM	1306	29.24

Commonwealth Avenue (EB and WB)
west of Babcock Street
City, State: Boston, MA
Client: BETA / J. Freudberg

PRECISION DATA INDUSTRIES, LLC
P.O.Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

PDI File #: 92031 A speed
Site Code: TBA

Speed Report

Wednesday, November 18, 2009

Eastbound

Time	0--15	16--20	21--25	26--30	31--35	36--40	41--45	46--50	51--55	56--60	61--65	66--70	71--75	76-plus	Total	AVE
12:00 AM	6	16	66	78	32	9	0	1	0	0	0	0	0	0	208	26.49
1:00 AM	3	8	31	60	30	9	3	0	1	0	0	0	0	0	145	28.41
2:00 AM	2	13	37	31	28	5	0	0	0	0	0	0	0	0	116	26.75
3:00 AM	3	6	10	14	11	3	2	1	0	0	0	0	0	0	50	27.78
4:00 AM	2	4	9	23	16	1	1	0	0	0	0	0	0	0	56	27.82
5:00 AM	2	14	15	49	22	11	2	1	0	0	0	0	0	0	116	28.18
6:00 AM	13	34	59	96	75	30	10	1	0	0	0	0	0	0	318	27.98
7:00 AM	72	205	166	123	69	24	7	0	0	0	0	0	0	0	666	23.15
8:00 AM	140	236	238	120	68	13	2	1	0	0	0	0	0	0	818	21.68
9:00 AM	116	205	211	169	78	18	2	0	0	0	0	0	0	0	799	22.66
10:00 AM	90	142	195	102	51	17	1	0	0	0	0	0	0	0	598	22.36
11:00 AM	131	174	179	134	32	8	3	2	0	0	0	0	0	0	663	21.37
12:00 PM	162	214	184	85	28	13	0	0	0	0	0	0	0	0	686	20.19
1:00 PM	101	150	201	106	50	17	2	0	1	0	0	0	0	0	628	22.23
2:00 PM	122	200	167	96	43	12	1	3	0	0	0	0	0	0	644	21.15
3:00 PM	116	191	177	82	35	7	1	0	0	0	0	0	0	0	609	20.87
4:00 PM	169	199	148	90	46	11	0	0	0	0	0	0	0	0	663	20.35
5:00 PM	142	252	158	71	49	3	2	0	0	0	0	0	0	0	677	20.25
6:00 PM	149	220	172	87	39	11	1	1	0	0	0	0	0	0	680	20.57
7:00 PM	119	200	183	66	37	3	2	0	0	0	0	0	0	0	610	20.64
8:00 PM	47	143	205	41	17	3	1	0	0	0	0	0	0	0	457	21.43
9:00 PM	52	142	162	105	32	12	1	0	0	0	0	0	0	0	506	22.55
10:00 PM	22	65	136	119	46	4	1	0	0	0	0	0	0	0	393	24.35
11:00 PM	12	37	101	131	32	10	1	0	0	0	0	0	0	0	324	25.54
Total	1793	3070	3210	2078	966	254	46	11	2	0	0	0	0	0	11430	22.19
Percent	15.69%	26.86%	28.08%	18.18%	8.45%	2.22%	0.40%	0.10%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%		

	MPH					
						Volume	Ave
15th Percentile	15.00	Posted Speed Limit	30 MPH	AM Peak Hour	8:00 AM	818	21.68
85th Percentile	29.00	# Faster than Speed Limit	1279	Midday Peak Hour	12:00 PM	686	20.19
Average Speed	22.19	% Faster than Speed Limit	11.19%	PM Peak Hour	6:00 PM	680	20.57

Westbound

Time	0--15	16--20	21--25	26--30	31--35	36--40	41--45	46--50	51--55	56--60	61--65	66--70	71--75	76-plus	Total	AVE
12:00 AM	4	14	37	83	123	62	8	2	0	0	0	0	0	0	333	31.01
1:00 AM	1	6	12	40	81	43	9	0	0	1	0	0	0	0	193	32.37
2:00 AM	1	2	10	26	51	30	7	1	0	0	0	0	0	0	128	32.63
3:00 AM	1	1	7	15	23	11	3	3	0	0	0	0	0	0	64	32.39
4:00 AM	1	3	7	8	42	15	8	0	1	0	0	0	0	0	85	33.22
5:00 AM	2	3	10	22	48	39	10	1	0	0	0	0	0	0	135	33.10
6:00 AM	0	9	9	48	137	78	17	5	1	0	0	0	0	0	304	33.50
7:00 AM	1	12	32	138	293	150	35	6	0	0	0	0	0	0	667	32.99
8:00 AM	2	31	63	241	351	131	24	4	0	0	0	0	0	0	847	31.35
9:00 AM	7	29	77	265	274	93	17	4	1	0	0	0	0	0	767	30.40
10:00 AM	6	30	72	237	234	108	21	0	1	0	0	0	0	0	709	30.71
11:00 AM	13	41	66	268	298	119	22	4	1	0	0	0	0	0	832	30.56
12:00 PM	16	35	78	288	339	124	12	4	0	0	0	0	0	0	896	30.41
1:00 PM	9	39	69	304	300	116	19	2	1	0	0	0	0	0	859	30.52
2:00 PM	11	39	133	315	343	114	19	3	1	0	0	0	0	0	978	30.02
3:00 PM	33	85	173	371	280	94	18	1	0	0	0	0	0	0	1055	28.35
4:00 PM	47	151	283	419	258	69	13	2	0	0	0	0	0	0	1242	26.77
5:00 PM	35	136	379	418	258	79	9	2	0	1	0	0	0	0	1317	26.77
6:00 PM	31	116	284	477	251	63	16	2	1	0	0	0	0	0	1241	27.27
7:00 PM	35	79	171	354	232	87	16	0	0	0	0	0	0	0	974	28.14
8:00 PM	17	50	112	337	273	69	12	2	0	0	0	0	0	0	872	29.02
9:00 PM	18	42	87	265	266	64	12	2	0	0	0	0	0	0	756	29.38
10:00 PM	3	29	49	182	266	105	23	8	0	1	1	0	0	0	667	31.58
11:00 PM	4	13	24	132	219	99	33	6	2	1	0	0	0	0	533	32.53
Total	298	995	2244	5253	5240	1962	383	64	10	4	1	0	0	0	16454	29.64
Percent	1.81%	6.05%	13.64%	31.93%	31.85%	11.92%	2.33%	0.39%	0.06%	0.02%	0.01%	0.00%	0.00%	0.00%		

	MPH					
						Volume	Ave
15th Percentile	24.00	Posted Speed Limit	30 MPH	AM Peak Hour	8:00 AM	847	31.35
85th Percentile	35.00	# Faster than Speed Limit	7664	Midday Peak Hour	2:00 PM	978	28.35
Average Speed	29.64	% Faster than Speed Limit	46.58%	PM Peak Hour	5:00 PM	1317	29.64

Commonwealth Avenue (EB and WB)
west of Babcock Street
City, State: Boston, MA
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Email: datarequests@pdillc.com

PDI File #: 92031 A class
Site Code: TBA

Classification Report

Tuesday, November 17, 2009

Eastbound

Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Total
12:00 AM	1	154	12	3	2	0	0	0	0	0	0	0	0	172
1:00 AM	0	126	14	0	0	0	0	0	0	0	0	0	0	140
2:00 AM	1	82	9	1	0	0	0	0	0	0	0	0	0	93
3:00 AM	1	64	1	1	2	0	0	0	3	0	0	0	0	72
4:00 AM	0	53	6	2	1	3	0	1	1	0	0	0	0	67
5:00 AM	4	98	20	4	5	1	0	0	0	0	0	0	0	132
6:00 AM	3	244	44	7	12	6	0	1	1	0	0	0	0	318
7:00 AM	6	561	69	13	5	1	0	2	1	2	1	0	0	661
8:00 AM	13	738	78	8	11	1	0	0	1	0	0	0	0	850
9:00 AM	9	655	70	5	28	3	0	4	0	0	0	0	0	774
10:00 AM	10	522	79	8	13	0	0	1	0	0	0	0	0	633
11:00 AM	5	489	79	8	16	3	0	2	1	0	0	0	0	603
12:00 PM	8	518	85	5	17	2	1	3	0	0	0	0	0	639
1:00 PM	7	527	78	10	19	1	0	0	2	0	1	0	0	645
2:00 PM	7	530	83	8	11	2	0	1	0	0	1	0	0	643
3:00 PM	7	547	73	5	9	0	0	3	0	0	0	0	0	644
4:00 PM	5	527	71	7	11	0	0	2	0	0	0	0	0	623
5:00 PM	6	537	27	6	5	0	0	3	0	0	0	0	0	584
6:00 PM	5	618	41	5	2	0	0	1	1	0	0	0	0	673
7:00 PM	7	575	38	5	5	0	0	1	0	0	0	0	0	631
8:00 PM	2	491	42	6	4	1	0	0	0	0	0	0	1	547
9:00 PM	4	477	38	6	4	0	0	1	1	0	0	0	0	531
10:00 PM	3	371	25	5	3	0	0	0	1	0	0	0	0	408
11:00 PM	3	290	23	2	3	1	0	1	0	0	0	0	0	323
Total	117	9794	1105	130	188	25	1	27	13	2	3	0	1	11406
Percent	1.03%	85.87%	9.69%	1.14%	1.65%	0.22%	0.01%	0.24%	0.11%	0.02%	0.03%	0.00%	0.01%	
AM Peak	8:00 AM	8:00 AM	8:00 AM	7:00 AM	9:00 AM	6:00 AM		9:00 AM	3:00 AM	7:00 AM	7:00 AM			8:00 AM
Volume	13	738	78	13	28	6	0	4	3	2	1	0	0	850
Midday	10:00 AM	2:00 PM	12:00 PM	1:00 PM	1:00 PM	11:00 AM	12:00 PM	12:00 PM	1:00 PM		1:00 PM			1:00 PM
Volume	10	530	85	10	19	3	1	3	2	0	1	0	0	645
PM Peak	3:00 PM	6:00 PM	3:00 PM	4:00 PM	4:00 PM	8:00 PM		3:00 PM	6:00 PM				8:00 PM	6:00 PM
Volume	7	618	73	7	11	1	0	3	1	0	0	0	1	673

Westbound

Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Total
12:00 AM	2	255	9	4	0	0	0	0	0	0	0	0	0	270
1:00 AM	6	154	9	1	3	2	0	0	0	0	0	0	0	175
2:00 AM	1	97	14	0	1	0	0	0	0	0	0	0	0	113
3:00 AM	2	87	5	0	0	3	0	0	1	0	0	0	0	98
4:00 AM	1	62	12	2	1	5	2	0	0	0	0	0	0	85
5:00 AM	0	103	20	3	7	0	0	0	0	0	0	0	0	133
6:00 AM	0	225	37	7	8	3	0	0	0	0	0	0	0	280
7:00 AM	2	540	95	16	12	2	0	1	4	0	0	0	0	672
8:00 AM	1	693	110	15	18	5	0	4	0	0	0	0	0	846
9:00 AM	4	593	114	10	26	8	0	3	1	0	0	0	0	759
10:00 AM	3	632	125	10	20	3	0	2	1	0	0	0	0	796
11:00 AM	12	682	117	14	18	3	1	2	2	0	0	0	0	851
12:00 PM	12	719	130	6	18	10	0	5	1	0	0	0	0	901
1:00 PM	9	736	112	18	30	3	1	4	1	1	0	0	0	915
2:00 PM	16	748	130	13	23	2	0	3	0	0	0	0	0	935
3:00 PM	21	858	119	5	19	1	1	2	1	0	1	0	1	1029
4:00 PM	20	982	104	12	18	0	0	5	1	1	1	0	0	1144
5:00 PM	23	1171	86	10	7	3	0	6	0	0	0	0	0	1306
6:00 PM	28	1110	84	9	8	0	0	3	0	0	0	0	0	1242
7:00 PM	10	892	52	7	5	0	0	0	1	0	0	0	0	967
8:00 PM	19	799	52	7	2	0	0	1	0	0	0	0	0	880
9:00 PM	9	755	43	8	3	0	0	0	0	0	0	0	0	818
10:00 PM	6	539	37	5	7	0	0	0	0	0	0	0	0	594
11:00 PM	4	446	22	3	4	0	0	0	0	0	1	0	0	480
Total	211	13878	1638	185	258	53	5	41	14	2	3	0	1	16289
Percent	1.30%	85.20%	10.06%	1.14%	1.58%	0.33%	0.03%	0.25%	0.09%	0.01%	0.02%	0.00%	0.01%	
AM Peak	1:00 AM	8:00 AM	9:00 AM	7:00 AM	9:00 AM	9:00 AM	4:00 AM	8:00 AM	7:00 AM					8:00 AM
Volume	6	693	114	16	26	8	2	4	4	0	0	0	0	846
Midday	2:00 PM	2:00 PM	12:00 PM	1:00 PM	1:00 PM	12:00 PM	11:00 AM	12:00 PM	11:00 AM	1:00 PM				2:00 PM
Volume	16	748	130	18	30	10	1	5	2	1	0	0	0	935
PM Peak	6:00 PM	5:00 PM	3:00 PM	4:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM	4:00 PM	3:00 PM		3:00 PM	5:00 PM
Volume	28	1171	119	12	19	3	1	6	1	1	1	0	1	1306

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PDI File #: 92031 A class
Site Code: TBA

Classification Report

Wednesday, November 18, 2009

Eastbound

Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Total
12:00 AM	0	190	8	3	3	1	0	3	0	0	0	0	0	208
1:00 AM	0	132	12	0	1	0	0	0	0	0	0	0	0	145
2:00 AM	1	103	11	0	1	0	0	0	0	0	0	0	0	116
3:00 AM	0	46	1	0	2	0	0	0	1	0	0	0	0	50
4:00 AM	1	41	9	1	1	2	0	1	0	0	0	0	0	56
5:00 AM	1	86	19	5	4	1	0	0	0	0	0	0	0	116
6:00 AM	3	251	43	7	13	0	0	0	1	0	0	0	0	318
7:00 AM	7	580	54	5	11	6	0	3	0	0	0	0	0	666
8:00 AM	9	723	62	8	10	0	0	3	2	0	1	0	0	818
9:00 AM	11	680	71	11	22	0	0	4	0	0	0	0	0	799
10:00 AM	7	502	70	13	5	0	0	1	0	0	0	0	0	598
11:00 AM	10	560	62	11	16	1	0	3	0	0	0	0	0	663
12:00 PM	16	556	87	11	12	1	0	3	0	0	0	0	0	686
1:00 PM	4	519	88	7	5	2	1	2	0	0	0	0	0	628
2:00 PM	6	546	62	7	19	0	1	3	0	0	0	0	0	644
3:00 PM	9	519	64	3	8	3	0	2	1	0	0	0	0	609
4:00 PM	12	587	46	3	10	1	0	2	1	0	0	0	1	663
5:00 PM	8	608	48	6	4	1	0	0	1	1	0	0	0	677
6:00 PM	5	615	51	7	1	0	0	1	0	0	0	0	0	680
7:00 PM	6	559	34	9	2	0	0	0	0	0	0	0	0	610
8:00 PM	5	434	11	5	2	0	0	0	0	0	0	0	0	457
9:00 PM	7	466	25	3	4	1	0	0	0	0	0	0	0	506
10:00 PM	2	363	22	5	1	0	0	0	0	0	0	0	0	393
11:00 PM	4	291	22	1	5	0	0	0	1	0	0	0	0	324
Total	134	9957	982	131	162	20	2	31	8	1	1	0	1	11430
Percent	1.17%	87.30%	8.61%	1.15%	1.42%	0.18%	0.02%	0.27%	0.07%	0.01%	0.01%	0.00%	0.01%	
AM Peak	9:00 AM	8:00 AM	9:00 AM	9:00 AM	9:00 AM	7:00 AM		9:00 AM	8:00 AM		8:00 AM			8:00 AM
Volume	11	723	71	11	22	6	0	4	2	0	1	0	0	818
Midday	12:00 PM	11:00 AM	1:00 PM	10:00 AM	2:00 PM	1:00 PM	1:00 PM	11:00 AM						12:00 PM
Volume	16	560	88	13	19	2	1	3	0	0	0	0	0	686
PM Peak	4:00 PM	6:00 PM	3:00 PM	7:00 PM	4:00 PM	3:00 PM		3:00 PM	3:00 PM	5:00 PM			4:00 PM	6:00 PM
Volume	12	615	64	9	10	3	0	2	1	1	0	0	1	680

Westbound

Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Total
12:00 AM	4	301	21	3	3	1	0	0	0	0	0	0	0	333
1:00 AM	1	177	14	1	0	0	0	0	0	0	0	0	0	193
2:00 AM	1	110	11	1	3	0	0	2	0	0	0	0	0	128
3:00 AM	0	57	5	0	1	0	0	0	1	0	0	0	0	64
4:00 AM	1	61	14	1	2	6	0	0	0	0	0	0	0	85
5:00 AM	1	103	19	3	7	2	0	0	0	0	0	0	0	135
6:00 AM	0	239	41	12	8	1	0	1	2	0	0	0	0	304
7:00 AM	0	538	98	14	13	3	0	0	0	0	1	0	0	667
8:00 AM	3	690	111	18	18	6	0	0	1	0	0	0	0	847
9:00 AM	3	638	91	12	17	3	0	3	0	0	0	0	0	767
10:00 AM	3	568	105	11	12	6	0	4	0	0	0	0	0	709
11:00 AM	11	674	118	11	12	4	0	2	0	0	0	0	0	832
12:00 PM	11	760	96	14	9	5	0	1	0	0	0	0	0	896
1:00 PM	15	684	125	9	17	4	0	4	1	0	0	0	0	859
2:00 PM	6	812	128	6	21	0	0	4	1	0	0	0	0	978
3:00 PM	11	877	126	11	21	2	0	6	1	0	0	0	0	1055
4:00 PM	14	1096	103	10	13	2	0	2	1	0	0	0	1	1242
5:00 PM	12	1201	84	11	6	1	0	0	1	1	0	0	0	1317
6:00 PM	16	1127	70	10	12	1	0	3	1	1	0	0	0	1241
7:00 PM	24	890	44	5	10	1	0	0	0	0	0	0	0	974
8:00 PM	14	798	43	10	5	2	0	0	0	0	0	0	0	872
9:00 PM	5	700	39	5	6	1	0	0	0	0	0	0	0	756
10:00 PM	9	614	34	5	5	0	0	0	0	0	0	0	0	667
11:00 PM	6	491	27	4	5	0	0	0	0	0	0	0	0	533
Total	171	14206	1567	187	226	51	0	32	10	2	1	0	1	16454
Percent	1.05%	87.21%	9.62%	1.15%	1.39%	0.31%	0.00%	0.20%	0.06%	0.01%	0.01%	0.00%	0.01%	
AM Peak	12:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	4:00 AM		9:00 AM	6:00 AM		7:00 AM			8:00 AM
Volume	4	690	111	18	18	6	0	3	2	0	1	0	0	847
Midday	1:00 PM	2:00 PM	2:00 PM	12:00 PM	2:00 PM	10:00 AM		10:00 AM	1:00 PM					2:00 PM
Volume	15	812	128	14	21	6	0	4	1	0	0	0	0	978
PM Peak	7:00 PM	5:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM		3:00 PM	3:00 PM	5:00 PM			4:00 PM	5:00 PM
Volume	24	1201	126	11	21	2	0	6	1	1	0	0	1	1317

PRECISION
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Email: datarequests@pdillc.com

Babcock Street
north of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

92031 C volume
Site Code: 3853

Start	SB				NB				Combined				17-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	12		46		3		13		15		59		
12:15	11		36		3		21		14		57		
12:30	7		33		0		26		7		59		
12:45	4	34	28	143	1	7	27	87	5	41	55	230	
01:00	4		35		3		18		7		53		
01:15	5		33		3		19		8		52		
01:30	4		34		0		21		4		55		
01:45	4	17	33	135	1	7	22	80	5	24	55	215	
02:00	6		35		1		27		7		62		
02:15	1		29		1		20		2		49		
02:30	2		29		0		34		2		63		
02:45	5	14	24	117	4	6	26	107	9	20	50	224	
03:00	2		29		0		27		2		56		
03:15	3		38		3		19		6		57		
03:30	3		49		0		28		3		77		
03:45	2	10	35	151	2	5	20	94	4	15	55	245	
04:00	3		42		3		30		6		72		
04:15	1		36		1		35		2		71		
04:30	2		52		3		24		5		76		
04:45	3	9	49	179	6	13	23	112	9	22	72	291	
05:00	4		48		2		28		6		76		
05:15	0		56		6		35		6		91		
05:30	0		54		16		47		16		101		
05:45	5	9	46	204	13	37	36	146	18	46	82	350	
06:00	7		55		8		44		15		99		
06:15	10		62		17		39		27		101		
06:30	10		50		29		29		39		79		
06:45	16	43	41	208	21	75	36	148	37	118	77	356	
07:00	25		46		26		44		51		90		
07:15	29		63		39		44		68		107		
07:30	34		50		43		36		77		86		
07:45	23	111	47	206	39	147	31	155	62	258	78	361	
08:00	36		36		39		24		75		60		
08:15	47		46		27		26		74		72		
08:30	33		31		26		19		59		50		
08:45	39	155	51	164	28	120	15	84	67	275	66	248	
09:00	28		49		39		13		67		62		
09:15	29		37		30		18		59		55		
09:30	16		53		20		15		36		68		
09:45	39	112	49	188	24	113	9	55	63	225	58	243	
10:00	27		38		15		16		42		54		
10:15	29		39		24		7		53		46		
10:30	28		21		25		11		53		32		
10:45	29	113	27	125	17	81	12	46	46	194	39	171	
11:00	25		32		27		7		52		39		
11:15	29		26		28		9		57		35		
11:30	35		27		30		7		65		34		
11:45	38	127	17	102	25	110	4	27	63	237	21	129	
Total	754		1922		721		1141		1475		3063		
Percent	51.1%		62.7%		48.9%		37.3%						
Day Total		2676				1862				4538			
Peak	08:00		05:30		07:15		05:30		07:30		05:30		
Vol.	155		217		160		166		288		383		
P.H.F.	0.824		0.875		0.930		0.883		0.935		0.948		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Babcock Street
north of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

92031 C volume
Site Code: 3853

Start	SB				NB				Combined				18-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	12		36		2		24		14		60		
12:15	10		31		6		16		16		47		
12:30	4		35		2		18		6		53		
12:45	5	31	27	129	4	14	20	78	9	45	47	207	
01:00	7		27		1		16		8		43		
01:15	3		25		0		17		3		42		
01:30	5		34		4		30		9		64		
01:45	5	20	35	121	1	6	18	81	6	26	53	202	
02:00	4		27		3		21		7		48		
02:15	6		31		0		28		6		59		
02:30	5		27		1		23		6		50		
02:45	4	19	43	128	1	5	29	101	5	24	72	229	
03:00	2		44		2		24		4		68		
03:15	1		39		0		32		1		71		
03:30	1		55		1		17		2		72		
03:45	1	5	51	189	1	4	39	112	2	9	90	301	
04:00	3		48		1		42		4		90		
04:15	1		43		1		28		2		71		
04:30	6		58		4		21		10		79		
04:45	2	12	47	196	2	8	38	129	4	20	85	325	
05:00	0		59		8		29		8		88		
05:15	3		48		6		33		9		81		
05:30	3		62		17		18		20		80		
05:45	11	17	45	214	29	60	38	118	40	77	83	332	
06:00	13		66		15		29		28		95		
06:15	15		45		28		36		43		81		
06:30	16		47		23		42		39		89		
06:45	17	61	47	205	19	85	49	156	36	146	96	361	
07:00	22		49		32		32		54		81		
07:15	35		36		44		44		79		80		
07:30	21		47		34		27		55		74		
07:45	25	103	35	167	47	157	27	130	72	260	62	297	
08:00	40		53		27		25		67		78		
08:15	44		39		36		23		80		62		
08:30	21		35		25		27		46		62		
08:45	40	145	33	160	23	111	15	90	63	256	48	250	
09:00	27		62		26		15		53		77		
09:15	16		36		18		20		34		56		
09:30	25		27		18		18		43		45		
09:45	23	91	42	167	18	80	14	67	41	171	56	234	
10:00	33		32		20		6		53		38		
10:15	43		18		23		9		66		27		
10:30	24		16		13		14		37		30		
10:45	27	127	25	91	20	76	6	35	47	203	31	126	
11:00	34		42		13		10		47		52		
11:15	31		27		24		5		55		32		
11:30	37		7		21		8		58		15		
11:45	34	136	22	98	21	79	8	31	55	215	30	129	
Total	767		1865		685		1128		1452		2993		
Percent	52.8%		62.3%		47.2%		37.7%						
Day Total		2632				1813				4445			
Peak	08:00		05:15		07:00		06:30		07:30		06:00		
Vol.	145		221		157		167		274		361		
P.H.F.	0.824		0.837		0.835		0.852		0.856		0.940		

PRECISION
D A T A
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Babcock Street
south of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

92031 D volume
Site Code: 3853

Start	SB				NB				Combined				17-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	3		60		4		37		7		97		
12:15	3		46		4		34		7		80		
12:30	4		60		3		38		7		98		
12:45	5	15	51	217	2	13	42	151	7	28	93	368	
01:00	3		43		4		35		7		78		
01:15	3		52		3		44		6		96		
01:30	3		49		5		49		8		98		
01:45	4	13	44	188	6	18	38	166	10	31	82	354	
02:00	2		46		4		38		6		84		
02:15	2		49		2		28		4		77		
02:30	2		41		1		49		3		90		
02:45	0	6	47	183	1	8	50	165	1	14	97	348	
03:00	2		39		4		38		6		77		
03:15	3		40		1		52		4		92		
03:30	1		41		1		34		2		75		
03:45	0	6	49	169	2	8	50	174	2	14	99	343	
04:00	1		43		2		42		3		85		
04:15	3		51		2		50		5		101		
04:30	3		54		1		34		4		88		
04:45	2	9	53	201	2	7	39	165	4	16	92	366	
05:00	2		63		4		64		6		127		
05:15	3		68		10		48		13		116		
05:30	3		64		6		54		9		118		
05:45	7	15	49	244	11	31	40	206	18	46	89	450	
06:00	7		71		10		42		17		113		
06:15	10		54		25		47		35		101		
06:30	12		49		26		44		38		93		
06:45	15	44	58	232	30	91	46	179	45	135	104	411	
07:00	17		60		37		42		54		102		
07:15	22		49		37		39		59		88		
07:30	22		43		65		38		87		81		
07:45	27	88	46	198	71	210	36	155	98	298	82	353	
08:00	27		29		64		32		91		61		
08:15	28		43		68		32		96		75		
08:30	24		31		54		26		78		57		
08:45	31	110	31	134	63	249	24	114	94	359	55	248	
09:00	32		32		56		25		88		57		
09:15	26		34		46		22		72		56		
09:30	33		53		46		30		79		83		
09:45	53	144	35	154	46	194	23	100	99	338	58	254	
10:00	36		20		28		21		64		41		
10:15	31		31		27		30		58		61		
10:30	54		26		34		12		88		38		
10:45	46	167	24	101	29	118	23	86	75	285	47	187	
11:00	43		20		40		20		83		40		
11:15	36		15		38		16		74		31		
11:30	31		7		40		14		71		21		
11:45	46	156	11	53	34	152	12	62	80	308	23	115	
Total	773		2074		1099		1723		1872		3797		
Percent	41.3%		54.6%		58.7%		45.4%						
Day Total		2847				2822				5669			
Peak	10:30		05:15		07:30		05:00		07:30		04:45		
Vol.	179		252		268		206		372		453		
P.H.F.	0.829		0.887		0.944		0.805		0.949		0.892		

PRECISION
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Babcock Street
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92031 D volume
Site Code: 3853

Start	SB				NB				Combined				18-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	3		49		4		38		7		87		
12:15	3		41		6		32		9		73		
12:30	10		44		8		40		18		84		
12:45	3	19	43	177	5	23	34	144	8	42	77	321	
01:00	3		36		8		26		11		62		
01:15	3		44		6		38		9		82		
01:30	3		36		5		26		8		62		
01:45	2	11	39	155	4	23	36	126	6	34	75	281	
02:00	3		32		6		38		9		70		
02:15	4		37		0		46		4		83		
02:30	0		41		3		44		3		85		
02:45	5	12	41	151	2	11	40	168	7	23	81	319	
03:00	1		41		2		50		3		91		
03:15	2		33		1		44		3		77		
03:30	0		37		1		64		1		101		
03:45	0	3	59	170	3	7	49	207	3	10	108	377	
04:00	2		37		1		52		3		89		
04:15	3		43		2		49		5		92		
04:30	2		54		3		50		5		104		
04:45	0	7	47	181	1	7	59	210	1	14	106	391	
05:00	4		58		6		54		10		112		
05:15	0		46		5		47		5		93		
05:30	5		58		6		46		11		104		
05:45	2	11	43	205	13	30	44	191	15	41	87	396	
06:00	8		59		10		48		18		107		
06:15	11		56		28		43		39		99		
06:30	5		51		26		40		31		91		
06:45	21	45	43	209	34	98	42	173	55	143	85	382	
07:00	13		58		32		50		45		108		
07:15	15		46		41		28		56		74		
07:30	26		47		68		50		94		97		
07:45	31	85	31	182	64	205	28	156	95	290	59	338	
08:00	26		40		55		31		81		71		
08:15	43		29		64		28		107		57		
08:30	33		33		65		24		98		57		
08:45	32	134	32	134	53	237	26	109	85	371	58	243	
09:00	31		28		54		24		85		52		
09:15	29		26		62		15		91		41		
09:30	29		22		40		15		69		37		
09:45	43	132	25	101	52	208	13	67	95	340	38	168	
10:00	48		23		39		14		87		37		
10:15	41		19		38		17		79		36		
10:30	34		16		28		23		62		39		
10:45	28	151	14	72	20	125	17	71	48	276	31	143	
11:00	45		19		29		10		74		29		
11:15	27		10		28		15		55		25		
11:30	31		15		28		19		59		34		
11:45	34	137	9	53	34	119	14	58	68	256	23	111	
Total	747		1790		1093		1680		1840		3470		
Percent	40.6%		51.6%		59.4%		48.4%						
Day Total		2537				2773				5310			
Peak	09:45		05:30		07:30		03:30		07:45		04:30		
Vol.	166		216		251		214		381		415		
P.H.F.	0.865		0.915		0.923		0.836		0.890		0.926		

PRECISION
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Harry Agganis Way
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92031 E volume
Site Code: 3853

Start	NB				SB				Combined				17-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	2		14		8		15		10		29		
12:15	4		14		8		16		12		30		
12:30	2		26		0		14		2		40		
12:45	2	10	25	79	6	22	16	61	8	32	41	140	
01:00	0		7		0		16		0		23		
01:15	1		20		4		15		5		35		
01:30	2		8		2		8		4		16		
01:45	2	5	16	51	1	7	15	54	3	12	31	105	
02:00	0		14		0		21		0		35		
02:15	0		14		1		14		1		28		
02:30	3		4		0		14		3		18		
02:45	1	4	5	37	1	2	8	57	2	6	13	94	
03:00	0		6		1		10		1		16		
03:15	2		12		1		15		3		27		
03:30	1		8		2		24		3		32		
03:45	1	4	10	36	0	4	25	74	1	8	35	110	
04:00	2		10		2		24		4		34		
04:15	2		18		2		22		4		40		
04:30	1		16		1		28		2		44		
04:45	2	7	16	60	0	5	22	96	2	12	38	156	
05:00	0		29		0		58		0		87		
05:15	2		20		0		41		2		61		
05:30	4		26		1		34		5		60		
05:45	6	12	30	105	6	7	32	165	12	19	62	270	
06:00	4		32		6		26		10		58		
06:15	6		31		3		30		9		61		
06:30	4		30		2		28		6		58		
06:45	8	22	37	130	4	15	26	110	12	37	63	240	
07:00	5		24		4		22		9		46		
07:15	3		20		3		20		6		40		
07:30	9		20		8		9		17		29		
07:45	10	27	18	82	7	22	18	69	17	49	36	151	
08:00	15		17		13		26		28		43		
08:15	18		9		8		14		26		23		
08:30	34		14		12		13		46		27		
08:45	30	97	15	55	10	43	20	73	40	140	35	128	
09:00	16		15		6		20		22		35		
09:15	16		7		16		14		32		21		
09:30	18		46		6		54		24		100		
09:45	16	66	14	82	12	40	28	116	28	106	42	198	
10:00	18		10		8		14		26		24		
10:15	20		13		16		16		36		29		
10:30	12		8		9		16		21		24		
10:45	18	68	4	35	19	52	10	56	37	120	14	91	
11:00	8		4		15		8		23		12		
11:15	9		6		18		10		27		16		
11:30	14		4		17		8		31		12		
11:45	20	51	4	18	16	66	5	31	36	117	9	49	
Total	373		770		285		962		658		1732		
Percent	56.7%		44.5%		43.3%		55.5%						
Day Total		1143				1247				2390			
Peak	08:15		06:00		10:45		05:00		08:00		05:00		
Vol.	98		130		69		165		140		270		
P.H.F.	0.721		0.878		0.908		0.711		0.761		0.776		

PRECISION
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Harry Agganis Way
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92031 E volume
Site Code: 3853

Start	NB				SB				Combined				18-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	6		13		10		12		16		25		
12:15	4		8		6		10		10		18		
12:30	6		4		5		6		11		10		
12:45	3	19	9	34	2	23	12	40	5	42	21	74	
01:00	4		18		4		12		8		30		
01:15	3		12		2		10		5		22		
01:30	5		12		6		20		11		32		
01:45	2	14	12	54	1	13	6	48	3	27	18	102	
02:00	0		10		0		12		0		22		
02:15	1		8		1		10		2		18		
02:30	2		7		3		16		5		23		
02:45	1	4	13	38	1	5	11	49	2	9	24	87	
03:00	4		8		3		8		7		16		
03:15	1		24		2		13		3		37		
03:30	2		17		0		15		2		32		
03:45	1	8	12	61	0	5	21	57	1	13	33	118	
04:00	0		10		1		20		1		30		
04:15	0		8		2		24		2		32		
04:30	2		22		2		24		4		46		
04:45	2	4	16	56	1	6	24	92	3	10	40	148	
05:00	1		8		1		39		2		47		
05:15	0		14		1		48		1		62		
05:30	8		15		4		26		12		41		
05:45	6	15	20	57	6	12	26	139	12	27	46	196	
06:00	4		14		2		28		6		42		
06:15	3		12		5		20		8		32		
06:30	3		20		3		14		6		34		
06:45	6	16	17	63	2	12	20	82	8	28	37	145	
07:00	8		9		4		20		12		29		
07:15	6		16		4		19		10		35		
07:30	12		13		6		14		18		27		
07:45	13	39	12	50	8	22	14	67	21	61	26	117	
08:00	10		8		16		12		26		20		
08:15	19		11		20		9		39		20		
08:30	12		8		8		10		20		18		
08:45	46	87	7	34	10	54	14	45	56	141	21	79	
09:00	30		12		13		9		43		21		
09:15	12		9		16		10		28		19		
09:30	19		14		6		12		25		26		
09:45	10	71	7	42	14	49	12	43	24	120	19	85	
10:00	11		4		10		8		21		12		
10:15	12		5		10		4		22		9		
10:30	14		6		12		3		26		9		
10:45	10	47	6	21	14	46	8	23	24	93	14	44	
11:00	16		2		10		4		26		6		
11:15	9		7		10		11		19		18		
11:30	8		4		8		4		16		8		
11:45	9	42	4	17	9	37	8	27	18	79	12	44	
Total	366		527		284		712		650		1239		
Percent	56.3%		42.5%		43.7%		57.5%						
Day Total		893				996				1889			
Peak	08:15		05:45		08:00		05:00		08:15		05:00		
Vol.	107		66		54		139		158		196		
P.H.F.	0.582		0.750		0.675		0.724		0.705		0.790		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Pleasant Street
south of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

92031 F volume
Site Code: 3853

Start	SB				NB				Combined				16-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Mon
12:00	*		89		*		20		*		109		
12:15	*		75		*		45		*		120		
12:30	*		74		*		39		*		113		
12:45	*	0	62	300	*	0	34	138	*	0	96	438	
01:00	*		76		*		32		*		108		
01:15	*		77		*		23		*		100		
01:30	*		49		*		33		*		82		
01:45	*	0	68	270	*	0	44	132	*	0	112	402	
02:00	*		59		*		49		*		108		
02:15	*		32		*		30		*		62		
02:30	*		16		*		27		*		43		
02:45	*	0	18	125	*	0	31	137	*	0	49	262	
03:00	*		15		*		47		*		62		
03:15	*		12		*		22		*		34		
03:30	*		23		*		31		*		54		
03:45	*	0	24	74	*	0	45	145	*	0	69	219	
04:00	*		34		*		54		*		88		
04:15	*		25		*		53		*		78		
04:30	*		20		*		45		*		65		
04:45	*	0	28	107	*	0	53	205	*	0	81	312	
05:00	*		28		*		60		*		88		
05:15	*		25		*		40		*		65		
05:30	*		19		*		41		*		60		
05:45	*	0	22	94	*	0	48	189	*	0	70	283	
06:00	*		27		*		40		*		67		
06:15	*		20		*		38		*		58		
06:30	*		19		*		25		*		44		
06:45	*	0	19	85	*	0	34	137	*	0	53	222	
07:00	11		36		15		47		26		83		
07:15	18		21		11		49		29		70		
07:30	21		16		36		41		57		57		
07:45	14	64	20	93	32	94	27	164	46	158	47	257	
08:00	26		13		35		32		61		45		
08:15	26		21		41		29		67		50		
08:30	24		10		59		35		83		45		
08:45	33	109	13	57	43	178	23	119	76	287	36	176	
09:00	24		11		40		37		64		48		
09:15	14		13		33		21		47		34		
09:30	14		16		19		12		33		28		
09:45	21	73	11	51	25	117	15	85	46	190	26	136	
10:00	28		9		30		20		58		29		
10:15	62		11		29		7		91		18		
10:30	48		7		33		8		81		15		
10:45	48	186	4	31	34	126	12	47	82	312	16	78	
11:00	61		4		31		11		92		15		
11:15	51		9		27		11		78		20		
11:30	72		6		36		10		108		16		
11:45	78	262	3	22	40	134	8	40	118	396	11	62	
Total	694		1309		649		1538		1343		2847		
Percent	51.7%		46.0%		48.3%		54.0%						
Day Total			2003				2187				4190		
Peak	11:00		12:00		08:15		04:15		11:00		12:00		
Vol.	262		300		183		211		396		438		
P.H.F.	0.840		0.843		0.775		0.879		0.839		0.913		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

Pleasant Street
south of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

92031 F volume
Site Code: 3853

Start	SB				NB				Combined				17-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	3		92		5		0		8		92		
12:15	4		100		6		0		10		100		
12:30	3		82		5		0		8		82		
12:45	4	14	79	353	4	20	0	0	8	34	79	353	
01:00	4		76		6		0		10		76		
01:15	0		89		5		0		5		89		
01:30	4		66		3		0		7		66		
01:45	2	10	95	326	5	19	0	0	7	29	95	326	
02:00	0		94		2		0		2		94		
02:15	2		94		3		0		5		94		
02:30	0		54		5		0		5		54		
02:45	0	2	49	291	1	11	0	0	1	13	49	291	
03:00	2		41		1		0		3		41		
03:15	0		50		2		0		2		50		
03:30	0		54		0		0		0		54		
03:45	3	5	55	200	1	4	0	0	4	9	55	200	
04:00	4		57		5		0		9		57		
04:15	1		65		1		0		2		65		
04:30	1		71		2		0		3		71		
04:45	2	8	66	259	0	8	0	0	2	16	66	259	
05:00	2		57		4		0		6		57		
05:15	3		75		6		0		9		75		
05:30	3		81		3		0		6		81		
05:45	5	13	74	287	8	21	0	0	13	34	74	287	
06:00	8		75		4		0		12		75		
06:15	4		69		8		0		12		69		
06:30	13		64		12		0		25		64		
06:45	10	35	81	289	11	35	0	0	21	70	81	289	
07:00	11		62		23		0		34		62		
07:15	25		57		17		0		42		57		
07:30	11		60		33		0		44		60		
07:45	17	64	57	236	29	102	0	0	46	166	57	236	
08:00	28		47		41		0		69		47		
08:15	20		46		44		0		64		46		
08:30	41		49		30		0		71		49		
08:45	76	165	41	183	0	115	0	0	76	280	41	183	
09:00	53		41		0		0		53		41		
09:15	56		41		0		0		56		41		
09:30	80		46		0		0		80		46		
09:45	93	282	27	155	0	0	0	0	93	282	27	155	
10:00	77		24		0		0		77		24		
10:15	67		28		0		0		67		28		
10:30	79		21		0		0		79		21		
10:45	90	313	14	87	0	0	0	0	90	313	14	87	
11:00	82		34		0		0		82		34		
11:15	89		21		0		0		89		21		
11:30	78		26		0		0		78		26		
11:45	81	330	8	89	0	0	0	0	81	330	8	89	
Total	1241		2755		335		0		1576		2755		
Percent	78.7%		100.0%		21.3%		0.0%						
Day Total		3996				335				4331			
Peak	10:30		12:00		07:30				10:30		12:00		
Vol.	340		353		147				340		353		
P.H.F.	0.944		0.883		0.835				0.944		0.883		

Pleasant Street
south of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

92031 F volume
Site Code: 3853

Start	SB				NB				Combined				18-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	6		34		0		0		6		34		
12:15	12		25		0		0		12		25		
12:30	5		30		0		0		5		30		
12:45	8	31	26	115	0	0	1	1	8	31	27	116	
01:00	15		30		0		0		15		30		
01:15	3		28		0		1		3		29		
01:30	7		32		0		0		7		32		
01:45	9	34	27	117	0	0	0	1	9	34	27	118	
02:00	10		34		0		0		10		34		
02:15	8		20		0		0		8		20		
02:30	4		42		0		0		4		42		
02:45	1	23	46	142	0	0	0	0	1	23	46	142	
03:00	0		42		0		0		0		42		
03:15	4		56		0		0		4		56		
03:30	1		54		0		0		1		54		
03:45	4	9	59	211	0	0	0	0	4	9	59	211	
04:00	4		58		0		0		4		58		
04:15	4		64		0		0		4		64		
04:30	5		66		0		0		5		66		
04:45	1	14	74	262	0	0	0	0	1	14	74	262	
05:00	6		62		0		0		6		62		
05:15	6		69		0		0		6		69		
05:30	11		72		0		0		11		72		
05:45	11	34	71	274	0	0	0	0	11	34	71	274	
06:00	17		64		0		0		17		64		
06:15	21		62		0		0		21		62		
06:30	25		55		0		0		25		55		
06:45	16	79	53	234	0	0	0	0	16	79	53	234	
07:00	32		66		0		0		32		66		
07:15	29		61		0		0		29		61		
07:30	37		52		0		0		37		52		
07:45	40	138	39	218	0	0	0	0	40	138	39	218	
08:00	60		37		0		0		60		37		
08:15	58		27		0		0		58		27		
08:30	68		38		0		0		68		38		
08:45	63	249	46	148	0	0	0	0	63	249	46	148	
09:00	44		42		0		0		44		42		
09:15	39		40		0		0		39		40		
09:30	31		34		0		0		31		34		
09:45	19	133	30	146	0	0	0	0	19	133	30	146	
10:00	21		27		0		0		21		27		
10:15	27		11		0		0		27		11		
10:30	18		16		0		0		18		16		
10:45	26	92	17	71	0	0	0	0	26	92	17	71	
11:00	25		27		0		0		25		27		
11:15	29		7		0		0		29		7		
11:30	26		12		0		0		26		12		
11:45	24	104	14	60	0	0	0	0	24	104	14	60	
Total	940		1998		0		2		940		2000		
Percent	100.0%		99.9%		0.0%		0.1%						
Day Total		2938				2				2940			
Peak	08:00		04:45				00:30		08:00		04:45		
Vol.	249		277				2		249		277		
P.H.F.	0.915		0.936				0.500		0.915		0.936		

PRECISION
D A T A
INDUSTRIES, LLC
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St Paul Street
south of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

92031 G volume
Site Code: 3853

Start	NB				SB				Combined				17-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	9		0		13		19		22		19		
12:15	8		0		12		17		20		17		
12:30	3		10		7		20		10		30		
12:45	4	24	0	10	5	37	19	75	9	61	19	85	
01:00	2		8		5		18		7		26		
01:15	2		2		5		22		7		24		
01:30	6		3		9		30		15		33		
01:45	3	13	2	15	5	24	24	94	8	37	26	109	
02:00	2		11		9		18		11		29		
02:15	2		38		5		24		7		62		
02:30	4		48		5		72		9		120		
02:45	6	14	58	155	4	23	66	180	10	37	124	335	
03:00	4		58		2		60		6		118		
03:15	1		54		2		54		3		108		
03:30	0		61		0		76		0		137		
03:45	2	7	52	225	2	6	75	265	4	13	127	490	
04:00	3		66		8		64		11		130		
04:15	2		72		4		70		6		142		
04:30	5		57		4		81		9		138		
04:45	4	14	66	261	3	19	73	288	7	33	139	549	
05:00	4		64		3		104		7		168		
05:15	8		68		8		83		16		151		
05:30	14		70		11		96		25		166		
05:45	19	45	59	261	12	34	91	374	31	79	150	635	
06:00	18		59		24		86		42		145		
06:15	12		60		25		104		37		164		
06:30	34		56		54		92		88		148		
06:45	30	94	72	247	52	155	85	367	82	249	157	614	
07:00	52		58		62		94		114		152		
07:15	62		66		54		84		116		150		
07:30	48		56		56		62		104		118		
07:45	76	238	55	235	64	236	47	287	140	474	102	522	
08:00	91		44		81		48		172		92		
08:15	81		46		88		62		169		108		
08:30	104		40		72		50		176		90		
08:45	84	360	46	176	72	313	78	238	156	673	124	414	
09:00	72		38		69		59		141		97		
09:15	72		37		71		51		143		88		
09:30	1		43		20		44		21		87		
09:45	1	146	23	141	34	194	42	196	35	340	65	337	
10:00	7		21		18		30		25		51		
10:15	0		24		24		36		24		60		
10:30	1		18		26		26		27		44		
10:45	2	10	24	87	18	86	34	126	20	96	58	213	
11:00	8		14		12		24		20		38		
11:15	3		16		20		20		23		36		
11:30	2		11		16		15		18		26		
11:45	4	17	13	54	14	62	17	76	18	79	30	130	
Total	982		1867		1189		2566		2171		4433		
Percent	45.2%		42.1%		54.8%		57.9%						
Day Total		2849				3755				6604			
Peak	08:00		04:45		08:00		05:30		08:00		05:00		
Vol.	360		268		313		377		673		635		
P.H.F.	0.865		0.931		0.889		0.906		0.956		0.945		

St Paul Street
south of Commonwealth Avenue (Route 20)
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92031 G volume
Site Code: 3853

Start	NB				SB				Combined				18-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	9		65		10		74		19		139		
12:15	5		58		12		70		17		128		
12:30	7		62		8		72		15		134		
12:45	7	28	61	246	8	38	56	272	15	66	117	518	
01:00	9		63		16		76		25		139		
01:15	2		51		7		70		9		121		
01:30	2		68		4		69		6		137		
01:45	4	17	42	224	10	37	88	303	14	54	130	527	
02:00	3		70		4		89		7		159		
02:15	2		66		11		69		13		135		
02:30	1		58		1		67		2		125		
02:45	0	6	57	251	2	18	57	282	2	24	114	533	
03:00	4		57		2		66		6		123		
03:15	0		55		1		70		1		125		
03:30	1		50		0		64		1		114		
03:45	1	6	61	223	2	5	90	290	3	11	151	513	
04:00	2		68		4		72		6		140		
04:15	4		50		4		72		8		122		
04:30	4		65		6		59		10		124		
04:45	2	12	62	245	1	15	86	289	3	27	148	534	
05:00	6		58		6		101		12		159		
05:15	4		52		5		94		9		146		
05:30	12		80		12		74		24		154		
05:45	16	38	60	250	23	46	89	358	39	84	149	608	
06:00	14		63		26		88		40		151		
06:15	28		50		22		90		50		140		
06:30	22		66		43		89		65		155		
06:45	28	92	60	239	57	148	89	356	85	240	149	595	
07:00	46		64		47		86		93		150		
07:15	61		64		56		65		117		129		
07:30	72		60		62		66		134		126		
07:45	78	257	40	228	88	253	59	276	166	510	99	504	
08:00	94		34		76		55		170		89		
08:15	85		55		74		53		159		108		
08:30	91		43		60		48		151		91		
08:45	78	348	40	172	80	290	56	212	158	638	96	384	
09:00	89		40		93		60		182		100		
09:15	89		28		74		38		163		66		
09:30	66		31		75		30		141		61		
09:45	50	294	34	133	81	323	36	164	131	617	70	297	
10:00	56		26		78		29		134		55		
10:15	58		28		80		32		138		60		
10:30	53		14		73		31		126		45		
10:45	61	228	7	75	70	301	22	114	131	529	29	189	
11:00	60		18		60		28		120		46		
11:15	40		22		64		10		104		32		
11:30	52		11		68		14		120		25		
11:45	44	196	29	80	74	266	24	76	118	462	53	156	
Total	1522		2366		1740		2992		3262		5358		
Percent	46.7%		44.2%		53.3%		55.8%						
Day Total		3888				4732				8620			
Peak	07:45		05:15		09:00		05:00		08:30		05:00		
Vol.	348		255		323		358		654		608		
P.H.F.	0.926		0.797		0.868		0.886		0.898		0.956		

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

Buick Street
north of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

92031 H volume
Site Code: 3853

Start	NB				SB				Combined				17-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	4		13		6		12		10		25		
12:15	3		10		7		15		10		25		
12:30	1		17		1		18		2		35		
12:45	1	9	14	54	1	15	14	59	2	24	28	113	
01:00	1		14		2		16		3		30		
01:15	1		16		1		12		2		28		
01:30	1		10		2		11		3		21		
01:45	2	5	14	54	1	6	12	51	3	11	26	105	
02:00	1		9		0		17		1		26		
02:15	1		12		1		8		2		20		
02:30	0		13		1		11		1		24		
02:45	2	4	12	46	2	4	13	49	4	8	25	95	
03:00	2		14		0		13		2		27		
03:15	0		20		1		12		1		32		
03:30	2		24		0		34		2		58		
03:45	1	5	16	74	0	1	16	75	1	6	32	149	
04:00	2		8		2		30		4		38		
04:15	1		18		0		19		1		37		
04:30	2		10		1		26		3		36		
04:45	1	6	22	58	1	4	24	99	2	10	46	157	
05:00	4		18		3		44		7		62		
05:15	4		18		2		28		6		46		
05:30	3		32		2		28		5		60		
05:45	14	25	32	100	6	13	29	129	20	38	61	229	
06:00	9		18		2		25		11		43		
06:15	19		22		3		17		22		39		
06:30	14		17		4		24		18		41		
06:45	26	68	16	73	5	14	24	90	31	82	40	163	
07:00	23		26		5		18		28		44		
07:15	15		18		3		21		18		39		
07:30	18		16		9		20		27		36		
07:45	28	84	13	73	12	29	20	79	40	113	33	152	
08:00	36		6		8		13		44		19		
08:15	44		8		10		10		54		18		
08:30	36		4		8		12		44		16		
08:45	46	162	6	24	8	34	13	48	54	196	19	72	
09:00	47		6		5		23		52		29		
09:15	32		6		6		13		38		19		
09:30	30		12		10		50		40		62		
09:45	16	125	6	30	8	29	25	111	24	154	31	141	
10:00	6		6		7		14		13		20		
10:15	10		5		6		18		16		23		
10:30	12		7		8		6		20		13		
10:45	10	38	8	26	6	27	10	48	16	65	18	74	
11:00	12		3		8		5		20		8		
11:15	16		2		12		7		28		9		
11:30	13		3		14		9		27		12		
11:45	13	54	10	18	12	46	10	31	25	100	20	49	
Total	585		630		222		869		807		1499		
Percent	72.5%		42.0%		27.5%		58.0%						
Day Total		1215				1091				2306			
Peak	08:15		05:30		11:00		05:00		08:15		05:00		
Vol.	173		104		46		129		204		229		
P.H.F.	0.920		0.813		0.821		0.733		0.944		0.923		

PRECISION
D A T A
INDUSTRIES, LLC
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Buick Street
north of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

92031 H volume
Site Code: 3853

Start	NB				SB				Combined				18-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	4		10		14		14		18		24		
12:15	4		18		2		7		6		25		
12:30	1		16		4		11		5		27		
12:45	0	9	18	62	1	21	9	41	1	30	27	103	
01:00	1		6		0		12		1		18		
01:15	0		11		1		13		1		24		
01:30	1		14		3		16		4		30		
01:45	1	3	10	41	0	4	11	52	1	7	21	93	
02:00	0		14		1		14		1		28		
02:15	0		7		7		12		7		19		
02:30	1		9		3		12		4		21		
02:45	1	2	12	42	0	11	20	58	1	13	32	100	
03:00	2		16		2		20		4		36		
03:15	0		15		0		16		0		31		
03:30	0		20		0		27		0		47		
03:45	2	4	18	69	2	4	18	81	4	8	36	150	
04:00	0		12		1		22		1		34		
04:15	2		16		0		24		2		40		
04:30	1		12		1		12		2		24		
04:45	1	4	11	51	0	2	28	86	1	6	39	137	
05:00	2		16		1		46		3		62		
05:15	0		10		1		34		1		44		
05:30	7		12		3		27		10		39		
05:45	18	27	12	50	4	9	16	123	22	36	28	173	
06:00	14		21		6		32		20		53		
06:15	22		10		6		28		28		38		
06:30	18		8		6		20		24		28		
06:45	30	84	8	47	4	22	21	101	34	106	29	148	
07:00	30		8		4		18		34		26		
07:15	26		7		6		11		32		18		
07:30	24		8		8		19		32		27		
07:45	30	110	7	30	4	22	14	62	34	132	21	92	
08:00	32		5		12		10		44		15		
08:15	32		3		14		7		46		10		
08:30	29		8		12		8		41		16		
08:45	45	138	5	21	12	50	4	29	57	188	9	50	
09:00	54		8		9		9		63		17		
09:15	31		5		16		7		47		12		
09:30	30		9		6		10		36		19		
09:45	22	137	6	28	12	43	8	34	34	180	14	62	
10:00	17		4		7		10		24		14		
10:15	11		8		8		11		19		19		
10:30	18		4		10		2		28		6		
10:45	14	60	6	22	8	33	6	29	22	93	12	51	
11:00	10		4		10		8		20		12		
11:15	16		3		14		5		30		8		
11:30	7		2		10		2		17		4		
11:45	16	49	12	21	12	46	18	33	28	95	30	54	
Total	627		484		267		729		894		1213		
Percent	70.1%		39.9%		29.9%		60.1%						
Day Total		1111				996				2107			
Peak	08:15		03:00		08:00		04:45		08:30		04:45		
Vol.	160		69		50		135		208		184		
P.H.F.	0.741		0.863		0.893		0.734		0.825		0.742		

PRECISION
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Amory Street
south of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

92031 I volume
Site Code: 3853

Start	NB				SB				Combined				17-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	0		41		0		9		0		50		
12:15	1		43		0		14		1		57		
12:30	0		30		1		20		1		50		
12:45	0	1	40	154	0	1	6	49	0	2	46	203	
01:00	0		42		1		6		1		48		
01:15	0		37		1		4		1		41		
01:30	2		38		0		10		2		48		
01:45	1	3	36	153	0	2	12	32	1	5	48	185	
02:00	0		38		1		13		1		51		
02:15	1		22		0		14		1		36		
02:30	2		27		1		10		3		37		
02:45	0	3	17	104	0	2	10	47	0	5	27	151	
03:00	1		24		0		5		1		29		
03:15	1		32		0		6		1		38		
03:30	0		33		0		14		0		47		
03:45	0	2	29	118	0	0	12	37	0	2	41	155	
04:00	2		42		0		8		2		50		
04:15	2		38		0		6		2		44		
04:30	0		38		0		7		0		45		
04:45	0	4	50	168	0	0	13	34	0	4	63	202	
05:00	0		50		0		12		0		62		
05:15	1		55		0		14		1		69		
05:30	1		50		0		20		1		70		
05:45	0	2	37	192	1	1	22	68	1	3	59	260	
06:00	4		40		1		25		5		65		
06:15	6		28		1		26		7		54		
06:30	7		28		5		24		12		52		
06:45	12	29	24	120	2	9	8	83	14	38	32	203	
07:00	16		18		4		15		20		33		
07:15	36		25		8		16		44		41		
07:30	38		14		7		16		45		30		
07:45	48	138	25	82	7	26	17	64	55	164	42	146	
08:00	63		13		15		14		78		27		
08:15	76		10		15		4		91		14		
08:30	75		16		18		14		93		30		
08:45	76	290	12	51	16	64	8	40	92	354	20	91	
09:00	64		7		15		6		79		13		
09:15	50		7		11		2		61		9		
09:30	69		12		16		6		85		18		
09:45	66	249	11	37	12	54	2	16	78	303	13	53	
10:00	46		8		10		3		56		11		
10:15	48		2		11		4		59		6		
10:30	38		2		10		2		48		4		
10:45	37	169	4	16	10	41	0	9	47	210	4	25	
11:00	42		5		10		6		52		11		
11:15	37		6		8		2		45		8		
11:30	35		2		9		1		44		3		
11:45	40	154	3	16	6	33	0	9	46	187	3	25	
Total	1044		1211		233		488		1277		1699		
Percent	81.8%		71.3%		18.2%		28.7%						
Day Total		2255				721				2976			
Peak	08:15		04:45		08:00		05:45		08:15		04:45		
Vol.	291		205		64		97		355		264		
P.H.F.	0.957		0.932		0.889		0.933		0.954		0.943		

PRECISION
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Amory Street
south of Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA/J. Freudberg

92031 I volume
Site Code: 3853

Start	NB				SB				Combined				18-Nov-09
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	2		15		0		10		2		25		
12:15	3		19		1		12		4		31		
12:30	1		17		0		8		1		25		
12:45	0	6	22	73	1	2	10	40	1	8	32	113	
01:00	2		15		2		8		4		23		
01:15	0		24		1		16		1		40		
01:30	0		16		1		17		1		33		
01:45	1	3	20	75	0	4	11	52	1	7	31	127	
02:00	1		24		0		14		1		38		
02:15	0		22		0		10		0		32		
02:30	0		19		0		6		0		25		
02:45	0	1	29	94	0	0	9	39	0	1	38	133	
03:00	0		20		0		6		0		26		
03:15	2		34		0		9		2		43		
03:30	0		30		1		11		1		41		
03:45	0	2	24	108	1	2	10	36	1	4	34	144	
04:00	1		44		0		18		1		62		
04:15	1		39		0		12		1		51		
04:30	0		44		0		16		0		60		
04:45	0	2	42	169	0	0	12	58	0	2	54	227	
05:00	0		44		0		10		0		54		
05:15	2		44		0		14		2		58		
05:30	4		34		0		10		4		44		
05:45	3	9	34	156	2	2	18	52	5	11	52	208	
06:00	4		24		1		13		5		37		
06:15	4		26		6		6		10		32		
06:30	6		28		6		16		12		44		
06:45	10	24	18	96	2	15	12	47	12	39	30	143	
07:00	18		16		8		13		26		29		
07:15	34		16		12		16		46		32		
07:30	36		15		7		6		43		21		
07:45	62	150	17	64	15	42	8	43	77	192	25	107	
08:00	64		10		12		8		76		18		
08:15	74		12		19		10		93		22		
08:30	72		3		14		4		86		7		
08:45	74	284	18	43	12	57	10	32	86	341	28	75	
09:00	70		14		20		2		90		16		
09:15	44		6		12		2		56		8		
09:30	29		8		6		2		35		10		
09:45	30	173	4	32	10	48	7	13	40	221	11	45	
10:00	18		5		14		3		32		8		
10:15	26		6		8		2		34		8		
10:30	18		4		6		1		24		5		
10:45	21	83	4	19	14	42	2	8	35	125	6	27	
11:00	20		6		10		4		30		10		
11:15	18		2		10		1		28		3		
11:30	11		2		8		2		19		4		
11:45	22	71	2	12	6	34	0	7	28	105	2	19	
Total	808		941		248		427		1056		1368		
Percent	76.5%		68.8%		23.5%		31.2%						
Day Total		1749				675				2424			
Peak	08:15		04:30		08:15		01:15		08:15		04:00		
Vol.	290		174		65		58		355		227		
P.H.F.	0.980		0.989		0.813		0.853		0.954		0.915		

Commonwealth Avenue (EB)
east of Amory Street
City, State: Boston, MA
Client: BETA / J. Freudberg

PRECISION
D A T A
INDUSTRIES, LLC
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92031 J volume
Site Code: TBA

Start Time	A.M.	EB	P.M.				Tue 17-Nov-09
12:00	72		216				
12:15	68		213				
12:30	50		222				
12:45	36	226	208	859			
01:00	59		170				
01:15	38		224				
01:30	40		195				
01:45	32	169	212	801			
02:00	27		237				
02:15	25		179				
02:30	31		286				
02:45	23	106	225	927			
03:00	21		228				
03:15	22		284				
03:30	16		300				
03:45	23	82	244	1056			
04:00	16		258				
04:15	20		270				
04:30	8		275				
04:45	18	62	272	1075			
05:00	28		290				
05:15	24		299				
05:30	37		273				
05:45	43	132	302	1164			
06:00	56		254				
06:15	72		235				
06:30	114		257				
06:45	154	396	260	1006			
07:00	176		228				
07:15	244		226				
07:30	290		212				
07:45	317	1027	212	878			
08:00	330		200				
08:15	354		195				
08:30	410		180				
08:45	362	1456	195	770			
09:00	361		230				
09:15	350		184				
09:30	236		240				
09:45	278	1225	206	860			
10:00	246		164				
10:15	251		174				
10:30	220		137				
10:45	203	920	108	583			
11:00	210		146				
11:15	202		142				
11:30	215		106				
11:45	222	849	104	498			
Total	6650		10477				
Percent			100.0%		0.0%	0.0%	
Day Total		17127					
Peak	08:15		05:00				
Vol.	1487		1164				
P.H.F.	0.907		0.964				

Commonwealth Avenue (EB)
east of Amory Street
City, State: Boston, MA
Client: BETA / J. Freudberg

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92031 J volume
Site Code: TBA

Start Time	A.M.	EB	P.M.				Wed 18-Nov-09
12:00	91		258				
12:15	72		245				
12:30	69		224				
12:45	64	296	232	959			
01:00	58		240				
01:15	39		204				
01:30	36		216				
01:45	40	173	212	872			
02:00	30		242				
02:15	50		240				
02:30	36		234				
02:45	19	135	258	974			
03:00	24		242				
03:15	13		252				
03:30	13		278				
03:45	11	61	292	1064			
04:00	12		282				
04:15	20		256				
04:30	18		262				
04:45	14	64	286	1086			
05:00	13		272				
05:15	28		344				
05:30	37		288				
05:45	42	120	279	1183			
06:00	46		253				
06:15	88		268				
06:30	112		245				
06:45	127	373	246	1012			
07:00	172		256				
07:15	262		246				
07:30	290		194				
07:45	326	1050	210	906			
08:00	329		198				
08:15	382		168				
08:30	376		154				
08:45	376	1463	194	714			
09:00	379		210				
09:15	366		182				
09:30	284		168				
09:45	292	1321	164	724			
10:00	204		134				
10:15	252		150				
10:30	207		112				
10:45	240	903	117	513			
11:00	256		152				
11:15	202		128				
11:30	216		88				
11:45	233	907	100	468			
Total	6866		10475				
Percent			100.0%		0.0%	0.0%	
Day Total		17341					
Peak	08:15		04:45				
Vol.	1513		1190				
P.H.F.	0.990		0.865				

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Email: datarequests@pdillc.com

Commonwealth Avenue (WB)
east of Amory Street
City, State: Boston, MA
Client: BETA / J. Freudberg

92031 K volume
Site Code: TBA

Start Time	A.M.	WB	P.M.				Tue 17-Nov-09
12:00	58		232				
12:15	62		254				
12:30	50		236				
12:45	61	231	260	982			
01:00	53		214				
01:15	36		238				
01:30	36		218				
01:45	26	151	238	908			
02:00	36		231				
02:15	31		208				
02:30	17		232				
02:45	18	102	236	907			
03:00	18		274				
03:15	22		230				
03:30	20		280				
03:45	20	80	240	1024			
04:00	20		286				
04:15	16		272				
04:30	35		288				
04:45	28	99	264	1110			
05:00	24		319				
05:15	46		336				
05:30	60		392				
05:45	82	212	370	1417			
06:00	80		369				
06:15	103		389				
06:30	136		347				
06:45	183	502	291	1396			
07:00	208		332				
07:15	198		251				
07:30	210		257				
07:45	245	861	201	1041			
08:00	242		220				
08:15	256		220				
08:30	240		180				
08:45	249	987	242	862			
09:00	282		235				
09:15	228		186				
09:30	250		179				
09:45	228	988	156	756			
10:00	222		141				
10:15	242		153				
10:30	238		142				
10:45	256	958	131	567			
11:00	228		112				
11:15	228		120				
11:30	212		112				
11:45	248	916	80	424			
Total	6087		11394				
Percent			100.0%		0.0%	0.0%	
Day Total		17481					
Peak	08:15		05:30				
Vol.	1027		1520				
P.H.F.	0.910		0.969				

PRECISION
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Commonwealth Avenue (WB)
east of Amory Street
City, State: Boston, MA
Client: BETA / J. Freudberg

92031 K volume
Site Code: TBA

Start Time	A.M.	WB	P.M.				Wed 18-Nov-09
12:00	72		221				
12:15	79		253				
12:30	84		196				
12:45	60	295	226	896			
01:00	46		202				
01:15	54		220				
01:30	42		214				
01:45	26	168	229	865			
02:00	28		238				
02:15	36		222				
02:30	20		245				
02:45	14	98	242	947			
03:00	16		278				
03:15	20		247				
03:30	6		248				
03:45	18	60	294	1067			
04:00	10		268				
04:15	18		306				
04:30	30		296				
04:45	22	80	300	1170			
05:00	23		288				
05:15	43		333				
05:30	58		316				
05:45	96	220	360	1297			
06:00	88		361				
06:15	102		346				
06:30	156		304				
06:45	190	536	334	1345			
07:00	206		264				
07:15	220		274				
07:30	184		226				
07:45	246	856	214	978			
08:00	244		199				
08:15	245		224				
08:30	208		224				
08:45	278	975	218	865			
09:00	248		246				
09:15	214		196				
09:30	240		178				
09:45	206	908	150	770			
10:00	217		164				
10:15	223		168				
10:30	218		158				
10:45	204	862	124	614			
11:00	209		128				
11:15	204		116				
11:30	202		122				
11:45	252	867	114	480			
Total	5925		11294				
Percent			100.0%		0.0%	0.0%	
Day Total		17219					
Peak	08:45		05:30				
Vol.	980		1383				
P.H.F.	0.881		0.958				

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N/S: Babcock Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 A
Site Code : 3853
Start Date : 11/18/2009

Groups Printed- Cars - Heavy Vehicles

	Babcock Street From North			Commonwealth Avenue (Route 20) From East				Babcock Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	9	11	25	124	11	0	11	8	16	2	106	0	0	325
07:15 AM	3	19	9	33	128	7	3	8	9	25	5	164	1	0	414
07:30 AM	3	13	11	25	121	11	6	16	9	40	5	187	0	0	447
07:45 AM	3	16	7	41	157	16	5	9	10	39	5	206	0	0	514
Total	11	57	38	124	530	45	14	44	36	120	17	663	1	0	1700
08:00 AM	4	15	21	22	169	7	2	16	5	24	6	180	0	0	471
08:15 AM	4	13	19	25	171	17	2	16	11	33	9	200	0	0	520
08:30 AM	2	8	11	18	170	7	5	18	4	38	8	214	0	0	503
08:45 AM	0	9	20	19	174	17	7	19	4	45	10	212	0	0	536
Total	10	45	71	84	684	48	16	69	24	140	33	806	0	0	2030
09:00 AM	4	20	12	14	169	6	4	17	7	25	8	199	0	0	485
09:15 AM	6	5	12	20	162	14	4	20	1	32	9	196	0	0	481
09:30 AM	2	10	14	10	169	13	7	14	5	23	8	176	0	0	451
09:45 AM	2	11	9	13	161	17	3	16	3	27	9	161	0	0	432
Total	14	46	47	57	661	50	18	67	16	107	34	732	0	0	1849
10:00 AM	3	13	14	16	155	14	5	13	6	14	7	135	0	0	395
10:15 AM	1	17	22	17	167	15	5	19	5	16	3	132	0	0	419
10:30 AM	3	9	14	12	153	8	8	9	1	21	3	125	0	0	366
10:45 AM	1	9	25	17	162	11	5	9	3	7	8	157	0	0	414
Total	8	48	75	62	637	48	23	50	15	58	21	549	0	0	1594
11:00 AM	4	11	18	8	193	16	6	9	4	17	11	152	0	0	449
11:15 AM	4	10	14	23	163	13	5	8	3	17	8	138	0	0	406
11:30 AM	4	8	23	18	199	15	6	9	5	25	12	126	0	0	450
11:45 AM	4	14	19	15	192	17	5	5	6	20	2	157	1	0	457
Total	16	43	74	64	747	61	22	31	18	79	33	573	1	0	1762
12:00 PM	8	16	14	19	197	21	7	7	4	30	7	165	0	0	495
12:15 PM	5	10	16	18	219	13	1	12	1	20	18	151	0	0	484
12:30 PM	2	10	18	11	185	9	3	6	3	31	7	155	0	0	440
12:45 PM	5	5	19	16	177	22	3	20	2	16	13	161	0	0	459
Total	20	41	67	64	778	65	14	45	10	97	45	632	0	0	1878
01:00 PM	3	6	17	10	222	8	3	12	3	13	4	152	0	0	453
01:15 PM	2	5	17	11	211	10	2	10	4	24	8	144	2	0	450
01:30 PM	4	7	14	14	191	12	3	9	8	14	9	137	0	0	422
01:45 PM	5	10	15	12	187	8	4	17	4	25	4	139	0	0	430
Total	14	28	63	47	811	38	12	48	19	76	25	572	2	0	1755
02:00 PM	5	6	14	17	206	16	5	8	4	27	7	131	0	0	446
02:15 PM	3	4	18	22	190	14	4	12	5	28	10	136	0	0	446
02:30 PM	6	7	15	19	219	23	6	15	3	30	6	168	0	0	517
02:45 PM	5	8	24	17	215	17	4	12	9	27	10	140	0	0	488
Total	19	25	71	75	830	70	19	47	21	112	33	575	0	0	1897
03:00 PM	11	7	22	13	203	19	4	13	2	32	4	144	1	0	475
03:15 PM	15	9	15	22	211	4	1	9	6	33	15	133	1	0	474
03:30 PM	19	6	18	25	216	11	1	10	0	43	1	165	0	0	515
03:45 PM	14	8	24	20	238	9	2	6	2	34	10	153	2	0	522
Total	59	30	79	80	868	43	8	38	10	142	30	595	4	0	1986
04:00 PM	15	7	25	35	271	15	5	14	6	29	7	144	0	0	573
04:15 PM	19	11	17	16	258	14	9	13	8	32	14	135	0	0	546
04:30 PM	15	21	28	14	272	13	5	11	6	34	13	144	1	0	577
04:45 PM	20	15	27	37	255	15	0	8	9	27	10	150	3	0	576
Total	69	54	97	102	1056	57	19	46	29	122	44	573	4	0	2272

PRECISION DATA INDUSTRIES, LLC
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N/S: Babcock Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 A
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

Groups Printed- Cars - Heavy Vehicles

	Babcock Street From North			Commonwealth Avenue (Route 20) From East				Babcock Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	16	22	21	21	286	17	4	9	5	30	11	177	0	0	619
05:15 PM	8	22	25	24	271	15	3	16	5	29	10	179	0	0	607
05:30 PM	12	19	23	15	303	25	4	11	4	34	11	165	0	0	626
05:45 PM	11	18	16	24	279	19	8	9	10	24	9	191	0	0	618
Total	47	81	85	84	1139	76	19	45	24	117	41	712	0	0	2470
Grand Total	287	498	767	843	8741	601	184	530	222	1170	356	6982	12	0	21193
Apprch %	18.5	32.1	49.4	8.1	84.3	5.8	1.8	27.6	11.6	60.9	4.8	95	0.2	0	
Total %	1.4	2.3	3.6	4	41.2	2.8	0.9	2.5	1	5.5	1.7	32.9	0.1	0	
Cars	275	483	723	794	8447	584	174	521	216	1152	339	6699	12	0	20419
% Cars	95.8	97	94.3	94.2	96.6	97.2	94.6	98.3	97.3	98.5	95.2	95.9	100	0	96.3
Heavy Vehicles	12	15	44	49	294	17	10	9	6	18	17	283	0	0	774
% Heavy Vehicles	4.2	3	5.7	5.8	3.4	2.8	5.4	1.7	2.7	1.5	4.8	4.1	0	0	3.7

	Babcock Street From North				Commonwealth Avenue (Route 20) From East					Babcock Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:15 AM																			
08:15 AM	**4**	13	19	**36**	**25**	171	**17**	2	215	16	**11**	33	60	9	200	0	0	209	520
08:30 AM	2	8	11	21	18	170	7	5	200	18	4	38	60	8	**214**	0	0	**222**	503
08:45 AM	0	9	**20**	29	19	**174**	17	**7**	**217**	**19**		**45**	**68**	**10**	212	0	0	222	**536**
09:00 AM	4	**20**	12	36	14	169	6	4	193	17	7	25	49	8	199	0	0	207	485
Total Volume	10	50	62	122	76	684	47	18	825	70	26	141	237	35	825	0	0	860	2044
% App. Total	8.2	41	50.8		9.2	82.9	5.7	2.2		29.5	11	59.5		4.1	95.9	0	0		
PHF	.625	.625	.775	.847	.760	.983	.691	.643	.950	.921	.591	.783	.871	.875	.964	.000	.000	.968	.953
Cars	6	49	52	107	74	654	46	16	790	69	25	137	231	30	790	0	0	820	1948
% Cars	60.0	98.0	83.9	87.7	97.4	95.6	97.9	88.9	95.8	98.6	96.2	97.2	97.5	85.7	95.8	0	0	95.3	95.3
Heavy Vehicles	4	1	10	15	2	30	1	2	35	1	1	4	6	5	35	0	0	40	96
% Heavy Vehicles	40.0	2.0	16.1	12.3	2.6	4.4	2.1	11.1	4.2	1.4	3.8	2.8	2.5	14.3	4.2	0	0	4.7	4.7
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	4	8	**23**	35	18	199	15	6	238	9	5	25	39	12	126	0	0	138	450
11:45 AM	4	14	19	37	15	192	17	5	229	5	**6**	20	31	2	157	**1**	0	160	457
12:00 PM	**8**	**16**	14	**38**	**19**	197	**21**	**7**	244	7	4	**30**	**41**	7	**165**	0	0	**172**	**495**
12:15 PM	5	10	16	31	18	**219**	13	1	**251**	**12**				**18**	151	0	0	169	484
Total Volume	21	48	72	141	70	807	66	19	962	33	16	95	144	39	599	1	0	639	1886
% App. Total	14.9	34	51.1		7.3	83.9	6.9	2		22.9	11.1	66		6.1	93.7	0.2	0		
PHF	.656	.750	.783	.928	.921	.921	.786	.679	.958	.688	.667	.792	.878	.542	.908	.250	.000	.929	.953
Cars	21	48	69	138	65	779	62	17	923	32	15	93	140	39	571	1	0	611	1812
% Cars	100	100	95.8	97.9	92.9	96.5	93.9	89.5	95.9	97.0	93.8	97.9	97.2	100	95.3	100	0	95.6	96.1
Heavy Vehicles	0	0	3	3	5	28	4	2	39	1	1	2	4	0	28	0	0	28	74
% Heavy Vehicles	0	0	4.2	2.1	7.1	3.5	6.1	10.5	4.1	3.0	6.3	2.1	2.8	0	4.7	0	0	4.4	3.9
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	**16**	**22**	21	**59**	21	286	17	4	328	9	5	30	44	**11**	177	0	0	188	619
05:15 PM	8	22	**25**	55	**24**	271	15	3	313	**16**			**50**	10	179	0	0	189	607
05:30 PM	12	19	23	54	15	**303**	**25**	4	**347**	11	4	**34**							**626**
05:45 PM	11	18	16	45	24	279	19	**8**	330	9	**10**	24	43	9	**191**	0	0	**200**	618
Total Volume	47	81	85	213	84	1139	76	19	1318	45	24	117	186	41	712	0	0	753	2470
% App. Total	22.1	38	39.9		6.4	86.4	5.8	1.4		24.2	12.9	62.9		5.4	94.6	0	0		
PHF	.734	.920	.850	.903	.875	.940	.760	.594	.950	.703	.600	.860	.930	.932	.932	.000	.000	.941	.986
Cars	47	80	83	210	81	1126	76	19	1302	45	22	117	184	40	695	0	0	735	2431
% Cars	100	98.8	97.6	98.6	96.4	98.9	100	100	98.8	100	91.7	100	98.9	97.6	97.6	0	0	97.6	98.4
Heavy Vehicles	0	1	2	3	3	13	0	0	16	0	2	0	2	1	17	0	0	18	39
% Heavy Vehicles	0	1.2	2.4	1.4	3.6	1.1	0	0	1.2	0	8.3	0	1.1	2.4	2.4	0	0	2.4	1.6

PRECISION
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File Name : 92031 A
Site Code : 3853
Start Date : 11/18/2009

Groups Printed- Cars

	Babcock Street From North			Commonwealth Avenue (Route 20) From East				Babcock Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	9	11	24	116	11	0	10	8	16	2	100	0	0	309
07:15 AM	2	19	9	32	123	7	3	6	9	25	5	151	1	0	392
07:30 AM	3	12	11	23	112	10	5	16	9	40	5	174	0	0	420
07:45 AM	3	16	7	41	148	16	5	9	10	38	4	196	0	0	493
Total	10	56	38	120	499	44	13	41	36	119	16	621	1	0	1614
08:00 AM	4	14	17	21	158	7	1	16	5	24	6	172	0	0	445
08:15 AM	2	12	14	24	160	16	1	16	10	33	9	191	0	0	488
08:30 AM	2	8	9	18	164	7	5	18	4	37	5	204	0	0	481
08:45 AM	0	9	18	18	167	17	6	18	4	42	9	209	0	0	517
Total	8	43	58	81	649	47	13	68	23	136	29	776	0	0	1931
09:00 AM	2	20	11	14	163	6	4	17	7	25	7	186	0	0	462
09:15 AM	6	5	12	17	157	14	4	19	1	32	9	189	0	0	465
09:30 AM	1	10	14	8	161	13	7	14	5	21	8	165	0	0	427
09:45 AM	2	9	7	13	157	15	3	16	3	27	7	152	0	0	411
Total	11	44	44	52	638	48	18	66	16	105	31	692	0	0	1765
10:00 AM	3	12	12	15	145	13	5	13	6	14	7	131	0	0	376
10:15 AM	1	16	19	15	159	15	4	18	5	14	3	125	0	0	394
10:30 AM	3	9	14	10	143	8	7	8	1	19	3	119	0	0	344
10:45 AM	1	9	25	15	156	10	5	9	3	6	7	149	0	0	395
Total	8	46	70	55	603	46	21	48	15	53	20	524	0	0	1509
11:00 AM	2	11	14	7	187	15	6	9	4	17	11	144	0	0	427
11:15 AM	3	9	13	23	160	12	5	8	3	17	8	132	0	0	393
11:30 AM	4	8	23	16	189	15	6	9	4	25	12	118	0	0	429
11:45 AM	4	14	19	13	184	15	4	5	6	19	2	149	1	0	435
Total	13	42	69	59	720	57	21	31	17	78	33	543	1	0	1684
12:00 PM	8	16	12	18	191	19	6	7	4	29	7	157	0	0	474
12:15 PM	5	10	15	18	215	13	1	11	1	20	18	147	0	0	474
12:30 PM	2	10	17	10	177	8	3	6	3	31	7	148	0	0	422
12:45 PM	5	4	16	16	167	21	3	20	2	16	13	154	0	0	437
Total	20	40	60	62	750	61	13	44	10	96	45	606	0	0	1807
01:00 PM	3	6	17	10	215	8	3	12	3	13	4	146	0	0	440
01:15 PM	2	5	16	11	203	10	2	10	4	24	7	137	2	0	433
01:30 PM	4	7	14	14	184	11	3	8	7	14	9	133	0	0	408
01:45 PM	5	10	15	12	177	8	4	17	3	24	4	135	0	0	414
Total	14	28	62	47	779	37	12	47	17	75	24	551	2	0	1695
02:00 PM	3	5	13	15	197	16	5	8	4	27	5	125	0	0	423
02:15 PM	3	4	17	19	187	14	3	12	5	28	9	131	0	0	432
02:30 PM	6	6	15	18	210	23	6	15	3	30	6	164	0	0	502
02:45 PM	5	8	24	16	205	17	4	12	9	27	10	137	0	0	474
Total	17	23	69	68	799	70	18	47	21	112	30	557	0	0	1831
03:00 PM	11	7	21	12	195	19	4	13	2	32	4	142	1	0	463
03:15 PM	15	9	14	21	207	4	1	9	6	33	13	128	1	0	461
03:30 PM	19	6	18	24	209	11	1	10	0	43	1	155	0	0	497
03:45 PM	14	8	23	19	235	9	2	6	2	34	10	150	2	0	514
Total	59	30	76	76	846	43	8	38	10	142	28	575	4	0	1935
04:00 PM	15	7	25	28	266	14	4	14	6	28	7	138	0	0	552
04:15 PM	19	10	16	16	254	14	9	13	8	30	13	133	0	0	535
04:30 PM	15	19	26	14	269	12	5	11	6	34	13	141	1	0	566
04:45 PM	19	15	27	35	249	15	0	8	9	27	10	147	3	0	564
Total	68	51	94	93	1038	55	18	46	29	119	43	559	4	0	2217

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N/S: Babcock Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 A
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

Groups Printed- Cars

	Babcock Street From North			Commonwealth Avenue (Route 20) From East				Babcock Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	16	21	21	20	280	17	4	9	4	30	11	172	0	0	605
05:15 PM	8	22	23	23	268	15	3	16	5	29	10	174	0	0	596
05:30 PM	12	19	23	15	301	25	4	11	4	34	11	161	0	0	620
05:45 PM	11	18	16	23	277	19	8	9	9	24	8	188	0	0	610
Total	47	80	83	81	1126	76	19	45	22	117	40	695	0	0	2431
Grand Total	275	483	723	794	8447	584	174	521	216	1152	339	6699	12	0	20419
Apprch %	18.6	32.6	48.8	7.9	84.5	5.8	1.7	27.6	11.4	61	4.8	95	0.2	0	
Total %	1.3	2.4	3.5	3.9	41.4	2.9	0.9	2.6	1.1	5.6	1.7	32.8	0.1	0	

	Babcock Street From North				Commonwealth Avenue (Route 20) From East					Babcock Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:15 AM																			
08:15 AM	**2**	12	14	28	**24**	160	16	1	201	16	**10**	33	59	**9**	191	0	0	200	488
08:30 AM	2	8	9	19	18	164	7	5	194	**18**									
08:45 AM	**0**	**9**	**18**	27	18	**167**	**17**	**6**	**208**	18	4	**42**	**64**	9	**209**	0	0	**218**	**517**
09:00 AM	2	**20**	11	**33**	14	163	6	4	187	17	7	25	49	7	186	0	0	193	462
Total Volume	6	49	52	107	74	654	46	16	790	69	25	137	231	30	790	0	0	820	1948
% App. Total	5.6	45.8	48.6		9.4	82.8	5.8	2		29.9	10.8	59.3		3.7	96.3	0	0		
PHF	.750	.613	.722	.811	.771	.979	.676	.667	.950	.958	.625	.815	.902	.833	.945	.000	.000	.940	.942
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	4	8	**23**	35	16	189	15	**6**	226	9	4	25	38	12	118	0	0	130	429
11:45 AM	4	14	19	**37**	13	184	15	4	216	5	**6**	19	30	2	149	**1**	0	152	435
12:00 PM	**8**	**16**	12	36	**18**	191	**19**	6	234	7	4	**29**	**40**	7	**157**	0	0	164	**474**
12:15 PM	5	10	15	30	18	**215**	13	1	**247**	**11**				**18**	147	0	0	**165**	474
Total Volume	21	48	69	138	65	779	62	17	923	32	15	93	140	39	571	1	0	611	1812
% App. Total	15.2	34.8	50		7	84.4	6.7	1.8		22.9	10.7	66.4		6.4	93.5	0.2	0		
PHF	.656	.750	.750	.932	.903	.906	.816	.708	.934	.727	.625	.802	.875	.542	.909	.250	.000	.926	.956
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	**16**	21	21	**58**	20	280	17	4	321	9	4	30	43	**11**	172	0	0	183	605
05:15 PM	8	**22**	**23**	53	**23**	268	15	3	309	**16**			**50**	10	174	0	0	184	596
05:30 PM	12	19	23	54	15	**301**	**25**	4	**345**	11	4	**34**							**620**
05:45 PM	11	18	16	45	23	277	19	**8**	327	9	**9**	24	42	8	**188**	0	0	**196**	610
Total Volume	47	80	83	210	81	1126	76	19	1302	45	22	117	184	40	695	0	0	735	2431
% App. Total	22.4	38.1	39.5		6.2	86.5	5.8	1.5		24.5	12	63.6		5.4	94.6	0	0		
PHF	.734	.909	.902	.905	.880	.935	.760	.594	.943	.703	.611	.860	.920	.909	.924	.000	.000	.938	.980

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City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 A
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Heavy Vehicles

	Babcock Street From North			Commonwealth Avenue (Route 20) From East				Babcock Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	1	8	0	0	1	0	0	0	6	0	0	16
07:15 AM	1	0	0	1	5	0	0	2	0	0	0	13	0	0	22
07:30 AM	0	1	0	2	9	1	1	0	0	0	0	13	0	0	27
07:45 AM	0	0	0	0	9	0	0	0	0	1	1	10	0	0	21
Total	1	1	0	4	31	1	1	3	0	1	1	42	0	0	86
08:00 AM	0	1	4	1	11	0	1	0	0	0	0	8	0	0	26
08:15 AM	2	1	5	1	11	1	1	0	1	0	0	9	0	0	32
08:30 AM	0	0	2	0	6	0	0	0	0	1	3	10	0	0	22
08:45 AM	0	0	2	1	7	0	1	1	0	3	1	3	0	0	19
Total	2	2	13	3	35	1	3	1	1	4	4	30	0	0	99
09:00 AM	2	0	1	0	6	0	0	0	0	0	1	13	0	0	23
09:15 AM	0	0	0	3	5	0	0	1	0	0	0	7	0	0	16
09:30 AM	1	0	0	2	8	0	0	0	0	2	0	11	0	0	24
09:45 AM	0	2	2	0	4	2	0	0	0	0	2	9	0	0	21
Total	3	2	3	5	23	2	0	1	0	2	3	40	0	0	84
10:00 AM	0	1	2	1	10	1	0	0	0	0	0	4	0	0	19
10:15 AM	0	1	3	2	8	0	1	1	0	2	0	7	0	0	25
10:30 AM	0	0	0	2	10	0	1	1	0	2	0	6	0	0	22
10:45 AM	0	0	0	2	6	1	0	0	0	1	1	8	0	0	19
Total	0	2	5	7	34	2	2	2	0	5	1	25	0	0	85
11:00 AM	2	0	4	1	6	1	0	0	0	0	0	8	0	0	22
11:15 AM	1	1	1	0	3	1	0	0	0	0	0	6	0	0	13
11:30 AM	0	0	0	2	10	0	0	0	1	0	0	8	0	0	21
11:45 AM	0	0	0	2	8	2	1	0	0	1	0	8	0	0	22
Total	3	1	5	5	27	4	1	0	1	1	0	30	0	0	78
12:00 PM	0	0	2	1	6	2	1	0	0	1	0	8	0	0	21
12:15 PM	0	0	1	0	4	0	0	1	0	0	0	4	0	0	10
12:30 PM	0	0	1	1	8	1	0	0	0	0	0	7	0	0	18
12:45 PM	0	1	3	0	10	1	0	0	0	0	0	7	0	0	22
Total	0	1	7	2	28	4	1	1	0	1	0	26	0	0	71
01:00 PM	0	0	0	0	7	0	0	0	0	0	0	6	0	0	13
01:15 PM	0	0	1	0	8	0	0	0	0	0	1	7	0	0	17
01:30 PM	0	0	0	0	7	1	0	1	1	0	0	4	0	0	14
01:45 PM	0	0	0	0	10	0	0	0	1	1	0	4	0	0	16
Total	0	0	1	0	32	1	0	1	2	1	1	21	0	0	60
02:00 PM	2	1	1	2	9	0	0	0	0	0	2	6	0	0	23
02:15 PM	0	0	1	3	3	0	1	0	0	0	1	5	0	0	14
02:30 PM	0	1	0	1	9	0	0	0	0	0	0	4	0	0	15
02:45 PM	0	0	0	1	10	0	0	0	0	0	0	3	0	0	14
Total	2	2	2	7	31	0	1	0	0	0	3	18	0	0	66
03:00 PM	0	0	1	1	8	0	0	0	0	0	0	2	0	0	12
03:15 PM	0	0	1	1	4	0	0	0	0	0	2	5	0	0	13
03:30 PM	0	0	0	1	7	0	0	0	0	0	0	10	0	0	18
03:45 PM	0	0	1	1	3	0	0	0	0	0	0	3	0	0	8
Total	0	0	3	4	22	0	0	0	0	0	2	20	0	0	51
04:00 PM	0	0	0	7	5	1	1	0	0	1	0	6	0	0	21
04:15 PM	0	1	1	0	4	0	0	0	0	2	1	2	0	0	11
04:30 PM	0	2	2	0	3	1	0	0	0	0	0	3	0	0	11
04:45 PM	1	0	0	2	6	0	0	0	0	0	0	3	0	0	12
Total	1	3	3	9	18	2	1	0	0	3	1	14	0	0	55

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File Name : 92031 A
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Page No : 2

Groups Printed- Heavy Vehicles

	Babcock Street From North			Commonwealth Avenue (Route 20) From East				Babcock Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	0	1	0	1	6	0	0	0	1	0	0	5	0	0	14
05:15 PM	0	0	2	1	3	0	0	0	0	0	0	5	0	0	11
05:30 PM	0	0	0	0	2	0	0	0	0	0	0	4	0	0	6
05:45 PM	0	0	0	1	2	0	0	0	1	0	1	3	0	0	8
Total	0	1	2	3	13	0	0	0	2	0	1	17	0	0	39
Grand Total	12	15	44	49	294	17	10	9	6	18	17	283	0	0	774
Apprch %	16.9	21.1	62	13.2	79.5	4.6	2.7	27.3	18.2	54.5	5.7	94.3	0	0	
Total %	1.6	1.9	5.7	6.3	38	2.2	1.3	1.2	0.8	2.3	2.2	36.6	0	0	

	Babcock Street From North				Commonwealth Avenue (Route 20) From East					Babcock Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	0	**1**	0	1	**2**	9	**1**	**1**	13	0	0	0	0	0	**13**	0	0	**13**	27
07:45 AM	0	0	0	0	0	9	0	0	9	0	0	**1**	**1**	**1**	10	0	0	11	21
08:00 AM	0	1	4	5	1	**11**	0	1	13	0	0	0	0	0	8	0	0	8	26
08:15 AM	**2**	1	**5**	**8**	1	11	1	1	**14**	0	**1**	0	1	0	9	0	0	9	**32**
Total Volume	2	3	9	14	4	40	2	3	49	0	1	1	2	1	40	0	0	41	106
% App. Total	14.3	21.4	64.3		8.2	81.6	4.1	6.1		0	50	50		2.4	97.6	0	0		
PHF	.250	.750	.450	.438	.500	.909	.500	.750	.875	.000	.250	.250	.500	.250	.769	.000	.000	.788	.828
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 10:15 AM																			
10:15 AM	0	**1**	3	4	**2**	8	0	**1**	11	**1**	**0**	**2**	**3**	0	7	0	0	7	**25**
10:30 AM	0	0	0	0	2	**10**	0	1	**13**	1	0	2	3	0	6	0	0	6	22
10:45 AM	0	0	0	0	2	6	**1**	0	9	0	0	1	1	**1**	**8**	0	0	**9**	19
11:00 AM	**2**	0	**4**	**6**	1	6	1	0	8	0	0	0	0	0	8	0	0	8	22
Total Volume	2	1	7	10	7	30	2	2	41	2	0	5	7	1	29	0	0	30	88
% App. Total	20	10	70		17.1	73.2	4.9	4.9		28.6	0	71.4		3.3	96.7	0	0		
PHF	.250	.250	.438	.417	.875	.750	.500	.500	.788	.500	.000	.625	.583	.250	.906	.000	.000	.833	.880
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 02:00 PM																			
02:00 PM	**2**	**1**	**1**	**4**	2	9	0	0	**11**	0	0	0	0	**2**	**6**	0	0	**8**	**23**
02:15 PM	0	0	1	1	**3**	3	0	**1**	7	0	0	0	0	1	5	0	0	6	14
02:30 PM	0	1	0	1	1	9	0	0	10	0	0	0	0	0	4	0	0	4	15
02:45 PM	0	0	0	0	1	**10**	0	0	11	0	0	0	0	0	3	0	0	3	14
Total Volume	2	2	2	6	7	31	0	1	39	0	0	0	0	3	18	0	0	21	66
% App. Total	33.3	33.3	33.3		17.9	79.5	0	2.6		0	0	0		14.3	85.7	0	0		
PHF	.250	.500	.500	.375	.583	.775	.000	.250	.886	.000	.000	.000	.000	.375	.750	.000	.000	.656	.717

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File Name : 92031 A
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Groups Printed- Trains

	Babcock Street From North			Commonwealth Avenue (Route 20) From East				Babcock Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
07:15 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
07:30 AM	0	0	0	0	2	0	0	0	0	0	0	4	0	0	6
07:45 AM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
Total	0	0	0	0	8	0	0	0	0	0	0	12	0	0	20
08:00 AM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
08:15 AM	0	0	0	0	3	0	0	0	0	0	0	1	0	0	4
08:30 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
08:45 AM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	0	9	0	0	0	0	0	0	9	0	0	18
09:00 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
09:15 AM	0	0	0	0	3	0	0	0	0	0	0	4	0	0	7
09:30 AM	0	0	0	0	3	0	0	0	0	0	0	1	0	0	4
09:45 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
Total	0	0	0	0	11	0	0	0	0	0	0	10	0	0	21
10:00 AM	0	0	0	0	4	0	0	0	0	0	0	2	0	0	6
10:15 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
10:30 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
10:45 AM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
Total	0	0	0	0	11	0	0	0	0	0	0	8	0	0	19
11:00 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
11:15 AM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
11:30 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
11:45 AM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
Total	0	0	0	0	8	0	0	0	0	0	0	8	0	0	16
12:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
12:15 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
12:30 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	3	0	0	4
Total	0	0	0	0	8	0	0	0	0	0	0	8	0	0	16
01:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
01:15 PM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
01:30 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
01:45 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
Total	0	0	0	0	7	0	0	0	0	0	0	5	0	0	12
02:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
02:15 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
02:30 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
02:45 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
Total	0	0	0	0	7	0	0	0	0	0	0	8	0	0	15
03:00 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
03:15 PM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
03:30 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
03:45 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
Total	0	0	0	0	6	0	0	0	0	0	0	7	0	0	13
04:00 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
04:15 PM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
04:30 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
04:45 PM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
Total	0	0	0	0	8	0	0	0	0	0	0	10	0	0	18

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File Name : 92031 A
Site Code : 3853
Start Date : 11/18/2009

Groups Printed- Trains

	Babcock Street From North			Commonwealth Avenue (Route 20) From East				Babcock Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
05:15 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
05:30 PM	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
05:45 PM	0	0	0	0	2	0	0	0	0	0	0	4	0	0	6
Total	0	0	0	0	9	0	0	0	0	0	0	7	0	0	16
Grand Total	0	0	0	0	92	0	0	0	0	0	0	92	0	0	184
Apprch %	0	0	0	0	100	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	50	0	0	0	0	0	0	50	0	0	

	Babcock Street From North				Commonwealth Avenue (Route 20) From East					Babcock Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:30 AM																			
08:30 AM	0	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	3	0	0	3	6
08:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	2	3
09:00 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3	0	0	3	6
09:15 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	**4**	0	0	**4**	**7**
Total Volume	0	0	0	0	0	10	0	0	10	0	0	0	0	0	12	0	0	12	22
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.833	.000	.000	.833	.000	.000	.000	.000	.000	.750	.000	.000	.750	.786
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 10:00 AM																			
10:00 AM	0	0	0	0	0	**4**	0	0	**4**	0	0	0	0	0	**2**	0	0	**2**	**6**
10:15 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
10:30 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
10:45 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	2	0	0	2	5
Total Volume	0	0	0	0	0	11	0	0	11	0	0	0	0	0	8	0	0	8	19
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.688	.000	.000	.688	.000	.000	.000	.000	.000	1.000	.000	.000	1.000	.792
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:00 PM																			
04:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	2	3
04:15 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	**3**	0	0	**3**	5
04:30 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
04:45 PM	0	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	3	0	0	3	**6**
Total Volume	0	0	0	0	0	8	0	0	8	0	0	0	0	0	10	0	0	10	18
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.667	.000	.000	.667	.000	.000	.000	.000	.000	.833	.000	.000	.833	.750

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N/S: Babcock Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 A
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Peds and Bicycles

	Babcock Street From North				Commonwealth Avenue (Route 20) From East						Babcock Street From South				Commonwealth Avenue (Route 20) From West						
Start	Right	Thru	Left	Peds	Right	Thru North Side	Thru South Side	Left	Peds on North Side	Peds on South Side	Right	Thru	Left	Peds	Right	Thru South Side	Thru North Side	Left	Peds on South Side	Peds on North Side	Int. Total
07:00 AM	0	0	0	11	0	1	1	0	11	5	0	2	0	15	0	3	0	0	28	11	88
07:15 AM	0	0	0	16	0	0	0	0	11	3	0	0	0	19	0	9	0	0	35	30	123
07:30 AM	0	2	1	25	0	5	0	0	24	14	0	0	0	21	0	20	8	0	35	36	191
07:45 AM	0	0	0	49	0	3	0	0	57	13	0	0	0	26	0	20	5	1	61	50	285
Total	0	2	1	101	0	9	1	0	103	35	0	2	0	81	0	52	13	1	159	127	687
08:00 AM	0	2	0	45	0	1	0	0	36	15	2	0	0	26	0	27	2	0	58	71	285
08:15 AM	0	0	2	27	0	1	0	0	47	28	1	0	0	49	0	32	8	0	50	53	298
08:30 AM	0	2	0	58	0	2	2	0	12	13	0	0	0	80	0	33	10	0	71	80	363
08:45 AM	0	3	4	33	0	2	0	0	20	8	0	0	0	55	0	66	2	0	58	59	310
Total	0	7	6	163	0	6	2	0	115	64	3	0	0	210	0	158	22	0	237	263	1256
09:00 AM	1	0	1	37	0	4	1	0	16	10	0	0	0	48	0	34	2	0	38	39	231
09:15 AM	0	2	0	43	0	3	0	0	10	4	0	0	0	26	0	20	6	0	45	46	205
09:30 AM	0	0	1	47	0	3	0	0	8	4	0	0	1	38	0	21	5	0	41	40	209
09:45 AM	0	2	3	26	0	3	0	0	12	9	0	1	0	32	0	50	13	0	47	48	246
Total	1	4	5	153	0	13	1	0	46	27	0	1	1	144	0	125	26	0	171	173	891
10:00 AM	0	0	0	33	0	7	0	0	7	6	1	1	0	26	1	22	10	0	26	26	166
10:15 AM	0	3	0	39	0	4	1	0	13	10	2	0	0	26	0	11	1	0	22	33	165
10:30 AM	0	2	0	35	0	6	0	0	12	9	1	0	0	32	0	15	7	0	39	62	220
10:45 AM	0	2	3	57	0	1	0	0	6	5	0	0	0	51	0	40	18	0	43	60	286
Total	0	7	3	164	0	18	1	0	38	30	4	1	0	135	1	88	36	0	130	181	837
11:00 AM	0	0	2	23	0	2	0	0	8	7	0	0	0	24	0	17	8	1	32	32	156
11:15 AM	0	0	1	19	0	4	0	0	4	4	0	0	0	16	0	13	9	0	24	33	127
11:30 AM	0	0	0	50	0	4	0	0	18	9	0	0	0	33	0	8	3	0	89	103	317
11:45 AM	0	1	1	46	0	10	0	0	27	15	0	0	0	20	0	23	7	0	27	26	203
Total	0	1	4	138	0	20	0	0	57	35	0	0	0	93	0	61	27	1	172	194	803
12:00 PM	0	4	0	46	0	10	0	0	16	10	0	0	0	40	1	11	5	0	66	74	283
12:15 PM	0	1	0	70	0	6	0	0	9	5	0	0	0	36	1	20	13	0	29	75	265
12:30 PM	1	1	0	33	0	4	0	0	9	8	0	0	0	25	0	13	8	0	36	74	212
12:45 PM	0	0	1	49	0	6	0	0	16	16	0	0	0	23	1	12	6	2	49	63	244
Total	1	6	1	198	0	26	0	0	50	39	0	0	0	124	3	56	32	2	180	286	1004
01:00 PM	0	0	0	64	0	4	0	0	16	8	0	0	1	38	0	7	0	0	79	107	324
01:15 PM	0	0	1	58	0	10	0	0	11	11	1	0	0	27	0	8	0	0	23	41	191
01:30 PM	0	0	0	46	0	9	0	0	12	9	0	0	0	36	0	22	0	0	32	39	205
01:45 PM	0	0	1	41	0	5	1	0	11	9	0	0	0	34	0	17	6	0	30	33	188
Total	0	0	2	209	0	28	1	0	50	37	1	0	1	135	0	54	6	0	164	220	908
02:00 PM	0	1	0	41	0	12	0	0	13	12	0	0	0	13	0	11	4	0	34	44	185
02:15 PM	0	0	0	38	0	7	0	0	10	11	0	2	0	23	1	10	2	0	53	74	231
02:30 PM	0	0	0	37	0	2	0	0	16	16	0	0	0	17	0	4	0	1	33	51	177
02:45 PM	0	0	0	29	0	8	2	0	23	17	0	0	0	37	0	12	0	0	57	76	261
Total	0	1	0	145	0	29	2	0	62	56	0	2	0	90	1	37	6	1	177	245	854
03:00 PM	0	0	0	30	0	17	0	0	26	13	0	0	0	18	0	10	9	0	21	46	190
03:15 PM	0	2	0	18	0	15	3	0	11	16	0	0	0	30	0	3	6	0	42	51	197
03:30 PM	1	2	0	24	0	8	0	0	17	16	0	0	0	27	0	10	0	0	53	88	246
03:45 PM	0	1	0	28	0	3	0	0	17	25	0	0	0	17	0	6	0	0	35	56	188
Total	1	5	0	100	0	43	3	0	71	70	0	0	0	92	0	29	15	0	151	241	821

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E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 A
Site Code : 3853
Start Date : 11/18/2009

Groups Printed- Peds and Bicycles

	Babcock Street From North				Commonwealth Avenue (Route 20) From East						Babcock Street From South				Commonwealth Avenue (Route 20) From West						
Start	Right	Thru	Left	Peds	Right	Thru North Side	Thru South Side	Left	Peds on North Side	Peds on South Side	Right	Thru	Left	Peds	Right	Thru South Side	Thru North Side	Left	Peds on South Side	Peds on North Side	Int. Total
04:00 PM	0	0	0	33	0	10	0	0	22	15	0	0	0	12	0	9	1	0	45	35	182
04:15 PM	0	0	0	34	0	15	0	0	57	36	0	0	0	25	0	10	4	0	51	120	352
04:30 PM	0	2	1	43	0	12	0	0	37	10	0	0	0	16	0	6	1	0	45	70	243
04:45 PM	1	0	0	28	0	9	0	0	41	11	0	0	0	14	0	7	1	0	18	65	195
Total	1	2	1	138	0	46	0	0	157	72	0	0	0	67	0	32	7	0	159	290	972
05:00 PM	0	0	0	36	0	14	0	0	34	11	0	0	0	8	0	7	2	0	17	110	239
05:15 PM	0	0	0	39	0	14	1	0	41	32	0	0	0	29	0	8	1	0	66	97	328
05:30 PM	0	0	0	56	0	21	0	0	26	14	0	0	0	62	0	11	12	0	50	100	352
05:45 PM	0	1	0	45	0	30	0	0	21	11	1	0	0	48	0	11	15	0	21	70	274
Total	0	1	0	176	0	79	1	0	122	68	1	0	0	147	0	37	30	0	154	377	1193
Grand Total	4	36	23	1685	0	317	12	0	871	533	9	6	2	1318	5	729	220	5	1854	2597	10226
Apprch %	0.2	2.1	1.3	96.4	0	18.3	0.7	0	50.3	30.8	0.7	0.4	0.1	98.7	0.1	13.5	4.1	0.1	34.3	48	
Total %	0	0.4	0.2	16.5	0	3.1	0.1	0	8.5	5.2	0.1	0.1	0	12.9	0	7.1	2.2	0	18.1	25.4	

	Babcock Street From North					Commonwealth Avenue (Route 20) From East							Babcock Street From South					Commonwealth Avenue (Route 20) From West							
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru North	Thru South	Left	Peds on North	Peds on South	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru South	Thru North	Left	Peds on South	Peds on North	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 08:00 AM																									
08:00 AM	0	2	0	45	47	0	1	0	0	36	15	52	**2**	0	0	26	28	0	27	2	0	58	71	158	285
08:15 AM	0	0	2	27	29	0	1	0	0	**47**	**28**	**76**	1	0	0	49	50	0	32	8	0	50	53	143	298
08:30 AM	0	2	0	**58**	**60**	0	**2**	**2**	0	12	13	29	0	0	0	**80**	**80**	0	33	**10**	0	**71**	**80**	**194**	**363**
08:45 AM	0	**3**	**4**																**66**	2	0	58	59	185	310
Total Volume	0	7	6	163	176	0	6	2	0	115	64	187	3	0	0	210	213	0	158	22	0	237	263	680	1256
% App. Total	0	4	3.4	92.6		0	3.2	1.1	0	61.5	34.2		1.4	0	0	98.6		0	23.2	3.2	0	34.9	38.7		
PHF	.000	.583	.375	.703		.000	.750	.250	.000	.612	.571		.375	.000	.000	.656	.666	.000	.598	.550	.000	.835	.822	.876	.865
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:30 AM																									
11:30 AM	0	0	0	50	50	0	4	0	0	18	9	31	0	0	0	33	33	0	8	3	0	**89**	**103**	**203**	**317**
11:45 AM	0	1	**1**				**10**	0	0	**27**	**15**	**52**	0	0	0	20	20	0	**23**	7	0	27	26	83	203
12:00 PM	0	**4**														**40**	**40**	**1**							
12:15 PM	0	1	0	**70**	**71**	0	6	0	0	9	5	20	0	0	0	36	36	1	20	**13**	0	29	75	138	265
Total Volume	0	6	1	212	219	0	30	0	0	70	39	139	0	0	0	129	129	2	62	28	0	211	278	581	1068
% App. Total	0	2.7	0.5	96.8		0	21.6	0	0	50.4	28.1		0	0	0	100		0.3	10.7	4.8	0	36.3	47.8		
PHF	.000	.375	.250	.757		.000	.750	.000	.000	.648	.650		.000	.000	.000	.806	.806	.500	.674	.538	.000	.593	.675	.716	.842
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 05:00 PM																									
05:00 PM	0	0	0	36	36	0	14	0	0	34	11	59	0	0	0	8	8	0	7	2	0	17	**110**	**136**	**239**
05:15 PM	0	0	0	39	39	0	14	**1**	0	**41**	**32**	**88**	0	0	0	29	29	0	8	1	0	**66**	97	172	328
05:30 PM	0	0	0	**56**	**56**	0	21	0	0	26	14	61	0	0	0	**62**	**62**	0	**11**	12	0	50	100	**173**	**352**
05:45 PM	0	**1**					**30**	0	0	21	11	62	**1**	0	0	48	49	0	11	**15**	0	21	70	117	274
Total Volume	0	1	0	176	177	0	79	1	0	122	68	270	1	0	0	147	148	0	37	30	0	154	377	598	1193
% App. Total	0	0.6	0	99.4		0	29.3	0.4	0	45.2	25.2		0.7	0	0	99.3		0	6.2	5	0	25.8	63		
PHF	.000	.250	.000	.786	.790	.000	.658	.250	.000	.744	.531	.767	.250	.000	.000	.593	.597	.000	.841	.500	.000	.583	.857	.864	.847

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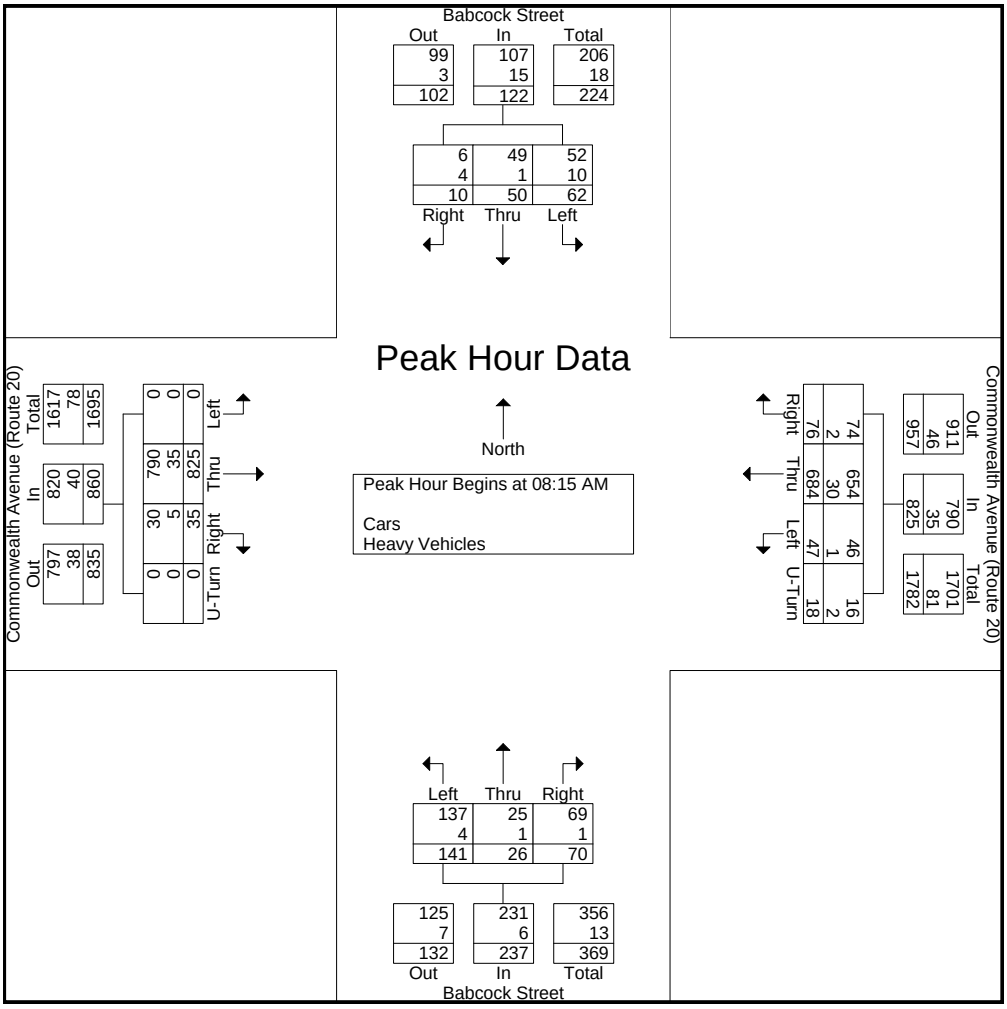
	Babcock Street From North				Commonwealth Avenue (Route 20) From East					Babcock Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:15 AM																			
08:15 AM	**4**	13	19	**36**	**25**	171	**17**	2	215	16	**11**	33	60	9	200	0	0	209	520
08:30 AM	2	8	11	21	18	170	7	5	200	18	4	38	60	8	**214**	0	0	**222**	503
08:45 AM	0	9	**20**	29	19	**174**	17	**7**	**217**	**19**		**45**	**68**	**10**	212	0	0	222	**536**
09:00 AM	4	**20**	12	36	14	169	6	4	193	17	7	25	49	8	199	0	0	207	485
Total Volume	10	50	62	122	76	684	47	18	825	70	26	141	237	35	825	0	0	860	2044
% App. Total	8.2	41	50.8		9.2	82.9	5.7	2.2		29.5	11	59.5		4.1	95.9	0	0		
PHF	.625	.625	.775	.847	.760	.983	.691	.643	.950	.921	.591	.783	.871	.875	.964	.000	.000	.968	.953
Cars	6	49	52	107	74	654	46	16	790	69	25	137	231	30	790	0	0	820	1948
% Cars	60.0	98.0	83.9	87.7	97.4	95.6	97.9	88.9	95.8	98.6	96.2	97.2	97.5	85.7	95.8	0	0	95.3	95.3
Heavy Vehicles	4	1	10	15	2	30	1	2	35	1	1	4	6	5	35	0	0	40	96
% Heavy Vehicles	40.0	2.0	16.1	12.3	2.6	4.4	2.1	11.1	4.2	1.4	3.8	2.8	2.5	14.3	4.2	0	0	4.7	4.7



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File Name : 92031 A
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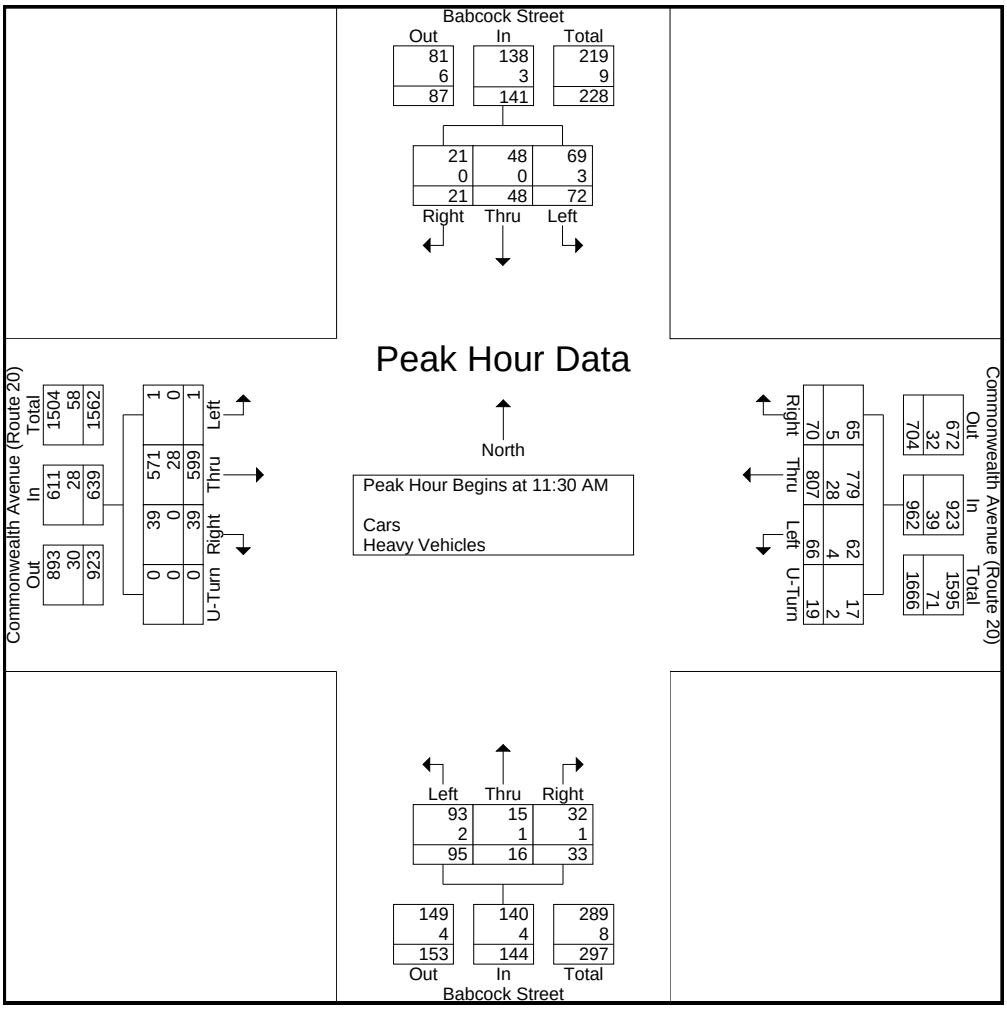
	Babcock Street From North				Commonwealth Avenue (Route 20) From East					Babcock Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	4	8	**23**	35	18	199	15	6	238	9	5	25	39	12	126	0	0	138	450
11:45 AM	4	14	19	37	15	192	17	5	229	5	**6**	20	31	2	157	**1**	0	160	457
12:00 PM	**8**	**16**	14	**38**	**19**	197	**21**	**7**	244	7	4	**30**	**41**	7	**165**	0	0	**172**	**495**
12:15 PM	5	10	16	31	18	**219**	13	1	**251**	**12**				**18**	151	0	0	169	484
Total Volume	21	48	72	141	70	807	66	19	962	33	16	95	144	39	599	1	0	639	1886
% App. Total	14.9	34	51.1		7.3	83.9	6.9	2		22.9	11.1	66		6.1	93.7	0.2	0		
PHF	.656	.750	.783	.928	.921	.921	.786	.679	.958	.688	.667	.792	.878	.542	.908	.250	.000	.929	.953
Cars	21	48	69	138	65	779	62	17	923	32	15	93	140	39	571	1	0	611	1812
% Cars	100	100	95.8	97.9	92.9	96.5	93.9	89.5	95.9	97.0	93.8	97.9	97.2	100	95.3	100	0	95.6	96.1
Heavy Vehicles	0	0	3	3	5	28	4	2	39	1	1	2	4	0	28	0	0	28	74
% Heavy Vehicles	0	0	4.2	2.1	7.1	3.5	6.1	10.5	4.1	3.0	6.3	2.1	2.8	0	4.7	0	0	4.4	3.9



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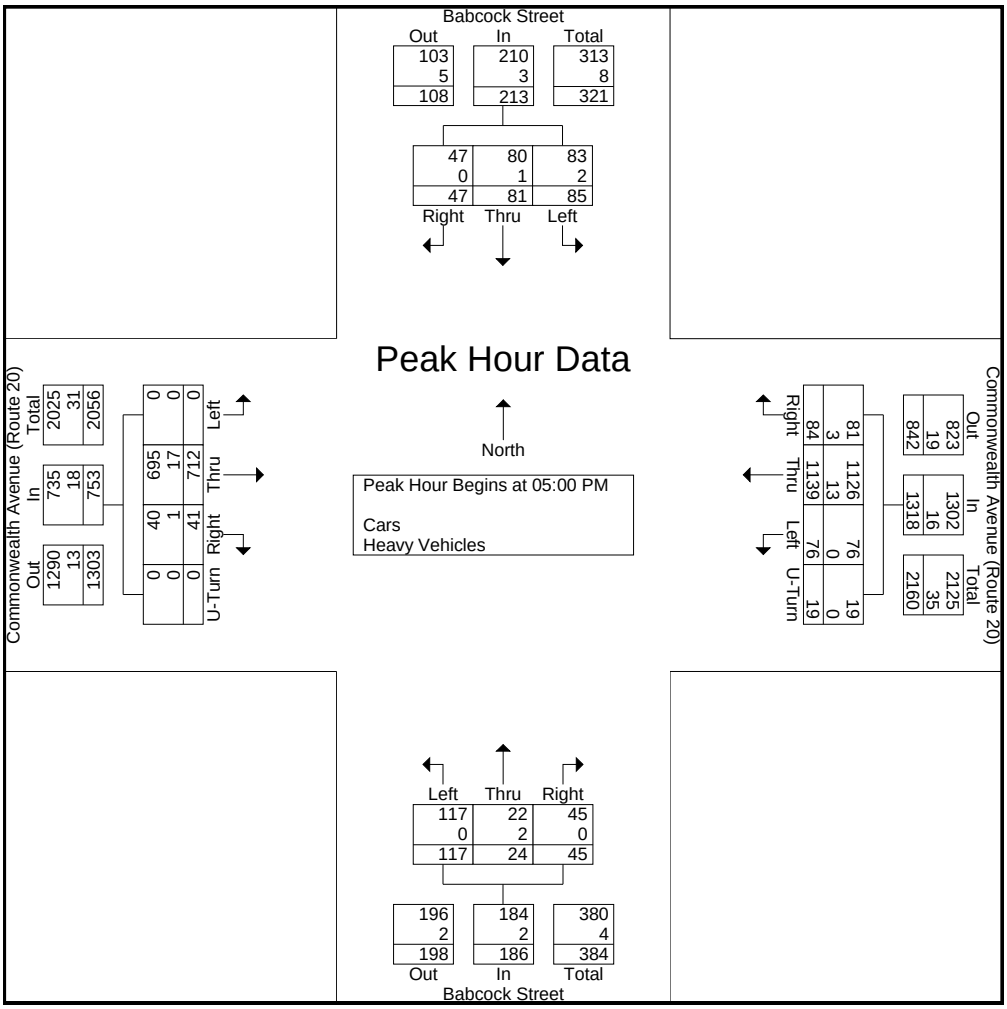
N/S: Babcock Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 A
Site Code : 3853
Start Date : 11/18/2009
Page No : 3

	Babcock Street From North				Commonwealth Avenue (Route 20) From East					Babcock Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	**16**	**22**	21	**59**	21	286	17	4	328	9	5	30	44	**11**	177	0	0	188	619
05:15 PM	8	22	**25**	55	**24**	271	15	3	313	**16**			**50**	10	179	0	0	189	607
05:30 PM	12	19	23	54	15	**303**	**25**	4	**347**	11	4	**34**							**626**
05:45 PM	11	18	16	45	24	279	19	**8**	330	9	**10**	24	43	9	**191**	0	0	**200**	618
Total Volume	47	81	85	213	84	1139	76	19	1318	45	24	117	186	41	712	0	0	753	2470
% App. Total	22.1	38	39.9		6.4	86.4	5.8	1.4		24.2	12.9	62.9		5.4	94.6	0	0		
PHF	.734	.920	.850	.903	.875	.940	.760	.594	.950	.703	.600	.860	.930	.932	.932	.000	.000	.941	.986
Cars	47	80	83	210	81	1126	76	19	1302	45	22	117	184	40	695	0	0	735	2431
% Cars	100	98.8	97.6	98.6	96.4	98.9	100	100	98.8	100	91.7	100	98.9	97.6	97.6	0	0	97.6	98.4
Heavy Vehicles	0	1	2	3	3	13	0	0	16	0	2	0	2	1	17	0	0	18	39
% Heavy Vehicles	0	1.2	2.4	1.4	3.6	1.1	0	0	1.2	0	8.3	0	1.1	2.4	2.4	0	0	2.4	1.6



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N/S: Harry Agganis Way/ Pleasant Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 B
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Harry Agganis Way From North			Commonwealth Avenue (Route 20) From East				Pleasant Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	1	0	3	3	166	2	5	3	3	9	12	125	0	0	332
07:15 AM	2	0	1	1	170	3	4	2	0	15	11	170	4	0	383
07:30 AM	1	0	5	7	140	4	1	5	3	13	13	208	2	0	402
07:45 AM	3	0	4	3	193	3	1	6	1	21	11	214	7	0	467
Total	7	0	13	14	669	12	11	16	7	58	47	717	13	0	1584
08:00 AM	2	3	8	2	179	6	1	8	4	26	22	202	5	0	468
08:15 AM	5	2	10	4	197	2	1	17	2	26	14	217	1	0	498
08:30 AM	2	0	6	3	162	0	2	8	7	31	18	228	13	0	480
08:45 AM	10	0	2	5	162	1	3	6	6	31	6	243	21	0	496
Total	19	5	26	14	700	9	7	39	19	114	60	890	40	0	1942
09:00 AM	8	0	7	5	165	0	11	12	1	28	1	236	12	0	486
09:15 AM	4	0	7	6	166	0	2	10	2	25	0	218	6	0	446
09:30 AM	4	0	2	4	166	0	0	3	2	14	1	198	6	0	400
09:45 AM	1	0	9	3	157	0	4	8	0	12	0	193	4	0	391
Total	17	0	25	18	654	0	17	33	5	79	2	845	28	0	1723
10:00 AM	3	0	4	3	178	0	1	6	2	11	1	172	2	0	383
10:15 AM	4	0	5	4	171	0	2	2	4	11	2	165	4	0	374
10:30 AM	8	0	2	3	164	0	0	3	2	9	0	144	6	0	341
10:45 AM	10	0	3	3	158	0	3	9	2	12	2	177	5	0	384
Total	25	0	14	13	671	0	6	20	10	43	5	658	17	0	1482
11:00 AM	6	0	3	6	176	0	4	3	2	19	0	186	3	0	408
11:15 AM	7	0	2	7	166	0	2	11	2	14	0	145	4	0	360
11:30 AM	4	0	4	2	184	0	4	9	1	16	0	173	4	0	401
11:45 AM	4	0	6	2	199	0	2	4	0	22	0	191	4	0	434
Total	21	0	15	17	725	0	12	27	5	71	0	695	15	0	1603
12:00 PM	5	0	4	7	187	0	0	8	1	23	0	191	3	0	429
12:15 PM	3	0	2	5	201	0	5	10	0	16	0	186	3	0	431
12:30 PM	4	0	3	4	156	0	4	14	0	13	0	178	1	0	377
12:45 PM	10	0	2	4	199	0	7	10	0	18	0	178	9	0	437
Total	22	0	11	20	743	0	16	42	1	70	0	733	16	0	1674
01:00 PM	12	0	2	4	173	0	1	7	2	20	0	198	4	0	423
01:15 PM	8	0	3	4	164	0	2	6	0	16	0	167	5	0	375
01:30 PM	11	0	4	3	148	0	6	5	1	19	0	156	4	0	357
01:45 PM	7	1	2	2	154	0	6	8	1	16	0	154	5	0	356
Total	38	1	11	13	639	0	15	26	4	71	0	675	18	0	1511
02:00 PM	5	0	1	3	191	0	6	6	0	20	0	171	5	0	408
02:15 PM	11	0	4	0	176	0	3	7	1	17	0	167	6	0	392
02:30 PM	4	0	2	5	196	0	6	6	0	19	5	179	3	0	425
02:45 PM	7	0	1	4	205	1	3	9	0	15	18	157	4	0	424
Total	27	0	8	12	768	1	18	28	1	71	23	674	18	0	1649
03:00 PM	8	0	3	3	202	4	3	7	4	16	13	158	6	0	427
03:15 PM	4	0	4	8	195	3	2	10	2	32	13	172	5	0	450
03:30 PM	16	0	2	3	211	0	4	9	3	27	15	189	4	0	483
03:45 PM	18	2	6	4	231	3	2	11	1	28	13	197	5	0	521
Total	46	2	15	18	839	10	11	37	10	103	54	716	20	0	1881
04:00 PM	11	0	2	9	241	2	1	12	1	38	15	183	4	0	519
04:15 PM	16	0	5	6	258	1	1	8	1	34	32	160	1	0	523
04:30 PM	19	0	4	2	267	1	0	16	0	34	23	148	3	0	517
04:45 PM	15	2	7	4	245	1	0	11	0	40	18	192	2	0	537
Total	61	2	18	21	1011	5	2	47	2	146	88	683	10	0	2096

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N/S: Harry Agganis Way/ Pleasant Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 B
Site Code : 3853
Start Date : 11/18/2009

Groups Printed- Cars - Heavy Vehicles

	Harry Agganis Way From North			Commonwealth Avenue (Route 20) From East				Pleasant Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	24	0	9	2	255	2	1	16	0	35	18	200	2	0	564
05:15 PM	18	6	7	3	265	3	0	11	0	37	21	203	1	0	575
05:30 PM	24	4	3	5	294	2	2	9	2	40	19	193	2	0	599
05:45 PM	21	0	3	6	280	2	2	12	2	39	16	207	1	0	591
Total	87	10	22	16	1094	9	5	48	4	151	74	803	6	0	2329
Grand Total	370	20	178	176	8513	46	120	363	68	977	353	8089	201	0	19474
Apprch %	65.1	3.5	31.3	2	96.1	0.5	1.4	25.8	4.8	69.4	4.1	93.6	2.3	0	
Total %	1.9	0.1	0.9	0.9	43.7	0.2	0.6	1.9	0.3	5	1.8	41.5	1	0	
Cars	351	20	136	163	8160	46	112	354	67	957	342	7744	188	0	18640
% Cars	94.9	100	76.4	92.6	95.9	100	93.3	97.5	98.5	98	96.9	95.7	93.5	0	95.7
Heavy Vehicles	19	0	42	13	353	0	8	9	1	20	11	345	13	0	834
% Heavy Vehicles	5.1	0	23.6	7.4	4.1	0	6.7	2.5	1.5	2	3.1	4.3	6.5	0	4.3

	Harry Agganis Way From North				Commonwealth Avenue (Route 20) From East					Pleasant Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:15 AM																			
08:15 AM	5	**2**	**10**	**17**	4	**197**	**2**	1	**204**	**17**	**2**	**26**	**45**	**14**	**217**	**1**	**0**	**232**	**498**
08:30 AM	2	0	6	8	3	162	0	2	167	8	**7**	**31**	**46**	**18**	228	13	0	259	480
08:45 AM	**10**	0	2	12	**5**	162	1	3	171	6	6	31	43	6	**243**	**21**	0	**270**	496
09:00 AM	8	0	7	15	5	165	0	**11**	181	12	1	28	41	1	236	12	0	249	486
Total Volume	25	2	25	52	17	686	3	17	723	43	16	116	175	39	924	47	0	1010	1960
% App. Total	48.1	3.8	48.1		2.4	94.9	0.4	2.4		24.6	9.1	66.3		3.9	91.5	4.7	0		
PHF	.625	.250	.625	.765	.850	.871	.375	.386	.886	.632	.571	.935	.951	.542	.951	.560	.000	.935	.984
Cars	24	2	21	47	16	655	3	16	690	41	16	115	172	37	874	47	0	958	1867
% Cars	96.0	100	84.0	90.4	94.1	95.5	100	94.1	95.4	95.3	100	99.1	98.3	94.9	94.6	100	0	94.9	95.3
Heavy Vehicles	1	0	4	5	1	31	0	1	33	2	0	1	3	2	50	0	0	52	93
% Heavy Vehicles	4.0	0	16.0	9.6	5.9	4.5	0	5.9	4.6	4.7	0	0.9	1.7	5.1	5.4	0	0	5.1	4.7
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	4	0	4	8	2	184	0	4	190	9	**1**	16	26	0	173	**4**	0	177	401
11:45 AM	4	0	**6**	**10**	2	199	0	2	203	4	0	22	26	0	**191**	4	0	**195**	**434**
12:00 PM	**5**	0	4	9	**7**	187	0	0	194	8	1	**23**	**32**	0	191	3	0	194	429
12:15 PM	3	0	2	5	5	**201**	0	**5**	**211**	**10**									
Total Volume	16	0	16	32	16	771	0	11	798	31	2	77	110	0	741	14	0	755	1695
% App. Total	50	0	50		2	96.6	0	1.4		28.2	1.8	70		0	98.1	1.9	0		
PHF	.800	.000	.667	.800	.571	.959	.000	.550	.945	.775	.500	.837	.859	.000	.970	.875	.000	.968	.976
Cars	12	0	12	24	16	735	0	11	762	31	2	73	106	0	710	14	0	724	1616
% Cars	75.0	0	75.0	75.0	100	95.3	0	100	95.5	100	100	94.8	96.4	0	95.8	100	0	95.9	95.3
Heavy Vehicles	4	0	4	8	0	36	0	0	36	0	0	4	4	0	31	0	0	31	79
% Heavy Vehicles	25.0	0	25.0	25.0	0	4.7	0	0	4.5	0	0	5.2	3.6	0	4.2	0	0	4.1	4.7
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	**24**	0	**9**	**33**	2	255	2	1	260	**16**	**0**	**35**	**51**	**18**	**200**	**2**	0	220	564
05:15 PM	18	**6**	7	31	3	265	**3**	0	271	11	0	37	48	**21**	203	1	0	**225**	575
05:30 PM	24	4	3	31	5	**294**	2	**2**	**303**	9	**2**	**40**							**599**
05:45 PM	21	0	3	24	**6**	280	2	2	290	12	2	39	**53**	16	**207**	1	0	224	591
Total Volume	87	10	22	119	16	1094	9	5	1124	48	4	151	203	74	803	6	0	883	2329
% App. Total	73.1	8.4	18.5		1.4	97.3	0.8	0.4		23.6	2	74.4		8.4	90.9	0.7	0		
PHF	.906	.417	.611	.902	.667	.930	.750	.625	.927	.750	.500	.944	.958	.881	.970	.750	.000	.981	.972
Cars	87	10	20	117	16	1081	9	4	1110	48	4	150	202	73	785	6	0	864	2293
% Cars	100	100	90.9	98.3	100	98.8	100	80.0	98.8	100	100	99.3	99.5	98.6	97.8	100	0	97.8	98.5
Heavy Vehicles	0	0	2	2	0	13	0	1	14	0	0	1	1	1	18	0	0	19	36
% Heavy Vehicles	0	0	9.1	1.7	0	1.2	0	20.0	1.2	0	0	0.7	0.5	1.4	2.2	0	0	2.2	1.5

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File Name : 92031 B
Site Code : 3853
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Page No : 1

Groups Printed- Cars

	Harry Agganis Way From North			Commonwealth Avenue (Route 20) From East				Pleasant Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	2	3	156	2	5	2	3	9	10	113	0	0	305
07:15 AM	2	0	0	1	165	3	4	2	0	15	8	162	3	0	365
07:30 AM	1	0	3	7	127	4	1	5	3	13	12	194	2	0	372
07:45 AM	3	0	2	3	185	3	1	6	1	19	11	201	7	0	442
Total	6	0	7	14	633	12	11	15	7	56	41	670	12	0	1484
08:00 AM	2	3	6	2	161	6	1	8	4	26	21	189	5	0	434
08:15 AM	5	2	9	4	184	2	1	16	2	26	14	199	1	0	465
08:30 AM	2	0	4	2	154	0	2	8	7	31	17	218	13	0	458
08:45 AM	9	0	2	5	156	1	3	5	6	31	5	236	21	0	480
Total	18	5	21	13	655	9	7	37	19	114	57	842	40	0	1837
09:00 AM	8	0	6	5	161	0	10	12	1	27	1	221	12	0	464
09:15 AM	3	0	4	4	156	0	2	9	2	25	0	209	6	0	420
09:30 AM	2	0	1	4	156	0	0	3	2	14	1	186	6	0	375
09:45 AM	1	0	8	3	151	0	4	8	0	11	0	185	3	0	374
Total	14	0	19	16	624	0	16	32	5	77	2	801	27	0	1633
10:00 AM	2	0	4	2	169	0	1	6	2	10	1	168	2	0	367
10:15 AM	3	0	5	2	163	0	2	2	4	11	2	154	3	0	351
10:30 AM	7	0	2	3	154	0	0	3	2	9	0	136	5	0	321
10:45 AM	10	0	3	2	149	0	3	7	2	12	2	165	4	0	359
Total	22	0	14	9	635	0	6	18	10	42	5	623	14	0	1398
11:00 AM	6	0	1	5	166	0	3	3	2	19	0	177	1	0	383
11:15 AM	6	0	1	7	160	0	1	10	2	13	0	137	4	0	341
11:30 AM	2	0	3	2	177	0	4	9	1	13	0	166	4	0	381
11:45 AM	4	0	6	2	186	0	2	4	0	22	0	184	4	0	414
Total	18	0	11	16	689	0	10	26	5	67	0	664	13	0	1519
12:00 PM	3	0	2	7	178	0	0	8	1	22	0	179	3	0	403
12:15 PM	3	0	1	5	194	0	5	10	0	16	0	181	3	0	418
12:30 PM	3	0	0	4	148	0	4	14	0	13	0	170	1	0	357
12:45 PM	10	0	2	4	191	0	6	10	0	16	0	168	7	0	414
Total	19	0	5	20	711	0	15	42	1	67	0	698	14	0	1592
01:00 PM	11	0	2	3	167	0	0	7	2	20	0	191	4	0	407
01:15 PM	8	0	2	3	157	0	2	6	0	16	0	158	5	0	357
01:30 PM	11	0	1	3	139	0	6	5	1	19	0	152	4	0	341
01:45 PM	7	1	1	2	141	0	4	8	1	16	0	149	5	0	335
Total	37	1	6	11	604	0	12	26	4	71	0	650	18	0	1440
02:00 PM	5	0	1	2	176	0	6	6	0	20	0	162	4	0	382
02:15 PM	11	0	3	0	172	0	3	7	1	16	0	160	6	0	379
02:30 PM	4	0	1	5	185	0	6	5	0	19	5	174	3	0	407
02:45 PM	7	0	1	4	195	1	3	9	0	14	18	155	4	0	411
Total	27	0	6	11	728	1	18	27	1	69	23	651	17	0	1579
03:00 PM	7	0	2	3	191	4	3	7	4	15	12	155	6	0	409
03:15 PM	4	0	2	7	189	3	2	10	2	32	13	164	5	0	433
03:30 PM	14	0	1	3	205	0	4	9	2	27	15	179	4	0	463
03:45 PM	17	2	6	4	228	3	2	11	1	27	13	193	3	0	510
Total	42	2	11	17	813	10	11	37	9	101	53	691	18	0	1815
04:00 PM	11	0	2	9	231	2	1	12	1	37	15	179	3	0	503
04:15 PM	16	0	5	5	252	1	1	7	1	33	32	156	1	0	510
04:30 PM	19	0	4	2	264	1	0	16	0	33	23	146	3	0	511
04:45 PM	15	2	5	4	240	1	0	11	0	40	18	188	2	0	526
Total	61	2	16	20	987	5	2	46	2	143	88	669	9	0	2050

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N/S: Harry Agganis Way/ Pleasant Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 B
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

Groups Printed- Cars

	Harry Agganis Way From North			Commonwealth Avenue (Route 20) From East				Pleasant Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	24	0	8	2	253	2	1	16	0	35	18	196	2	0	557
05:15 PM	18	6	6	3	261	3	0	11	0	36	20	196	1	0	561
05:30 PM	24	4	3	5	292	2	1	9	2	40	19	190	2	0	593
05:45 PM	21	0	3	6	275	2	2	12	2	39	16	203	1	0	582
Total	87	10	20	16	1081	9	4	48	4	150	73	785	6	0	2293
Grand Total	351	20	136	163	8160	46	112	354	67	957	342	7744	188	0	18640
Apprch %	69.2	3.9	26.8	1.9	96.2	0.5	1.3	25.7	4.9	69.4	4.1	93.6	2.3	0	
Total %	1.9	0.1	0.7	0.9	43.8	0.2	0.6	1.9	0.4	5.1	1.8	41.5	1	0	

	Harry Agganis Way From North				Commonwealth Avenue (Route 20) From East					Pleasant Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:15 AM																			
08:15 AM	5	**2**	**9**	**16**	4	**184**	**2**	1	**191**	**16**	**2**	**26**	**44**	**14**	**199**	**1**	**0**	**214**	**465**
08:30 AM	**2**	**0**	**4**	**6**	**2**	**154**	**0**	**2**	**158**	**8**	**7**	**31**	**46**	**17**	218	13	0	248	458
08:45 AM	**9**	0	2	11	**5**	156	1	3	165	5	6	31	42	5	**236**	**21**	0	**262**	**480**
09:00 AM	8	0	6	14	5	161	0	**10**	176	12	1	27	40	1	221	12	0	234	464
Total Volume	24	2	21	47	16	655	3	16	690	41	16	115	172	37	874	47	0	958	1867
% App. Total	51.1	4.3	44.7		2.3	94.9	0.4	2.3		23.8	9.3	66.9		3.9	91.2	4.9	0		
PHF	.667	.250	.583	.734	.800	.890	.375	.400	.903	.641	.571	.927	.935	.544	.926	.560	.000	.914	.972
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	2	0	3	5	2	177	0	4	183	9	**1**	13	23	0	166	**4**	0	170	381
11:45 AM	**4**	0	**6**	**10**	2	186	0	2	190	4	0	**22**			**184**	4	0	**188**	414
12:00 PM	3	0	2	5	**7**	178	0	0	185	8	1	22	**31**	0	179	3	0	182	403
12:15 PM	3	0	1	4	5	**194**	0	**5**	**204**	**10**									**418**
Total Volume	12	0	12	24	16	735	0	11	762	31	2	73	106	0	710	14	0	724	1616
% App. Total	50	0	50		2.1	96.5	0	1.4		29.2	1.9	68.9		0	98.1	1.9	0		
PHF	.750	.000	.500	.600	.571	.947	.000	.550	.934	.775	.500	.830	.855	.000	.965	.875	.000	.963	.967
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	**24**	0	**8**	**32**	2	253	2	1	258	**16**	**0**	**35**	**51**	**18**	**196**	**2**	0	216	557
05:15 PM	18	**6**	6	30	3	261	**3**	0	267	11	0	36	47	**20**	196	1	0	217	561
05:30 PM	24	4	3	31	5	**292**	2	1	**300**	9	**2**	**40**							**593**
05:45 PM	21	0	3	24	**6**	275	2	**2**	285	12	2	39	**53**	16	**203**	1	0	**220**	582
Total Volume	87	10	20	117	16	1081	9	4	1110	48	4	150	202	73	785	6	0	864	2293
% App. Total	74.4	8.5	17.1		1.4	97.4	0.8	0.4		23.8	2	74.3		8.4	90.9	0.7	0		
PHF	.906	.417	.625	.914	.667	.926	.750	.500	.925	.750	.500	.938	.953	.913	.967	.750	.000	.982	.967

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E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 B
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Heavy Vehicles

	Harry Agganis Way From North			Commonwealth Avenue (Route 20) From East				Pleasant Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	1	0	1	0	10	0	0	1	0	0	2	12	0	0	27
07:15 AM	0	0	1	0	5	0	0	0	0	0	3	8	1	0	18
07:30 AM	0	0	2	0	13	0	0	0	0	0	1	14	0	0	30
07:45 AM	0	0	2	0	8	0	0	0	0	2	0	13	0	0	25
Total	1	0	6	0	36	0	0	1	0	2	6	47	1	0	100
08:00 AM	0	0	2	0	18	0	0	0	0	0	1	13	0	0	34
08:15 AM	0	0	1	0	13	0	0	1	0	0	0	18	0	0	33
08:30 AM	0	0	2	1	8	0	0	0	0	0	1	10	0	0	22
08:45 AM	1	0	0	0	6	0	0	1	0	0	1	7	0	0	16
Total	1	0	5	1	45	0	0	2	0	0	3	48	0	0	105
09:00 AM	0	0	1	0	4	0	1	0	0	1	0	15	0	0	22
09:15 AM	1	0	3	2	10	0	0	1	0	0	0	9	0	0	26
09:30 AM	2	0	1	0	10	0	0	0	0	0	0	12	0	0	25
09:45 AM	0	0	1	0	6	0	0	0	0	1	0	8	1	0	17
Total	3	0	6	2	30	0	1	1	0	2	0	44	1	0	90
10:00 AM	1	0	0	1	9	0	0	0	0	1	0	4	0	0	16
10:15 AM	1	0	0	2	8	0	0	0	0	0	0	11	1	0	23
10:30 AM	1	0	0	0	10	0	0	0	0	0	0	8	1	0	20
10:45 AM	0	0	0	1	9	0	0	2	0	0	0	12	1	0	25
Total	3	0	0	4	36	0	0	2	0	1	0	35	3	0	84
11:00 AM	0	0	2	1	10	0	1	0	0	0	0	9	2	0	25
11:15 AM	1	0	1	0	6	0	1	1	0	1	0	8	0	0	19
11:30 AM	2	0	1	0	7	0	0	0	0	3	0	7	0	0	20
11:45 AM	0	0	0	0	13	0	0	0	0	0	0	7	0	0	20
Total	3	0	4	1	36	0	2	1	0	4	0	31	2	0	84
12:00 PM	2	0	2	0	9	0	0	0	0	1	0	12	0	0	26
12:15 PM	0	0	1	0	7	0	0	0	0	0	0	5	0	0	13
12:30 PM	1	0	3	0	8	0	0	0	0	0	0	8	0	0	20
12:45 PM	0	0	0	0	8	0	1	0	0	2	0	10	2	0	23
Total	3	0	6	0	32	0	1	0	0	3	0	35	2	0	82
01:00 PM	1	0	0	1	6	0	1	0	0	0	0	7	0	0	16
01:15 PM	0	0	1	1	7	0	0	0	0	0	0	9	0	0	18
01:30 PM	0	0	3	0	9	0	0	0	0	0	0	4	0	0	16
01:45 PM	0	0	1	0	13	0	2	0	0	0	0	5	0	0	21
Total	1	0	5	2	35	0	3	0	0	0	0	25	0	0	71
02:00 PM	0	0	0	1	15	0	0	0	0	0	0	9	1	0	26
02:15 PM	0	0	1	0	4	0	0	0	0	1	0	7	0	0	13
02:30 PM	0	0	1	0	11	0	0	1	0	0	0	5	0	0	18
02:45 PM	0	0	0	0	10	0	0	0	0	1	0	2	0	0	13
Total	0	0	2	1	40	0	0	1	0	2	0	23	1	0	70
03:00 PM	1	0	1	0	11	0	0	0	0	1	1	3	0	0	18
03:15 PM	0	0	2	1	6	0	0	0	0	0	0	8	0	0	17
03:30 PM	2	0	1	0	6	0	0	0	1	0	0	10	0	0	20
03:45 PM	1	0	0	0	3	0	0	0	0	1	0	4	2	0	11
Total	4	0	4	1	26	0	0	0	1	2	1	25	2	0	66
04:00 PM	0	0	0	0	10	0	0	0	0	1	0	4	1	0	16
04:15 PM	0	0	0	1	6	0	0	1	0	1	0	4	0	0	13
04:30 PM	0	0	0	0	3	0	0	0	0	1	0	2	0	0	6
04:45 PM	0	0	2	0	5	0	0	0	0	0	0	4	0	0	11
Total	0	0	2	1	24	0	0	1	0	3	0	14	1	0	46

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Page No : 2

Groups Printed- Heavy Vehicles

	Harry Agganis Way From North			Commonwealth Avenue (Route 20) From East				Pleasant Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	0	0	1	0	2	0	0	0	0	0	0	4	0	0	7
05:15 PM	0	0	1	0	4	0	0	0	0	1	1	7	0	0	14
05:30 PM	0	0	0	0	2	0	1	0	0	0	0	3	0	0	6
05:45 PM	0	0	0	0	5	0	0	0	0	0	0	4	0	0	9
Total	0	0	2	0	13	0	1	0	0	1	1	18	0	0	36
Grand Total	19	0	42	13	353	0	8	9	1	20	11	345	13	0	834
Apprch %	31.1	0	68.9	3.5	94.4	0	2.1	30	3.3	66.7	3	93.5	3.5	0	
Total %	2.3	0	5	1.6	42.3	0	1	1.1	0.1	2.4	1.3	41.4	1.6	0	

	Harry Agganis Way From North				Commonwealth Avenue (Route 20) From East					Pleasant Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	0	0	**2**	**2**	0	13	0	0	13	0	0	0	0	**1**	14	0	0	15	30
07:45 AM	0	0	2	2	0	8	0	0	8	0	0	**2**	**2**	0	13	0	0	13	25
08:00 AM	0	0	2	2	0	**18**	0	0	**18**	0	0	0	0	1	13	0	0	14	**34**
08:15 AM	0	0	1	1	0	13	0	0	13	**1**					**18**	0	0	**18**	33
Total Volume	0	0	7	7	0	52	0	0	52	1	0	2	3	2	58	0	0	60	122
% App. Total	0	0	100		0	100	0	0		33.3	0	66.7		3.3	96.7	0	0		
PHF	.000	.000	.875	.875	.000	.722	.000	.000	.722	.250	.000	.250	.375	.500	.806	.000	.000	.833	.897
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 10:15 AM																			
10:15 AM	**1**	0	0	1	**2**	8	0	0	10	0	0	0	0	0	11	1	0	12	23
10:30 AM	1	0	0	1	0	**10**	0	0	10	0	0	0	0	0	8	1	0	9	20
10:45 AM	0	0	0	0	1	9	0	0	10	**2**			**2**	0	**12**	1	0	**13**	**25**
11:00 AM	0	0	**2**	**2**	1	10	0	**1**	**12**	0	0	0	0	0	9	**2**	0	11	25
Total Volume	2	0	2	4	4	37	0	1	42	2	0	0	2	0	40	5	0	45	93
% App. Total	50	0	50		9.5	88.1	0	2.4		100	0	0		0	88.9	11.1	0		
PHF	.500	.000	.250	.500	.500	.925	.000	.250	.875	.250	.000	.000	.250	.000	.833	.625	.000	.865	.930
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 02:00 PM																			
02:00 PM	0	0	0	0	**1**	**15**	0	0	**16**	0	0	0	0	0	**9**	**1**	0	**10**	**26**
02:15 PM	0	0	**1**	**1**	0	4	0	0	4	0	0	**1**	**1**	0	7	0	0	7	13
02:30 PM	0	0	1	1	0	11	0	0	11	**1**									
02:45 PM	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**10**	**0**	**0**	**1**	**1**	**0**	**2**	**0**	**0**	**2**	**13**
Total Volume	0	0	2	2	1	40	0	0	41	1	0	2	3	0	23	1	0	24	70
% App. Total	0	0	100		2.4	97.6	0	0		33.3	0	66.7		0	95.8	4.2	0		
PHF	.000	.000	.500	.500	.250	.667	.000	.000	.641	.250	.000	.500	.750	.000	.639	.250	.000	.600	.673

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File Name : 92031 B
Site Code : 3853
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Page No : 1

Groups Printed- Trains

	Harry Agganis Way From North			Commonwealth Avenue (Route 20) From East				Pleasant Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
07:15 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
07:30 AM	0	0	0	0	3	0	0	0	0	0	0	4	0	0	7
07:45 AM	0	0	0	0	2	0	0	0	0	0	0	4	0	0	6
Total	0	0	0	0	9	0	0	0	0	0	0	13	0	0	22
08:00 AM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
08:15 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
08:30 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
08:45 AM	0	0	0	0	1	0	0	0	0	0	0	3	0	0	4
Total	0	0	0	0	9	0	0	0	0	0	0	10	0	0	19
09:00 AM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
09:15 AM	0	0	0	0	3	0	0	0	0	0	0	4	0	0	7
09:30 AM	0	0	0	0	3	0	0	0	0	0	0	1	0	0	4
09:45 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
Total	0	0	0	0	11	0	0	0	0	0	0	9	0	0	20
10:00 AM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
10:15 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
10:30 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
10:45 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
Total	0	0	0	0	11	0	0	0	0	0	0	10	0	0	21
11:00 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
11:15 AM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
11:30 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
11:45 AM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	0	7	0	0	0	0	0	0	7	0	0	14
12:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
12:15 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
12:30 PM	0	0	0	0	3	0	0	0	0	0	0	1	0	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
Total	0	0	0	0	7	0	0	0	0	0	0	7	0	0	14
01:00 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
01:15 PM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
01:30 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
01:45 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
Total	0	0	0	0	6	0	0	0	0	0	0	5	0	0	11
02:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
02:15 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
02:30 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
02:45 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
Total	0	0	0	0	8	0	0	0	0	0	0	7	0	0	15
03:00 PM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
03:15 PM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
03:30 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
03:45 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
Total	0	0	0	0	7	0	0	0	0	0	0	8	0	0	15
04:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
04:15 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
04:30 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
04:45 PM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
Total	0	0	0	0	9	0	0	0	0	0	0	9	0	0	18

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City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 B
Site Code : 3853
Start Date : 11/18/2009

Groups Printed- Trains

	Harry Agganis Way From North			Commonwealth Avenue (Route 20) From East				Pleasant Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
05:15 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
05:30 PM	0	0	0	0	4	0	0	0	0	0	0	1	0	0	5
05:45 PM	0	0	0	0	3	0	0	0	0	0	0	4	0	0	7
Total	0	0	0	0	11	0	0	0	0	0	0	9	0	0	20
Grand Total	0	0	0	0	95	0	0	0	0	0	0	94	0	0	189
Apprch %	0	0	0	0	100	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	50.3	0	0	0	0	0	0	49.7	0	0	

	Harry Agganis Way From North				Commonwealth Avenue (Route 20) From East					Pleasant Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:00 AM																			
07:00 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3	0	0	3	5
07:15 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
07:30 AM	0	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	**4**	0	0	**4**	**7**
07:45 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4	0	0	4	6
Total Volume	0	0	0	0	0	9	0	0	9	0	0	0	0	0	13	0	0	13	22
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.000	.750	.000	.000	.000	.000	.000	.813	.000	.000	.813	.786
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 10:00 AM																			
10:00 AM	0	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	2	0	0	2	5
10:15 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	**3**	0	0	**3**	**6**
10:30 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
10:45 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3	0	0	3	6
Total Volume	0	0	0	0	0	11	0	0	11	0	0	0	0	0	10	0	0	10	21
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.917	.000	.000	.917	.000	.000	.000	.000	.000	.833	.000	.000	.833	.875
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
05:15 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
05:30 PM	0	0	0	0	0	**4**	0	0	**4**	0	0	0	0	0	1	0	0	1	5
05:45 PM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	**4**	0	0	**4**	**7**
Total Volume	0	0	0	0	0	11	0	0	11	0	0	0	0	0	9	0	0	9	20
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.688	.000	.000	.688	.000	.000	.000	.000	.000	.563	.000	.000	.563	.714

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N/S: Harry Agganis Way/ Pleasant Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 B
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Peds and Bicycles

	Harry Agganis Way From North				Commonwealth Avenue (Route 20) From East						Pleasant Street From South				Commonwealth Avenue (Route 20) From West						
Start	Right	Thru	Left	Peds	Right	Thru North Side	Thru South Side	Left	Peds on North Side	Peds on South Side	Right	Thru	Left	Peds	Right	Thru South Side	Thru North Side	Left	Peds on South Side	Peds on North Side	Int. Total
07:00 AM	1	0	1	8	0	3	0	0	10	10	0	1	1	7	0	4	4	0	2	2	54
07:15 AM	0	0	0	13	0	0	0	0	11	11	0	0	0	13	0	9	0	0	6	6	69
07:30 AM	0	0	0	12	0	4	0	0	11	12	0	0	1	14	0	24	2	1	2	2	85
07:45 AM	0	0	0	26	2	1	0	0	13	13	0	0	0	30	0	24	2	1	15	7	134
Total	1	0	1	59	2	8	0	0	45	46	0	1	2	64	0	61	8	2	25	17	342
08:00 AM	0	0	1	29	0	2	0	0	15	14	0	1	0	33	0	26	1	0	12	13	147
08:15 AM	0	2	2	22	1	2	0	0	12	12	0	1	0	46	0	32	2	2	9	8	153
08:30 AM	0	0	2	49	0	2	1	0	14	14	0	3	0	77	0	35	1	3	29	33	263
08:45 AM	0	0	13	63	2	4	0	0	70	70	0	0	0	52	0	73	1	1	45	61	455
Total	0	2	18	163	3	10	1	0	111	110	0	5	0	208	0	166	5	6	95	115	1018
09:00 AM	0	0	2	37	0	5	2	0	15	15	2	1	1	57	0	30	4	0	27	38	236
09:15 AM	0	0	5	41	1	4	0	0	9	17	0	0	0	37	0	23	3	0	23	34	197
09:30 AM	0	0	1	63	0	2	0	0	13	13	1	0	0	54	0	22	0	0	23	37	229
09:45 AM	0	0	13	65	2	10	0	0	19	19	1	0	0	48	0	51	3	0	35	56	322
Total	0	0	21	206	3	21	2	0	56	64	4	1	1	196	0	126	10	0	108	165	984
10:00 AM	0	0	8	61	0	7	1	0	21	21	0	0	0	49	0	36	0	0	45	55	304
10:15 AM	0	0	5	51	0	4	0	0	14	14	0	0	0	51	0	0	0	0	53	67	259
10:30 AM	0	0	5	57	0	5	0	0	16	15	1	0	0	35	0	22	1	0	48	55	260
10:45 AM	0	0	6	79	5	3	0	0	20	19	0	0	0	57	0	50	0	0	89	76	404
Total	0	0	24	248	5	19	1	0	71	69	1	0	0	192	0	108	1	0	235	253	1227
11:00 AM	0	0	2	38	2	4	0	0	29	29	0	0	0	41	0	21	0	0	21	24	211
11:15 AM	0	0	3	42	1	8	0	1	34	34	1	0	0	34	0	14	1	1	16	24	214
11:30 AM	0	1	2	63	0	2	0	0	21	21	2	1	3	50	0	14	1	0	13	24	218
11:45 AM	0	0	4	71	6	7	1	0	26	26	1	0	0	29	0	36	1	0	25	41	274
Total	0	1	11	214	9	21	1	1	110	110	4	1	3	154	0	85	3	1	75	113	917
12:00 PM	0	0	0	68	4	10	4	0	33	33	0	1	2	76	0	13	1	0	44	56	345
12:15 PM	0	0	2	66	2	9	0	0	37	37	1	0	1	41	0	20	2	1	43	35	297
12:30 PM	0	0	0	75	0	4	0	0	23	23	0	0	0	50	0	15	3	0	22	37	252
12:45 PM	0	0	1	59	1	7	0	0	22	21	0	0	0	34	1	18	0	0	14	19	197
Total	0	0	3	268	7	30	4	0	115	114	1	1	3	201	1	66	6	1	123	147	1091
01:00 PM	0	0	0	96	0	8	0	0	24	24	0	0	0	53	0	9	0	0	27	48	289
01:15 PM	0	0	0	68	0	10	0	0	26	26	0	0	0	46	1	9	0	0	25	34	245
01:30 PM	0	0	1	63	2	9	0	0	34	34	0	0	0	67	0	28	0	0	26	39	303
01:45 PM	0	0	3	85	0	3	0	0	15	15	0	0	0	48	1	12	1	0	18	33	234
Total	0	0	4	312	2	30	0	0	99	99	0	0	0	214	2	58	1	0	96	154	1071
02:00 PM	0	0	1	84	5	18	2	0	30	30	0	0	0	33	0	11	1	0	17	32	264
02:15 PM	1	0	0	49	2	11	1	0	15	15	0	0	1	39	0	8	0	1	14	27	184
02:30 PM	0	0	0	59	1	7	0	0	19	20	0	0	0	27	0	4	1	0	28	47	213
02:45 PM	0	0	0	20	2	18	2	0	32	33	1	1	0	44	0	16	0	1	27	57	254
Total	1	0	1	212	10	54	5	0	96	98	1	1	1	143	0	39	2	2	86	163	915
03:00 PM	0	0	1	98	1	14	0	0	45	45	0	1	0	24	1	10	0	0	22	30	292
03:15 PM	0	1	0	65	3	16	1	1	26	26	0	0	1	28	1	5	0	1	12	12	199
03:30 PM	1	0	1	33	2	7	0	0	26	26	1	0	0	44	1	14	2	0	18	21	197
03:45 PM	1	0	0	34	1	2	2	0	34	35	0	0	0	50	0	6	0	0	28	31	224
Total	2	1	2	230	7	39	3	1	131	132	1	1	1	146	3	35	2	1	80	94	912

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Groups Printed- Peds and Bicycles

	Harry Agganis Way From North				Commonwealth Avenue (Route 20) From East						Pleasant Street From South				Commonwealth Avenue (Route 20) From West						
Start	Right	Thru	Left	Peds	Right	Thru North Side	Thru South Side	Left	Peds on North Side	Peds on South Side	Right	Thru	Left	Peds	Right	Thru South Side	Thru North Side	Left	Peds on South Side	Peds on North Side	Int. Total
04:00 PM	0	0	0	33	0	2	0	0	31	32	0	0	1	60	1	13	1	0	26	35	235
04:15 PM	0	0	0	33	2	11	0	0	62	63	1	0	0	58	0	9	0	0	21	53	313
04:30 PM	0	0	0	17	2	4	0	0	26	26	0	0	0	57	0	10	0	0	21	38	201
04:45 PM	0	0	0	19	4	13	0	0	56	55	0	0	1	38	1	15	0	1	13	44	260
Total	0	0	0	102	8	30	0	0	175	176	1	0	2	213	2	47	1	1	81	170	1009
05:00 PM	0	0	0	23	0	2	2	0	48	48	0	0	0	55	0	7	0	0	29	33	247
05:15 PM	0	0	0	38	1	7	0	1	24	24	1	1	0	51	0	8	0	0	19	36	211
05:30 PM	0	0	0	68	1	12	3	0	29	29	0	0	0	46	1	11	0	0	32	35	267
05:45 PM	0	0	0	62	4	12	2	0	26	23	0	0	0	72	0	15	0	0	53	81	350
Total	0	0	0	191	6	33	7	1	127	124	1	1	0	224	1	41	0	0	133	185	1075
Grand Total	4	4	85	2205	62	295	24	3	1136	1142	14	12	13	1955	9	832	39	14	1137	1576	10561
Apprch %	0.2	0.2	3.7	96	2.3	11.1	0.9	0.1	42.7	42.9	0.7	0.6	0.7	98	0.2	23.1	1.1	0.4	31.5	43.7	
Total %	0	0	0.8	20.9	0.6	2.8	0.2	0	10.8	10.8	0.1	0.1	0.1	18.5	0.1	7.9	0.4	0.1	10.8	14.9	

	Harry Agganis Way From North					Commonwealth Avenue (Route 20) From East							Pleasant Street From South					Commonwealth Avenue (Route 20) From West							
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru North	Thru South	Left	Peds on North	Peds on South	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru South	Thru North	Left	Peds on South	Peds on North	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 08:30 AM																									
08:30 AM	0	0	2	49	51	0	2	1	0	14	14	31	0	**3**	0	**77**	**80**	0	35	1	**3**	29	33	101	263
08:45 AM	0	0	**13**	**63**	**76**	**2**	4	0	0	**70**	**70**	**146**	0	0	0	52	52	0	**73**	1	1	**45**	**61**	**181**	**455**
09:00 AM	0	0	2	37	39	0	**5**	**2**	0	15	15	37	**2**	1	**1**	57	61	0	30	**4**	0	27	38	99	236
09:15 AM	0	0	5	41	46	1	4	0	0	9	17	31	0	0	0	37	37	0	23	3	0	23	34	83	197
Total Volume	0	0	22	190	212	3	15	3	0	108	116	245	2	4	1	223	230	0	161	9	4	124	166	464	1151
% App. Total	0	0	10.4	89.6		1.2	6.1	1.2	0	44.1	47.3		0.9	1.7	0.4	97		0	34.7	1.9	0.9	26.7	35.8		
PHF	.000	.000	.423	.754		.375	.750	.375	.000	.386	.414		.250	.333	.250	.724	.719	.000	.551	.563	.333	.689	.680	.641	.632
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 10:00 AM																									
10:00 AM	0	0	**8**	**61**	**69**	**0**	**7**	**1**	0	**21**	**21**	**50**	0	0	0	49	49	0	36	0	0	45	55	136	304
10:15 AM	0	0	5	51	56	0	4	0	0	14	14	32	0	0	0	51	51	0	0	0	0	53	67	120	259
10:30 AM	0	0	5	57	62	0	5	0	0	16	15	36	**1**	0	0	35	36	0	22	**1**	0	48	55	126	260
10:45 AM	0	0	6	**79**	**85**	**5**	3	0	0	20	19	47	0	0	0	**57**	**57**	0	**50**	0	0	**89**	**76**	**215**	**404**
Total Volume	0	0	24	248	272	5	19	1	0	71	69	165	1	0	0	192	193	0	108	1	0	235	253	597	1227
% App. Total	0	0	8.8	91.2		3	11.5	0.6	0	43	41.8		0.5	0	0	99.5		0	18.1	0.2	0	39.4	42.4		
PHF	.000	.000	.750	.785		.250	.679	.250	.000	.845	.821		.250	.000	.000	.842	.846	.000	.540	.250	.000	.660	.832	.694	.759
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 05:00 PM																									
05:00 PM	0	0	0	23	23	0	2	2	0	**48**	**48**	**100**	0	0	0	55	55	0	7	0	0	29	33	69	247
05:15 PM	0	0	0	38	38	1	7	0	**1**				**1**	**1**	0	51	53	0	8	0	0	19	36	63	211
05:30 PM	0	0	0	**68**	**68**	1	**12**	**3**	0	29	29	74	0	0	0	46	46	**1**							
05:45 PM	0	0	0	62	62	**4**	12	2	0	26	23	67	0	0	0	**72**	**72**	0	**15**	0	0	**53**	**81**	**149**	**350**
Total Volume	0	0	0	191	191	6	33	7	1	127	124	298	1	1	0	224	226	1	41	0	0	133	185	360	1075
% App. Total	0	0	0	100		2	11.1	2.3	0.3	42.6	41.6		0.4	0.4	0	99.1		0.3	11.4	0	0	36.9	51.4		
PHF	.000	.000	.000	.702		.375	.688	.583	.250	.661	.646		.250	.250	.000	.778	.785	.250	.683	.000	.000	.627	.571	.604	.768

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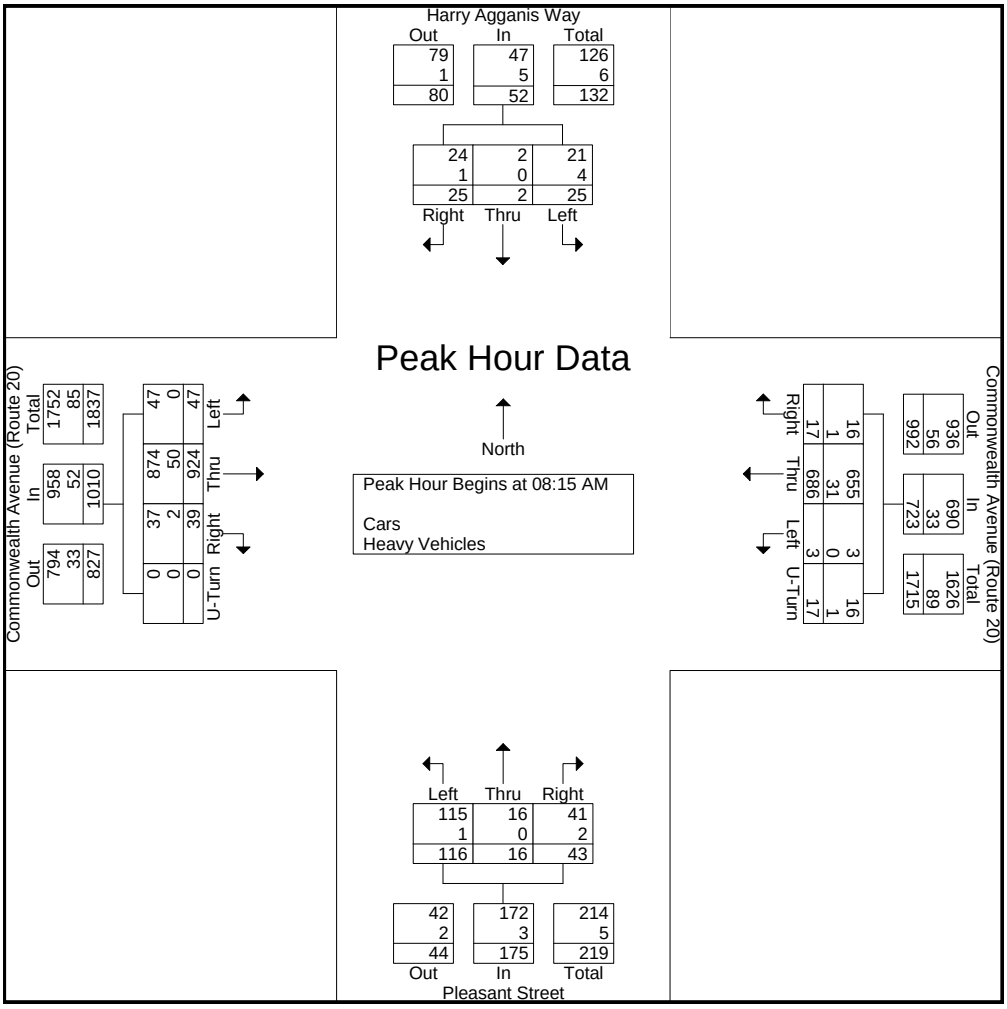
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:15 AM																			
08:15 AM	5	**2**	**10**	**17**	4	**197**	**2**	1	**204**	**17**	**2**	**26**	**45**	**14**	**217**	**1**	**0**	**232**	**498**
08:30 AM	2	0	6	8	3	162	0	2	167	8	**7**	**31**	**46**	**18**	228	13	0	259	480
08:45 AM	**10**	0	2	12	**5**	162	1	3	171	6	6	31	43	6	**243**	**21**	0	**270**	496
09:00 AM	8	0	7	15	5	165	0	**11**	181	12	1	28	41	1	236	12	0	249	486
Total Volume	25	2	25	52	17	686	3	17	723	43	16	116	175	39	924	47	0	1010	1960
% App. Total	48.1	3.8	48.1		2.4	94.9	0.4	2.4		24.6	9.1	66.3		3.9	91.5	4.7	0		
PHF	.625	.250	.625	.765	.850	.871	.375	.386	.886	.632	.571	.935	.951	.542	.951	.560	.000	.935	.984
Cars	24	2	21	47	16	655	3	16	690	41	16	115	172	37	874	47	0	958	1867
% Cars	96.0	100	84.0	90.4	94.1	95.5	100	94.1	95.4	95.3	100	99.1	98.3	94.9	94.6	100	0	94.9	95.3
Heavy Vehicles	1	0	4	5	1	31	0	1	33	2	0	1	3	2	50	0	0	52	93
% Heavy Vehicles	4.0	0	16.0	9.6	5.9	4.5	0	5.9	4.6	4.7	0	0.9	1.7	5.1	5.4	0	0	5.1	4.7



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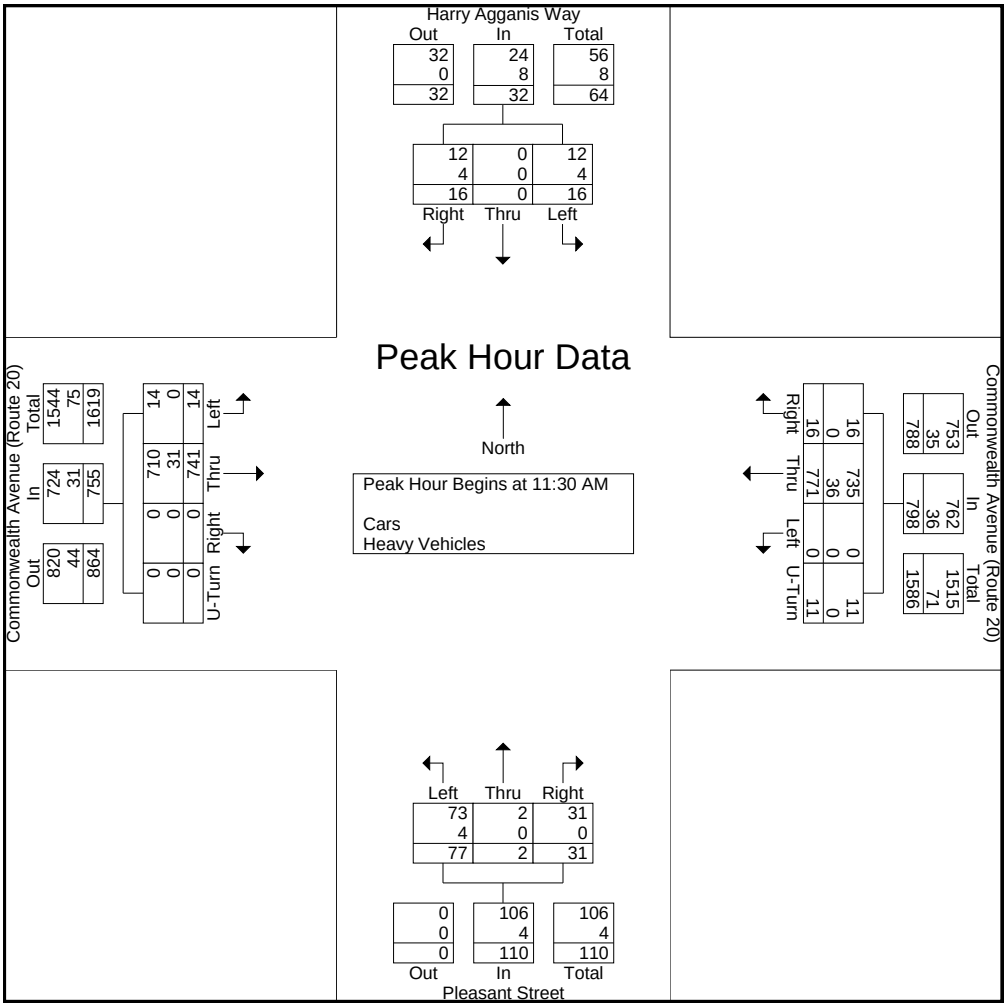
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	4	0	4	8	2	184	0	4	190	9	**1**	16	26	0	173	**4**	0	177	401
11:45 AM	4	0	**6**	**10**	2	199	0	2	203	4	0	22	26	0	**191**	4	0	**195**	**434**
12:00 PM	**5**	0	4	9	**7**	187	0	0	194	8	1	**23**	**32**	0	191	3	0	194	429
12:15 PM	3	0	2	5	5	**201**	0	**5**	**211**	**10**									
Total Volume	16	0	16	32	16	771	0	11	798	31	2	77	110	0	741	14	0	755	1695
% App. Total	50	0	50		2	96.6	0	1.4		28.2	1.8	70		0	98.1	1.9	0		
PHF	.800	.000	.667	.800	.571	.959	.000	.550	.945	.775	.500	.837	.859	.000	.970	.875	.000	.968	.976
Cars	12	0	12	24	16	735	0	11	762	31	2	73	106	0	710	14	0	724	1616
% Cars	75.0	0	75.0	75.0	100	95.3	0	100	95.5	100	100	94.8	96.4	0	95.8	100	0	95.9	95.3
Heavy Vehicles	4	0	4	8	0	36	0	0	36	0	0	4	4	0	31	0	0	31	79
% Heavy Vehicles	25.0	0	25.0	25.0	0	4.7	0	0	4.5	0	0	5.2	3.6	0	4.2	0	0	4.1	4.7



PRECISION DATA INDUSTRIES, LLC
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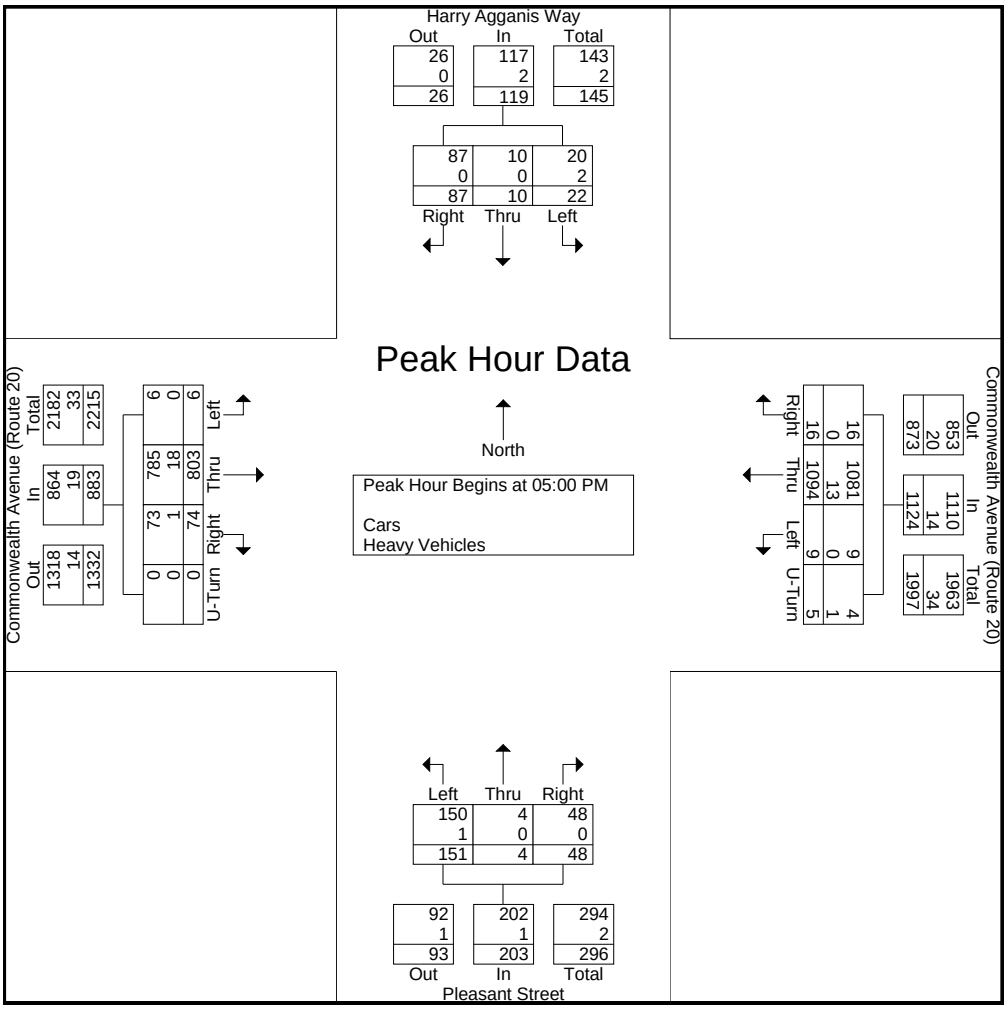
N/S: Harry Agganis Way/ Pleasant Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 B
Site Code : 3853
Start Date : 11/18/2009
Page No : 3

	Harry Agganis Way From North				Commonwealth Avenue (Route 20) From East					Pleasant Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	**24**	0	**9**	**33**	2	255	2	1	260	**16**	**0**	**35**	**51**	**18**	**200**	**2**	0	220	564
05:15 PM	18	**6**	7	31	3	265	**3**	0	271	11	0	37	48	**21**	203	1	0	**225**	575
05:30 PM	24	4	3	31	5	**294**	2	**2**	**303**	9	**2**	**40**							**599**
05:45 PM	21	0	3	24	**6**	280	2	2	290	12	2	39	**53**	16	**207**	1	0	224	591
Total Volume	87	10	22	119	16	1094	9	5	1124	48	4	151	203	74	803	6	0	883	2329
% App. Total	73.1	8.4	18.5		1.4	97.3	0.8	0.4		23.6	2	74.4		8.4	90.9	0.7	0		
PHF	.906	.417	.611	.902	.667	.930	.750	.625	.927	.750	.500	.944	.958	.881	.970	.750	.000	.981	.972
Cars	87	10	20	117	16	1081	9	4	1110	48	4	150	202	73	785	6	0	864	2293
% Cars	100	100	90.9	98.3	100	98.8	100	80.0	98.8	100	100	99.3	99.5	98.6	97.8	100	0	97.8	98.5
Heavy Vehicles	0	0	2	2	0	13	0	1	14	0	0	1	1	1	18	0	0	19	36
% Heavy Vehicles	0	0	9.1	1.7	0	1.2	0	20.0	1.2	0	0	0.7	0.5	1.4	2.2	0	0	2.2	1.5



PRECISION
D A T A
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N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 C
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Buick Street From North			Commonwealth Avenue (Route 20) From East				St. Paul Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	3	18	156	35	12	21	10	14	7	123	0	0	399
07:15 AM	2	1	3	16	149	41	17	28	12	17	10	164	1	0	461
07:30 AM	1	1	5	12	130	45	17	34	12	16	13	202	0	0	488
07:45 AM	0	0	3	16	166	65	12	36	11	31	24	222	0	0	586
Total	3	2	14	62	601	186	58	119	45	78	54	711	1	0	1934
08:00 AM	2	3	4	14	164	46	15	38	18	27	21	212	0	0	564
08:15 AM	1	1	10	19	165	51	20	48	13	27	20	243	0	0	618
08:30 AM	0	3	7	20	129	40	15	42	7	33	14	238	1	0	549
08:45 AM	2	4	5	23	165	37	31	44	20	22	34	217	0	0	604
Total	5	11	26	76	623	174	81	172	58	109	89	910	1	0	2335
09:00 AM	0	1	6	28	139	55	27	45	19	26	35	215	0	0	596
09:15 AM	2	2	10	22	132	48	22	50	14	27	30	254	0	0	613
09:30 AM	1	0	4	19	144	43	25	40	10	16	23	193	0	0	518
09:45 AM	2	3	7	12	135	36	20	31	6	14	41	186	2	0	495
Total	5	6	27	81	550	182	94	166	49	83	129	848	2	0	2222
10:00 AM	1	0	5	11	146	35	17	27	6	18	39	153	0	0	458
10:15 AM	0	0	5	9	151	37	20	25	5	20	31	145	0	0	448
10:30 AM	2	2	4	14	143	45	15	27	7	17	28	147	0	0	451
10:45 AM	0	1	5	9	134	44	16	27	5	20	23	157	0	0	441
Total	3	3	19	43	574	161	68	106	23	75	121	602	0	0	1798
11:00 AM	3	1	5	7	163	42	15	31	4	18	19	163	0	0	471
11:15 AM	0	2	12	11	146	32	13	18	5	18	27	154	0	0	438
11:30 AM	3	1	5	6	165	31	14	27	2	23	31	173	0	0	481
11:45 AM	2	3	9	9	180	36	12	18	6	19	34	191	0	0	519
Total	8	7	31	33	654	141	54	94	17	78	111	681	0	0	1909
12:00 PM	4	2	6	5	145	43	20	30	7	25	39	192	0	0	518
12:15 PM	0	1	7	11	195	42	11	35	5	18	24	180	0	0	529
12:30 PM	2	1	7	5	139	33	20	30	7	17	35	154	0	0	450
12:45 PM	2	0	3	8	168	30	14	29	3	19	27	160	0	0	463
Total	8	4	23	29	647	148	65	124	22	79	125	686	0	0	1960
01:00 PM	3	0	7	5	138	35	19	37	5	24	35	159	0	0	467
01:15 PM	3	2	7	6	151	40	15	32	4	16	26	161	0	0	463
01:30 PM	3	1	7	6	163	37	16	36	3	18	37	160	0	0	487
01:45 PM	3	3	7	6	160	39	12	21	5	8	44	146	0	0	454
Total	12	6	28	23	612	151	62	126	17	66	142	626	0	0	1871
02:00 PM	2	2	7	4	171	40	8	33	5	23	38	162	0	0	495
02:15 PM	0	4	5	2	149	31	23	45	5	27	26	153	0	0	470
02:30 PM	1	3	8	8	190	28	13	33	1	24	21	168	0	0	498
02:45 PM	3	3	10	6	174	34	14	22	3	30	17	176	0	0	492
Total	6	12	30	20	684	133	58	133	14	104	102	659	0	0	1955
03:00 PM	4	4	11	11	181	53	15	28	4	23	11	180	0	0	525
03:15 PM	3	3	9	12	169	49	22	30	4	31	22	154	0	0	508
03:30 PM	8	3	12	10	189	51	17	20	5	19	14	191	0	0	539
03:45 PM	4	1	13	13	206	62	16	28	4	26	18	207	0	0	598
Total	19	11	45	46	745	215	70	106	17	99	65	732	0	0	2170
04:00 PM	5	3	17	7	203	46	12	31	3	40	15	196	0	0	578
04:15 PM	4	12	11	12	222	40	10	27	3	23	20	170	0	0	554
04:30 PM	3	2	7	8	223	44	13	37	3	27	14	177	0	0	558
04:45 PM	2	5	20	10	228	64	18	32	2	33	22	180	0	0	616
Total	14	22	55	37	876	194	53	127	11	123	71	723	0	0	2306

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E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 C
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

Groups Printed- Cars - Heavy Vehicles

	Buick Street From North			Commonwealth Avenue (Route 20) From East				St. Paul Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	3	20	24	11	225	57	17	24	0	31	21	194	1	0	628
05:15 PM	6	8	24	7	253	82	19	35	3	21	13	231	0	0	702
05:30 PM	5	8	20	10	270	40	17	34	1	39	21	184	0	0	649
05:45 PM	5	5	9	9	260	56	18	29	2	37	24	208	1	1	664
Total	19	41	77	37	1008	235	71	122	6	128	79	817	2	1	2643
Grand Total	102	125	375	487	7574	1920	734	1395	279	1022	1088	7995	6	1	23103
Apprch %	16.9	20.8	62.3	4.5	70.7	17.9	6.9	51.7	10.3	37.9	12	88	0.1	0	
Total %	0.4	0.5	1.6	2.1	32.8	8.3	3.2	6	1.2	4.4	4.7	34.6	0	0	
Cars	100	124	365	431	7276	1904	717	1377	276	997	1042	7592	5	1	22207
% Cars	98	99.2	97.3	88.5	96.1	99.2	97.7	98.7	98.9	97.6	95.8	95	83.3	100	96.1
Heavy Vehicles	2	1	10	56	298	16	17	18	3	25	46	403	1	0	896
% Heavy Vehicles	2	0.8	2.7	11.5	3.9	0.8	2.3	1.3	1.1	2.4	4.2	5	16.7	0	3.9

	Buick Street From North				Commonwealth Avenue (Route 20) From East					St. Paul Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:15 AM																			
08:15 AM	1	1	**10**	**12**	19	**165**	51	20	255	**48**	**13**	**27**	**88**	**20**	**243**	0	0	**263**	**618**
08:30 AM	0	3	7	10	20	129	40	15	204	42	7	**33**				**1**	0	253	549
08:45 AM	**2**	**4**	5	11	23	165	37	**31**	**256**	44	**20**	22	86	34	217	0	0	251	604
09:00 AM	0	1	6	7	**28**	139	**55**	27	249	45	19	26	**90**	**35**	215	0	0	250	596
Total Volume	3	9	28	40	90	598	183	93	964	179	59	108	346	103	913	1	0	1017	2367
% App. Total	7.5	22.5	70		9.3	62	19	9.6		51.7	17.1	31.2		10.1	89.8	0.1	0		
PHF	.375	.563	.700	.833	.804	.906	.832	.750	.941	.932	.738	.818	.961	.736	.939	.250	.000	.967	.958
Cars	3	9	27	39	82	568	181	92	923	177	59	103	339	99	857	1	0	957	2258
% Cars	100	100	96.4	97.5	91.1	95.0	98.9	98.9	95.7	98.9	100	95.4	98.0	96.1	93.9	100	0	94.1	95.4
Heavy Vehicles	0	0	1	1	8	30	2	1	41	2	0	5	7	4	56	0	0	60	109
% Heavy Vehicles	0	0	3.6	2.5	8.9	5.0	1.1	1.1	4.3	1.1	0	4.6	2.0	3.9	6.1	0	0	5.9	4.6
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	3	1	5	9	6	165	31	14	216	27	2	23	52	31	173	0	0	204	481
11:45 AM	2	**3**	**9**	**14**	9	180	36	12	237	18	6	19	43	34	191	0	0	225	519
12:00 PM	**4**	2	6	12	5	145	**43**	**20**	213	30	**7**	**25**	**62**	**39**	**192**	0	0	**231**	518
12:15 PM	0	1	7	8	**11**	**195**	42	11	**259**	**35**									**529**
Total Volume	9	7	27	43	31	685	152	57	925	110	20	85	215	128	736	0	0	864	2047
% App. Total	20.9	16.3	62.8		3.4	74.1	16.4	6.2		51.2	9.3	39.5		14.8	85.2	0	0		
PHF	.563	.583	.750	.768	.705	.878	.884	.713	.893	.786	.714	.850	.867	.821	.958	.000	.000	.935	.967
Cars	9	7	27	43	26	658	149	55	888	107	20	82	209	123	700	0	0	823	1963
% Cars	100	100	100	100	83.9	96.1	98.0	96.5	96.0	97.3	100	96.5	97.2	96.1	95.1	0	0	95.3	95.9
Heavy Vehicles	0	0	0	0	5	27	3	2	37	3	0	3	6	5	36	0	0	41	84
% Heavy Vehicles	0	0	0	0	16.1	3.9	2.0	3.5	4.0	2.7	0	3.5	2.8	3.9	4.9	0	0	4.7	4.1
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	3	**20**	**24**	**47**	**11**	225	57	17	310	24	0	31	55	21	194	**1**	0	216	628
05:15 PM	**6**	8	24	38	7	253	**82**	**19**	**361**	**35**	**3**	21	59	13	**231**	0	0	**244**	**702**
05:30 PM	5	8	20	33	10	**270**	40	17	337	34	1	**39**	**74**	21	184	0	0	205	649
05:45 PM	5	5	9	19	9	260	56	18	343	29	2	37	68	**24**	208	1	**1**	234	664
Total Volume	19	41	77	137	37	1008	235	71	1351	122	6	128	256	79	817	2	1	899	2643
% App. Total	13.9	29.9	56.2		2.7	74.6	17.4	5.3		47.7	2.3	50		8.8	90.9	0.2	0.1		
PHF	.792	.513	.802	.729	.841	.933	.716	.934	.936	.871	.500	.821	.865	.823	.884	.500	.250	.921	.941
Cars	19	41	77	137	33	994	235	69	1331	122	6	128	256	78	793	1	1	873	2597
% Cars	100	100	100	100	89.2	98.6	100	97.2	98.5	100	100	100	100	98.7	97.1	50.0	100	97.1	98.3
Heavy Vehicles	0	0	0	0	4	14	0	2	20	0	0	0	0	1	24	1	0	26	46
% Heavy Vehicles	0	0	0	0	10.8	1.4	0	2.8	1.5	0	0	0	0	1.3	2.9	50.0	0	2.9	1.7

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File Name : 92031 C
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Start Date : 11/18/2009
Page No : 1

Groups Printed- Cars

	Buick Street From North			Commonwealth Avenue (Route 20) From East				St. Paul Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	3	15	148	34	12	21	10	14	5	109	0	0	371
07:15 AM	2	1	3	15	146	40	16	28	12	17	9	153	1	0	443
07:30 AM	1	1	5	12	121	45	17	34	11	13	11	182	0	0	453
07:45 AM	0	0	3	16	159	65	11	35	11	31	24	210	0	0	565
Total	3	2	14	58	574	184	56	118	44	75	49	654	1	0	1832
08:00 AM	2	3	4	12	149	45	14	38	18	26	21	197	0	0	529
08:15 AM	1	1	10	17	153	51	20	48	13	26	20	224	0	0	584
08:30 AM	0	3	6	18	123	40	15	41	7	31	12	230	1	0	527
08:45 AM	2	4	5	22	158	37	30	44	20	21	33	206	0	0	582
Total	5	11	25	69	583	173	79	171	58	104	86	857	1	0	2222
09:00 AM	0	1	6	25	134	53	27	44	19	25	34	197	0	0	565
09:15 AM	2	2	9	19	119	48	22	50	13	27	27	236	0	0	574
09:30 AM	1	0	4	17	135	42	25	38	10	16	20	179	0	0	487
09:45 AM	2	3	7	11	132	35	20	31	6	14	40	176	2	0	479
Total	5	6	26	72	520	178	94	163	48	82	121	788	2	0	2105
10:00 AM	1	0	5	10	138	35	17	26	6	18	39	146	0	0	441
10:15 AM	0	0	5	7	142	37	19	24	5	20	31	133	0	0	423
10:30 AM	2	2	4	12	135	45	15	26	7	14	28	139	0	0	429
10:45 AM	0	1	4	8	126	43	16	27	5	19	19	146	0	0	414
Total	3	3	18	37	541	160	67	103	23	71	117	564	0	0	1707
11:00 AM	3	1	4	6	153	42	14	31	4	18	19	151	0	0	446
11:15 AM	0	2	9	11	144	31	12	18	5	18	26	144	0	0	420
11:30 AM	3	1	5	5	157	31	14	25	2	23	30	164	0	0	460
11:45 AM	2	3	9	8	174	34	12	18	6	16	33	183	0	0	498
Total	8	7	27	30	628	138	52	92	17	75	108	642	0	0	1824
12:00 PM	4	2	6	4	135	43	20	29	7	25	36	179	0	0	490
12:15 PM	0	1	7	9	192	41	9	35	5	18	24	174	0	0	515
12:30 PM	1	1	7	4	133	33	20	30	7	17	33	146	0	0	432
12:45 PM	1	0	3	7	160	29	14	28	3	18	27	154	0	0	444
Total	6	4	23	24	620	146	63	122	22	78	120	653	0	0	1881
01:00 PM	3	0	7	5	134	34	17	37	5	24	34	149	0	0	449
01:15 PM	3	2	6	5	142	40	14	32	4	16	25	151	0	0	440
01:30 PM	3	1	6	4	156	37	15	36	3	18	36	157	0	0	472
01:45 PM	3	3	7	4	149	39	12	21	5	8	39	144	0	0	434
Total	12	6	26	18	581	150	58	126	17	66	134	601	0	0	1795
02:00 PM	2	2	6	3	162	40	8	31	4	22	36	154	0	0	470
02:15 PM	0	4	5	2	144	30	23	43	5	27	26	146	0	0	455
02:30 PM	1	3	8	7	183	28	13	33	1	24	20	163	0	0	484
02:45 PM	3	3	10	3	169	34	14	22	3	29	17	171	0	0	478
Total	6	12	29	15	658	132	58	129	13	102	99	634	0	0	1887
03:00 PM	4	4	11	10	176	52	14	28	4	23	9	174	0	0	509
03:15 PM	3	3	9	12	164	49	22	29	4	30	21	147	0	0	493
03:30 PM	8	3	12	8	183	51	17	20	5	18	14	182	0	0	521
03:45 PM	4	1	13	12	200	62	16	28	4	26	18	200	0	0	584
Total	19	11	45	42	723	214	69	105	17	97	62	703	0	0	2107
04:00 PM	5	3	17	6	195	46	12	31	3	38	15	191	0	0	562
04:15 PM	4	12	11	11	215	40	10	27	3	23	18	168	0	0	542
04:30 PM	3	1	7	7	220	44	13	37	3	27	14	170	0	0	546
04:45 PM	2	5	20	9	224	64	17	31	2	31	21	174	0	0	600
Total	14	21	55	33	854	194	52	126	11	119	68	703	0	0	2250

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E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 C
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

Groups Printed- Cars

	Buick Street From North			Commonwealth Avenue (Route 20) From East				St. Paul Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	3	20	24	10	222	57	17	24	0	31	21	189	0	0	618
05:15 PM	6	8	24	7	247	82	18	35	3	21	13	221	0	0	685
05:30 PM	5	8	20	8	269	40	17	34	1	39	21	179	0	0	641
05:45 PM	5	5	9	8	256	56	17	29	2	37	23	204	1	1	653
Total	19	41	77	33	994	235	69	122	6	128	78	793	1	1	2597
Grand Total	100	124	365	431	7276	1904	717	1377	276	997	1042	7592	5	1	22207
Apprch %	17	21.1	62	4.2	70.4	18.4	6.9	52	10.4	37.6	12.1	87.9	0.1	0	
Total %	0.5	0.6	1.6	1.9	32.8	8.6	3.2	6.2	1.2	4.5	4.7	34.2	0	0	

	Buick Street From North				Commonwealth Avenue (Route 20) From East					St. Paul Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:15 AM																			
08:15 AM	1	1	**10**	**12**	17	153	51	20	241	**48**	**13**	**26**	**87**	**20**	**224**	**0**	**0**	**244**	**584**
08:30 AM	0	3	6	9	18	123	40	15	196	41	7	**31**			**230**	**1**	0	243	527
08:45 AM	**2**	**4**	5	11	22	**158**	37	**30**	**247**	44	**20**	21	85	33	206	0	0	239	582
09:00 AM	0	1	6	7	**25**	134	**53**	27	239	44	19	25	**88**	**34**	197	0	0	231	565
Total Volume	3	9	27	39	82	568	181	92	923	177	59	103	339	99	857	1	0	957	2258
% App. Total	7.7	23.1	69.2		8.9	61.5	19.6	10		52.2	17.4	30.4		10.3	89.6	0.1	0		
PHF	.375	.563	.675	.813	.820	.899	.854	.767	.934	.922	.738	.831	.963	.728	.932	.250	.000	.981	.967
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	3	1	5	9	5	157	31	14	207	25	2	23	50	30	164	0	0	194	460
11:45 AM	2	**3**	**9**	**14**	8	174	34	12	228	18	6	16	40	33	**183**	0	0	**216**	498
12:00 PM	**4**	2	6	12	4	135	**43**	**20**	202	29	**7**	**25**	**61**	**36**	179	0	0	215	490
12:15 PM	0	1	7	8	**9**	**192**	41	9	**251**	**35**									**515**
Total Volume	9	7	27	43	26	658	149	55	888	107	20	82	209	123	700	0	0	823	1963
% App. Total	20.9	16.3	62.8		2.9	74.1	16.8	6.2		51.2	9.6	39.2		14.9	85.1	0	0		
PHF	.563	.583	.750	.768	.722	.857	.866	.688	.884	.764	.714	.820	.857	.854	.956	.000	.000	.953	.953
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	3	**20**	**24**	**47**	**10**	222	57	17	306	24	0	31	55	21	189	0	0	210	618
05:15 PM	**6**	8	24	38	7	247	**82**	**18**	**354**	**35**	**3**	21	59	13	**221**	0	0	**234**	**685**
05:30 PM	5	8	20	33	8	**269**	40	17	334	34	1	**39**	**74**	21	179	0	0	200	641
05:45 PM	5	5	9	19	8	256	56	17	337	29	2	37	68	**23**	204	**1**	**1**	229	653
Total Volume	19	41	77	137	33	994	235	69	1331	122	6	128	256	78	793	1	1	873	2597
% App. Total	13.9	29.9	56.2		2.5	74.7	17.7	5.2		47.7	2.3	50		8.9	90.8	0.1	0.1		
PHF	.792	.513	.802	.729	.825	.924	.716	.958	.940	.871	.500	.821	.865	.848	.897	.250	.250	.933	.948

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City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 C
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Heavy Vehicles

	Buick Street From North			Commonwealth Avenue (Route 20) From East				St. Paul Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	3	8	1	0	0	0	0	2	14	0	0	28
07:15 AM	0	0	0	1	3	1	1	0	0	0	1	11	0	0	18
07:30 AM	0	0	0	0	9	0	0	0	1	3	2	20	0	0	35
07:45 AM	0	0	0	0	7	0	1	1	0	0	0	12	0	0	21
Total	0	0	0	4	27	2	2	1	1	3	5	57	0	0	102
08:00 AM	0	0	0	2	15	1	1	0	0	1	0	15	0	0	35
08:15 AM	0	0	0	2	12	0	0	0	0	1	0	19	0	0	34
08:30 AM	0	0	1	2	6	0	0	1	0	2	2	8	0	0	22
08:45 AM	0	0	0	1	7	0	1	0	0	1	1	11	0	0	22
Total	0	0	1	7	40	1	2	1	0	5	3	53	0	0	113
09:00 AM	0	0	0	3	5	2	0	1	0	1	1	18	0	0	31
09:15 AM	0	0	1	3	13	0	0	0	1	0	3	18	0	0	39
09:30 AM	0	0	0	2	9	1	0	2	0	0	3	14	0	0	31
09:45 AM	0	0	0	1	3	1	0	0	0	0	1	10	0	0	16
Total	0	0	1	9	30	4	0	3	1	1	8	60	0	0	117
10:00 AM	0	0	0	1	8	0	0	1	0	0	0	7	0	0	17
10:15 AM	0	0	0	2	9	0	1	1	0	0	0	12	0	0	25
10:30 AM	0	0	0	2	8	0	0	1	0	3	0	8	0	0	22
10:45 AM	0	0	1	1	8	1	0	0	0	1	4	11	0	0	27
Total	0	0	1	6	33	1	1	3	0	4	4	38	0	0	91
11:00 AM	0	0	1	1	10	0	1	0	0	0	0	12	0	0	25
11:15 AM	0	0	3	0	2	1	1	0	0	0	1	10	0	0	18
11:30 AM	0	0	0	1	8	0	0	2	0	0	1	9	0	0	21
11:45 AM	0	0	0	1	6	2	0	0	0	3	1	8	0	0	21
Total	0	0	4	3	26	3	2	2	0	3	3	39	0	0	85
12:00 PM	0	0	0	1	10	0	0	1	0	0	3	13	0	0	28
12:15 PM	0	0	0	2	3	1	2	0	0	0	0	6	0	0	14
12:30 PM	1	0	0	1	6	0	0	0	0	0	2	8	0	0	18
12:45 PM	1	0	0	1	8	1	0	1	0	1	0	6	0	0	19
Total	2	0	0	5	27	2	2	2	0	1	5	33	0	0	79
01:00 PM	0	0	0	0	4	1	2	0	0	0	1	10	0	0	18
01:15 PM	0	0	1	1	9	0	1	0	0	0	1	10	0	0	23
01:30 PM	0	0	1	2	7	0	1	0	0	0	1	3	0	0	15
01:45 PM	0	0	0	2	11	0	0	0	0	0	5	2	0	0	20
Total	0	0	2	5	31	1	4	0	0	0	8	25	0	0	76
02:00 PM	0	0	1	1	9	0	0	2	1	1	2	8	0	0	25
02:15 PM	0	0	0	0	5	1	0	2	0	0	0	7	0	0	15
02:30 PM	0	0	0	1	7	0	0	0	0	0	1	5	0	0	14
02:45 PM	0	0	0	3	5	0	0	0	0	1	0	5	0	0	14
Total	0	0	1	5	26	1	0	4	1	2	3	25	0	0	68
03:00 PM	0	0	0	1	5	1	1	0	0	0	2	6	0	0	16
03:15 PM	0	0	0	0	5	0	0	1	0	1	1	7	0	0	15
03:30 PM	0	0	0	2	6	0	0	0	0	1	0	9	0	0	18
03:45 PM	0	0	0	1	6	0	0	0	0	0	0	7	0	0	14
Total	0	0	0	4	22	1	1	1	0	2	3	29	0	0	63
04:00 PM	0	0	0	1	8	0	0	0	0	2	0	5	0	0	16
04:15 PM	0	0	0	1	7	0	0	0	0	0	2	2	0	0	12
04:30 PM	0	1	0	1	3	0	0	0	0	0	0	7	0	0	12
04:45 PM	0	0	0	1	4	0	1	1	0	2	1	6	0	0	16
Total	0	1	0	4	22	0	1	1	0	4	3	20	0	0	56

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Groups Printed- Heavy Vehicles

	Buick Street From North			Commonwealth Avenue (Route 20) From East				St. Paul Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	0	0	0	1	3	0	0	0	0	0	0	5	1	0	10
05:15 PM	0	0	0	0	6	0	1	0	0	0	0	10	0	0	17
05:30 PM	0	0	0	2	1	0	0	0	0	0	0	5	0	0	8
05:45 PM	0	0	0	1	4	0	1	0	0	0	1	4	0	0	11
Total	0	0	0	4	14	0	2	0	0	0	1	24	1	0	46
Grand Total	2	1	10	56	298	16	17	18	3	25	46	403	1	0	896
Apprch %	15.4	7.7	76.9	14.5	77	4.1	4.4	39.1	6.5	54.3	10.2	89.6	0.2	0	
Total %	0.2	0.1	1.1	6.2	33.3	1.8	1.9	2	0.3	2.8	5.1	45	0.1	0	

	Buick Street From North				Commonwealth Avenue (Route 20) From East					St. Paul Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	0	0	0	0	0	9	0	0	9	0	**1**	**3**	**4**	**2**	**20**	0	0	**22**	**35**
07:45 AM	0	0	0	0	0	7	0	**1**	8	**1**									
08:00 AM	**0**	**0**	**0**	**0**	**2**	**15**	**1**	1	**19**	0	0	1	1	0	15	0	0	15	35
08:15 AM	0	0	0	0	2	12	0	0	14	0	0	1	1	0	19	0	0	19	34
Total Volume	0	0	0	0	4	43	1	2	50	1	1	5	7	2	66	0	0	68	125
% App. Total	0	0	0		8	86	2	4		14.3	14.3	71.4		2.9	97.1	0	0		
PHF	.000	.000	.000	.000	.500	.717	.250	.500	.658	.250	.250	.417	.438	.250	.825	.000	.000	.773	.893
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 10:15 AM																			
10:15 AM	0	0	0	0	**2**	9	0	**1**	**12**	**1**	**0**	**0**	**1**	**0**	**12**	0	0	12	25
10:30 AM	0	0	0	0	2	8	0	0	10	1	0	**3**	**4**	0	8	0	0	8	22
10:45 AM	0	0	**1**	**1**	1	8	**1**	0	10	0	0	1	1	**4**	11	0	0	**15**	**27**
11:00 AM	0	0	1	1	1	**10**	0	1	12	0	0	0	0	0	12	0	0	12	25
Total Volume	0	0	2	2	6	35	1	2	44	2	0	4	6	4	43	0	0	47	99
% App. Total	0	0	100		13.6	79.5	2.3	4.5		33.3	0	66.7		8.5	91.5	0	0		
PHF	.000	.000	.500	.500	.750	.875	.250	.500	.917	.500	.000	.333	.375	.250	.896	.000	.000	.783	.917
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 02:00 PM																			
02:00 PM	0	0	**1**	**1**	1	**9**	0	0	**10**	**2**	**1**	**1**	**4**	**2**	**8**	0	0	**10**	**25**
02:15 PM	0	0	0	0	0	5	**1**	0	6	2	0	0	2	0	7	0	0	7	15
02:30 PM	0	0	0	0	1	7	0	0	8	0	0	0	0	1	5	0	0	6	14
02:45 PM	0	0	0	0	**3**	5	0	0	8	0	0	1	1	0	5	0	0	5	14
Total Volume	0	0	1	1	5	26	1	0	32	4	1	2	7	3	25	0	0	28	68
% App. Total	0	0	100		15.6	81.2	3.1	0		57.1	14.3	28.6		10.7	89.3	0	0		
PHF	.000	.000	.250	.250	.417	.722	.250	.000	.800	.500	.250	.500	.438	.375	.781	.000	.000	.700	.680

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Groups Printed- Trains

	Buick Street From North			Commonwealth Avenue (Route 20) From East				St. Paul Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
07:15 AM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
07:30 AM	0	0	0	0	2	0	0	0	0	0	0	5	0	0	7
07:45 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
Total	0	0	0	0	10	0	0	0	0	0	0	13	0	0	23
08:00 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
08:15 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
08:30 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
08:45 AM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
Total	0	0	0	0	9	0	0	0	0	0	0	10	0	0	19
09:00 AM	0	0	0	0	3	0	0	0	0	0	0	1	0	0	4
09:15 AM	0	0	0	0	4	0	0	0	0	0	0	4	0	0	8
09:30 AM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
09:45 AM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
Total	0	0	0	0	12	0	0	0	0	0	0	10	0	0	22
10:00 AM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
10:15 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
10:30 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
10:45 AM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
Total	0	0	0	0	10	0	0	0	0	0	0	8	0	0	18
11:00 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
11:15 AM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
11:30 AM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
11:45 AM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	0	8	0	0	0	0	0	0	7	0	0	15
12:00 PM	0	0	0	0	3	0	0	0	0	0	0	1	0	0	4
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
12:30 PM	0	0	0	0	4	0	0	0	0	0	0	1	0	0	5
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	0	8	0	0	0	0	0	0	7	0	0	15
01:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
01:15 PM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
01:30 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
01:45 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
Total	0	0	0	0	7	0	0	0	0	0	0	7	0	0	14
02:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
02:15 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
02:30 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
02:45 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	0	6	0	0	0	0	0	0	8	0	0	14
03:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
03:30 PM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
03:45 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
Total	0	0	0	0	8	0	0	0	0	0	0	9	0	0	17
04:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
04:15 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
04:30 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
04:45 PM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
Total	0	0	0	0	9	0	0	0	0	0	0	9	0	0	18

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N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 C
Site Code : 3853
Start Date : 11/18/2009

Groups Printed- Trains

	Buick Street From North			Commonwealth Avenue (Route 20) From East				St. Paul Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
05:15 PM	0	0	0	0	4	0	0	0	0	0	0	3	0	0	7
05:30 PM	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5
05:45 PM	0	0	0	0	2	0	0	0	0	0	0	5	0	0	7
Total	0	0	0	0	14	0	0	0	0	0	0	10	0	0	24
Grand Total	0	0	0	0	101	0	0	0	0	0	0	98	0	0	199
Apprch %	0	0	0	0	100	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	50.8	0	0	0	0	0	0	49.2	0	0	

	Buick Street From North				Commonwealth Avenue (Route 20) From East					St. Paul Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:15 AM																			
07:15 AM	0	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	2	0	0	2	5
07:30 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	**5**	0	0	**5**	**7**
07:45 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3	0	0	3	6
08:00 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3	0	0	3	6
Total Volume	0	0	0	0	0	11	0	0	11	0	0	0	0	0	13	0	0	13	24
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.917	.000	.000	.917	.000	.000	.000	.000	.000	.650	.000	.000	.650	.857
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 10:00 AM																			
10:00 AM	0	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	2	0	0	2	5
10:15 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	**3**	0	0	**3**	**6**
10:30 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
10:45 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	0	0	1	3
Total Volume	0	0	0	0	0	10	0	0	10	0	0	0	0	0	8	0	0	8	18
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.833	.000	.000	.833	.000	.000	.000	.000	.000	.667	.000	.000	.667	.750
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	2	0	0	2	5
05:15 PM	0	0	0	0	0	4	0	0	4	0	0	0	0	0	3	0	0	3	**7**
05:30 PM	0	0	0	0	0	**5**	0	0	**5**	0	0	0	0	0	0	0	0	0	5
05:45 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	**5**	0	0	**5**	7
Total Volume	0	0	0	0	0	14	0	0	14	0	0	0	0	0	10	0	0	10	24
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.700	.000	.000	.700	.000	.000	.000	.000	.000	.500	.000	.000	.500	.857

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File Name : 92031 C
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Peds and Bicycles

	Buick Street From North				Commonwealth Avenue (Route 20) From East						St. Paul Street From South				Commonwealth Avenue (Route 20) From West						
Start	Right	Thru	Left	Peds	Right	Thru North Side	Thru South Side	Left	Peds on North Side	Peds on South Side	Right	Thru	Left	Peds	Right	Thru South Side	Thru North Side	Left	Peds on South Side	Peds on North Side	Int. Total
07:00 AM	0	0	0	21	0	3	0	2	7	6	0	0	0	9	0	5	5	0	13	10	81
07:15 AM	0	0	0	23	0	3	0	1	2	3	1	0	0	11	0	4	0	0	26	14	88
07:30 AM	0	0	0	43	0	4	1	0	5	12	4	1	0	22	0	20	3	0	21	15	151
07:45 AM	0	1	3	77	0	6	1	1	8	8	0	1	1	30	1	26	3	0	34	23	224
Total	0	1	3	164	0	16	2	4	22	29	5	2	1	72	1	55	11	0	94	62	544
08:00 AM	0	2	0	55	0	4	0	1	16	17	2	1	0	34	2	27	4	0	33	26	224
08:15 AM	0	0	1	53	0	1	0	1	19	18	1	1	0	45	0	36	5	0	35	21	237
08:30 AM	0	0	0	160	0	2	1	3	25	23	3	0	0	111	0	51	2	0	82	47	510
08:45 AM	0	0	2	301	1	9	3	1	47	42	2	0	0	202	2	79	2	0	115	84	892
Total	0	2	3	569	1	16	4	6	107	100	8	2	0	392	4	193	13	0	265	178	1863
09:00 AM	0	0	0	156	1	9	1	1	56	62	2	0	0	132	0	41	13	1	110	43	628
09:15 AM	0	0	0	76	0	5	0	1	24	22	0	1	1	62	0	33	7	1	56	40	329
09:30 AM	0	0	0	125	0	6	0	0	32	32	0	1	0	83	0	27	0	0	32	24	362
09:45 AM	0	0	4	138	1	8	0	1	25	28	1	0	0	53	0	61	7	0	55	55	437
Total	0	0	4	495	2	28	1	3	137	144	3	2	1	330	0	162	27	2	253	162	1756
10:00 AM	0	1	0	122	0	8	0	0	17	18	1	0	0	34	0	45	5	0	53	43	347
10:15 AM	0	0	1	74	0	4	0	0	20	27	0	0	0	55	0	31	4	0	61	47	324
10:30 AM	0	0	0	130	0	7	1	0	25	31	0	1	0	73	0	27	0	0	66	45	406
10:45 AM	0	0	0	361	1	11	1	1	27	41	3	0	0	65	0	48	8	1	71	44	683
Total	0	1	1	687	1	30	2	1	89	117	4	1	0	227	0	151	17	1	251	179	1760
11:00 AM	0	0	1	156	0	7	1	1	29	27	0	0	0	43	0	17	1	0	65	45	393
11:15 AM	0	0	0	74	0	12	0	0	19	20	0	0	0	38	0	22	1	0	32	25	243
11:30 AM	0	0	0	150	0	4	0	0	29	29	1	0	3	37	0	15	4	1	42	39	354
11:45 AM	0	0	0	283	2	12	1	2	77	74	0	0	0	78	0	38	2	0	69	67	705
Total	0	0	1	663	2	35	2	3	154	150	1	0	3	196	0	92	8	1	208	176	1695
12:00 PM	0	0	0	267	1	10	2	3	88	86	1	0	0	146	1	23	3	0	135	113	879
12:15 PM	0	0	1	135	1	12	0	0	43	40	1	0	1	81	1	26	1	1	69	68	481
12:30 PM	0	0	0	169	0	11	1	0	36	34	1	0	0	60	1	15	3	0	57	53	441
12:45 PM	0	0	0	341	0	9	1	0	64	66	0	0	0	46	0	16	1	0	72	79	695
Total	0	0	1	912	2	42	4	3	231	226	3	0	1	333	3	80	8	1	333	313	2496
01:00 PM	0	0	1	197	0	10	0	0	62	65	0	0	0	82	0	15	2	1	80	82	597
01:15 PM	0	1	0	103	0	9	2	1	66	66	0	1	1	90	0	11	0	0	128	122	601
01:30 PM	0	0	1	184	2	20	1	0	62	64	1	0	0	75	0	30	0	0	68	85	593
01:45 PM	0	0	2	201	0	26	0	0	52	46	0	0	2	53	0	21	0	0	78	72	553
Total	0	1	4	685	2	65	3	1	242	241	1	1	3	300	0	77	2	1	354	361	2344
02:00 PM	0	0	0	167	1	27	2	1	41	39	2	0	1	69	0	20	1	2	72	79	524
02:15 PM	0	0	0	78	0	15	2	0	20	22	0	1	2	74	1	9	2	0	70	60	356
02:30 PM	0	0	0	93	0	11	0	0	44	42	0	1	0	51	0	6	2	0	63	44	357
02:45 PM	0	0	1	145	0	17	3	0	29	26	1	0	0	56	1	23	0	0	73	60	435
Total	0	0	1	483	1	70	7	1	134	129	3	2	3	250	2	58	5	2	278	243	1672
03:00 PM	0	0	0	198	1	14	0	0	25	27	1	0	2	97	0	15	1	0	60	59	500
03:15 PM	1	0	0	95	1	15	0	0	31	31	1	0	0	53	0	7	2	0	46	45	328
03:30 PM	0	1	0	104	1	20	1	0	24	21	1	0	0	47	0	13	0	1	45	48	327
03:45 PM	0	1	0	108	2	16	1	0	46	52	1	0	0	127	0	18	3	0	125	63	563
Total	1	2	0	505	5	65	2	0	126	131	4	0	2	324	0	53	6	1	276	215	1718

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File Name : 92031 C
Site Code : 3853
Start Date : 11/18/2009

Groups Printed- Peds and Bicycles

	Buick Street From North				Commonwealth Avenue (Route 20) From East						St. Paul Street From South				Commonwealth Avenue (Route 20) From West						
Start	Right	Thru	Left	Peds	Right	Thru North Side	Thru South Side	Left	Peds on North Side	Peds on South Side	Right	Thru	Left	Peds	Right	Thru South Side	Thru North Side	Left	Peds on South Side	Peds on North Side	Int. Total
04:00 PM	0	0	1	147	1	20	0	0	38	39	0	0	1	101	0	14	1	0	95	104	562
04:15 PM	0	1	0	87	2	28	1	1	25	28	1	0	0	91	0	11	0	0	62	67	405
04:30 PM	0	0	0	144	0	25	0	2	32	34	0	0	2	39	0	12	1	0	77	58	426
04:45 PM	0	0	1	175	1	22	1	0	44	44	3	0	2	64	1	18	3	2	70	95	546
Total	0	1	2	553	4	95	2	3	139	145	4	0	5	295	1	55	5	2	304	324	1939
05:00 PM	0	0	0	116	2	30	1	0	47	45	1	0	1	68	0	11	2	0	100	95	519
05:15 PM	1	1	3	68	1	22	1	0	34	39	4	1	1	76	1	11	2	0	84	81	431
05:30 PM	0	2	0	112	1	15	2	2	47	46	1	1	0	73	0	7	1	1	82	72	465
05:45 PM	0	4	0	73	1	20	2	0	23	24	0	0	1	90	2	17	3	0	99	101	460
Total	1	7	3	369	5	87	6	2	151	154	6	2	3	307	3	46	8	1	365	349	1875
Grand Total	2	15	23	6085	25	549	35	27	1532	1566	42	12	22	3026	14	1022	110	12	2981	2562	19662
Apprch %	0	0.2	0.4	99.3	0.7	14.7	0.9	0.7	41	41.9	1.4	0.4	0.7	97.5	0.2	15.3	1.6	0.2	44.5	38.2	
Total %	0	0.1	0.1	30.9	0.1	2.8	0.2	0.1	7.8	8	0.2	0.1	0.1	15.4	0.1	5.2	0.6	0.1	15.2	13	

	Buick Street From North					Commonwealth Avenue (Route 20) From East							St. Paul Street From South					Commonwealth Avenue (Route 20) From West							
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru North	Thru South	Left	Peds on North	Peds on South	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru South	Thru North	Left	Peds on South	Peds on North	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 08:30 AM																									
08:30 AM	0	0	0	160	160	0	2	1	**3**	**25**	**23**	**54**	**3**	0	0	111	114	0	51	2	0	82	47	182	510
08:45 AM	0	0	**2**	**301**	**303**	**1**	**9**	**3**	1	47	42	103	2	0	0	**202**	**204**	**2**	**79**	2	0	**115**	**84**	**282**	**892**
09:00 AM	0	0	0	156	156	1	9	1	1	**56**	**62**	**130**	2	0	0	132	134	0	41	**13**	**1**	110	43	208	628
09:15 AM	0	0	0	76	76	0	5	0	1	24	22	52	0	**1**	**1**	62	64	0	33	7	1	56	40	137	329
Total Volume	0	0	2	693	695	2	25	5	6	152	149	339	7	1	1	507	516	2	204	24	2	363	214	809	2359
% App. Total	0	0	0.3	99.7		0.6	7.4	1.5	1.8	44.8	44		1.4	0.2	0.2	98.3		0.2	25.2	3	0.2	44.9	26.5		
PHF	.000	.000	.250	.576		.500	.694	.417	.500	.679	.601		.583	.250	.250	.627	.632	.250	.646	.462	.500	.789	.637	.717	.661
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:45 AM																									
11:45 AM	0	0	0	**283**	**283**	**2**	**12**	1	2	77	74	168	0	0	0	78	78	0	**38**	2	0	69	67	176	705
12:00 PM	0	0	0	267	267	1	10	**2**	**3**	**88**	**86**	**190**	**1**	0	0	**146**	**147**	**1**		**3**	0	**135**	**113**	**275**	**879**
12:15 PM	0	0	**1**	135	136	1	12	0	0	43	40	96	1	0	**1**	81	83	1	26	1	**1**	69	68	166	481
12:30 PM	0	0	0	169	169	0	11	1	0	36	34	82	1	0	0	60	61	1	15	3	0	57	53	129	441
Total Volume	0	0	1	854	855	4	45	4	5	244	234	536	3	0	1	365	369	3	102	9	1	330	301	746	2506
% App. Total	0	0	0.1	99.9		0.7	8.4	0.7	0.9	45.5	43.7		0.8	0	0.3	98.9		0.4	13.7	1.2	0.1	44.2	40.3		
PHF	.000	.000	.250	.754		.500	.938	.500	.417	.693	.680		.750	.000	.250	.625	.628	.750	.671	.750	.250	.611	.666	.678	.713
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:45 PM																									
04:45 PM	0	0	1	**175**	**176**	1	22	1	0	44	44	112	3	0	**2**	64	69	**1**	**18**	**3**	**2**	70	**95**	**189**	**546**
05:00 PM	0	0	0	116	116	**2**	**30**	1	0	**47**		**125**	1	0	1	68	70	0	11	2	0	**100**	95	**208**	519
05:15 PM	**1**	1	**3**										**4**	**1**	1	**76**	**82**	1	11	2	0	84	81	179	431
05:30 PM	0	**2**		112	114	1	15	**2**	**2**		**46**	113	1	1	0	73	75	0	7	1	1	82	72	163	465
Total Volume	1	3	4	471	479	5	89	5	2	172	174	447	9	2	4	281	296	2	47	8	3	336	343	739	1961
% App. Total	0.2	0.6	0.8	98.3		1.1	19.9	1.1	0.4	38.5	38.9		3	0.7	1.4	94.9		0.3	6.4	1.1	0.4	45.5	46.4		
PHF	.250	.375	.333	.673		.625	.742	.625	.250	.915	.946		.563	.500	.500	.924	.902	.500	.653	.667	.375	.840	.903	.888	.898

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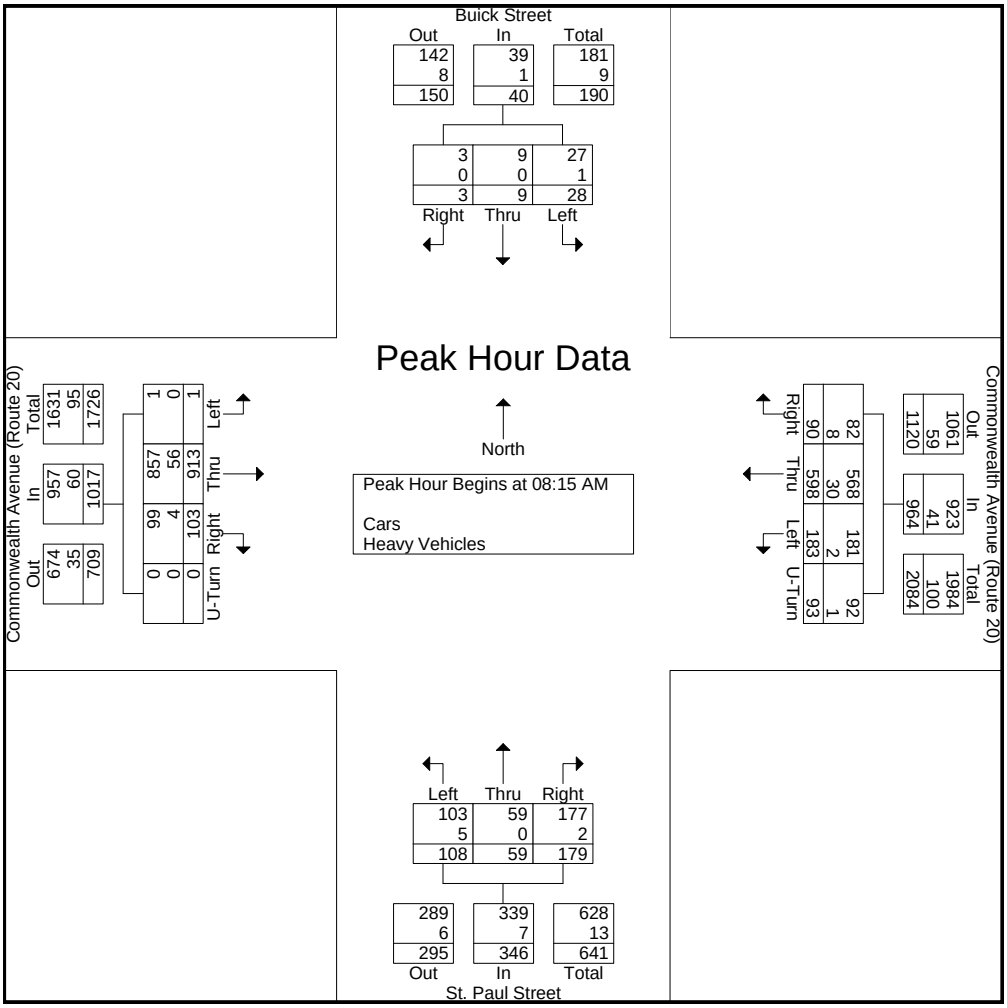
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:15 AM																			
08:15 AM	1	1	**10**	**12**	19	**165**	51	20	255	**48**	**13**	**27**	**88**	**20**	**243**	0	0	**263**	**618**
08:30 AM	0	3	7	10	20	129	40	15	204	42	7	**33**				**1**	0	253	549
08:45 AM	**2**	**4**	5	11	23	165	37	**31**	**256**	44	**20**	22	86	34	217	0	0	251	604
09:00 AM	0	1	6	7	**28**	139	**55**	27	249	45	19	26	**90**	**35**	215	0	0	250	596
Total Volume	3	9	28	40	90	598	183	93	964	179	59	108	346	103	913	1	0	1017	2367
% App. Total	7.5	22.5	70		9.3	62	19	9.6		51.7	17.1	31.2		10.1	89.8	0.1	0		
PHF	.375	.563	.700	.833	.804	.906	.832	.750	.941	.932	.738	.818	.961	.736	.939	.250	.000	.967	.958
Cars	3	9	27	39	82	568	181	92	923	177	59	103	339	99	857	1	0	957	2258
% Cars	100	100	96.4	97.5	91.1	95.0	98.9	98.9	95.7	98.9	100	95.4	98.0	96.1	93.9	100	0	94.1	95.4
Heavy Vehicles	0	0	1	1	8	30	2	1	41	2	0	5	7	4	56	0	0	60	109
% Heavy Vehicles	0	0	3.6	2.5	8.9	5.0	1.1	1.1	4.3	1.1	0	4.6	2.0	3.9	6.1	0	0	5.9	4.6



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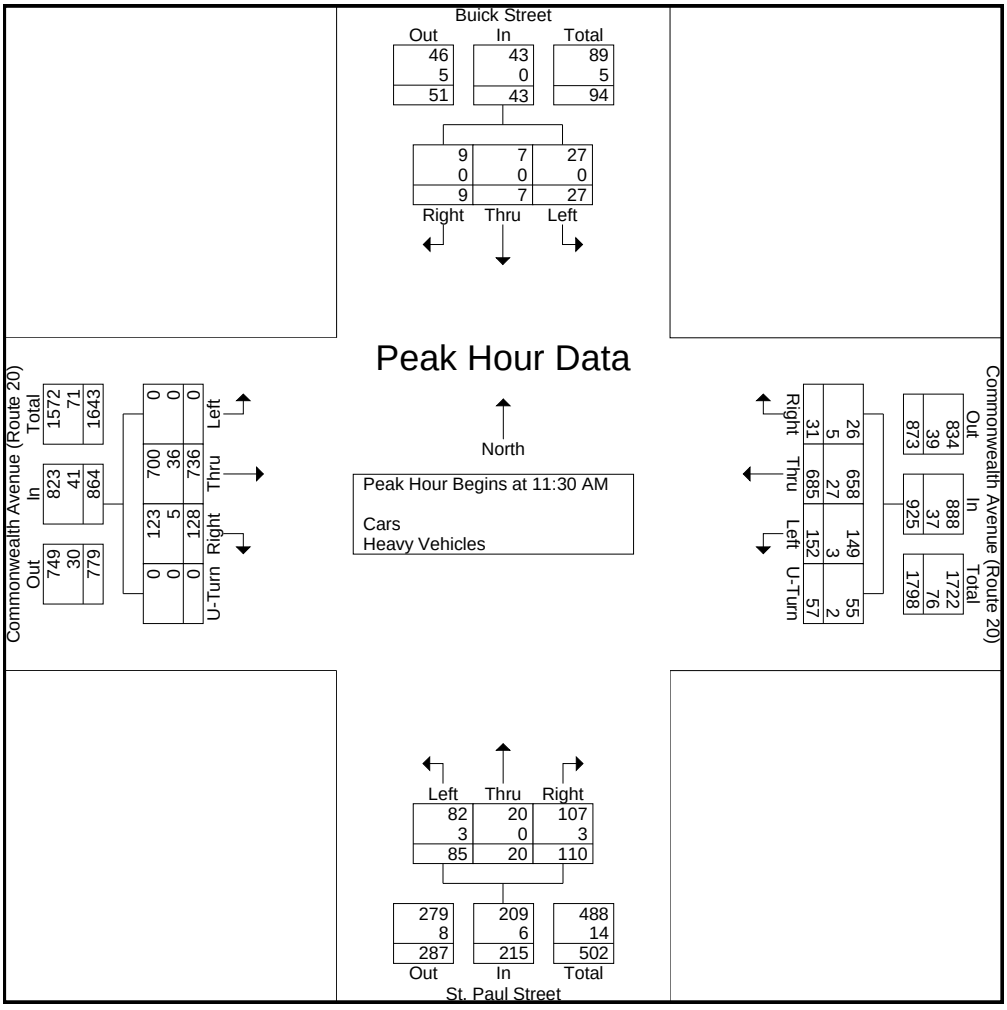
	Buick Street From North				Commonwealth Avenue (Route 20) From East					St. Paul Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	3	1	5	9	6	165	31	14	216	27	2	23	52	31	173	0	0	204	481
11:45 AM	2	**3**	**9**	**14**	9	180	36	12	237	18	6	19	43	34	191	0	0	225	519
12:00 PM	**4**	2	6	12	5	145	**43**	**20**	213	30	**7**	**25**	**62**	**39**	**192**	0	0	**231**	518
12:15 PM	0	1	7	8	**11**	**195**	42	11	**259**	**35**									**529**
Total Volume	9	7	27	43	31	685	152	57	925	110	20	85	215	128	736	0	0	864	2047
% App. Total	20.9	16.3	62.8		3.4	74.1	16.4	6.2		51.2	9.3	39.5		14.8	85.2	0	0		
PHF	.563	.583	.750	.768	.705	.878	.884	.713	.893	.786	.714	.850	.867	.821	.958	.000	.000	.935	.967
Cars	9	7	27	43	26	658	149	55	888	107	20	82	209	123	700	0	0	823	1963
% Cars	100	100	100	100	83.9	96.1	98.0	96.5	96.0	97.3	100	96.5	97.2	96.1	95.1	0	0	95.3	95.9
Heavy Vehicles	0	0	0	0	5	27	3	2	37	3	0	3	6	5	36	0	0	41	84
% Heavy Vehicles	0	0	0	0	16.1	3.9	2.0	3.5	4.0	2.7	0	3.5	2.8	3.9	4.9	0	0	4.7	4.1



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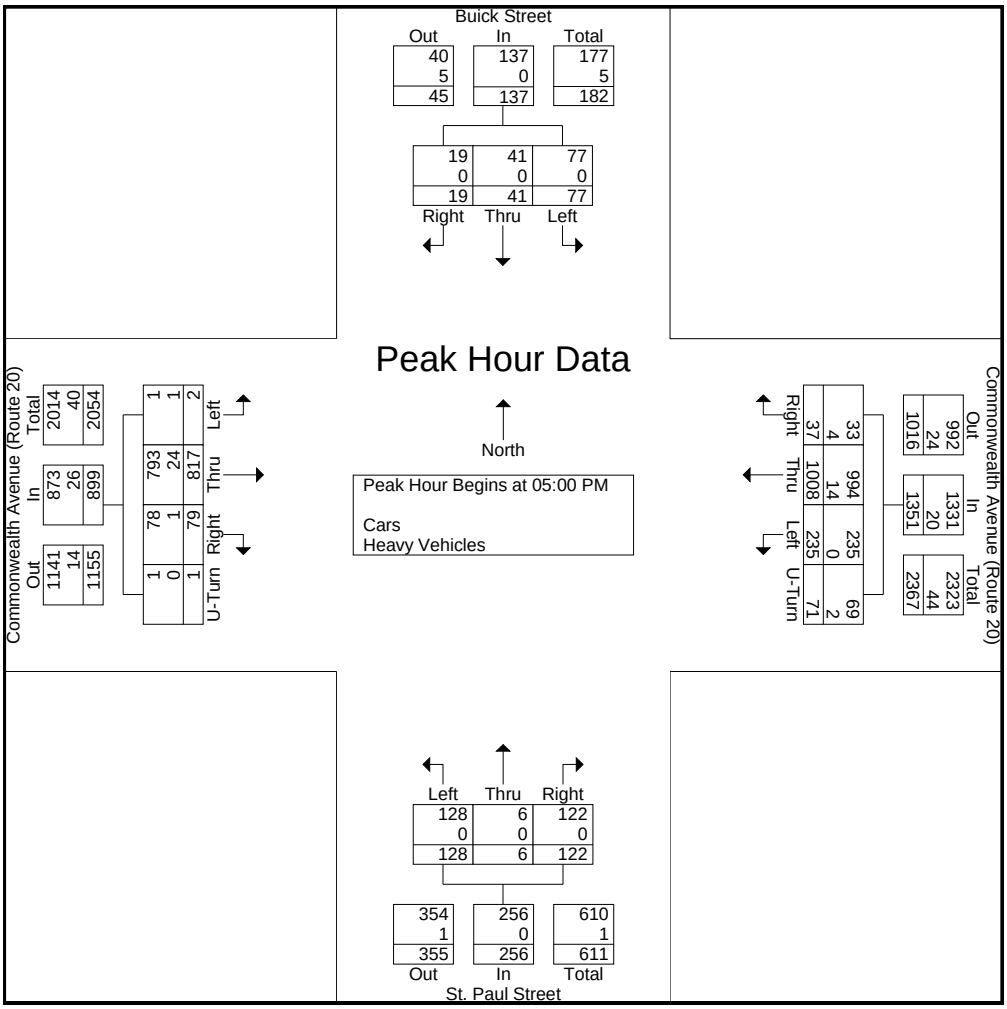
N/S: Buick Street/ St. Paul Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 C
Site Code : 3853
Start Date : 11/18/2009
Page No : 3

	Buick Street From North				Commonwealth Avenue (Route 20) From East					St. Paul Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	3	**20**	**24**	**47**	**11**	225	57	17	310	24	0	31	55	21	194	**1**	0	216	628
05:15 PM	**6**	8	24	38	7	253	**82**	**19**	**361**	**35**	**3**	21	59	13	**231**	0	0	**244**	**702**
05:30 PM	5	8	20	33	10	**270**	40	17	337	34	1	**39**	**74**	21	184	0	0	205	649
05:45 PM	5	5	9	19	9	260	56	18	343	29	2	37	68	**24**	208	1	**1**	234	664
Total Volume	19	41	77	137	37	1008	235	71	1351	122	6	128	256	79	817	2	1	899	2643
% App. Total	13.9	29.9	56.2		2.7	74.6	17.4	5.3		47.7	2.3	50		8.8	90.9	0.2	0.1		
PHF	.792	.513	.802	.729	.841	.933	.716	.934	.936	.871	.500	.821	.865	.823	.884	.500	.250	.921	.941
Cars	19	41	77	137	33	994	235	69	1331	122	6	128	256	78	793	1	1	873	2597
% Cars	100	100	100	100	89.2	98.6	100	97.2	98.5	100	100	100	100	98.7	97.1	50.0	100	97.1	98.3
Heavy Vehicles	0	0	0	0	4	14	0	2	20	0	0	0	0	1	24	1	0	26	46
% Heavy Vehicles	0	0	0	0	10.8	1.4	0	2.8	1.5	0	0	0	0	1.3	2.9	50.0	0	2.9	1.7



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N/S: Parking Lot/ Armory Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 D
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Parking Lot From North			Commonwealth Avenue (Route 20) From East			Armory Street From South			Commonwealth Avenue (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	3	0	0	3	201	0	16	0	0	8	150	0	381
07:15 AM	0	0	0	0	221	0	32	0	0	9	220	0	482
07:30 AM	0	0	0	0	193	0	35	0	0	6	252	0	486
07:45 AM	0	0	0	2	235	0	61	0	0	13	255	0	566
Total	3	0	0	5	850	0	144	0	0	36	877	0	1915
08:00 AM	0	0	0	5	233	0	67	0	0	9	257	0	571
08:15 AM	0	0	0	6	237	0	75	0	0	13	305	0	636
08:30 AM	0	0	0	3	201	0	78	0	0	13	282	0	577
08:45 AM	0	0	0	10	255	0	77	0	0	11	277	0	630
Total	0	0	0	24	926	0	297	0	0	46	1121	0	2414
09:00 AM	4	0	0	13	237	0	68	0	0	16	291	0	629
09:15 AM	7	0	0	4	193	0	48	0	0	12	318	0	582
09:30 AM	1	0	0	2	223	0	26	0	0	5	252	0	509
09:45 AM	0	0	0	1	196	0	35	0	0	7	240	0	479
Total	12	0	0	20	849	0	177	0	0	40	1101	0	2199
10:00 AM	2	0	0	2	207	0	16	0	0	13	179	0	419
10:15 AM	0	0	0	1	220	0	27	0	0	6	210	0	464
10:30 AM	1	0	0	4	211	0	18	0	0	7	181	0	422
10:45 AM	1	0	0	2	182	0	21	0	0	15	193	0	414
Total	4	0	0	9	820	0	82	0	0	41	763	0	1719
11:00 AM	1	0	0	0	207	0	20	0	0	8	216	0	452
11:15 AM	1	0	0	2	202	0	17	0	0	8	188	0	418
11:30 AM	1	0	0	0	194	0	11	0	0	8	200	0	414
11:45 AM	0	0	0	0	244	0	20	0	0	9	205	0	478
Total	3	0	0	2	847	0	68	0	0	33	809	0	1762
12:00 PM	0	0	0	1	206	0	12	0	0	9	236	0	464
12:15 PM	1	0	0	1	247	0	19	0	0	7	222	0	497
12:30 PM	1	0	0	0	200	0	13	0	0	6	208	0	428
12:45 PM	0	0	0	0	213	0	15	0	0	6	209	0	443
Total	2	0	0	2	866	0	59	0	0	28	875	0	1832
01:00 PM	0	0	0	0	198	0	11	0	0	8	221	0	438
01:15 PM	2	0	0	0	214	0	21	0	0	18	178	0	433
01:30 PM	0	0	0	0	215	0	17	0	0	11	190	0	433
01:45 PM	0	0	0	0	211	0	14	0	0	9	177	0	411
Total	2	0	0	0	838	0	63	0	0	46	766	0	1715
02:00 PM	1	0	0	1	243	0	26	0	0	14	207	0	492
02:15 PM	0	0	0	1	218	0	20	0	0	12	212	0	463
02:30 PM	2	0	0	3	248	0	18	0	0	6	212	0	489
02:45 PM	1	0	0	0	229	0	28	0	0	9	213	0	480
Total	4	0	0	5	938	0	92	0	0	41	844	0	1924
03:00 PM	0	0	0	1	277	0	20	0	0	6	220	0	524
03:15 PM	1	0	0	0	262	0	35	0	0	8	217	0	523
03:30 PM	2	0	0	2	263	0	31	0	0	9	247	0	554
03:45 PM	2	0	0	2	306	0	23	0	0	7	240	0	580
Total	5	0	0	5	1108	0	109	0	0	30	924	0	2181

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File Name : 92031 D
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

Groups Printed- Cars - Heavy Vehicles

	Parking Lot From North			Commonwealth Avenue (Route 20) From East			Armory Street From South			Commonwealth Avenue (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	2	267	0	42	0	0	15	235	0	561
04:15 PM	1	0	0	5	292	0	40	0	0	12	209	0	559
04:30 PM	3	0	0	4	290	0	40	0	0	14	217	0	568
04:45 PM	4	0	0	0	316	0	40	0	0	11	242	0	613
Total	8	0	0	11	1165	0	162	0	0	52	903	0	2301
05:00 PM	6	0	0	0	292	0	44	0	0	9	229	0	580
05:15 PM	5	0	0	2	350	0	48	0	0	13	283	0	701
05:30 PM	3	0	0	0	327	0	34	0	0	10	249	0	623
05:45 PM	2	0	0	2	357	0	34	0	0	15	238	0	648
Total	16	0	0	4	1326	0	160	0	0	47	999	0	2552
Grand Total	59	0	0	87	10533	0	1413	0	0	440	9982	0	22514
Apprch %	100	0	0	0.8	99.2	0	100	0	0	4.2	95.8	0	
Total %	0.3	0	0	0.4	46.8	0	6.3	0	0	2	44.3	0	
Cars	57	0	0	85	10053	0	1389	0	0	422	9532	0	21538
% Cars	96.6	0	0	97.7	95.4	0	98.3	0	0	95.9	95.5	0	95.7
Heavy Vehicles	2	0	0	2	480	0	24	0	0	18	450	0	976
% Heavy Vehicles	3.4	0	0	2.3	4.6	0	1.7	0	0	4.1	4.5	0	4.3

	Parking Lot From North				Commonwealth Avenue (Route 20) From East				Armory Street From South				Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:15 AM																	
08:15 AM	0	0	0	0	6	237	0	243	75	0	0	75	13	**305**	0	**318**	**636**
08:30 AM	0	0	0	0	3	201	0	204	**78**	0	0	**78**	13	282	0	295	577
08:45 AM	0	0	0	0	10	**255**	0	**265**	77	0	0	77	11	277	0	288	630
09:00 AM	**4**	0	0	**4**	**13**	237	0	250	68	0	0	68	**16**	291	0	307	629
Total Volume	4	0	0	4	32	930	0	962	298	0	0	298	53	1155	0	1208	2472
% App. Total	100	0	0		3.3	96.7	0		100	0	0		4.4	95.6	0		
PHF	.250	.000	.000	.250	.615	.912	.000	.908	.955	.000	.000	.955	.828	.947	.000	.950	.972
Cars	4	0	0	4	31	886	0	917	297	0	0	297	49	1098	0	1147	2365
% Cars	100	0	0	100	96.9	95.3	0	95.3	99.7	0	0	99.7	92.5	95.1	0	95.0	95.7
Heavy Vehicles	0	0	0	0	1	44	0	45	1	0	0	1	4	57	0	61	107
% Heavy Vehicles	0	0	0	0	3.1	4.7	0	4.7	0.3	0	0	0.3	7.5	4.9	0	5.0	4.3
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	0	0	0	0	0	244	0	244	**20**	0	0	**20**	**9**	205	0	214	478
12:00 PM	0	0	0	0	**1**	206	0	207	12	0	0	12	9	**236**	0	**245**	464
12:15 PM	**1**	0	0	**1**	1	**247**	0	**248**	19	0	0	19	7	222	0	229	**497**
12:30 PM	1	0	0	1	0	200	0	200	13	0	0	13	6	208	0	214	428
Total Volume	2	0	0	2	2	897	0	899	64	0	0	64	31	871	0	902	1867
% App. Total	100	0	0		0.2	99.8	0		100	0	0		3.4	96.6	0		
PHF	.500	.000	.000	.500	.500	.908	.000	.906	.800	.000	.000	.800	.861	.923	.000	.920	.939
Cars	2	0	0	2	2	850	0	852	63	0	0	63	29	834	0	863	1780
% Cars	100	0	0	100	100	94.8	0	94.8	98.4	0	0	98.4	93.5	95.8	0	95.7	95.3
Heavy Vehicles	0	0	0	0	0	47	0	47	1	0	0	1	2	37	0	39	87
% Heavy Vehicles	0	0	0	0	0	5.2	0	5.2	1.6	0	0	1.6	6.5	4.2	0	4.3	4.7

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	Parking Lot From North				Commonwealth Avenue (Route 20) From East				Armory Street From South				Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**6**	0	0	**6**	0	292	0	292	44	0	0	44	9	229	0	238	580
05:15 PM	5	0	0	5	**2**	350	0	352	**48**	0	0	**48**	13	**283**	0	**296**	**701**
05:30 PM	3	0	0	3	0	327	0	327	34	0	0	34	10	249	0	259	623
05:45 PM	2	0	0	2	2	**357**	0	**359**	34	0	0	34	**15**	238	0	253	648
Total Volume	16	0	0	16	4	1326	0	1330	160	0	0	160	47	999	0	1046	2552
% App. Total	100	0	0		0.3	99.7	0		100	0	0		4.5	95.5	0		
PHF	.667	.000	.000	.667	.500	.929	.000	.926	.833	.000	.000	.833	.783	.883	.000	.883	.910
Cars	16	0	0	16	4	1306	0	1310	160	0	0	160	47	970	0	1017	2503
% Cars	100	0	0	100	100	98.5	0	98.5	100	0	0	100	100	97.1	0	97.2	98.1
Heavy Vehicles	0	0	0	0	0	20	0	20	0	0	0	0	0	29	0	29	49
% Heavy Vehicles	0	0	0	0	0	1.5	0	1.5	0	0	0	0	0	2.9	0	2.8	1.9

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Groups Printed- Cars

	Parking Lot From North			Commonwealth Avenue (Route 20) From East			Armory Street From South			Commonwealth Avenue (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	3	0	0	3	187	0	14	0	0	8	139	0	354
07:15 AM	0	0	0	0	214	0	32	0	0	8	210	0	464
07:30 AM	0	0	0	0	183	0	34	0	0	6	232	0	455
07:45 AM	0	0	0	2	225	0	60	0	0	11	244	0	542
Total	3	0	0	5	809	0	140	0	0	33	825	0	1815
08:00 AM	0	0	0	5	210	0	64	0	0	8	239	0	526
08:15 AM	0	0	0	6	224	0	75	0	0	12	287	0	604
08:30 AM	0	0	0	3	191	0	78	0	0	12	270	0	554
08:45 AM	0	0	0	10	245	0	76	0	0	9	267	0	607
Total	0	0	0	24	870	0	293	0	0	41	1063	0	2291
09:00 AM	4	0	0	12	226	0	68	0	0	16	274	0	600
09:15 AM	6	0	0	4	178	0	48	0	0	12	299	0	547
09:30 AM	1	0	0	2	211	0	26	0	0	5	236	0	481
09:45 AM	0	0	0	1	188	0	35	0	0	7	228	0	459
Total	11	0	0	19	803	0	177	0	0	40	1037	0	2087
10:00 AM	2	0	0	2	194	0	16	0	0	13	171	0	398
10:15 AM	0	0	0	1	207	0	27	0	0	6	195	0	436
10:30 AM	1	0	0	4	199	0	17	0	0	7	174	0	402
10:45 AM	1	0	0	1	170	0	21	0	0	15	183	0	391
Total	4	0	0	8	770	0	81	0	0	41	723	0	1627
11:00 AM	0	0	0	0	192	0	18	0	0	7	201	0	418
11:15 AM	1	0	0	2	189	0	17	0	0	7	175	0	391
11:30 AM	1	0	0	0	186	0	11	0	0	7	186	0	391
11:45 AM	0	0	0	0	232	0	20	0	0	9	199	0	460
Total	2	0	0	2	799	0	66	0	0	30	761	0	1660
12:00 PM	0	0	0	1	192	0	12	0	0	8	222	0	435
12:15 PM	1	0	0	1	239	0	18	0	0	7	214	0	480
12:30 PM	1	0	0	0	187	0	13	0	0	5	199	0	405
12:45 PM	0	0	0	0	201	0	15	0	0	6	202	0	424
Total	2	0	0	2	819	0	58	0	0	26	837	0	1744
01:00 PM	0	0	0	0	184	0	11	0	0	7	209	0	411
01:15 PM	2	0	0	0	200	0	17	0	0	17	165	0	401
01:30 PM	0	0	0	0	205	0	15	0	0	11	184	0	415
01:45 PM	0	0	0	0	198	0	14	0	0	9	174	0	395
Total	2	0	0	0	787	0	57	0	0	44	732	0	1622
02:00 PM	1	0	0	1	228	0	25	0	0	13	195	0	463
02:15 PM	0	0	0	1	210	0	20	0	0	12	205	0	448
02:30 PM	2	0	0	3	236	0	17	0	0	6	207	0	471
02:45 PM	1	0	0	0	215	0	28	0	0	9	206	0	459
Total	4	0	0	5	889	0	90	0	0	40	813	0	1841
03:00 PM	0	0	0	1	268	0	20	0	0	6	211	0	506
03:15 PM	1	0	0	0	253	0	32	0	0	8	207	0	501
03:30 PM	2	0	0	2	254	0	31	0	0	9	239	0	537
03:45 PM	2	0	0	2	295	0	23	0	0	7	233	0	562
Total	5	0	0	5	1070	0	106	0	0	30	890	0	2106

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Groups Printed- Cars

	Parking Lot From North			Commonwealth Avenue (Route 20) From East			Armory Street From South			Commonwealth Avenue (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	2	257	0	42	0	0	15	230	0	546
04:15 PM	1	0	0	5	281	0	39	0	0	12	204	0	542
04:30 PM	3	0	0	4	285	0	40	0	0	12	212	0	556
04:45 PM	4	0	0	0	308	0	40	0	0	11	235	0	598
Total	8	0	0	11	1131	0	161	0	0	50	881	0	2242
05:00 PM	6	0	0	0	289	0	44	0	0	9	223	0	571
05:15 PM	5	0	0	2	345	0	48	0	0	13	272	0	685
05:30 PM	3	0	0	0	324	0	34	0	0	10	243	0	614
05:45 PM	2	0	0	2	348	0	34	0	0	15	232	0	633
Total	16	0	0	4	1306	0	160	0	0	47	970	0	2503
Grand Total	57	0	0	85	10053	0	1389	0	0	422	9532	0	21538
Apprch %	100	0	0	0.8	99.2	0	100	0	0	4.2	95.8	0	
Total %	0.3	0	0	0.4	46.7	0	6.4	0	0	2	44.3	0	

	Parking Lot From North				Commonwealth Avenue (Route 20) From East				Armory Street From South				Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:15 AM																	
08:15 AM	0	0	0	0	6	224	0	230	75	0	0	75	12	**287**	0	**299**	604
08:30 AM	0	0	0	0	3	191	0	194	**78**	0	0	**78**	12	270	0	282	554
08:45 AM	0	0	0	0	10	**245**	0	**255**	76	0	0	76	9	267	0	276	**607**
09:00 AM	**4**	0	0	**4**	**12**	226	0	238	68	0	0	68	**16**	274	0	290	600
Total Volume	4	0	0	4	31	886	0	917	297	0	0	297	49	1098	0	1147	2365
% App. Total	100	0	0		3.4	96.6	0		100	0	0		4.3	95.7	0		
PHF	.250	.000	.000	.250	.646	.904	.000	.899	.952	.000	.000	.952	.766	.956	.000	.959	.974
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	0	0	0	0	0	232	0	232	**20**	0	0	**20**	**9**	199	0	208	460
12:00 PM	0	0	0	0	**1**	192	0	193	12	0	0	12	8	**222**	0	**230**	435
12:15 PM	**1**	0	0	**1**	1	**239**	0	**240**	18	0	0	18	7	214	0	221	**480**
12:30 PM	1	0	0	1	0	187	0	187	13	0	0	13	5	199	0	204	405
Total Volume	2	0	0	2	2	850	0	852	63	0	0	63	29	834	0	863	1780
% App. Total	100	0	0		0.2	99.8	0		100	0	0		3.4	96.6	0		
PHF	.500	.000	.000	.500	.500	.889	.000	.888	.788	.000	.000	.788	.806	.939	.000	.938	.927
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**6**	0	0	**6**	0	289	0	289	44	0	0	44	9	223	0	232	571
05:15 PM	5	0	0	5	**2**	345	0	347	**48**	0	0	**48**	13	**272**	0	**285**	**685**
05:30 PM	3	0	0	3	0	324	0	324	34	0	0	34	10	243	0	253	614
05:45 PM	2	0	0	2	2	**348**	0	**350**	34	0	0	34	**15**	232	0	247	633
Total Volume	16	0	0	16	4	1306	0	1310	160	0	0	160	47	970	0	1017	2503
% App. Total	100	0	0		0.3	99.7	0		100	0	0		4.6	95.4	0		
PHF	.667	.000	.000	.667	.500	.938	.000	.936	.833	.000	.000	.833	.783	.892	.000	.892	.914

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N/S: Parking Lot/ Armory Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 D
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Heavy Vehicles

	Parking Lot From North			Commonwealth Avenue (Route 20) From East			Armory Street From South			Commonwealth Avenue (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	14	0	2	0	0	0	11	0	27
07:15 AM	0	0	0	0	7	0	0	0	0	1	10	0	18
07:30 AM	0	0	0	0	10	0	1	0	0	0	20	0	31
07:45 AM	0	0	0	0	10	0	1	0	0	2	11	0	24
Total	0	0	0	0	41	0	4	0	0	3	52	0	100
08:00 AM	0	0	0	0	23	0	3	0	0	1	18	0	45
08:15 AM	0	0	0	0	13	0	0	0	0	1	18	0	32
08:30 AM	0	0	0	0	10	0	0	0	0	1	12	0	23
08:45 AM	0	0	0	0	10	0	1	0	0	2	10	0	23
Total	0	0	0	0	56	0	4	0	0	5	58	0	123
09:00 AM	0	0	0	1	11	0	0	0	0	0	17	0	29
09:15 AM	1	0	0	0	15	0	0	0	0	0	19	0	35
09:30 AM	0	0	0	0	12	0	0	0	0	0	16	0	28
09:45 AM	0	0	0	0	8	0	0	0	0	0	12	0	20
Total	1	0	0	1	46	0	0	0	0	0	64	0	112
10:00 AM	0	0	0	0	13	0	0	0	0	0	8	0	21
10:15 AM	0	0	0	0	13	0	0	0	0	0	15	0	28
10:30 AM	0	0	0	0	12	0	1	0	0	0	7	0	20
10:45 AM	0	0	0	1	12	0	0	0	0	0	10	0	23
Total	0	0	0	1	50	0	1	0	0	0	40	0	92
11:00 AM	1	0	0	0	15	0	2	0	0	1	15	0	34
11:15 AM	0	0	0	0	13	0	0	0	0	1	13	0	27
11:30 AM	0	0	0	0	8	0	0	0	0	1	14	0	23
11:45 AM	0	0	0	0	12	0	0	0	0	0	6	0	18
Total	1	0	0	0	48	0	2	0	0	3	48	0	102
12:00 PM	0	0	0	0	14	0	0	0	0	1	14	0	29
12:15 PM	0	0	0	0	8	0	1	0	0	0	8	0	17
12:30 PM	0	0	0	0	13	0	0	0	0	1	9	0	23
12:45 PM	0	0	0	0	12	0	0	0	0	0	7	0	19
Total	0	0	0	0	47	0	1	0	0	2	38	0	88
01:00 PM	0	0	0	0	14	0	0	0	0	1	12	0	27
01:15 PM	0	0	0	0	14	0	4	0	0	1	13	0	32
01:30 PM	0	0	0	0	10	0	2	0	0	0	6	0	18
01:45 PM	0	0	0	0	13	0	0	0	0	0	3	0	16
Total	0	0	0	0	51	0	6	0	0	2	34	0	93
02:00 PM	0	0	0	0	15	0	1	0	0	1	12	0	29
02:15 PM	0	0	0	0	8	0	0	0	0	0	7	0	15
02:30 PM	0	0	0	0	12	0	1	0	0	0	5	0	18
02:45 PM	0	0	0	0	14	0	0	0	0	0	7	0	21
Total	0	0	0	0	49	0	2	0	0	1	31	0	83
03:00 PM	0	0	0	0	9	0	0	0	0	0	9	0	18
03:15 PM	0	0	0	0	9	0	3	0	0	0	10	0	22
03:30 PM	0	0	0	0	9	0	0	0	0	0	8	0	17
03:45 PM	0	0	0	0	11	0	0	0	0	0	7	0	18
Total	0	0	0	0	38	0	3	0	0	0	34	0	75

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N/S: Parking Lot/ Armory Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 D
Site Code : 3853
Start Date : 11/18/2009

Groups Printed- Heavy Vehicles

	Parking Lot From North			Commonwealth Avenue (Route 20) From East			Armory Street From South			Commonwealth Avenue (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	10	0	0	0	0	0	5	0	15
04:15 PM	0	0	0	0	11	0	1	0	0	0	5	0	17
04:30 PM	0	0	0	0	5	0	0	0	0	2	5	0	12
04:45 PM	0	0	0	0	8	0	0	0	0	0	7	0	15
Total	0	0	0	0	34	0	1	0	0	2	22	0	59
05:00 PM	0	0	0	0	3	0	0	0	0	0	6	0	9
05:15 PM	0	0	0	0	5	0	0	0	0	0	11	0	16
05:30 PM	0	0	0	0	3	0	0	0	0	0	6	0	9
05:45 PM	0	0	0	0	9	0	0	0	0	0	6	0	15
Total	0	0	0	0	20	0	0	0	0	0	29	0	49
Grand Total	2	0	0	2	480	0	24	0	0	18	450	0	976
Apprch %	100	0	0	0.4	99.6	0	100	0	0	3.8	96.2	0	
Total %	0.2	0	0	0.2	49.2	0	2.5	0	0	1.8	46.1	0	

	Parking Lot From North				Commonwealth Avenue (Route 20) From East				Armory Street From South				Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	10	0	10	1	0	0	1	0	**20**	0	**20**	31
07:45 AM	0	0	0	0	0	10	0	10	1	0	0	1	**2**	11	0	13	24
08:00 AM	0	0	0	0	0	**23**	0	**23**	**3**	0	0	**3**	1	18	0	19	**45**
08:15 AM	0	0	0	0	0	13	0	13	0	0	0	0	1	18	0	19	32
Total Volume	0	0	0	0	0	56	0	56	5	0	0	5	4	67	0	71	132
% App. Total	0	0	0		0	100	0		100	0	0		5.6	94.4	0		
PHF	.000	.000	.000	.000	.000	.609	.000	.609	.417	.000	.000	.417	.500	.838	.000	.888	.733
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 10:45 AM																	
10:45 AM	0	0	0	0	**1**	12	0	13	0	0	0	0	0	10	0	10	23
11:00 AM	**1**	0	0	**1**	0	**15**	0	**15**	**2**	0	0	**2**	**1**	**15**	0	**16**	**34**
11:15 AM	0	0	0	0	0	13	0	13	0	0	0	0	1	13	0	14	27
11:30 AM	0	0	0	0	0	8	0	8	0	0	0	0	1	14	0	15	23
Total Volume	1	0	0	1	1	48	0	49	2	0	0	2	3	52	0	55	107
% App. Total	100	0	0		2	98	0		100	0	0		5.5	94.5	0		
PHF	.250	.000	.000	.250	.250	.800	.000	.817	.250	.000	.000	.250	.750	.867	.000	.859	.787
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	0	0	0	0	**15**	0	**15**	**1**	0	0	**1**	**1**	**12**	0	**13**	**29**
02:15 PM	0	0	0	0	0	8	0	8	0	0	0	0	0	7	0	7	15
02:30 PM	0	0	0	0	0	12	0	12	1	0	0	1	0	5	0	5	18
02:45 PM	0	0	0	0	0	14	0	14	0	0	0	0	0	7	0	7	21
Total Volume	0	0	0	0	0	49	0	49	2	0	0	2	1	31	0	32	83
% App. Total	0	0	0		0	100	0		100	0	0		3.1	96.9	0		
PHF	.000	.000	.000	.000	.000	.817	.000	.817	.500	.000	.000	.500	.250	.646	.000	.615	.716

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File Name : 92031 D
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Start Date : 11/18/2009

Groups Printed- Trains

	Parking Lot From North			Commonwealth Avenue (Route 20) From East			Armory Street From South			Commonwealth Avenue (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	2	0	0	0	0	0	2	0	4
07:15 AM	0	0	0	0	3	0	0	0	0	0	3	0	6
07:30 AM	0	0	0	0	2	0	0	0	0	0	3	0	5
07:45 AM	0	0	0	0	3	0	0	0	0	0	3	0	6
Total	0	0	0	0	10	0	0	0	0	0	11	0	21
08:00 AM	0	0	0	0	3	0	0	0	0	0	3	0	6
08:15 AM	0	0	0	0	2	0	0	0	0	0	2	0	4
08:30 AM	0	0	0	0	3	0	0	0	0	0	2	0	5
08:45 AM	0	0	0	0	1	0	0	0	0	0	4	0	5
Total	0	0	0	0	9	0	0	0	0	0	11	0	20
09:00 AM	0	0	0	0	2	0	0	0	0	0	2	0	4
09:15 AM	0	0	0	0	4	0	0	0	0	0	4	0	8
09:30 AM	0	0	0	0	3	0	0	0	0	0	3	0	6
09:45 AM	0	0	0	0	2	0	0	0	0	0	3	0	5
Total	0	0	0	0	11	0	0	0	0	0	12	0	23
10:00 AM	0	0	0	0	3	0	0	0	0	0	2	0	5
10:15 AM	0	0	0	0	3	0	0	0	0	0	3	0	6
10:30 AM	0	0	0	0	2	0	0	0	0	0	2	0	4
10:45 AM	0	0	0	0	2	0	0	0	0	0	1	0	3
Total	0	0	0	0	10	0	0	0	0	0	8	0	18
11:00 AM	0	0	0	0	1	0	0	0	0	0	2	0	3
11:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
11:30 AM	0	0	0	0	2	0	0	0	0	0	2	0	4
11:45 AM	0	0	0	0	1	0	0	0	0	0	2	0	3
Total	0	0	0	0	5	0	0	0	0	0	7	0	12
12:00 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
12:15 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
12:30 PM	0	0	0	0	4	0	0	0	0	0	1	0	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
Total	0	0	0	0	7	0	0	0	0	0	7	0	14
01:00 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
01:15 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
01:30 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
01:45 PM	0	0	0	0	3	0	0	0	0	0	2	0	5
Total	0	0	0	0	8	0	0	0	0	0	8	0	16
02:00 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
02:15 PM	0	0	0	0	3	0	0	0	0	0	2	0	5
02:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
02:45 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
Total	0	0	0	0	7	0	0	0	0	0	7	0	14
03:00 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
03:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
03:30 PM	0	0	0	0	4	0	0	0	0	0	2	0	6
03:45 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
Total	0	0	0	0	8	0	0	0	0	0	8	0	16

PRECISION
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Groups Printed- Trains

	Parking Lot From North			Commonwealth Avenue (Route 20) From East			Armory Street From South			Commonwealth Avenue (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
04:15 PM	0	0	0	0	4	0	0	0	0	0	2	0	6
04:30 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
04:45 PM	0	0	0	0	2	0	0	0	0	0	3	0	5
Total	0	0	0	0	10	0	0	0	0	0	9	0	19
05:00 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
05:15 PM	0	0	0	0	5	0	0	0	0	0	3	0	8
05:30 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
05:45 PM	0	0	0	0	2	0	0	0	0	0	5	0	7
Total	0	0	0	0	12	0	0	0	0	0	10	0	22
Grand Total	0	0	0	0	97	0	0	0	0	0	98	0	195
Apprch %	0	0	0	0	100	0	0	0	0	0	100	0	
Total %	0	0	0	0	49.7	0	0	0	0	0	50.3	0	

	Parking Lot From North				Commonwealth Avenue (Route 20) From East				Armory Street From South				Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	**3**	0	**3**	**6**
07:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
08:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total Volume	0	0	0	0	0	11	0	11	0	0	0	0	0	12	0	12	23
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.917	.000	.917	.000	.000	.000	.000	.000	1.000	.000	1.000	.958
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 10:00 AM																	
10:00 AM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	2	0	2	5
10:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	**3**	0	**3**	**6**
10:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
10:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total Volume	0	0	0	0	0	10	0	10	0	0	0	0	0	8	0	8	18
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.833	.000	.833	.000	.000	.000	.000	.000	.667	.000	.667	.750
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
05:15 PM	0	0	0	0	0	**5**	0	**5**	0	0	0	0	0	3	0	3	**8**
05:30 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	**5**	0	**5**	7
Total Volume	0	0	0	0	0	12	0	12	0	0	0	0	0	10	0	10	22
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.600	.000	.600	.000	.000	.000	.000	.000	.500	.000	.500	.688

PRECISION
D A T A
INDUSTRIES, LLC
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N/S: Parking Lot/ Armory Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 D
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Peds and Bicycles

	Parking Lot From North				Commonwealth Avenue (Route 20) From East				Armory Street From South				Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	26	0	3	0	0	0	0	0	10	0	6	0	7	52
07:15 AM	0	0	0	20	0	4	0	0	0	0	0	16	0	9	0	7	56
07:30 AM	0	0	0	52	0	4	0	0	0	0	0	29	0	25	0	18	128
07:45 AM	0	0	0	63	0	4	0	0	0	0	0	53	0	26	0	43	189
Total	0	0	0	161	0	15	0	0	0	0	0	108	0	66	0	75	425
08:00 AM	0	0	0	62	0	6	0	0	0	0	0	31	0	25	0	36	160
08:15 AM	0	0	0	66	0	3	0	0	0	0	0	36	0	39	0	36	180
08:30 AM	0	0	0	157	0	7	0	0	0	0	0	99	1	50	0	54	368
08:45 AM	0	0	0	251	0	14	0	0	0	0	0	148	0	83	0	125	621
Total	0	0	0	536	0	30	0	0	0	0	0	314	1	197	0	251	1329
09:00 AM	0	0	0	120	0	13	0	0	0	0	0	81	1	38	0	63	316
09:15 AM	0	0	0	108	0	9	0	0	0	0	0	53	0	32	0	50	252
09:30 AM	0	0	0	234	1	8	0	0	0	0	0	86	0	23	0	64	416
09:45 AM	0	0	0	290	0	20	0	0	0	0	0	115	0	74	0	121	620
Total	0	0	0	752	1	50	0	0	0	0	0	335	1	167	0	298	1604
10:00 AM	0	0	0	158	0	11	0	0	0	0	0	57	0	44	0	39	309
10:15 AM	0	0	0	168	0	6	0	0	0	0	0	68	0	23	0	57	322
10:30 AM	0	0	0	177	0	8	0	0	0	0	0	84	0	25	0	39	333
10:45 AM	0	0	0	368	0	21	0	0	0	0	0	130	0	63	0	90	672
Total	0	0	0	871	0	46	0	0	0	0	0	339	0	155	0	225	1636
11:00 AM	0	0	0	170	0	10	0	0	0	0	0	80	0	26	0	65	351
11:15 AM	0	0	0	124	0	10	0	0	0	0	0	49	0	21	0	46	250
11:30 AM	0	0	0	200	0	8	0	0	0	0	0	53	0	14	0	54	329
11:45 AM	0	0	0	289	0	19	0	0	0	0	0	109	0	41	0	100	558
Total	0	0	0	783	0	47	0	0	0	0	0	291	0	102	0	265	1488
12:00 PM	0	0	0	362	0	27	0	0	0	0	0	137	0	20	0	108	654
12:15 PM	0	0	0	166	0	15	0	0	0	0	0	109	0	29	0	80	399
12:30 PM	0	0	0	236	0	9	0	0	0	0	0	109	1	15	0	94	464
12:45 PM	1	0	0	349	0	22	0	0	0	0	0	86	0	24	0	85	567
Total	1	0	0	1113	0	73	0	0	0	0	0	441	1	88	0	367	2084
01:00 PM	0	0	0	415	0	13	0	0	0	0	0	108	0	11	0	78	625
01:15 PM	0	0	0	167	0	17	0	0	0	0	0	108	0	11	0	90	393
01:30 PM	0	0	0	223	0	29	0	0	0	0	0	115	0	32	0	109	508
01:45 PM	0	0	0	325	0	30	0	0	0	0	0	121	0	24	0	133	633
Total	0	0	0	1130	0	89	0	0	0	0	0	452	0	78	0	410	2159
02:00 PM	0	0	0	293	0	30	0	0	0	0	0	77	1	20	0	91	512
02:15 PM	0	0	0	113	0	13	0	0	0	0	0	79	0	11	0	59	275
02:30 PM	0	0	0	179	0	14	0	0	0	0	0	60	0	10	0	69	332
02:45 PM	0	0	0	279	0	24	0	0	0	0	0	99	0	21	0	92	515
Total	0	0	0	864	0	81	0	0	0	0	0	315	1	62	0	311	1634
03:00 PM	0	0	0	369	0	22	0	0	0	0	0	125	0	13	0	80	609
03:15 PM	0	0	0	199	0	21	0	0	0	0	0	85	0	13	0	99	417
03:30 PM	0	0	0	204	0	22	0	0	0	0	0	84	0	15	0	85	410
03:45 PM	0	0	0	212	0	22	0	0	0	0	0	113	0	14	0	90	451
Total	0	0	0	984	0	87	0	0	0	0	0	407	0	55	0	354	1887
04:00 PM	0	0	0	209	0	30	0	0	0	0	0	105	0	12	0	79	435
04:15 PM	0	0	0	155	1	31	0	0	0	0	0	98	0	12	0	63	360
04:30 PM	0	0	0	186	0	29	1	0	0	0	0	74	0	14	0	50	354
04:45 PM	0	0	0	317	0	26	0	0	0	0	0	82	0	21	0	82	528
Total	0	0	0	867	1	116	1	0	0	0	0	359	0	59	0	274	1677

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N/S: Parking Lot/ Armory Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 D
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

Groups Printed- Peds and Bicycles

	Parking Lot From North				Commonwealth Avenue (Route 20) From East				Armory Street From South				Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
05:00 PM	0	0	0	334	0	34	0	0	0	0	0	143	0	12	0	108	631
05:15 PM	0	0	0	220	0	29	0	0	0	0	0	107	0	17	0	80	453
05:30 PM	0	0	0	225	0	30	0	0	0	0	0	115	0	8	0	95	473
05:45 PM	0	0	0	215	0	46	0	0	0	0	0	110	0	18	0	103	492
Total	0	0	0	994	0	139	0	0	0	0	0	475	0	55	0	386	2049
Grand Total	1	0	0	9055	2	773	1	0	0	0	0	3836	4	1084	0	3216	17972
Apprch %	0	0	0	100	0.3	99.6	0.1	0	0	0	0	100	0.1	25.2	0	74.7	
Total %	0	0	0	50.4	0	4.3	0	0	0	0	0	21.3	0	6	0	17.9	

	Parking Lot From North					Commonwealth Avenue (Route 20) From East					Armory Street From South					Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:45 AM																					
08:45 AM	0	0	0	**251**	**251**	0	**14**	**0**	**0**	**14**	0	0	0	**148**	**148**	0	**83**	0	**125**	**208**	**621**
09:00 AM	0	0	0	120	120	0	13	0	0	13	0	0	0	81	81	**1**					
09:15 AM	**0**	**0**	**0**	**108**	**108**	**0**	**9**	**0**	**0**	**9**	**0**	**0**	**0**	**53**	**53**	**0**	**32**	**0**	**50**	**82**	**252**
09:30 AM	**0**	**0**	**0**	**234**	**234**	**1**	8	0	0	9	0	0	0	86	86	0	23	0	64	87	416
Total Volume	0	0	0	713	713	1	44	0	0	45	0	0	0	368	368	1	176	0	302	479	1605
% App. Total	0	0	0	100		2.2	97.8	0	0		0	0	0	100		0.2	36.7	0	63		
PHF	.000	.000	.000	.710	.710	.250	.786	.000	.000	.804	.000	.000	.000	.622	.622	.250	.530	.000	.604	.576	.646
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	0	0	0	**415**	**415**	0	13	0	0	13	0	0	0	108	108	0	11	0	78	89	625
01:15 PM	0	0	0	167	167	0	17	0	0	17	0	0	0	108	108	0	11	0	90	101	393
01:30 PM	0	0	0	223	223	0	29	0	0	29	0	0	0	115	115	0	**32**	0	109	141	508
01:45 PM	0	0	0	325	325	0	**30**			**30**	0	0	0	**121**	**121**	0	24	0	**133**	**157**	**633**
Total Volume	0	0	0	1130	1130	0	89	0	0	89	0	0	0	452	452	0	78	0	410	488	2159
% App. Total																					
PHF	.000	.000	.000	.681	.681	.000	.742	.000	.000	.742	.000	.000	.000	.934	.934	.000	.609	.000	.771	.777	.853
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	317	317	0	26	0	0	26	0	0	0	82	82	0	**21**	0	82	103	528
05:00 PM	0	0	0	**334**	**334**	0	**34**			**34**	0	0	0	**143**	**143**	0	12	0	**108**	**120**	**631**
05:15 PM	0	0	0	220	220	0	29	0	0	29	0	0	0	107	107	0	17	0	80	97	453
05:30 PM	0	0	0	225	225	0	30	0	0	30	0	0	0	115	115	0	8	0	95	103	473
Total Volume	0	0	0	1096	1096	0	119	0	0	119	0	0	0	447	447	0	58	0	365	423	2085
% App. Total																					
PHF	.000	.000	.000	.820	.820	.000	.875	.000	.000	.875	.000	.000	.000	.781	.781	.000	.690	.000	.845	.881	.826

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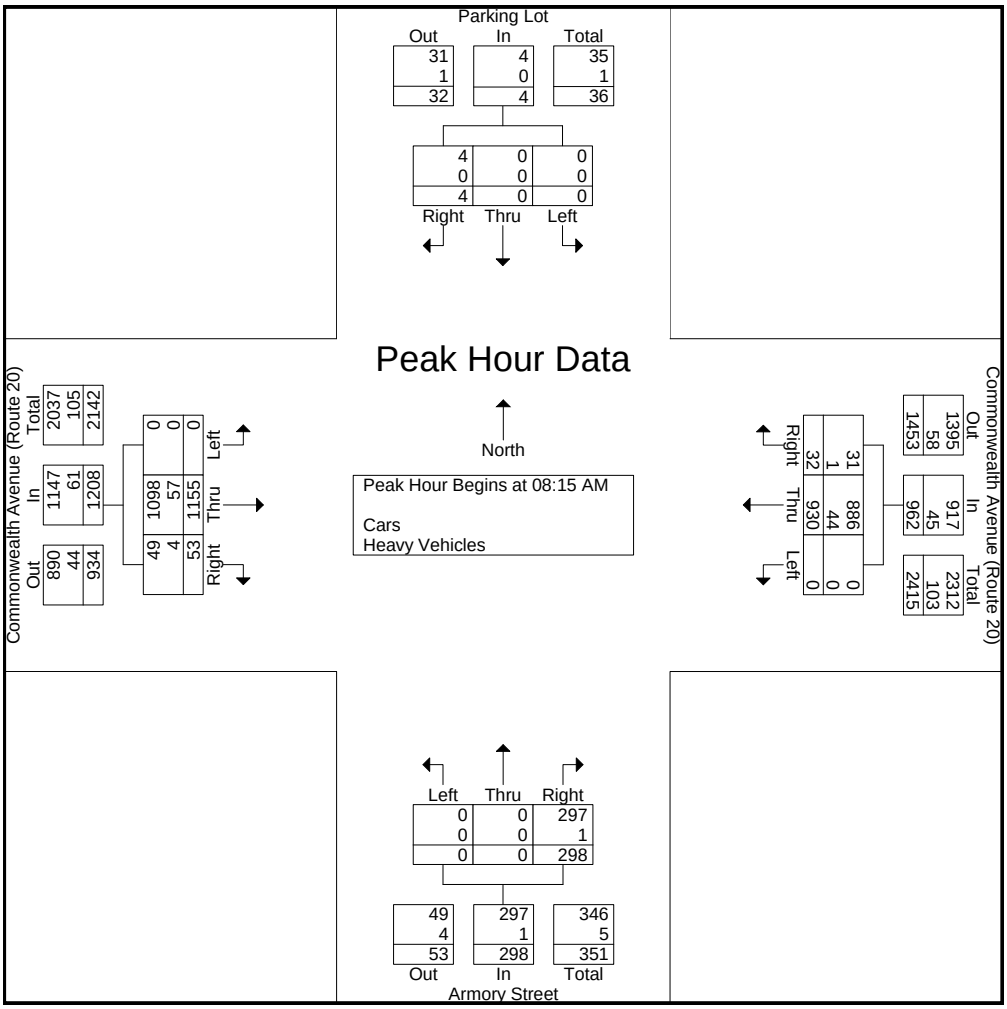
N/S: Parking Lot/ Armory Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 D
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

	Parking Lot From North				Commonwealth Avenue (Route 20) From East				Armory Street From South				Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:15 AM																	
08:15 AM	0	0	0	0	6	237	0	243	75	0	0	75	13	**305**	0	**318**	**636**
08:30 AM	0	0	0	0	3	201	0	204	**78**	0	0	**78**	13	282	0	295	577
08:45 AM	0	0	0	0	10	**255**	0	**265**	77	0	0	77	11	277	0	288	630
09:00 AM	**4**	0	0	**4**	**13**	237	0	250	68	0	0	68	**16**	291	0	307	629
Total Volume	4	0	0	4	32	930	0	962	298	0	0	298	53	1155	0	1208	2472
% App. Total	100	0	0		3.3	96.7	0		100	0	0		4.4	95.6	0		
PHF	.250	.000	.000	.250	.615	.912	.000	.908	.955	.000	.000	.955	.828	.947	.000	.950	.972
Cars	4	0	0	4	31	886	0	917	297	0	0	297	49	1098	0	1147	2365
% Cars	100	0	0	100	96.9	95.3	0	95.3	99.7	0	0	99.7	92.5	95.1	0	95.0	95.7
Heavy Vehicles	0	0	0	0	1	44	0	45	1	0	0	1	4	57	0	61	107
% Heavy Vehicles	0	0	0	0	3.1	4.7	0	4.7	0.3	0	0	0.3	7.5	4.9	0	5.0	4.3



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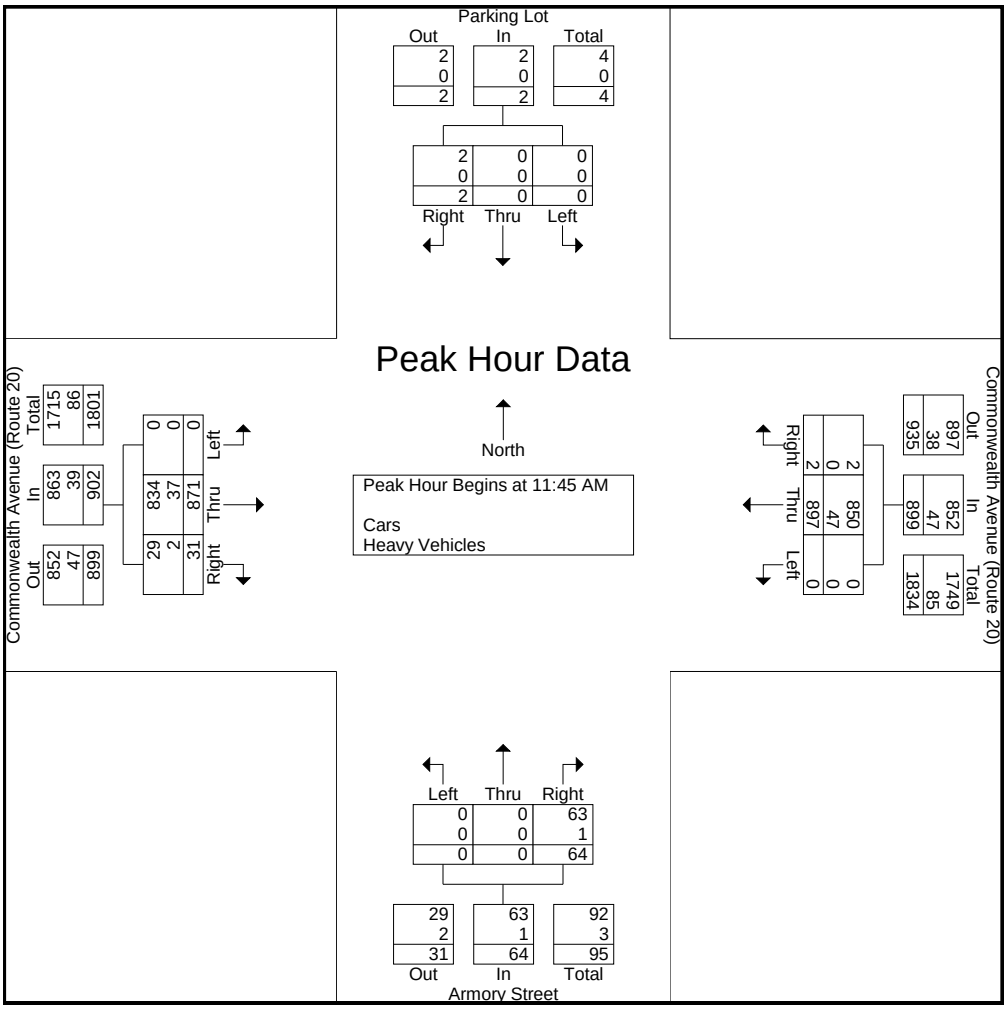
File Name : 92031 D
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

	Parking Lot From North				Commonwealth Avenue (Route 20) From East				Armory Street From South				Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	0	0	0	0	0	244	0	244	**20**	0	0	**20**	**9**	205	0	214	478
12:00 PM	0	0	0	0	**1**	206	0	207	12	0	0	12	9	**236**	0	**245**	464
12:15 PM	**1**	0	0	**1**	1	**247**	0	**248**	19	0	0	19	7	222	0	229	**497**
12:30 PM	1	0	0	1	0	200	0	200	13	0	0	13	6	208	0	214	428
Total Volume	2	0	0	2	2	897	0	899	64	0	0	64	31	871	0	902	1867
% App. Total	100	0	0		0.2	99.8	0		100	0	0		3.4	96.6	0		
PHF	.500	.000	.000	.500	.500	.908	.000	.906	.800	.000	.000	.800	.861	.923	.000	.920	.939
Cars	2	0	0	2	2	850	0	852	63	0	0	63	29	834	0	863	1780
% Cars	100	0	0	100	100	94.8	0	94.8	98.4	0	0	98.4	93.5	95.8	0	95.7	95.3
Heavy Vehicles	0	0	0	0	0	47	0	47	1	0	0	1	2	37	0	39	87
% Heavy Vehicles	0	0	0	0	0	5.2	0	5.2	1.6	0	0	1.6	6.5	4.2	0	4.3	4.7



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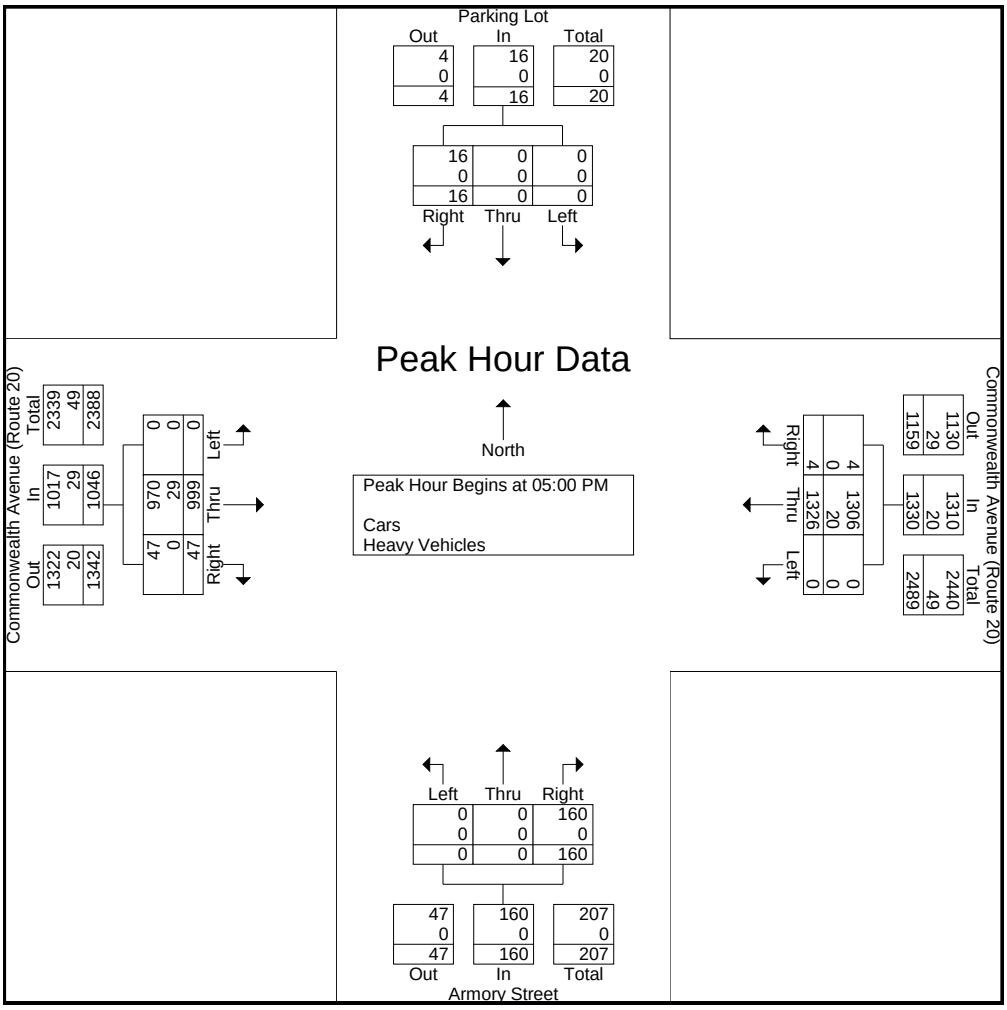
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 D
Site Code : 3853
Start Date : 11/18/2009
Page No : 3

	Parking Lot From North				Commonwealth Avenue (Route 20) From East				Armory Street From South				Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**6**	0	0	**6**	0	292	0	292	44	0	0	44	9	229	0	238	580
05:15 PM	5	0	0	5	**2**	350	0	352	**48**	0	0	**48**	13	**283**	0	**296**	**701**
05:30 PM	3	0	0	3	0	327	0	327	34	0	0	34	10	249	0	259	623
05:45 PM	2	0	0	2	2	**357**	0	**359**	34	0	0	34	**15**	238	0	253	648
Total Volume	16	0	0	16	4	1326	0	1330	160	0	0	160	47	999	0	1046	2552
% App. Total	100	0	0		0.3	99.7	0		100	0	0		4.5	95.5	0		
PHF	.667	.000	.000	.667	.500	.929	.000	.926	.833	.000	.000	.833	.783	.883	.000	.883	.910
Cars	16	0	0	16	4	1306	0	1310	160	0	0	160	47	970	0	1017	2503
% Cars	100	0	0	100	100	98.5	0	98.5	100	0	0	100	100	97.1	0	97.2	98.1
Heavy Vehicles	0	0	0	0	0	20	0	20	0	0	0	0	0	29	0	29	49
% Heavy Vehicles	0	0	0	0	0	1.5	0	1.5	0	0	0	0	0	2.9	0	2.8	1.9



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N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 E
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	BU Bridge From North			Commonwealth Avenue (Route 20) From East				Essex Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	57	143	0	155	125	0	0	0	53	0	55	117	0	0	705
07:15 AM	74	175	0	175	140	0	0	0	75	0	75	185	0	0	899
07:30 AM	68	165	1	179	113	0	0	1	83	0	86	209	0	0	905
07:45 AM	88	152	0	174	143	0	0	0	121	0	74	252	0	0	1004
Total	287	635	1	683	521	0	0	1	332	0	290	763	0	0	3513
08:00 AM	83	192	0	197	155	0	0	0	147	0	66	251	1	0	1092
08:15 AM	105	153	0	181	124	0	0	1	144	0	63	297	0	0	1068
08:30 AM	82	145	0	194	120	0	0	0	158	0	60	304	0	0	1063
08:45 AM	108	158	0	212	157	0	0	1	112	0	65	286	0	0	1099
Total	378	648	0	784	556	0	0	2	561	0	254	1138	1	0	4322
09:00 AM	98	152	0	187	155	0	0	1	145	0	68	282	0	0	1088
09:15 AM	57	159	0	189	147	0	1	0	93	2	77	268	0	0	993
09:30 AM	69	156	0	160	168	0	1	0	80	0	64	222	0	0	920
09:45 AM	55	156	0	156	152	0	0	0	67	2	67	199	0	0	854
Total	279	623	0	692	622	0	2	1	385	4	276	971	0	0	3855
10:00 AM	40	166	0	150	163	0	0	1	63	0	49	152	0	0	784
10:15 AM	43	161	0	173	170	0	0	0	52	0	64	169	0	0	832
10:30 AM	59	125	0	141	163	0	1	0	39	0	58	148	0	0	734
10:45 AM	45	126	0	120	156	0	0	2	54	0	51	170	0	0	724
Total	187	578	0	584	652	0	1	3	208	0	222	639	0	0	3074
11:00 AM	43	118	0	148	162	0	0	1	39	0	67	168	0	0	746
11:15 AM	55	118	0	156	151	0	0	0	56	1	61	127	0	0	725
11:30 AM	54	115	1	157	152	0	0	0	46	0	67	155	0	0	747
11:45 AM	87	124	1	150	165	1	0	1	56	0	68	157	0	0	810
Total	239	475	2	611	630	1	0	2	197	1	263	607	0	0	3028
12:00 PM	51	120	0	143	177	0	0	0	52	0	76	179	0	0	798
12:15 PM	80	134	0	181	169	0	0	0	61	0	72	155	0	0	852
12:30 PM	65	113	1	131	160	0	0	0	61	0	65	142	0	0	738
12:45 PM	49	139	0	144	186	0	0	0	67	0	64	165	0	0	814
Total	245	506	1	599	692	0	0	0	241	0	277	641	0	0	3202
01:00 PM	44	140	0	130	176	0	0	0	54	0	55	162	0	0	761
01:15 PM	51	134	0	130	162	0	0	0	47	0	61	163	0	0	748
01:30 PM	50	128	0	137	148	0	0	1	52	0	54	168	0	0	738
01:45 PM	70	136	0	110	171	0	0	0	37	1	63	137	0	0	725
Total	215	538	0	507	657	0	0	1	190	1	233	630	0	0	2972
02:00 PM	50	144	1	193	183	0	0	0	58	0	77	161	0	0	867
02:15 PM	48	153	0	185	169	0	0	0	67	0	69	179	0	0	870
02:30 PM	49	180	0	168	177	0	0	3	48	0	78	145	0	0	848
02:45 PM	67	170	0	129	183	0	0	0	51	0	80	157	0	0	837
Total	214	647	1	675	712	0	0	3	224	0	304	642	0	0	3422
03:00 PM	77	188	1	171	203	1	0	0	63	0	79	163	0	0	946
03:15 PM	55	197	0	189	197	0	0	0	77	0	71	180	0	0	966
03:30 PM	66	195	0	202	177	0	0	0	97	0	83	189	0	0	1009
03:45 PM	74	202	0	200	209	0	0	0	102	0	75	205	0	0	1067
Total	272	782	1	762	786	1	0	0	339	0	308	737	0	0	3988
04:00 PM	68	204	0	209	181	0	0	0	121	0	63	195	0	0	1041
04:15 PM	81	205	0	203	191	0	0	2	96	2	56	189	0	0	1025
04:30 PM	91	188	0	245	211	0	1	1	92	0	64	200	1	0	1094
04:45 PM	101	220	0	170	200	0	0	0	107	0	77	201	0	0	1076
Total	341	817	0	827	783	0	1	3	416	2	260	785	1	0	4236

PRECISION
D A T A
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N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 E
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

Groups Printed- Cars - Heavy Vehicles

	BU Bridge From North			Commonwealth Avenue (Route 20) From East				Essex Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	93	183	0	224	174	0	0	0	94	0	55	199	0	0	1022
05:15 PM	81	188	0	189	227	0	0	0	113	0	76	254	0	0	1128
05:30 PM	87	169	0	212	219	0	0	0	91	0	70	211	0	0	1059
05:45 PM	95	210	0	155	249	0	0	1	100	0	71	199	0	0	1080
Total	356	750	0	780	869	0	0	1	398	0	272	863	0	0	4289
Grand Total	3013	6999	6	7504	7480	2	4	17	3491	8	2959	8416	2	0	39901
Apprch %	30.1	69.9	0.1	50.1	49.9	0	0	0.5	99.3	0.2	26	74	0	0	
Total %	7.6	17.5	0	18.8	18.7	0	0	0	8.7	0	7.4	21.1	0	0	
Cars	2964	6866	5	7343	7070	2	4	17	3449	7	2877	8068	2	0	38674
% Cars	98.4	98.1	83.3	97.9	94.5	100	100	100	98.8	87.5	97.2	95.9	100	0	96.9
Heavy Vehicles	49	133	1	161	410	0	0	0	42	1	82	348	0	0	1227
% Heavy Vehicles	1.6	1.9	16.7	2.1	5.5	0	0	0	1.2	12.5	2.8	4.1	0	0	3.1

	BU Bridge From North				Commonwealth Avenue (Route 20) From East					Essex Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:00 AM																			
08:00 AM	83	**192**	0	**275**	197	155	0	0	352	0	147	0	147	**66**	251	**1**	0	318	1092
08:15 AM	105	153	0	258	181	124	0	0	305	**1**									
08:30 AM	**82**	**145**	**0**	**227**	**194**	**120**	**0**	**0**	**314**	**0**	**158**	0	**158**	60	**304**	0	0	**364**	1063
08:45 AM	**108**	158	0	266	**212**	**157**	0	0	**369**	1	112	0	113	65	286	0	0	351	**1099**
Total Volume	378	648	0	1026	784	556	0	0	1340	2	561	0	563	254	1138	1	0	1393	4322
% App. Total	36.8	63.2	0		58.5	41.5	0	0		0.4	99.6	0		18.2	81.7	0.1	0		
PHF	.875	.844	.000	.933	.925	.885	.000	.000	.908	.500	.888	.000	.891	.962	.936	.250	.000	.957	.983
Cars	373	635	0	1008	763	509	0	0	1272	2	553	0	555	246	1093	1	0	1340	4175
% Cars	98.7	98.0	0	98.2	97.3	91.5	0	0	94.9	100	98.6	0	98.6	96.9	96.0	100	0	96.2	96.6
Heavy Vehicles	5	13	0	18	21	47	0	0	68	0	8	0	8	8	45	0	0	53	147
% Heavy Vehicles	1.3	2.0	0	1.8	2.7	8.5	0	0	5.1	0	1.4	0	1.4	3.1	4.0	0	0	3.8	3.4
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	54	115	**1**	170	157	152	0	0	309	0	46	0	46	67	155	0	0	222	747
11:45 AM	**87**	124	1	212	150	165	**1**	0	316	**1**									
12:00 PM	**51**	**120**	**0**	**171**	**143**	**177**	0	0	320	0	52	0	52	**76**	**179**	0	0	**255**	798
12:15 PM	80	**134**	0	**214**	**181**	169	0	0	**350**	0	**61**	0	**61**	72	155	0	0	227	**852**
Total Volume	272	493	2	767	631	663	1	0	1295	1	215	0	216	283	646	0	0	929	3207
% App. Total	35.5	64.3	0.3		48.7	51.2	0.1	0		0.5	99.5	0		30.5	69.5	0	0		
PHF	.782	.920	.500	.896	.872	.936	.250	.000	.925	.250	.881	.000	.885	.931	.902	.000	.000	.911	.941
Cars	265	482	1	748	614	623	1	0	1238	1	209	0	210	270	615	0	0	885	3081
% Cars	97.4	97.8	50.0	97.5	97.3	94.0	100	0	95.6	100	97.2	0	97.2	95.4	95.2	0	0	95.3	96.1
Heavy Vehicles	7	11	1	19	17	40	0	0	57	0	6	0	6	13	31	0	0	44	126
% Heavy Vehicles	2.6	2.2	50.0	2.5	2.7	6.0	0	0	4.4	0	2.8	0	2.8	4.6	4.8	0	0	4.7	3.9
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:30 PM																			
04:30 PM	91	188	0	279	**245**	211	0	**1**	**457**	**1**	**92**	**0**	**93**	**64**	**200**	**1**	0	265	1094
04:45 PM	**101**	**220**	0	**321**	170	200	0	0	370	0	107	0	107	**77**	201	0	0	278	1076
05:00 PM	93	183	0	276	224	174	0	0	398	0	94	0	94	55	199	0	0	254	1022
05:15 PM	81	188	0	269	189	**227**	0	0	416	0	**113**	0	**113**	76	**254**	0	0	**330**	**1128**
Total Volume	366	779	0	1145	828	812	0	1	1641	1	406	0	407	272	854	1	0	1127	4320
% App. Total	32	68	0		50.5	49.5	0	0.1		0.2	99.8	0		24.1	75.8	0.1	0		
PHF	.906	.885	.000	.892	.845	.894	.000	.250	.898	.250	.898	.000	.900	.883	.841	.250	.000	.854	.957
Cars	365	767	0	1132	817	792	0	1	1610	1	406	0	407	271	831	1	0	1103	4252
% Cars	99.7	98.5	0	98.9	98.7	97.5	0	100	98.1	100	100	0	100	99.6	97.3	100	0	97.9	98.4
Heavy Vehicles	1	12	0	13	11	20	0	0	31	0	0	0	0	1	23	0	0	24	68
% Heavy Vehicles	0.3	1.5	0	1.1	1.3	2.5	0	0	1.9	0	0	0	0	0.4	2.7	0	0	2.1	1.6

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N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 E
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Cars

	BU Bridge From North			Commonwealth Avenue (Route 20) From East				Essex Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	54	140	0	152	115	0	0	0	53	0	54	106	0	0	674
07:15 AM	73	174	0	171	134	0	0	0	75	0	75	176	0	0	878
07:30 AM	67	159	1	174	107	0	0	1	82	0	81	196	0	0	868
07:45 AM	88	149	0	173	133	0	0	0	119	0	72	243	0	0	977
Total	282	622	1	670	489	0	0	1	329	0	282	721	0	0	3397
08:00 AM	80	189	0	188	135	0	0	0	141	0	63	237	1	0	1034
08:15 AM	104	148	0	179	114	0	0	1	143	0	61	283	0	0	1033
08:30 AM	82	143	0	190	110	0	0	0	157	0	59	295	0	0	1036
08:45 AM	107	155	0	206	150	0	0	1	112	0	63	278	0	0	1072
Total	373	635	0	763	509	0	0	2	553	0	246	1093	1	0	4175
09:00 AM	97	148	0	181	145	0	0	1	143	0	65	269	0	0	1049
09:15 AM	57	157	0	187	134	0	1	0	93	2	73	255	0	0	959
09:30 AM	66	153	0	158	161	0	1	0	80	0	62	207	0	0	888
09:45 AM	54	154	0	154	145	0	0	0	66	2	67	191	0	0	833
Total	274	612	0	680	585	0	2	1	382	4	267	922	0	0	3729
10:00 AM	39	164	0	147	149	0	0	1	63	0	47	147	0	0	757
10:15 AM	43	157	0	168	158	0	0	0	51	0	62	158	0	0	797
10:30 AM	59	124	0	136	151	0	1	0	39	0	57	141	0	0	708
10:45 AM	39	123	0	119	149	0	0	2	54	0	51	160	0	0	697
Total	180	568	0	570	607	0	1	3	207	0	217	606	0	0	2959
11:00 AM	41	115	0	145	151	0	0	1	37	0	64	159	0	0	713
11:15 AM	55	116	0	153	142	0	0	0	54	1	59	119	0	0	699
11:30 AM	54	111	0	152	144	0	0	0	44	0	60	145	0	0	710
11:45 AM	82	121	1	148	155	1	0	1	56	0	67	152	0	0	784
Total	232	463	1	598	592	1	0	2	191	1	250	575	0	0	2906
12:00 PM	50	117	0	138	162	0	0	0	52	0	73	170	0	0	762
12:15 PM	79	133	0	176	162	0	0	0	57	0	70	148	0	0	825
12:30 PM	64	109	1	129	151	0	0	0	60	0	63	136	0	0	713
12:45 PM	48	135	0	137	174	0	0	0	66	0	61	160	0	0	781
Total	241	494	1	580	649	0	0	0	235	0	267	614	0	0	3081
01:00 PM	43	137	0	125	162	0	0	0	52	0	51	153	0	0	723
01:15 PM	51	129	0	126	148	0	0	0	47	0	59	148	0	0	708
01:30 PM	50	125	0	133	139	0	0	1	51	0	52	162	0	0	713
01:45 PM	69	132	0	107	158	0	0	0	36	1	62	135	0	0	700
Total	213	523	0	491	607	0	0	1	186	1	224	598	0	0	2844
02:00 PM	50	140	1	190	169	0	0	0	56	0	73	155	0	0	834
02:15 PM	47	152	0	184	162	0	0	0	67	0	66	171	0	0	849
02:30 PM	48	173	0	164	168	0	0	3	47	0	77	141	0	0	821
02:45 PM	65	167	0	126	173	0	0	0	51	0	80	153	0	0	815
Total	210	632	1	664	672	0	0	3	221	0	296	620	0	0	3319
03:00 PM	77	186	1	166	195	1	0	0	63	0	77	160	0	0	926
03:15 PM	52	195	0	181	189	0	0	0	73	0	69	170	0	0	929
03:30 PM	64	192	0	199	171	0	0	0	97	0	81	183	0	0	987
03:45 PM	74	199	0	198	199	0	0	0	101	0	74	198	0	0	1043
Total	267	772	1	744	754	1	0	0	334	0	301	711	0	0	3885
04:00 PM	65	200	0	204	174	0	0	0	121	0	62	192	0	0	1018
04:15 PM	80	204	0	198	182	0	0	2	94	1	54	185	0	0	1000
04:30 PM	91	185	0	243	206	0	1	1	92	0	63	196	1	0	1079
04:45 PM	100	218	0	169	195	0	0	0	107	0	77	196	0	0	1062
Total	336	807	0	814	757	0	1	3	414	1	256	769	1	0	4159

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File Name : 92031 E
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Page No : 2

Groups Printed- Cars

	BU Bridge From North			Commonwealth Avenue (Route 20) From East				Essex Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	93	178	0	220	170	0	0	0	94	0	55	195	0	0	1005
05:15 PM	81	186	0	185	221	0	0	0	113	0	76	244	0	0	1106
05:30 PM	87	167	0	210	216	0	0	0	90	0	70	205	0	0	1045
05:45 PM	95	207	0	154	242	0	0	1	100	0	70	195	0	0	1064
Total	356	738	0	769	849	0	0	1	397	0	271	839	0	0	4220
Grand Total	2964	6866	5	7343	7070	2	4	17	3449	7	2877	8068	2	0	38674
Apprch %	30.1	69.8	0.1	50.9	49	0	0	0.5	99.3	0.2	26.3	73.7	0	0	
Total %	7.7	17.8	0	19	18.3	0	0	0	8.9	0	7.4	20.9	0	0	

	BU Bridge From North				Commonwealth Avenue (Route 20) From East					Essex Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:15 AM																			
08:15 AM	104	148	0	252	179	114	0	0	293	**1**	**143**	**0**	**144**	**61**	**283**	**0**	**0**	**344**	**1033**
08:30 AM	**82**	**143**	**0**	**225**	**190**	**110**	**0**	**0**	**300**	**0**	**157**	0	**157**	59	**295**	0	0	**354**	1036
08:45 AM	**107**	**155**	0	**262**	**206**	**150**	0	0	**356**	1	112	0	113	63	278	0	0	341	**1072**
09:00 AM	97	148	0	245	181	145	0	0	326	1	143	0	144	**65**	269	0	0	334	1049
Total Volume	390	594	0	984	756	519	0	0	1275	3	555	0	558	248	1125	0	0	1373	4190
% App. Total	39.6	60.4	0		59.3	40.7	0	0		0.5	99.5	0		18.1	81.9	0	0		
PHF	.911	.958	.000	.939	.917	.865	.000	.000	.895	.750	.884	.000	.889	.954	.953	.000	.000	.970	.977
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:45 AM																			
11:45 AM	**82**	121	**1**	204	148	155	**1**	0	304	**1**	**56**	**0**	**57**	**67**	**152**	**0**	**0**	**219**	**784**
12:00 PM	**50**	**117**	**0**	**167**	**138**	**162**	0	0	300	0	52	0	52	**73**	**170**	0	0	**243**	762
12:15 PM	79	**133**	0	**212**	**176**	162	0	0	**338**	0	57	0	57	70	148	0	0	218	**825**
12:30 PM	64	109	1	174	129	151	0	0	280	0	**60**	0	**60**	63	136	0	0	199	713
Total Volume	275	480	2	757	591	630	1	0	1222	1	225	0	226	273	606	0	0	879	3084
% App. Total	36.3	63.4	0.3		48.4	51.6	0.1	0		0.4	99.6	0		31.1	68.9	0	0		
PHF	.838	.902	.500	.893	.839	.972	.250	.000	.904	.250	.938	.000	.942	.935	.891	.000	.000	.904	.935
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:30 PM																			
04:30 PM	91	185	0	276	**243**	206	0	**1**	**450**	**1**	**92**	**0**	**93**	**63**	**196**	**1**	0	260	1079
04:45 PM	**100**	**218**	0	**318**	169	195	0	0	364	0	107	0	107	**77**	196	0	0	273	1062
05:00 PM	93	178	0	271	220	170	0	0	390	0	94	0	94	55	195	0	0	250	1005
05:15 PM	81	186	0	267	185	**221**	0	0	406	0	**113**	0	**113**	76	**244**	0	0	**320**	**1106**
Total Volume	365	767	0	1132	817	792	0	1	1610	1	406	0	407	271	831	1	0	1103	4252
% App. Total	32.2	67.8	0		50.7	49.2	0	0.1		0.2	99.8	0		24.6	75.3	0.1	0		
PHF	.913	.880	.000	.890	.841	.896	.000	.250	.894	.250	.898	.000	.900	.880	.851	.250	.000	.862	.961

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Page No : 1

Groups Printed- Heavy Vehicles

	BU Bridge From North			Commonwealth Avenue (Route 20) From East				Essex Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	3	3	0	3	10	0	0	0	0	0	1	11	0	0	31
07:15 AM	1	1	0	4	6	0	0	0	0	0	0	9	0	0	21
07:30 AM	1	6	0	5	6	0	0	0	1	0	5	13	0	0	37
07:45 AM	0	3	0	1	10	0	0	0	2	0	2	9	0	0	27
Total	5	13	0	13	32	0	0	0	3	0	8	42	0	0	116
08:00 AM	3	3	0	9	20	0	0	0	6	0	3	14	0	0	58
08:15 AM	1	5	0	2	10	0	0	0	1	0	2	14	0	0	35
08:30 AM	0	2	0	4	10	0	0	0	1	0	1	9	0	0	27
08:45 AM	1	3	0	6	7	0	0	0	0	0	2	8	0	0	27
Total	5	13	0	21	47	0	0	0	8	0	8	45	0	0	147
09:00 AM	1	4	0	6	10	0	0	0	2	0	3	13	0	0	39
09:15 AM	0	2	0	2	13	0	0	0	0	0	4	13	0	0	34
09:30 AM	3	3	0	2	7	0	0	0	0	0	2	15	0	0	32
09:45 AM	1	2	0	2	7	0	0	0	1	0	0	8	0	0	21
Total	5	11	0	12	37	0	0	0	3	0	9	49	0	0	126
10:00 AM	1	2	0	3	14	0	0	0	0	0	2	5	0	0	27
10:15 AM	0	4	0	5	12	0	0	0	1	0	2	11	0	0	35
10:30 AM	0	1	0	5	12	0	0	0	0	0	1	7	0	0	26
10:45 AM	6	3	0	1	7	0	0	0	0	0	0	10	0	0	27
Total	7	10	0	14	45	0	0	0	1	0	5	33	0	0	115
11:00 AM	2	3	0	3	11	0	0	0	2	0	3	9	0	0	33
11:15 AM	0	2	0	3	9	0	0	0	2	0	2	8	0	0	26
11:30 AM	0	4	1	5	8	0	0	0	2	0	7	10	0	0	37
11:45 AM	5	3	0	2	10	0	0	0	0	0	1	5	0	0	26
Total	7	12	1	13	38	0	0	0	6	0	13	32	0	0	122
12:00 PM	1	3	0	5	15	0	0	0	0	0	3	9	0	0	36
12:15 PM	1	1	0	5	7	0	0	0	4	0	2	7	0	0	27
12:30 PM	1	4	0	2	9	0	0	0	1	0	2	6	0	0	25
12:45 PM	1	4	0	7	12	0	0	0	1	0	3	5	0	0	33
Total	4	12	0	19	43	0	0	0	6	0	10	27	0	0	121
01:00 PM	1	3	0	5	14	0	0	0	2	0	4	9	0	0	38
01:15 PM	0	5	0	4	14	0	0	0	0	0	2	15	0	0	40
01:30 PM	0	3	0	4	9	0	0	0	1	0	2	6	0	0	25
01:45 PM	1	4	0	3	13	0	0	0	1	0	1	2	0	0	25
Total	2	15	0	16	50	0	0	0	4	0	9	32	0	0	128
02:00 PM	0	4	0	3	14	0	0	0	2	0	4	6	0	0	33
02:15 PM	1	1	0	1	7	0	0	0	0	0	3	8	0	0	21
02:30 PM	1	7	0	4	9	0	0	0	1	0	1	4	0	0	27
02:45 PM	2	3	0	3	10	0	0	0	0	0	0	4	0	0	22
Total	4	15	0	11	40	0	0	0	3	0	8	22	0	0	103
03:00 PM	0	2	0	5	8	0	0	0	0	0	2	3	0	0	20
03:15 PM	3	2	0	8	8	0	0	0	4	0	2	10	0	0	37
03:30 PM	2	3	0	3	6	0	0	0	0	0	2	6	0	0	22
03:45 PM	0	3	0	2	10	0	0	0	1	0	1	7	0	0	24
Total	5	10	0	18	32	0	0	0	5	0	7	26	0	0	103
04:00 PM	3	4	0	5	7	0	0	0	0	0	1	3	0	0	23
04:15 PM	1	1	0	5	9	0	0	0	2	1	2	4	0	0	25
04:30 PM	0	3	0	2	5	0	0	0	0	0	1	4	0	0	15
04:45 PM	1	2	0	1	5	0	0	0	0	0	0	5	0	0	14
Total	5	10	0	13	26	0	0	0	2	1	4	16	0	0	77

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N/S: BU Bridge/ Essex Street
E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 E
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

Groups Printed- Heavy Vehicles

	BU Bridge From North			Commonwealth Avenue (Route 20) From East				Essex Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	0	5	0	4	4	0	0	0	0	0	0	4	0	0	17
05:15 PM	0	2	0	4	6	0	0	0	0	0	0	10	0	0	22
05:30 PM	0	2	0	2	3	0	0	0	1	0	0	6	0	0	14
05:45 PM	0	3	0	1	7	0	0	0	0	0	1	4	0	0	16
Total	0	12	0	11	20	0	0	0	1	0	1	24	0	0	69
Grand Total	49	133	1	161	410	0	0	0	42	1	82	348	0	0	1227
Apprch %	26.8	72.7	0.5	28.2	71.8	0	0	0	97.7	2.3	19.1	80.9	0	0	
Total %	4	10.8	0.1	13.1	33.4	0	0	0	3.4	0.1	6.7	28.4	0	0	

	BU Bridge From North				Commonwealth Avenue (Route 20) From East					Essex Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	1	**6**	0	**7**	5	6	0	0	11	0	1	0	1	**5**	13	0	0	**18**	37
07:45 AM	0	3	0	3	1	10	0	0	11	0	2	0	2	2	9	0	0	11	27
08:00 AM	**3**	3	0	6	**9**	**20**	0	0	**29**	0	**6**	0	**6**	3	**14**	0	0	17	**58**
08:15 AM	1	5	0	6	2	10	0	0	12	0	1	0	1	2	14	0	0	16	35
Total Volume	5	17	0	22	17	46	0	0	63	0	10	0	10	12	50	0	0	62	157
% App. Total	22.7	77.3	0		27	73	0	0		0	100	0		19.4	80.6	0	0		
PHF	.417	.708	.000	.786	.472	.575	.000	.000	.543	.000	.417	.000	.417	.600	.893	.000	.000	.861	.677
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 12:30 PM																			
12:30 PM	**1**	4	0	**5**	2	9	0	0	11	0	1	0	1	2	6	0	0	8	25
12:45 PM	1	4	0	5	**7**	12	0	0	**19**	0	1	0	1	3	5	0	0	8	33
01:00 PM	1	3	0	4	5	**14**	0	0	19	0	**2**	0	**2**	**4**	9	0	0	13	38
01:15 PM	0	**5**	0	5	4	14	0	0	18	0	0	0	0	2	**15**	0	0	**17**	**40**
Total Volume	3	16	0	19	18	49	0	0	67	0	4	0	4	11	35	0	0	46	136
% App. Total	15.8	84.2	0		26.9	73.1	0	0		0	100	0		23.9	76.1	0	0		
PHF	.750	.800	.000	.950	.643	.875	.000	.000	.882	.000	.500	.000	.500	.688	.583	.000	.000	.676	.850
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 02:30 PM																			
02:30 PM	1	**7**	0	**8**	4	9	0	0	13	0	1	0	1	1	4	0	0	5	27
02:45 PM	2	3	0	5	3	**10**	0	0	13	0	0	0	0	0	4	0	0	4	22
03:00 PM	0	2	0	2	5	8	0	0	13	0	0	0	0	**2**	3	0	0	5	20
03:15 PM	**3**	2	0	5	**8**	8	0	0	**16**	0	**4**	0	**4**	2	**10**	0	0	**12**	**37**
Total Volume	6	14	0	20	20	35	0	0	55	0	5	0	5	5	21	0	0	26	106
% App. Total	30	70	0		36.4	63.6	0	0		0	100	0		19.2	80.8	0	0		
PHF	.500	.500	.000	.625	.625	.875	.000	.000	.859	.000	.313	.000	.313	.625	.525	.000	.000	.542	.716

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City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 E
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

Groups Printed- Trains

	BU Bridge From North			Commonwealth Avenue (Route 20) From East				Essex Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
07:15 AM	0	0	0	0	4	0	0	0	0	0	0	3	0	0	7
07:30 AM	0	0	0	0	2	0	0	0	0	0	0	4	0	0	6
07:45 AM	0	0	0	0	3	0	0	0	0	0	0	4	0	0	7
Total	0	0	0	0	11	0	0	0	0	0	0	13	0	0	24
08:00 AM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
08:15 AM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
08:30 AM	0	0	0	0	4	0	0	0	0	0	0	2	0	0	6
08:45 AM	0	0	0	0	2	0	0	0	0	0	0	4	0	0	6
Total	0	0	0	0	11	0	0	0	0	0	0	11	0	0	22
09:00 AM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
09:15 AM	0	0	0	0	4	0	0	0	0	0	0	4	0	0	8
09:30 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
09:45 AM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	0	11	0	0	0	0	0	0	11	0	0	22
10:00 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
10:15 AM	0	0	0	0	3	0	0	0	0	0	0	3	0	0	6
10:30 AM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
10:45 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
Total	0	0	0	0	10	0	0	0	0	0	0	9	0	0	19
11:00 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
11:15 AM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
11:30 AM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
11:45 AM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	0	6	0	0	0	0	0	0	7	0	0	13
12:00 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
12:15 PM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
12:30 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	0	8	0	0	0	0	0	0	7	0	0	15
01:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
01:15 PM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	5
01:30 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
01:45 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
Total	0	0	0	0	8	0	0	0	0	0	0	9	0	0	17
02:00 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
02:15 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
02:30 PM	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
02:45 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
Total	0	0	0	0	7	0	0	0	0	0	0	6	0	0	13
03:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
03:30 PM	0	0	0	0	4	0	0	0	0	0	0	2	0	0	6
03:45 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
Total	0	0	0	0	8	0	0	0	0	0	0	8	0	0	16
04:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4
04:15 PM	0	0	0	0	4	0	0	0	0	0	0	2	0	0	6
04:30 PM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3
04:45 PM	0	0	0	0	3	0	0	0	0	0	0	2	0	0	5
Total	0	0	0	0	10	0	0	0	0	0	0	8	0	0	18

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Groups Printed- Trains

	BU Bridge From North			Commonwealth Avenue (Route 20) From East				Essex Street From South			Commonwealth Avenue (Route 20) From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
05:00 PM	0	0	0	0	1	0	0	0	0	0	0	3	0	0	4
05:15 PM	0	0	0	0	5	0	0	0	0	0	0	4	0	0	9
05:30 PM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	4	0	0	5
Total	0	0	0	0	10	0	0	0	0	0	0	11	0	0	21
Grand Total	0	0	0	0	100	0	0	0	0	0	0	100	0	0	200
Apprch %	0	0	0	0	100	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	50	0	0	0	0	0	0	50	0	0	

	BU Bridge From North				Commonwealth Avenue (Route 20) From East					Essex Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:15 AM																			
07:15 AM	0	0	0	0	0	**4**	0	0	**4**	0	0	0	0	0	3	0	0	3	**7**
07:30 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	**4**	0	0	**4**	6
07:45 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4	0	0	4	7
08:00 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	2	0	0	2	5
Total Volume	0	0	0	0	0	12	0	0	12	0	0	0	0	0	13	0	0	13	25
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.000	.750	.000	.000	.000	.000	.000	.813	.000	.000	.813	.893
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 10:00 AM																			
10:00 AM	0	0	0	0	0	**3**	0	0	**3**	0	0	0	0	0	**3**	0	0	**3**	**6**
10:15 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3	0	0	3	6
10:30 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	0	0	1	3
10:45 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	2	4
Total Volume	0	0	0	0	0	10	0	0	10	0	0	0	0	0	9	0	0	9	19
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.833	.000	.000	.833	.000	.000	.000	.000	.000	.750	.000	.000	.750	.792
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:30 PM																			
04:30 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	2	3
04:45 PM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	2	0	0	2	5
05:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	0	0	3	4
05:15 PM	0	0	0	0	0	**5**	0	0	**5**	0	0	0	0	0	**4**	0	0	**4**	**9**
Total Volume	0	0	0	0	0	10	0	0	10	0	0	0	0	0	11	0	0	11	21
% App. Total	0	0	0		0	100	0	0		0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.000	.000	.000	.688	.000	.000	.688	.583

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Page No : 1

Groups Printed- Peds and Bicycles

	BU Bridge From North				Commonwealth Avenue (Route 20) From East					Essex Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	Peds	Right	Thru North Side	Thru South Side	Left	Peds	Right	Thru	Left	Peds	Right	Thru South Side	Thru North Side	Left	Peds	Int. Total
07:00 AM	3	5	0	25	2	1	0	0	1	1	0	0	5	0	4	1	0	1	49
07:15 AM	1	10	0	37	2	4	0	0	1	0	2	0	4	1	7	1	0	1	71
07:30 AM	1	10	0	51	6	1	0	0	0	0	5	0	10	4	23	0	0	7	118
07:45 AM	1	12	0	108	2	3	0	0	3	0	1	0	24	2	26	0	0	3	185
Total	6	37	0	221	12	9	0	0	5	1	8	0	43	7	60	2	0	12	423
08:00 AM	3	23	1	92	6	0	0	0	2	0	2	0	26	2	25	3	0	13	198
08:15 AM	2	18	0	86	8	1	0	0	2	0	2	0	16	0	43	8	2	22	210
08:30 AM	1	28	2	158	12	4	0	0	2	0	0	0	64	3	49	7	0	21	351
08:45 AM	6	30	1	369	4	7	0	0	5	0	3	0	119	6	88	9	0	7	654
Total	12	99	4	705	30	12	0	0	11	0	7	0	225	11	205	27	2	63	1413
09:00 AM	3	33	2	260	6	9	0	0	3	0	2	0	60	6	52	15	3	11	465
09:15 AM	2	19	4	128	4	7	0	0	6	0	4	0	39	0	38	5	0	4	260
09:30 AM	5	18	1	334	7	7	0	0	5	0	0	0	49	1	35	7	1	1	471
09:45 AM	4	21	2	445	5	20	0	0	8	0	0	0	208	4	94	8	0	5	824
Total	14	91	9	1167	22	43	0	0	22	0	6	0	356	11	219	35	4	21	2020
10:00 AM	0	18	0	144	4	11	0	0	9	0	4	0	97	2	61	2	1	6	359
10:15 AM	1	8	2	175	3	3	0	0	4	0	0	0	113	2	23	4	0	2	340
10:30 AM	1	16	1	195	3	8	0	0	2	0	1	0	101	1	26	2	0	6	363
10:45 AM	0	9	4	458	0	24	0	0	3	0	1	0	199	3	77	6	0	1	785
Total	2	51	7	972	10	46	0	0	18	0	6	0	510	8	187	14	1	15	1847
11:00 AM	3	8	1	242	3	10	0	0	4	0	1	0	69	0	40	1	1	2	385
11:15 AM	3	7	0	159	3	11	0	0	8	0	3	0	63	2	22	2	0	8	291
11:30 AM	2	6	3	205	0	12	0	0	8	0	0	0	67	1	16	6	0	3	329
11:45 AM	2	6	1	478	4	21	0	0	5	0	0	0	107	1	46	7	1	4	683
Total	10	27	5	1084	10	54	0	0	25	0	4	0	306	4	124	16	2	17	1688
12:00 PM	0	4	1	369	2	28	0	0	5	0	0	0	97	0	29	4	0	9	548
12:15 PM	3	7	0	223	3	17	0	0	11	0	2	0	87	1	29	1	0	7	391
12:30 PM	0	5	2	262	9	10	0	0	9	0	1	0	84	2	23	2	0	6	415
12:45 PM	0	5	3	568	8	32	0	0	11	0	2	0	129	1	38	4	1	4	806
Total	3	21	6	1422	22	87	0	0	36	0	5	0	397	4	119	11	1	26	2160
01:00 PM	0	5	0	571	7	15	0	0	9	0	0	0	72	0	15	1	0	1	696
01:15 PM	0	4	1	415	4	18	0	0	5	0	0	0	67	0	13	1	0	3	531
01:30 PM	1	6	0	322	2	30	0	0	4	0	1	0	49	1	29	2	0	15	462
01:45 PM	1	5	1	1278	5	29	0	0	12	0	0	0	374	2	35	5	0	9	1756
Total	2	20	2	2586	18	92	0	0	30	0	1	0	562	3	92	9	0	28	3445
02:00 PM	1	6	0	971	7	36	0	0	4	0	2	0	105	1	22	2	0	14	1171
02:15 PM	2	4	0	234	5	22	0	0	8	0	1	0	56	2	10	3	0	3	350
02:30 PM	0	6	1	321	5	25	0	0	7	1	0	0	85	1	8	3	0	0	463
02:45 PM	1	6	0	429	2	22	0	0	12	0	0	0	108	0	21	7	0	2	610
Total	4	22	1	1955	19	105	0	0	31	1	3	0	354	4	61	15	0	19	2594
03:00 PM	0	4	1	370	6	19	0	0	17	0	0	0	140	1	7	6	0	1	572
03:15 PM	1	4	1	370	8	22	0	0	1	0	0	0	118	2	11	3	0	11	552
03:30 PM	0	9	0	345	12	33	0	0	9	0	0	0	124	2	12	6	0	2	554
03:45 PM	2	10	2	382	9	39	0	0	5	0	0	0	141	0	0	11	0	9	610
Total	3	27	4	1467	35	113	0	0	32	0	0	0	523	5	30	26	0	23	2288

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E/W: Commonwealth Avenue (Route 20)
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 E
Site Code : 3853
Start Date : 11/18/2009
Page No : 2

Groups Printed- Peds and Bicycles

	BU Bridge From North				Commonwealth Avenue (Route 20) From East					Essex Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	Peds	Right	Thru North Side	Thru South Side	Left	Peds	Right	Thru	Left	Peds	Right	Thru South Side	Thru North Side	Left	Peds	Int. Total
04:00 PM	1	6	1	317	5	38	0	0	9	0	1	0	146	0	17	5	0	5	551
04:15 PM	0	9	1	215	5	39	0	0	19	0	2	0	59	0	12	1	0	8	370
04:30 PM	2	12	0	204	12	25	0	0	6	0	0	0	70	1	17	1	0	3	353
04:45 PM	0	4	0	389	11	28	0	0	17	0	0	0	90	1	8	2	0	3	553
Total	3	31	2	1125	33	130	0	0	51	0	3	0	365	2	54	9	0	19	1827
05:00 PM	4	5	3	457	19	37	0	0	10	0	0	0	155	1	15	4	0	8	718
05:15 PM	4	18	1	376	16	27	0	0	11	0	1	0	102	0	20	4	1	5	586
05:30 PM	4	19	1	338	14	26	0	0	6	0	1	0	98	1	12	2	0	1	523
05:45 PM	3	18	3	530	24	50	0	0	3	0	1	0	117	0	20	4	0	5	778
Total	15	60	8	1701	73	140	0	0	30	0	3	0	472	2	67	14	1	19	2605
Grand Total	74	486	48	14405	284	831	0	0	291	2	46	0	4113	61	1218	178	11	262	22310
Apprch %	0.5	3.2	0.3	96	20.2	59.1	0	0	20.7	0	1.1	0	98.8	3.5	70.4	10.3	0.6	15.1	
Total %	0.3	2.2	0.2	64.6	1.3	3.7	0	0	1.3	0	0.2	0	18.4	0.3	5.5	0.8	0	1.2	

	BU Bridge From North					Commonwealth Avenue (Route 20) From East						Essex Street From South					Commonwealth Avenue (Route 20) From West						
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru North Side	Thru South Side	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru South Side	Thru North Side	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																							
Peak Hour for Entire Intersection Begins at 09:00 AM																							
09:00 AM	3	**33**	2	260	298	6	9	0	0	3	18	0	2	0	60	62	**6**	52	**15**	**3**	**11**	**87**	**465**
09:15 AM	**2**	**19**	**4**	**128**	**153**	**4**	**7**	**0**	**0**	**6**	**17**	**0**	**4**	**0**	**39**	**43**	**0**	**38**	**5**	**0**	**4**	**47**	**260**
09:30 AM	**5**	**18**	**1**	**334**	**358**	**7**	**7**	**0**	**0**	**5**	**19**	**0**	**0**	**0**	**49**	**49**	**1**	**35**	**7**	**1**	**1**	**45**	**471**
09:45 AM	**4**	**21**	**2**	**445**	**472**	5	**20**	**0**	**0**	**8**	**33**	0	0	0	**208**	**208**	**4**	**94**	**8**	**0**	**5**	**111**	**824**
Total Volume	14	91	9	1167	1281	22	43	0	0	22	87	0	6	0	356	362	11	219	35	4	21	290	2020
% App. Total				91.1		25.3	49.4	0	0	25.3		0	1.7	0	98.3		3.8	75.5	12.1	1.4	7.2		
PHF	.700	.689	.563	.656	.678	.786	.538	.000	.000	.688	.659	.000	.375	.000	.428	.435	.458	.582	.583	.333	.477	.653	.613
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																							
Peak Hour for Entire Intersection Begins at 01:00 PM																							
01:00 PM	0	5	0	571	576	**7**	**15**	**0**	**0**	**9**	**31**	**0**	**0**	**0**	**72**	**72**	**0**	**15**	**1**	**0**	**1**	**17**	**696**
01:15 PM	**0**	**4**	**1**	**415**	**420**	**4**	**18**	**0**	**0**	**5**	**27**	**0**	**0**	**0**	**67**	**67**	**0**	**13**	**1**	**0**	**3**	**17**	**531**
01:30 PM	**1**	**6**	0	322	329	2	**30**	**0**	**0**	**4**	**36**	**0**	**1**	**0**	**49**	**50**	**1**	**29**	**2**	**0**	**15**	**47**	**462**
01:45 PM	**1**	**5**	**1**	**1278**	**1285**	5	29	0	0	**12**	**46**	0	0	0	**374**	**374**	**2**	**35**	**5**	**0**	**9**	**51**	**1756**
Total Volume	2	20	2	2586	2610	18	92	0	0	30	140	0	1	0	562	563	3	92	9	0	28	132	3445
% App. Total				99.1		12.9	65.7	0	0	21.4		0	0.2	0	99.8		2.3	69.7	6.8	0	21.2		
PHF	.500	.833	.500	.506	.508	.643	.767	.000	.000	.625	.761	.000	.250	.000	.376	.376	.375	.657	.450	.000	.467	.647	.490
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																							
Peak Hour for Entire Intersection Begins at 05:00 PM																							
05:00 PM	**4**	**5**	**3**	**457**	**469**	**19**	**37**	**0**	**0**	**10**	**66**	**0**	**0**	**0**	**155**	**155**	**1**	15	**4**	**0**	**8**	**28**	**718**
05:15 PM	**4**	**18**	**1**	**376**	**399**	**16**	**27**	**0**	**0**	**11**	**54**	**0**	**1**	**0**	**102**	**103**	**0**	**20**	**4**	**1**	5	**30**	**586**
05:30 PM	**4**	**19**	1	338	362	14	26	0	0	6	46	0	1	0	98	99	1	12	2	0	1	16	523
05:45 PM	3	18	3	**530**	**554**	**24**	**50**				**77**	0	1	0	117	118	0	20	4	0	5	29	**778**
Total Volume	15	60	8	1701	1784	73	140	0	0	30	243	0	3	0	472	475	2	67	14	1	19	103	2605
% App. Total				95.3		30	57.6	0	0	12.3		0	0.6	0	99.4		1.9	65	13.6	1	18.4		
PHF	.938	.789	.667	.802	.805	.760	.700	.000	.000	.682	.789	.000	.750	.000	.761	.766	.500	.838	.875	.250	.594	.858	.837

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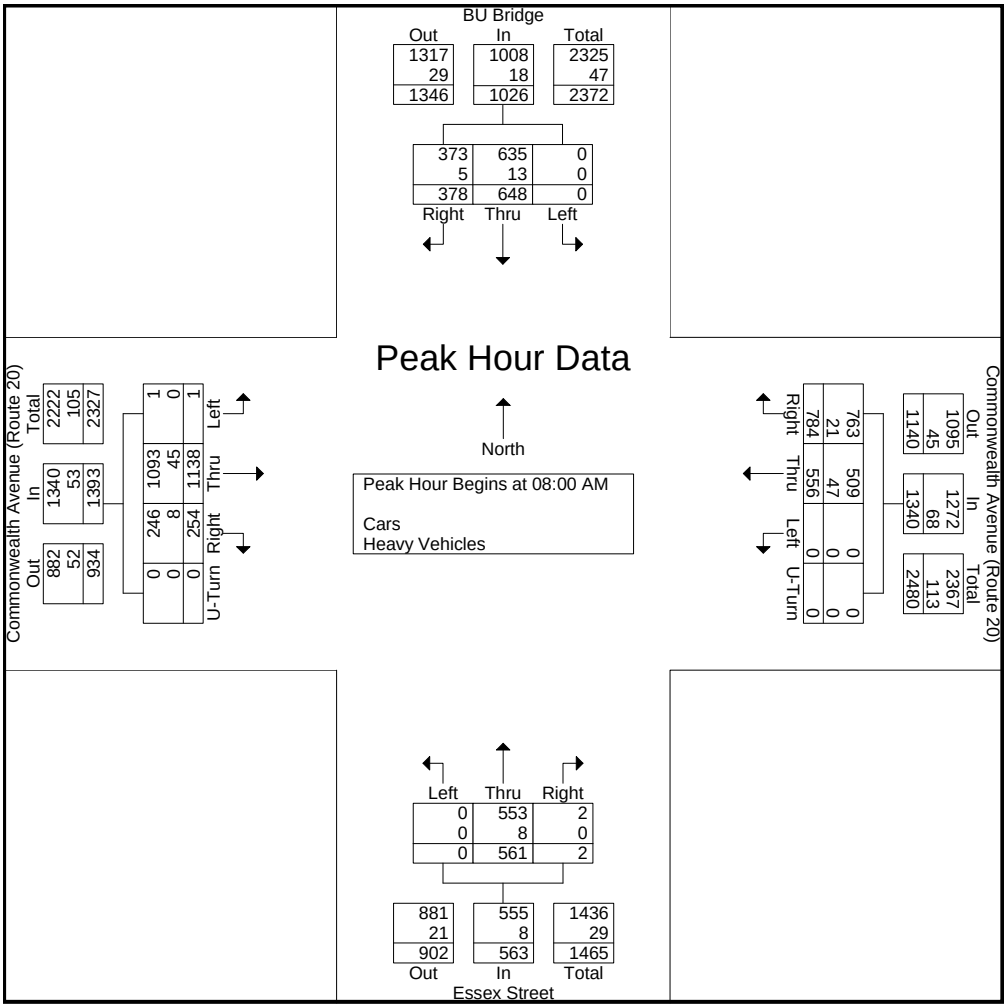
City, State: Boston, MA
Client: BETA Group Inc/ J. Freudberg

File Name : 92031 E
Site Code : 3853
Start Date : 11/18/2009
Page No : 1

	BU Bridge From North				Commonwealth Avenue (Route 20) From East					Essex Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:00 AM																			
08:00 AM	83	**192**	0	**275**	197	155	0	0	352	0	147	0	147	**66**	251	**1**	0	318	1092
08:15 AM	105	153	0	258	181	124	0	0	305	**1**									
08:30 AM	**82**	**145**	**0**	**227**	**194**	**120**	**0**	**0**	**314**	**0**	**158**	0	**158**	60	**304**	0	0	**364**	1063
08:45 AM	**108**	158	0	266	**212**	**157**	0	0	**369**	1	112	0	113	65	286	0	0	351	**1099**
Total Volume	378	648	0	1026	784	556	0	0	1340	2	561	0	563	254	1138	1	0	1393	4322
% App. Total	36.8	63.2	0		58.5	41.5	0	0		0.4	99.6	0		18.2	81.7	0.1	0		
PHF	.875	.844	.000	.933	.925	.885	.000	.000	.908	.500	.888	.000	.891	.962	.936	.250	.000	.957	.983
Cars	373	635	0	1008	763	509	0	0	1272	2	553	0	555	246	1093	1	0	1340	4175
% Cars	98.7	98.0	0	98.2	97.3	91.5	0	0	94.9	100	98.6	0	98.6	96.9	96.0	100	0	96.2	96.6
Heavy Vehicles	5	13	0	18	21	47	0	0	68	0	8	0	8	8	45	0	0	53	147
% Heavy Vehicles	1.3	2.0	0	1.8	2.7	8.5	0	0	5.1	0	1.4	0	1.4	3.1	4.0	0	0	3.8	3.4



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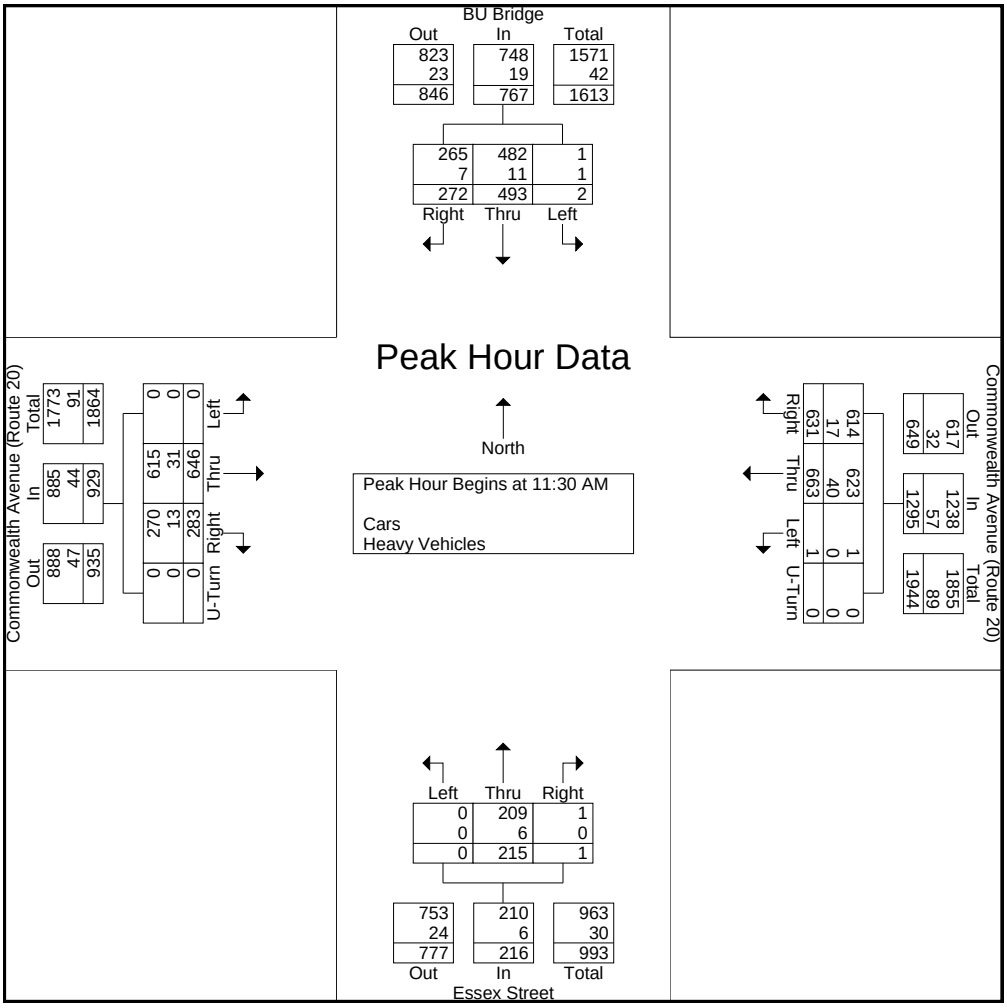
	BU Bridge From North				Commonwealth Avenue (Route 20) From East					Essex Street From South				Commonwealth Avenue (Route 20) From West					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 11:30 AM																			
11:30 AM	54	115	**1**	170	157	152	0	0	309	0	46	0	46	67	155	0	0	222	747
11:45 AM	**87**	124	1	212	150	165	**1**	0	316	**1**									
12:00 PM	**51**	**120**	**0**	**171**	**143**	**177**	0	0	320	0	52	0	52	**76**	**179**	0	0	**255**	798
12:15 PM	80	**134**	0	**214**	**181**	169	0	0	**350**	0	**61**	0	**61**	72	155	0	0	227	**852**
Total Volume	272	493	2	767	631	663	1	0	1295	1	215	0	216	283	646	0	0	929	3207
% App. Total	35.5	64.3	0.3		48.7	51.2	0.1	0		0.5	99.5	0		30.5	69.5	0	0		
PHF	.782	.920	.500	.896	.872	.936	.250	.000	.925	.250	.881	.000	.885	.931	.902	.000	.000	.911	.941
Cars	265	482	1	748	614	623	1	0	1238	1	209	0	210	270	615	0	0	885	3081
% Cars	97.4	97.8	50.0	97.5	97.3	94.0	100	0	95.6	100	97.2	0	97.2	95.4	95.2	0	0	95.3	96.1
Heavy Vehicles	7	11	1	19	17	40	0	0	57	0	6	0	6	13	31	0	0	44	126
% Heavy Vehicles	2.6	2.2	50.0	2.5	2.7	6.0	0	0	4.4	0	2.8	0	2.8	4.6	4.8	0	0	4.7	3.9



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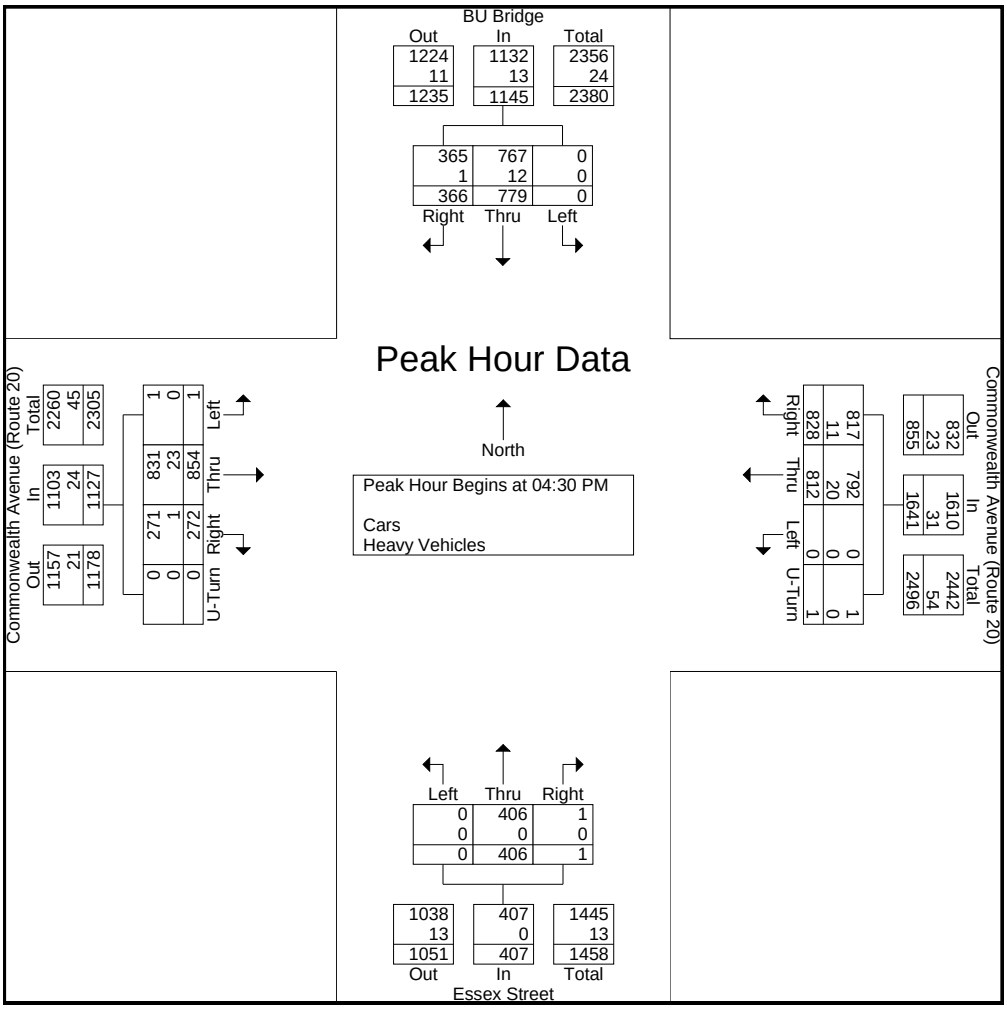
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:30 PM																			
04:30 PM	91	188	0	279	**245**	211	0	**1**	**457**	**1**	**92**	**0**	**93**	**64**	**200**	**1**	0	265	1094
04:45 PM	**101**	**220**	0	**321**	170	200	0	0	370	0	107	0	107	**77**	201	0	0	278	1076
05:00 PM	93	183	0	276	224	174	0	0	398	0	94	0	94	55	199	0	0	254	1022
05:15 PM	81	188	0	269	189	**227**	0	0	416	0	**113**	0	**113**	76	**254**	0	0	**330**	**1128**
Total Volume	366	779	0	1145	828	812	0	1	1641	1	406	0	407	272	854	1	0	1127	4320
% App. Total	32	68	0		50.5	49.5	0	0.1		0.2	99.8	0		24.1	75.8	0.1	0		
PHF	.906	.885	.000	.892	.845	.894	.000	.250	.898	.250	.898	.000	.900	.883	.841	.250	.000	.854	.957
Cars	365	767	0	1132	817	792	0	1	1610	1	406	0	407	271	831	1	0	1103	4252
% Cars	99.7	98.5	0	98.9	98.7	97.5	0	100	98.1	100	100	0	100	99.6	97.3	100	0	97.9	98.4
Heavy Vehicles	1	12	0	13	11	20	0	0	31	0	0	0	0	1	23	0	0	24	68
% Heavy Vehicles	0.3	1.5	0	1.1	1.3	2.5	0	0	1.9	0	0	0	0	0.4	2.7	0	0	2.1	1.6



Source:

Boston University Bridge Area data via Vanasse Hangen Brustlin

Final Condition Analysis Appendix A
Regional Safety and Traffic Improvements on Commonwealth Avenue

Section 1: Vehicular Traffic Data
Post-Construction Traffic Volumes
2030 Traffic Volumes

Section 2: Peak Hour Pedestrian Volumes

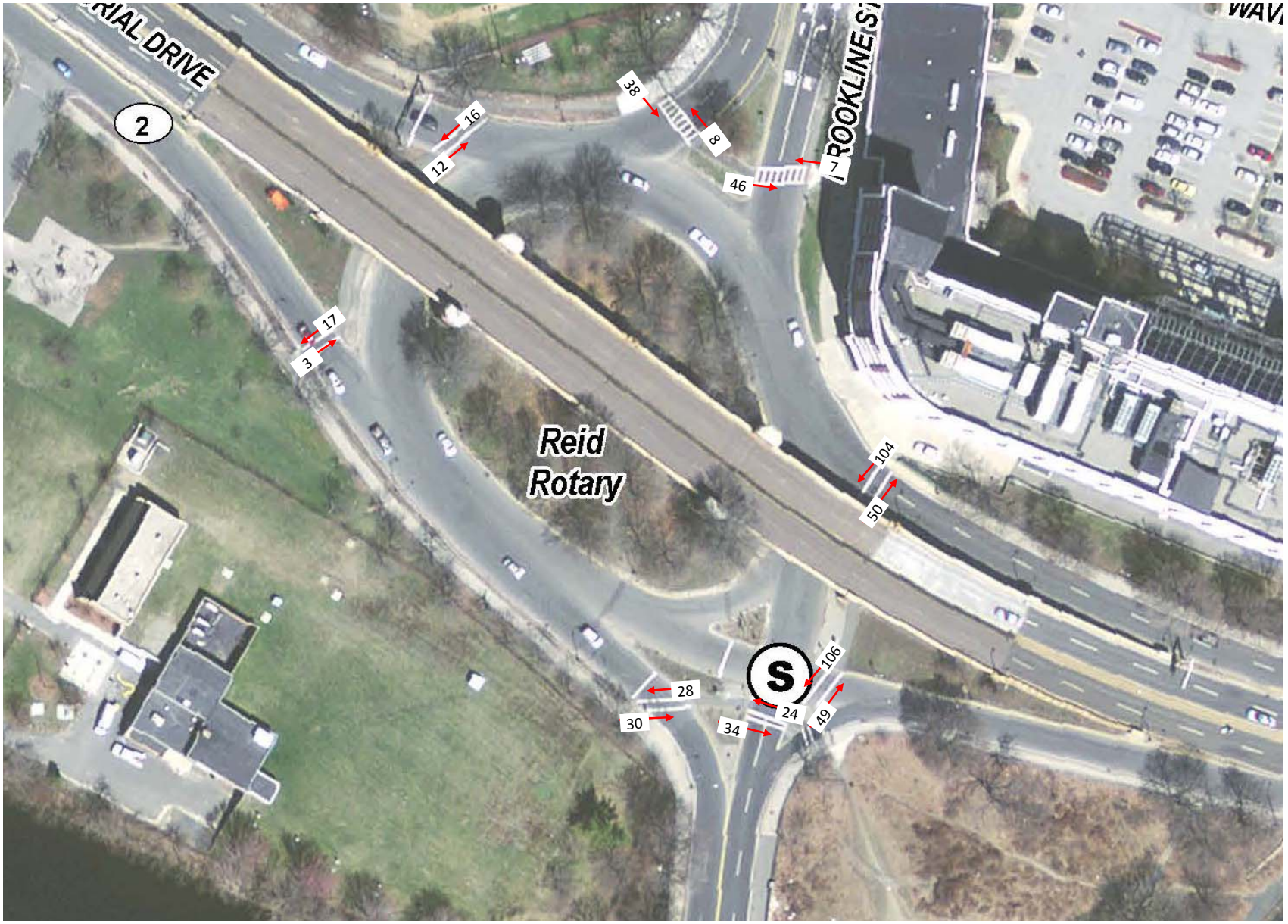
Section 3: Alternative Schematics

Section 4: Capacity Analysis Results Tables

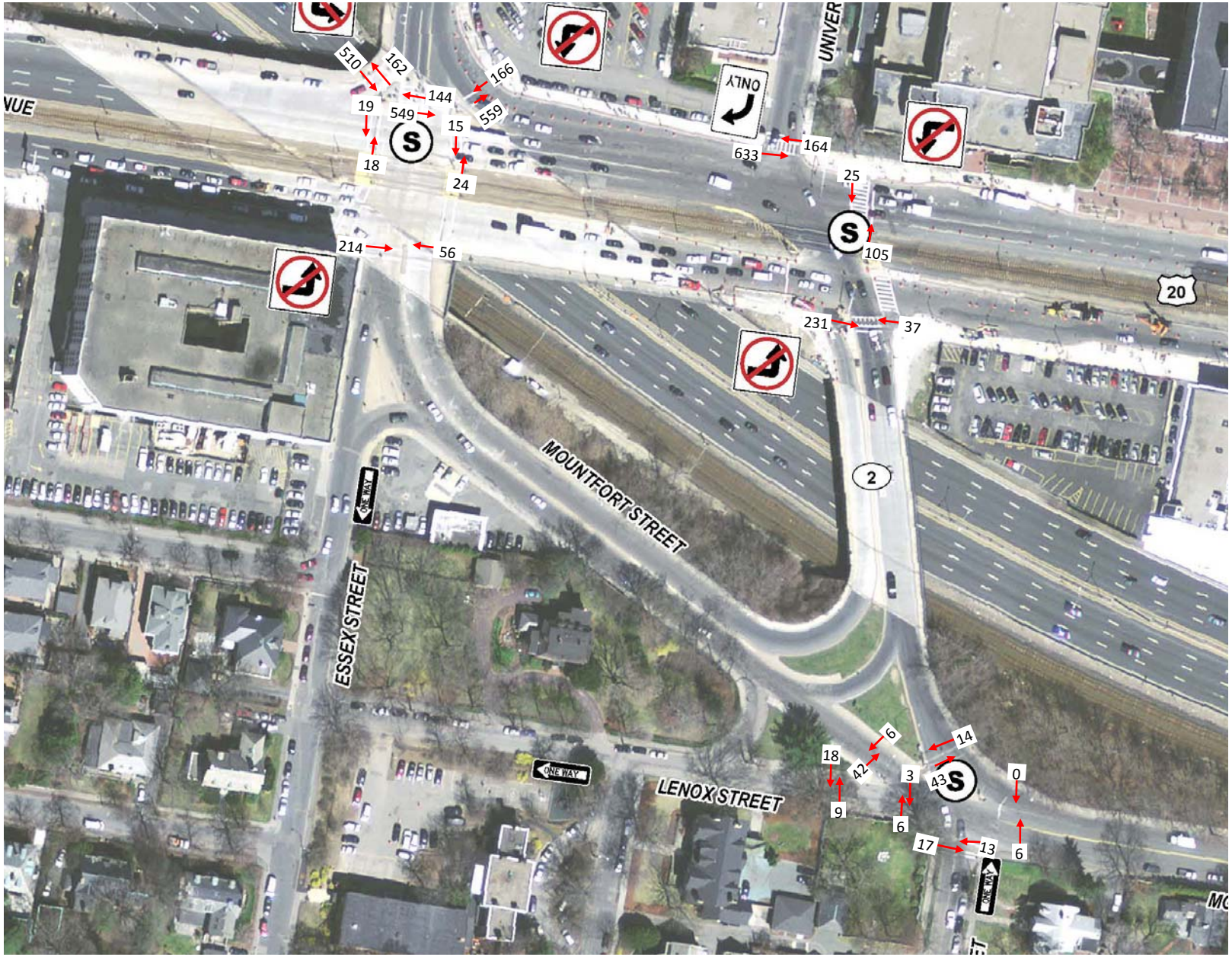
Section 5: Project Documentation
Interim Striping of Boston University Bridge Memorandum; MassDOT; December 15, 2011.
Interim Observations and Calibration Memorandum; VHB; February 27, 2012.

10989.03: Commonwealth Avenue and BU Bridge Regional Safety and Traffic Improvements
BU Bridge Intersection Pedestrian Counts
Count Date: Wednesday, September 14, 2011

AM Peak Hour: 8:00-9:00 AM

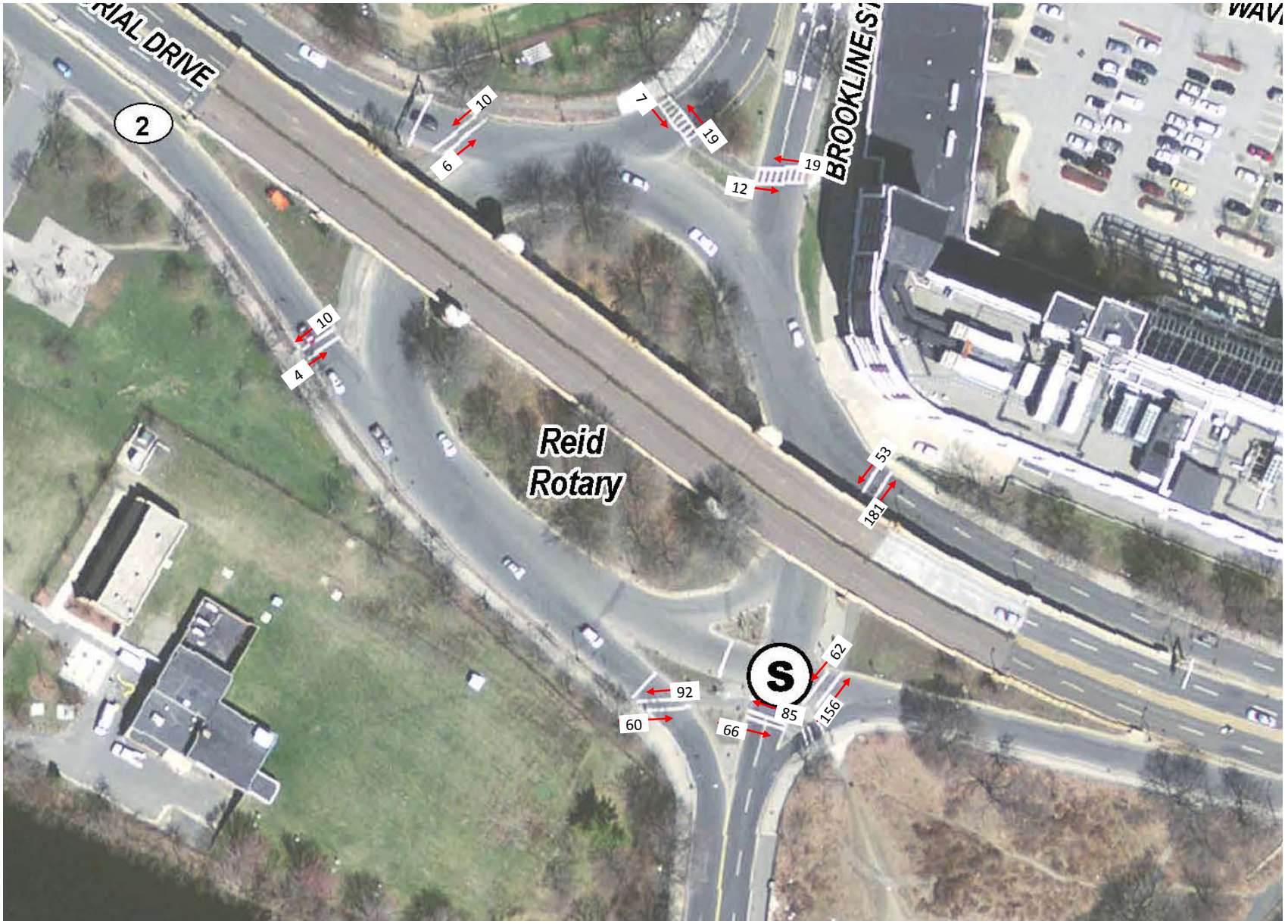


10989.03: Commonwealth Avenue and BU Bridge Regional Safety and Traffic Improvements AM Peak Hour: 8:00-9:00 AM
BU Bridge Intersection Pedestrian Counts
Count Date: Wednesday, September 14, 2011

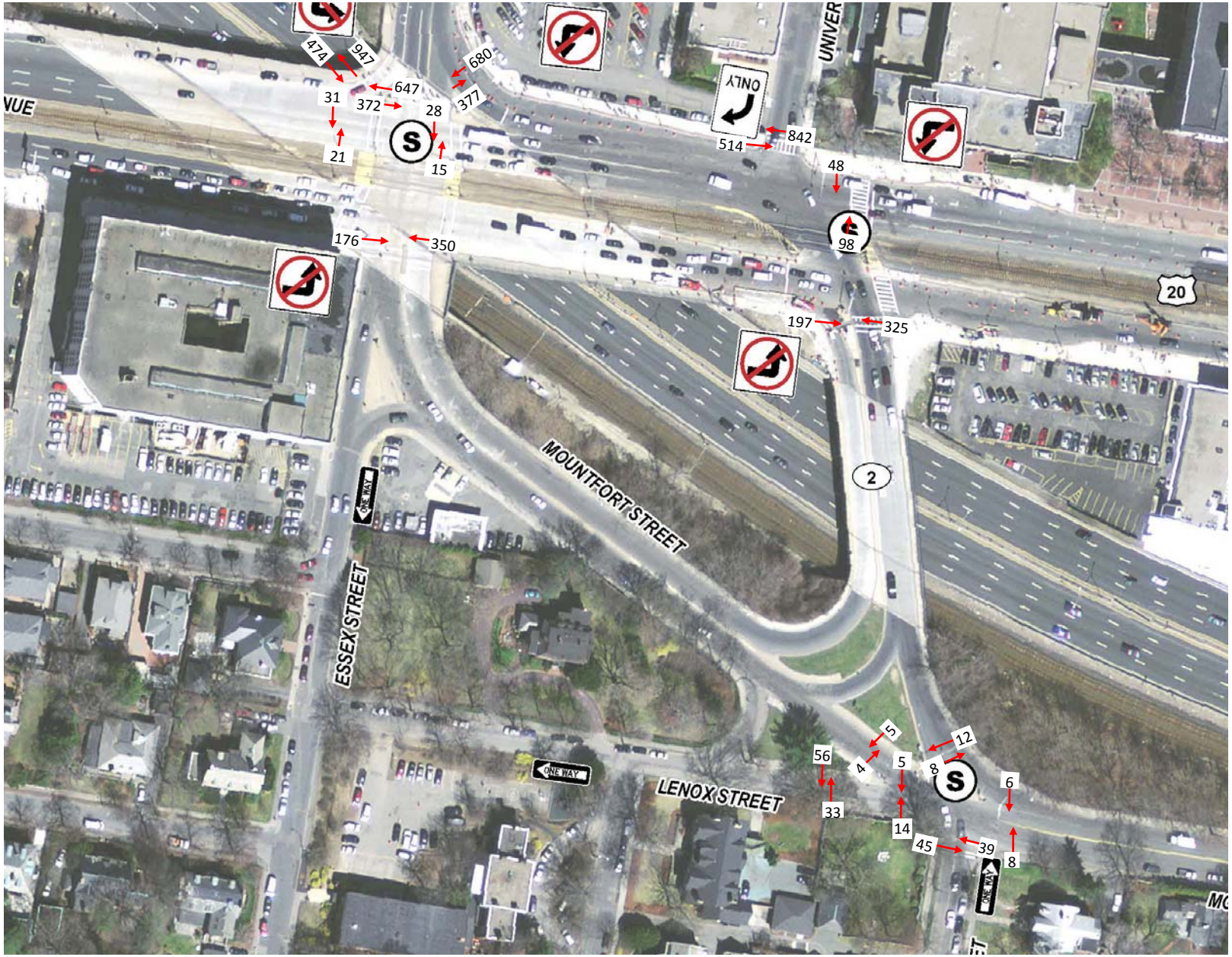


10989.03: Commonwealth Avenue and BU Bridge Regional Safety and Traffic Improvements
BU Bridge Intersection Pedestrian Counts
Count Date: Wednesday, September 14, 2011

PM Peak Hour: 5:00-6:00 PM



10989.03: Commonwealth Avenue and BU Bridge Regional Safety and Traffic Improvements PM Peak Hour: 5:00-6:00 PM
BU Bridge Intersection Pedestrian Counts
Count Date: Wednesday, September 14, 2011



Vanasse Hangen Brustlin, Inc.

To: Mark Gravallese
MassDOT

Date: February 27, 2012

Project No.: 10989.03

From: Don Cooke, P.E., P.T.O.E.
Ana Fill, P.E.
Nicolette Hastings, P.E.

Re: Interim Observations and Calibration Regional Safety and Traffic Improvements on Commonwealth Avenue

At the request of MassDOT, VHB conducted additional traffic data collection and observations on the BU Bridge on January 25, 2012 to assist in the evaluation of implemented interim conditions and to refine the BU Bridge Final Condition analyses. As part of this effort, automatic traffic recorder (ATR), manual turning movement counts (TMC), queue observations, and saturation flow rate observations were performed. This memorandum summarizes the field observations and analyses verification.

DATA COLLECTION AND FIELD OBSERVATIONS

ATR Data Collection

For a period of 7 days, from Wednesday January 25, 2012 through Tuesday January 31, 2012, 24-hour traffic volumes were collected over the BU Bridge. Table 1 summarizes the volumes:

Table 1
BU Bridge Daily Traffic Volumes Summary

Day	Daily	Morning Peak Hour (8:00-9:00 AM)	Midday Peak Hour (varies)	Evening Peak Hour (5:00-6:00 PM)
Sunday (1/29/2012)	18,200	470	1,460	1,320
Monday (1/30/2012)	24,000	2,060	1,350	1,870
Tuesday (1/31/2012)	24,400	2,075	1,360	1,825
Wednesday (1/25/2012)	27,400	2,170	1,575	2,245
Thursday (1/26/2012)	27,200	2,145	1,520	2,220
Friday (1/27/2012)	28,400	2,175	1,715	2,145
Saturday (1/28/2012)	22,500	755	1,620	1,505

Source: VHB, Inc. Based on automatic traffic recorder (ATR) counts conducted in January 2012.

TMC Data Collection

The following data were collected on January 25, 2012. The conditions were typical, with no inclement weather (sunny), no incidents in the vicinity of the bridge, etc. Weekday morning (7:00 –

9:00 AM) and weekday evening (4:00 – 6:00 PM) peak period TMC's were conducted at the following study area intersections:

- Commonwealth Avenue/BU Bridge/Essex Street (Boston)
- Commonwealth Avenue/Carlton Street (Boston)
- Mountfort Street/Carlton Street/Lenox Street (Brookline)
- BU Bridge/Reid Rotary (Cambridge)

Traffic Volume Comparison

Given that the BU Bridge had been under construction since 2008 "existing" condition traffic volumes were not readily available prior to the January 2012 data collection effort. Therefore, the Working Group had to establish an existing condition based on previously (prior to 2008) conducted counts. A number of counts were compiled and reviewed, and a "base" condition was developed for the morning and evening peak hours. Similarly, post-construction conditions were not available until recently. To estimate post-construction conditions, the ABP Charles River Basin travel demand model was used to provide a starting point regarding expected traffic shifts due to the reduction of vehicular travel lanes (four to three) on the bridge. The Working Group agreed to deduct half of the traffic volumes projected to shift away from the bridge by the model from the "existing" conditions volumes.

Attachments 1 and 2 show the post-construction volumes for the morning and evening peak hours, respectively, agreed upon by the Working Group to be utilized in the BU Bridge final condition analyses while Attachments 3 and 4 depict the actual morning and evening peak hour counts collected on January 25, 2012. Finally, Attachments 5 and 6 summarize the difference between the volumes.

As can be seen in Attachments 5 and 6, the actual January 2012 observed traffic volumes on the bridge are lower than those established by the working group for use in the final condition analyses, with a few exceptions. Across the bridge, a reduction of approximately 100 vehicles per hour traveling southbound (from Cambridge into Boston) during the morning peak hour was observed, while reductions of approximately 300 vehicles per hour were observed for vehicles traveling northbound (from Boston into Cambridge) during the morning peak hour and in both directions during the evening peak hour. Commonwealth Avenue (eastbound and westbound) volumes observed in January 2012 are typically greater than those established by the working group.

It should be noted that construction on the BU Bridge has only finished recently; therefore, it is plausible that not all travelers who diverted to other locations during the long construction period have fully returned or that they may do so in the future. Another data collection program is scheduled to be conducted in April 2012 which can be used to verify if the traffic reduction observed is a temporary or more permanent phenomenon.

Queue Observations

Concurrent with TMC data collection, VHB observed and recorded detailed queue data for the BU Bridge approach to Commonwealth Avenue. The last vehicle in the stopped queue and an approximate queue length (in feet, when the signal turns green) were recorded for each cycle. Additionally, qualitative queuing observations were conducted for the Reid Rotary, Commonwealth Avenue right-turn onto the BU Bridge, and on Essex Street/Mountfort Street/Carlton Street. A copy of the pavement marking and sign plan is attached.

<u>BU Bridge Southbound</u>

The BU Bridge southbound right-turn lane has approximately 135 to 150 feet of full storage space; however, it was observed that vehicles utilized the transition portion of the lane as well during times

when the demand to this approach is high. In these instances, the lane was able to store up to 10 vehicles, which translates to a queue length of 200 to 250 feet depending on the spacing of the vehicles (on average the spacing was 25 feet).

During the morning peak hour, the average queue was approximately 60 feet while the 95th percentile queue was 65 feet. It should be noted that vehicles turning on red were not counted as part of the queue determination. Further, during several cycles vehicles were not able to access the right-turn lane due to it being blocked by vehicles in the through lanes. This occurrence supports the need to use a short-lane methodology as only a portion of right-turning demand per cycle use the lane without interference from adjacent lane's traffic During the evening peak hour, the observed average queue was approximately 105 feet while the 95th percentile was approximately 225 feet. Similar to the morning peak hour, the right-turn lane was often blocked by through vehicles.

The two BU Bridge southbound through lanes were observed separately. The "main" (outside) through lane – extending through the entirety of the bridge – experienced queues of approximately 170 feet on average and 340 feet for the 95th percentile during the morning peak hour. During the evening peak hour the average queue was approximately 285 feet and the 95th percentile was approximately 480 feet. As previously mentioned, the queues were measured to the last stopped vehicle prior to the signal turning green. Based on this assumption, the queue never extended up to the rotary. However, a "rolling" queue was present during most of the evening peak hour. This may give the impression of a longer bridge queue that extends to the rotary during portions of the evening peak hour (e.g., 20 to 30 minutes).

The inside through lane, which has approximately 450 feet of storage, was underutilized. During the morning peak hour the average queue was approximately 75 feet while the 95th percentile was 125 feet, and during the evening peak hour the average queue was approximately 50 feet and the 95th percentile 150 feet. It is possible that this lane will be better utilized as drivers return to the bridge and get more familiar with the new lane configuration.

Commonwealth Avenue Westbound

The Commonwealth Avenue single westbound right-turn's (onto the BU Bridge) storage length is around 250 feet, which translates into approximately 10 vehicles. However, during peak hours, vehicles stack side by side significantly increasing the number of vehicles that can be stored. It should be noted that there is a bus stop located near the beginning of the lane, which interferes with the lane's processing when a bus is letting passengers on and off. During the morning peak hour, the lane was able to accommodate the current (January 2012) demand within its storage even when buses were present. During the evening peak hour, the queue spilled back onto the mainline of Commonwealth Avenue towards Carlton Street at times blocking the Commonwealth Avenue westbound through movement. It was observed that during the evening peak hour the majority of vehicles utilizing this lane were coming from Carlton Street and that for a period of time prior to the Carlton Street signal turning green, the lane is actually empty of vehicles during the majority of cycles. Further, the vehicles arriving from Carlton Street were stopped at the right-turn lane for a few seconds before being released onto the bridge, thus building up the queue. The timing between these two signals should be reviewed to determine whether an offset adjustment is possible to reduce the queuing on this approach.

Essex Street Northbound

The Essex Street approach to the bridge has been recently formalized into a one-lane approach reducing the storage space for queuing. Currently, the storage length for this approach is approximately 900 feet to Commonwealth Avenue. During the morning peak hour, the queue was observed to extend to the middle of the Carlton Street bridge on a consistent basis. Three times during this period, the queue extended as far as the intersection of Carlton Street and Commonwealth Avenue; however, during none of these instances did the queue actually spill into

Commonwealth Avenue. At no point did the queue interfere with the operations of Commonwealth Avenue eastbound through traffic. During the evening peak hour, the queue only extended approximately half-way to the Carlton Street/Mountfort Street intersection.

Reid Rotary

The Memorial Drive westbound off-ramp queues only extended to approximately half the storage distance from the rotary to Memorial Drive during both peak hours. It should be noted, however, that vehicles queued in both lanes of the ramp to move into the rotary (i.e., the right-turn ramp lane was not solely used for vehicles destined to Brookline Avenue). If vehicles destined to move into the rotary were confined to a single lane, the queues would become significantly longer and threaten to spill onto Memorial Drive. Similarly, the Memorial Drive eastbound off-ramp queues did not extend beyond half of the available storage distance from the rotary to Memorial Drive during the evening peak hour. During the morning peak hour, this observed queue was even shorter. The rotary approach onto the BU Bridge was fairly congested during the evening peak hour (due to the reduction of the bridge to one southbound lane) with queues extending around the rotary almost to Brookline Avenue. Also, vehicles tended to queue in two lanes (actually spilling into the bike lane) and only merging at the bridge entrance. Finally, the BU Bridge northbound queues into the rotary were easily accommodated within the available storage on the bridge.

Saturation Flow Rate Observations

Concurrent with TMC data collection and queue observations, VHB measured saturation flow rates for each lane of the BU Bridge approach to Commonwealth Avenue. The data collection technique followed the procedures outlined in the Highway Capacity Manual (HCM)[1]. Specifically, VHB started a stop watch at the beginning of the green interval for the approach and recorded the time when the front axle of each vehicle crossed the stop line for that cycle. Measurements were taken for each cycle in the observation time period. The period of saturation flow begins when the front axle of the fourth vehicle crosses the stop line and ends when the last queued vehicle crosses the stop line, even if the last vehicle joined the queue during the green indication.

To reduce the data collected in the field, the following formulas were used:

Average Saturation Headway per Cycle:

[(Time Recorded for Last Vehicle in Queue) – (Time Recorded for 4th Vehicle in Queue)]/
[(Number of Last Vehicle) – 4] = Average Saturation Headway in sec/veh

Saturation Flow Rate per Cycle:

3,600 / Average Saturation Headway = Saturation Flow Rate in veh/hr/lane

It should be noted, that because the intersection was not operating at or near capacity for the southbound approach, especially during the morning peak hour, a number of observations were not reliable with regard to reflecting true saturation flow rates. The "Manual of Transportation Engineering Studies" from ITE, indicates that if the queue on the approach is less than seven vehicles long when the signal turns green, the measurement is not accurate because such queues provide unstable data. Further, given that this approach receives a relatively large amount of green time, a long headway between the fourth vehicle and the last vehicle may be due to lack of current (January 2012) demand as opposed to a low saturation flow rate. Each instance will yield a lower saturation

[1] Transportation Research Board, *Highway Capacity Manual*, Washington, D.C., 2000.

flow rate, which will in turn result in an overly conservative (i.e. low) estimate of ideal or actual saturation flow rates.

As will be discussed in the next section, the originally proposed (volume adjustment based) short-lane methodology produces fairly accurate results when compared with the field observations in January 2012. Consequently, given the challenges and short comings encountered on the determination of saturation flow rates for the BU Bridge southbound approach, VHB recommends that the volume-based short-lane methodology continue to be used for the BU Bridge final conditions analyses.

ANALYSIS CALIBRATION

Using the data collected above, VHB verified the short-lane analysis procedures currently being used (i.e., volume based). A description of the volume based short-lane analysis procedure is provided below followed by a summary of the observed results.

Short-Lane Methodology: Volume Adjustment

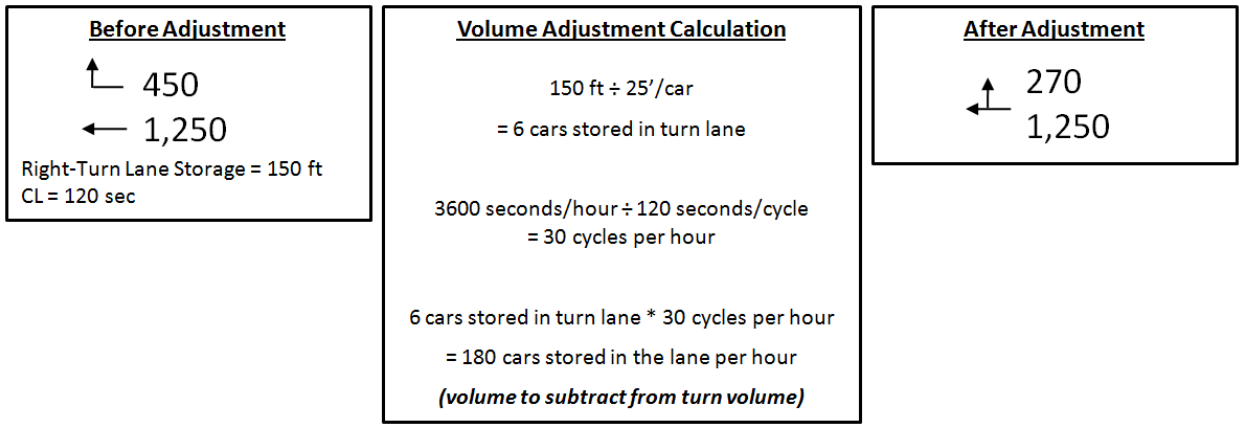
This methodology involves both a volume adjustment to the number of vehicles being processed in the short lane and a change in the analysis geometry for the approach containing the short lane. The details of the volume adjustment include:

Length of turn lane ÷ 25'/car = # cars that can be stored in turn lane

3600 seconds ÷ cycle length = # cycles per hour

cars that can be stored in turn lane/cycle X # cycles per hour = # of cars that can be stored in the lane per hour

The number of cars that can be stored in a short lane within an hour is ***subtracted*** from the total turn volume. The remaining volume is those cars that will be trapped in the through queue because access to the turn lane will be blocked. To model this, the turn lane is removed from the analysis and the turning movement is accommodated in the adjacent through lane. For example, if the existing geometry consists of a through lane and a short right-turn lane, the adjusted geometry would consist of one shared through/right-turn lane with a reduced number of right-turning vehicles:



Utilizing this volume adjustment and not modeling the turn lane in Synchro depicts a more realistic representation of operations, however, it may on occasion be somewhat conservative in its results. For example, if a particular phase's green time extends appreciably longer than the time it takes to discharge the queue stored in the short lane, in reality you may be getting some additional processing from the short lane than is reflected in the volume adjustment methodology.

Short-Lane Methodology Result Comparison

VHB used the geometric conditions, the signal timings provided by BTD, and the traffic volumes collected on January 25, 2012, and applied the short-lane volume based adjustments described above. As mentioned above, VHB also confirmed that the vehicle spacing at the BU Bridge is 25 feet on average.

As can be seen in Table 2, both the average and the 95th percentile queues calculated in the Synchro analysis (using a volume based short lane adjustment) during the morning peak hour are very similar to those observed in the field. During the evening peak hour, both the average and the 95th percentile queues calculated in the Synchro analysis (using a volume based short lane adjustment) are more conservative than those observed in the field. This is due to the fact (as explained above) that the green phase during the evening peak hour does indeed extend longer than the time it takes to discharge the queue stored in the right-turn lane. While the lane can store approximately 7 vehicles, an average of 12 vehicles were processed during the observed evening peak hour period. If the methodology is adjusted to reflect that additional vehicles are processed, the average calculated queues are fairly close to the observed queues while the 95th percentile (which is used for design) queues are within feet of the observed queue.

Table 2
BU Bridge Southbound Queue Comparison Summary

Queue (in feet)	Weekday Morning		Weekday Evening		
	Observed [a]	Calculated [b]	Observed	Originally Calculated	Revised Calculation [c]
Average	120'	192'	185'	320'	244'
95th Percentile	230'	255'	315'	407'	312'

Source: VHB, Inc. observed and calculated using Synchro 7 software.
a average of queue observed in the two southbound through lanes
b calculated using short-lane methodology including only vehicles that can be stored in the right-turn lane (7 vehicles)
c calculated using short-lane methodology including vehicles that were actually processed by the right-turn lane (12 vehicles during the evening peak hour)

CONCLUSION

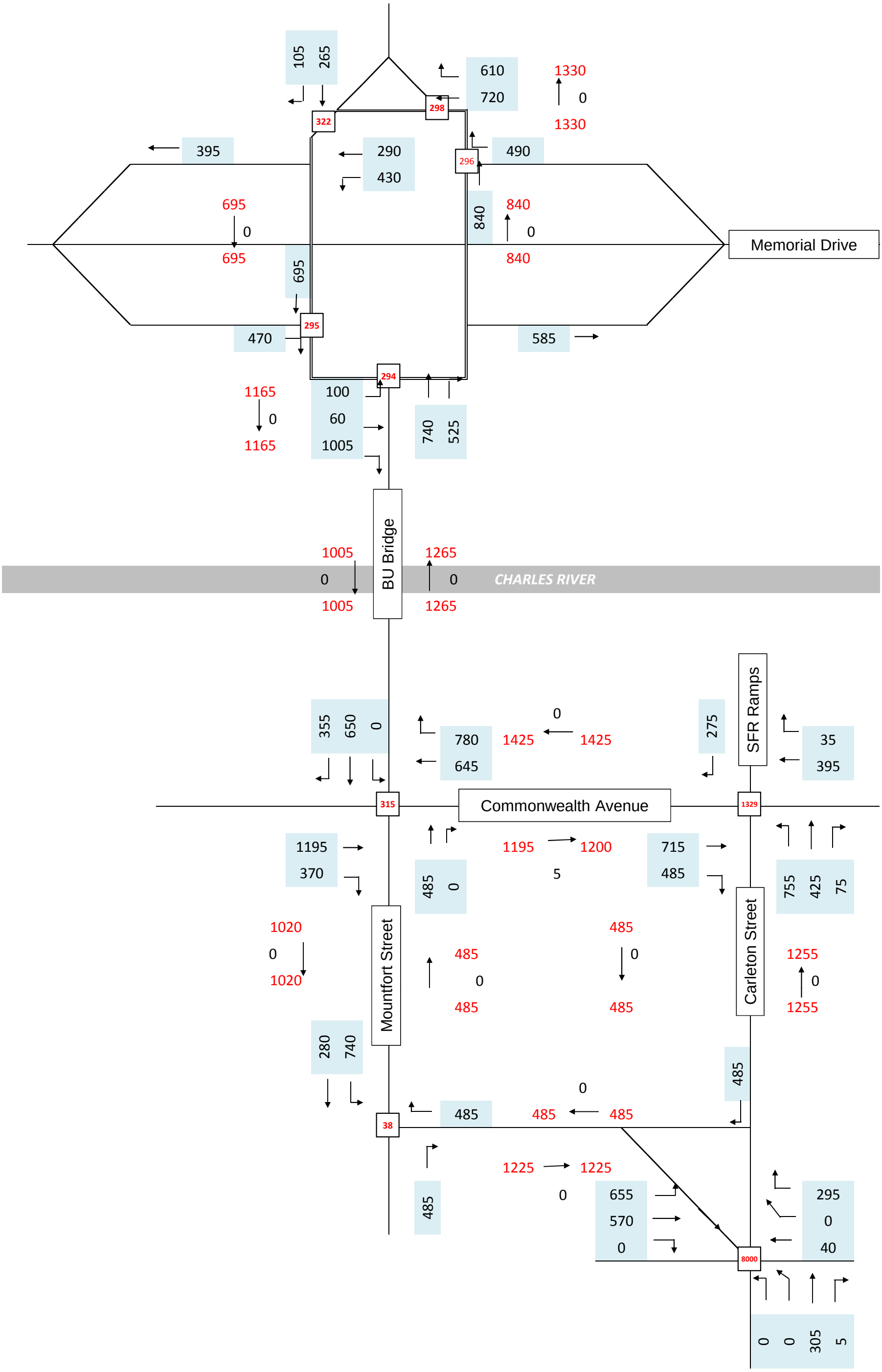
Peak hour volumes observed on the BU Bridge in January 2012 are typically lower than those established by the working group to be used in evaluating interim and final condition alternatives. Volumes on Commonwealth Avenue observed in January 2012 are typically higher than those established by the working group.

Given that the queues estimated by the short lane volume based adjustment (including an evening adjustment to assume 12 vehicles per cycle) are reasonably close to the observed January 2012 queues, it can be inferred that the short-lane methodology used initially in the interim analysis is accurate and appropriate. Therefore, VHB will continue to utilize the proposed volume based short-

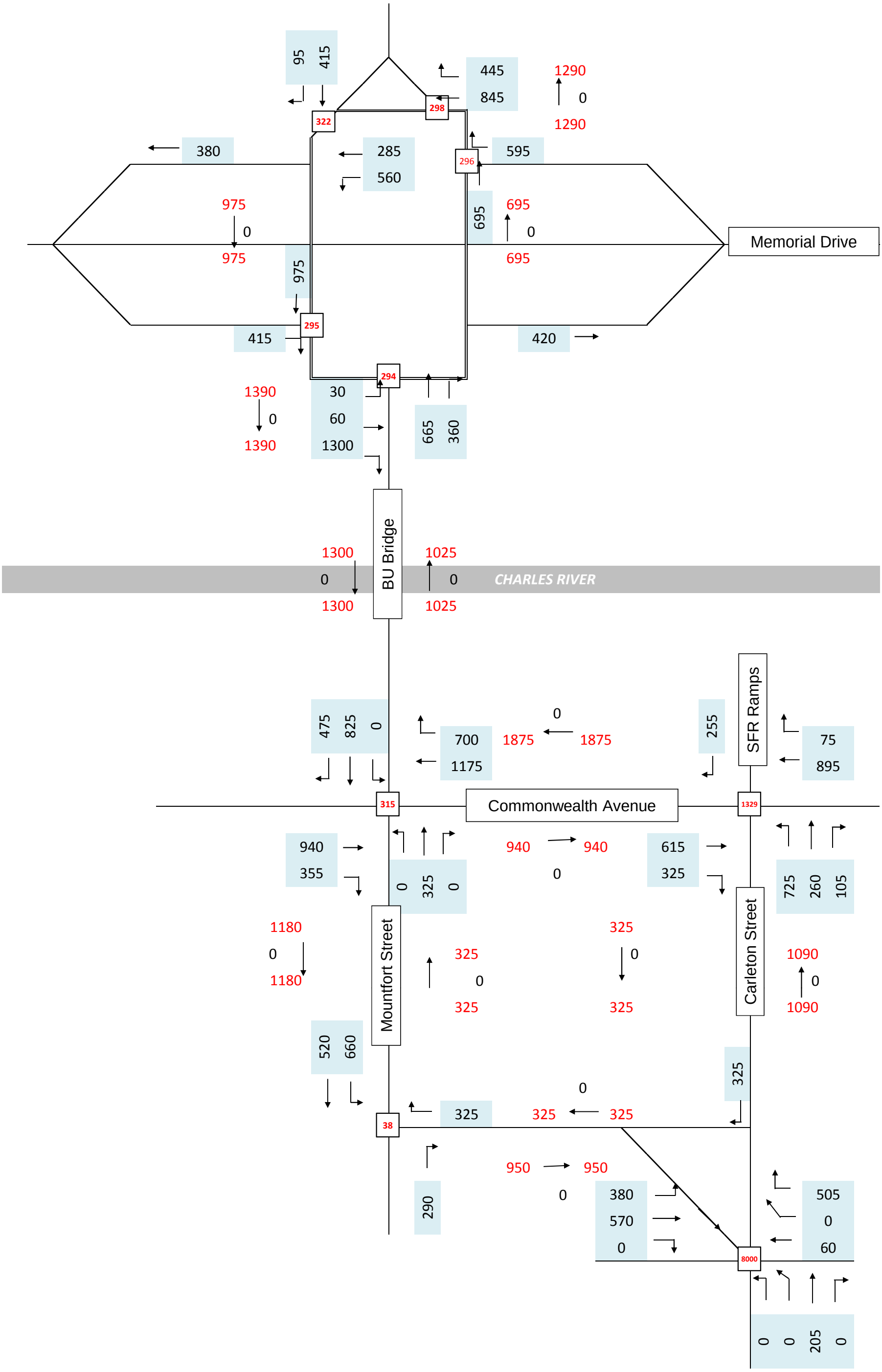
lane methodology initially agreed on by the working group for the BU Bridge Final Conditions analyses. VHB will use, given the field observations, a reduction in the right-turn volumes of 7 vehicles per cycle during the morning peak hour and of 12 vehicles per cycle during the evening peak hour to reflect the actual vehicle processing capacity of the existing southbound right-turn lane from the BU Bridge to Commonwealth Avenue.

Some final condition alternatives will require that a short lane analysis methodology be applied to one of the southbound through lanes (as well as the southbound right-turn lane). Since field data could not be collected for this condition at this time, VHB will use the same volume based adjustment assumptions for the through lane (as utilized for the right-turn lane) until such a time that this condition is implemented and actual empirical information can be obtained.

ATTACHMENT 3: BU BRIDGE INTERIM CONDITION COUNTS
BU BRIDGE STUDY AREA - WEEKDAY MORNING PEAK HOUR



ATTACHMENT 4: BU BRIDGE INTERIM CONDITION COUNTS
BU BRIDGE STUDY AREA - WEEKDAY EVENING PEAK HOUR



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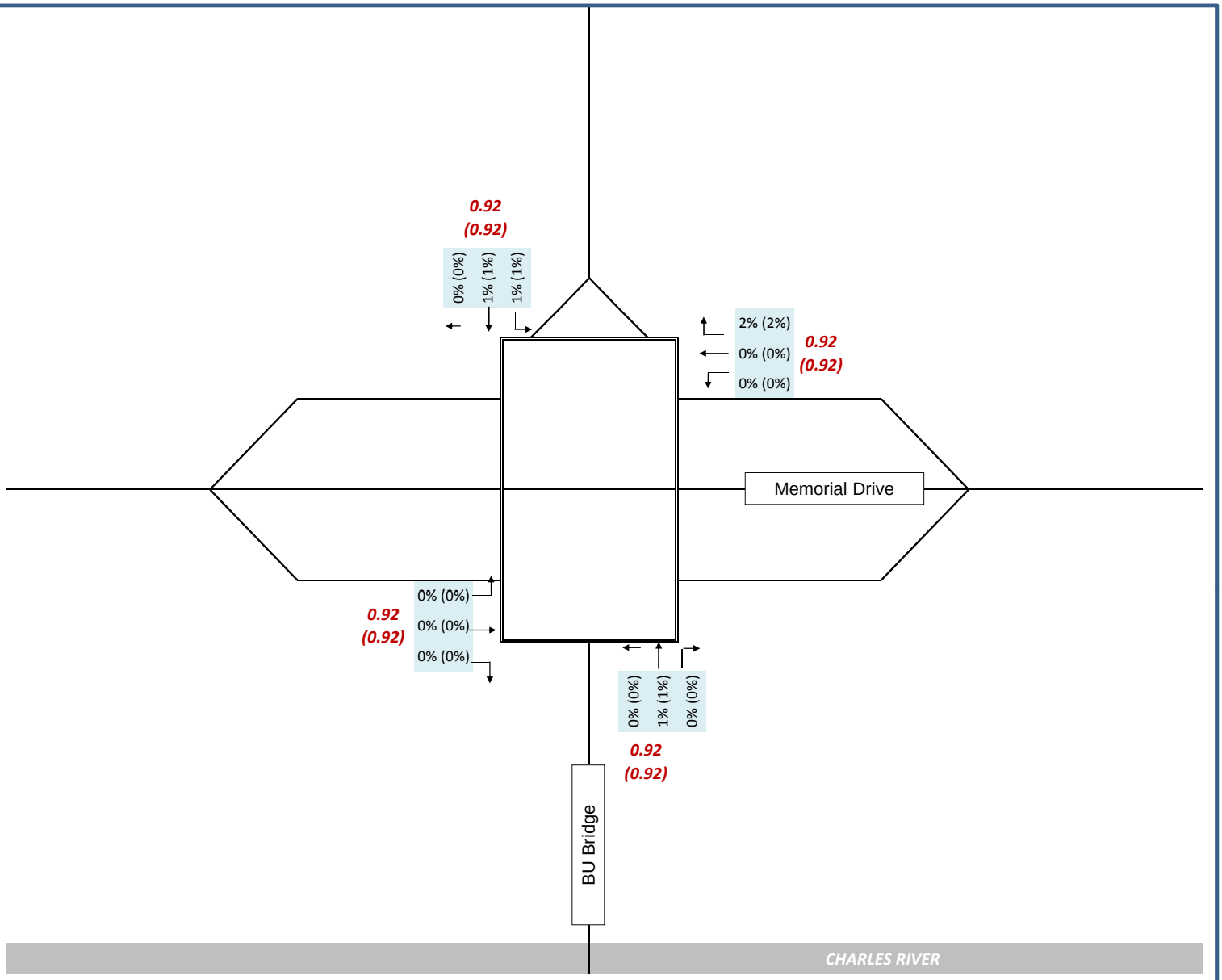
Final Condition Analysis Appendix B
Regional Safety and Traffic Improvements on Commonwealth Avenue

Section 1: Vehicular Traffic Data
Analysis Inputs Summary Table
OD Table
PHF and HV%
Saturation Flow Rate and Lane Utilization

Section 2: Bicycle and Pedestrian Data
Detailed Peak Hour Bicycle and Pedestrian Volumes
PHF Adjusted Pedestrian Volumes

Section 3: Intersection Capacity Analyses
Boston Alternatives
Cambridge Alternatives

SYNCHRO ANALYSIS INPUTS: PHF & HV%
FEBRUARY 2000 RIZZO TMC



LEGEND

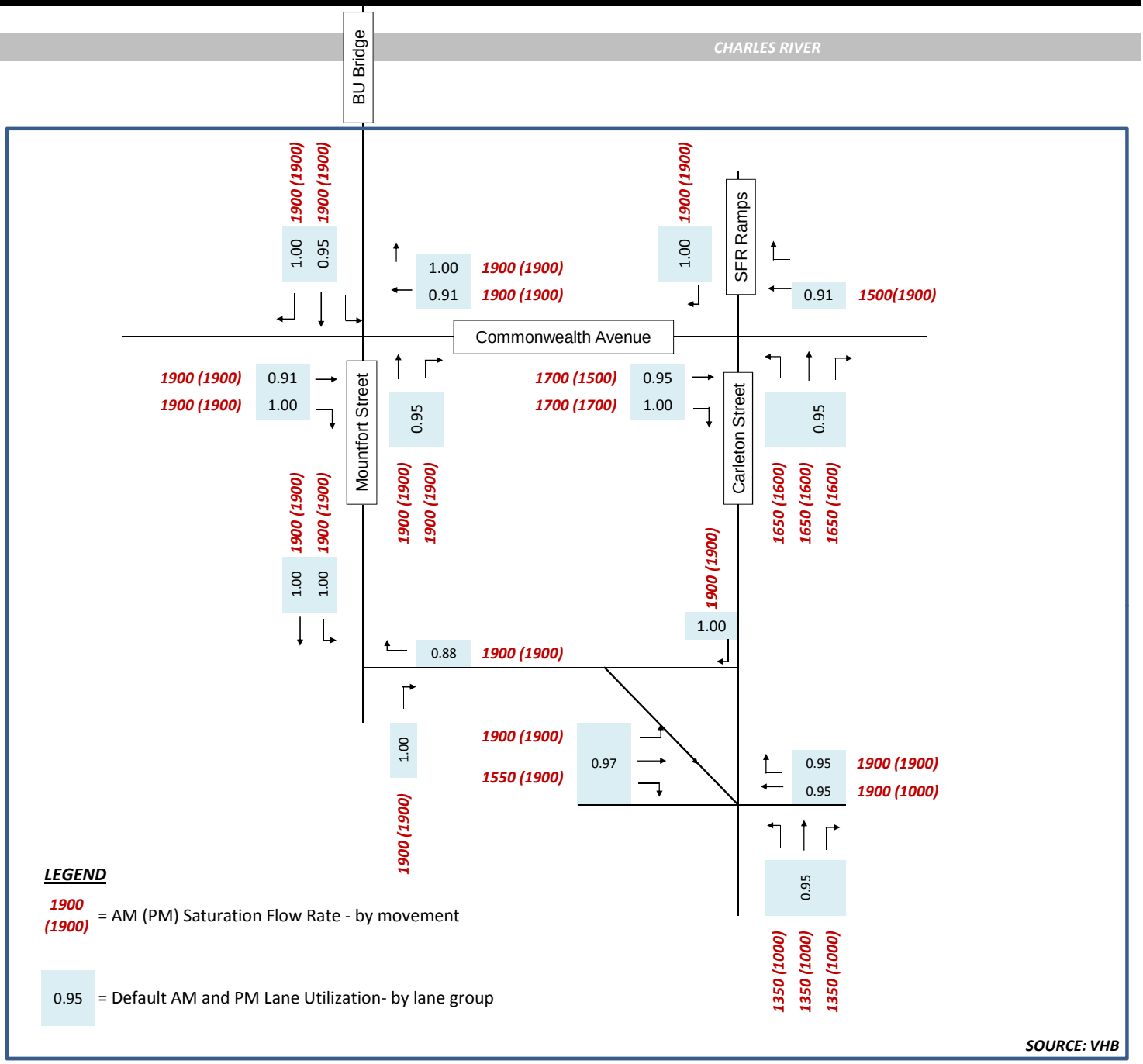
0.92 (0.92) = AM PHF (PM PHF) - by approach (defaults assumed)

5% (5%) = AM HV% (PM HV%) - by movement

Note: Only PM data available, assumed AM & PM the same

SOURCE: FEBRUARY 2000 TMC DATA (HV DATA ONLY)

SYNCHRO ANALYSIS INPUTS
SATURATION FLOW RATE & LANE UTILIZATION

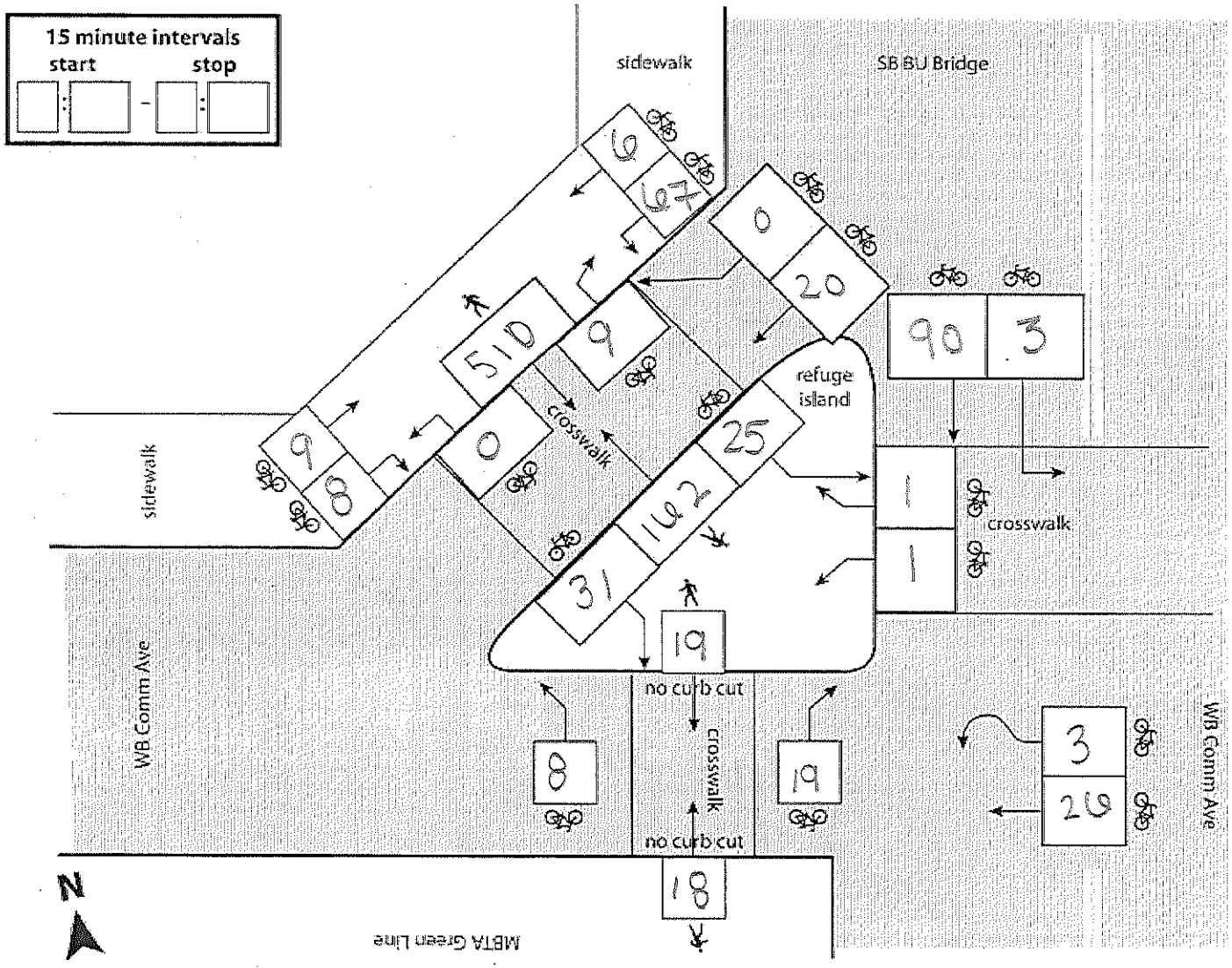


Section 2: Bicycle and Pedestrian Data
Detailed Peak Hour Bicycle and Pedestrian Volumes
PHF Adjusted Pedestrian Volumes

AM PEAK
8:00 - 9:00

6. Commonwealth Ave / Southbound BU Bridge

Fig. 16. Blank Count Form



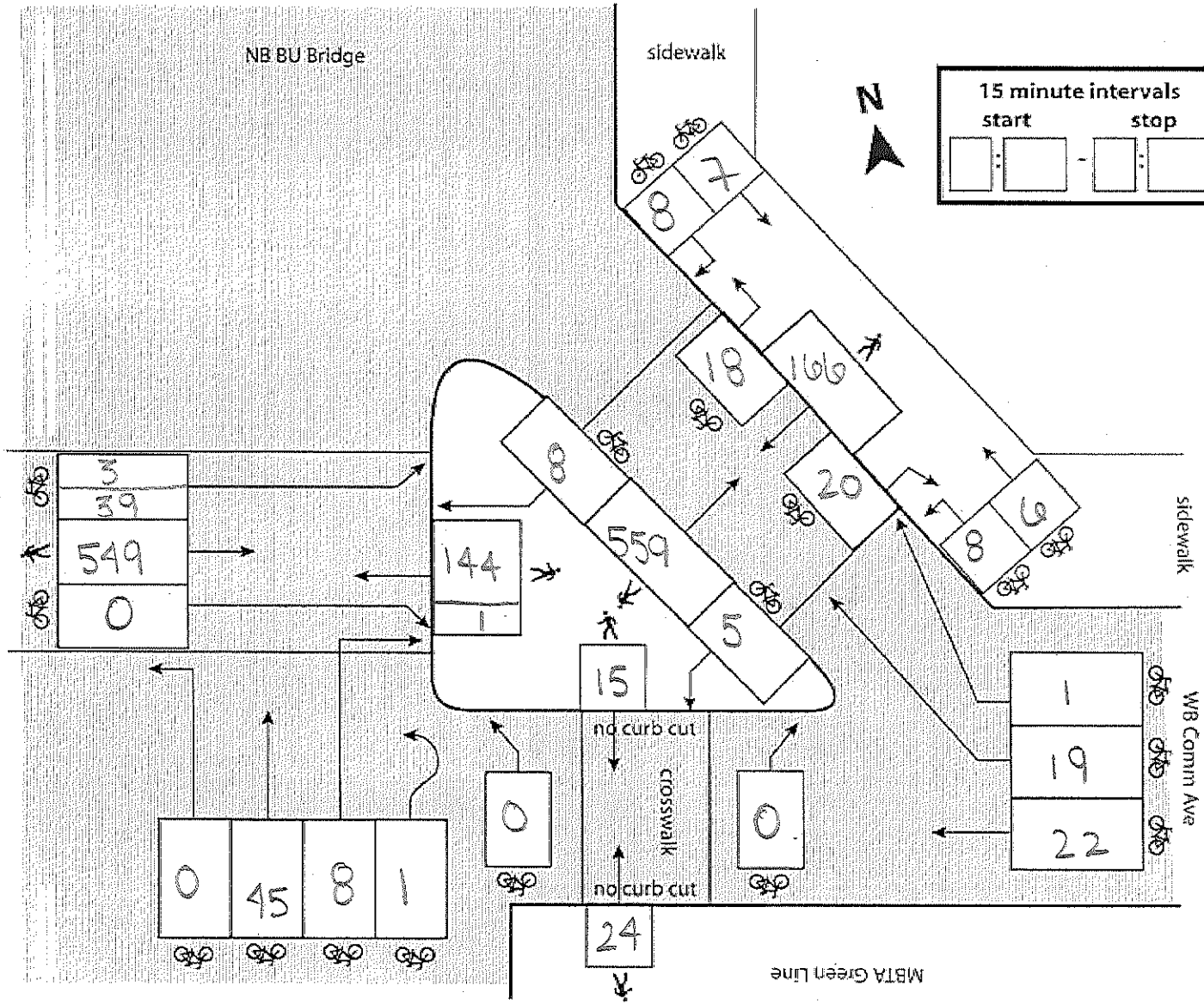
Notes:

- There are no curb cuts on either end of the crosswalk between the pork chop island and the MBTA Green Line median. Bicyclists attempting to use the crosswalk are frequently riding in the roadway.

AM PEAK
8:00 – 9:00

7. Commonwealth Ave / Northbound BU Bridge

Fig. 19. Blank Count Form



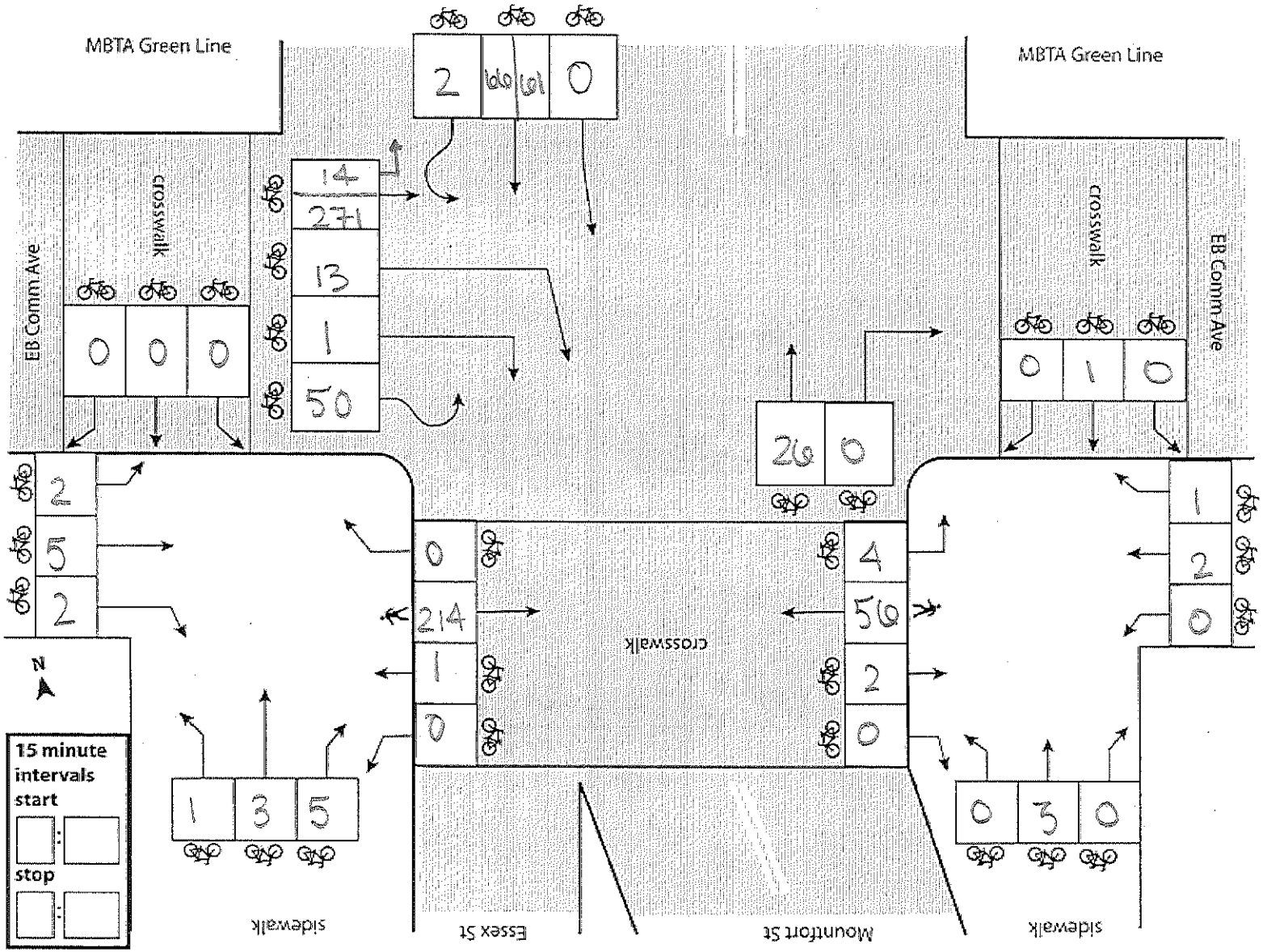
Notes:

- There are no curb cuts on either end of the crosswalk between the pork chop island and the MBTA Green Line median. Bicyclists attempting to use the crosswalk are frequently riding in the roadway.
  An additional movement was added where bicyclists were counted traveling westbound from the pork chop island into the roadway.
- An additional movement was added where bicyclists traveling eastbound in the crosswalk turned left into the roadway to go northbound over the BU Bridge.

AM PEAK
8:00 -9:00

8. Commonwealth Ave / Mountfort St / Essex St

Fig. 22. Blank Count Form



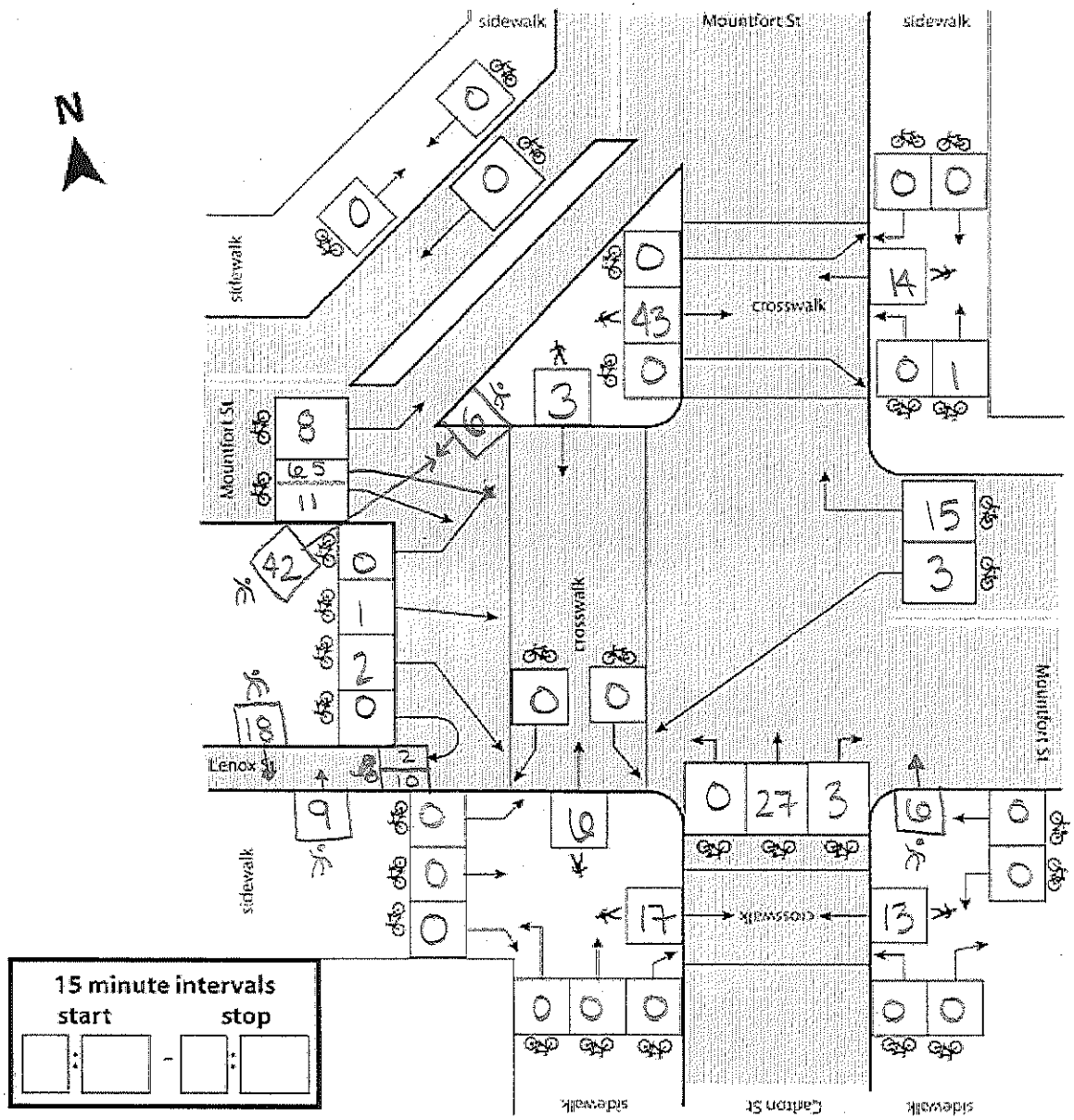
Notes:

- There are no curb cuts at either end of any of the crosswalks in this zone. Bicyclists attempting to use the crosswalk are frequently riding in the roadway.
- An additional movement was added where bicyclists were counted illegally turning left from southbound BU Bridge onto eastbound Comm Ave.
- An additional movement was added where bicyclists were counted illegally turning left from eastbound Comm Ave onto northbound BU Bridge.

AM PEAK
8:00 - 9:00

9. Mountfort St / Lenox St / Carlton St

Fig. 25. Blank Count Form



Notes:

- Pedestrian movements were heavy (and were counted) in 3 areas where there are no crosswalks striped: southeast corner of Carlton/Mountfort to north-east corner, southwest corner of Lenox/ Carlton to corner of Lenox/Mountfort, and corner of Lenox/Mountfort to pork chop island.
- An additional movement was added where bicyclists were traveling east-bound illegally from Lenox St (which is one-way westbound).
- An additional movement was added where bicyclists traveling eastbound on Mountfort St turn south onto the side-walk on Carlton St (because Carlton St is one-way northbound).

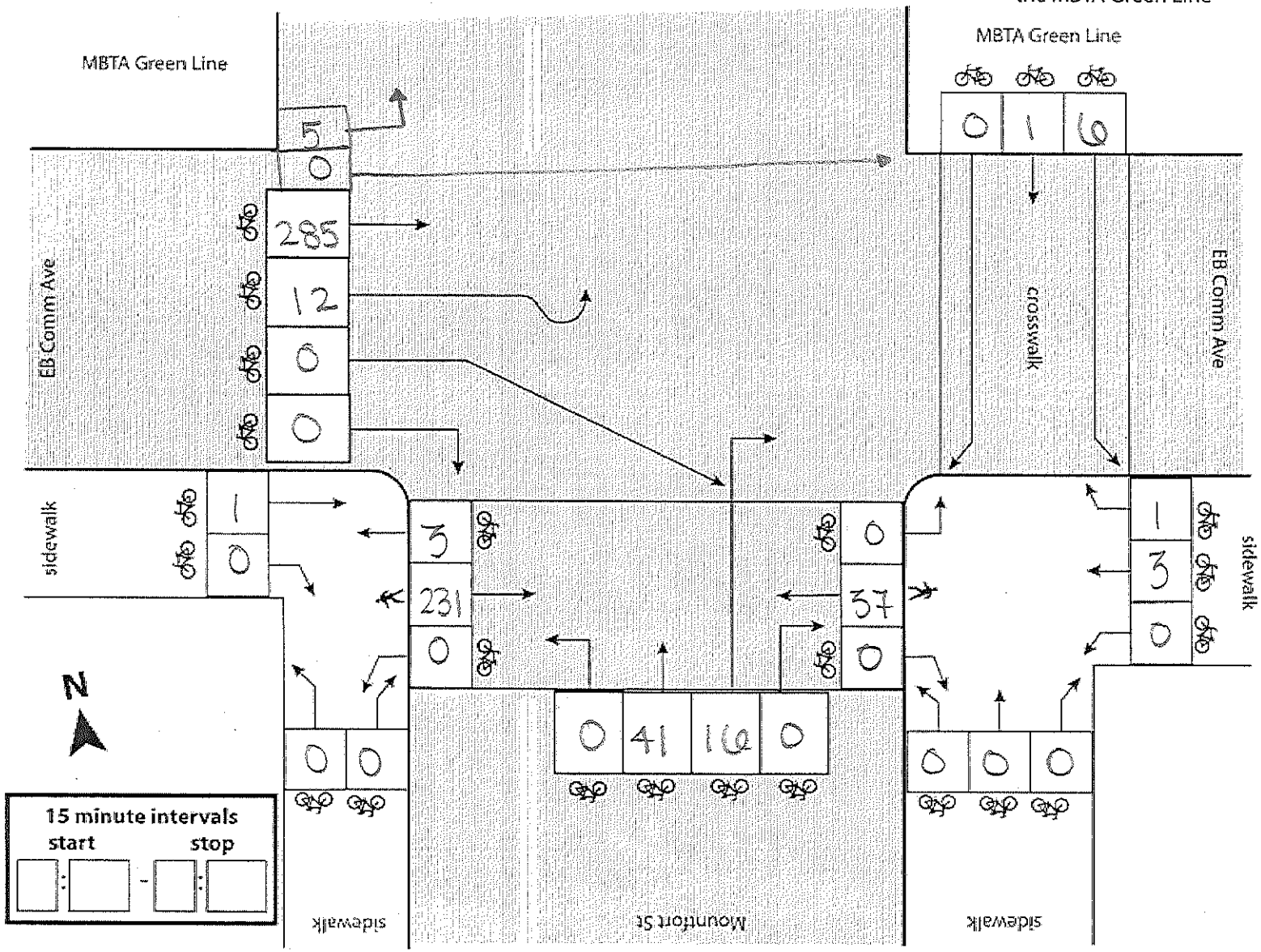
AM PEAK
8:00 - 9:00

10. Eastbound Commonwealth Ave / Mountfort St

Notes:

- Additional movements were added where bicyclists traveling eastbound on Comm Ave illegally turn left and cross the MBTA Green Line

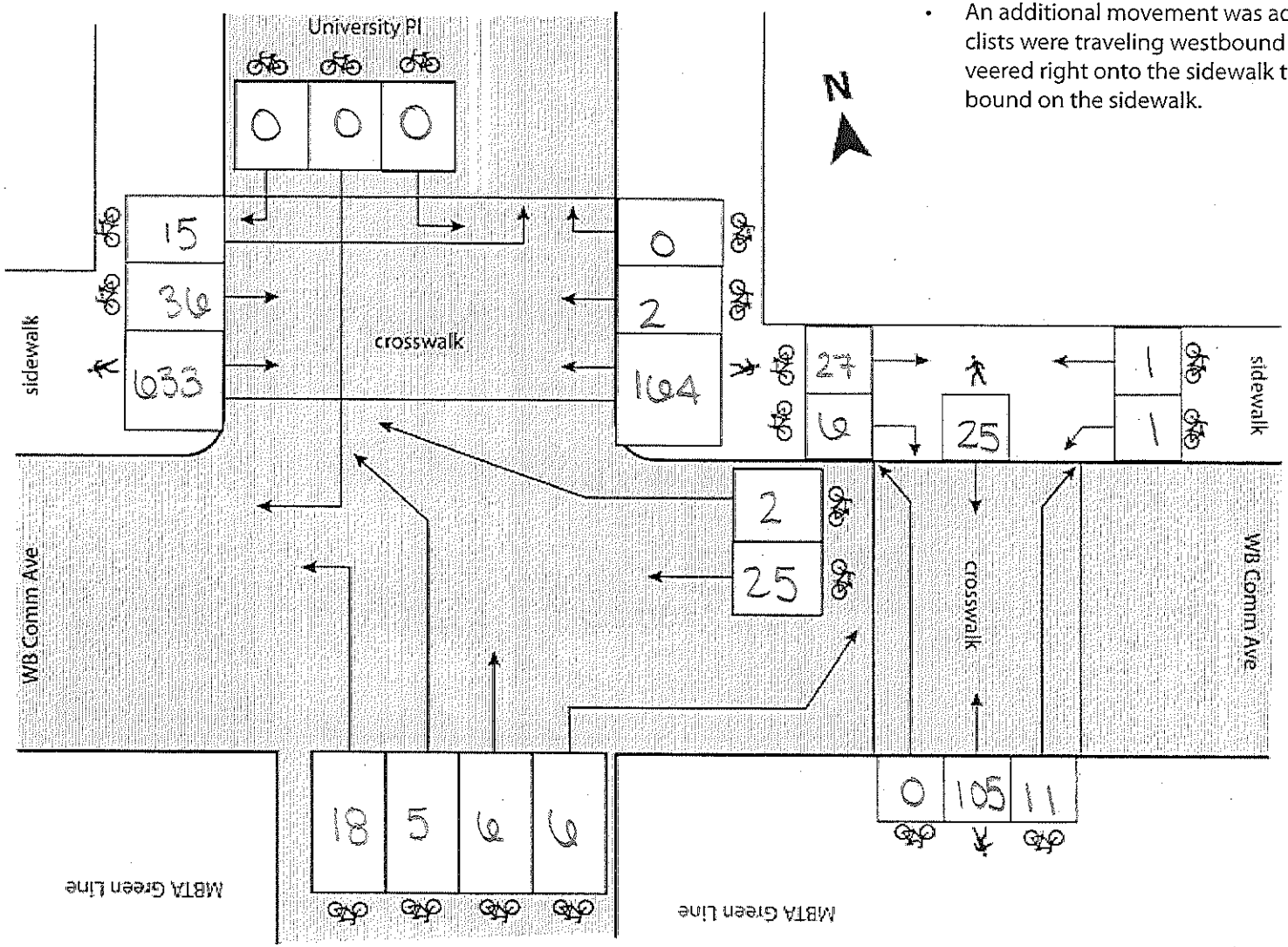
Fig. 28. Blank Count Form



AM PEAK
8:00 - 9:00

11. Westbound Commonwealth Ave / University Pl

Fig. 31. Blank Count Form



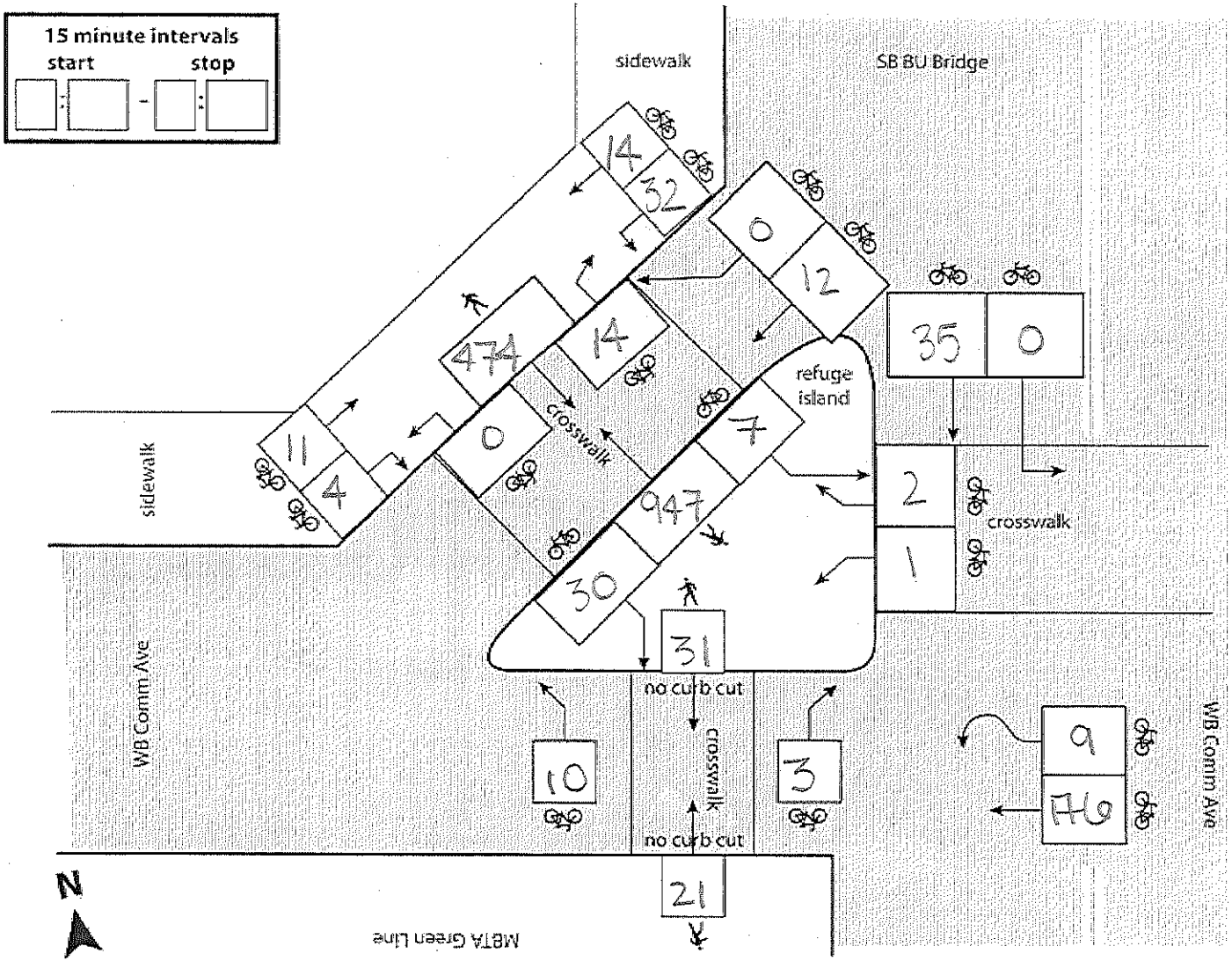
Notes:

- An additional movement was added where bicyclists were traveling westbound on Comm Ave and veered right onto the sidewalk to continue westbound on the sidewalk.

PM PEAK
5:00 - 6:00

6. Commonwealth Ave / Southbound BU Bridge

Fig. 16. Blank Count Form



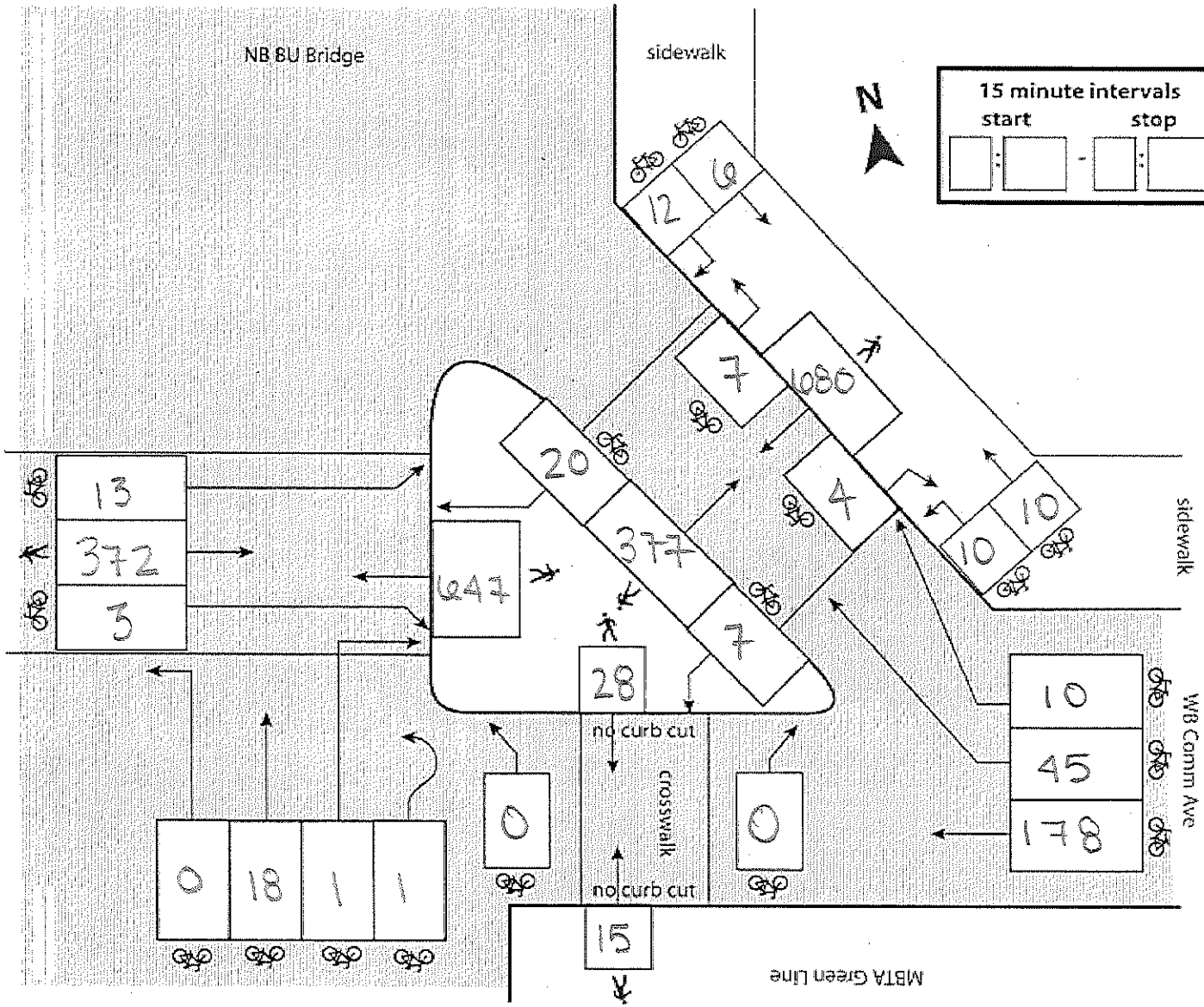
Notes:

- There are no curb cuts on either end of the crosswalk between the pork chop island and the MBTA Green Line median. Bicyclists attempting to use the crosswalk are frequently riding in the roadway.

PM PEAK
5:00 - 6:00

7. Commonwealth Ave / Northbound BU Bridge

Fig. 19. Blank Count Form



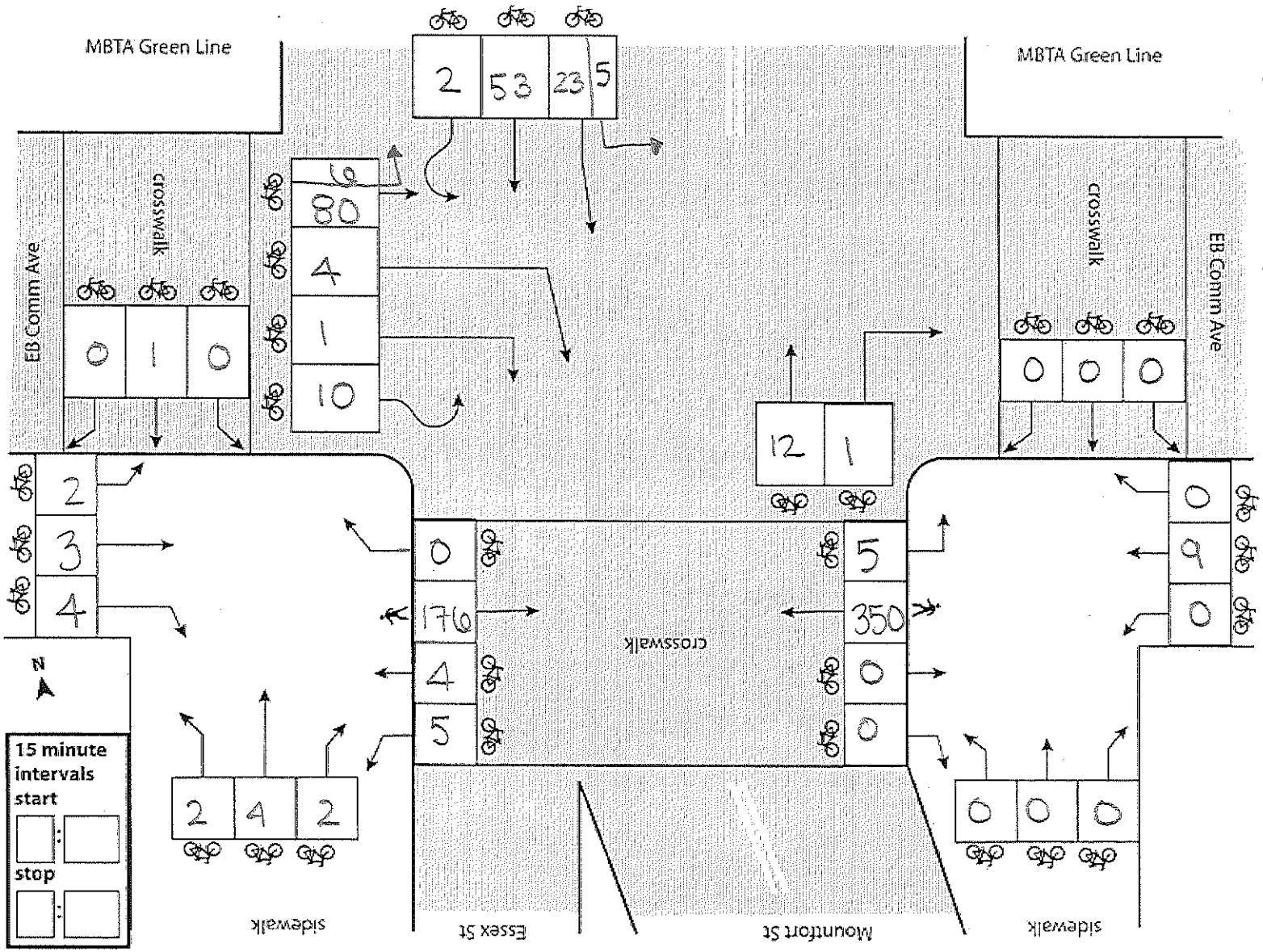
Notes:

- There are no curb cuts on either end of the crosswalk between the pork chop island and the MBTA Green Line median. Bicyclists attempting to use the crosswalk are frequently riding in the roadway.
  An additional movement was added where bicyclists were counted traveling westbound from the pork chop island into the roadway.
- An additional movement was added where bicyclists traveling eastbound in the crosswalk turned left into the roadway to go northbound over the BU Bridge.

PM PEAK
5:00 - 6:00

8. Commonwealth Ave / Mountfort St / Essex St

Fig. 22. Blank Count Form



Notes:

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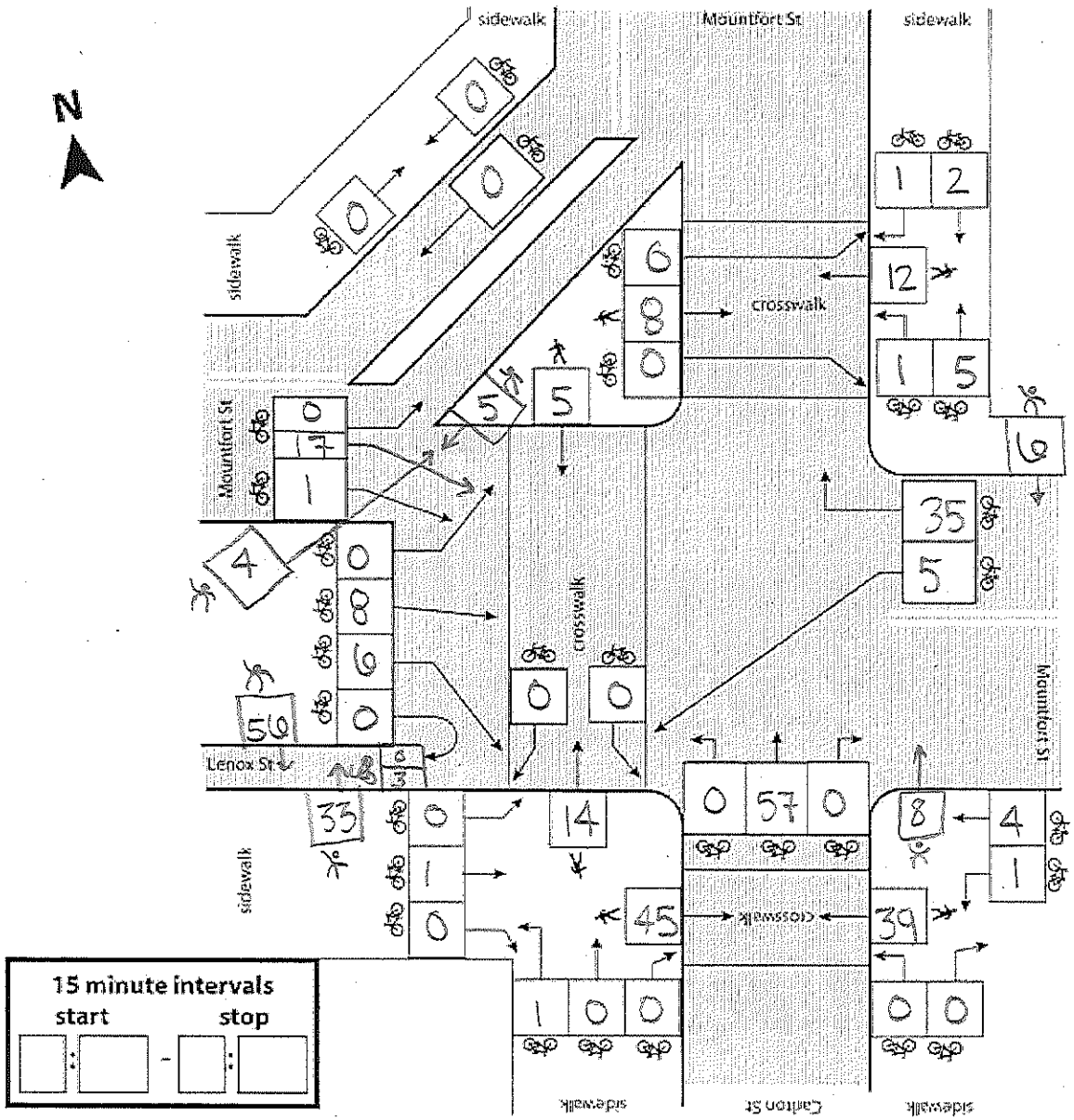
- An additional movement was added where bicyclists were counted illegally turning left from eastbound Comm Ave onto northbound BU Bridge.

PM PEAK
5:00 - 6:00

9. Mountfort St / Lenox St / Carlton St

Fig. 25. Blank Count Form



Notes:

- Pedestrian movements were heavy (and were counted) in 3 areas where there are no crosswalks striped: southeast corner of Carlton/Mountfort to north-east corner, southwest corner of Lenox/ Carlton to corner of Lenox/Mountfort, and corner of Lenox/Mountfort to pork chop island.
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- An additional movement was added where bicyclists traveling eastbound on Mountfort St turn south onto the side-walk on Carlton St (because Carlton St is one-way northbound).

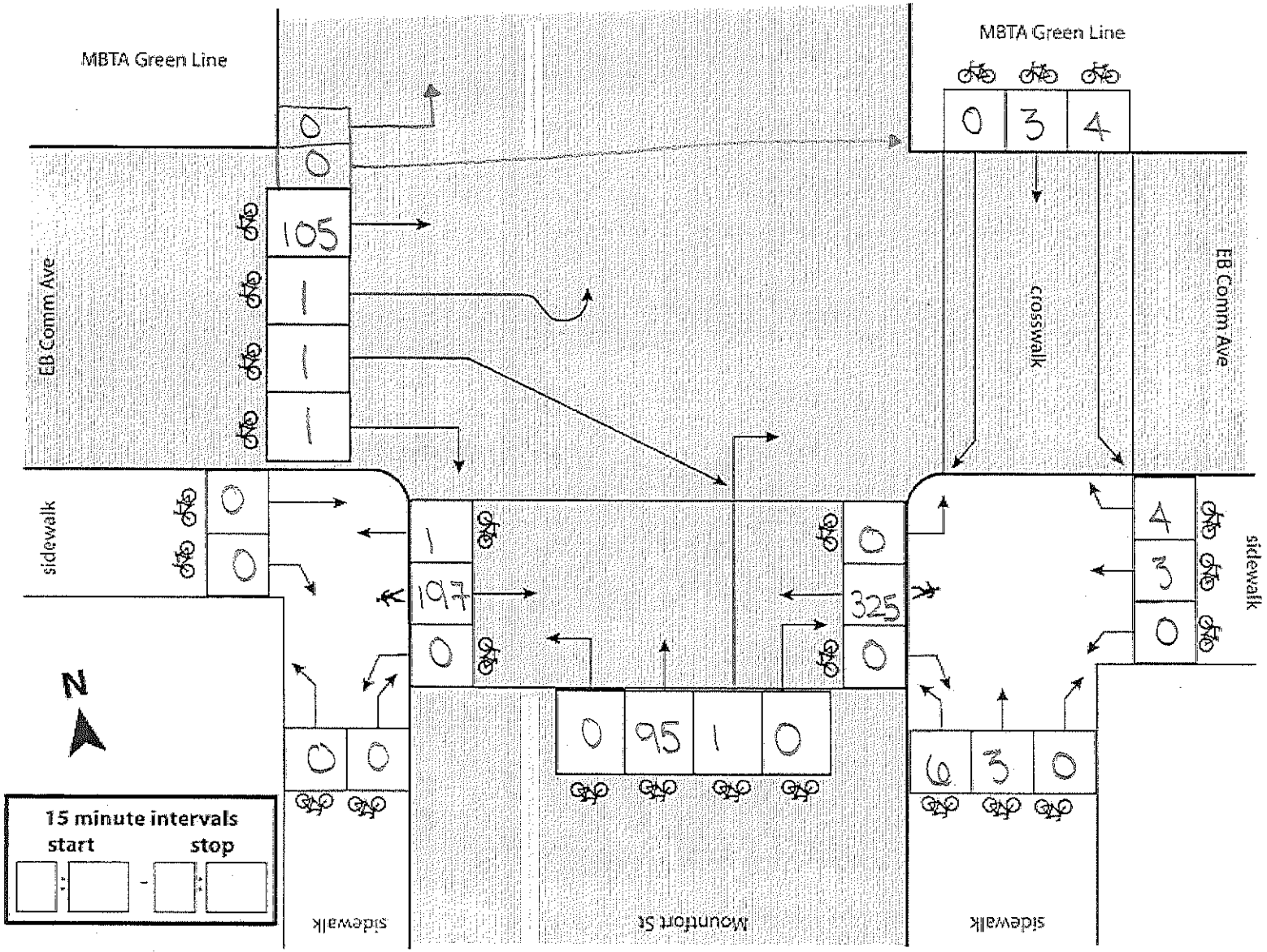
PM PEAK
5:00-6:00

10. Eastbound Commonwealth Ave / Mountfort St

Fig. 28. Blank Count Form

Notes:

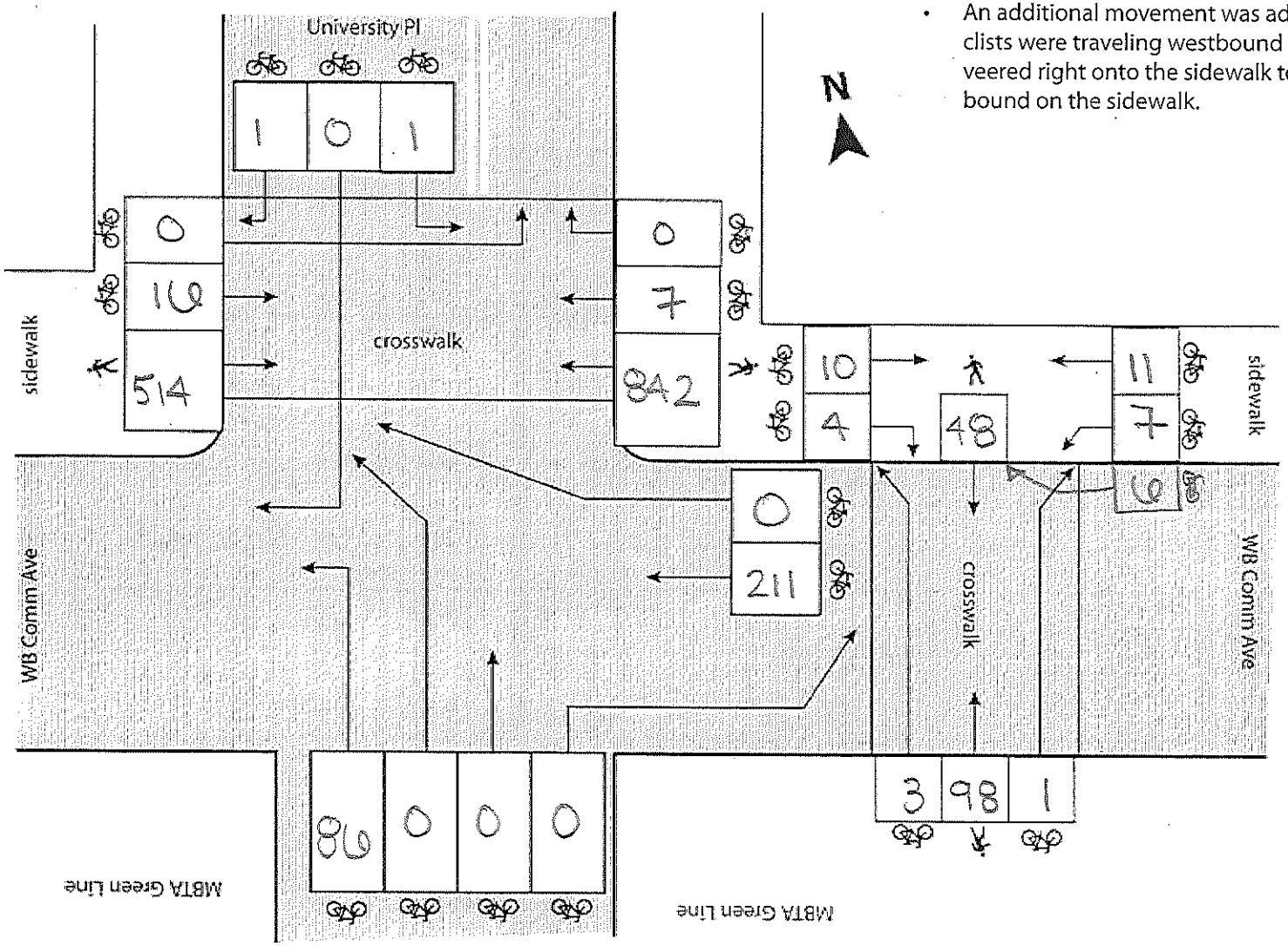
- Additional movements were added where bicyclists traveling eastbound on Comm Ave illegally turn left and cross the MBTA Green Line



PM PEAK
5:00 - 6:00

11. Westbound Commonwealth Ave / University Pl

Fig. 31. Blank Count Form



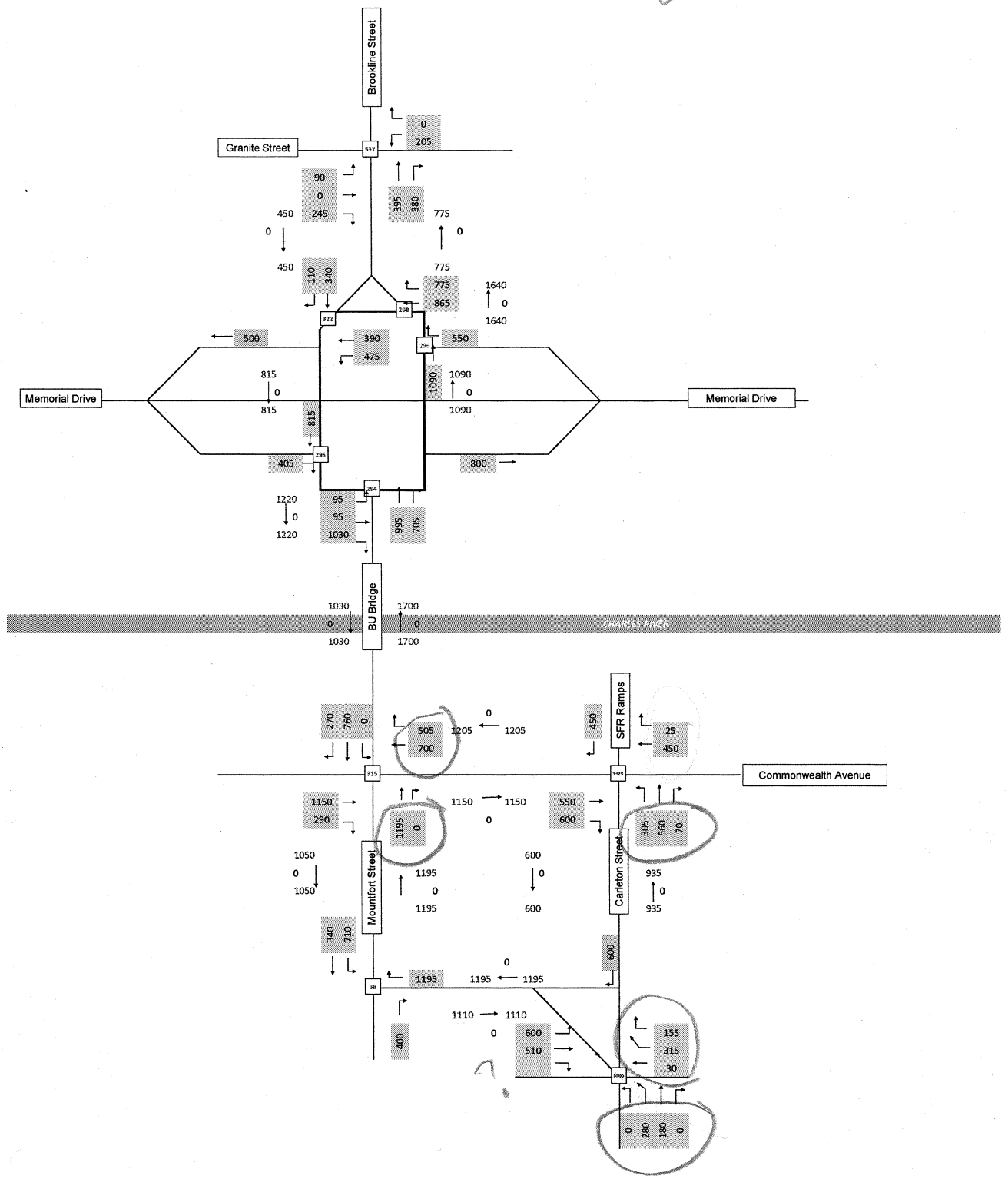
Notes:

- An additional movement was added where bicyclists were traveling westbound on Comm Ave and veered right onto the sidewalk to continue westbound on the sidewalk.

Source:

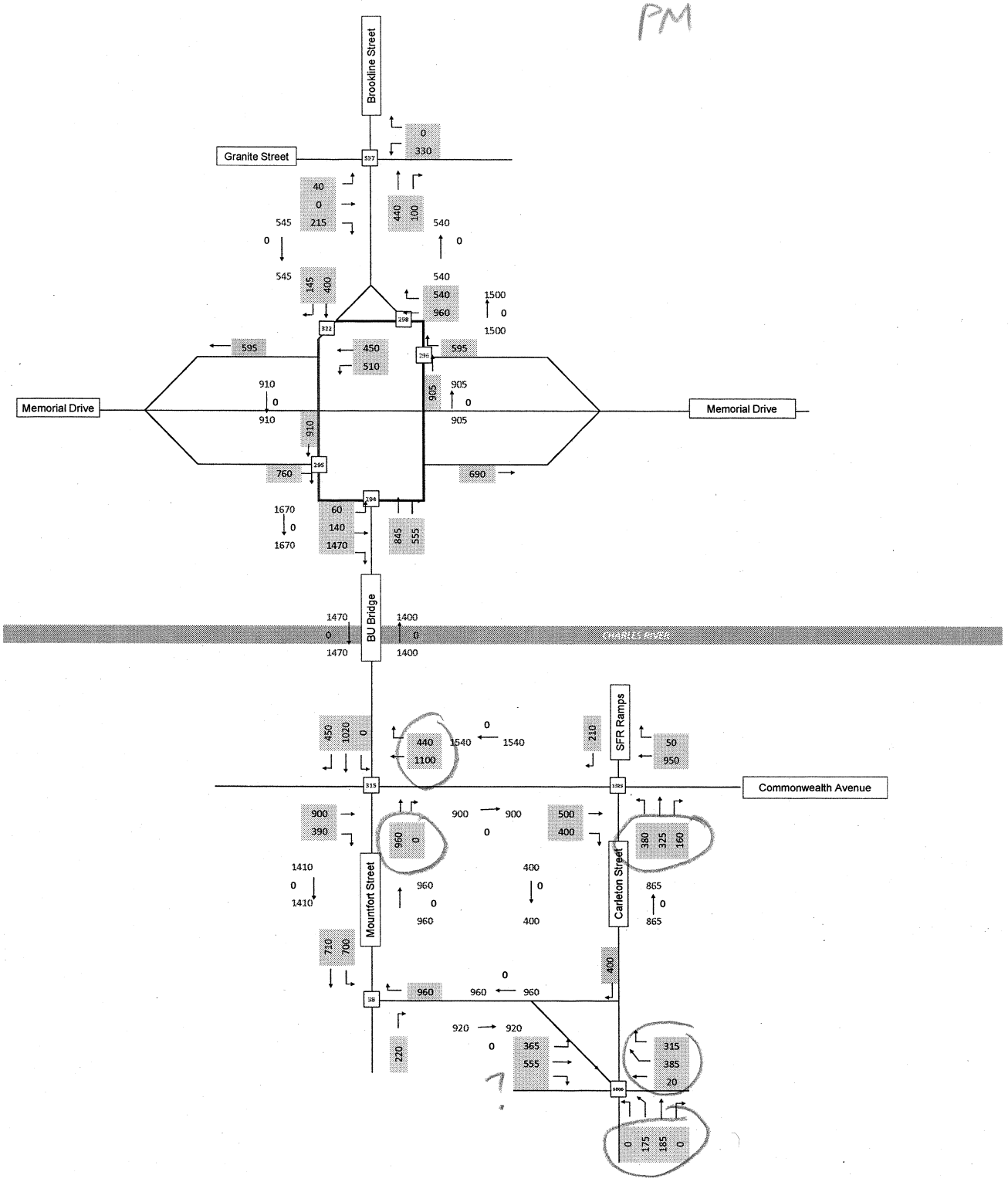
Vanasse Hangen Brustlin Future Volumes

ALTERNATIVE B5: BU BRIDGE 2 LANES NB/1 LANE SB W/ PUNCH-THROUGH:: BU BRIDGE FINAL CONDITION - WEEKDAY MORNING PEAK HOUR



ALTERNATIVE B5: BU BRIDGE 2 LANES NB/1 LANE SB W/ PUNCH-THROUGH:: BU BRIDGE FINAL CONDITION - WEEKDAY MORNING PEAK HOUR

PM



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Appendix B

Detailed Existing LOS Analysis Results and Synchro Sheets

EXISTING CONDITIONS (2012) AM - UNSIGNALIZED

INTID	NAME	MOVEMENT	V/C	DELAY	LOS	95th Q
7	Commonwealth Avenue & University Avenue					
		SB R	0.34	11.2	B	38
		Intersection		1.6	A	
15	Beacon Street & Commonwealth Avenue (WB)					
		WB L	0.01	3.3	A	1
		NB LR	0.01	9.7	A	1
		Intersection		1.7	A	
25	Ashford Street & Babcock Street					
		EB LR	0.08	9.2	A	7
		NB L	0.01	6.7	A	1
		Intersection		6.5	A	
26	Gardner Street & Alcorn Street					
		EB LTR	0.13*	7.7	A	
		WB LTR	0.03*	7.2	A	
		NB TR	0.03*	7.4	A	
		SB LT	0.03*	7.6	A	
		Intersection	0.30*	7.6	A	
27	Gardner Street & Babcock Street					
		EB LR	0.14	10.3	B	12
		NB L	0.04	3.1	A	3
		Intersection		3.9	A	
28	Bay State Road & Granby Street					
		EB R	0.02	9.2	A	1
		WB LT	0.25	10.8	B	24
		Intersection		10.6	A	
29	Bay State Road & Silber Way					
		WB LTR	0.38*	9.9	A	
		NB LT	0.10*	8.4	A	
		SB TR	0.01*	7.4	A	
		Intersection	0.38*	9.6	A	
30	Bay State Road & Deerfield Street					
		WB LTR	0.38*	9.6	A	
		NB LT	0.04*	8.3	A	
		SB TR	0.02*	7.5	A	
		Intersection	0.31*	9.4	A	

* - Indicates Degree Utilization was used in place of V/C ratio

EXISTING CONDITIONS (2012) AM - SIGNALIZED

INTID	NAME	MOVEMENT	V/C	DELAY	LOS	50th Q	95th Q	Storage
1	Brighton Avenue & Commonwealth Avenue							
		EB TR	0.41	32.1	C	143	193	772
		WB L	0.97	87.8	F	145	#204	835
		WB T	0.9	39.5	D	449	538	835
		NE R	0.46	14.2	B	184	236	568
		Intersection	0.73	36.8	D			
2	Commonwealth Avenue & Babcock Street							
		EB TR	0.4	6.7	A	112	144	835
		WB LTR	2.10dl	5.5	A	61	60	724
		NB LTR	1.23	175.3	F	~227	#371	411
		SB LTR	0.54	35.6	D	83	m139	362
		Intersection	0.6	29.3	C			
3	Commonwealth Avenue & Harry Agganis Way							
		EB LTR	0.6	10.8	B	284	m368	724
		WB LTR	0.33	8.9	A	76	m141	645
		NB LTR	0.79	53.3	D	107	180	357
		SB LTR	0.2	33.9	C	20	45	410
		Intersection	0.64	14.4	B			
4	Commonwealth Avenue & Buick Street							
		EB TR	0.54	6.7	A	169	41	645
		WB LTR	3.94dl	19.2	B	172	251	464
		NB LTR	1.28	192.5	F	~264	#435	315
		SB LTR	0.55	38.6	D	44	81	348
		Intersection	0.71	34.7	C			
5	Commonwealth Avenue & Amory Street							
		EB TR	0.84	31.9	C	475	m477	464
		WB T	0.66	20.7	C	331	378	693
		NB R	0.42	26.1	C	73	181	611
		Intersection	0.66	26.8	C			
6	Commonwealth Avenue & Essex Street							
		EB T	0.75	25.2	C	300	429	693
		EB R	0.88	42	D	166	m#323	300
		WB T	0.29	17.2	B	104	m131	319
		WB R	0.74	17.7	B	366	m499	319
		NB TR	0.53	13.3	B	125	142	126
		SB T	0.46	20.7	C	160	211	1030
		SB R	0.49	22.1	C	168	253	150
		Intersection	0.76	21.9	C			
8	Commonwealth Avenue & Carlton Street							
		EB T	0.5	41.9	D	252	314	1
		EB R	0.31	0.1	A	0	0	1
		WB TR	0.27	29.7	C	121	145	708
		NB L	0.89	37	D	461	m#670	245
		NB TR	0.54	21.5	C	235	m324	245
		Intersection	0.71	28.2	C			
9	Commonwealth Avenue & St. Mary's St.							
		EB TR	0.4	24.4	C	270	330	708
		WB L2L	0.27	23.4	C	28	25	336
		WB T	0.24	1	A	71	4	336
		Intersection	0.37	15	B			
10	Commonwealth Avenue & Cummington Street							
		EB U	0.04	7	A	11	26	336
		EB T	0.29	10.5	B	237	304	336
		WB T	0.31	13.5	B	74	154	315
		NB L	0.21	43.1	D	18	38	165
		NB R	0.09	42.2	D	5	17	165
		Intersection	0.3	12.6	B			
11	Commonwealth Avenue & Granby Street							
		EB T	0.34	3.5	A	13	11	315
		WB T	0.19	7.8	A	57	141	760
		SB L	0.27	37.5	D	34	62	283
		SB R	0.49	39.3	D	58	93	283
		Intersection	0.37	9	A			
12	Commonwealth Avenue & Silber Way							
		EB TR	0.32	5.7	A	96	63	760
		WB TR	0.28	3.5	A	26	m51	909
		NB LTR	0.03	31	C	4	8	259
		SB LTR	0.58	39.5	D	79	90	325
		Intersection	0.38	8.3	A			
13	Commonwealth Avenue & Beacon Street							
		EB TR	0.5	20.1	C	90	72	909
		NB R2	0.28	21.6	C	64	98	621
		SB R2	0.02	29.1	C	0	0	455
		NE RR2	1.11	104.9	F	~336	#469	887
		SW L	0.54	24.6	C	110	165	150
		SW LTR	3.04dr	25.9	C	~634	#783	298
		Intersection	0.88	44.1	D			
18	Lenox Street & Carlton Street							
		WB T	0.17	39.3	D	20	m19	528
		WB R2	0.16	0.7	A	5	m6	528
		NB TR	0.7	44.9	D	109	150	67
		SE L	0.35	10.7	B	89	m127	108
		Intersection	0.39	17.8	B			
45	Mountfort Street & St. Mary's St.							
		EB TR	0.67	47.7	D	186	#396	528
		WB LT	0.81	51.5	D	105	145	569
		NB LTR	0.04	25.5	C	7	14	431
		SB LTR	0.06	46.3	D	13	22	436
		Intersection	0.46	48.4	D			

EXISTING CONDITIONS (2012) PM - UNSIGNALIZED

INTID	NAME	MOVEMENT	V/C	DELAY	LOS	95th Q
7	Commonwealth Avenue & University Avenue					
		SB R	0.4	13.8	B	49
		Intersection		1.7	A	
15	Beacon Street & Commonwealth Avenue (WB)					
		WB L	0.01	3.8	A	1
		NB LR	0.03	9.6	A	2
		Intersection		3.8	A	
25	Ashford Street & Babcock Street					
		EB LR	0.07	9.7	A	5
		NB L	0.03	5.3	A	2
		Intersection		7	A	
26	Gardner Street & Alcorn Street					
		EB LTR	0.16*	7.7	A	
		WB LTR	0.04*	7.2	A	
		NB TR	0.06*	7.6	A	
		SB LT	0.04*	7.5	A	
		Intersection	0.33*	7.6	A	
27	Gardner Street & Babcock Street					
		EB LR	0.13	10	A	11
		NB L	0.01	1.7	A	1
		Intersection		4.2	A	
28	Bay State Road & Granby Street					
		EB R	0.11	12.2	B	10
		WB LT	0.38	16	C	45
		Intersection		14.4	A	
29	Bay State Road & Silber Way					
		WB LTR	0.31*	7	A	
		NB LT	0.17*	9.3	A	
		SB TR	0.03*	8.7	A	
		Intersection	0.40*	7.6	A	
30	Bay State Road & Deerfield Street					
		WB LTR	0.27*	8.6	A	
		NB LT	0.05*	7.8	A	
		SB TR	0.02*	7.1	A	
		Intersection	0.33*	8.4	A	

* - Indicates Degree Utilization was used in place of V/C ratio

EXISTING CONDITIONS (2012) PM - SIGNALIZED

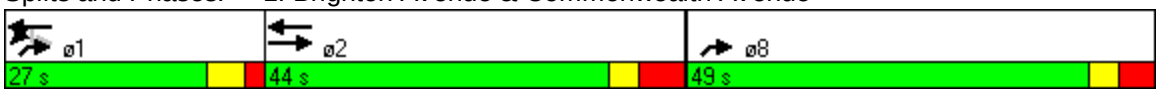
INTID	NAME	MOVEMENT	V/C	DELAY	LOS	50th Q	95th Q	Storage
1	Brighton Avenue & Commonwealth Avenue							
		EB TR	0.82	60.1	E	190	#270	772
		WB L	0.81	35.1	D	243	312	835
		WB T	1.02	53.2	D	~808	#998	835
		NE R	0.22	4.4	A	52	69	568
		Intersection	0.8	40.8	D			
2	Commonwealth Avenue & Babcock Street							
		EB TR	0.36	8	A	125	160	835
		WB LTR	5.00dl	7.2	A	248	m358	724
		NB LTR	0.91	76.1	E	141	#278	411
		SB LTR	0.71	43.6	D	150	m244	362
		Intersection	0.67	16	B			
3	Commonwealth Avenue & Harry Agganis Way							
		EB LTR	0.41	6.4	A	97	m118	724
		WB LTR	0.41	3.4	A	108	m73	645
		NB LTR	0.96	88.2	F	147	#304	357
		SB LTR	0.37	34.7	C	55	117	410
		Intersection	0.56	13.5	B			
4	Commonwealth Avenue & Buick Street							
		EB TR	0.43	12	B	194	m253	645
		WB LTR	77.60dl	19.1	B	204	#552	464
		NB LTR	0.9	70.7	E	160	#259	315
		SB LTR	0.73	46.6	D	111	140	348
		Intersection	0.87	22.6	C			
5	Commonwealth Avenue & Amory Street							
		EB TR	0.66	20.3	C	333	m342	464
		WB T	0.77	25.6	C	504	597	693
		NB R	0.23	29.7	C	28	87	611
		Intersection	0.58	23.6	C			
6	Commonwealth Avenue & Essex Street							
		EB T	0.65	39.4	D	388	417	693
		EB R	0.91	76.9	E	249	#385	300
		WB T	0.57	22.8	C	221	267	319
		WB R	0.61	9.2	A	244	342	319
		NB TR	0.44	10	A	82	98	126
		SB T	0.51	19.3	B	208	265	1030
		SB R	0.57	20.8	C	238	342	150
		Intersection	0.77	26.3	C			
8	Commonwealth Avenue & Carlton Street							
		EB T	0.48	3.2	A	2	102	1
		EB R	0.19	0.1	A	0	0	1
		WB TR	0.6	17.4	B	90	157	708
		NB L	0.75	18.1	B	317	m336	245
		NB TR	0.37	11.4	B	125	m138	245
		Intersection	0.69	12.1	B			
9	Commonwealth Avenue & St. Mary's St.							
		EB TR	0.37	3.3	A	36	51	708
		WB L2L	0.6	63.1	E	108	175	336
		WB T	0.39	1.8	A	69	73	336
		Intersection	0.42	7	A			
10	Commonwealth Avenue & Cummington Street							
		EB U	0.1	7.6	A	6	m27	336
		EB T	0.28	4.5	A	47	118	336
		WB T	0.49	21.3	C	285	377	315
		NB L	0.44	44.1	D	76	133	165
		NB R	0.16	41.2	D	22	52	165
		Intersection	0.46	16.3	B			
11	Commonwealth Avenue & Granby Street							
		EB T	0.34	7.4	A	184	161	315
		WB T	0.32	6	A	94	284	760
		SB L	0.26	37.4	D	47	80	283
		SB R	0.65	44.9	D	114	165	283
		Intersection	0.41	11.7	B			
12	Commonwealth Avenue & Silber Way							
		EB TR	0.38	11.8	B	103	287	760
		WB TR	0.41	1.8	A	26	m18	909
		NB LTR	0.04	33.6	C	5	9	259
		SB LTR	0.65	46	D	98	141	325
		Intersection	0.47	10.3	B			
13	Commonwealth Avenue & Beacon Street							
		EB TR	0.51	31.8	C	122	210	909
		NB R2	0.51	29.5	C	148	204	621
		SB R2	0.04	28.1	C	0	0	455
		NE RR2	0.84	46.2	D	236	#335	887
		SW L	0.42	28.3	C	87	133	150
		SW LTR	4.70dr	118.2	F	~1009	#1165	298
		Intersection	0.98	70.4	E			
18	Lenox Street & Carlton Street							
		WB T	0.15	16.8	B	6	m8	528
		WB R2	0.23	2.2	A	11	m10	528
		NB TR	0.61	49.2	D	81	120	67
		SE L	0.36	11.8	B	104	m127	108
		Intersection	0.37	14.5	B			
45	Mountfort Street & St. Mary's St.							
		EB TR	0.49	43.8	D	132	295	528
		WB LT	0.89	54.9	D	203	234	569
		NB LTR	0.2	42.2	D	18	24	431
		SB LTR	0.5	52.1	D	70	87	436
		Intersection	0.61	49.6	D			

Movement	EBT	EBR	WBU	WBL	WBT	NEL	NER
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	13
Total Lost time (s)	4.0			4.0	4.0		4.0
Lane Util. Factor	0.95			0.97	1.00		0.88
Frpb, ped/bikes	0.99			1.00	1.00		1.00
Flpb, ped/bikes	1.00			0.94	1.00		1.00
Frt	1.00			1.00	1.00		0.85
Flt Protected	1.00			0.95	1.00		1.00
Satd. Flow (prot)	3334			3102	1358		2880
Flt Permitted	1.00			0.60	1.00		1.00
Satd. Flow (perm)	3334			1955	1358		2880
Volume (vph)	403	13	17	278	553	0	747
Peak-hour factor, PHF	0.90	0.90	0.81	0.81	0.81	0.93	0.93
Adj. Flow (vph)	448	14	21	343	683	0	803
RTOR Reduction (vph)	2	0	0	0	0	0	0
Lane Group Flow (vph)	460	0	0	364	683	0	803
Confl. Peds. (#/hr)		141	9	141			9
Heavy Vehicles (%)	7%	0%	0%	6%	7%	0%	2%
Bus Blockages (#/hr)	0	15	0	0	11	0	0
Parking (#/hr)		20			20		
Turn Type			Perm		pt+ov		
Protected Phases	2			1	1 2		1 8
Permitted Phases			1				1 8
Actuated Green, G (s)	36.0			21.0	63.0		70.0
Effective Green, g (s)	40.0			23.0	67.0		72.0
Actuated g/C Ratio	0.33			0.19	0.56		0.60
Clearance Time (s)	8.0			6.0			
Vehicle Extension (s)	2.0			2.0			
Lane Grp Cap (vph)	1111			375	758		1728
v/s Ratio Prot	0.14				c0.50		c0.28
v/s Ratio Perm				c0.19			
v/c Ratio	0.41			0.97	0.90		0.46
Uniform Delay, d1	30.9			48.2	23.6		13.3
Progression Factor	1.00			1.00	1.00		1.00
Incremental Delay, d2	1.1			39.7	15.9		0.9
Delay (s)	32.1			87.8	39.5		14.2
Level of Service	C			F	D		B
Approach Delay (s)	32.1				56.3	14.2	
Approach LOS	C				E	B	

Intersection Summary			
HCM Average Control Delay	36.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Splits and Phases: 1: Brighton Avenue & Commonwealth Avenue



Lane Group	EBT	WBU	WBL	WBT	NER	ø8
Lane Configurations						
Volume (vph)	403	17	278	553	747	
Lane Group Flow (vph)	462	0	364	683	803	
Turn Type		Perm		pt+ov		
Protected Phases	2		1	1 2	1 8	8
Permitted Phases		1			1 8	
Detector Phases	2	1	1	1 2	1 8	
Minimum Initial (s)	8.0	8.0	8.0			8.0
Minimum Split (s)	25.0	16.0	16.0			33.0
Total Split (s)	44.0	27.0	27.0	71.0	76.0	49.0
Total Split (%)	36.7%	22.5%	22.5%	59.2%	63.3%	41%
Yellow Time (s)	3.0	4.0	4.0			3.0
All-Red Time (s)	5.0	2.0	2.0			4.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	Max	Max			Max
Act Effct Green (s)	40.0		23.0	67.0	72.0	
Actuated g/C Ratio	0.33		0.19	0.56	0.60	
v/c Ratio	0.42		0.97	0.90	0.46	
Control Delay	32.1		88.3	40.8	14.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	32.1		88.3	40.8	14.4	
LOS	C		F	D	B	
Approach Delay	32.1			57.3		
Approach LOS	C			E		
Queue Length 50th (ft)	143		145	449	184	
Queue Length 95th (ft)	193		#204	538	236	
Internal Link Dist (ft)	772			835		
Turn Bay Length (ft)						
Base Capacity (vph)	1113		375	758	1728	
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	0.42		0.97	0.90	0.46	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 38 (32%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 37.4 Intersection LOS: D
Intersection Capacity Utilization 59.7% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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	12	12	12	12	12	11	12	12	12	12	12	14
Total Lost time (s)		4.0				4.0			4.0			4.0
Lane Util. Factor		0.95				0.91			1.00			1.00
Frpb, ped/bikes		0.98				0.96			0.95			0.97
Flpb, ped/bikes		1.00				0.99			0.88			0.97
Frt		0.99				0.99			0.96			0.99
Flt Protected		1.00				1.00			0.97			0.98
Satd. Flow (prot)		3360				4489			1438			1635
Flt Permitted		1.00				0.80			0.71			0.74
Satd. Flow (perm)		3360				3584			1053			1244
Volume (vph)	0	866	37	19	49	718	80	148	27	74	65	53
Peak-hour factor, PHF	0.97	0.97	0.97	0.95	0.95	0.95	0.95	0.87	0.87	0.87	0.85	0.85
Adj. Flow (vph)	0	893	38	20	52	756	84	170	31	85	76	62
RTOR Reduction (vph)	0	2	0	0	0	12	0	0	0	0	0	3
Lane Group Flow (vph)	0	929	0	0	0	900	0	0	286	0	0	148
Confl. Peds. (#/hr)			232	95	232		155	231		95	95	
Heavy Vehicles (%)	0%	4%	14%	11%	2%	4%	3%	3%	4%	1%	16%	2%
Parking (#/hr)			20				20			10		
Turn Type				Prot	Prot			Perm			Perm	
Protected Phases		2		1	1	6			8			4
Permitted Phases								8			4	
Actuated Green, G (s)		70.0				70.0			20.0			20.0
Effective Green, g (s)		70.0				70.0			22.0			22.0
Actuated g/C Ratio		0.70				0.70			0.22			0.22
Clearance Time (s)		4.0				4.0			6.0			6.0
Vehicle Extension (s)		2.0				2.0			2.0			2.0
Lane Grp Cap (vph)		2352				2509			232			274
v/s Ratio Prot		c0.28										
v/s Ratio Perm						0.25			c0.27			0.12
v/c Ratio		0.40				2.10dl			1.23			0.54
Uniform Delay, d1		6.2				6.0			39.0			34.5
Progression Factor		1.00				0.91			1.00			1.00
Incremental Delay, d2		0.5				0.0			136.3			1.0
Delay (s)		6.7				5.5			175.3			35.6
Level of Service		A				A			F			D
Approach Delay (s)		6.7				5.5			175.3			35.6
Approach LOS		A				A			F			D

Intersection Summary			
HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		

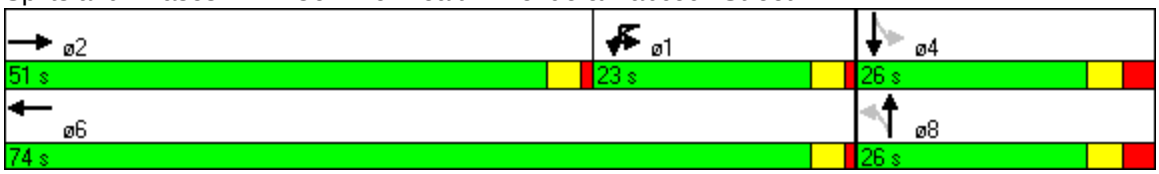
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



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)	11
Peak-hour factor, PHF	0.85
Adj. Flow (vph)	13
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	231
Heavy Vehicles (%)	40%
Parking (#/hr)	10
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	

m Volume for 95th percentile queue is metered by upstream signal.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 2: Commonwealth Avenue & Babcock Street





Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	ø1
Lane Configurations							
Volume (vph)	866	718	148	27	65	53	
Lane Group Flow (vph)	931	912	0	286	0	151	
Turn Type			Perm		Perm		
Protected Phases	2	6		8		4	1
Permitted Phases			8		4		
Detector Phases	2	6	8	8	4	4	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	29.0	29.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	51.0	74.0	26.0	26.0	26.0	26.0	23.0
Total Split (%)	51.0%	74.0%	26.0%	26.0%	26.0%	26.0%	23%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	3.0	3.0	3.0	3.0	1.0
Lead/Lag	Lead						Lag
Lead-Lag Optimize?	Yes						Yes
Recall Mode	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	70.0	70.0		22.0		22.0	
Actuated g/C Ratio	0.70	0.70		0.22		0.22	
v/c Ratio	0.40	2.10dl		1.23		0.55	
Control Delay	6.8	6.7		171.8		42.1	
Queue Delay	0.0	0.0		0.0		0.0	
Total Delay	6.8	6.7		171.8		42.1	
LOS	A	A		F		D	
Approach Delay	6.8	6.7		171.8		42.1	
Approach LOS	A	A		F		D	
Queue Length 50th (ft)	112	61		~227		83	
Queue Length 95th (ft)	144	60		#371		m139	
Internal Link Dist (ft)	835	724		411		362	
Turn Bay Length (ft)							
Base Capacity (vph)	2354	1925		232		277	
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	0.40	0.47		1.23		0.55	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 48 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 29.8	Intersection LOS: C
Intersection Capacity Utilization 73.7%	ICU Level of Service D
Analysis Period (min) 15	

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

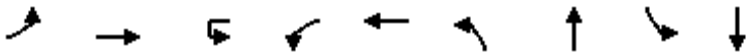
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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	12	13	12	12	12	11	12	12	12	12	12	12
Total Lost time (s)		4.0				4.0			4.0			4.0
Lane Util. Factor		0.95				0.91			1.00			1.00
Frpb, ped/bikes		0.99				1.00			0.96			0.89
Flpb, ped/bikes		1.00				1.00			0.88			0.96
Frt		0.99				1.00			0.97			0.94
Flt Protected		1.00				1.00			0.97			0.98
Satd. Flow (prot)		3497				4727			1475			1357
Flt Permitted		0.86				0.89			0.77			0.82
Satd. Flow (perm)		3017				4211			1181			1140
Volume (vph)	49	970	41	18	3	720	18	121	17	45	26	2
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.89	0.95	0.95	0.95	0.77	0.77
Adj. Flow (vph)	52	1032	44	20	3	809	20	127	18	47	34	3
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	12	0	0	27
Lane Group Flow (vph)	0	1128	0	0	0	852	0	0	180	0	0	44
Confl. Peds. (#/hr)	171		232	96	232		171	140		96	96	
Heavy Vehicles (%)	0%	5%	5%	6%	0%	5%	6%	1%	0%	5%	16%	0%
Parking (#/hr)			20				10			10		
Turn Type	Perm			Perm	Perm			Perm			Perm	
Protected Phases		2				6			8			4
Permitted Phases	2			6	6			8			4	
Actuated Green, G (s)		61.2				61.2			17.4			17.4
Effective Green, g (s)		62.2				62.2			19.4			19.4
Actuated g/C Ratio		0.62				0.62			0.19			0.19
Clearance Time (s)		5.0				5.0			6.0			6.0
Vehicle Extension (s)		2.0				2.0			2.0			2.0
Lane Grp Cap (vph)		1877				2619			229			221
v/s Ratio Prot												
v/s Ratio Perm		c0.37				0.20			c0.15			0.04
v/c Ratio		0.60				0.33			0.79			0.20
Uniform Delay, d1		11.4				9.0			38.3			33.8
Progression Factor		0.83				0.96			1.00			1.00
Incremental Delay, d2		1.3				0.3			15.0			0.2
Delay (s)		10.8				8.9			53.3			33.9
Level of Service		B				A			D			C
Approach Delay (s)		10.8				8.9			53.3			33.9
Approach LOS		B				A			D			C

Intersection Summary			
HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.4
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
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	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	26
Peak-hour factor, PHF	0.77
Adj. Flow (vph)	34
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	140
Heavy Vehicles (%)	4%
Parking (#/hr)	10
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	

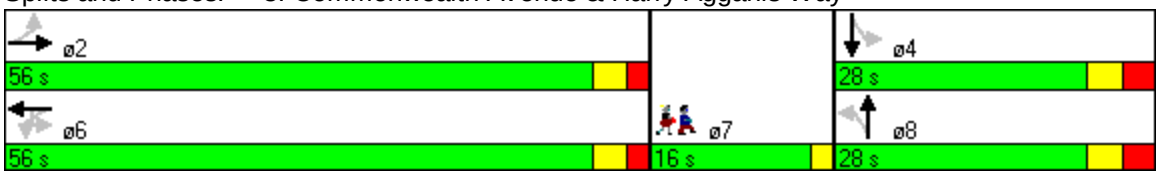


Lane Group	EBL	EBT	WBU	WBL	WBT	NBL	NBT	SBL	SBT	ø7
Lane Configurations										
Volume (vph)	49	970	18	3	720	121	17	26	2	
Lane Group Flow (vph)	0	1128	0	0	852	0	192	0	71	
Turn Type	Perm		Perm	Perm		Perm		Perm		
Protected Phases		2			6		8		4	7
Permitted Phases	2		6	6		8		4		
Detector Phases	2	2	6	6	6	8	8	4	4	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	1.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	25.0	25.0	25.0	25.0	16.0
Total Split (s)	56.0	56.0	56.0	56.0	56.0	28.0	28.0	28.0	28.0	16.0
Total Split (%)	56.0%	56.0%	56.0%	56.0%	56.0%	28.0%	28.0%	28.0%	28.0%	16%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	0.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)		63.0			63.0		19.4		19.4	
Actuated g/C Ratio		0.63			0.63		0.19		0.19	
v/c Ratio		0.60			0.32		0.77		0.28	
Control Delay		12.8			10.5		55.1		21.7	
Queue Delay		0.0			0.0		0.0		0.0	
Total Delay		12.8			10.5		55.1		21.7	
LOS		B			B		E		C	
Approach Delay		12.8			10.5		55.1		21.7	
Approach LOS		B			B		E		C	
Queue Length 50th (ft)		284			76		107		20	
Queue Length 95th (ft)		m368			m141		180		45	
Internal Link Dist (ft)		724			645		357		410	
Turn Bay Length (ft)										
Base Capacity (vph)		1893			2645		304		310	
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		0.60			0.32		0.63		0.23	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 65 (65%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Commonwealth Avenue & Harry Agganis Way



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	12	11	12	12	12	11	12	12	12	12	12	10
Total Lost time (s)		4.0				4.0			4.0			4.0
Lane Util. Factor		0.95				0.91			1.00			1.00
Frpb, ped/bikes		0.97				0.91			0.89			0.98
Flpb, ped/bikes		1.00				0.98			0.93			1.00
Frt		0.99				0.98			0.92			0.99
Flt Protected		1.00				0.99			0.99			0.96
Satd. Flow (prot)		3204				4140			1403			1455
Flt Permitted		1.00				0.64			0.89			0.46
Satd. Flow (perm)		3204				2676			1271			689
Volume (vph)	0	1092	60	67	185	635	129	82	48	163	48	8
Peak-hour factor, PHF	0.93	0.93	0.93	0.94	0.94	0.94	0.94	0.90	0.90	0.90	0.79	0.79
Adj. Flow (vph)	0	1174	65	71	197	676	137	91	53	181	61	10
RTOR Reduction (vph)	0	0	0	0	0	19	0	0	0	0	0	0
Lane Group Flow (vph)	0	1239	0	0	0	1062	0	0	325	0	0	76
Confl. Peds. (#/hr)			179	88	179		402	193		88	88	
Heavy Vehicles (%)	0%	5%	5%	2%	3%	7%	3%	5%	0%	1%	17%	0%
Parking (#/hr)			20				10					
Turn Type				Prot	Prot			Perm			Perm	
Protected Phases		2		1	1	6			8			4
Permitted Phases								8			4	
Actuated Green, G (s)		72.0				72.0			20.0			20.0
Effective Green, g (s)		72.0				72.0			20.0			20.0
Actuated g/C Ratio		0.72				0.72			0.20			0.20
Clearance Time (s)		4.0				4.0			4.0			4.0
Vehicle Extension (s)		2.0				2.0			2.0			2.0
Lane Grp Cap (vph)		2307				1927			254			138
v/s Ratio Prot		0.39										
v/s Ratio Perm						c0.40			c0.26			0.11
v/c Ratio		0.54				3.94dl			1.28			0.55
Uniform Delay, d1		6.4				6.5			40.0			36.0
Progression Factor		0.93				2.92			1.00			1.00
Incremental Delay, d2		0.8				0.1			152.5			2.7
Delay (s)		6.7				19.2			192.5			38.6
Level of Service		A				B			F			D
Approach Delay (s)		6.7				19.2			192.5			38.6
Approach LOS		A				B			F			D

Intersection Summary			
HCM Average Control Delay	34.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

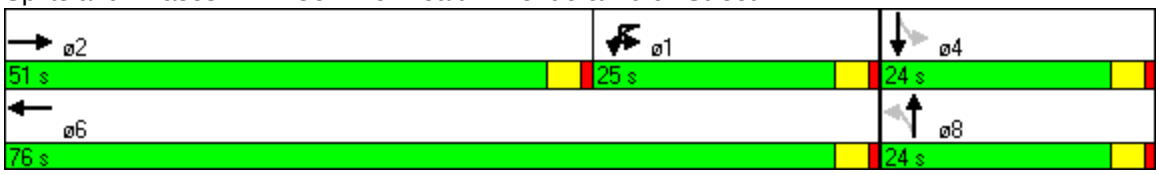


Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	10
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	4
Peak-hour factor, PHF	0.79
Adj. Flow (vph)	5
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	193
Heavy Vehicles (%)	0%
Parking (#/hr)	
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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 4: Commonwealth Avenue & Buick Street



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	ø1
Lane Configurations							
Volume (vph)	1092	635	82	48	48	8	
Lane Group Flow (vph)	1239	1081	0	325	0	76	
Turn Type			Perm		Perm		
Protected Phases	2	6		8		4	1
Permitted Phases			8		4		
Detector Phases	2	6	8	8	4	4	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	21.0	21.0	24.0	24.0	24.0	24.0	21.0
Total Split (s)	51.0	76.0	24.0	24.0	24.0	24.0	25.0
Total Split (%)	51.0%	76.0%	24.0%	24.0%	24.0%	24.0%	25%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead						Lag
Lead-Lag Optimize?	Yes						Yes
Recall Mode	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	72.0	72.0		20.0		20.0	
Actuated g/C Ratio	0.72	0.72		0.20		0.20	
v/c Ratio	0.54	3.94dl		1.28		0.55	
Control Delay	6.9	21.0		187.6		52.8	
Queue Delay	0.4	0.2		0.0		0.0	
Total Delay	7.2	21.1		187.6		52.8	
LOS	A	C		F		D	
Approach Delay	7.2	21.1		187.6		52.8	
Approach LOS	A	C		F		D	
Queue Length 50th (ft)	169	172		~264		44	
Queue Length 95th (ft)	41	251		#435		81	
Internal Link Dist (ft)	645	464		315		348	
Turn Bay Length (ft)							
Base Capacity (vph)	2307	1750		254		138	
Starvation Cap Reductn	0	0		0		0	
Spillback Cap Reductn	490	122		0		0	
Storage Cap Reductn	0	0		0		0	
Reduced v/c Ratio	0.68	0.66		1.28		0.55	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 82 (82%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.28	
Intersection Signal Delay: 35.6	Intersection LOS: D
Intersection Capacity Utilization 83.3%	ICU Level of Service E
Analysis Period (min) 15	

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

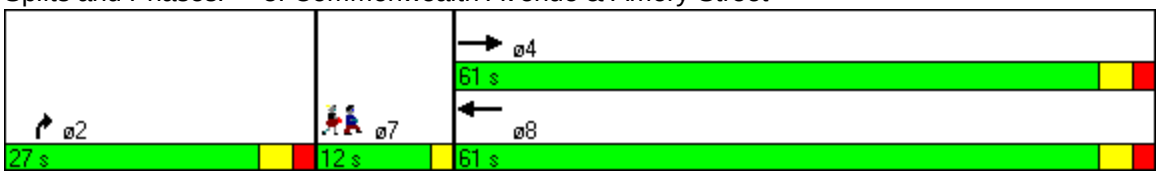
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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
Frpb, ped/bikes	0.98			1.00		1.00
Flpb, ped/bikes	1.00			1.00		1.00
Frt	0.99			1.00		0.86
Flt Protected	1.00			1.00		1.00
Satd. Flow (prot)	3351			3438		1397
Flt Permitted	1.00			1.00		1.00
Satd. Flow (perm)	3351			3438		1397
Volume (vph)	1213	56	0	977	0	313
Peak-hour factor, PHF	0.95	0.95	0.91	0.91	0.96	0.96
Adj. Flow (vph)	1277	59	0	1074	0	326
RTOR Reduction (vph)	4	0	0	0	0	109
Lane Group Flow (vph)	1332	0	0	1074	0	217
Confl. Peds. (#/hr)		364	364		278	
Heavy Vehicles (%)	5%	8%	0%	5%	0%	0%
Parking (#/hr)		20				10
Turn Type						custom
Protected Phases	4			8		2
Permitted Phases						
Actuated Green, G (s)	46.1			46.1		35.9
Effective Green, g (s)	47.1			47.1		36.9
Actuated g/C Ratio	0.47			0.47		0.37
Clearance Time (s)	5.0			5.0		5.0
Vehicle Extension (s)	2.0			2.0		2.0
Lane Grp Cap (vph)	1578			1619		515
v/s Ratio Prot	c0.40			0.31		c0.16
v/s Ratio Perm						
v/c Ratio	0.84			0.66		0.42
Uniform Delay, d1	23.2			20.4		23.6
Progression Factor	1.23			0.98		1.00
Incremental Delay, d2	3.2			0.8		2.5
Delay (s)	31.9			20.7		26.1
Level of Service	C			C		C
Approach Delay (s)	31.9			20.7	26.1	
Approach LOS	C			C	C	

Intersection Summary			
HCM Average Control Delay	26.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Splits and Phases: 5: Commonwealth Avenue & Amory Street



Lane Group	EBT	WBT	NBR	ø7
Lane Configurations				
Volume (vph)	1213	977	313	
Lane Group Flow (vph)	1336	1074	326	
Turn Type			custom	
Protected Phases	4	8	2	7
Permitted Phases				
Detector Phases	4	8	2	
Minimum Initial (s)	8.0	8.0	8.0	1.0
Minimum Split (s)	41.0	41.0	22.0	12.0
Total Split (s)	61.0	61.0	27.0	12.0
Total Split (%)	61.0%	61.0%	27.0%	12%
Yellow Time (s)	3.0	3.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	0.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	C-Min	None
Act Effct Green (s)	47.1	47.1	37.7	
Actuated g/C Ratio	0.47	0.47	0.38	
v/c Ratio	0.84	0.66	0.51	
Control Delay	32.5	21.7	16.5	
Queue Delay	0.5	0.0	0.0	
Total Delay	33.0	21.7	16.5	
LOS	C	C	B	
Approach Delay	33.0	21.7		
Approach LOS	C	C		
Queue Length 50th (ft)	475	331	73	
Queue Length 95th (ft)	m477	378	181	
Internal Link Dist (ft)	464	693		
Turn Bay Length (ft)				
Base Capacity (vph)	1919	1960	634	
Starvation Cap Reductn	217	0	0	
Spillback Cap Reductn	0	0	0	
Storage Cap Reductn	0	0	0	
Reduced v/c Ratio	0.78	0.55	0.51	

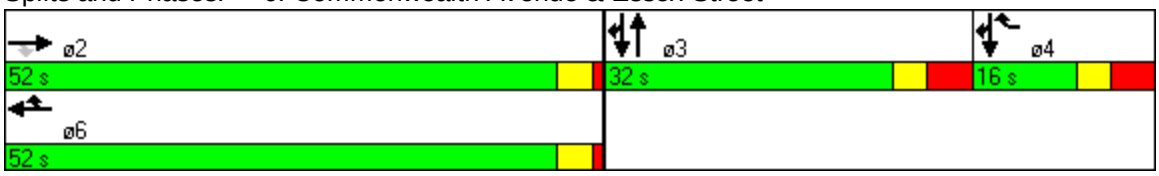
Intersection Summary		
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 92 (92%), Referenced to phase 2:NBR, Start of Green		
Natural Cycle: 75		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.84		
Intersection Signal Delay: 26.6	Intersection LOS: C	
Intersection Capacity Utilization 61.8%	ICU Level of Service B	
Analysis Period (min) 15		

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	12	12	13	16	12	12	12	12	11	15
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		0.95	1.00		0.91	1.00		0.95			0.95	1.00
Frpb, ped/bikes		1.00	0.71		1.00	1.00		1.00			1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.85		1.00	0.85		1.00			1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		3505	877		5009	1794		3574			3421	1776
Flt Permitted		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		3505	877		5009	1794		3574			3421	1776
Volume (vph)	0	1195	370	0	645	780	0	485	0	0	650	355
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.91	0.91	0.91	0.93	0.93	0.93
Adj. Flow (vph)	0	1258	389	0	701	848	0	533	0	0	699	382
RTOR Reduction (vph)	0	0	17	0	0	0	0	0	0	0	0	1
Lane Group Flow (vph)	0	1258	372	0	701	848	0	533	0	0	699	381
Confl. Peds. (#/hr)			225			705						205
Heavy Vehicles (%)	0%	3%	5%	0%	7%	2%	0%	1%	0%	7%	2%	0%
Parking (#/hr)			20									
Turn Type			Perm			custom						custom
Protected Phases		2			6	6 4		3			3 4	3 4
Permitted Phases			2									3 4
Actuated Green, G (s)		48.0	48.0		48.0	64.0		25.0			41.0	41.0
Effective Green, g (s)		48.0	48.0		48.0	64.0		28.0			44.0	44.0
Actuated g/C Ratio		0.48	0.48		0.48	0.64		0.28			0.44	0.44
Clearance Time (s)		4.0	4.0		4.0			7.0				
Vehicle Extension (s)		2.0	2.0		4.0			4.0				
Lane Grp Cap (vph)		1682	421		2404	1148		1001			1505	781
v/s Ratio Prot		0.36			0.14	c0.47		c0.15			0.20	0.21
v/s Ratio Perm			c0.42									
v/c Ratio		0.75	0.88		0.29	0.74		0.53			0.46	0.49
Uniform Delay, d1		21.1	23.5		15.7	12.3		30.5			19.7	20.0
Progression Factor		1.10	1.12		1.07	1.09		0.37			1.00	1.00
Incremental Delay, d2		2.0	15.8		0.3	4.2		2.0			1.0	2.2
Delay (s)		25.2	42.0		17.2	17.7		13.3			20.7	22.1
Level of Service		C	D		B	B		B			C	C
Approach Delay (s)		29.2			17.4			13.3			21.2	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

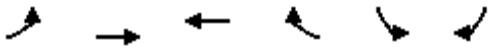
Splits and Phases: 6: Commonwealth Avenue & Essex Street



Lane Group	EBT	EBR	WBT	WBR	NBT	SBT	SBR	ø4
Lane Configurations								
Volume (vph)	1195	370	645	780	485	650	355	
Lane Group Flow (vph)	1258	389	701	848	533	699	382	
Turn Type		Perm		custom			custom	
Protected Phases	2		6	6 4	3	3 4	3 4	4
Permitted Phases		2					3 4	
Detector Phases	2	2	6	6 4	3	3 4	3 4	
Minimum Initial (s)	8.0	8.0	8.0		8.0			4.0
Minimum Split (s)	28.0	28.0	28.0		29.0			15.0
Total Split (s)	52.0	52.0	52.0	68.0	32.0	48.0	48.0	16.0
Total Split (%)	52.0%	52.0%	52.0%	68.0%	32.0%	48.0%	48.0%	16%
Yellow Time (s)	3.0	3.0	3.0		3.0			3.0
All-Red Time (s)	1.0	1.0	1.0		4.0			4.0
Lead/Lag					Lead			Lag
Lead-Lag Optimize?					Yes			Yes
Recall Mode	C-Max	C-Max	C-Max		Max			Max
Act Effct Green (s)	48.0	48.0	48.0	64.0	28.0	44.0	44.0	
Actuated g/C Ratio	0.48	0.48	0.48	0.64	0.28	0.44	0.44	
v/c Ratio	0.75	0.89	0.29	0.74	0.53	0.46	0.49	
Control Delay	25.6	41.8	17.3	18.4	13.4	21.0	22.5	
Queue Delay	0.0	0.0	0.0	16.5	0.0	0.0	0.0	
Total Delay	25.6	41.8	17.3	34.9	13.4	21.0	22.5	
LOS	C	D	B	C	B	C	C	
Approach Delay	29.5		26.9		13.4	21.5		
Approach LOS	C		C		B	C		
Queue Length 50th (ft)	300	166	104	366	125	160	168	
Queue Length 95th (ft)	429	m#323	m131	m499	142	211	253	
Internal Link Dist (ft)	693		319		126	1030		
Turn Bay Length (ft)		300					150	
Base Capacity (vph)	1682	438	2404	1148	1001	1505	783	
Starvation Cap Reductn	0	0	0	303	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	0.75	0.89	0.29	1.00	0.53	0.46	0.49	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 11 (11%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 25.1	Intersection LOS: C
Intersection Capacity Utilization 79.4%	ICU Level of Service D
Analysis Period (min) 15	

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	1200	395	0	0	275
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1304	429	0	0	299
Pedestrians		2				
Lane Width (ft)		13.0				
Walking Speed (ft/s)		4.0				
Percent Blockage		0				
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		399	24			
pX, platoon unblocked					0.77	
vC, conflicting volume	429				864	145
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	429				219	145
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	66
cM capacity (veh/h)	1141				580	881

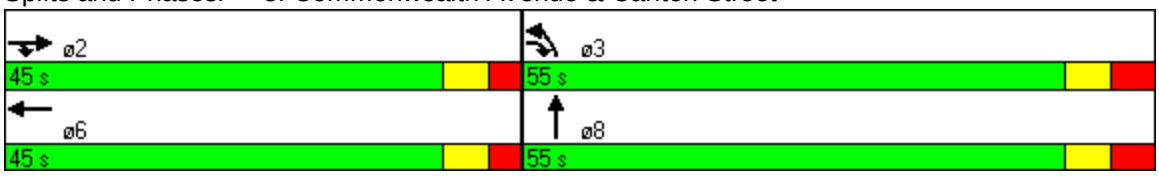
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	435	435	435	143	143	143	299
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	299
cSH	1700	1700	1700	1700	1700	1700	881
Volume to Capacity	0.26	0.26	0.26	0.08	0.08	0.08	0.34
Queue Length 95th (ft)	0	0	0	0	0	0	38
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	11.2
Lane LOS							B
Approach Delay (s)	0.0			0.0			11.2
Approach LOS							B

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

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	13	16	12	11	13	12	13	16	12	12	12
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0				
Lane Util. Factor		0.95	1.00		0.91		1.00	1.00				
Frpb, ped/bikes		1.00	1.00		0.95		1.00	1.00				
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00				
Frt		1.00	0.85		0.99		1.00	0.98				
Flt Protected		1.00	1.00		1.00		0.95	1.00				
Satd. Flow (prot)		3657	1703		4514		1787	1919				
Flt Permitted		1.00	1.00		1.00		0.95	1.00				
Satd. Flow (perm)		3657	1703		4514		1787	1919				
Volume (vph)	0	715	485	0	395	35	755	425	75	0	0	0
Peak-hour factor, PHF	0.93	0.93	0.93	0.84	0.84	0.84	0.95	0.95	0.95	0.92	0.92	0.92
Adj. Flow (vph)	0	769	522	0	470	42	795	447	79	0	0	0
RTOR Reduction (vph)	0	0	0	0	10	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	769	522	0	502	0	795	520	0	0	0	0
Confl. Peds. (#/hr)			231			633						
Heavy Vehicles (%)	0%	2%	1%	0%	5%	1%	1%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	15	0	0	10	0	0	0	0	0	0
Turn Type			pt+ov				custom					
Protected Phases		2	2 3		6		3	8				
Permitted Phases							3					
Actuated Green, G (s)		38.8	100.0		38.8		46.2	46.2				
Effective Green, g (s)		41.8	100.0		41.8		50.2	50.2				
Actuated g/C Ratio		0.42	1.00		0.42		0.50	0.50				
Clearance Time (s)		7.0			7.0		8.0	8.0				
Vehicle Extension (s)		4.0			4.0		4.0	4.0				
Lane Grp Cap (vph)		1529	1703		1887		897	963				
v/s Ratio Prot		c0.21	0.31		0.11		c0.44	0.27				
v/s Ratio Perm												
v/c Ratio		0.50	0.31		0.27		0.89	0.54				
Uniform Delay, d1		21.4	0.0		19.1		22.3	17.0				
Progression Factor		1.92	1.00		1.54		1.18	1.22				
Incremental Delay, d2		0.8	0.1		0.3		10.6	0.7				
Delay (s)		41.9	0.1		29.7		37.0	21.5				
Level of Service		D	A		C		D	C				
Approach Delay (s)		25.0			29.7			30.8			0.0	
Approach LOS		C			C			C			A	

Intersection Summary			
HCM Average Control Delay	28.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Splits and Phases: 8: Commonwealth Avenue & Carlton Street



Lane Group	EBT	EBR	WBT	NBL	NBT
Lane Configurations					
Volume (vph)	715	485	395	755	425
Lane Group Flow (vph)	769	522	512	795	526
Turn Type		pt+ov		custom	
Protected Phases	2	2 3	6	3	8
Permitted Phases				3	
Detector Phases	2	2 3	6	3	8
Minimum Initial (s)	8.0		8.0	8.0	8.0
Minimum Split (s)	27.0		20.0	25.0	27.0
Total Split (s)	45.0	100.0	45.0	55.0	55.0
Total Split (%)	45.0%	100.0%	45.0%	55.0%	55.0%
Yellow Time (s)	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0		3.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max		C-Max	None	None
Act Effct Green (s)	41.8	100.0	41.8	50.2	50.2
Actuated g/C Ratio	0.42	1.00	0.42	0.50	0.50
v/c Ratio	0.50	0.31	0.27	0.89	0.54
Control Delay	42.8	0.3	29.1	39.6	22.6
Queue Delay	1.1	0.0	0.0	0.0	0.0
Total Delay	43.9	0.3	29.2	39.6	22.6
LOS	D	A	C	D	C
Approach Delay	26.3		29.2		32.8
Approach LOS	C		C		C
Queue Length 50th (ft)	252	0	121	461	235
Queue Length 95th (ft)	314	0	145	m#670	m324
Internal Link Dist (ft)	1		708		245
Turn Bay Length (ft)					
Base Capacity (vph)	1527	1702	1895	911	985
Starvation Cap Reductn	487	0	0	0	0
Spillback Cap Reductn	0	0	172	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.31	0.30	0.87	0.53

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 83 (83%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 29.5 Intersection LOS: C
Intersection Capacity Utilization 68.3% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	12	12
Total Lost time (s)	4.0			4.0	4.0		
Lane Util. Factor	0.95			1.00	0.95		
Frpb, ped/bikes	1.00			1.00	1.00		
Flpb, ped/bikes	1.00			1.00	1.00		
Frt	1.00			1.00	1.00		
Flt Protected	1.00			0.95	1.00		
Satd. Flow (prot)	3208			1567	2989		
Flt Permitted	1.00			0.95	1.00		
Satd. Flow (perm)	3208			1567	2989		
Volume (vph)	661	22	33	28	507	0	0
Peak-hour factor, PHF	0.89	0.89	0.90	0.90	0.90	0.92	0.92
Adj. Flow (vph)	743	25	37	31	563	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	768	0	0	68	563	0	0
Confl. Peds. (#/hr)		182	198	182		367	198
Heavy Vehicles (%)	8%	5%	15%	7%	8%	0%	0%
Parking (#/hr)		10			10		
Turn Type			Prot	Prot			
Protected Phases	1		5	5	1 5		
Permitted Phases	1						
Actuated Green, G (s)	57.7			14.1	77.8		
Effective Green, g (s)	59.7			16.1	79.8		
Actuated g/C Ratio	0.60			0.16	0.80		
Clearance Time (s)	6.0			6.0			
Vehicle Extension (s)	2.0			2.0			
Lane Grp Cap (vph)	1915			252	2385		
v/s Ratio Prot	c0.24			c0.04	0.19		
v/s Ratio Perm							
v/c Ratio	0.40			0.27	0.24		
Uniform Delay, d1	10.7			36.8	2.5		
Progression Factor	2.24			0.63	0.41		
Incremental Delay, d2	0.5			0.2	0.0		
Delay (s)	24.4			23.4	1.0		
Level of Service	C			C	A		
Approach Delay (s)	24.4				3.4	0.0	
Approach LOS	C				A	A	

Intersection Summary			
HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.2
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Splits and Phases: 9: Commonwealth Avenue & St. Mary's St.



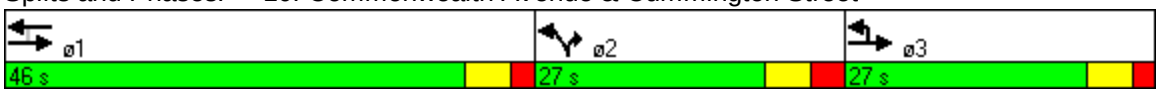
Lane Group	EBT	WBL	WBT	ø3
Lane Configurations				
Volume (vph)	661	28	507	
Lane Group Flow (vph)	768	68	563	
Turn Type		Prot		
Protected Phases	1	5	1 5	3
Permitted Phases	1			
Detector Phases	1	5	1 5	
Minimum Initial (s)	8.0	4.0		4.0
Minimum Split (s)	21.0	21.0		23.0
Total Split (s)	37.0	40.0	77.0	23.0
Total Split (%)	37.0%	40.0%	77.0%	23%
Yellow Time (s)	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		2.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	None		None
Act Effct Green (s)	62.1	16.1	83.8	
Actuated g/C Ratio	0.62	0.16	0.84	
v/c Ratio	0.39	0.27	0.22	
Control Delay	31.0	23.9	1.5	
Queue Delay	0.0	0.0	0.0	
Total Delay	31.0	23.9	1.5	
LOS	C	C	A	
Approach Delay	31.0		3.9	
Approach LOS	C		A	
Queue Length 50th (ft)	270	28	71	
Queue Length 95th (ft)	330	25	4	
Internal Link Dist (ft)	708		336	
Turn Bay Length (ft)				
Base Capacity (vph)	1987	564	2505	
Starvation Cap Reductn	0	0	0	
Spillback Cap Reductn	0	0	0	
Storage Cap Reductn	0	0	0	
Reduced v/c Ratio	0.39	0.12	0.22	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 60 (60%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 35.6%	ICU Level of Service A
Analysis Period (min) 15	

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	1.00
Flpb, ped/bikes	0.94	1.00			1.00	1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1698	3231			2908	1671	1129
Flt Permitted	0.43	1.00			1.00	0.95	1.00
Satd. Flow (perm)	760	3231			2908	1671	1129
Volume (vph)	25	655	0	0	495	24	7
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.78	0.78
Adj. Flow (vph)	29	771	0	0	538	31	9
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	29	771	0	0	538	31	9
Confl. Peds. (#/hr)	301					301	488
Heavy Vehicles (%)	0%	8%	0%	0%	11%	8%	43%
Parking (#/hr)			10		10		
Turn Type	D.P+P						Prot
Protected Phases	3	1 3			1	2	2
Permitted Phases	1						
Actuated Green, G (s)	75.0	81.0			57.8	6.0	6.0
Effective Green, g (s)	79.0	83.0			59.8	9.0	9.0
Actuated g/C Ratio	0.79	0.83			0.60	0.09	0.09
Clearance Time (s)	6.0				6.0	7.0	7.0
Vehicle Extension (s)	4.0				4.0	4.0	4.0
Lane Grp Cap (vph)	780	2682			1739	150	102
v/s Ratio Prot	0.01	c0.24			c0.19	c0.02	0.01
v/s Ratio Perm	0.02						
v/c Ratio	0.04	0.29			0.31	0.21	0.09
Uniform Delay, d1	2.3	1.9			9.9	42.2	41.7
Progression Factor	3.01	5.51			1.32	1.00	1.00
Incremental Delay, d2	0.0	0.1			0.5	0.9	0.5
Delay (s)	7.0	10.5			13.5	43.1	42.2
Level of Service	A	B			B	D	D
Approach Delay (s)		10.4			13.5	42.9	
Approach LOS		B			B	D	

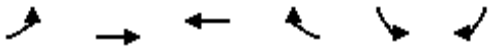
Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Splits and Phases: 10: Commonwealth Avenue & Cummington Street



Lane Group	EBU	EBT	WBT	NBL	NBR
Lane Configurations					
Volume (vph)	25	655	495	24	7
Lane Group Flow (vph)	29	771	538	31	9
Turn Type	D.P+P				Prot
Protected Phases	3	1 3	1	2	2
Permitted Phases	1				
Detector Phases	3	1 3	1	2	2
Minimum Initial (s)	1.0		4.0	8.0	8.0
Minimum Split (s)	18.0		31.0	20.0	20.0
Total Split (s)	27.0	73.0	46.0	27.0	27.0
Total Split (%)	27.0%	73.0%	46.0%	27.0%	27.0%
Yellow Time (s)	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	3.0	3.0
Lead/Lag			Lead	Lag	Lag
Lead-Lag Optimize?			Yes	Yes	Yes
Recall Mode	None		C-Max	None	None
Act Effct Green (s)	81.8	87.4	62.6	12.2	12.2
Actuated g/C Ratio	0.82	0.87	0.63	0.12	0.12
v/c Ratio	0.04	0.27	0.30	0.15	0.07
Control Delay	7.2	12.1	17.0	40.2	38.6
Queue Delay	0.0	0.5	0.0	0.0	0.0
Total Delay	7.2	12.6	17.0	40.2	38.6
LOS	A	B	B	D	D
Approach Delay		12.4	17.0	39.8	
Approach LOS		B	B	D	
Queue Length 50th (ft)	11	237	74	18	5
Queue Length 95th (ft)	26	304	154	38	17
Internal Link Dist (ft)		336	315	165	
Turn Bay Length (ft)					
Base Capacity (vph)	816	2801	1820	384	260
Starvation Cap Reductn	0	1508	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.04	0.60	0.30	0.08	0.03

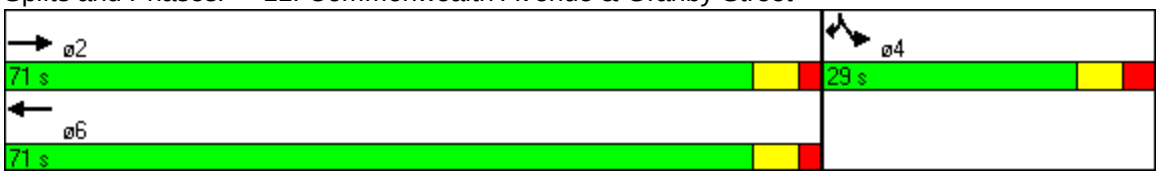
Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 13 (13%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 35.6%	ICU Level of Service A
Analysis Period (min) 15	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2961	3116		1475	1333
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2961	3116		1475	1333
Volume (vph)	0	672	417	0	50	81
Peak-hour factor, PHF	0.87	0.87	0.90	0.90	0.80	0.80
Adj. Flow (vph)	0	772	463	0	62	101
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	772	463	0	62	101
Confl. Peds. (#/hr)					164	191
Heavy Vehicles (%)	0%	9%	12%	0%	4%	3%
Parking (#/hr)		10		10	10	10
Turn Type						Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		74.5	74.5		12.5	12.5
Effective Green, g (s)		76.5	76.5		15.5	15.5
Actuated g/C Ratio		0.76	0.76		0.16	0.16
Clearance Time (s)		6.0	6.0		7.0	7.0
Vehicle Extension (s)		2.0	2.0		2.0	2.0
Lane Grp Cap (vph)		2265	2384		229	207
v/s Ratio Prot		c0.26	0.15		0.04	c0.08
v/s Ratio Perm						
v/c Ratio		0.34	0.19		0.27	0.49
Uniform Delay, d1		3.7	3.2		37.3	38.6
Progression Factor		0.83	2.37		1.00	1.00
Incremental Delay, d2		0.4	0.2		0.2	0.7
Delay (s)		3.5	7.8		37.5	39.3
Level of Service		A	A		D	D
Approach Delay (s)		3.5	7.8		38.6	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	9.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Splits and Phases: 11: Commonwealth Avenue & Granby Street



Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Volume (vph)	672	417	50	81
Lane Group Flow (vph)	772	463	62	101
Turn Type				Prot
Protected Phases	2	6	4	4
Permitted Phases				
Detector Phases	2	6	4	4
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	46.0	46.0	29.0	29.0
Total Split (s)	71.0	71.0	29.0	29.0
Total Split (%)	71.0%	71.0%	29.0%	29.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	3.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	None
Act Effct Green (s)	78.7	78.7	17.1	17.1
Actuated g/C Ratio	0.79	0.79	0.17	0.17
v/c Ratio	0.33	0.19	0.25	0.44
Control Delay	3.9	9.0	37.3	42.9
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	4.1	9.0	37.3	42.9
LOS	A	A	D	D
Approach Delay	4.1	9.0	40.8	
Approach LOS	A	A	D	
Queue Length 50th (ft)	13	57	34	58
Queue Length 95th (ft)	11	141	62	93
Internal Link Dist (ft)	315	760	283	
Turn Bay Length (ft)				
Base Capacity (vph)	2331	2454	369	333
Starvation Cap Reductn	602	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.19	0.17	0.30

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 54 (54%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 10.0	Intersection LOS: B
Intersection Capacity Utilization 37.7%	ICU Level of Service A
Analysis Period (min) 15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	12	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.98			0.90			0.80			0.91	
Flpb, ped/bikes		1.00			1.00			0.90			0.83	
Frt		0.99			0.97			0.93			0.96	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3105			2770			1243			1213	
Flt Permitted		1.00			1.00			0.89			0.87	
Satd. Flow (perm)		3105			2770			1132			1081	
Volume (vph)	0	587	21	0	424	87	2	0	2	38	27	26
Peak-hour factor, PHF	0.87	0.87	0.87	0.93	0.93	0.93	0.50	0.50	0.50	0.67	0.67	0.67
Adj. Flow (vph)	0	675	24	0	456	94	4	0	4	57	40	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	699	0	0	550	0	0	8	0	0	136	0
Confl. Peds. (#/hr)	319		216	216		319	146		384	384		146
Heavy Vehicles (%)	0%	10%	5%	0%	12%	6%	0%	0%	0%	18%	0%	15%
Parking (#/hr)			10			20			10			10
Turn Type							Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases							2			2		
Actuated Green, G (s)		68.4			68.4			18.6			18.6	
Effective Green, g (s)		70.4			70.4			21.6			21.6	
Actuated g/C Ratio		0.70			0.70			0.22			0.22	
Clearance Time (s)		6.0			6.0			7.0			7.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		2186			1950			245			233	
v/s Ratio Prot		c0.23			0.20							
v/s Ratio Perm								0.01			c0.13	
v/c Ratio		0.32			0.28			0.03			0.58	
Uniform Delay, d1		5.7			5.5			31.0			35.2	
Progression Factor		0.94			0.64			1.00			1.00	
Incremental Delay, d2		0.4			0.0			0.1			4.4	
Delay (s)		5.7			3.5			31.0			39.5	
Level of Service		A			A			C			D	
Approach Delay (s)		5.7			3.5			31.0			39.5	
Approach LOS		A			A			C			D	

Intersection Summary			
HCM Average Control Delay	8.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Splits and Phases: 12: Commonwealth Avenue & Silber Way



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations						
Volume (vph)	587	424	2	0	38	27
Lane Group Flow (vph)	699	550	0	8	0	136
Turn Type			Perm		Perm	
Protected Phases	1	1		2		2
Permitted Phases			2		2	
Detector Phases	1	1	2	2	2	2
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	35.0	35.0	21.0	21.0	21.0	21.0
Total Split (s)	64.0	64.0	36.0	36.0	36.0	36.0
Total Split (%)	64.0%	64.0%	36.0%	36.0%	36.0%	36.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	70.4	70.4		21.6		21.6
Actuated g/C Ratio	0.70	0.70		0.22		0.22
v/c Ratio	0.32	0.28		0.03		0.58
Control Delay	6.3	3.9		28.2		44.2
Queue Delay	0.0	0.0		0.0		0.0
Total Delay	6.3	3.9		28.2		44.2
LOS	A	A		C		D
Approach Delay	6.3	3.9		28.3		44.2
Approach LOS	A	A		C		D
Queue Length 50th (ft)	96	26		4		79
Queue Length 95th (ft)	63	m51		8		90
Internal Link Dist (ft)	760	909		259		325
Turn Bay Length (ft)						
Base Capacity (vph)	2187	1950		368		350
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	0.32	0.28		0.02		0.39

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 98 (98%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 35.8%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBT	EBR	EBR2	NBR2	SBR2	NER	NER2	SWL2	SWL	SWT	SWR	SWR2
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	4.0			4.0	4.0		
Lane Util. Factor	0.91			0.88	1.00	0.88			0.86	0.86		
Frpb, ped/bikes	0.96			1.00	1.00	1.00			1.00	0.72		
Flpb, ped/bikes	1.00			1.00	1.00	1.00			0.65	1.00		
Frt	0.98			0.85	0.86	0.85			1.00	0.93		
Flt Protected	1.00			1.00	1.00	1.00			0.95	1.00		
Satd. Flow (prot)	4399			2450	1508	2789			1914	1950		
Flt Permitted	1.00			1.00	1.00	1.00			0.95	1.00		
Satd. Flow (perm)	4399			2450	1508	2789			1914	1950		
Volume (vph)	433	33	17	238	23	709	34	51	340	649	508	25
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.72	0.92	0.92	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	476	36	19	259	32	771	37	53	351	669	524	26
RTOR Reduction (vph)	4	0	0	0	24	3	0	0	11	0	0	0
Lane Group Flow (vph)	527	0	0	259	8	805	0	0	393	1219	0	0
Confl. Peds. (#/hr)		221	109	26	54	140		140	221		54	357
Heavy Vehicles (%)	11%	15%	12%	16%	9%	2%	0%	10%	4%	8%	20%	0%
Bus Blockages (#/hr)	0	0	15	0	0	0	0	0	0	0	0	11
Parking (#/hr)			20									20
Turn Type				custom	custom	custom		custom	Prot			
Protected Phases	2			3	2	1			3	1 3		
Permitted Phases								3				
Actuated Green, G (s)	19.0			38.0	19.0	22.0			38.0	60.0		
Effective Green, g (s)	24.0			38.0	24.0	26.0			38.0	64.0		
Actuated g/C Ratio	0.24			0.38	0.24	0.26			0.38	0.64		
Clearance Time (s)	9.0			4.0	9.0	8.0			4.0			
Vehicle Extension (s)	2.0			2.0	2.0	2.0			2.0			
Lane Grp Cap (vph)	1056			931	362	725			727	1326		
v/s Ratio Prot	c0.12			0.11	0.01	c0.29				c0.35		
v/s Ratio Perm									0.21	0.28		
v/c Ratio	0.50			0.28	0.02	1.11			0.54	3.04dr		
Uniform Delay, d1	32.8			21.5	29.0	37.0			24.2	15.7		
Progression Factor	0.56			1.00	1.00	1.00			1.00	1.00		
Incremental Delay, d2	1.6			0.1	0.1	67.9			0.4	10.1		
Delay (s)	20.1			21.6	29.1	104.9			24.6	25.9		
Level of Service	C			C	C	F			C	C		
Approach Delay (s)	20.1									25.6		
Approach LOS	C									C		

Intersection Summary			
HCM Average Control Delay	44.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 13: Commonwealth Avenue & Beacon Street



Lane Group	EBT	NBR2	SBR2	NER	SWL	SWT
Lane Configurations						
Volume (vph)	433	238	23	709	340	649
Lane Group Flow (vph)	531	259	32	808	404	1219
Turn Type		custom	custom	custom	Prot	
Protected Phases	2	3	2	1	3	1 3
Permitted Phases						
Detector Phases	2	3	2	1	3	1 3
Minimum Initial (s)	17.0	12.0	17.0	12.0	12.0	
Minimum Split (s)	27.0	23.0	27.0	29.0	23.0	
Total Split (s)	28.0	42.0	28.0	30.0	42.0	72.0
Total Split (%)	28.0%	42.0%	28.0%	30.0%	42.0%	72.0%
Yellow Time (s)	4.0	3.0	4.0	4.0	3.0	
All-Red Time (s)	5.0	1.0	5.0	4.0	1.0	
Lead/Lag	Lag		Lag	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	C-Max	None	C-Max	None	None	
Act Effct Green (s)	24.0	38.0	24.0	26.0	38.0	64.0
Actuated g/C Ratio	0.24	0.38	0.24	0.26	0.38	0.64
v/c Ratio	0.50	0.28	0.04	1.11	0.55	3.04dr
Control Delay	20.1	22.5	0.1	103.3	26.6	284.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.1	22.5	0.1	103.3	26.6	284.7
LOS	C	C	A	F	C	F
Approach Delay	20.1					220.5
Approach LOS	C					F
Queue Length 50th (ft)	90	64	0	~336	110	~634
Queue Length 95th (ft)	72	98	0	#469	165	#783
Internal Link Dist (ft)	909					298
Turn Bay Length (ft)					150	
Base Capacity (vph)	1059	931	724	728	738	780
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	0.50	0.28	0.04	1.11	0.55	1.56

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 28 (28%), Referenced to phase 2:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.56
Intersection Signal Delay: 140.7 Intersection LOS: F
Intersection Capacity Utilization Err% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBT	WBR2	NBT	NBR	SEL
Lane Configurations					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Lane Width	16	16	12	12	12
Total Lost time (s)	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	0.88	0.95		0.97
Frt	1.00	0.85	1.00		1.00
Flt Protected	1.00	1.00	1.00		0.95
Satd. Flow (prot)	2071	3068	3602		3502
Flt Permitted	1.00	1.00	1.00		0.95
Satd. Flow (perm)	2071	3068	3602		3502
Volume (vph)	40	295	305	5	570
Peak-hour factor, PHF	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	45	335	332	5	620
RTOR Reduction (vph)	0	0	0	0	0
Lane Group Flow (vph)	45	335	337	0	620
Heavy Vehicles (%)	4%	5%	0%	0%	0%
Turn Type	Prot	custom			
Protected Phases	5	1 5	3		1
Permitted Phases		1			
Actuated Green, G (s)	10.5	65.4	13.4		48.9
Effective Green, g (s)	12.5	66.4	13.4		49.9
Actuated g/C Ratio	0.12	0.66	0.13		0.50
Clearance Time (s)	6.0		4.0		5.0
Vehicle Extension (s)	2.0		2.0		2.0
Lane Grp Cap (vph)	259	2037	483		1747
v/s Ratio Prot	0.02	c0.11	c0.09		c0.18
v/s Ratio Perm					
v/c Ratio	0.17	0.16	0.70		0.35
Uniform Delay, d1	39.1	6.3	41.4		15.3
Progression Factor	1.00	0.11	1.00		0.67
Incremental Delay, d2	0.1	0.0	3.5		0.5
Delay (s)	39.3	0.7	44.9		10.7
Level of Service	D	A	D		B
Approach Delay (s)	5.3		44.9		10.7
Approach LOS	A		D		B

Intersection Summary			
HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.2
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Splits and Phases: 18: Lenox Street & Carlton Street





Lane Group	WBT	WBR2	NBT	SEL	ø2
Lane Configurations					
Volume (vph)	40	295	305	570	
Lane Group Flow (vph)	45	335	337	620	
Turn Type	Prot	custom			
Protected Phases	5	1 5	3	1	2
Permitted Phases		1			
Detector Phases	5	1 5	3	1	
Minimum Initial (s)	10.0		4.0	10.0	1.0
Minimum Split (s)	18.0		17.0	30.0	17.0
Total Split (s)	18.0	61.0	22.0	43.0	17.0
Total Split (%)	18.0%	61.0%	22.0%	43.0%	17%
Yellow Time (s)	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0		1.0	1.0	1.0
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Recall Mode	None		None	C-Max	None
Act Effct Green (s)	12.5	68.4	13.4	51.9	
Actuated g/C Ratio	0.12	0.68	0.13	0.52	
v/c Ratio	0.17	0.16	0.70	0.34	
Control Delay	40.2	0.9	49.0	11.5	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	40.2	0.9	49.0	11.5	
LOS	D	A	D	B	
Approach Delay	5.6		49.0	11.5	
Approach LOS	A		D	B	
Queue Length 50th (ft)	20	5	109	89	
Queue Length 95th (ft)	m19	m6	150	m127	
Internal Link Dist (ft)	528		67	108	
Turn Bay Length (ft)					
Base Capacity (vph)	292	2049	649	1816	
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	0.15	0.16	0.52	0.34	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 79 (79%), Referenced to phase 1:SEL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

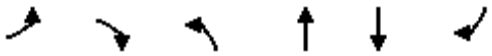
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	55	9	12	16	4	4
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Hourly flow rate (vph)	74	12	16	22	5	5
Pedestrians	2			80	23	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			7	2	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			109		159	183
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			109		159	183
tC, single (s)			4.3		6.4	6.4
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.5
p0 queue free %			99		99	99
cM capacity (veh/h)			1366		809	735

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	86	38	11
Volume Left	0	16	5
Volume Right	12	0	5
cSH	1700	1366	770
Volume to Capacity	0.05	0.01	0.01
Queue Length 95th (ft)	0	1	1
Control Delay (s)	0.0	3.3	9.7
Lane LOS		A	A
Approach Delay (s)	0.0	3.3	9.7
Approach LOS			A

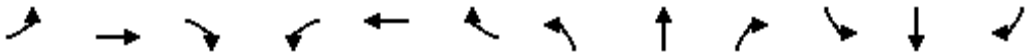
Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	69	16	2	30	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	74	17	2	32	0
Pedestrians	16			25		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	1			2		
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				762		
pX, platoon unblocked						
vC, conflicting volume	85	73	48			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	85	73	48			
tC, single (s)	6.4	6.3	4.3			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.4			
p0 queue free %	100	92	99			
cM capacity (veh/h)	898	926	1437			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	74	19	32
Volume Left	0	17	0
Volume Right	74	0	0
cSH	926	1437	1700
Volume to Capacity	0.08	0.01	0.02
Queue Length 95th (ft)	7	1	0
Control Delay (s)	9.2	6.7	0.0
Lane LOS	A	A	
Approach Delay (s)	9.2	6.7	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	6.5		
Intersection Capacity Utilization	24.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	78	18	14	0	11	0	20	6	19	5	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	87	20	16	0	12	0	22	7	21	6	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	114	28	29	27
Volume Left (vph)	8	16	0	21
Volume Right (vph)	20	12	7	0
Hadj (s)	0.01	-0.08	-0.01	0.23
Departure Headway (s)	4.1	4.1	4.2	4.5
Degree Utilization, x	0.13	0.03	0.03	0.03
Capacity (veh/h)	868	867	814	778
Control Delay (s)	7.7	7.2	7.4	7.6
Approach Delay (s)	7.7	7.2	7.4	7.6
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.6		
HCM Level of Service	A		
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations								
Sign Control		Stop				Free	Free	
Grade		0%				0%	0%	
Volume (veh/h)	1	11	80	1	42	69	129	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	13	94	0	49	81	152	1
Pedestrians		28				7	22	
Lane Width (ft)		12.0				12.0	12.0	
Walking Speed (ft/s)		4.0				4.0	4.0	
Percent Blockage		2				1	2	
Right turn flare (veh)								
Median type		None						
Median storage veh)								
Upstream signal (ft)						442		
pX, platoon unblocked	0.00			0.00				
vC, conflicting volume	0	382	187	0	181			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	0	382	187	0	181			
tC, single (s)	0.0	6.4	6.3	0.0	4.1			
tC, 2 stage (s)								
tF (s)	0.0	3.5	3.4	0.0	2.2			
p0 queue free %	0	98	89	0	96			
cM capacity (veh/h)	0	577	820	0	1374			

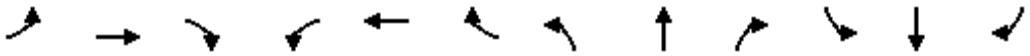
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	107	131	153
Volume Left	13	49	0
Volume Right	94	0	1
cSH	780	1374	1700
Volume to Capacity	0.14	0.04	0.09
Queue Length 95th (ft)	12	3	0
Control Delay (s)	10.3	3.1	0.0
Lane LOS	B	A	
Approach Delay (s)	10.3	3.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	12	82	86	0	0	0	0	0	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	0	0	15	100	105	0	0	0	0	0	1	1
Pedestrians		35						107				
Lane Width (ft)		12.0						0.0				
Walking Speed (ft/s)		4.0						4.0				
Percent Blockage		3						0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								363				
pX, platoon unblocked												
vC, conflicting volume	89	37	144	123	37	0	37			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	89	37	144	123	37	0	37			0		
tC, single (s)	7.4	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.8	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	98	88	87	100	100			100		
cM capacity (veh/h)	709	834	862	822	830	1091	1540			1636		

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	15	205	2
Volume Left	0	100	0
Volume Right	15	0	1
cSH	862	826	1700
Volume to Capacity	0.02	0.25	0.00
Queue Length 95th (ft)	1	24	0
Control Delay (s)	9.2	10.8	0.0
Lane LOS	A	B	
Approach Delay (s)	9.2	10.8	0.0
Approach LOS	A	B	

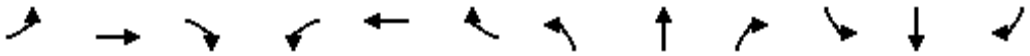
Intersection Summary			
Average Delay	10.6		
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	101	150	6	44	15	0	0	2	3
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	1	126	188	8	55	19	0	0	2	4

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	321	74	6
Volume Left (vph)	0	126	55	0
Volume Right (vph)	1	8	0	4
Hadj (s)	-0.60	0.16	0.20	-0.36
Departure Headway (s)	3.8	4.3	4.9	4.4
Degree Utilization, x	0.00	0.38	0.10	0.01
Capacity (veh/h)	896	830	694	751
Control Delay (s)	6.8	9.9	8.4	7.4
Approach Delay (s)	6.8	9.9	8.4	7.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	9.6		
HCM Level of Service	A		
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	22	236	8	20	4	0	0	2	12
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Hourly flow rate (vph)	0	0	1	28	299	10	25	5	0	0	3	15

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	337	30	18
Volume Left (vph)	0	28	25	0
Volume Right (vph)	1	10	0	15
Hadj (s)	-0.60	0.07	0.45	-0.27
Departure Headway (s)	3.7	4.1	5.1	4.4
Degree Utilization, x	0.00	0.38	0.04	0.02
Capacity (veh/h)	924	868	655	745
Control Delay (s)	6.8	9.6	8.3	7.5
Approach Delay (s)	6.8	9.6	8.3	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	9.4		
HCM Level of Service	A		
Intersection Capacity Utilization	31.3%	ICU Level of Service	A
Analysis Period (min)	15		

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			4.0	
Lane Util. Factor		0.95			0.95			1.00			0.95	
Frpb, ped/bikes		1.00			1.00			0.94			0.96	
Flpb, ped/bikes		1.00			1.00			0.88			0.87	
Frt		0.99			1.00			0.97			0.96	
Flt Protected		1.00			1.00			0.96			0.98	
Satd. Flow (prot)		3467			3406			1475			2842	
Flt Permitted		1.00			0.76			0.86			0.87	
Satd. Flow (perm)		3467			2582			1313			2536	
Volume (vph)	0	571	32	3	307	0	9	0	2	15	10	8
Peak-hour factor, PHF	0.88	0.88	0.88	0.95	0.95	0.95	0.55	0.55	0.55	0.64	0.64	0.64
Adj. Flow (vph)	0	649	36	3	323	0	16	0	4	23	16	12
RTOR Reduction (vph)	0	4	0	0	0	0	0	3	0	0	8	0
Lane Group Flow (vph)	0	681	0	0	326	0	0	17	0	0	43	0
Confl. Peds. (#/hr)			16	16		16	57		112	112		57
Heavy Vehicles (%)	0%	3%	6%	0%	6%	0%	0%	0%	0%	0%	0%	0%
Turn Type				Perm			Perm			Perm		
Protected Phases		7			5			1			1	
Permitted Phases				5			1			1		
Actuated Green, G (s)		29.4			15.6			29.4			29.4	
Effective Green, g (s)		29.4			15.6			29.4			29.4	
Actuated g/C Ratio		0.29			0.16			0.29			0.29	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1019			403			386			746	
v/s Ratio Prot		c0.20										
v/s Ratio Perm					c0.13			0.01			c0.02	
v/c Ratio		0.67			0.81			0.04			0.06	
Uniform Delay, d1		31.0			40.8			25.3			25.3	
Progression Factor		1.50			1.00			1.00			1.82	
Incremental Delay, d2		1.3			10.8			0.2			0.1	
Delay (s)		47.7			51.5			25.5			46.3	
Level of Service		D			D			C			D	
Approach Delay (s)		47.7			51.5			25.5			46.3	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	48.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	25.6
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Splits and Phases: 45: Mountfort Street & St. Mary's St.





Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT	ø2
Lane Configurations								
Volume (vph)	571	3	307	9	0	15	10	
Lane Group Flow (vph)	685	0	326	0	20	0	51	
Turn Type		Perm		Perm		Perm		
Protected Phases	7		5		1		1	2
Permitted Phases		5		1		1		
Detector Phases	7	5	5	1	1	1	1	
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.0
Minimum Split (s)	14.0	14.0	14.0	31.0	31.0	31.0	31.0	20.0
Total Split (s)	16.0	29.0	29.0	35.0	35.0	35.0	35.0	20.0
Total Split (%)	16.0%	29.0%	29.0%	35.0%	35.0%	35.0%	35.0%	20%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag				Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	29.4		15.6		31.0		31.0	
Actuated g/C Ratio	0.29		0.16		0.31		0.31	
v/c Ratio	0.67		0.76		0.05		0.06	
Control Delay	52.6		51.8		21.3		36.4	
Queue Delay	0.0		0.0		0.0		0.0	
Total Delay	52.6		51.8		21.3		36.4	
LOS	D		D		C		D	
Approach Delay	52.6		51.8		21.3		36.4	
Approach LOS	D		D		C		D	
Queue Length 50th (ft)	186		105		7		13	
Queue Length 95th (ft)	#396		145		14		22	
Internal Link Dist (ft)	528		569		431		436	
Turn Bay Length (ft)								
Base Capacity (vph)	1020		687		411		795	
Starvation Cap Reductn	0		0		0		0	
Spillback Cap Reductn	0		0		0		0	
Storage Cap Reductn	0		0		0		0	
Reduced v/c Ratio	0.67		0.47		0.05		0.06	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 95 (95%), Referenced to phase 1:NBSB, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 51.0	Intersection LOS: D
Intersection Capacity Utilization 32.7%	ICU Level of Service A
Analysis Period (min) 15	

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

Movement	EBT	EBR	WBU	WBL	WBT	NEL	NER
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	13
Total Lost time (s)	4.0			4.0	4.0		4.0
Lane Util. Factor	0.95			0.97	1.00		0.88
Frpb, ped/bikes	0.98			1.00	1.00		1.00
Flpb, ped/bikes	1.00			0.93	1.00		1.00
Frt	0.99			1.00	1.00		0.85
Flt Protected	1.00			0.95	1.00		1.00
Satd. Flow (prot)	3330			3180	1431		2852
Flt Permitted	1.00			0.58	1.00		1.00
Satd. Flow (perm)	3330			1939	1431		2852
Volume (vph)	447	26	36	600	856	0	444
Peak-hour factor, PHF	0.98	0.98	0.87	0.87	0.87	0.93	0.93
Adj. Flow (vph)	456	27	41	690	984	0	477
RTOR Reduction (vph)	3	0	0	0	0	0	0
Lane Group Flow (vph)	480	0	0	731	984	0	477
Confl. Peds. (#/hr)		334	11	254			11
Heavy Vehicles (%)	5%	8%	3%	2%	2%	0%	3%
Bus Blockages (#/hr)	0	10	0	0	10	0	0
Parking (#/hr)		20			20		
Turn Type			Perm		pt+ov		
Protected Phases	2			1	1 2		1 8
Permitted Phases			1				1 8
Actuated Green, G (s)	17.0			54.0	77.0		89.0
Effective Green, g (s)	21.0			56.0	81.0		91.0
Actuated g/C Ratio	0.18			0.47	0.68		0.76
Clearance Time (s)	8.0			6.0			
Vehicle Extension (s)	2.0			2.0			
Lane Grp Cap (vph)	583			905	966		2163
v/s Ratio Prot	0.14				c0.69		c0.17
v/s Ratio Perm				0.38			
v/c Ratio	0.82			0.81	1.02		0.22
Uniform Delay, d1	47.7			27.4	19.5		4.2
Progression Factor	1.00			1.00	1.00		1.00
Incremental Delay, d2	12.4			7.7	33.7		0.2
Delay (s)	60.1			35.1	53.2		4.4
Level of Service	E			D	D		A
Approach Delay (s)	60.1				45.5	4.4	
Approach LOS	E				D	A	

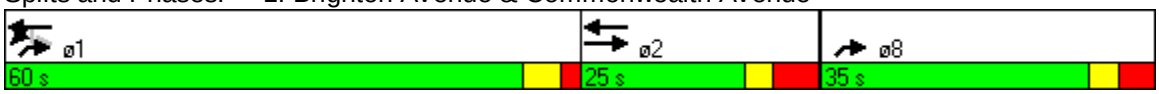
Intersection Summary			
HCM Average Control Delay	40.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBU	WBL	WBT	NER	ø8
Lane Configurations						
Volume (vph)	447	36	600	856	444	
Turn Type		Perm		pt+ov		
Protected Phases	2		1	1 2	1 8	8
Permitted Phases		1			1 8	
Detector Phases	2	1	1	1 2	1 8	
Minimum Initial (s)	8.0	8.0	8.0			8.0
Minimum Split (s)	25.0	16.0	16.0			33.0
Total Split (s)	25.0	60.0	60.0	85.0	95.0	35.0
Total Split (%)	20.8%	50.0%	50.0%	70.8%	79.2%	29%
Yellow Time (s)	3.0	4.0	4.0			3.0
All-Red Time (s)	5.0	2.0	2.0			4.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	Max	Max			Max
Act Effct Green (s)	21.0		56.0	81.0	91.0	
Actuated g/C Ratio	0.18		0.47	0.68	0.76	
v/c Ratio	0.82		0.81	1.02	0.22	
Control Delay	60.2		36.0	54.4	4.5	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	60.2		36.0	54.4	4.5	
LOS	E		D	D	A	
Approach Delay	60.2			46.6		
Approach LOS	E			D		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 64 (53%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 41.5	Intersection LOS: D
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Avenue & Commonwealth Avenue



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	12	12	12	12	12	11	12	12	12	12	12	14
Total Lost time (s)		4.0				4.0			4.0			4.0
Lane Util. Factor		0.95				0.91			1.00			1.00
Frpb, ped/bikes		0.97				0.97			0.94			0.91
Flpb, ped/bikes		1.00				0.99			0.90			0.95
Frt		0.99				0.99			0.97			0.97
Flt Protected		1.00				1.00			0.97			0.98
Satd. Flow (prot)		3412				4680			1480			1653
Flt Permitted		1.00				0.78			0.60			0.79
Satd. Flow (perm)		3412				3671			922			1340
Volume (vph)	0	748	43	20	80	1196	88	123	25	47	89	85
Peak-hour factor, PHF	0.94	0.94	0.94	0.95	0.95	0.95	0.95	0.93	0.93	0.93	0.90	0.90
Adj. Flow (vph)	0	796	46	21	84	1259	93	132	27	51	99	94
RTOR Reduction (vph)	0	2	0	0	0	7	0	0	0	0	0	9
Lane Group Flow (vph)	0	840	0	0	0	1450	0	0	210	0	0	238
Confl. Peds. (#/hr)			147	122	147		176	377		122	122	
Heavy Vehicles (%)	0%	2%	2%	0%	0%	1%	4%	0%	8%	0%	2%	1%
Parking (#/hr)			20				20			10		
Turn Type				Prot	Prot			Perm			Perm	
Protected Phases		2		1	1	6			8			4
Permitted Phases								8			4	
Actuated Green, G (s)		74.6				74.6			25.4			25.4
Effective Green, g (s)		74.6				74.6			27.4			27.4
Actuated g/C Ratio		0.68				0.68			0.25			0.25
Clearance Time (s)		4.0				4.0			6.0			6.0
Vehicle Extension (s)		2.0				2.0			2.0			2.0
Lane Grp Cap (vph)		2314				2490			230			334
v/s Ratio Prot		0.25										
v/s Ratio Perm						c0.40			c0.23			0.18
v/c Ratio		0.36				5.00dl			0.91			0.71
Uniform Delay, d1		7.6				9.4			40.1			37.7
Progression Factor		1.00				0.75			1.00			1.00
Incremental Delay, d2		0.4				0.2			35.9			5.9
Delay (s)		8.0				7.2			76.1			43.6
Level of Service		A				A			E			D
Approach Delay (s)		8.0				7.2			76.1			43.6
Approach LOS		A				A			E			D

Intersection Summary			
HCM Average Control Delay	16.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



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)	49
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	54
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	377
Heavy Vehicles (%)	0%
Parking (#/hr)	10
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	

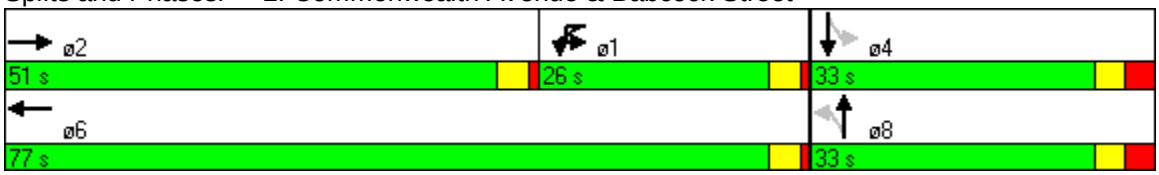
Intersection Summary

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	ø1
Lane Configurations							
Volume (vph)	748	1196	123	25	89	85	
Turn Type			Perm		Perm		
Protected Phases	2	6		8		4	1
Permitted Phases			8		4		
Detector Phases	2	6	8	8	4	4	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	12.0
Total Split (s)	51.0	77.0	33.0	33.0	33.0	33.0	26.0
Total Split (%)	46.4%	70.0%	30.0%	30.0%	30.0%	30.0%	24%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	3.0	3.0	3.0	3.0	1.0
Lead/Lag	Lead						Lag
Lead-Lag Optimize?	Yes						Yes
Recall Mode	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	74.6	74.6		27.4		27.4	
Actuated g/C Ratio	0.68	0.68		0.25		0.25	
v/c Ratio	0.36	5.00dl		0.91		0.72	
Control Delay	8.3	11.1		79.9		48.4	
Queue Delay	0.0	0.0		2.3		0.4	
Total Delay	8.3	11.1		82.2		48.8	
LOS	A	B		F		D	
Approach Delay	8.3	11.1		82.2		48.8	
Approach LOS	A	B		F		D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 66 (60%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 19.0	Intersection LOS: B
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 2: Commonwealth Avenue & Babcock Street



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	12	13	12	12	12	11	12	12	12	12	12	12
Total Lost time (s)		4.0				4.0			4.0			4.0
Lane Util. Factor		0.95				0.91			1.00			1.00
Frpb, ped/bikes		0.98				0.99			0.94			0.77
Flpb, ped/bikes		1.00				1.00			0.85			0.98
Frt		0.99				1.00			0.97			0.90
Flt Protected		1.00				1.00			0.96			0.99
Satd. Flow (prot)		3556				4903			1399			1248
Flt Permitted		0.95				0.92			0.62			0.93
Satd. Flow (perm)		3367				4531			906			1165
Volume (vph)	6	843	78	5	9	1149	17	159	4	50	23	11
Peak-hour factor, PHF	0.98	0.98	0.98	0.93	0.93	0.93	0.93	0.96	0.96	0.96	0.90	0.90
Adj. Flow (vph)	6	860	80	5	10	1235	18	166	4	52	26	12
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	10	0	0	34
Lane Group Flow (vph)	0	946	0	0	0	1268	0	0	212	0	0	105
Confl. Peds. (#/hr)	191		224	127	224		191	185		127	127	
Heavy Vehicles (%)	0%	2%	1%	20%	0%	1%	0%	1%	0%	0%	10%	0%
Parking (#/hr)			20				10			10		
Turn Type	Perm			Perm	Perm			Perm			Perm	
Protected Phases		2				6			8			4
Permitted Phases	2			6	6			8			4	
Actuated Green, G (s)		74.0				74.0			25.0			25.0
Effective Green, g (s)		75.0				75.0			27.0			27.0
Actuated g/C Ratio		0.68				0.68			0.25			0.25
Clearance Time (s)		5.0				5.0			6.0			6.0
Vehicle Extension (s)		2.0				2.0			2.0			2.0
Lane Grp Cap (vph)		2296				3089			222			286
v/s Ratio Prot												
v/s Ratio Perm		c0.28				0.28			c0.23			0.09
v/c Ratio		0.41				0.41			0.96			0.37
Uniform Delay, d1		7.7				7.7			40.9			34.4
Progression Factor		0.76				0.42			1.00			1.00
Incremental Delay, d2		0.5				0.2			47.3			0.3
Delay (s)		6.4				3.4			88.2			34.7
Level of Service		A				A			F			C
Approach Delay (s)		6.4				3.4			88.2			34.7
Approach LOS		A				A			F			C

Intersection Summary			
HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.4%	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	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	91
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	101
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	185
Heavy Vehicles (%)	0%
Parking (#/hr)	10
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	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	6	843	5	9	1149	159	4	23	11
Turn Type	Perm		Perm	Perm		Perm		Perm	
Protected Phases		2			6		8		4
Permitted Phases	2		6	6		8		4	
Detector Phases	2	2	6	6	6	8	8	4	4
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	25.0	25.0	25.0	25.0
Total Split (s)	79.0	79.0	79.0	79.0	79.0	31.0	31.0	31.0	31.0
Total Split (%)	71.8%	71.8%	71.8%	71.8%	71.8%	28.2%	28.2%	28.2%	28.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)		75.0			75.0		27.0		27.0
Actuated g/C Ratio		0.68			0.68		0.25		0.25
v/c Ratio		0.41			0.41		0.96		0.43
Control Delay		6.5			3.5		89.1		28.3
Queue Delay		0.0			0.0		0.0		0.0
Total Delay		6.5			3.5		89.1		28.3
LOS		A			A		F		C
Approach Delay		6.5			3.5		89.1		28.3
Approach LOS		A			A		F		C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 49 (45%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 59.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Commonwealth Avenue & Harry Agganis Way



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	12	11	12	12	12	11	12	12	12	12	12	10
Total Lost time (s)		4.0				4.0			4.0			4.0
Lane Util. Factor		0.95				0.91			1.00			1.00
Frpb, ped/bikes		0.94				0.98			0.83			0.97
Flpb, ped/bikes		1.00				0.97			0.91			0.92
Frt		0.99				1.00			0.93			0.99
Flt Protected		1.00				0.99			0.98			0.97
Satd. Flow (prot)		3112				4544			1285			1440
Flt Permitted		1.00				0.66			0.78			0.63
Satd. Flow (perm)		3112				3045			1029			943
Volume (vph)	0	780	84	98	247	1191	34	98	6	109	86	38
Peak-hour factor, PHF	0.96	0.96	0.96	0.89	0.89	0.89	0.89	0.90	0.90	0.90	0.76	0.76
Adj. Flow (vph)	0	812	88	110	278	1338	38	109	7	121	113	50
RTOR Reduction (vph)	0	0	0	0	0	2	0	0	0	0	0	0
Lane Group Flow (vph)	0	900	0	0	0	1762	0	0	237	0	0	175
Confl. Peds. (#/hr)			268	177	268		1312	313		177	177	
Heavy Vehicles (%)	0%	4%	2%	2%	0%	4%	3%	3%	0%	0%	7%	3%
Parking (#/hr)			20				10					
Turn Type				Prot	Prot			Perm			Perm	
Protected Phases		2		1	1	6			8			4
Permitted Phases								8			4	
Actuated Green, G (s)		74.0				74.0			28.0			28.0
Effective Green, g (s)		74.0				74.0			28.0			28.0
Actuated g/C Ratio		0.67				0.67			0.25			0.25
Clearance Time (s)		4.0				4.0			4.0			4.0
Vehicle Extension (s)		2.0				2.0			2.0			2.0
Lane Grp Cap (vph)		2094				2048			262			240
v/s Ratio Prot		0.29										
v/s Ratio Perm						c0.58			c0.23			0.19
v/c Ratio		0.43				77.60dl			0.90			0.73
Uniform Delay, d1		8.3				14.0			39.7			37.5
Progression Factor		1.37				1.16			1.00			1.00
Incremental Delay, d2		0.6				2.9			31.0			9.0
Delay (s)		12.0				19.1			70.7			46.6
Level of Service		B				B			E			D
Approach Delay (s)		12.0				19.1			70.7			46.6
Approach LOS		B				B			E			D

Intersection Summary			
HCM Average Control Delay	22.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



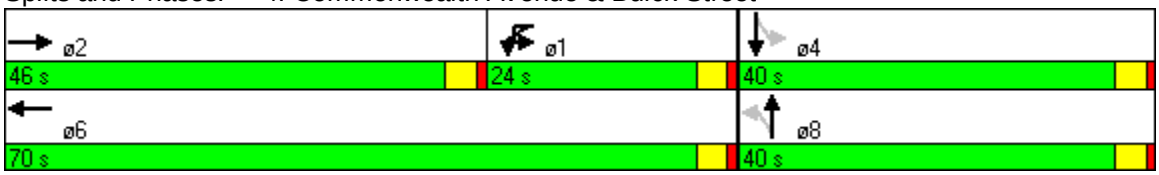
Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	10
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	9
Peak-hour factor, PHF	0.76
Adj. Flow (vph)	12
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	313
Heavy Vehicles (%)	0%
Parking (#/hr)	
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	EBT	WBT	NBL	NBT	SBL	SBT	ø1
Lane Configurations							
Volume (vph)	780	1191	98	6	86	38	
Turn Type			Perm		Perm		
Protected Phases	2	6		8		4	1
Permitted Phases			8		4		
Detector Phases	2	6	8	8	4	4	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	21.0	21.0	24.0	24.0	24.0	24.0	21.0
Total Split (s)	46.0	70.0	40.0	40.0	40.0	40.0	24.0
Total Split (%)	41.8%	63.6%	36.4%	36.4%	36.4%	36.4%	22%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead						Lag
Lead-Lag Optimize?	Yes						Yes
Recall Mode	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	74.0	74.0		28.0		28.0	
Actuated g/C Ratio	0.67	0.67		0.25		0.25	
v/c Ratio	0.43	77.60dl		0.91		0.70	
Control Delay	13.5	25.6		75.1		51.4	
Queue Delay	0.0	0.0		0.0		0.0	
Total Delay	13.5	25.6		75.1		51.4	
LOS	B	C		E		D	
Approach Delay	13.5	25.6		75.1		51.4	
Approach LOS	B	C		E		D	

Intersection Summary			
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 23 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 27.4		Intersection LOS: C	
Intersection Capacity Utilization 83.3%		ICU Level of Service E	
Analysis Period (min) 15			
dl Defacto Left Lane. Recode with 1 though lane as a left lane.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 4: Commonwealth Avenue & Buick Street



Movement	EBT	EBR	WBL	WBT	NBL	NBR
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
Frpb, ped/bikes	0.98			1.00		1.00
Flpb, ped/bikes	1.00			1.00		1.00
Frt	0.99			1.00		0.86
Flt Protected	1.00			1.00		1.00
Satd. Flow (prot)	3416			3539		1397
Flt Permitted	1.00			1.00		1.00
Satd. Flow (perm)	3416			3539		1397
Volume (vph)	1049	49	0	1392	0	168
Peak-hour factor, PHF	0.88	0.88	0.93	0.93	0.83	0.83
Adj. Flow (vph)	1192	56	0	1497	0	202
RTOR Reduction (vph)	4	0	0	0	0	105
Lane Group Flow (vph)	1244	0	0	1497	0	97
Confl. Peds. (#/hr)		475				
Heavy Vehicles (%)	3%	0%	0%	2%	0%	0%
Parking (#/hr)		20				10
Turn Type						custom
Protected Phases	4			8		2
Permitted Phases						
Actuated Green, G (s)	59.4			59.4		32.6
Effective Green, g (s)	60.4			60.4		33.6
Actuated g/C Ratio	0.55			0.55		0.31
Clearance Time (s)	5.0			5.0		5.0
Vehicle Extension (s)	2.0			2.0		2.0
Lane Grp Cap (vph)	1876			1943		427
v/s Ratio Prot	0.36			c0.42		c0.07
v/s Ratio Perm						
v/c Ratio	0.66			0.77		0.23
Uniform Delay, d1	17.6			19.4		28.5
Progression Factor	1.12			1.24		1.00
Incremental Delay, d2	0.6			1.5		1.2
Delay (s)	20.3			25.6		29.7
Level of Service	C			C		C
Approach Delay (s)	20.3			25.6	29.7	
Approach LOS	C			C	C	

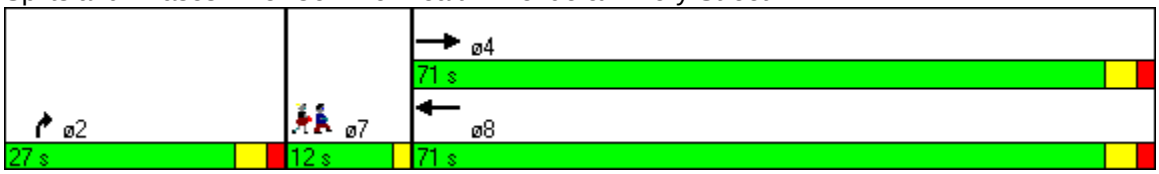
Intersection Summary			
HCM Average Control Delay	23.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		

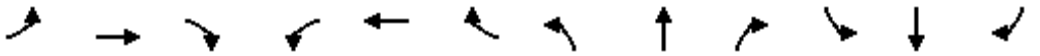
c Critical Lane Group

Lane Group	EBT	WBT	NBR	ø7
Lane Configurations				
Volume (vph)	1049	1392	168	
Turn Type			custom	
Protected Phases	4	8	2	7
Permitted Phases				
Detector Phases	4	8	2	
Minimum Initial (s)	8.0	8.0	8.0	1.0
Minimum Split (s)	41.0	41.0	22.0	12.0
Total Split (s)	71.0	71.0	27.0	12.0
Total Split (%)	64.5%	64.5%	24.5%	11%
Yellow Time (s)	3.0	3.0	3.0	2.0
All-Red Time (s)	2.0	2.0	2.0	0.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	C-Min	None
Act Effct Green (s)	60.4	60.4	34.4	
Actuated g/C Ratio	0.55	0.55	0.31	
v/c Ratio	0.66	0.77	0.37	
Control Delay	20.5	26.0	13.7	
Queue Delay	0.2	0.3	0.0	
Total Delay	20.8	26.3	13.7	
LOS	C	C	B	
Approach Delay	20.8	26.3		
Approach LOS	C	C		

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 13 (12%), Referenced to phase 2:NBR, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 48.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Commonwealth Avenue & Amory Street





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	12	12	13	16	12	12	12	12	11	15
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		0.95	1.00		0.91	1.00		0.95			0.95	1.00
Frpb, ped/bikes		1.00	0.64		1.00	1.00		1.00			1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.85		1.00	0.85		1.00			1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		3539	811		5204	1794		3610			3455	1776
Flt Permitted		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		3539	811		5204	1794		3610			3455	1776
Volume (vph)	0	940	355	0	1175	700	0	325	0	0	825	475
Peak-hour factor, PHF	0.94	0.94	0.94	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.96	0.96
Adj. Flow (vph)	0	1000	378	0	1291	769	0	357	0	0	859	495
RTOR Reduction (vph)	0	0	54	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1000	324	0	1291	769	0	357	0	0	859	495
Confl. Peds. (#/hr)			417			1426						19
Heavy Vehicles (%)	0%	2%	2%	0%	3%	2%	0%	0%	0%	0%	1%	0%
Parking (#/hr)			20									
Turn Type			Perm			custom						custom
Protected Phases		2			6	6 4		3			3 4	3 4
Permitted Phases			2									3 4
Actuated Green, G (s)		48.0	48.0		48.0	77.0		22.0			51.0	51.0
Effective Green, g (s)		48.0	48.0		48.0	77.0		25.0			54.0	54.0
Actuated g/C Ratio		0.44	0.44		0.44	0.70		0.23			0.49	0.49
Clearance Time (s)		4.0	4.0		4.0			7.0				
Vehicle Extension (s)		2.0	2.0		4.0			4.0				
Lane Grp Cap (vph)		1544	354		2271	1256		820			1696	872
v/s Ratio Prot		0.28			0.25	c0.43		0.10			0.25	c0.28
v/s Ratio Perm			c0.40									
v/c Ratio		0.65	0.91		0.57	0.61		0.44			0.51	0.57
Uniform Delay, d1		24.4	29.1		23.2	8.7		36.4			19.0	19.8
Progression Factor		1.55	1.76		0.94	0.95		0.26			1.00	1.00
Incremental Delay, d2		1.7	25.7		1.0	1.0		0.5			0.3	1.0
Delay (s)		39.4	76.9		22.8	9.2		10.0			19.3	20.8
Level of Service		D	E		C	A		A			B	C
Approach Delay (s)		49.7			17.7			10.0			19.8	
Approach LOS		D			B			A			B	

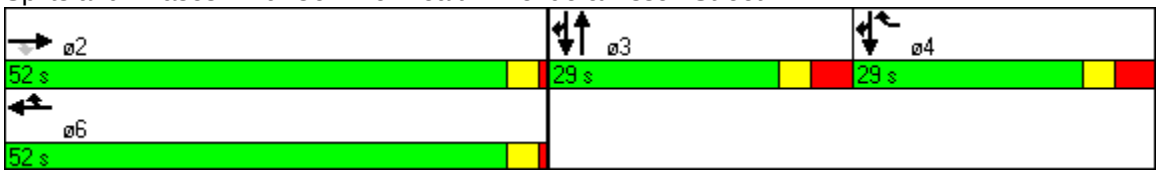
Intersection Summary			
HCM Average Control Delay	26.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

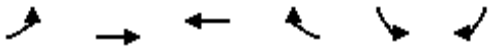
Lane Group	EBT	EBR	WBT	WBR	NBT	SBT	SBR	ø4
Lane Configurations								
Volume (vph)	940	355	1175	700	325	825	475	
Turn Type		Perm		custom			custom	
Protected Phases	2		6	6 4	3	3 4	3 4	4
Permitted Phases		2					3 4	
Detector Phases	2	2	6	6 4	3	3 4	3 4	
Minimum Initial (s)	8.0	8.0	8.0		8.0			3.0
Minimum Split (s)	29.0	29.0	28.0		29.0			15.0
Total Split (s)	52.0	52.0	52.0	81.0	29.0	58.0	58.0	29.0
Total Split (%)	47.3%	47.3%	47.3%	73.6%	26.4%	52.7%	52.7%	26%
Yellow Time (s)	3.0	3.0	3.0		3.0			3.0
All-Red Time (s)	1.0	1.0	1.0		4.0			4.0
Lead/Lag					Lead			Lag
Lead-Lag Optimize?					Yes			Yes
Recall Mode	C-Max	C-Max	C-Max		None			None
Act Effct Green (s)	48.0	48.0	48.0	77.0	25.0	54.0	54.0	
Actuated g/C Ratio	0.44	0.44	0.44	0.70	0.23	0.49	0.49	
v/c Ratio	0.65	0.93	0.57	0.61	0.44	0.51	0.57	
Control Delay	40.0	63.1	23.0	10.8	11.2	20.3	23.0	
Queue Delay	0.0	0.0	0.7	2.4	0.0	0.0	0.0	
Total Delay	40.0	63.1	23.7	13.2	11.2	20.3	23.0	
LOS	D	E	C	B	B	C	C	
Approach Delay	46.3		19.7		11.2	21.3		
Approach LOS	D		B		B	C		

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 104 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 26.7 Intersection LOS: C
Intersection Capacity Utilization 73.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Commonwealth Avenue & Essex Street





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	940	895	0	0	255
Peak Hour Factor	0.96	0.96	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	0	979	942	0	0	277
Pedestrians		2				
Lane Width (ft)		13.0				
Walking Speed (ft/s)		4.0				
Percent Blockage		0				
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		399	24			
pX, platoon unblocked					0.84	
vC, conflicting volume	942				1268	316
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	942				928	316
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	60
cM capacity (veh/h)	736				226	684

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	326	326	326	314	314	314	277
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	277
cSH	1700	1700	1700	1700	1700	1700	684
Volume to Capacity	0.19	0.19	0.19	0.18	0.18	0.18	0.40
Queue Length 95th (ft)	0	0	0	0	0	0	49
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	13.8
Lane LOS							B
Approach Delay (s)	0.0			0.0			13.8
Approach LOS							B

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	40.0%	ICU Level of Service	A
Analysis Period (min)	15		

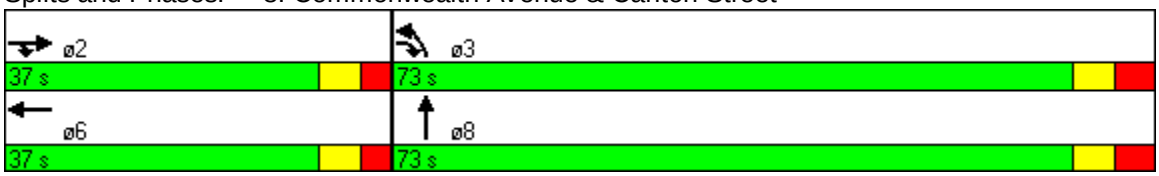
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	16	12	11	13	12	13	16	12	12	12
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0				
Lane Util. Factor		0.95	1.00		0.91		1.00	1.00				
Frpb, ped/bikes		1.00	1.00		0.95		1.00	1.00				
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00				
Frt		1.00	0.85		0.99		1.00	0.96				
Flt Protected		1.00	1.00		1.00		0.95	1.00				
Satd. Flow (prot)		3693	1757		4663		1805	1860				
Flt Permitted		1.00	1.00		1.00		0.95	1.00				
Satd. Flow (perm)		3693	1757		4663		1805	1860				
Volume (vph)	0	615	325	0	895	75	725	260	105	0	0	0
Peak-hour factor, PHF	0.96	0.96	0.96	0.95	0.95	0.95	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	0	641	339	0	942	79	771	277	112	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	641	339	0	1013	0	771	388	0	0	0	0
Confl. Peds. (#/hr)			325			842						
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	1%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	10	0	0	10	0	0	0	0	0	0
Turn Type			pt+ov				custom					
Protected Phases		2	2 3		6		3	8				
Permitted Phases							3					
Actuated Green, G (s)		36.6	110.0		36.6		58.4	58.4				
Effective Green, g (s)		39.6	110.0		39.6		62.4	62.4				
Actuated g/C Ratio		0.36	1.00		0.36		0.57	0.57				
Clearance Time (s)		7.0			7.0		8.0	8.0				
Vehicle Extension (s)		4.0			4.0		4.0	4.0				
Lane Grp Cap (vph)		1329	1757		1679		1024	1055				
v/s Ratio Prot		0.17	0.19		c0.22		c0.43	0.21				
v/s Ratio Perm												
v/c Ratio		0.48	0.19		0.60		0.75	0.37				
Uniform Delay, d1		27.3	0.0		28.8		18.0	13.0				
Progression Factor		0.08	1.00		0.55		0.82	0.85				
Incremental Delay, d2		1.0	0.1		1.5		3.3	0.3				
Delay (s)		3.2	0.1		17.4		18.1	11.4				
Level of Service		A	A		B		B	B				
Approach Delay (s)		2.1			17.4			15.9			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	NBL	NBT
Lane Configurations					
Volume (vph)	615	325	895	725	260
Turn Type		pt+ov		custom	
Protected Phases	2	2 3	6	3	8
Permitted Phases				3	
Detector Phases	2	2 3	6	3	8
Minimum Initial (s)	8.0		8.0	8.0	8.0
Minimum Split (s)	27.0		20.0	25.0	27.0
Total Split (s)	37.0	110.0	37.0	73.0	73.0
Total Split (%)	33.6%	100.0%	33.6%	66.4%	66.4%
Yellow Time (s)	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0		3.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max		C-Max	None	None
Act Effct Green (s)	39.6	110.0	39.6	62.4	62.4
Actuated g/C Ratio	0.36	1.00	0.36	0.57	0.57
v/c Ratio	0.48	0.19	0.61	0.75	0.37
Control Delay	3.2	0.2	17.8	19.8	11.8
Queue Delay	0.2	0.0	0.0	0.0	0.0
Total Delay	3.4	0.2	17.8	19.9	11.8
LOS	A	A	B	B	B
Approach Delay	2.3		17.8		17.2
Approach LOS	A		B		B

Intersection Summary			
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 13 (12%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 66.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: Commonwealth Avenue & Carlton Street



Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	12	12
Total Lost time (s)	4.0			4.0	4.0		
Lane Util. Factor	0.95			1.00	0.95		
Frpb, ped/bikes	0.98			1.00	1.00		
Flpb, ped/bikes	1.00			1.00	1.00		
Frt	0.98			1.00	1.00		
Flt Protected	1.00			0.95	1.00		
Satd. Flow (prot)	3200			1706	3104		
Flt Permitted	1.00			0.95	1.00		
Satd. Flow (perm)	3200			1706	3104		
Volume (vph)	595	66	56	77	913	0	0
Peak-hour factor, PHF	0.87	0.87	0.93	0.93	0.93	0.92	0.92
Adj. Flow (vph)	684	76	60	83	982	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	760	0	0	143	982	0	0
Confl. Peds. (#/hr)		323	682	323			
Heavy Vehicles (%)	6%	3%	4%	1%	4%	0%	0%
Parking (#/hr)		10			10		
Turn Type			Prot	Prot			
Protected Phases	1		5	5	1 5		
Permitted Phases	1						
Actuated Green, G (s)	68.4			13.4	87.8		
Effective Green, g (s)	70.4			15.4	89.8		
Actuated g/C Ratio	0.64			0.14	0.82		
Clearance Time (s)	6.0			6.0			
Vehicle Extension (s)	2.0			2.0			
Lane Grp Cap (vph)	2048			239	2534		
v/s Ratio Prot	0.24			c0.08	c0.32		
v/s Ratio Perm							
v/c Ratio	0.37			0.60	0.39		
Uniform Delay, d1	9.3			44.4	2.7		
Progression Factor	0.30			1.37	0.63		
Incremental Delay, d2	0.5			2.4	0.0		
Delay (s)	3.3			63.1	1.8		
Level of Service	A			E	A		
Approach Delay (s)	3.3				9.5	0.0	
Approach LOS	A				A	A	

Intersection Summary			
HCM Average Control Delay	7.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.2
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	ø3
Lane Configurations				
Volume (vph)	595	77	913	
Turn Type		Prot		
Protected Phases	1	5	1 5	3
Permitted Phases	1			
Detector Phases	1	5	1 5	
Minimum Initial (s)	8.0	4.0		4.0
Minimum Split (s)	22.0	21.0		23.0
Total Split (s)	39.0	48.0	87.0	23.0
Total Split (%)	35.5%	43.6%	79.1%	21%
Yellow Time (s)	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		2.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	None		None
Act Effct Green (s)	72.8	15.4	93.8	
Actuated g/C Ratio	0.66	0.14	0.85	
v/c Ratio	0.36	0.60	0.37	
Control Delay	3.8	69.1	2.5	
Queue Delay	0.0	0.0	0.0	
Total Delay	3.8	69.1	2.6	
LOS	A	E	A	
Approach Delay	3.8		11.0	
Approach LOS	A		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 23 (21%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 8.1	Intersection LOS: A
Intersection Capacity Utilization 41.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Commonwealth Avenue & St. Mary's St.



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1803	3292			3104	1770	1482
Flt Permitted	0.25	1.00			1.00	0.95	1.00
Satd. Flow (perm)	475	3292			3104	1770	1482
Volume (vph)	47	655	0	0	863	108	33
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.93	0.93
Adj. Flow (vph)	51	712	0	0	948	116	35
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	51	712	0	0	948	116	35
Confl. Peds. (#/hr)	16					16	502
Heavy Vehicles (%)	0%	6%	0%	0%	4%	2%	9%
Parking (#/hr)			10		10		
Turn Type	D.P+P						Prot
Protected Phases	3	1 3			1	2	2
Permitted Phases	1						
Actuated Green, G (s)	77.5	83.5			66.9	13.5	13.5
Effective Green, g (s)	81.5	85.5			68.9	16.5	16.5
Actuated g/C Ratio	0.74	0.78			0.63	0.15	0.15
Clearance Time (s)	6.0				6.0	7.0	7.0
Vehicle Extension (s)	4.0				4.0	4.0	4.0
Lane Grp Cap (vph)	504	2559			1944	266	222
v/s Ratio Prot	0.01	c0.22			c0.31	c0.07	0.02
v/s Ratio Perm	0.06						
v/c Ratio	0.10	0.28			0.49	0.44	0.16
Uniform Delay, d1	4.5	3.5			11.1	42.5	40.7
Progression Factor	1.66	1.28			1.85	1.00	1.00
Incremental Delay, d2	0.1	0.1			0.8	1.6	0.5
Delay (s)	7.6	4.5			21.3	44.1	41.2
Level of Service	A	A			C	D	D
Approach Delay (s)		4.7			21.3	43.4	
Approach LOS		A			C	D	

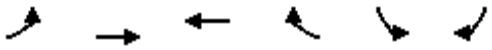
Intersection Summary			
HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBU	EBT	WBT	NBL	NBR
Lane Configurations					
Volume (vph)	47	655	863	108	33
Turn Type	D.P+P				Prot
Protected Phases	3	1 3	1	2	2
Permitted Phases	1				
Detector Phases	3	1 3	1	2	2
Minimum Initial (s)	1.0		4.0	8.0	8.0
Minimum Split (s)	21.0		31.0	20.0	20.0
Total Split (s)	21.0	89.0	68.0	21.0	21.0
Total Split (%)	19.1%	80.9%	61.8%	19.1%	19.1%
Yellow Time (s)	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	3.0	3.0
Lead/Lag			Lead	Lag	Lag
Lead-Lag Optimize?			Yes	Yes	Yes
Recall Mode	None		C-Max	None	None
Act Effct Green (s)	81.5	85.5	68.9	16.5	16.5
Actuated g/C Ratio	0.74	0.78	0.63	0.15	0.15
v/c Ratio	0.10	0.28	0.49	0.44	0.16
Control Delay	5.4	4.8	22.2	48.2	42.5
Queue Delay	0.0	0.1	0.6	0.0	0.0
Total Delay	5.4	4.9	22.8	48.2	42.5
LOS	A	A	C	D	D
Approach Delay		4.9	22.8	46.9	
Approach LOS		A	C	D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 101 (92%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 17.4	Intersection LOS: B
Intersection Capacity Utilization 41.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Commonwealth Avenue & Cummington Street





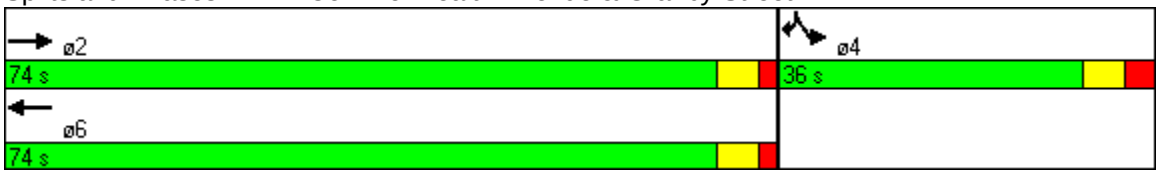
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3045	3355		1504	1333
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3045	3355		1504	1333
Volume (vph)	0	691	698	0	66	148
Peak-hour factor, PHF	0.92	0.92	0.90	0.90	0.86	0.86
Adj. Flow (vph)	0	751	776	0	77	172
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	751	776	0	77	172
Confl. Peds. (#/hr)					345	303
Heavy Vehicles (%)	0%	6%	4%	0%	2%	3%
Parking (#/hr)		10		10	10	10
Turn Type						Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		78.2	78.2		18.8	18.8
Effective Green, g (s)		80.2	80.2		21.8	21.8
Actuated g/C Ratio		0.73	0.73		0.20	0.20
Clearance Time (s)		6.0	6.0		7.0	7.0
Vehicle Extension (s)		2.0	2.0		2.0	2.0
Lane Grp Cap (vph)		2220	2446		298	264
v/s Ratio Prot		c0.25	0.23		0.05	c0.13
v/s Ratio Perm						
v/c Ratio		0.34	0.32		0.26	0.65
Uniform Delay, d1		5.4	5.3		37.3	40.6
Progression Factor		1.30	1.08		1.00	1.00
Incremental Delay, d2		0.4	0.3		0.2	4.3
Delay (s)		7.4	6.0		37.4	44.9
Level of Service		A	A		D	D
Approach Delay (s)		7.4	6.0		42.6	
Approach LOS		A	A		D	

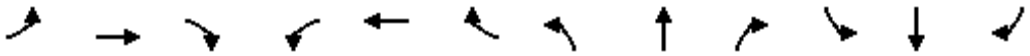
Intersection Summary			
HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Volume (vph)	691	698	66	148
Turn Type				Prot
Protected Phases	2	6	4	4
Permitted Phases				
Detector Phases	2	6	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	46.0	46.0	29.0	29.0
Total Split (s)	74.0	74.0	36.0	36.0
Total Split (%)	67.3%	67.3%	32.7%	32.7%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	3.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	None
Act Effct Green (s)	80.2	80.2	21.8	21.8
Actuated g/C Ratio	0.73	0.73	0.20	0.20
v/c Ratio	0.34	0.32	0.26	0.65
Control Delay	8.1	6.5	38.2	51.9
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	8.2	6.6	38.2	51.9
LOS	A	A	D	D
Approach Delay	8.2	6.6	47.6	
Approach LOS	A	A	D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 68 (62%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 43.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Commonwealth Avenue & Granby Street





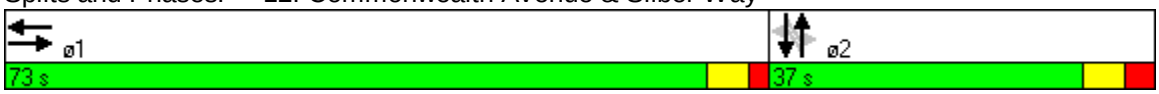
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	12	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.96			0.86			0.87			0.85	
Flpb, ped/bikes		1.00			1.00			0.88			0.79	
Frt		0.99			0.97			0.97			0.95	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3103			2809			1092			1172	
Flt Permitted		1.00			1.00			0.89			0.87	
Satd. Flow (perm)		3103			2809			997			1046	
Volume (vph)	0	702	41	0	650	132	2	1	1	52	33	43
Peak-hour factor, PHF	0.90	0.90	0.90	0.97	0.97	0.97	0.50	0.50	0.50	0.84	0.84	0.84
Adj. Flow (vph)	0	780	46	0	670	136	4	2	2	62	39	51
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	826	0	0	806	0	0	8	0	0	152	0
Confl. Peds. (#/hr)			655	655		779	408		593	593		408
Heavy Vehicles (%)	0%	7%	5%	0%	5%	2%	0%	100%	0%	2%	6%	0%
Parking (#/hr)			10			20			10			10
Turn Type							Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases							2			2		
Actuated Green, G (s)		75.5			75.5			21.5			21.5	
Effective Green, g (s)		77.5			77.5			24.5			24.5	
Actuated g/C Ratio		0.70			0.70			0.22			0.22	
Clearance Time (s)		6.0			6.0			7.0			7.0	
Vehicle Extension (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		2186			1979			222			233	
v/s Ratio Prot		0.27			c0.29							
v/s Ratio Perm								0.01			c0.15	
v/c Ratio		0.38			0.41			0.04			0.65	
Uniform Delay, d1		6.5			6.7			33.5			38.9	
Progression Factor		1.72			0.26			1.00			1.00	
Incremental Delay, d2		0.5			0.1			0.1			7.1	
Delay (s)		11.8			1.8			33.6			46.0	
Level of Service		B			A			C			D	
Approach Delay (s)		11.8			1.8			33.6			46.0	
Approach LOS		B			A			C			D	

Intersection Summary			
HCM Average Control Delay	10.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations						
Volume (vph)	702	650	2	1	52	33
Turn Type			Perm		Perm	
Protected Phases	1	1		2		2
Permitted Phases			2		2	
Detector Phases	1	1	2	2	2	2
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	35.0	35.0	21.0	21.0	21.0	21.0
Total Split (s)	73.0	73.0	37.0	37.0	37.0	37.0
Total Split (%)	66.4%	66.4%	33.6%	33.6%	33.6%	33.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	77.5	77.5		24.5		24.5
Actuated g/C Ratio	0.70	0.70		0.22		0.22
v/c Ratio	0.38	0.41		0.04		0.65
Control Delay	13.2	2.1		30.0		50.8
Queue Delay	0.0	0.0		0.0		0.0
Total Delay	13.2	2.1		30.0		50.8
LOS	B	A		C		D
Approach Delay	13.2	2.1		30.0		50.8
Approach LOS	B	A		C		D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 18 (16%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 42.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Commonwealth Avenue & Silber Way



Movement	EBT	EBR	EBR2	NBR2	SBR2	NER	NER2	SWL2	SWL	SWT	SWR	SWR2
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	4.0			4.0	4.0		
Lane Util. Factor	0.91			0.88	1.00	0.88			0.86	0.86		
Frpb, ped/bikes	0.96			1.00	1.00	1.00			1.00	0.70		
Flpb, ped/bikes	1.00			1.00	1.00	1.00			0.70	1.00		
Frt	0.98			0.85	0.86	0.85			1.00	0.93		
Flt Protected	1.00			1.00	1.00	1.00			0.95	1.00		
Satd. Flow (prot)	4580			2707	1644	2815			2046	2091		
Flt Permitted	1.00			1.00	1.00	1.00			0.95	1.00		
Satd. Flow (perm)	4580			2707	1644	2815			2046	2091		
Volume (vph)	555	43	44	424	37	558	23	64	232	875	646	24
Peak-hour factor, PHF	0.93	0.93	0.93	0.91	0.62	0.93	0.93	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	597	46	47	466	60	600	25	66	239	902	666	25
RTOR Reduction (vph)	8	0	0	0	43	2	0	0	19	0	0	0
Lane Group Flow (vph)	682	0	0	466	17	623	0	0	286	1593	0	0
Confl. Peds. (#/hr)		170		98	50	98			170		64	454
Heavy Vehicles (%)	6%	5%	7%	5%	0%	1%	0%	3%	8%	1%	4%	4%
Parking (#/hr)			20									20
Turn Type				custom	custom	custom		Perm	Prot			
Protected Phases	2			3	2	1			3	1 3		
Permitted Phases								1 3				
Actuated Green, G (s)	27.0			37.0	27.0	25.0			37.0	62.0		
Effective Green, g (s)	32.0			37.0	32.0	29.0			37.0	66.0		
Actuated g/C Ratio	0.29			0.34	0.29	0.26			0.34	0.60		
Clearance Time (s)	9.0			4.0	9.0	8.0			4.0			
Vehicle Extension (s)	2.0			2.0	2.0	2.0			2.0			
Lane Grp Cap (vph)	1332			911	478	742			688	1331		
v/s Ratio Prot	c0.15			0.17	0.01	0.22				c0.40		
v/s Ratio Perm									0.14	0.36		
v/c Ratio	0.51			0.51	0.04	0.84			0.42	4.70dr		
Uniform Delay, d1	32.5			29.3	28.0	38.3			28.2	22.0		
Progression Factor	0.94			1.00	1.00	1.00			1.00	1.00		
Incremental Delay, d2	1.3			0.2	0.1	7.9			0.1	96.2		
Delay (s)	31.8			29.5	28.1	46.2			28.3	118.2		
Level of Service	C			C	C	D			C	F		
Approach Delay (s)	31.8									103.7		
Approach LOS	C									F		

Intersection Summary			
HCM Average Control Delay	70.4	HCM Level of Service	E
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

Lane Group	EBT	NBR2	SBR2	NER	SWL	SWT
Lane Configurations						
Volume (vph)	555	424	37	558	232	875
Turn Type		custom	custom	custom	Prot	
Protected Phases	2	3	2	1	3	1 3
Permitted Phases						
Detector Phases	2	3	2	1	3	1 3
Minimum Initial (s)	17.0	12.0	17.0	12.0	12.0	
Minimum Split (s)	27.0	23.0	27.0	29.0	23.0	
Total Split (s)	36.0	41.0	36.0	33.0	41.0	74.0
Total Split (%)	32.7%	37.3%	32.7%	30.0%	37.3%	67.3%
Yellow Time (s)	4.0	3.0	4.0	4.0	3.0	
All-Red Time (s)	5.0	1.0	5.0	4.0	1.0	
Lead/Lag	Lag		Lag	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	C-Max	None	C-Max	None	None	
Act Effct Green (s)	32.0	37.0	32.0	29.0	37.0	66.0
Actuated g/C Ratio	0.29	0.34	0.29	0.26	0.34	0.60
v/c Ratio	0.51	0.51	0.08	0.84	0.43	4.70dr
Control Delay	31.5	31.7	0.2	49.7	27.8	495.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	31.7	0.2	49.7	27.8	495.5
LOS	C	C	A	D	C	F
Approach Delay	31.5					420.4
Approach LOS	C					F

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 81 (74%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.04	
Intersection Signal Delay: 231.5	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 13: Commonwealth Avenue & Beacon Street





Movement	WBT	WBR2	NBT	SEL
Lane Configurations				
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	16	16	12	12
Total Lost time (s)	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	0.95	0.97
Frpb, ped/bikes	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00
Flt Protected	1.00	1.00	1.00	0.95
Satd. Flow (prot)	2153	3158	3610	3502
Flt Permitted	1.00	1.00	1.00	0.95
Satd. Flow (perm)	2153	3158	3610	3502
Volume (vph)	60	505	205	570
Peak-hour factor, PHF	0.96	0.96	0.89	0.92
Adj. Flow (vph)	62	526	230	620
RTOR Reduction (vph)	0	0	0	0
Lane Group Flow (vph)	62	526	230	620
Confl. Peds. (#/hr)		45		56
Heavy Vehicles (%)	0%	2%	0%	0%
Turn Type	Prot	custom		
Protected Phases	5	1 5	3	1
Permitted Phases		1		
Actuated Green, G (s)	18.5	77.3	11.5	52.8
Effective Green, g (s)	20.5	78.3	11.5	53.8
Actuated g/C Ratio	0.19	0.71	0.10	0.49
Clearance Time (s)	6.0		4.0	5.0
Vehicle Extension (s)	2.0		2.0	2.0
Lane Grp Cap (vph)	401	2248	377	1713
v/s Ratio Prot	0.03	c0.17	c0.06	c0.18
v/s Ratio Perm				
v/c Ratio	0.15	0.23	0.61	0.36
Uniform Delay, d1	37.5	5.5	47.1	17.4
Progression Factor	0.45	0.40	1.00	0.65
Incremental Delay, d2	0.0	0.0	2.1	0.5
Delay (s)	16.8	2.2	49.2	11.8
Level of Service	B	A	D	B
Approach Delay (s)	3.8		49.2	11.8
Approach LOS	A		D	B

Intersection Summary			
HCM Average Control Delay	14.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.2
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBT	WBR2	NBT	SEL	ø2
Lane Configurations					
Volume (vph)	60	505	205	570	
Turn Type	Prot	custom			
Protected Phases	5	1 5	3	1	2
Permitted Phases		1			
Detector Phases	5	1 5	3	1	
Minimum Initial (s)	10.0		4.0	10.0	1.0
Minimum Split (s)	19.0		17.0	30.0	17.0
Total Split (s)	20.0	63.0	30.0	43.0	17.0
Total Split (%)	18.2%	57.3%	27.3%	39.1%	15%
Yellow Time (s)	4.0		3.0	4.0	4.0
All-Red Time (s)	2.0		1.0	1.0	1.0
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Recall Mode	None		None	C-Min	None
Act Effct Green (s)	20.5	80.3	11.5	55.9	
Actuated g/C Ratio	0.19	0.73	0.10	0.51	
v/c Ratio	0.15	0.23	0.61	0.35	
Control Delay	15.9	2.6	53.9	13.6	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	15.9	2.6	53.9	13.6	
LOS	B	A	D	B	
Approach Delay	4.0		53.9	13.6	
Approach LOS	A		D	B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 58 (53%), Referenced to phase 1:SEL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

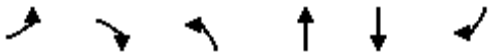
Splits and Phases: 18: Lenox Street & Carlton Street



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	21	4	13	13	15	2
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Hourly flow rate (vph)	29	6	18	18	21	3
Pedestrians	8			38	42	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			3	4	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			77		136	112
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			77		136	112
tC, single (s)			4.1		6.4	6.7
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.8
p0 queue free %			99		97	100
cM capacity (veh/h)			1481		816	772

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	35	36	24
Volume Left	0	18	21
Volume Right	6	0	3
cSH	1700	1481	811
Volume to Capacity	0.02	0.01	0.03
Queue Length 95th (ft)	0	1	2
Control Delay (s)	0.0	3.8	9.6
Lane LOS		A	A
Approach Delay (s)	0.0	3.8	9.6
Approach LOS			A

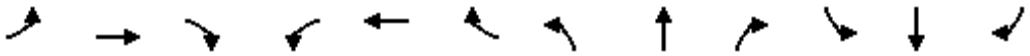
Intersection Summary			
Average Delay		3.8	
Intersection Capacity Utilization		28.0%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	2	44	34	14	6	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	52	40	16	7	0
Pedestrians	21			82	102	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	2			7	8	
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				762		
pX, platoon unblocked						
vC, conflicting volume	227	110	28			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	227	110	28			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	94	97			
cM capacity (veh/h)	671	835	1551			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	54	56	7
Volume Left	2	40	0
Volume Right	52	0	0
cSH	826	1551	1700
Volume to Capacity	0.07	0.03	0.00
Queue Length 95th (ft)	5	2	0
Control Delay (s)	9.7	5.3	0.0
Lane LOS	A	A	
Approach Delay (s)	9.7	5.3	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	7.0		
Intersection Capacity Utilization	28.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	79	48	16	0	15	0	45	6	6	22	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	9	85	52	17	0	16	0	48	6	6	24	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	145	33	55	30
Volume Left (vph)	9	17	0	6
Volume Right (vph)	52	16	6	0
Hadj (s)	-0.20	-0.19	-0.04	0.04
Departure Headway (s)	3.9	4.0	4.3	4.4
Degree Utilization, x	0.16	0.04	0.06	0.04
Capacity (veh/h)	894	862	802	784
Control Delay (s)	7.7	7.2	7.6	7.5
Approach Delay (s)	7.7	7.2	7.6	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.6		
HCM Level of Service	A		
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations								
Sign Control		Stop				Free	Free	
Grade		0%				0%	0%	
Volume (veh/h)	1	3	90	1	17	62	82	2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	3	103	0	20	71	94	2
Pedestrians		49				16	20	
Lane Width (ft)		12.0				12.0	12.0	
Walking Speed (ft/s)		4.0				4.0	4.0	
Percent Blockage		4				1	2	
Right turn flare (veh)								
Median type		None						
Median storage veh)								
Upstream signal (ft)						442		
pX, platoon unblocked	0.00			0.00				
vC, conflicting volume	0	275	160	0	146			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	0	275	160	0	146			
tC, single (s)	0.0	6.4	6.2	0.0	4.1			
tC, 2 stage (s)								
tF (s)	0.0	3.5	3.3	0.0	2.2			
p0 queue free %	0	99	88	0	99			
cM capacity (veh/h)	0	669	837	0	1390			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	107	91	97
Volume Left	3	20	0
Volume Right	103	0	2
cSH	830	1390	1700
Volume to Capacity	0.13	0.01	0.06
Queue Length 95th (ft)	11	1	0
Control Delay (s)	10.0	1.7	0.0
Lane LOS	A	A	
Approach Delay (s)	10.0	1.7	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	53	131	37	0	0	0	0	0	9	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	0	0	64	158	45	0	0	0	0	0	11	1
Pedestrians		129						267				
Lane Width (ft)		12.0						0.0				
Walking Speed (ft/s)		4.0						4.0				
Percent Blockage		11						0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								363				
pX, platoon unblocked												
vC, conflicting volume	163	140	407	342	141	0	141			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	163	140	407	342	141	0	141			0		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	89	68	93	100	100			100		
cM capacity (veh/h)	628	673	563	499	668	1091	1298			1636		

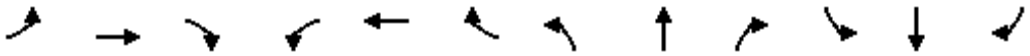
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	64	202	12
Volume Left	0	158	0
Volume Right	64	0	1
cSH	563	529	1700
Volume to Capacity	0.11	0.38	0.01
Queue Length 95th (ft)	10	45	0
Control Delay (s)	12.2	16.0	0.0
Lane LOS	B	C	
Approach Delay (s)	12.2	16.0	0.0
Approach LOS	B	C	

Intersection Summary			
Average Delay	14.4		
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	83	144	6	78	43	0	0	9	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	0	1	91	158	7	86	47	0	0	10	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	256	133	21
Volume Left (vph)	0	91	86	0
Volume Right (vph)	1	7	0	11
Hadj (s)	-0.60	0.09	0.17	-0.23
Departure Headway (s)	4.0	4.4	4.7	4.4
Degree Utilization, x	0.00	0.31	0.17	0.03
Capacity (veh/h)	853	792	726	748
Control Delay (s)	7.0	9.3	8.7	7.6
Approach Delay (s)	7.0	9.3	8.7	7.6
Approach LOS	A	A	A	A

Intersection Summary				
Delay			9.0	
HCM Level of Service			A	
Intersection Capacity Utilization			40.0%	ICU Level of Service
Analysis Period (min)			15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	24	201	4	19	15	0	0	4	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	1	25	212	4	20	16	0	0	4	13

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	241	36	17
Volume Left (vph)	0	25	20	0
Volume Right (vph)	1	4	0	13
Hadj (s)	-0.60	0.04	0.16	-0.45
Departure Headway (s)	3.7	4.1	4.6	4.0
Degree Utilization, x	0.00	0.27	0.05	0.02
Capacity (veh/h)	952	873	736	839
Control Delay (s)	6.7	8.6	7.8	7.1
Approach Delay (s)	6.7	8.6	7.8	7.1
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.4		
HCM Level of Service	A		
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

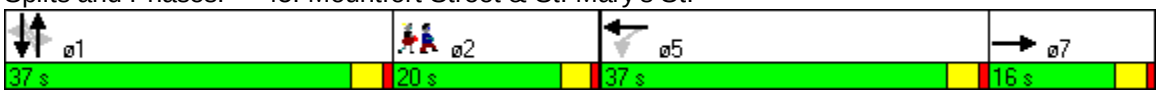
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			0.95	
Frpb, ped/bikes		1.00			1.00			1.00			0.91	
Flpb, ped/bikes		1.00			1.00			0.78			0.84	
Frt		0.99			1.00			1.00			0.96	
Flt Protected		1.00			1.00			0.95			0.98	
Satd. Flow (prot)		3485			3504			1415			2524	
Flt Permitted		1.00			0.82			0.54			0.82	
Satd. Flow (perm)		3485			2865			802			2109	
Volume (vph)	0	520	46	2	484	0	14	0	0	72	49	44
Peak-hour factor, PHF	0.96	0.96	0.96	0.86	0.86	0.86	0.50	0.50	0.50	0.74	0.74	0.74
Adj. Flow (vph)	0	542	48	2	563	0	28	0	0	97	66	59
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	0	0	40	0
Lane Group Flow (vph)	0	585	0	0	565	0	0	28	0	0	182	0
Confl. Peds. (#/hr)			54	54			148		229	229		148
Heavy Vehicles (%)	0%	2%	0%	0%	3%	0%	0%	0%	0%	3%	4%	2%
Turn Type				Perm			Perm			Perm		
Protected Phases		7			5			1			1	
Permitted Phases				5			1			1		
Actuated Green, G (s)		38.1			24.5			19.0			19.0	
Effective Green, g (s)		38.1			24.5			19.0			19.0	
Actuated g/C Ratio		0.35			0.22			0.17			0.17	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1207			638			139			364	
v/s Ratio Prot		c0.17										
v/s Ratio Perm					c0.20			0.03			c0.09	
v/c Ratio		0.49			0.89			0.20			0.50	
Uniform Delay, d1		28.2			41.4			39.0			41.2	
Progression Factor		1.55			1.00			1.00			1.15	
Incremental Delay, d2		0.1			13.6			3.2			4.6	
Delay (s)		43.8			54.9			42.2			52.1	
Level of Service		D			D			D			D	
Approach Delay (s)		43.8			54.9			42.2			52.1	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	49.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	28.4
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT	ø2
Lane Configurations								
Volume (vph)	520	2	484	14	0	72	49	
Turn Type		Perm		Perm		Perm		
Protected Phases	7		5		1		1	2
Permitted Phases		5		1		1		
Detector Phases	7	5	5	1	1	1	1	
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.0
Minimum Split (s)	14.0	14.0	14.0	31.0	31.0	31.0	31.0	20.0
Total Split (s)	16.0	37.0	37.0	37.0	37.0	37.0	37.0	20.0
Total Split (%)	14.5%	33.6%	33.6%	33.6%	33.6%	33.6%	33.6%	18%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag				Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min	C-Min	Min
Act Effct Green (s)	38.1		24.5		19.0		19.0	
Actuated g/C Ratio	0.35		0.22		0.17		0.17	
v/c Ratio	0.49		0.86		0.19		0.55	
Control Delay	47.9		54.6		43.4		43.3	
Queue Delay	0.0		0.0		0.0		0.0	
Total Delay	47.9		54.6		43.4		43.3	
LOS	D		D		D		D	
Approach Delay	47.9		54.6		43.4		43.3	
Approach LOS	D		D		D		D	

Intersection Summary			
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 74 (67%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 49.8		Intersection LOS: D	
Intersection Capacity Utilization 32.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 45: Mountfort Street & St. Mary's St.



Appendix C

Safety Data and Crash Rate Calculation Sheets

Source massDOT

Accident Data — Commonwealth Avenue @ Brighton Avenue

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2268221	BOSTON	25-Jan-07	1	0	0	3:15 AM	0	0	0	0	1	Not Reported	2	0	0	Unknown	V1: Parked / V2:Backing	V1:Northbo und / V2:Northbo	V1: Not reported / V2: Not	V1: Light truck(van, mini-van, panel, pickup, sport utility)	Dry	Not reported	Clear/Clea r	COMMO NWEALT H		
2319647	BOSTON (BRIGHTON)	7-May-07	1	0	0	7:15 PM	0	0	0	1	0	Property damage only (none	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Westbo und	V1: Not reported	V1: Motorcycle	Sand, mud, dirt, oil, gravel	Daylight	Clear	COMMO NWEALT H	1100 COMMO NWEALT	
2372643	BOSTON (ALLSTON)	19-Dec-07	1	0	0	12:50 PM	0	0	1	0	0	Property damage only (none	2	0	0	Not reported	V1: Turning left / V2:Travelling straight ahead	V1:Westbo und / V2:Westbo	V1: Not reported / V2: Not	V1: Passenger car / V2:Motorcycle	Dry	Dark - lighted roadway	Clear		BRIGHTO N AVENUE	
2342866	BOSTON	13-Jul-07	1	0	0	5:00 AM	0	0	0	0	1	Property damage only (none	2	0	0	Sideswipe, same direction	V1: Slowing or stopped in traffic /	V1:Westbo und / V2:Westbo	V1: Not reported / V2: Not	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear		1079 COMMO NWEALT	
2503868	BOSTON (ALLSTON)	11-Sep-08	0	1	0	6:30 AM	0	0	0	0	1	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Northbo und / V2:Northbo	V1: Not reported / V2: Not	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	HARVAR D STREET /		
2452349	BOSTON (BRIGHTON)	31-Dec-08	0	0	1	12:50 PM	0	0	1	0	0	Property damage only (none	3	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Eastbou nd / V2:Eastbou	V1: Not reported / V2: Not	V1: Passenger car / V2:Light truck(van, mini-van, panel,	Snow	Daylight	Blowing sand, snow	SUTCLIFF 'S FIELD PARK /	S BRIGHTO N	
2301714	BOSTON (BRIGHTON)	27-Jun-07	1	0	0	6:40 AM	0	0	0	0	1	Not Reported	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Changing	V1:Northbo und / V2:Not	V1: Not reported / V2: Not	V1: Passenger car / V2:Light truck(van, mini-van, panel,	Dry	Daylight	Clear		1096 COMMO NWEALT	
2414059	BOSTON	28-Feb-08	0	1	0	7:00 AM	0	0	0	0	1	Property damage only (none	2	0	0	Unknown	V1: Parked / V2:Not reported	V1:Not reported / V2:Not	V1: Not reported / V2: Not	V1: Passenger car / V2:Not reported	Dry	Daylight	Clear		1096 COMMO NWEALT	
2494232	BOSTON	10-Mar-08	0	1	0	9:40 PM	0	0	0	1	0	Property damage only (none	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Entering	V1:Eastbou nd / V2:Eastbou	V1: Not reported / V2: Not	V1: Not reported / V2:Not reported	Dry	Dark - lighted roadway	Clear		1096 COMMO NWEALT	
2556030	BOSTON	21-Jan-09	0	0	1	1:15 AM	0	0	0	0	1	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Northbo und / V2:Northbo	V1: Not reported / V2: Not	V1: Passenger car / V2:Light truck(van, mini-van, panel,	Dry	Daylight	Clear		COMMO NWEALT H	
2592960	BOSTON (ALLSTON)	30-Jan-09	0	0	1	3:00 AM	0	0	0	0	1	Property damage only (none	2	0	0	Not reported	V1: Travelling straight ahead / V2:Overtaking/	V1:Not reported / V2:Not	V1: Not reported / V2: Not	V1: Passenger car / V2:Passenger car	Snow	Daylight	Clear		BRIGHTO N AVENUE	
2435600	BOSTON	14-Feb-09	0	0	1	12:00 AM	0	0	0	0	0	Property damage only (none	1	0	0	Single vehicle crash	V1: Making U-turn	V1:Northbo und	V1: Not reported	V1: Passenger car	Dry	Dark - lighted roadway	Clear/Clea r		COMMO NWEALT H	
2599599	BOSTON (ALLSTON)	3-Aug-09	0	0	1	11:50 AM	0	0	1	0	0	Property damage only	2	0	0	Sideswipe, same di	V1: Travelling straight ahead /	V1:Westbo und /	V1: Not reported /	V1: Light truck(van, mini-van, panel,	Dry	Daylight	Clear	COMMO NWEALT		

= INDICATES COLLISION WITH A PEDESTRIAN OR BICYCLE

Source: massDOT

Accident Data — Commonwealth Avenue @ Babcock Street

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2295303	BOSTON	17-Mar-07	1	0	0	5:30 AM	0	0	0	0	1	Property damage only (none	2	0	0	Rear-end	V1: Travelling straight	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Wet	Dark - lighted roadway	Rain	COMMONWEALTH		
2389723	BOSTON	21-Apr-07	1	0	0	4:00 AM	0	0	0	0	1	Property damage only (none	2	0	0	Angle	V1: Changing lanes /	V1:Westbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Dry	Daylight	Clear	1029	COMMONWEALT	
2403978	BOSTON (BRIGHTON)	27-Apr-07	1	0	0	10:30 PM	0	0	0	1	0	Not Reported	2	0	0	Sideswipe, same direction	V1: Travelling straight	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Dry	Dark - lighted roadway	Clear	1010	COMMONWEALT	
2400724	BOSTON	27-Apr-07	1	0	0	12:00 PM	0	0	1	0	0	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Not reported / V2:Not	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Dry	Daylight	Clear	COMMONWEALTH		
2380666	BOSTON	26-Jun-07	1	0	0	1:30 PM	0	0	1	0	0	Unknown	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Not reported / V2:Passenger car	Dry	Daylight	Clear	COMMONWEALTH		
2371952	BOSTON (ALLSTON)	25-Sep-07	1	0	0	6:45 AM	0	0	0	0	1	Non-fatal injury	2	1	0	Sideswipe, same direction	V1: Slowing or stopped in traffic /	V1:Southbound / V2:Northbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Single-unit truck (3-or-more axles)	Dry	Dusk	Clear	BABCOCK STREET /		
2354353	BOSTON (BRIGHTON)	10-Oct-07	1	0	0	1:45 PM	0	0	1	0	0	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Not reported / V2:Not	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Cloudy	1020	COMMONWEALT	
2352552	BOSTON (BRIGHTON)	16-Nov-07	1	0	0	1:10 PM	0	0	1	0	0	Non-fatal injury	4	4	0	Sideswipe, same direction	V1: Travelling straight	V1:Westbound / V2:Westbou	V1: Not reported / V2: Not reported / V3: Not reported /	V1: Not reported / V2:Not reported / V3:Not reported /	Dry	Daylight	Clear	1001	COMMONWEALT	
2375537	BOSTON	18-Dec-07	1	0	0	4:00 AM	0	0	0	0	1	Property damage only (none	2	0	0	Angle	V1: Travelling straight	V1:Northbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Dry	Daylight	Clear	BABCOCK STREET /		
2453316	BOSTON	29-Feb-08	0	1	0	8:05 AM	1	0	0	0	0	Not Reported	1	0	0	Not reported	V1: Travelling straight	V1:Westbound	V1: Not reported	V1: Passenger car	Dry	Daylight	Clear	COMMONWEALTH		
2438208	BOSTON (ALLSTON)	8-May-08	0	1	0	7:15 AM	1	0	0	0	0	Non-fatal injury	2	1	0	Not reported	V1: Travelling straight	V1:Westbound / V2:Not reported	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Wet	Daylight	Rain	COMMONWEALTH		
2494926	BOSTON	25-May-08	0	1	0	9:53 AM	0	0	1	0	0	Non-fatal injury	2	1	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Not reported / V2:Not	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Daylight	Clear	COMMONWEALTH		
2488008	BOSTON	11-Nov-08	0	1	0	4:00 PM	0	0	1	0	0	Not Reported	2	0	0	Not reported	V1: Slowing or stopped in traffic /	V1:Not reported / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Dark - lighted roadway	Cloudy	COMMONWEALTH		
2608152	BOSTON	6-Jul-09	0	0	1	4:00 PM	0	0	1	0	0	Property damage only (none	2	0	0	Sideswipe, same	V1: Travelling straight	V1:Westbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Clear	COMMONWEALTH		
2551559	BOSTON	26-Nov-09	0	0	1	12:00 AM	0	0	0	0	0	Property damage only (none	2	0	0	Sideswipe, same	V1: Parked / V2:Travellin	V1:Northbound / V2:Northbou	V1: Collision with motor vehicle in traffic / V2: Collision	V1: Passenger car / V2:Passenger car	Wet	Dark - lighted roadway	Clear		20 feet S from Intersectio	

Source massDOT

Accident Data

Commonwealth Avenue @ Harry Agganis Way @ Pleasant Street

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2290013	BOSTON (ALLSTON)	17-Feb-07	1	0	0	9:30 AM	0	0	1	0	0	Non-fatal injury	2	1	0	Sideswipe, opposite direction	V1: Travelling straight	V1:Eastbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport	Dry	Daylight	Clear	COMMONWEALTH		
2318230	BOSTON	12-Apr-07	1	0	0	6:30 PM	0	0	0	1	0	Non-fatal injury	2	2	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Westbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport	Wet	Dawn	Rain	COMMONWEALTH		
2339142	BOSTON	11-May-07	1	0	0	1:20 AM	0	0	0	0	1	Property damage only (none	2	0	0	Angle	V1: Travelling straight	V1:Northbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Dark - lighted roadway	Clear	PLEASANT STREET /		
2318023	BOSTON	21-May-07	1	0	0	4:45 AM	0	0	0	0	1	Property damage only (none	2	0	0	Angle	V1: Entering traffic lane /	V1:Southbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	COMMONWEALTH		
2337960	BOSTON (ALLSTON)	27-Jun-07	1	0	0	5:30 PM	0	1	0	0	0	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Daylight	Clear	COMMONWEALTH		
2384890	BOSTON	3-Nov-07	1	0	0	9:35 PM	0	0	0	1	0	Non-fatal injury	2	1	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Eastbound / V2:Not reported	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Wet	Dark - unknown roadway	Not Reported	COMMONWEALTH		
2327470	BOSTON	27-Nov-07	1	0	0	6:10 PM	0	0	0	1	0	Non-fatal injury	2	1	0	Head-on	V1: Travelling straight	V1:Westbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Dark - lighted roadway	Cloudy	COMMONWEALTH		
2453316	BOSTON	29-Feb-08	0	1	0	8:05 AM	1	0	0	0	0	Not Reported	1	0	0	Not reported	V1: Travelling straight	V1:Westbound	V1: Not reported	V1: Passenger car	Dry	Daylight	Clear	COMMONWEALTH		
2511051	BOSTON	21-Jul-08	0	1	0	6:05 PM	0	0	0	1	0	Property damage only (none	2	0	0	Rear-end	V1: Travelling straight	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Clear		COMMONWEALTH	
2495911	BOSTON	2-Jan-08	0	1	0	6:15 AM	0	0	0	0	1	Non-fatal injury	2	1	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires /	Dry	Dark - lighted roadway	Clear		950 COMMONWEALT	
2406737	BOSTON	27-Jan-08	0	1	0	12:00 PM	0	0	1	0	0	Property damage only (none	2	0	0	Unknown	V1: Parked / V2:Not reported	V1:Not reported / V2:Not	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Wet	Daylight	Snow		951 COMMONWEALT	
2428087	BOSTON	25-Apr-08	0	1	0	9:00 AM	1	0	0	0	0	Property damage only (none	2	0	0	Sideswipe, same direction	V1: Travelling straight	V1:Westbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Not reported / V2:Passenger car	Dry	Daylight	Clear		930 COMMONWEALT	
2508550	BOSTON	25-Aug-08	0	1	0	7:00 AM	0	0	0	0	1	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Not reported / V2:Not	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport	Dry	Daylight	Clear		925 COMMONWEALT	
2478025	BOSTON	18-Nov-08	0	1	0	5:45 AM	0	0	0	0	1	Property damage only (none	2	0	0	Angle	V1: Other / V2:Changing lanes	V1:Westbound / V2:Not reported	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear		925 COMMONWEALT	

Source massDOT

Accident Data

Commonwealth Avenue @ Buick Street @ Saint Paul Street

1

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2298848	BOSTON	29-Jun-07	1	0	0	5:35 PM	0	1	0	0	0	Property damage only (none	2	0	0	Sideswipe, same direction	V1: Changing lanes /	V1:Westbou nd / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear		915 COMMO NWEALT	
2331671	BOSTON (ALLSTON)	3-Aug-07	1	0	0	4:30 AM	0	0	0	0	1	Non-fatal injury	2	2	0	Angle	V1: Travelling straight	V1:Not reported / V2:Not	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	COMMO NWEALT H		
2333600	BOSTON	1-Sep-07	1	0	0	10:15 AM	0	0	1	0	0	Property damage only (none	2	0	0	Angle	V1: Travelling straight	V1:Eastbou nd / V2:Northbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport	Dry	Daylight	Clear	COMMO NWEALT H		
2313295	BOSTON	25-May-07	1	0	0	12:20 PM	0	0	1	0	0	Property damage only (none	2	0	0	Not reported	V1: Turning left / V2:Travellin	V1:Southbo und / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	COMMO NWEALT H		
2328964	BOSTON	16-Aug-07	1	0	0	9:00 AM	1	0	0	0	0	Property damage only (none	2	0	0	Angle	V1: Changing lanes /	V1:Westbou nd / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport	Dry	Daylight	Clear	COMMO NWEALT H		
2367820	BOSTON	27-Jan-08	0	1	0	11:15 AM	0	0	1	0	0	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Eastbou nd / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires /	Snow	Daylight	Snow		801 COMMO NWEALT	
2498405	BOSTON	30-Sep-08	0	1	0	7:30 PM	0	0	0	1	0	Property damage only (none	2	0	0	Sideswipe, same direction	V1: Slowing or stopped in traffic /	V1:Westbou nd / V2:Westbou	V1: Not reported / V2: Not reported	V1: Not reported / V2:Passenger car	Wet	Dusk	Cloudy	COMMO NWEALT H		
2455808	BOSTON	29-Jul-08	0	1	0	5:15 PM	0	1	0	0	0	Property damage only (none	1	0	0	Unknown	V1: Travelling straight	V1:Westbou nd	V1: Not reported	V1: Not reported	Dry	Daylight	Clear	COMMO NWEALT H		
2474861	BOSTON	9-Nov-08	0	1	0	1:00 PM	0	0	1	0	0	Non-fatal injury	1	1	0	Sideswipe, same direction	V1: Leaving traffic lane	V1:Eastbou nd	V1: Not reported	V1: Not reported	Dry	Daylight	Clear		COMMO NWEALT H	
2519970	BOSTON (BRIGHTON)	8-Sep-09	0	0	1	11:00 AM	0	0	1	0	0	Not Reported	1	0	0	Not reported	V1: Parked	V1:Not reported	V1: Collision with pedestrian	V1: Passenger car	Dry	Daylight	Clear/Clear	COMMO NWEALT H		
2545262	BOSTON (ALLSTON)	21-Nov-09	0	0	1	10:45 AM	0	0	1	0	0	Not Reported	2	0	0	Angle	V1: Travelling straight	V2:Southbo und / V2:Westbou	V1: Collision with motor vehicle in traffic / V2: Collision	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport	Dry	Daylight	Clear/Clear	COMMO NWEALT H		
2602437	BOSTON	23-Aug-09	0	0	1	10:25 PM	0	0	0	1	0	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Westbou nd / V2:Westbou	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires /	Dry	Dark - lighted roadway	Clear	COMMO NWEALT H		

Source massDOT

Accident Data

Commonwealth Avenue @ Amory Street

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicle	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersecti	Distance from Nearest	Distance from Nearest	Distance from Nearest	Address/ Distance from
			0	0	0		0	0	0	0	0															
2387546	BOSTON	4-Oct-07	1	0	0	4:45 AM	0	0	0	0	1	Property damage only (none	2	0	0	Sideswipe, same direction	V1: Travelling straight	V1:Not reported / V2:Not	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Dry	Daylight	Clear	COMMON WEALTH AVENUE /		
2368690	BOSTON	22-Oct-07	1	0	0	9:58 AM	0	0	1	0	0	Property damage only (none	2	0	0	Rear-end	V1: Travelling straight	V1:Eastbound / V2:Not reported	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Daylight	Clear		880 COMMON WEALTH	
2430883	BOSTON	8-Apr-08	0	1	0	7:15 PM	0	0	0	1	0	Property damage only (none	2	0	0	Not reported	V1: Slowing or stopped in traffic /	V1:Eastbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Dusk	Clear		840 COMMON WEALTH	
2499611	BOSTON	27-Sep-08	0	1	0	2:10 AM	0	0	0	0	1	Non-fatal injury	2	1	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Eastbound / V2:Eastboun	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup,	Wet	Daylight	Rain		COMMON WEALTH AVENUE /	
2543578	BOSTON	1-Dec-09	0	0	1	12:20 PM	0	0	1	0	0	Non-fatal injury	1	1	0	Single vehicle cr	V1: Travelling straight	V1:Northbound	V1: Collision with pedestrian	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Dry	Daylight	Clear	COMMON WEALTH AVENUE		

Source massDOT

Accident Data

Commonwealth Avenue @ Boston University Bridge @ Essex Street

1

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicle	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersecti	Distance from Nearest	Distance from Nearest	Distance from Nearest	Address/ Distance from
			0	0	0		0	0	0	0	0															
2276806	BOSTON	20-Feb-07	1	0	0	9:15 AM	0	0	1	0	0	Unknown	2	0	0	Angle	V1: Travelling straight	V1:Westbound / V2:Northbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Cloudy	COMMONWEALTH AVENUE /		
2317608	BOSTON (BRIGHTON)	24-Apr-07	1	0	0	12:30 PM	0	0	1	0	0	Unknown	1	0	0	Angle	V1: Travelling straight	V1:Westbound	V1: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Dry	Daylight	Clear	COMMONWEALTH AVENUE /		
2310434	BOSTON	5-May-07	1	0	0	3:30 AM	0	0	0	0	1	Non-fatal injury	1	1	0	Sideswipe, same direction	V1: Turning right	V1:Westbound	V1: Not reported	V1: Passenger car	Dry	Daylight	Clear		50 feet W from Intersectio	
2306547	BOSTON	4-Jul-07	1	0	0	10:40 AM	0	0	1	0	0	Non-fatal injury	2	2	0	Not reported	V1: Not reported / V2:Not	V1:Not reported / V2:Not	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Not reported	Not reported	Not Reported	COMMONWEALTH AVENUE /		
2377285	BOSTON	3-Aug-07	1	0	0	8:30 AM	1	0	0	0	0	Property damage only (none	2	0	0	Angle	V1: Turning right / V2:Changin	V1:Westbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Wet	Dusk	Rain	COMMONWEALTH AVENUE /		
2372016	BOSTON	17-Dec-07	1	0	0	6:45 AM	0	0	0	0	1	Property damage only (none	2	0	0	Not reported	V1: Slowing or stopped in traffic /	V1:Not reported / V2:Not	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Snow	Daylight	Clear	COMMONWEALTH AVENUE /		
2273550	BOSTON (BRIGHTON)	20-Feb-07	1	0	0	9:11 AM	0	0	1	0	0	Non-fatal injury	2	3	0	Head-on	V1: Travelling straight	V1:Westbound / V2:Northbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	COMMONWEALTH AVENUE /		
2310084	BOSTON	16-Apr-07	1	0	0	11:15 AM	0	0	1	0	0	Property damage only (none	2	0	0	Not reported	V1: Travelling straight	V1:Northbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Wet	Daylight	Rain	COMMONWEALTH AVENUE /		
2324389	BOSTON	31-Jul-07	1	0	0	5:45 PM	0	1	0	0	0	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Westbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear		COMMONWEALTH AVENUE	
2327219	BOSTON	24-Aug-07	1	0	0	6:50 PM	0	0	0	1	0	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Truck/trailer	Dry	Daylight	Cloudy	COMMONWEALTH AVENUE /		
2359253	BOSTON	28-Oct-07	1	0	0	11:00 AM	0	0	1	0	0	Non-fatal injury	3	2	0	Rear-end	V1: Travelling straight	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported / V3: Not reported	V1: Passenger car / V2:Passenger car / V3:Passenger car	Dry	Daylight	Clear		808 COMMONWEALTH	
2353930	BOSTON	5-Feb-08	0	1	0	4:05 PM	0	1	0	0	0	Property damage only (none	2	0	0	Angle	V1: Travelling straight	V1:Eastbound / V2:Northbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Wet	Dusk	Cloudy	COMMONWEALTH AVENUE /		
2317644	BOSTON	9-May-08	0	1	0	3:07 AM	0	0	0	0	1	Property damage only (none	1	0	0	Single vehicle crash	V1: Travelling straight	V1:Westbound	V1: Collision with median barrier	V1: Passenger car	Dry	Dark - roadway not lighted	Clear		BOSTON UNIVERSITY	
2358476	BOSTON	28-Jul-08	0	1	0	7:42 PM	0	0	0	1	0	Property damage only (none	2	0	0	Angle	V2: Turning right / V2:Travellin	V1:Northbound / V2:Northbou	V1: Collision with motor vehicle in traffic / V2: Collision with	V1: Passenger car / V2:Bus (seats for more than 15 people	Dry	Daylight	Clear		COMMONWEALTH AVENUE /	
2510315	BOSTON	17-Sep-08	0	1	0	8:00 AM	1	0	0	0	0	Property damage only (none	2	0	0	Rear-end	V1: Turning left / V2:Turning	V1:Northbound / V2:Northbou	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Dry	Daylight	Clear	STORROW DRIVE	COMMONWEALTH AVENUE /	
2509865	BOSTON	11-Sep-08	0	1	0	4:35 AM	0	0	0	0	1	Non-fatal injury	2	2	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Southbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Dry	Daylight	Clear		808 COMMONWEALTH	
2532528	BOSTON	24-Oct-09	0	0	1	9:12 AM	0	0	1	0	0	Property damage only (none	2	0	0	Not reported	V1: Travelling straight	V1:Southbound / V2:Eastbou	V1: Collision with motor vehicle in traffic / V2: Collision with	V1: Not reported / V2:Passenger car	Not reported	Daylight	Rain/Rain		808 COMMONWEALTH	
2492437	BOSTON (BRIGHTON)	10-Dec-08	0	1	0	9:40 AM	0	0	1	0	0	Property damage only (none	2	0	0	Angle	V1: Travelling straight	V1:Northbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Wet	Daylight	Rain		COMMONWEALTH AVENUE /	
2438010	BOSTON	24-Dec-08	0	1	0	7:30 AM	1	0	0	0	0	Not Reported	2	0	0	Sideswipe, same direction	V2: Turning right / V2:Turning	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Daylight	Clear	COMMONWEALTH AVENUE		
2571329	BOSTON	3-Nov-09	0	0	1	11:15 AM	0	0	1	0	0	Not Reported	1	0	0	Sideswipe, opposite	V1: Travelling straight	V1:Eastbound	V1: Not reported	V1: Passenger car	Dry	Daylight	Clear	COMMONWEALTH AVENUE /		

Source massDOT

Accident Data

Commonwealth Avenue @ Carlton Street Bridge @ University Road

1

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2359253	BOSTON	28-Oct-07	1	0	0	11:00 AM	0	0	1	0	0	Non-fatal injury	3	2	0	Rear-end	V1: Travelling straight	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported / V3: Not reported	V1: Passenger car / V2:Passenger car / V3:Passenger car	Dry	Daylight	Clear		808 COMMONWEALT	
2325661	BOSTON (ALLSTON)	24-Jun-07	1	0	0	3:15 AM	0	0	0	0	1	Property damage only (none	2	0	0	Not reported	V1: Slowing or stopped in traffic /	V1:Eastbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only	Dry	Daylight	Clear		COMMONWEALTH	
2319276	BOSTON	2-Nov-07	1	0	0	2:00 PM	0	0	1	0	0	Property damage only (none	2	0	0	Angle	V1: Not reported / V2:Not	V1:Northbound / V2:Northbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup,	Dry	Daylight	Clear		MOUNT VERNON STREET /	
2478226	BOSTON	17-Aug-08	0	1	0	4:45 PM	0	1	0	0	0	Property damage only (none	2	0	0	Angle	V1: Travelling straight	V1:Westbound / V2:Northbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear		Rte 2 / COMMONWEALT	
2380536	BOSTON	15-Sep-08	0	1	0	10:25 PM	0	0	0	1	0	Non-fatal injury	2	2	0	Sideswipe, same direction	V1: Turning left / V2:Not	V1:Eastbound / V2:Not	V1: Collision with railway vehicle (e.g.	V1: Passenger car / V2:Unknown heavy	Dry	Daylight	Cloudy		COMMONWEALT	
2520241	BOSTON (BRIGHTON)	14-Sep-09	0	0	1	12:57 PM	0	0	1	0	0	Not Reported	2	0	0	Angle	V1: Not reported /	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini	Dry	Daylight	Clear/Clea		COMMONWEALT	
2532516	BOSTON	1-Nov-09	0	0	1	1:05 AM	0	0	0	0	1	Property damage only	1	0	0	Sideswipe, sam	V1: Changing	V1:Southbound	V1: Collision with cyclist (bicycle,	V1: Not reported	Wet	Dark - lighted	Rain/Rain		COMMONWEALT	

Source: massDOT

Accident Data

Commonwealth Avenue @ Saint Mary's Street

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2372121	BOSTON	14-Oct-07	1	0	0	5:30 PM	0	1	0	0	0	Property damage only (none	2	0	0	Sideswipe, same direction	V1: Travelling straight V2: Westbou	V1:Westbou nd / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini van, panel, pickup,	Dry	Dawn	Clear	COMMONWEALTH		
2359347	BOSTON	2-Dec-07	1	0	0	6:20 PM	0	0	0	1	0	Not Reported	2	0	0	Angle	V1: Changing lanes / V2: Westbou	V1:Westbou nd / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Wet	Dark - lighted roadway	Snow		30 COMMONWEALT	
2317964	BOSTON	21-Feb-07	1	0	0	4:50 AM	0	0	0	0	1	Property damage only	1	0	0	Single vehicle crash	V1: Travelling	V1:Westbou nd	V1: Not reported	V1: Light truck(van, mini-van, panel, pickup,	Dry	Daylight	Clear		745 COMMO	
2478749	BOSTON	25-Mar-08	0	1	0	9:35 AM	0	0	1	0	0	Non-fatal injury	2	1	0	Rear-end	V1: Parked /	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Bus (seats for more than 15 people,	Dry	Daylight	Clear		SAINT MARYS	
2509799	BOSTON	17-Jun-08	0	1	0	8:35 AM	1	0	0	0	0	Property damage only	2	0	0	Rear-end	V1: Travelling	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear		728 COMMO	

Source

Accident Data — Commonwealth Avenue @ Cummington Street

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2309938	BOSTON	13-Feb-07	1	0	0	1:00 PM	0	0	1	0	0	Property damage only	2	0	0	Not reported	V1: Slowing or stopped	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Not reported	Not reported	Not Reported	COMMONWEALT		
2260969	BOSTON	31-Mar-07	1	0	0	9:50 AM	0	0	1	0	0	Property damage only	2	0	0	Angle	V1: Travelling	V1:Eastbound /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted	Clear	COMMONWEALT		
2338246	BOSTON (BRIGHTON)	16-Jul-07	1	0	0	10:45 AM	0	0	1	0	0	Property damage only	1	0	0	Single vehicle crash	V1: Travelling	V1:Westbound	V1: Not reported	V1: Passenger car	Dry	Dark - lighted	Clear	COMMONWEALT		
2345906	BOSTON	11-Sep-07	1	0	0	12:20 PM	0	0	1	0	0	Not Reported	2	0	0	Not reported	V1: Slowing or stopped	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Wet	Daylight	Rain	COMMONWEALT		

Source massDOT

Accident Data — Commonwealth Avenue @ Granby Street

1.

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2307268	BOSTON	16-May-07	1	0	0	7:20 PM	0	0	0	1	0	Property damage only (none	2	0	0	Angle	V1: Entering traffic lane /	V1:Westbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Wet	Dusk	Rain	GRANBY STREET / COMMO		
2377522	BOSTON	15-Nov-07	1	0	0	12:30 PM	0	0	1	0	0	Property damage only (none	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Westbound / V2:Westbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Cloudy		65U COMMONWEALT	

Source massDOT

Accident Data

Commonwealth Avenue @ Blandford Street @ Silber Way

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2404194	BOSTON	26-Jun-07	1	0	0	7:20 PM	0	0	0	1	0	Unknown	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2: Travelling straight	V1:Eastbound / V2:Eastbound	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Cloudy		b02 COMMONWEALT	
2337587	BOSTON	18-Sep-07	1	0	0	10:20 AM	0	0	1	0	0	Not Reported	2	0	0	Single vehicle crash	V1: Travelling straight	V1:Eastbound / V2:Northbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup,	Dry	Daylight	Clear	SHERBORN STREET /		
2357056	BOSTON	9-Nov-07	1	0	0	8:45 AM	1	0	0	0	0	Non-fatal injury	2	1	0	Rear-end	V1: Turning right / V2: Parked	V1:Westbound / V1:Not reported /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	COMMONWEALT		
2451676	BOSTON	29-Apr-08	0	1	0	11:55 AM	0	0	1	0	0	Not Reported	2	0	0	Angle	V2:Backing	V2:Not	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup sport utility) with only	Wet	Daylight	Cloudy		BLANDFORD STREET /	

Source massDOT

Accident Data

Commonwealth Avenue @ Brookline Avenue @ Deerfield Street (Kenmore)

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2340682	BOSTON	6-Jul-07	1	0	0	8:00 AM	1	0	0	0	0	Non-fatal injury	2	2	0	Rear-end	V1: Slowing or stopped in traffic /	V1: Southbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup,	Dry	Daylight	Clear	COMMONWEALTH		
2358971	BOSTON	9-Nov-07	1	0	0	7:30 PM	0	0	0	1	0	Property damage only (none	2	0	0	Not reported	V1: Travelling straight /	V1:Westbound / V2:Eastbou	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Not reported	Not reported	Not Reported		BROOKLINE AVENUE	
2401669	BOSTON	26-Apr-07	1	0	0	8:30 AM	1	0	0	0	0	Not Reported	2	0	0	Not reported	V1: Parked /	V1:Northbou nd /	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Clear		530 COMMO	
2269375	BOSTON (BRIGHTON)	9-Feb-07	1	0	0	12:05 PM	0	0	1	0	0	Property damage only	2	0	0	Sideswipe, same direction	V1: Travelling	V1:Eastbou nd /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Daylight	Clear		BEACON STREET /	
2316587	BOSTON	3-Apr-07	1	0	0	9:00 AM	1	0	0	0	0	Property damage only	3	0	0	Sideswipe, same direction	V1: Travelling	V1:Eastbou nd / V2:Not	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Clear		COMMONWEALT	
2312006	BOSTON	22-May-07	1	0	0	3:30 AM	0	0	0	0	1	Not Reported	2	0	0	Not reported	V1: Travelling	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Not reported	Not reported	Not Reported	BEACON STREET /		
2352410	BOSTON	30-May-07	1	0	0	10:05 AM	0	0	1	0	0	Property damage only	2	0	0	Rear-end	V1: Slowing or stopped	V1:Eastbou nd /	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup,	Dry	Dark - lighted	Clear		COMMONWEALT	
2327857	BOSTON (ALLSTON)	24-Jun-07	1	0	0	3:15 AM	0	0	0	0	1	Property damage only	2	0	0	Angle	V1: Travelling	V1:Southbou nd / V2:Not	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	COMMONWEALT		
2340190	BOSTON	12-Jul-07	1	0	0	2:10 PM	0	0	1	0	0	Property damage only	2	0	0	Not reported	V1: Slowing or stopped	V1:Westbou nd /	V1: Not reported / V2: Not reported	V1: Single-unit truck (2-axle, 6-tire) /	Ice	Daylight	Clear/Rain	BEACON STREET /		
2298505	BOSTON	31-Aug-07	1	0	0	7:00 PM	0	0	0	1	0	Property damage only	2	0	0	Sideswipe, same direction	V1: Travelling	V1:Westbou nd /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Other	Dry	Daylight	Clear	BEACON STREET /		
2302590	BOSTON	14-Dec-07	1	0	0	3:00 AM	0	0	0	0	1	Property damage only	2	0	0	Sideswipe, same direction	V1: Travelling	V1:Southbou nd /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear		COMMONWEALT	
2327145	BOSTON	6-Feb-07	1	0	0	6:00 AM	0	0	0	0	1	Not Reported	2	0	0	Rear-end	V1: Slowing or stopped	V1:Northbou nd /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted	Clear	COMMONWEALT		
2279944	BOSTON	18-Feb-07	1	0	0	2:00 AM	0	0	0	0	1	Property damage only	3	0	0	Rear-end	V1: Slowing or stopped	V1:Northbou nd /	V1: Not reported / V2: Not reported /	V1: Passenger car / V2:Passenger car /	Dry	Dark - lighted	Clear		50 feet S from	
2365011	BOSTON	24-Mar-07	1	0	0	5:45 AM	0	0	0	0	1	Property damage only	2	0	0	Angle	V1: Turning left /	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Dusk	Clear	COMMONWEALT		
2389870	BOSTON	20-Apr-07	1	0	0	4:50 AM	0	0	0	0	1	Property damage only	2	0	0	Single vehicle crash	V1: Slowing or stopped	V1:Westbou nd / V2:Not	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	COMMONWEALT		
2337294	BOSTON	24-Sep-07	1	0	0	11:45 AM	0	0	1	0	0	Property damage only	2	0	0	Unknown	V1: Slowing or stopped	V1:Eastbou nd / V2:Not	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Daylight	Clear	COMMONWEALT		
2519117	BOSTON	29-Oct-08	0	1	0	7:00 AM	0	0	0	0	1	Non-fatal injury	2	1	0	Angle	V1: Travelling	V1:Westbou nd /	V1: Not reported / V2: Not reported	V1: Motorcycle / V2:Light truck(van, mini-van,	Dry	Dark - roadway	Clear		669 BEACON	
2451678	BOSTON	1-Jun-08	0	1	0	3:35 AM	0	0	0	0	1	Property damage only	2	0	0	Sideswipe, same direction	V1: Slowing or stopped	V1:Northbou nd /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Dark - lighted	Clear	DEERFIELD		
2450485	BOSTON	22-Jul-08	0	1	0	4:00 AM	0	0	0	0	1	Property damage only	2	0	0	Not reported	V1: Travelling	V1:Eastbou nd /	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup,	Dry	Daylight	Clear	BEACON STREET /		
2500288	BOSTON	28-Sep-08	0	1	0	1:00 AM	0	0	0	0	1	Property damage only	3	0	0	Head-on	V1: Slowing or stopped	V1:Northbou nd /	V1: Not reported / V2: Not reported /	V1: Passenger car / V2:Passenger car /	Wet	Daylight	Rain	BROOKLINE		
2433396	BOSTON	28-Mar-08	0	1	0	12:30 PM	0	0	1	0	0	Not Reported	2	0	0	Sideswipe, same direction	V1: Travelling	V1:Eastbou nd /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Single-unit truck (2-a	Wet	Daylight	Cloudy	COMMONWEALT		
2458707	BOSTON	14-May-08	0	1	0	12:30 PM	0	0	1	0	0	Property damage only	2	0	0	Sideswipe, same direction	V1: Travelling	V1:Northbou nd /	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup,	Dry	Daylight	Clear		990 COMMO	
2518133	BOSTON	11-Jun-08	0	1	0	7:00 AM	0	0	0	0	1	Property damage only	2	0	0	Sideswipe, same direction	V1: Travelling	V1:Westbou nd /	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup,	Dry	Daylight	Clear		COMMONWEALT	
2475174	BOSTON	5-Sep-08	0	1	0	11:35 AM	0	0	1	0	0	Property damage only	2	0	0	Sideswipe, same direction	V1: Travelling	V1:Westbou nd /	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Clear		BEACON STREET	
2447452	BOSTON (BRIGHTON)	8-Dec-08	0	1	0	12:30 PM	0	0	1	0	0	Non-fatal injury	2	3	0	Not reported	V1: Not reported /	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Not reported	Not reported	Not Reported		COMMONWEALT	
2525028	BOSTON	6-Oct-09	0	0	1	1:11 PM	0	0	1	0	0	Property damage only	2	0	0	Sideswipe, same d	V1: Parked /	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Clear		530 COMMO	
2654836	BOSTON	19-Aug-09	0	0	1	12:14 PM	0	0	1	0	0	Property damage only	2	0	0	Sideswipe, same d	V1: Travelling	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Clear		BEACON STREET /	

Source massDOT

Accident Data — Bay State Road @ Deerfield Street

1

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2369135	BOSTON	26-Dec-07	1	0	0	10:45 AM	0	0	1	0	0	Property damage only	2	0	0	Not reported	V1: Slowing or stopped	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini	Wet	Daylight	Clear	STORROW DRIVE		

Source massDOT

Accident Data — Bay State Road @ Silber Way

1.

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2510830	BOSTON	14-Feb-08	0	1	0	3:00 PM	0	0	1	0	0	Property damage only	2	0	0	Angle	V1: Slowing or stopped	V1:Northbound /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Dark - lighted	Clear	SHERBORN		
2441216	BOSTON	25-Apr-08	0	1	0	10:33 AM	0	0	1	0	0	Property damage only	2	0	0	Angle	V1: Backing /	V1:Eastbound / V2:Not	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted	Cloudy		140 BAY STATE	
2512226	BOSTON	29-May-08	0	1	0	6:21 PM	0	0	0	1	0	Not Reported	2	0	0	Not reported	V1: Slowing or stopped	V1:Westbound / V2:Not	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Dusk	Clear	BAY STATE		

																				Source	massDOT					
Accident Data					**Bay State Road @ Granby Street**											1										
Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															

																				Source	massDOT					
Accident Data					**Mountfort Street @ Saint Mary's Street**											1										
Crash Number	**City/Town Name**	**Crash Date**	**2007**	**2008**	**2009**	**Crash Time**	**7 to 9**	**4 to 6**	**9:00 to 16:00**	**18:00 to 0:00**	**0:00 to 7:00**	**Crash Severity**	**Number of Vehicles**	**Total Nonfatal Injuries**	**Total Fatal Injuries**	**Manner of Collision**	**Vehicles Travel Directions**	**Most Harmful Events**	**Road Surface Condition**	**Ambient Light**	**Weather Condition**	**Roadway Intersection**	**from Nearest Roadway**	**from Nearest Milemark**	**from Nearest Exit**	**Distance from Nearest**
			0	0	0		0	0	0	0	0															
2553631	BOSTON	3-Mar-09	0	0	1	9:34 AM	0	0	1	0	0	Property damage only	2	0	0	Sideswipe, same	V1: Slowing or stopped	V1:Northbound / V2:Not	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup,	Ice	Daylight	Clear		50 SAINT MARYS	

Source

Accident Data

Mountfort Street @ Carlton Street @ Lenox Street

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2390341	BOSTON (HYDE PARK)	11-Oct-07	1	0	0	1:45 PM	0	0	1	0	0	Not Reported	2	0	0	Rear-end	V1: Slowing or stopped in traffic /	V1:Southbound / V2:Southbo	V1: Not reported / V2: Not reported	V1: Not reported / V2:Passenger car	Dry	Daylight	Clear	UKRAINE WAY / HYDE		
2446336	BOSTON (ALLSTON)	24-Jun-08	0	1	0	12:50 PM	0	0	1	0	0	Property damage only	2	0	0	Rear-end	V1: Slowing or stopped	V1:Not reported /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	MOUNTFORT		
2497958	BOSTON	22-Sep-08	0	1	0	3:30 PM	0	0	1	0	0	Non-fatal injury	2	1	0	Rear-end	V1: Travelling	V1:Eastbound /	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Clear		MOUNTFORT	

																				Source	massDOT					
Accident Data					**Babcock Street @ Gardner Street**												1									
Crash Number	**City/Town Name**	**Crash Date**	**2007**	**2008**	**2009**	**Crash Time**	**7 to 9**	**4 to 6**	**9:00 to 16:00**	**18:00 to 0:00**	**0:00 to 7:00**	**Crash Severity**	**Number of Vehicles**	**Total Nonfatal Injuries**	**Total Fatal Injuries**	**Manner of Collision**	**Vehicles Travel Directions**	**Most Harmful Events**	**Road Surface Condition**	**Ambient Light**	**Weather Condition**	**Roadway Intersection**	**from Nearest Roadway**	**from Nearest Milemark**	**from Nearest Exit**	**Distance from Nearest**
			0	0	0		0	0	0	0	0															
2367538	BOSTON	10-Feb-07	1	0	0	6:00 AM	0	0	0	0	1	Property damage only	2	0	0	Sideswipe, same direction	V1: Parked /	V1:Eastbound /	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	Dry	Dark - lighted	Clear	GARDNER		
2648024	BOSTON (BRIGHTON)	8-Nov-09	0	0	1	9:15 AM	0	0	1	0	0	Unknown	2	0	0	Unknown	V1: Travelling	V1:Not reported /	V1: Collision with parked motor vehicle	V1: Light truck(van, mini-van, panel, pickup,	Dry	Daylight	Clear/Other	GARDNER		

																				Source	massDOT					
Accident Data					**Babcock Street @ Ashford Street**											1										
Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															

Source massDOT

Accident Data — Hyde Park Avenue @ Ukraine Street

1.

Crash Number	City/Town Name	Crash Date	2007	2008	2009	Crash Time	7 to 9	4 to 6	9:00 to 16:00	18:00 to 0:00	0:00 to 7:00	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicles Travel Directions	Most Harmful Events	Road Surface Condition	Ambient Light	Weather Condition	Roadway Intersection	from Nearest Roadway	from Nearest Milemark	from Nearest Exit	Distance from Nearest
			0	0	0		0	0	0	0	0															
2350341	BOSTON (BRIGHTON)	16-Mar-07	1	0	0	3:30 AM	0	0	0	0	1	Not Reported	2	0	0	Angle	V1: Slowing or stopped	V1:Northbound /	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup	Snow	Daylight	Snow	ALCORN STREET /		

																				Source	massDOT					
Accident Data					**Hyde Park Avenue @ Ukraine Street**											1										
Crash Number	**City/Town Name**	**Crash Date**	**2007**	**2008**	**2009**	**Crash Time**	**7 to 9**	**4 to 6**	**9:00 to 16:00**	**18:00 to 0:00**	**0:00 to 7:00**	**Crash Severity**	**Number of Vehicles**	**Total Nonfatal Injuries**	**Total Fatal Injuries**	**Manner of Collision**	**Vehicles Travel Directions**	**Most Harmful Events**	**Road Surface Condition**	**Ambient Light**	**Weather Condition**	**Roadway Intersection**	**from Nearest Roadway**	**from Nearest Milemark**	**from Nearest Exit**	**Distance from Nearest**
			0	0	0		0	0	0	0	0															
2516755	BOSTON	19-Sep-09	0	0	1	4:55 PM	0	1	0	0	0	Non-fatal injury	1	1	0	Single vehicle c	V1: Turning right	V1:Southbound	V1: Collision with cyclist (bicycle,	V1: Passenger car	Dry	Daylight	Clear	ALCORN STREET /	1065 ALCORN	

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston COUNT DATE : 03/20/12

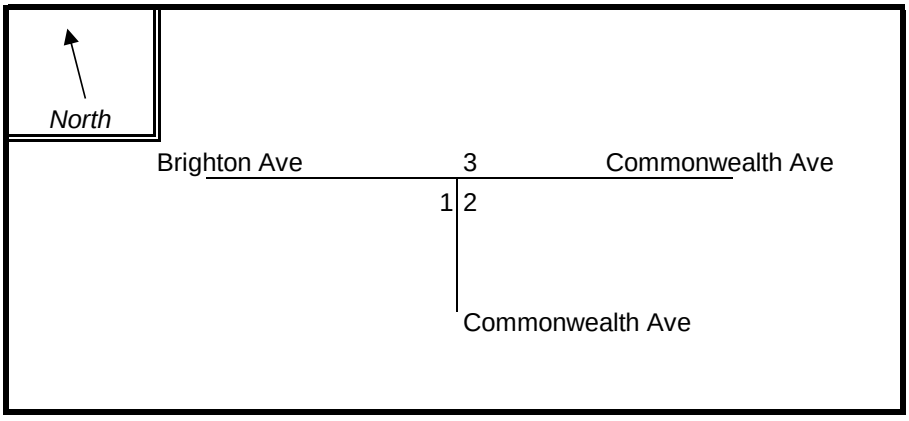
DISTRICT : 6 UNSIGNALIZED : SIGNALIZED : **YES**

~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Brighton Avenue

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	WB			
PEAK HOURLY VOLUMES (PM) :	473	444	1,492			**2,409**

" K " FACTOR : **0.071** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **33,930**

TOTAL # OF CRASHES : 13 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **4.33**

CRASH RATE CALCULATION : **0.35** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 11/18/09

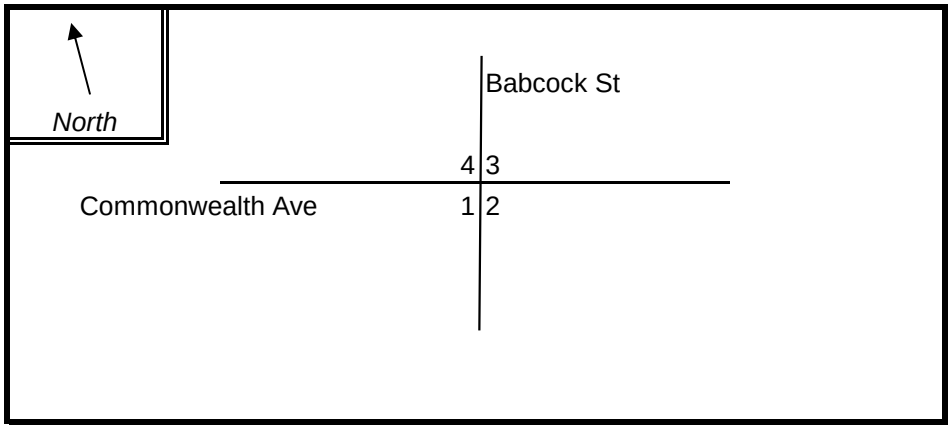
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Babcock Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	WB	SB		
PEAK HOURLY VOLUMES (PM) :	791	195	1,384	223		**2,593**

" K " FACTOR : **0.071**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **36,521**

TOTAL # OF CRASHES : 15

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **5.00**

CRASH RATE CALCULATION : **0.38**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 11/18/09

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

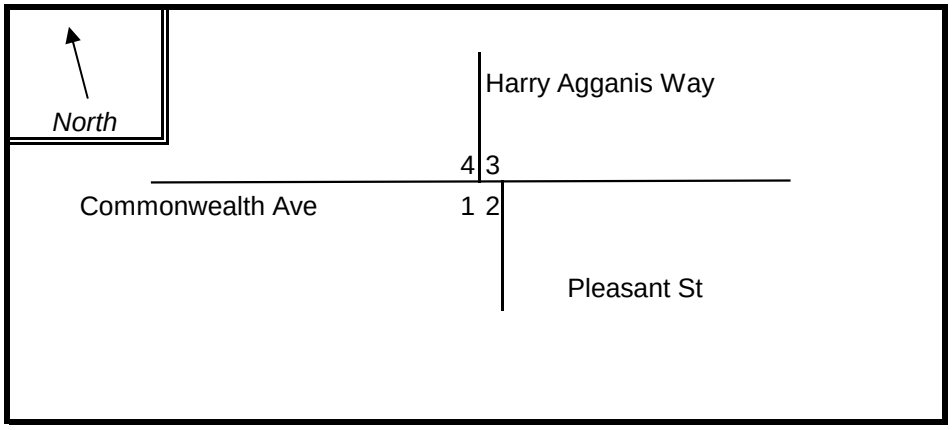
~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Harry Agganis Way

Pleasant Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	WB	SB		
PEAK HOURLY VOLUMES (PM) :	927	213	1,180	125		**2,445**

" K " FACTOR : **0.071**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **34,437**

TOTAL # OF CRASHES : 14

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **4.67**

CRASH RATE CALCULATION : **0.37**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

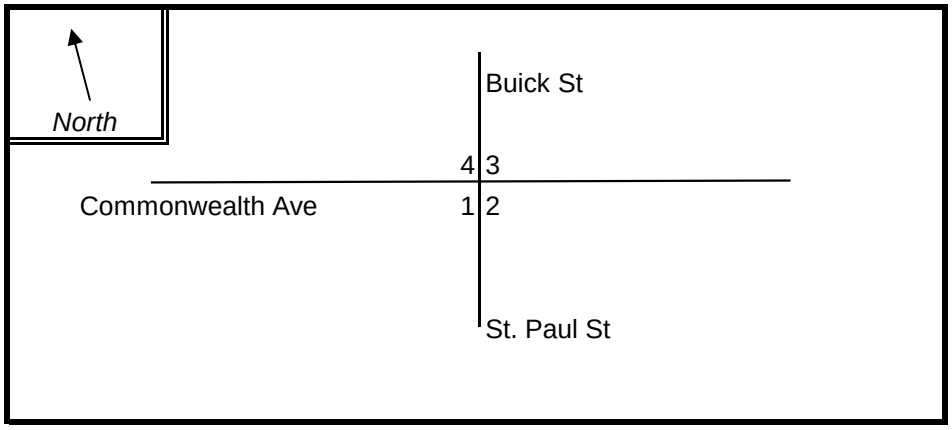
~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Buick Street

Saint Paul Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	WB	SB		
PEAK HOURLY VOLUMES (PM) :	864	213	1,570	133		**2,780**

" K " FACTOR : **0.071**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **39,155**

TOTAL # OF CRASHES : 12

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **4.00**

CRASH RATE CALCULATION : **0.28**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 11/18/09

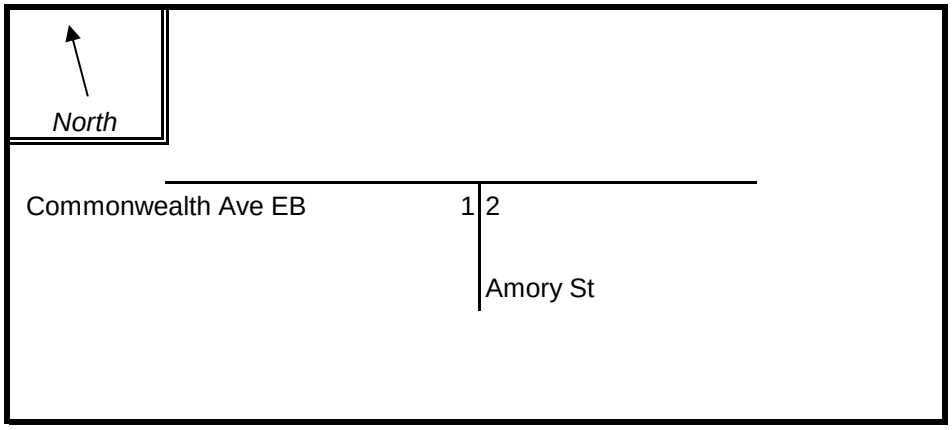
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue Eastbound

MINOR STREET(S) : Amory Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB				
PEAK HOURLY VOLUMES (PM) :	1,098	168				**1,266**

" K " FACTOR : **0.071** | INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **17,831**

TOTAL # OF CRASHES : 5 | # OF YEARS : 3 | AVERAGE # OF CRASHES PER YEAR (**A**) : **1.67**

CRASH RATE CALCULATION : **0.26**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 09/14/11

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

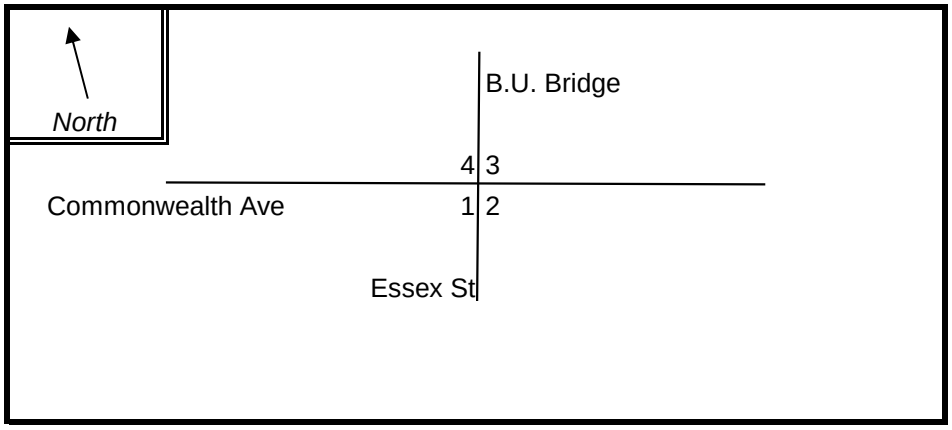
~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Boston University Bridge

Essex Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	WB	SB		
PEAK HOURLY VOLUMES (PM) :	1,295	325	1,875	1,300		**4,795**

" K " FACTOR : **0.071** | INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **67,535**

TOTAL # OF CRASHES : 20 | # OF YEARS : 3 | AVERAGE # OF CRASHES PER YEAR (**A**) : **6.67**

CRASH RATE CALCULATION : **0.27**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 09/14/11

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

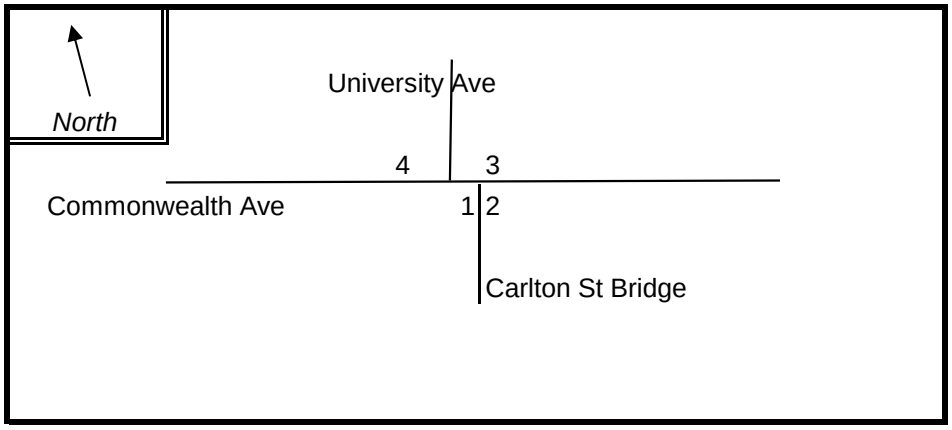
~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : University Avenue

Carlton Street Bridge

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	WB	SB		
PEAK HOURLY VOLUMES (PM) :	940	1,090	895	255		**3,180**

" K " FACTOR : **0.076**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **41,842**

TOTAL # OF CRASHES : 7

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **2.33**

CRASH RATE CALCULATION : **0.15**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

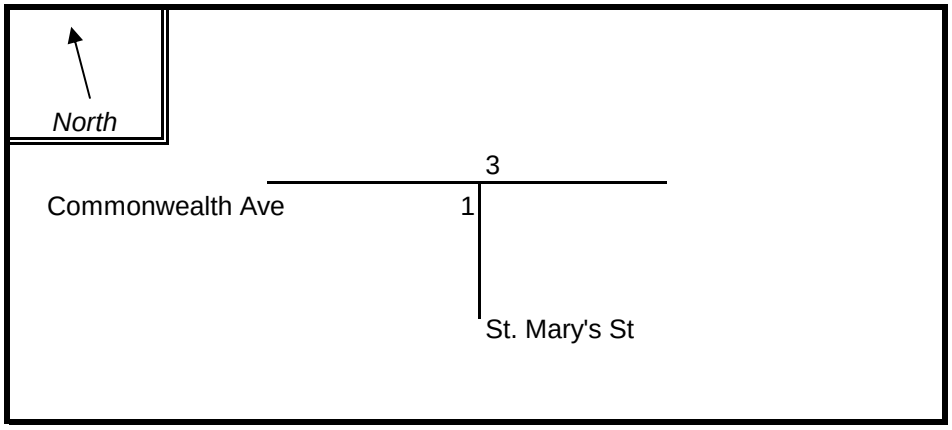
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Saint Mary's Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB		WB			
PEAK HOURLY VOLUMES (PM) :	661		1,046			**1,707**

" K " FACTOR : **0.076**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **22,461**

TOTAL # OF CRASHES : 5

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **1.67**

CRASH RATE CALCULATION : **0.20**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

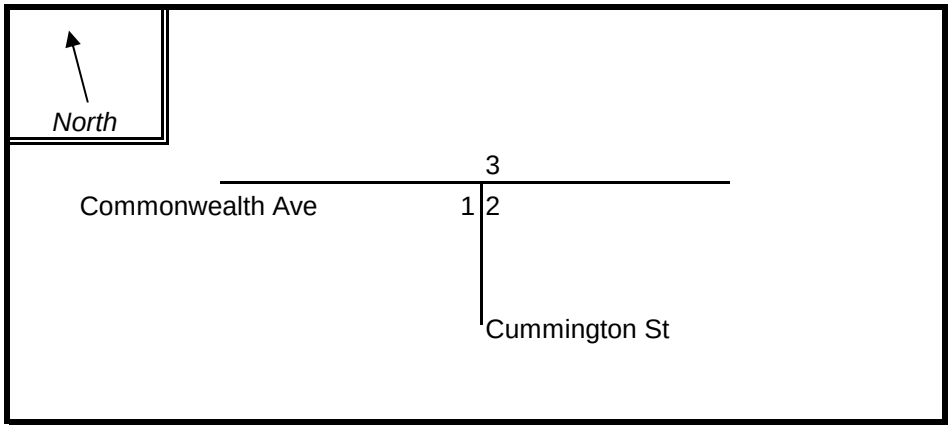
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Cummington Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	WB			
PEAK HOURLY VOLUMES (PM) :	702	141	863			**1,706**

" K " FACTOR : **0.076** | INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **22,447**

TOTAL # OF CRASHES : 4 | # OF YEARS : 3 | AVERAGE # OF CRASHES PER YEAR (**A**) : **1.33**

CRASH RATE CALCULATION : **0.16**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

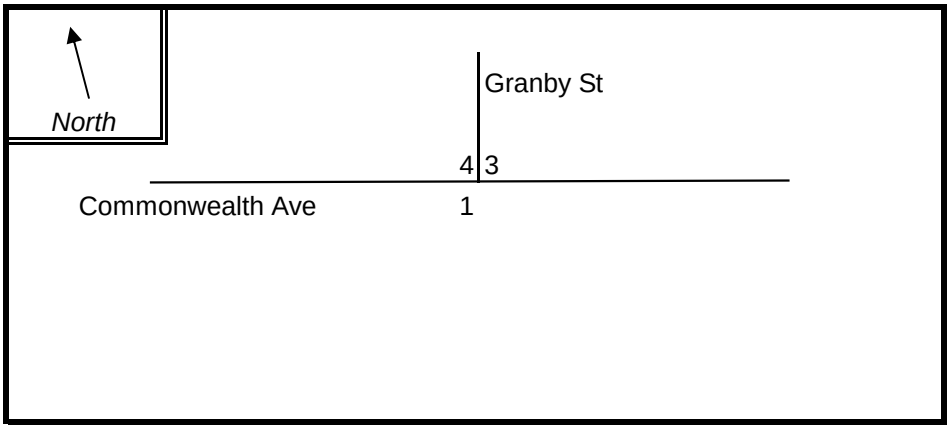
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Granby Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB		WB	SB		
PEAK HOURLY VOLUMES (PM) :	691		698	214		**1,603**

" K " FACTOR : **0.076**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **21,092**

TOTAL # OF CRASHES : 2

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.67**

CRASH RATE CALCULATION : **0.09**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

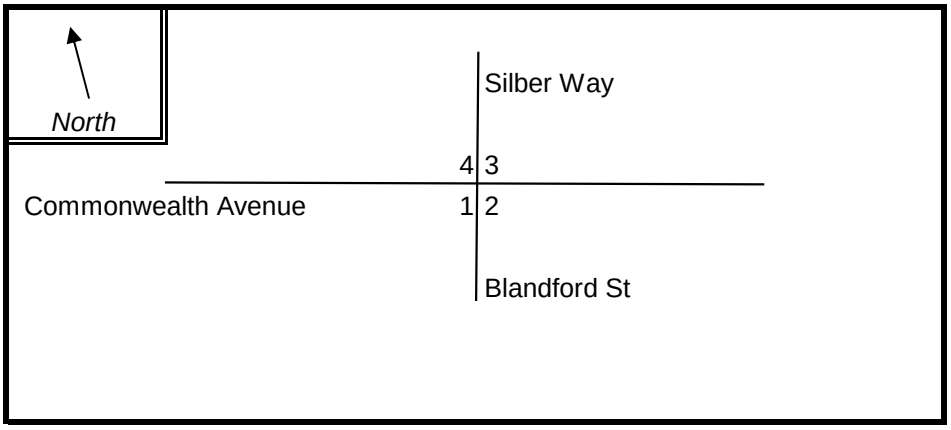
~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Silber Way

Blanfordford Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	WB	SB		
PEAK HOURLY VOLUMES (PM) :	743	4	782	128		**1,657**

" K " FACTOR : **0.067**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **24,731**

TOTAL # OF CRASHES : 4

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **1.33**

CRASH RATE CALCULATION : 0.15

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

~ INTERSECTION DATA ~

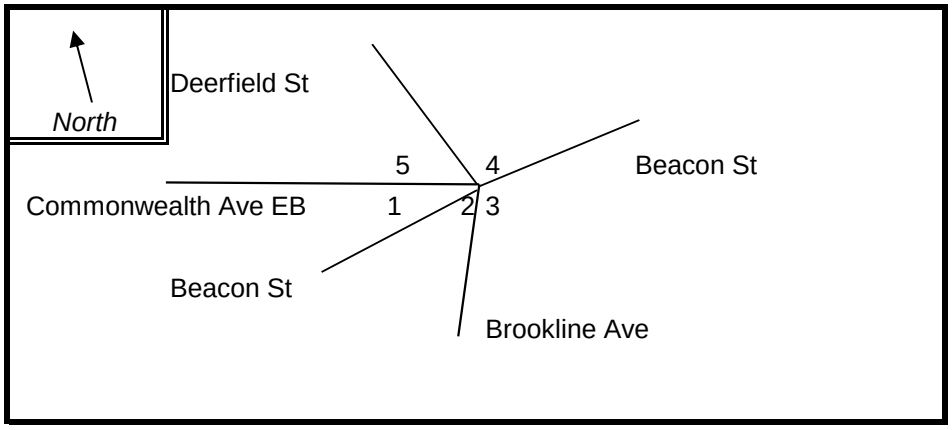
MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Brookline Avenue

Beacon Street

Deerfield Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NEB	NB	SWB	SE	
PEAK HOURLY VOLUMES (PM) :	642	581	424	1,841	37	**3,525**

" K " FACTOR : **0.067**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **52,612**

TOTAL # OF CRASHES : 27

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **9.00**

CRASH RATE CALCULATION : **0.47**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

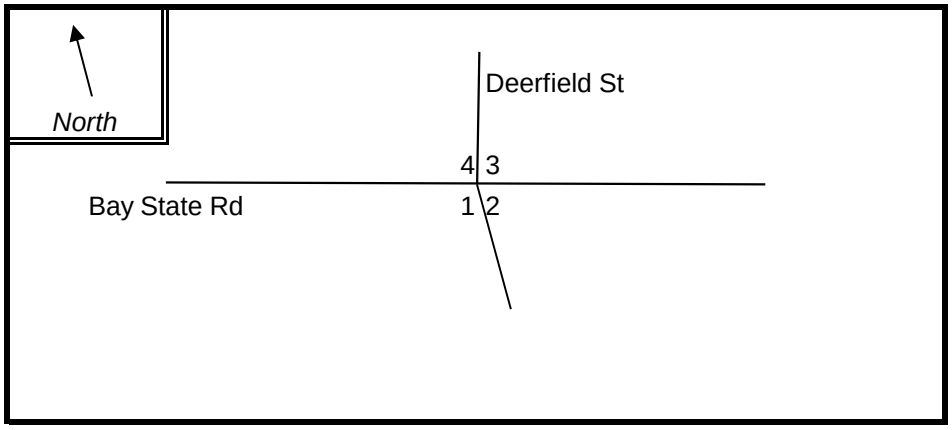
DISTRICT : 6 | UNSIGNALIZED : **YES** | SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Bay State Road

MINOR STREET(S) : Deerfield Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :		NB	WB	SB		
PEAK HOURLY VOLUMES (PM) :		34	229	16		**279**

" K " FACTOR : **0.084**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **3,321**

TOTAL # OF CRASHES : 1

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.33**

CRASH RATE CALCULATION : **0.27**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston COUNT DATE : 03/20/12

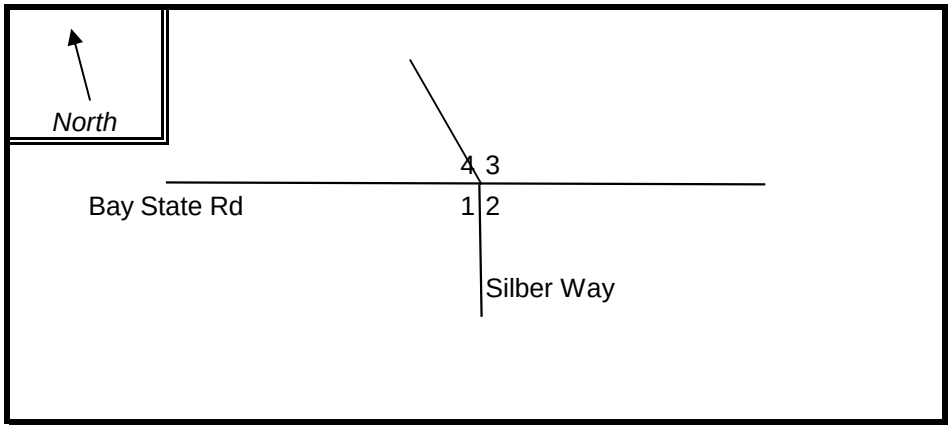
DISTRICT : 6 UNSIGNALIZED : **YES** SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Bay State Road

MINOR STREET(S) : Silber Way

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :		NB	WB	SB		
PEAK HOURLY VOLUMES (PM) :		121	233	19		**373**

" K " FACTOR : **0.084** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **4,440**

TOTAL # OF CRASHES : 3 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **1.00**

CRASH RATE CALCULATION : **0.62** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

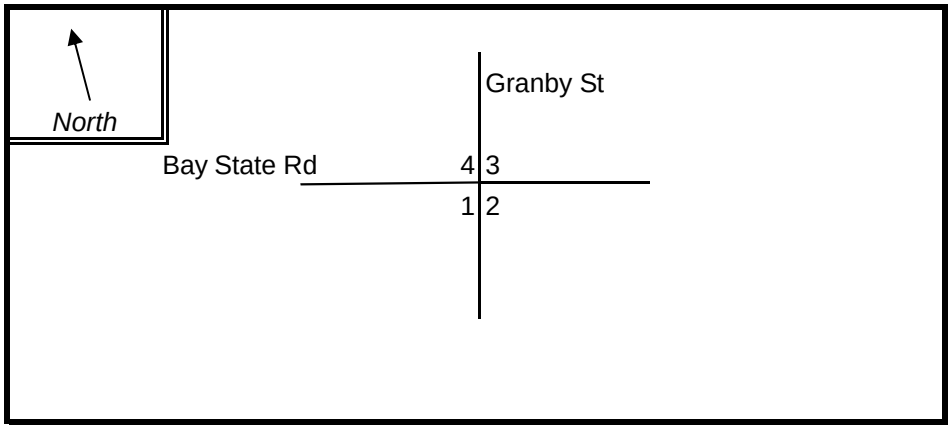
DISTRICT : 6 | UNSIGNALIZED : **YES** | SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Bay State Road

MINOR STREET(S) : Granby Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB		WB	SB		
PEAK HOURLY VOLUMES (PM) :	53		168	10		**231**

" K " FACTOR : **0.084**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **2,750**

TOTAL # OF CRASHES : 0

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.00**

CRASH RATE CALCULATION : **0.00**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

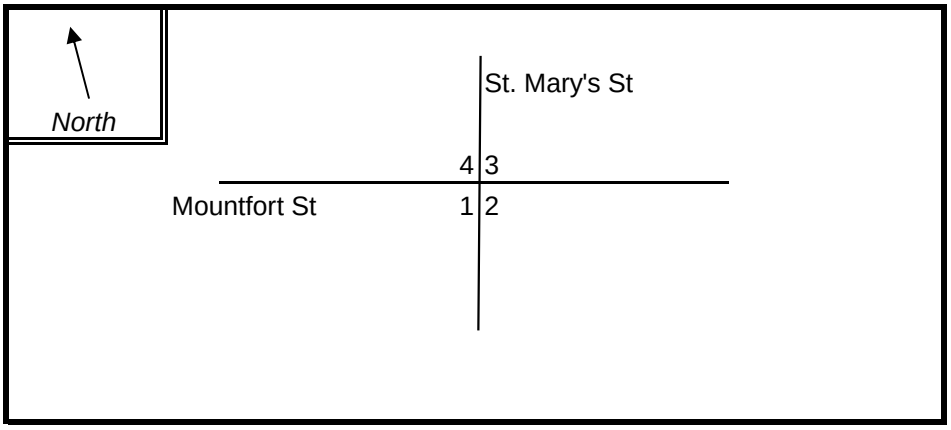
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

~ INTERSECTION DATA ~

MAJOR STREET : Mountfort Street

MINOR STREET(S) : Saint Mary's Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	WB	SB		
PEAK HOURLY VOLUMES (PM) :	566	14	486	165		**1,231**

" K " FACTOR : **0.076**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **16,197**

TOTAL # OF CRASHES : 1

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.33**

CRASH RATE CALCULATION : **0.06**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

~ INTERSECTION DATA ~

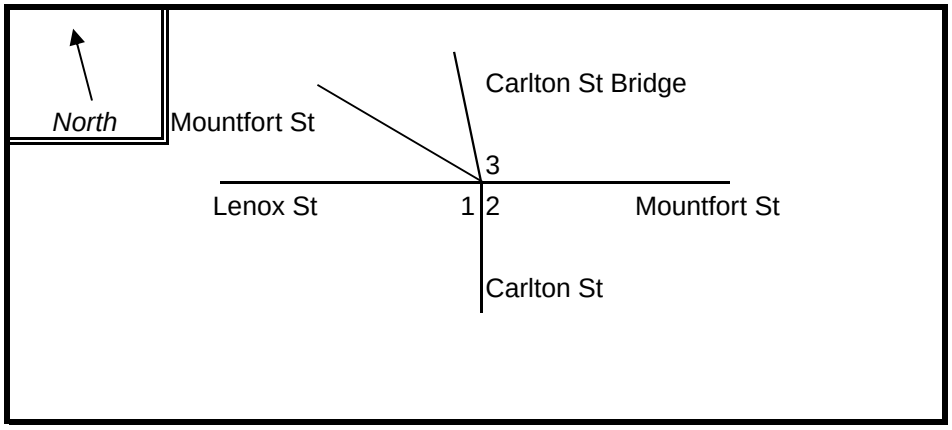
MAJOR STREET : Mountfort Street

MINOR STREET(S) : Carlton Street

Lenox Street

Carlton Street Bridge

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	SEB	NB	WB			
PEAK HOURLY VOLUMES (PM) :	570	205	565			**1,340**

" K " FACTOR : **0.076**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **17,632**

TOTAL # OF CRASHES : 3

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **1.00**

CRASH RATE CALCULATION : **0.16**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

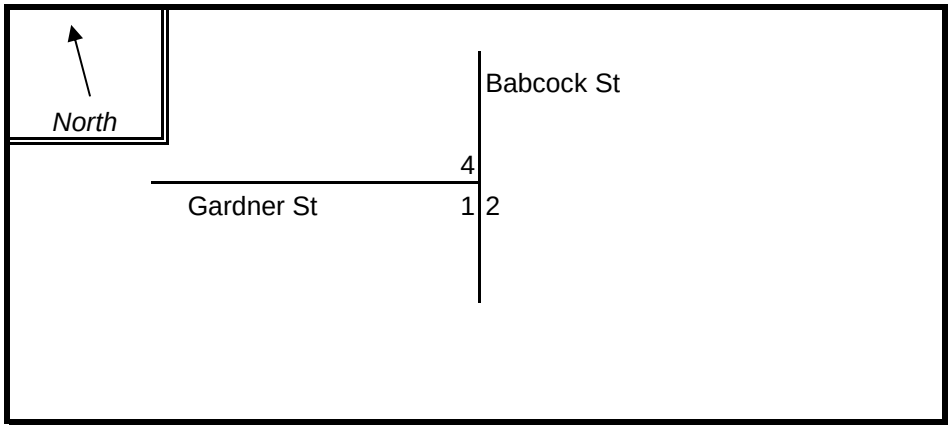
DISTRICT : 6 | UNSIGNALIZED : **YES** | SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Babcock Street

MINOR STREET(S) : Gardner Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB		SB		
PEAK HOURLY VOLUMES (AM) :	92	112		130		**334**

" K " FACTOR : **0.063** | INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **5,302**

TOTAL # OF CRASHES : 2 | # OF YEARS : 3 | AVERAGE # OF CRASHES PER YEAR (**A**) : **0.67**

CRASH RATE CALCULATION : **0.34**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston COUNT DATE : 03/20/12

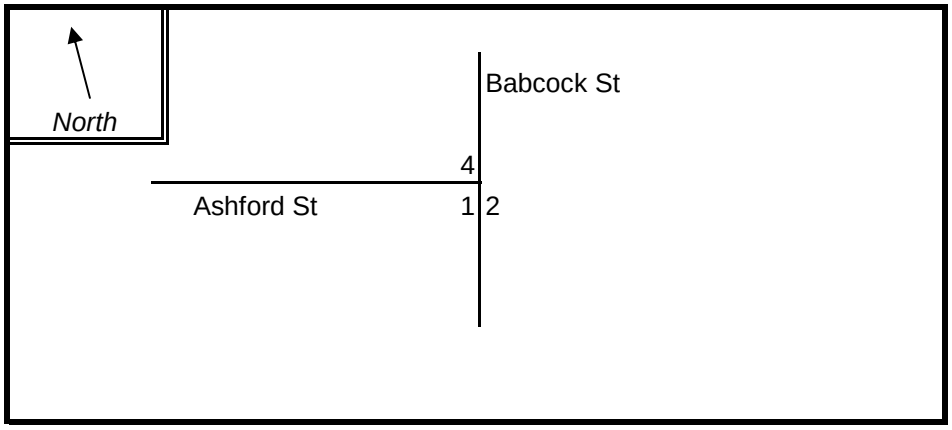
DISTRICT : 6 UNSIGNALIZED : **YES** SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Babcock Street

MINOR STREET(S) : Ashford Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB		SB		
PEAK HOURLY VOLUMES (AM) :	69	18		30		**117**

" K " FACTOR : **0.063** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **1,857**

TOTAL # OF CRASHES : 0 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.00**

CRASH RATE CALCULATION : **0.00** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston COUNT DATE : 03/20/12

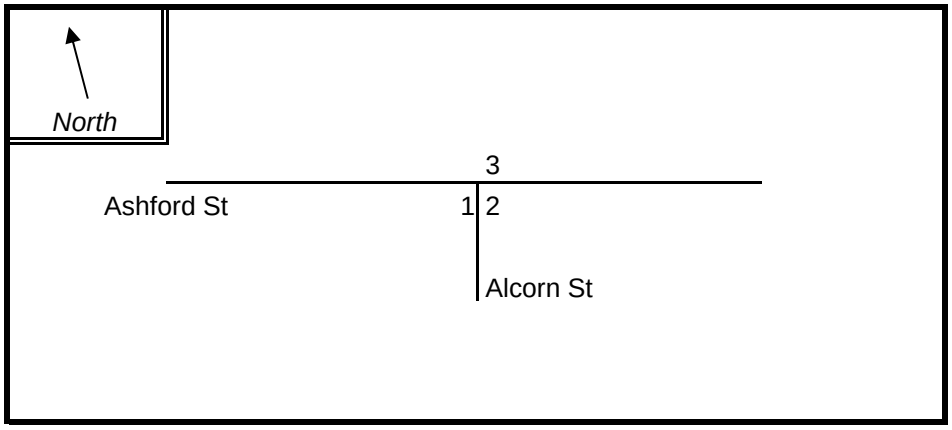
DISTRICT : 6 UNSIGNALIZED : **YES** SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Ashford Street

MINOR STREET(S) : Alcorn Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	**1**	**2**	**3**	**4**	**5**	**Total Peak Hourly Approach Volume**
DIRECTION :	EB	NB	WB			
PEAK HOURLY VOLUMES (AM) :	64	8	28			**100**

" K " FACTOR : **0.063** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **1,587**

TOTAL # OF CRASHES : 1 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.33**

CRASH RATE CALCULATION : **0.58** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : 03/20/12

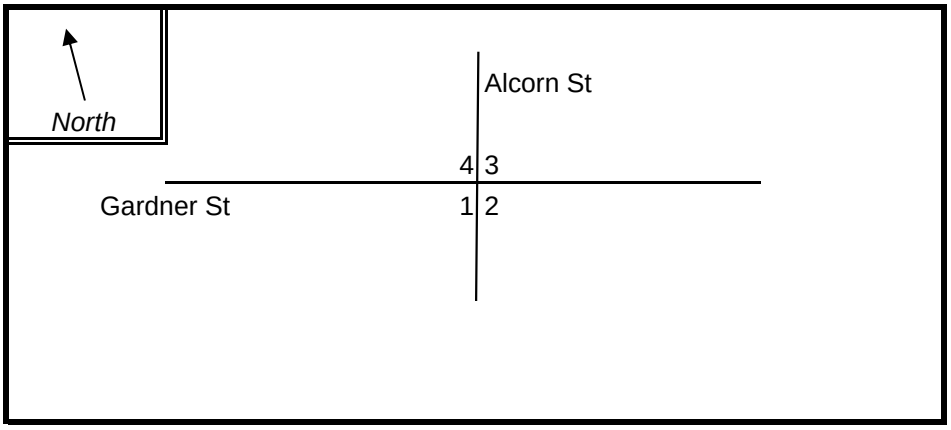
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : **YES**

~ INTERSECTION DATA ~

MAJOR STREET : Gardner Street

MINOR STREET(S) : Alcorn Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	WB	SB		
PEAK HOURLY VOLUMES (PM) :	135	51	31	28		**245**

" K " FACTOR : **0.063**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **3,889**

TOTAL # OF CRASHES : 1

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.33**

CRASH RATE CALCULATION : **0.23**

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

Comments : Crash rate is below State and District 6 averages.

Project Title & Date:

Boston Police Department description of Crash Nature Codes:

Nat Code	General Priority	Definition
MVA	1	MVC/ UNK INJ/ADV NEED FOR EMS
MVACC	1	M/V ACCIDENT
MVADD	1	M/V ACCIDENT DRUNK DRIVER
MVAE	1	M/V ACCIDENT ENTRAPMENT
MVAINJ	1	MVC WITH INJURIES
MVANO	7	M/V ACCIDENT NO INJURIES
MVAPED		M/V ACCIDENT PEDESTRIAN (Police priority 1)
MVAREPT	7	MOTOR VEHICLE ACCIDENT REPORT

AREA	DIST	SEC	RA	STNO	STREET	DATERECD	TIME_	DAY_	PRI_NAT	MISCL	CrimeCode	PRI_UNIT	CCNO
D	04	00	632	0789	COMMONWEALTH AV,BB	2/15/2006	917	THU	3 MVA		3702 M/V ACC.INJURIES T	D431D	60085167
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	1/21/2006	2044	SUN	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	KT55F	60038637
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	2/3/2006	1823	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K499F	60063794
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	4/8/2006	2313	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K202F	60184301
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	5/19/2006	1518	SAT	7 MVANO	08B	3115 INVEST.PERSON ROUTINE 9	K421D	60262578
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	9/28/2006	1928	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421F	60530234
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	10/4/2006	1838	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K415F	60542496
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	10/20/2006	120	SAT	1 MVA		3702 M/V ACC.INJURIES 9	K499A	60574085
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	11/26/2006	1623	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	K411F	60647503
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/19/2006	1818	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	K415F	60692143
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	2/26/2007	715	TUE	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	K499D	70106012
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	4/26/2007	1427	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421D	70221516
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	7/14/2007	1321	SUN	1 MVAINJ		T	K651D	70386291
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	8/7/2007	1138	WED	7 MVANO	08B	3115 INVEST.PERSON ROUTINE T	KT55D	70434989
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	8/13/2007	1158	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421D	70447001
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	9/1/2007	1033	SUN	1 MVA		3702 M/V ACC.INJURIES 9	R6151	70485550
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	9/15/2007	1213	SUN	1 MVA		T	K102D	70514758
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	9/27/2007	1440	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K415D	70540445
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	10/6/2007	202	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K101A	70559541
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	11/16/2007	1312	SAT	1 MVA		3702 M/V ACC.INJURIES 9	K426D	70643835
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/7/2007	1110	SAT	1 MVA		3712 OTHER MOTOR VEH.ACCIDENT9	K422D	70683862
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/10/2007	44	TUE	1 MVA		3702 M/V ACC.INJURIES 9	K425A	70688953
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/11/2007	2140	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K422F	70692720
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/18/2007	1608	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K415F	70705991
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	2/22/2008	815	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K421D	80102520
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	3/8/2008	1046	SUN	1 MVA		2907 LEAVING SCENE-PROPERTY DR	KD02	80132319
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	3/31/2008	1957	TUE	7 MVANO		3702 M/V ACC.INJURIES 9	K411F	80179232
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	4/20/2008	302	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K411A	80220687
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	5/25/2008	951	MON	1 MVAINJ		3702 M/V ACC.INJURIES T	K421D	80295233
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	8/11/2008	938	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETR	K421D	80463443
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	10/9/2008	845	FRI	1 MVA		3702 M/V ACC.INJURIES 9	KK01D	80588438
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	3/1/2009	308	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K421A	90110600
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	3/16/2009	928	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	K425D	90139669
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	3/22/2009	314	MON	7 MVANO	14D	3408 POLICE SERVICES-TRAFF.ETT	K423A	90151622
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	4/24/2009	1709	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421F	90220202
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	6/5/2009	1942	SAT	1 MVA	14K	3408 POLICE SERVICES-TRAFF.ET9	K421F	90309678
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	6/5/2009	1948	SAT	7 MVANO		R	R6698	90309688
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/15/2009	1755	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K421F	90717960
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	1/28/2010	1828	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	K425F	51869
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	2/6/2010	136	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K425A	67705
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	4/29/2010	955	FRI	7 MVANO		T	K425D	226285
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	5/28/2010	1354	SAT	1 MVA		9	KT55D	287070
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	6/22/2010	47	WED	1 MVA		T	K425A	335579
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	7/25/2010	159	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K415A	400945
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	8/27/2010	918	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K411D	464505
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	9/29/2010	1024	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K425D	529865
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	6/7/2011	1342	WED	7 MVANO		9	K499D	10297047
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	8/25/2011	1037	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K411D	10457193
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	9/19/2011	634	TUE	7 MVANO		9	K421A	10508450
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	9/28/2011	1222	THU	7 MVANO	08B	3115 INVEST.PERSON ROUTINE 9	K499D	10528485
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	10/9/2011	54	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K411A	10550648
D	04	00	632	0789	COMMONWEALTH AV,BB	3/3/2006	523	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	D446A	60113813
D	04	00	632	0789	COMMONWEALTH AV,BB	6/8/2006	1725	FRI	7 MVANO	14B	3408 POLICE SERVICES-TRAFF.ET9	D446F	60303139
D	04	00	632	0789	COMMONWEALTH AV,BB	6/29/2006	2217	FRI	9 MVAINJ		3702 M/V ACC.INJURIES T	D445F	60347945
D	04	00	632	0789	COMMONWEALTH AV,BB	6/30/2006	917	SAT	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	D445D	60348696
D	04	00	632	0789	COMMONWEALTH AV,BB	7/14/2006	1745	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	D425F	60378686
D	04	00	632	0789	COMMONWEALTH AV,BB	7/27/2006	747	FRI	1 MVA	08B	3115 INVEST.PERSON ROUTINE 9	D442D	60403263
D	04	00	632	0789	COMMONWEALTH AV,BB	9/28/2006	805	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	R7508	60528973
D	04	00	632	0789	COMMONWEALTH AV,BB	10/9/2006	2307	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	D442F	60552667
D	04	00	632	0789	COMMONWEALTH AV,BB	11/9/2006	1910	FRI	1 MVADD	14P	3408 POLICE SERVICES-TRAFF.ETT	D445F	60615852
D	04	00	632	0789	COMMONWEALTH AV,BB	12/22/2006	2159	SAT	1 MVA		3712 OTHER MOTOR VEH.ACCIDENTT	D422F	60698221
D	04	00	632	0789	COMMONWEALTH AV,BB	1/20/2007	1911	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D442F	70038399
D	04	00	632	0789	COMMONWEALTH AV,BB	1/25/2007	803	FRI	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	D446D	70046559
D	04	00	632	0789	COMMONWEALTH AV,BB	5/12/2007	215	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D447A	70254328
D	04	00	632	0789	COMMONWEALTH AV,BB	7/5/2007	1013	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	R7688	70367402
D	04	00	632	0789	COMMONWEALTH AV,BB	8/2/2007	1537	FRI	1 MVAINJ		T	D446D	70425240
D	04	00	632	0789	COMMONWEALTH AV,BB	8/3/2007	2021	SAT	7 MVARPT	08B	3115 INVEST.PERSON ROUTINE 9	D445F	70427872
D	04	00	632	0789	COMMONWEALTH AV,BB	9/13/2007	1023	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	R6046	70510181
D	04	00	632	0789	COMMONWEALTH AV,BB	2/5/2008	1607	WED	1 MVA		3712 OTHER MOTOR VEH.ACCIDENT9	D445F	80070701
D	04	00	632	0789	COMMONWEALTH AV,BB	3/23/2008	123	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	D441A	80161911
D	04	00	632	0789	COMMONWEALTH AV,BB	5/16/2008	2123	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	DT55F	80277451
D	04	00	632	0789	COMMONWEALTH AV,BB	6/4/2008	611	THU	1 MVAINJ		3712 OTHER MOTOR VEH.ACCIDENTT	D441A	80316661
D	04	00	632	0789	COMMONWEALTH AV,BB	6/4/2008	1511	THU	1 MVAINJ		3702 M/V ACC.INJURIES 9	D101D	80317589
D	04	00	632	0789	COMMONWEALTH AV,BB	8/28/2008	803	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	D442D	80499352
D	04	00	632	0789	COMMONWEALTH AV,BB	8/31/2008	1456	MON	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	D635D	80506366
D	04	00	632	0789	COMMONWEALTH AV,BB	9/3/2008	1734	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D102F	80512817
D	04	00	632	0789	COMMONWEALTH AV,BB	9/8/2008	1623	TUE	1 MVA		3702 M/V ACC.INJURIES 9	D448F	80523585
D	04	00	632	0789	COMMONWEALTH AV,BB	9/15/2008	2224	TUE	1 MVAINJ		3702 M/V ACC.INJURIES T	D415F	80539375
D	04	00	632	0789	COMMONWEALTH AV,BB	9/19/2008	1921	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D422F	80548145
D	04	00	632	0789	COMMONWEALTH AV,BB	9/26/2008	2307	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	D422F	80563334
D	04	00	632	0789	COMMONWEALTH AV,BB	11/11/2008	2307	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETR	D201F	80656326
D	04	00	632	0789	COMMONWEALTH AV,BB	1/17/2009	1320	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	D445D	90030538
D	04	00	632	0789	COMMONWEALTH AV,BB	2/27/2009	819	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D445D	90106735
D	04	00	632	0789	COMMONWEALTH AV,BB	3/30/2009	1421	TUE	7 MVANO		2907 LEAVING SCENE-PROPERTY D9	D445D	90168202
D	04	00	632	0789	COMMONWEALTH AV,BB	5/18/2009	455	TUE	1 MVAINJ		3702 M/V ACC.INJURIES T	D447A	90270113
D	04	00	632	0789	COMMONWEALTH AV,BB	5/24/2009	1811	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	D445F	90284222
D	04	00	632	0789	COMMONWEALTH AV,BB	10/7/2009	827	THU	1 MVA		3702 M/V ACC.INJURIES T	K422D	90579770
D	04	00	632	0789	COMMONWEALTH AV,BB	10/24/2009	912	SUN	1 MVAINJ		3712 OTHER MOTOR VEH.ACCIDENTT	D411D	90615411
D	04	00	632	0789	COMMONWEALTH AV,BB	1/17/2010	753	MON	1 MVAINJ		T	D446D	30478
D	04	00	632	0789	COMMONWEALTH AV,BB	10/11/2010	1534	TUE	7 MVANO	08B	3115 INVEST.PERSON ROUTINE T	D442F	553099
D	04	00	632	0789	COMMONWEALTH AV,BB	10/26/2010	803	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	D104D	580106
D	04	00	632	0789	COMMONWEALTH AV,BB	2/3/2011	1801	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D441F	10059459
D	04	00	632	0789	COMMONWEALTH AV,BB	2/19/2011	2257	SUN	1 MVAINJ		3702 M/V ACC.INJURIES 9	D447F	10090701
D	04	00	632	0789	COMMONWEALTH AV,BB	4/7/2011	1451	FRI	1 MVAINJ	08B	3115 INVEST.PERSON ROUTINE T	D446D	10176594
D	04	00	632	0789	COMMONWEALTH AV,BB	4/16/2011	303	SUN	1 MVADD		3701 M/V ACC.PROPERTY DAMAGE T	D435A	10193206
D	04	00	632	0789	COMMONWEALTH AV,BB	5/25/2011	929	THU	1 MVA		T	R6402	10269710
D	04	00	632	0789	COMMONWEALTH AV,BB	8/2/2011	1755	WED	1 MVAINJ		T	R7744	10412258
D	04	00	632	0789	COMMONWEALTH AV,BB	9/28/2011	1547	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	R9893	10528891
D	04	00	632	0789	COMMONWEALTH AV,BB	10/14/2011	1500	SAT	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET9	D441D	10561579
D	14	00	797		COMMONWEALTH AV/PLEASANT S	1/18/2006	2232	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K421F	60032774
D	14	00	797		COMMONWEALTH AV/PLEASANT S	2/3/2006	225	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	KT55A	60062327
D	14	00	797		COMMONWEALTH AV/PLEASANT S	2/26/2006	1224	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K499D	60105368
D	14	00	797		COMMONWEALTH AV/PLEASANT S	4/5/2006	1949	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K411F	60178077
D	14	00	797		COMMONWEALTH AV/PLEASANT S	2/3/2007	2026	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K422F	70065394
D	14	00	797		COMMONWEALTH AV/PLEASANT S	2/5/2007	824	TUE	1 MVACC		3702 M/V ACC.INJURIES T	K499D	70067652
D	14	00	797		COMMONWEALTH AV/PLEASANT S	2/17/2007	934	SUN	1 MVA		3701 M/V ACC.PROPERTY DAMAGE T	K499D	70090478
D	14	00	797		COMMONWEALTH AV/PLEASANT S	2/24/2007	1649	SUN	7 MVANO	14B	3408 POLICE SERVICES-TRAFF.ETT	K421F	70103524
D	14	00	797		COMMONWEALTH AV/PLEASANT S	5/11/2007	148	SAT	1 MVAINJ		3712 OTHER MOTOR VEH.ACCIDENT9	K422A	70251881
D	14	00	797		COMMONWEALTH AV/PLEASANT S	6/1/2007	1408	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K421D	70296078
D	14	00	797		COMMONWEALTH AV/PLEASANT S	9/6/2007	1723	FRI	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET9	K102F	70496381
D	14	00	797		COMMONWEALTH AV/PLEASANT S	9/17/2007	621	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K425A	70517956
D	14	00	797		COMMONWEALTH AV/PLEASANT S	1/24/2008	705	FRI	1 MVACC	14P	3408 POLICE SERVICES-TRAFF.ET9	K499A	80046316
D	14	00	797		COMMONWEALTH AV/PLEASANT S	4/2/2008	1326	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K422D	80182903
D	14	00	797		COMMONWEALTH AV/PLEASANT S	4/22/2008	1903	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421F	80225833
D	14	00	797		COMMONWEALTH AV/PLEASANT S	11/14/2008	1955	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K101F	80662173
D	14	00	797		COMMONWEALTH AV/PLEASANT S	3/14/2009	2156	SUN	1 MVA		3701 M/V ACC.PROPERTY DAMAGE T	K102F	90137133

D	14	00	797	COMMONWEALTH AV/PLEASANT S	8/29/2009	1650	SUN	7 MVANO	08B	3115 INVEST.PERSON ROUTINE	9	K425F	90496292
D	14	00	797	COMMONWEALTH AV/PLEASANT S	8/29/2009	1754	SUN	1 MVADD	14P	3408 POLICE SERVICES-TRAFF.ET	9	K101F	90496379
D	14	00	797	COMMONWEALTH AV/PLEASANT S	11/17/2009	933	WED	1 MVACC		3701 M/V ACC.PROPERTY DAMAGE	R	K422D	90665258
D	14	00	797	COMMONWEALTH AV/PLEASANT S	1/20/2010	1955	THU	7 MVANO		9		K422F	36613
D	14	00	797	COMMONWEALTH AV/PLEASANT S	2/20/2010	2350	SUN	7 MVANO	14D	3408 POLICE SERVICES-TRAFF.ET	9	K425A	94294
D	14	00	797	COMMONWEALTH AV/PLEASANT S	2/28/2010	433	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	F412A	107755
D	14	00	797	COMMONWEALTH AV/PLEASANT S	4/27/2010	1918	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR		K426F	223295
D	14	00	797	COMMONWEALTH AV/PLEASANT S	6/3/2010	1402	FRI	1 MVA		9		K499D	299122
D	14	00	797	COMMONWEALTH AV/PLEASANT S	8/29/2010	1717	MON	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT		K421F	469266
D	14	00	797	COMMONWEALTH AV/PLEASANT S	11/12/2010	1909	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K425F	613426
D	14	00	797	COMMONWEALTH AV/PLEASANT S	2/27/2011	1421	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K426D	10103545
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	4/21/2006	1201	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K415D	60208566
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	8/7/2006	941	TUE	7 MVANO		3702 M/V ACC.INJURIES	9	K102D	60425243
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	8/31/2006	823	FRI	9 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET	9	K411D	60472507
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	1/8/2007	1816	TUE	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT		K425F	70015059
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	8/3/2007	1632	SAT	1 MVAINJ		3702 M/V ACC.INJURIES	R	K415F	70427446
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	9/7/2007	1611	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K425F	70498423
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	10/18/2007	1936	FRI	1 MVAINJ		3702 M/V ACC.INJURIES	9	K101F	70585614
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	4/2/2008	1002	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT		K421D	80182520
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	8/19/2008	1256	WED	1 MVA		3701 M/V ACC.PROPERTY DAMAGE	9	K102D	80480762
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	10/3/2008	1739	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET	9	K102F	80577200
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	11/13/2008	1950	FRI	7 MVARPT		3702 M/V ACC.INJURIES	9	K426F	80660140
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	2/15/2009	1609	MON	1 MVAINJ		3702 M/V ACC.INJURIES	T	K415F	90085313
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	9/3/2009	1539	FRI	7 MVANO	08P	3115 INVEST.PERSON ROUTINE	9	K415D	90506827
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	11/21/2009	1045	SUN	1 MVAINJ		3702 M/V ACC.INJURIES	T	K101D	90673936
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	11/21/2009	1045	SUN	1 MVAINJ		3702 M/V ACC.INJURIES	T	K101D	90673936
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	12/1/2009	1848	WED	1 MVA		3702 M/V ACC.INJURIES	9	K426F	90692046
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	12/15/2009	2241	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET	9	K421F	90718389
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	1/24/2010	627	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		K425A	43408
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	3/12/2010	1918	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K415F	132367
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	4/26/2010	1836	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K422F	221199
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	1/6/2011	1905	FRI	1 MVAINJ		3702 M/V ACC.INJURIES	T	K425F	10009754
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	1/25/2011	2305	WED	1 MVAINJ		3701 M/V ACC.PROPERTY DAMAGE	9	K421F	10042837
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	1/28/2011	1700	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K425F	10048079
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	2/3/2011	2204	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET	9	K425F	10059867
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	4/4/2011	1832	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT		K499F	10171004
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	5/29/2011	1656	MON	1 MVAINJ		9		K425F	10278949
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	6/8/2011	1209	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET	9	K411D	10299057
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	9/10/2011	1144	SUN	1 MVAINJ		T		K425D	10490301
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	2/2/2006	1852	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		K423F	60061681
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	7/14/2006	930	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT		K499D	60377746
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	9/26/2006	1116	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K421D	60525129
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	5/25/2007	1221	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT		K425D	70281328
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	9/7/2007	1535	SAT	1 MVA	14B	3408 POLICE SERVICES-TRAFF.ET	9	K411D	70498377
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	10/27/2007	2056	SUN	1 MVA		3701 M/V ACC.PROPERTY DAMAGE	9	K425F	70604713
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	11/5/2007	1156	TUE	1 MVA		2907 LEAVING SCENE-PROPERTY	DT	KT55D	70621692
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	2/20/2008	1519	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		K425D	80099466
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	4/25/2008	906	SAT	7 MVANO		3701 M/V ACC.PROPERTY DAMAGE	R	K102D	80231376
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	5/16/2008	2346	SAT	1 MVAINJ		3702 M/V ACC.INJURIES	9	K425A	80277683
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	5/31/2008	1245	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K422D	80308480
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	6/14/2008	1047	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		K426D	80339740
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	9/7/2008	2106	MON	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT		K499F	80521938
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	9/22/2008	1705	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K421F	80554201
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	11/2/2008	13	MON	1 MVA	09E	3114 INVEST.PREMISES,OBJECTS	9	K426A	80636700
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	6/4/2009	36	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		KT55A	90305619
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	6/4/2009	1451	FRI	1 MVA		3701 M/V ACC.PROPERTY DAMAGE	T	K202D	90306882
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	10/9/2009	1538	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K426F	90585139
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	1/20/2010	115	THU	1 MVAINJ		9		K421A	35063
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	3/30/2010	1448	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT		K425D	167123
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	6/6/2010	2328	MON	1 MVAINJ		9		K102F	306249
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	7/27/2010	1710	WED	1 MVA		T		K499F	405598
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	7/29/2010	923	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		K425D	408787
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	11/15/2010	1726	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K425F	618468
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	3/20/2011	46	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT		V912	10141812
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	5/22/2011	1459	MON	1 MVAINJ		T		K426D	10264313
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	6/29/2011	1124	THU	1 MVA		R		R8982	10340317
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	10/15/2011	1518	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K499D	10563654
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	1/6/2006	141	SAT	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT		K425A	60008890
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	1/16/2006	2344	TUE	1 MVA		3701 M/V ACC.PROPERTY DAMAGE	1	K426A	60028806
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	5/26/2006	1737	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K101F	60277305
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	10/19/2006	1709	FRI	1 MVACC	14P	3408 POLICE SERVICES-TRAFF.ET	9	K102F	60573213
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	11/17/2006	1227	SAT	1 MVAINJ		3702 M/V ACC.INJURIES	9	K423D	60631142
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	1/24/2007	830	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K499D	70044727
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/17/2007	1107	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETR		KD02	70090597
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/23/2007	21	SAT	7 MVANO		3701 M/V ACC.PROPERTY DAMAGE	9	K499A	70100630
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	3/16/2007	1742	SAT	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET	9	K426F	70141777
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	6/30/2007	1449	SUN	1 MVA		2915 MISCELLANEOUS M/V VIO.	9	K425D	70357105
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	7/1/2007	322	MON	1 MVAINJ	14K	3408 POLICE SERVICES-TRAFF.ET	9	K422A	70358515
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	11/5/2007	1957	TUE	7 MVANO	08B	3115 INVEST.PERSON ROUTINE	9	K411F	70622522
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	11/14/2007	1754	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		K499F	70640124
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	11/23/2007	1842	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		K421F	70656722
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/7/2008	1404	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K421D	80074360
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	3/2/2008	139	MON	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET	9	K425A	80119648
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	5/13/2008	1637	WED	7 MVANO	08B	3115 INVEST.PERSON ROUTINE	9	K426F	80270137
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	9/1/2008	2002	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR		KT55F	80508832
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	9/5/2008	1326	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K425D	80517008
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/14/2009	4	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET	9	K425A	90082649
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/16/2009	1949	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K415F	90087357
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	9/21/2009	1907	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K102F	90545417
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	12/2/2009	1754	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		K421F	90693868
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	12/5/2009	840	SUN	7 MVANO		3701 M/V ACC.PROPERTY DAMAGE	T	K422D	90699101
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	7/11/2010	1639	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	K411F	374447
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	1/30/2011	301	MON	7 MVANO	08B	3115 INVEST.PERSON ROUTINE	T	K425A	10051039
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/18/2011	40	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		K425A	10086885
D	04	00	632	BU/COMMONWEALTH AV,BR	1/4/2006	202	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		D442A	60005134
D	04	00	632	BU/COMMONWEALTH AV,BR	2/6/2006	323	TUE	1 MVACC		3712 OTHER MOTOR VEH.ACCIDENTR		DT55D	60068082
D	04	00	632	BU/COMMONWEALTH AV,BR	3/18/2006	1351	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT		D103D	60142904
D	04	00	632	BU/COMMONWEALTH AV,BR	8/18/2006	2236	SAT	1 MVAINJ	14D	3408 POLICE SERVICES-TRAFF.ET	9	D104F	60449016
D	04	00	632	BU/COMMONWEALTH AV,BR	12/26/2007	1832	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET	9	D446F	70720493
D	04	00	632	BU/COMMONWEALTH AV,BR	6/19/2008	1738	FRI	1 MVA	08B	3115 INVEST.PERSON ROUTINE	9	D442F	80350889
D	04	00	632	BU/COMMONWEALTH AV,BR	7/30/2008	1037	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET	9	D442D	80438416
D	04	00	632	BU/COMMONWEALTH AV,BR	11/12/2008	1917	THU	1 MVA	08B	3115 INVEST.PERSON ROUTINE	9	D203F	80658045
D	04	00	632	BU/COMMONWEALTH AV,BR	1/3/2009	1119	SUN	7 MVANO		3701 M/V ACC.PROPERTY DAMAGE	9	D422D	90004014
D	04	00	632	BU/COMMONWEALTH AV,BR	7/16/2009	2351	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT		D446A	90398489
D	04	00	632	BU/COMMONWEALTH AV,BR	1/18/2010	141	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET	9	D442A	31779
D	04	00	632	BU/COMMONWEALTH AV,BR	4/25/2010	918	MON	1 MVAINJ		9		D435D	218673
D	04	00	632	BU/COMMONWEALTH AV,BR	8/31/2010	1722	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR		R7342	473118
D	04	00	632	BU/COMMONWEALTH AV,BR	2/20/2011	1213	MON	1 MVAINJ		3701 M/V ACC.PROPERTY DAMAGE	9	D445D	10091416
D	04	00	632	BU/COMMONWEALTH AV,BR	3/11/2011	1055	SAT	1 MVACC	14P	3408 POLICE SERVICES-TRAFF.ETT		D441D	10125560
D	04	00	632	BU/COMMONWEALTH AV,BR	4/26/2011	1613	WED	7 MVANO		R		R7215	10211430
D	04	00	632	BU/COMMONWEALTH AV,BR	5/3/2011	1600	WED	7 MVANO		T		D431F	10225787
D	04	00	632	COMMONWEALTH AV/UNIVERSITY	2/11/2007	816	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET	9	D441D	70079243
D	04	00	632	COMMONWEALTH AV/UNIVERSITY	2/14/2007	1710	THU	1 MVAINJ		2908 LEAVING SCENE-PERS.INJURT		D442F	70085357
D	04	00	632	COMMONWEALTH AV/UNIVERSITY	6/21/2007	1254	FRI	1 MVAINJ		3702 M/V ACC.INJURIES	9	D445D	70338043
D	04	00	632	COMMONWEALTH AV/UNIVERSITY	8/31/2009	1848	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET	9	D435F	90500612
D	04	00	632	COMMONWEALTH AV/UNIVERSITY	9/14/2009	1257	TUE	7 MVANO		2907 LEAVING SCENE-PROPERTY DR		K499D	90529203
D	04	00	632	COMMONWEALTH AV/UNIVERSITY	9/21/2009	1632	TUE	1 MVA	14P	3702 M/V ACC.INJURIES	R	R6489	90545134

D	04	00	632		COMMONWEALTH AV/UNIVERSITY	10/15/2009	1228	FRI	1 MVA		3704 M/V ACC.INV.POLICE VEH. R	VA06	90596767
D	04	00	632		COMMONWEALTH AV/UNIVERSITY	10/27/2009	724	WED	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET9	D446A	90621277
D	04	00	632		COMMONWEALTH AV/UNIVERSITY	11/6/2009	1809	SAT	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET9	D442F	90644586
D	04	00	632		COMMONWEALTH AV/UNIVERSITY	12/20/2009	609	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D445A	90726535
D	04	00	632		COMMONWEALTH AV/UNIVERSITY	1/17/2010	2006	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D441F	31351
D	04	00	632		COMMONWEALTH AV/UNIVERSITY	7/19/2010	1751	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	R7342	390137
D	04	00	632		COMMONWEALTH AV/UNIVERSITY	1/29/2011	1506	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D441D	10049874
D	04	00	632		COMMONWEALTH AV/UNIVERSITY	6/25/2011	100	SUN	1 MVA		9	D442A	10331685
D	04	00	632		COMMONWEALTH AV/UNIVERSITY	10/5/2011	1424	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D441D	10543224
D	14	00	797	0855	COMMONWEALTH AV,BR	2/18/2006	1702	SUN	9 MVARPT		3712 OTHER MOTOR VEH.ACCIDENTT	ND96	60091730
D	14	00	797	0855	COMMONWEALTH AV,BR	2/25/2006	311	SUN	1 MVA		2907 LEAVING SCENE-PROPERTY DT	K415A	60103165
D	14	00	797	0855	COMMONWEALTH AV,BR	5/5/2006	1833	SAT	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	K202F	60236104
D	14	00	797	0855	COMMONWEALTH AV,BR	8/16/2006	835	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K425D	60442679
D	14	00	797	0855	COMMONWEALTH AV,BR	10/4/2007	1634	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K499F	70556114
D	14	00	797	0855	COMMONWEALTH AV,BR	10/11/2007	2132	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K425F	70571106
D	14	00	797	0855	COMMONWEALTH AV,BR	8/25/2008	743	TUE	7 MVANO		2907 LEAVING SCENE-PROPERTY D9	KT55D	80493015
D	14	00	797	0855	COMMONWEALTH AV,BR	9/27/2008	1413	SUN	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET9	K422D	80564400
D	14	00	797	0855	COMMONWEALTH AV,BR	7/2/2010	1035	SAT	7 MVANO	14B	3408 POLICE SERVICES-TRAFF.ET9	K425D	356221
D	14	00	797	0855	COMMONWEALTH AV,BR	2/4/2011	222	SAT	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	K425A	10060173
D	14	00	797	0855	COMMONWEALTH AV,BR	3/6/2011	702	MON	1 MVAINJ		3702 M/V ACC.INJURIES T	K425A	10116084
D	14	00	797	0855	COMMONWEALTH AV,BR	4/7/2011	1533	FRI	1 MVAINJ		3709 M/V ACC.INV.BICYCLE 9	K426D	10176663
D	14	00	797	0855	COMMONWEALTH AV,BR	9/1/2011	1242	FRI	1 MVAINJ		9	K415D	10472355
D	14	00	798	1079	COMMONWEALTH AV,BR	6/3/2006	25	SUN	7 MVANO	08B	3115 INVEST.PERSON ROUTINE T	K421A	60292377
D	14	00	798	1079	COMMONWEALTH AV,BR	1/17/2007	1558	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K411F	70032122
D	14	00	798	1079	COMMONWEALTH AV,BR	6/29/2007	1547	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K425F	70355036
D	14	00	798	1079	COMMONWEALTH AV,BR	10/24/2009	1315	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K426D	90615763
D	14	00	798	1079	COMMONWEALTH AV,BR	11/15/2009	1225	MON	7 MVANO	08B	3115 INVEST.PERSON ROUTINE 9	K425D	90661685
D	14	00	798	1079	COMMONWEALTH AV,BR	11/15/2009	1225	MON	7 MVANO	08B	3115 INVEST.PERSON ROUTINE 9	K425D	90661685
D	14	00	798	1079	COMMONWEALTH AV,BR	12/16/2009	1745	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K425F	90719871
D	14	00	798	1079	COMMONWEALTH AV,BR	12/18/2009	2237	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421F	90724289
D	14	00	798	1079	COMMONWEALTH AV,BR	8/5/2010	1500	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K499D	423040
D	14	00	798	1079	COMMONWEALTH AV,BR	2/19/2011	202	SUN	1 MVAE		3702 M/V ACC.INJURIES 9	K423A	10089202
D	14	00	798	1079	COMMONWEALTH AV,BR	6/28/2011	1804	WED	7 MVANO		9	K422F	10338890
D	14	00	798	1065	COMMONWEALTH AV,BR	5/31/2006	1541	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K426D	60287185
D	14	00	798	1065	COMMONWEALTH AV,BR	11/8/2006	1055	THU	1 MVAINJ		3702 M/V ACC.INJURIES 9	K423D	60613046
D	14	00	798	1065	COMMONWEALTH AV,BR	5/15/2007	1801	WED	7 MVANO		3701 M/V ACC.PROPERTY DAMAGE 9	K499F	70261640
D	14	00	798	1065	COMMONWEALTH AV,BR	1/27/2008	1516	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K421D	80053271
D	14	00	798	1065	COMMONWEALTH AV,BR	8/13/2008	1515	THU	7 MVANO		9	K415D	80468309
D	14	00	798	1065	COMMONWEALTH AV,BR	10/29/2008	638	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K411D	80628080
D	14	00	798	1065	COMMONWEALTH AV,BR	4/21/2010	1333	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K425D	211166
D	14	00	798	1065	COMMONWEALTH AV,BR	6/12/2010	352	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K425A	316820
D	14	00	798	1065	COMMONWEALTH AV,BR	9/29/2010	1445	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K422D	530407
D	14	00	798	1065	COMMONWEALTH AV,BR	12/20/2010	1526	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	KT55D	677741
D	04	00	632	0775	COMMONWEALTH AV,BB	4/13/2007	1349	SAT	7 MVANO	14A	3408 POLICE SERVICES-TRAFF.ETT	D441D	70195686
D	04	00	632	0775	COMMONWEALTH AV,BB	11/3/2007	1842	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	D102F	70618751
D	04	00	632	0775	COMMONWEALTH AV,BB	1/16/2009	847	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	D446D	90028121
D	04	00	632	0775	COMMONWEALTH AV,BB	1/18/2009	1456	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D442D	90032299
D	04	00	632	0775	COMMONWEALTH AV,BB	4/8/2009	2311	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	D427F	90188227
D	04	00	632	0775	COMMONWEALTH AV,BB	11/12/2009	941	FRI	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	D431D	90655387
D	04	00	632	0775	COMMONWEALTH AV,BB	1/3/2010	900	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	D441D	3700
D	04	00	632	0775	COMMONWEALTH AV,BB	10/5/2010	956	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	D435D	541629
D	04	00	632	0775	COMMONWEALTH AV,BB	2/1/2011	941	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D104D	10054967
D	14	00	797		COMMONWEALTH AV/HARRY AGGA	1/14/2008	945	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K421D	80026214
D	14	00	797		COMMONWEALTH AV/HARRY AGGA	12/12/2008	1529	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K425D	80713877
D	14	00	797		COMMONWEALTH AV/HARRY AGGA	1/30/2009	1556	SAT	7 MVANO	14D	3408 POLICE SERVICES-TRAFF.ET9	K415F	90054862
D	04	00	632	0735	COMMONWEALTH AV,BB	11/17/2007	1431	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D446D	70646023
D	04	00	632	0755	COMMONWEALTH AV,BB	7/21/2011	1211	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K422D	10386915
D	14	00	632		BU/COMMONWEALTH AV,BR	6/24/2006	2002	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	D445F	60336959
D	14	00	820	0810	COMMONWEALTH AV,BR	6/18/2007	2350	TUE	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET9	D446A	70332671
D	14	00	820	0814	COMMONWEALTH AV,BR	9/4/2010	1435	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K411D	481100
D	14	00	820	0818	COMMONWEALTH AV,BR	12/20/2010	1452	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	KT55D	677641
D	14	00	797	0839	COMMONWEALTH AV,BR	12/11/2009	1640	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K425F	90710827
D	14	00	797	0866	COMMONWEALTH AV,BR	7/18/2009	114	SUN	1 MVADD		3701 M/V ACC.PROPERTY DAMAGE 9	K426A	90401069
D	14	00	797	0871	COMMONWEALTH AV,BR	5/18/2006	1114	FRI	7 MVANO		3701 M/V ACC.PROPERTY DAMAGE T	K426D	60259997
D	14	00	797	0876	COMMONWEALTH AV,BR	9/19/2011	2009	TUE	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	K499F	10509952
D	14	00	797	0911	COMMONWEALTH AV,BR	10/16/2010	1842	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K426F	562850
D	14	00	797	0941	COMMONWEALTH AV,BR	7/30/2010	1106	SAT	7 MVANO	14B	3408 POLICE SERVICES-TRAFF.ET9	K426D	410986
D	14	00	797	0950	COMMONWEALTH AV,BR	1/13/2006	1341	SAT	9 MVANO	14L	3408 POLICE SERVICES-TRAFF.ETT	K415D	60022803
D	14	00	797	0961	COMMONWEALTH AV,BR	2/4/2011	819	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K415D	10060496
D	14	00	797	0963	COMMONWEALTH AV,BR	10/10/2006	830	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K426D	60553096
D	14	00	797	0965	COMMONWEALTH AV,BR	7/14/2007	2040	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K422F	70387068
D	14	00	797	0967	COMMONWEALTH AV,BR	4/15/2011	2031	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K426F	10192623
D	14	00	797	0972	COMMONWEALTH AV,BR	1/29/2010	2252	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421F	54225
D	14	00	797	0973	COMMONWEALTH AV,BR	1/26/2009	2241	TUE	1 MVA	14P	3704 M/V ACC.INV.POLICE VEH. R	K910	90047921
D	14	00	797	0976	COMMONWEALTH AV,BR	12/5/2007	33	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K426A	70679043
D	14	00	797	0996	COMMONWEALTH AV,BR	1/15/2011	2124	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K415F	10025210
D	14	00	798	1019	COMMONWEALTH AV,BR	11/11/2008	1648	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K421F	80655789
D	14	00	798	1020	COMMONWEALTH AV,BR	6/16/2009	1649	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K425F	90332412
D	14	00	798	1026	COMMONWEALTH AV,BR	2/24/2006	25	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K411A	60101061
D	14	00	797		COMMONWEALTH AV/HARRY AGGA	5/5/2009	1451	WED	1 MVAINJ		3702 M/V ACC.INJURIES 9	K421D	90243308
D	14	00	797		COMMONWEALTH AV/HARRY AGGA	8/4/2009	1454	WED	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET9	K422D	90440657
D	14	00	797		COMMONWEALTH AV/HARRY AGGA	4/9/2010	47	SAT	1 MVA		9	K415A	186891
D	14	00	797		COMMONWEALTH AV/HARRY AGGA	10/3/2010	1934	MON	7 MVANO		T	D441F	538918
D	14	00	797		COMMONWEALTH AV/HARRY AGGA	12/16/2010	58	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K425A	670015
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	2/28/2007	829	THU	1 MVA		2904 VIO.TRAFFIC SIGNS-SIGNAL9	D445D	70110166
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	8/24/2007	1857	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D425F	70470204
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	12/19/2009	941	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	D435D	90724954
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	4/21/2010	1604	THU	7 MVANO	08B	3115 INVEST.PERSON ROUTINE 9	D442F	211409
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	6/26/2010	821	SUN	1 MVAINJ		T	D441D	344227
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	8/21/2010	1128	SUN	1 MVA	08B	3115 INVEST.PERSON ROUTINE T	K411D	453717
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	3/15/2011	1050	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	DT55D	10132657
D	14	00	797		AGANNIS WY/COMMONWEALTH AV	1/5/2006	1721	FRI	1 MVA		3701 M/V ACC.PROPERTY DAMAGE 9	K425F	60008167
D	14	00	797		AGANNIS WY/COMMONWEALTH AV	3/29/2006	54	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K411A	60162581
D	14	00	797		AGANNIS WY/COMMONWEALTH AV	8/9/2007	908	FRI	1 MVACC		2915 MISCELLANEOUS M/V VIO. R	K421D	70438698
D	14	00	797		AGANNIS WY/COMMONWEALTH AV	12/9/2008	101	WED	1 MVADD	14P	3408 POLICE SERVICES-TRAFF.ETT	K102A	80706990
D	14	00	797		AGANNIS WY/COMMONWEALTH AV	7/21/2009	1241	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K421D	90408830
D	14	00	797		AGANNIS WY/COMMONWEALTH AV	10/31/2009	2239	SUN	1 MVAINJ		3706 M/V ACC.INV.OTHER CITY VT	K422F	90632021
D	14	00	797		AGANNIS WY/COMMONWEALTH AV	11/28/2009	2036	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	R6126	90686723
D	14	00	797	0915	COMMONWEALTH AV,BR	4/1/2006	505	SUN	7 MVANO		3701 M/V ACC.PROPERTY DAMAGE 9	K411A	60169257
D	14	00	797	0915	COMMONWEALTH AV,BR	6/29/2007	1735	SAT	1 MVAINJ		3701 M/V ACC.PROPERTY DAMAGE 9	K102F	70355254
D	14	00	797	0915	COMMONWEALTH AV,BR	8/16/2007	943	FRI	7 MVANO	14D	3408 POLICE SERVICES-TRAFF.ET9	KT55D	70452984
D	14	00	797	0915	COMMONWEALTH AV,BR	9/25/2008	2221	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K421F	80561234
D	14	00	797	0915	COMMONWEALTH AV,BR	12/2/2008	1809	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K102F	80694993
D	14	00	797	0915	COMMONWEALTH AV,BR	2/22/2009	2301	MON	7 MVANO		3701 M/V ACC.PROPERTY DAMAGE T	K421F	90098285
D	14	00	797	0915	COMMONWEALTH AV,BR	2/18/2011	1342	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	K101D	10087917
D	14	00	797	0881	COMMONWEALTH AV,BR	9/3/2008	2226	THU	1 MVAINJ		3701 M/V ACC.PROPERTY DAMAGE T	K102F	80513410
D	14	00	797	0881	COMMONWEALTH AV,BR	8/23/2009	2239	MON	1 MVA		3702 M/V ACC.INJURIES R	R6163	90484039
D	14	00	797	0881	COMMONWEALTH AV,BR	5/5/2010	1711	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K425F	239978
D	14	00	797	0881	COMMONWEALTH AV,BR	6/15/2010	1356	WED	7 MVANO		T	KT55D	323016
D	14	00	797	0881	COMMONWEALTH AV,BR	9/8/2010	1256	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K415D	488434
D	14	00	797	0881	COMMONWEALTH AV,BR	5/24/2011	1759	WED	7 MVANO		T	K425F	10268485
D	14	00	797	0900	COMMONWEALTH AV,BR	11/1/2006	356	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K645	60598956
D	14	00	797	0900	COMMONWEALTH AV,BR	1/22/2009	1600	FRI	7 MVANO	08B	3115 INVEST.PERSON ROUTINE 9	K421F	90039828
D	14	00	797	0900	COMMONWEALTH AV,BR	8/27/2009	1414	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K499D	90492039
D	14	00	797	0900	COMMONWEALTH AV,BR	6/6/2010	1710	MON	1 MVA		T	K101F	305761
D	14	00	797	0900	COMMONWEALTH AV,BR	1/23/2011	1251	MON	7 MVANO		3712 OTHER MOTOR VEH.ACCIDENT9	K425D	10038296
D	14	00	797	0900	COMMONWEALTH AV,BR	9/29/2011	1823	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	K415F	10531356

D	14	00	796	1048	COMMONWEALTH AV,BR	6/12/2006	1538	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K499D	60310938
D	14	00	796	1048	COMMONWEALTH AV,BR	4/19/2008	1210	SUN	1 MVA		3701 M/V ACC.PROPERTY DAMAGE 9	K421D	80219048
D	14	00	796	1048	COMMONWEALTH AV,BR	5/12/2008	237	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	KT56A	80266761
D	14	00	796	1048	COMMONWEALTH AV,BR	11/2/2009	1834	TUE	7 MVANO		2907 LEAVING SCENE-PROPERTY D9	K425F	90636013
D	14	00	796	1048	COMMONWEALTH AV,BR	12/9/2010	1721	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K499F	659512
D	14	00	796	1048	COMMONWEALTH AV,BR	10/18/2011	1210	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K202D	10569342
D	04	00	632	0685	COMMONWEALTH AV,BB	3/14/2007	59	THU	1 MVAINJ		3702 M/V ACC.INJURIES 9	D422A	70136378
D	04	00	632	0685	COMMONWEALTH AV,BB	9/12/2007	1611	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	D442F	70508675
D	04	00	632	0685	COMMONWEALTH AV,BB	10/17/2008	2147	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	D441F	80605944
D	04	00	632	0685	COMMONWEALTH AV,BB	7/9/2009	1830	FRI	1 MVA	14B	3408 POLICE SERVICES-TRAFF.ETT	D437F	90381505
D	04	00	632	0685	COMMONWEALTH AV,BB	6/3/2010	1830	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	D441F	299637
D	14	00	797	0925	COMMONWEALTH AV,BR	3/16/2006	2348	FRI	7 MVANO	09B	3114 INVEST.PREMISES,OBJECTS 9	K422A	60139952
D	14	00	797	0925	COMMONWEALTH AV,BR	2/13/2007	1016	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K422D	70082838
D	14	00	797	0925	COMMONWEALTH AV,BR	4/30/2007	1707	TUE	1 MVAINJ		2904 VIO.TRAFFIC SIGNS-SIGNAL 9	K499F	70229600
D	14	00	797	0925	COMMONWEALTH AV,BR	1/16/2008	1337	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K421D	80030720
D	14	00	797	0925	COMMONWEALTH AV,BR	5/27/2011	1416	SAT	1 MVAINJ		9	K411D	10274813
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	11/24/2006	252	SAT	7 MVANO		3702 M/V ACC.INJURIES R	D442A	60643221
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	4/16/2007	1112	TUE	1 MVAINJ		3701 M/V ACC.PROPERTY DAMAGE 9	D425D	70201033
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	2/25/2010	1904	FRI	1 MVA	08B	3115 INVEST.PERSON ROUTINE 9	D422F	103021
D	04	00	632		COMMONWEALTH AV/ESSEX ST,B	8/21/2010	1117	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	D445D	453701
D	14	00	798		ALCORN ST/COMMONWEALTH AV,	1/6/2007	1157	SUN	7 MVANO	08B	3115 INVEST.PERSON ROUTINE 9	K421D	70010703
D	14	00	798		ALCORN ST/COMMONWEALTH AV,	3/10/2010	1045	THU	7 MVANO		9	K421D	127230
D	14	00	798		ALCORN ST/COMMONWEALTH AV,	3/10/2011	7	FRI	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	K425A	10122960
D	14	00	798		ALCORN ST/COMMONWEALTH AV,	7/24/2011	328	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	D498A	10392801
D	14	00	797	0850	COMMONWEALTH AV,BR	5/5/2009	200	WED	1 MVACC		3702 M/V ACC.INJURIES 9	K423A	90242318
D	14	00	797	0850	COMMONWEALTH AV,BR	9/30/2009	956	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	K415D	90564496
D	14	00	797	0850	COMMONWEALTH AV,BR	10/9/2009	1432	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K102D	90585034
D	14	00	797	0850	COMMONWEALTH AV,BR	2/2/2011	1918	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K425F	10057650
D	14	00	797	0872	COMMONWEALTH AV,BR	8/20/2006	139	MON	7 MVANO		2910 OPERATING AFTER REV/SUSP 9	K102A	60451331
D	14	00	797	0872	COMMONWEALTH AV,BR	8/19/2007	1742	MON	1 MVAINJ		3702 M/V ACC.INJURIES T	K415F	70459977
D	14	00	797	0872	COMMONWEALTH AV,BR	4/29/2008	326	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K421A	80239132
D	14	00	797	0872	COMMONWEALTH AV,BR	3/10/2011	1933	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K421F	10124499
D	14	00	797	0880	COMMONWEALTH AV,BR	9/28/2007	1613	SAT	7 MVARPT	14P	3408 POLICE SERVICES-TRAFF.ETT	K425F	70542913
D	14	00	797	0880	COMMONWEALTH AV,BR	10/13/2009	1015	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K415D	90592399
D	14	00	797	0880	COMMONWEALTH AV,BR	10/28/2009	1319	THU	1 MVAINJ	08P	3115 INVEST.PERSON ROUTINE 9	K499D	90624107
D	14	00	797	0880	COMMONWEALTH AV,BR	10/28/2009	1319	THU	1 MVAINJ	08P	3115 INVEST.PERSON ROUTINE 9	K499D	90624107
D	14	00	797	0910	COMMONWEALTH AV,BR	5/17/2006	2206	THU	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET9	K422F	60259135
D	14	00	797	0910	COMMONWEALTH AV,BR	6/26/2008	902	FRI	9 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K698D	80365091
D	14	00	797	0910	COMMONWEALTH AV,BR	8/31/2010	1229	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K102D	472573
D	14	00	797	0910	COMMONWEALTH AV,BR	8/16/2011	1621	WED	7 MVANO		T	K202F	10439610
D	14	00	797	0930	COMMONWEALTH AV,BR	2/11/2006	1234	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K415D	60078445
D	14	00	797	0930	COMMONWEALTH AV,BR	9/29/2007	1906	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K411F	70545558
D	14	00	797	0930	COMMONWEALTH AV,BR	11/16/2009	1206	TUE	7 MVANO	08B	3115 INVEST.PERSON ROUTINE T	K102D	90663464
D	14	00	797	0930	COMMONWEALTH AV,BR	8/1/2011	1400	TUE	1 MVAINJ		9	K425D	10409661
D	14	00	797	0989	COMMONWEALTH AV,BR	3/10/2007	2201	SUN	7 MVANO		3712 OTHER MOTOR VEH.ACCIDENTR	KT55F	70130537
D	14	00	797	0989	COMMONWEALTH AV,BR	6/17/2008	2102	WED	7 MVANO		1848 POSS COCAINE MFR DIST DIR	V874	80346831
D	14	00	797	0989	COMMONWEALTH AV,BR	7/20/2009	1210	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K645D	90406354
D	14	00	797	0989	COMMONWEALTH AV,BR	9/27/2011	1129	WED	7 MVANO		T	K426D	10526040
D	14	00	798	1095	COMMONWEALTH AV,BR	9/4/2006	1428	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K411D	60480457
D	14	00	798	1095	COMMONWEALTH AV,BR	9/25/2009	2236	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K422F	90555263
D	14	00	798	1095	COMMONWEALTH AV,BR	4/3/2010	1246	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K425D	175421
D	14	00	798	1095	COMMONWEALTH AV,BR	4/3/2010	1246	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K425D	175421
D	14	00	796		COMMONWEALTH AV/NAPLES RD,	12/10/2007	104	TUE	1 MVAINJ		3702 M/V ACC.INJURIES 9	K415A	70688970
D	14	00	796		COMMONWEALTH AV/NAPLES RD,	6/26/2009	2233	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K425F	90354124
D	14	00	796		COMMONWEALTH AV/NAPLES RD,	12/5/2009	2205	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K499F	90700232
D	14	00	797	0830	COMMONWEALTH AV,BR	4/22/2009	1138	THU	1 MVAINJ		3702 M/V ACC.INJURIES 9	K425D	90215417
D	14	00	797	0830	COMMONWEALTH AV,BR	6/19/2009	244	SAT	1 MVAINJ		3701 M/V ACC.PROPERTY DAMAGE T	K499A	90337516
D	14	00	797	0830	COMMONWEALTH AV,BR	1/16/2011	1249	MON	7 MVANO	14K	3408 POLICE SERVICES-TRAFF.ETR	K499D	10026116
D	14	00	797	0957	COMMONWEALTH AV,BR	5/25/2006	8	FRI	1 MVAINJ		3702 M/V ACC.INJURIES 9	K645	60273676
D	14	00	797	0957	COMMONWEALTH AV,BR	2/13/2011	245	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K422A	10077746
D	14	00	797	0957	COMMONWEALTH AV,BR	10/14/2011	1723	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K422F	10561862
D	14	00	797	0966	COMMONWEALTH AV,BR	1/20/2006	1420	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K422D	60035891
D	14	00	797	0966	COMMONWEALTH AV,BR	1/14/2008	644	TUE	1 MVAINJ		3702 M/V ACC.INJURIES 9	K421D	80025917
D	14	00	797	0966	COMMONWEALTH AV,BR	12/17/2010	1804	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K426F	673030
D	14	00	797	0975	COMMONWEALTH AV,BR	2/10/2006	922	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K425D	60076069
D	14	00	797	0975	COMMONWEALTH AV,BR	11/20/2010	1921	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K499F	628020
D	14	00	797	0975	COMMONWEALTH AV,BR	9/11/2011	1946	MON	1 MVAINJ		9	K421F	10493203
D	14	00	798	1010	COMMONWEALTH AV,BR	4/27/2007	2245	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K426F	70224499
D	14	00	798	1010	COMMONWEALTH AV,BR	1/21/2011	1654	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K499F	10035242
D	14	00	798	1010	COMMONWEALTH AV,BR	2/18/2011	1723	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K422F	10088356
D	14	00	798	1055	COMMONWEALTH AV,BR	2/12/2007	946	TUE	7 MVANO		3704 M/V ACC.INV.POLICE VEH. R	K411D	70080908
D	14	00	798	1055	COMMONWEALTH AV,BR	4/11/2008	1053	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K422D	80201726
D	14	00	798	1055	COMMONWEALTH AV,BR	9/19/2011	1638	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K426F	10509526
D	14	00	796	1056	COMMONWEALTH AV,BR	7/1/2006	1015	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	K425D	60351081
D	14	00	796	1056	COMMONWEALTH AV,BR	1/27/2007	211	SUN	1 MVA		2915 MISCELLANEOUS M/V VIO. 9	K425A	70050426
D	14	00	796	1056	COMMONWEALTH AV,BR	9/1/2007	1059	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	KT55D	70485604
D	14	00	796	1090	COMMONWEALTH AV,BR	3/16/2010	2018	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K426F	139716
D	14	00	796	1090	COMMONWEALTH AV,BR	8/18/2010	1326	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K101D	447841
D	14	00	796	1090	COMMONWEALTH AV,BR	6/29/2011	30	THU	1 MVAINJ		T	K426A	10339577
D	04	00	632	0745	COMMONWEALTH AV,BB	9/22/2009	1552	WED	1 MVACC	14P	3408 POLICE SERVICES-TRAFF.ET9	DA01	90547269
D	04	00	632	0745	COMMONWEALTH AV,BB	7/21/2010	1656	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	D442F	394054
D	14	00	797		ARMORY ST/COMMONWEALTH AV,	3/20/2008	427	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K499A	80155743
D	14	00	797		ARMORY ST/COMMONWEALTH AV,	7/10/2010	1357	SUN	1 MVAINJ		9	K425D	372358
D	14	00	797	0832	COMMONWEALTH AV,BR	1/31/2007	946	THU	1 MVA	14S	3408 POLICE SERVICES-TRAFF.ET9	K421D	70058288
D	14	00	797	0832	COMMONWEALTH AV,BR	2/22/2009	1409	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K415D	90097659
D	14	00	797	0846	COMMONWEALTH AV,BR	5/13/2009	930	THU	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	K425D	90259559
D	14	00	797	0846	COMMONWEALTH AV,BR	10/10/2009	19	SUN	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	K423A	90586047
D	14	00	797	0870	COMMONWEALTH AV,BR	9/19/2007	1221	THU	7 MVANO		3704 M/V ACC.INV.POLICE VEH. T	K910	70522815
D	14	00	797	0870	COMMONWEALTH AV,BR	7/21/2011	1155	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K422D	10386883
D	14	00	797	0888	COMMONWEALTH AV,BR	1/13/2006	1129	SAT	7 MVANO	14P	2906 OPERATING UNREG/UNINS. C9	K423D	60022556
D	14	00	797	0888	COMMONWEALTH AV,BR	7/29/2007	504	MON	1 MVAINJ		3702 M/V ACC.INJURIES 9	K425A	70416455
D	14	00	797	0890	COMMONWEALTH AV,BR	9/1/2007	1038	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K202D	70485562
D	14	00	797	0890	COMMONWEALTH AV,BR	9/20/2008	1812	SUN	1 MVA		2907 LEAVING SCENE-PROPERTY D9	K422F	80550116
D	14	00	797	0891	COMMONWEALTH AV,BR	10/28/2009	2256	THU	1 MVA	14P	3701 M/V ACC.PROPERTY DAMAGE T	K421F	90625109
D	14	00	797	0891	COMMONWEALTH AV,BR	10/28/2009	2256	THU	1 MVA	14P	3701 M/V ACC.PROPERTY DAMAGE T	K421F	90625109
D	14	00	797	0928	COMMONWEALTH AV,BR	10/14/2009	227	THU	1 MVA		3712 OTHER MOTOR VEH.ACCIDENT9	D427A	90594009
D	14	00	797	0928	COMMONWEALTH AV,BR	6/23/2010	1351	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	KT55D	338549
D	14	00	797	0949	COMMONWEALTH AV,BR	11/30/2006	1718	FRI	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	K422F	60655536
D	14	00	797	0949	COMMONWEALTH AV,BR	9/6/2011	945	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K426D	10481742
D	14	00	797	0971	COMMONWEALTH AV,BR	10/5/2007	1427	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K411D	70558175
D	14	00	797	0971	COMMONWEALTH AV,BR	3/9/2010	1729	WED	1 MVAINJ		9	K411F	126012
D	14	00	797	0985	COMMONWEALTH AV,BR	3/24/2008	934	TUE	7 MVARPT		2908 LEAVING SCENE-PERS.INJURT	K421D	80163735
D	14	00	797	0985	COMMONWEALTH AV,BR	9/4/2008	1036	FRI	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K421D	80514206
D	14	00	798	1016	COMMONWEALTH AV,BR	8/22/2007	2244	THU	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K499F	70466556
D	14	00	798	1016	COMMONWEALTH AV,BR	7/29/2008	1910	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K426F	80437246
D	14	00	796	1050	COMMONWEALTH AV,BR	7/15/2011	1121	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K415D	10374444
D	14	00	796	1050	COMMONWEALTH AV,BR	7/27/2011	2246	THU	7 MVANO		9	K425F	10400302
D	14	00	798	1075	COMMONWEALTH AV,BR	4/8/2009	2312	THU	1 MVADD	14P	3408 POLICE SERVICES-TRAFF.ET9	K202F	90188228
D	14	00	798	1075	COMMONWEALTH AV,BR	10/3/2010	4	MON	7 MVANO	08B	3115 INVEST.PERSON ROUTINE 9	K422A	537489
D	04	00	632	0705	COMMONWEALTH AV,BB	7/8/2008	2252	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	R7631	80392884
D	04	00	632	0717	COMMONWEALTH AV,BB	4/17/2011	301	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	D445A	10194969
D	04	00	632	0725	COMMONWEALTH AV,BB	5/13/2010	1615	FRI	7 MVANO	08P	3115 INVEST.PERSON ROUTINE T	D445F	256046
D	14	00	798	1027	COMMONWEALTH AV,BR	1/27/2009	14	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K415A	90048006
D	14	00	798	1029	COMMONWEALTH AV,BR	3/29/2009	1723	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K415F	90166578
D	14	00	798	1033	COMMONWEALTH AV,BR	3/26/2007	1649	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	KT56F	70160952
D	14	00	796	1066	COMMONWEALTH AV,BR	2/17/2008	25	MON	1 MVA		2101 OPERATING UNDER INFLUENC9	K425A	80092991
D	14	00	798	1087	COMMONWEALTH AV,BR	1/11/2011	227	WED	1 MVAINJ		2101 OPERATING UNDER INFLUENC9	K426A	10016540

D	14	00	798	1089	COMMONWEALTH AV,BR	6/12/2010	1826	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR		K422F	317795
D	14	00	796	1092	COMMONWEALTH AV,BR	2/2/2011	1354	THU	1 MVAINJ		3701 M/V ACC.PROPERTY DAMAGE T		K425D	10057157
D	14	00	796	1094	COMMONWEALTH AV,BR	7/5/2009	213	MON	1 MVAINJ		3702 M/V ACC.INJURIES	T	K421A	90371659
D	14	00	798	1101	COMMONWEALTH AV,BR	8/3/2009	1200	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9		K426D	90437982

AREA	DIST	SEC	RA	STNO	STREET	DATERECD	TIME_	DAY_	PRI_NAT	MISCL	CrimeCode	PRI_UNIT	CCNO
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	2/26/2007	715	TUE	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	K499D	70106012
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	4/26/2007	1427	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421D	70221516
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	7/14/2007	1321	SUN	1 MVAINJ		T	K651D	70386291
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	8/7/2007	1138	WED	7 MVANO	08B	3115 INVEST.PERSON ROUTINE T	KT55D	70434989
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	8/13/2007	1158	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421D	70447001
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	9/1/2007	1033	SUN	1 MVA		3702 M/V ACC.INJURIES 9	R6151	70485550
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	9/15/2007	1213	SUN	1 MVA		T	K102D	70514758
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	9/27/2007	1440	FRI	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K415D	70540445
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	10/6/2007	202	SUN	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K101A	70559541
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	11/16/2007	1312	SAT	1 MVA		3702 M/V ACC.INJURIES 9	K426D	70643835
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/7/2007	1110	SAT	1 MVA		3712 OTHER MOTOR VEH.ACCIDENT9	K422D	70683862
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/10/2007	44	TUE	1 MVA		3702 M/V ACC.INJURIES 9	K425A	70688953
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/11/2007	2140	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K422F	70692720
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/18/2007	1608	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K415F	70705991
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	2/22/2008	815	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K421D	80102520
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	3/8/2008	1046	SUN	1 MVA		2907 LEAVING SCENE-PROPERTY DR	KD02	80132319
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	3/31/2008	1957	TUE	7 MVANO		3702 M/V ACC.INJURIES 9	K411F	80179232
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	4/20/2008	302	MON	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K411A	80220687
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	5/25/2008	951	MON	1 MVAINJ		3702 M/V ACC.INJURIES T	K421D	80295233
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	8/11/2008	938	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETR	K421D	80463443
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	10/9/2008	845	FRI	1 MVA		3702 M/V ACC.INJURIES 9	KK01D	80588438
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	3/1/2009	308	MON	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K421A	90110600
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	3/16/2009	928	TUE	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETR	K425D	90139669
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	3/22/2009	314	MON	7 MVANO	14D	3408 POLICE SERVICES-TRAFF.ETT	K423A	90151622
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	4/24/2009	1709	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421F	90220202
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	6/5/2009	1942	SAT	1 MVA	14K	3408 POLICE SERVICES-TRAFF.ET9	K421F	90309678
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	6/5/2009	1948	SAT	7 MVANO		R	R6698	90309688
D	14	00	798		BABCOCK ST/COMMONWEALTH AV	12/15/2009	1755	WED	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K421F	90717960
D	14	00	797		COMMONWEALTH AV/PLEASANT S	2/3/2007	2026	SUN	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ETT	K422F	70065394
D	14	00	797		COMMONWEALTH AV/PLEASANT S	2/5/2007	824	TUE	1 MVACC		3702 M/V ACC.INJURIES T	K499D	70067652
D	14	00	797		COMMONWEALTH AV/PLEASANT S	2/17/2007	934	SUN	1 MVA		3701 M/V ACC.PROPERTY DAMAGE T	K499D	70090478
D	14	00	797		COMMONWEALTH AV/PLEASANT S	2/24/2007	1649	SUN	7 MVANO	14B	3408 POLICE SERVICES-TRAFF.ETT	K421F	70103524
D	14	00	797		COMMONWEALTH AV/PLEASANT S	5/11/2007	148	SAT	1 MVAINJ		3712 OTHER MOTOR VEH.ACCIDENT9	K422A	70251881
D	14	00	797		COMMONWEALTH AV/PLEASANT S	6/1/2007	1408	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K421D	70296078
D	14	00	797		COMMONWEALTH AV/PLEASANT S	9/6/2007	1723	FRI	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ET9	K102F	70496381
D	14	00	797		COMMONWEALTH AV/PLEASANT S	9/17/2007	621	TUE	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K425A	70517956
D	14	00	797		COMMONWEALTH AV/PLEASANT S	1/24/2008	705	FRI	1 MVACC	14P	3408 POLICE SERVICES-TRAFF.ET9	K499A	80046316
D	14	00	797		COMMONWEALTH AV/PLEASANT S	4/2/2008	1326	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K422D	80182903
D	14	00	797		COMMONWEALTH AV/PLEASANT S	4/22/2008	1903	WED	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K421F	80225833
D	14	00	797		COMMONWEALTH AV/PLEASANT S	11/14/2008	1955	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K101F	80662173
D	14	00	797		COMMONWEALTH AV/PLEASANT S	3/14/2009	2156	SUN	1 MVA		3701 M/V ACC.PROPERTY DAMAGE T	K102F	90137133
D	14	00	797		COMMONWEALTH AV/PLEASANT S	8/29/2009	1650	SUN	7 MVANO	08B	3115 INVEST.PERSON ROUTINE 9	K425F	90496292
D	14	00	797		COMMONWEALTH AV/PLEASANT S	8/29/2009	1754	SUN	1 MVADD	14P	3408 POLICE SERVICES-TRAFF.ET9	K101F	90496379
D	14	00	797		COMMONWEALTH AV/PLEASANT S	11/17/2009	933	WED	1 MVACC		3701 M/V ACC.PROPERTY DAMAGE R	K422D	90665258
D	14	00	797		BUICK ST/COMMONWEALTH AV,B	1/8/2007	1816	TUE	1 MVAINJ	14P	3408 POLICE SERVICES-TRAFF.ETT	K425F	70015059
D	14	00	797		BUICK ST/COMMONWEALTH AV,B	8/3/2007	1632	SAT	1 MVAINJ		3702 M/V ACC.INJURIES R	K415F	70427446
D	14	00	797		BUICK ST/COMMONWEALTH AV,B	9/7/2007	1611	SAT	7 MVANO	14P	3408 POLICE SERVICES-TRAFF.ET9	K425F	70498423
D	14	00	797		BUICK ST/COMMONWEALTH AV,B	10/18/2007	1936	FRI	1 MVAINJ		3702 M/V ACC.INJURIES 9	K101F	70585614
D	14	00	797		BUICK ST/COMMONWEALTH AV,B	4/2/2008	1002	THU	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ETT	K421D	80182520
D	14	00	797		BUICK ST/COMMONWEALTH AV,B	8/19/2008	1256	WED	1 MVA		3701 M/V ACC.PROPERTY DAMAGE 9	K102D	80480762
D	14	00	797		BUICK ST/COMMONWEALTH AV,B	10/3/2008	1739	SAT	1 MVA	14P	3408 POLICE SERVICES-TRAFF.ET9	K102F	80577200
D	14	00	797		BUICK ST/COMMONWEALTH AV,B	11/13/2008	1950	FRI	7 MVARPT		3702 M/V ACC.INJURIES 9	K426F	80660140
D	14	00	797		BUICK ST/COMMONWEALTH AV,B	2/15/2009	1609	MON	1 MVAINJ		3702 M/V ACC.INJURIES T	K415F	90085313

D	14	00	797	BUICK ST/COMMONWEALTH AV,B	9/3/2009	1539	FRI	7	MVANO	08P	3115	INVEST.PERSON ROUTINE	9	K415D	90506827
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	11/21/2009	1045	SUN	1	MVAINJ		3702	M/V ACC.INJURIES	T	K101D	90673936
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	11/21/2009	1045	SUN	1	MVAINJ		3702	M/V ACC.INJURIES	T	K101D	90673936
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	12/1/2009	1848	WED	1	MVA		3702	M/V ACC.INJURIES	9	K426F	90692046
D	14	00	797	BUICK ST/COMMONWEALTH AV,B	12/15/2009	2241	WED	1	MVA	14P	3408	POLICE SERVICES-TRAFF.ET	9	K421F	90718389
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	5/25/2007	1221	SAT	1	MVA	14P	3408	POLICE SERVICES-TRAFF.ETT		K425D	70281328
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	9/7/2007	1535	SAT	1	MVA	14B	3408	POLICE SERVICES-TRAFF.ET	9	K411D	70498377
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	10/27/2007	2056	SUN	1	MVA		3701	M/V ACC.PROPERTY DAMAGE	9	K425F	70604713
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	11/5/2007	1156	TUE	1	MVA		2907	LEAVING SCENE-PROPERTY	DT	KT55D	70621692
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	2/20/2008	1519	THU	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ETT		K425D	80099466
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	4/25/2008	906	SAT	7	MVANO		3701	M/V ACC.PROPERTY DAMAGE	R	K102D	80231376
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	5/16/2008	2346	SAT	1	MVAINJ		3702	M/V ACC.INJURIES	9	K425A	80277683
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	5/31/2008	1245	SUN	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ET	9	K422D	80308480
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	6/14/2008	1047	SUN	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ETT		K426D	80339740
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	9/7/2008	2106	MON	1	MVAINJ	14P	3408	POLICE SERVICES-TRAFF.ETT		K499F	80521938
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	9/22/2008	1705	TUE	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ET	9	K421F	80554201
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	11/2/2008	13	MON	1	MVA	09E	3114	INVEST.PREMISES,OBJECTS	9	K426A	80636700
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	6/4/2009	36	FRI	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ETT		KT55A	90305619
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	6/4/2009	1451	FRI	1	MVA		3701	M/V ACC.PROPERTY DAMAGE	T	K202D	90306882
D	14	00	797	COMMONWEALTH AV/ST PAUL ST	10/9/2009	1538	SAT	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ET	9	K426F	90585139
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	1/24/2007	830	THU	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ET	9	K499D	70044727
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/17/2007	1107	SUN	1	MVA	14P	3408	POLICE SERVICES-TRAFF.ETR		KD02	70090597
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/23/2007	21	SAT	7	MVANO		3701	M/V ACC.PROPERTY DAMAGE	9	K499A	70100630
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	3/16/2007	1742	SAT	1	MVAINJ	14P	3408	POLICE SERVICES-TRAFF.ET	9	K426F	70141777
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	6/30/2007	1449	SUN	1	MVA		2915	MISCELLANEOUS M/V VIO.	9	K425D	70357105
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	7/1/2007	322	MON	1	MVAINJ	14K	3408	POLICE SERVICES-TRAFF.ET	9	K422A	70358515
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	11/5/2007	1957	TUE	7	MVANO	08B	3115	INVEST.PERSON ROUTINE	9	K411F	70622522
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	11/14/2007	1754	THU	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ETT		K499F	70640124
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	11/23/2007	1842	SAT	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ETT		K421F	70656722
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/7/2008	1404	FRI	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ET	9	K421D	80074360
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	3/2/2008	139	MON	1	MVAINJ	14P	3408	POLICE SERVICES-TRAFF.ET	9	K425A	80119648
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	5/13/2008	1637	WED	7	MVANO	08B	3115	INVEST.PERSON ROUTINE	9	K426F	80270137
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	9/1/2008	2002	TUE	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ETR		KT55F	80508832
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	9/5/2008	1326	SAT	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ET	9	K425D	80517008
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/14/2009	4	SUN	1	MVA	14P	3408	POLICE SERVICES-TRAFF.ET	9	K425A	90082649
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	2/16/2009	1949	TUE	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ET	9	K415F	90087357
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	9/21/2009	1907	TUE	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ET	9	K102F	90545417
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	12/2/2009	1754	THU	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ETT		K421F	90693868
D	14	00	798	BRIGHTON AV/COMMONWEALTH A	12/5/2009	840	SUN	7	MVANO		3701	M/V ACC.PROPERTY DAMAGE	T	K422D	90699101
D	14	00	797	COMMONWEALTH AV/HARRY AGGA	1/14/2008	945	TUE	1	MVA	14P	3408	POLICE SERVICES-TRAFF.ETT		K421D	80026214
D	14	00	797	COMMONWEALTH AV/HARRY AGGA	12/12/2008	1529	SAT	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ET	9	K425D	80713877
D	14	00	797	COMMONWEALTH AV/HARRY AGGA	1/30/2009	1556	SAT	7	MVANO	14D	3408	POLICE SERVICES-TRAFF.ET	9	K415F	90054862
D	14	00	797	COMMONWEALTH AV/HARRY AGGA	5/5/2009	1451	WED	1	MVAINJ		3702	M/V ACC.INJURIES	9	K421D	90243308
D	14	00	797	COMMONWEALTH AV/HARRY AGGA	8/4/2009	1454	WED	1	MVAINJ	14P	3408	POLICE SERVICES-TRAFF.ET	9	K422D	90440657
D	14	00	797	AGANNIS WY/COMMONWEALTH AV	8/9/2007	908	FRI	1	MVACC		2915	MISCELLANEOUS M/V VIO.	R	K421D	70438698
D	14	00	797	AGANNIS WY/COMMONWEALTH AV	12/9/2008	101	WED	1	MVADD	14P	3408	POLICE SERVICES-TRAFF.ETT		K102A	80706990
D	14	00	797	AGANNIS WY/COMMONWEALTH AV	7/21/2009	1241	WED	1	MVA	14P	3408	POLICE SERVICES-TRAFF.ETT		K421D	90408830
D	14	00	797	AGANNIS WY/COMMONWEALTH AV	10/31/2009	2239	SUN	1	MVAINJ		3706	M/V ACC.INV.OTHER CITY VT		K422F	90632021
D	14	00	797	AGANNIS WY/COMMONWEALTH AV	11/28/2009	2036	SUN	7	MVANO	14P	3408	POLICE SERVICES-TRAFF.ETR		R6126	90686723
D	14	00	797	ARMORY ST/COMMONWEALTH AV,	3/20/2008	427	FRI	1	MVA	14P	3408	POLICE SERVICES-TRAFF.ETT		K499A	80155743

Commonwealth Avenue Accident Calls - Boston EMS 2006 - 2011

Nature Code	2006	2007	2008	2009	2010	2011	Totals
MVA	54	70	55	65	46	52	342
MVA-Pedestrian	28	36	41	46	41	33	225
Trauma	1	6	2	3	4	4	20
							587

Appendix D

MBTA Ridership Data

Route 57 Watertown Square - Kenmore Station via Commonwealth Ave.
Weekday Outbound

All Day

Fall, 2009

Route Variation(s)	Stop Number	Stop Description	Total Ons	Total Offs	Change	Load Out From Stop	Cum. Ons	Cum. Offs
57.0,1,2,5,8	0	BOL Dummy	28	0	28	28	28	0
57.8	11780	Ave Louis Pasteur @ Longwood Ave	103	0	103	131	131	0
57.8	11781	Ave Louis Pasteur @ The Fenway	0	0	0	131	131	0
57.8	11520	Park dr @ Fenway Sta	0	0	0	131	131	0
57.8	1807	Park Dr @ Fenway Station	0	0	0	131	131	0
57.8	1808	Park Dr @ Beacon St	0	0	0	131	131	0
57.8	1809	Park Dr @ Mountfort St	0	0	0	131	131	0
57.8	1810	Commonwealth Ave @ University Rd	0	0	0	131	131	0
57.0,1	899	Kenmore Station Busway	2224	2	2222	2353	2355	2
57.0,1	951	Commonwealth Ave @ Sherborn St	546	2	544	2897	2901	4
57.0,1	952	Commonwealth Ave @ Granby St	272	8	264	3161	3173	12
57.0,1	953	Commonwealth Ave @ St Marys St	447	31	416	3577	3620	43
57.0,1	954	Commonwealth Ave @ University Rd	207	17	190	3767	3827	60
57.0,1,8	955	Commonwealth Ave @ opp Amory St	53	56	-3	3764	3880	116
57.0,1,8	956	Commonwealth Ave @ Buick St	122	234	-112	3652	4002	350
57.0,1,8	957	Commonwealth Ave @ Agganis Way	82	161	-79	3573	4084	511
57.0,1,8	958	Commonwealth Ave @ Babcock St	90	178	-88	3485	4174	689
57.0,1,8	959	1079 Commonwealth Ave	151	225	-74	3411	4325	914
57.0,1,8	960	19 Brighton Ave	55	96	-41	3370	4380	1010
57.0,1,8	961	Brighton Ave @ Chester St	35	170	-135	3235	4415	1180
57.0,1,8	962	Brighton Ave @ Linden St	31	192	-161	3074	4446	1372
57.0,1,8	963	Brighton Ave @ Harvard Ave	156	278	-122	2952	4602	1650
57.0,1,8	964	Brighton Ave @ opp Quint St	234	212	22	2974	4836	1862
57.0,1,2,5,8	965	Brighton Ave @ Craftsman St	89	149	-60	2914	4925	2011
57.0,1,2,5,8	966	Cambridge St @ N Beacon St	153	229	-76	2838	5078	2240
57.0,1,2,5,8	967	Cambridge St @ Gordon St	18	79	-61	2777	5096	2319
57.0,1,2,5,8	968	Cambridge St @ opp Eleanor St	16	9	7	2784	5112	2328
57.0,1,2,5,8	969	Cambridge St @ Dustin St	13	300	-287	2497	5125	2628
57.0,1,2,5,8	970	Cambridge St @ Sparhawk St	59	164	-105	2392	5184	2792
57.0,1,2,5,8	971	Cambridge St @ Elko St	25	123	-98	2294	5209	2915
57.0,1,2,5,8	972	Washington St @ Waldo Terr	52	186	-134	2160	5261	3101
57.0,1,2,5,8	9721	Washington St @ Market St	84	157	-73	2087	5345	3258
57.0,1,2,5,8	973	Washington St @ Leicester St	76	166	-90	1997	5421	3424
57.0,1,2,5,8	974	Washington St @ Foster St	42	211	-169	1828	5463	3635
57.0,1,2,5,8	975	Washington St @ Brock St	67	297	-230	1598	5530	3932
57.0,1,2,5,8	976	Washington St @ Fairbanks St	12	109	-97	1501	5542	4041
57.0,1,2,5,8	977	Washington St @ Montfern Ave	15	150	-135	1366	5557	4191
57.0,1,2,5,8	9780	Washington St @ Oak Sq	40	360	-320	1046	5597	4551
57.0,1,2,5,8	979	Tremont St @ Washington St	26	77	-51	995	5623	4628
57.0,2,8	980	Tremont St @ Tip Top St	2	11	-9	986	5625	4639
57.0,2,8	981	Tremont St @ opp Tremont Pl	5	52	-47	939	5630	4691
57.0,2,8	982	Tremont St @ opp Cufflin St	9	43	-34	905	5639	4734
57.0,2,8	984	Tremont St @ Marlboro St	2	13	-11	894	5641	4747
57.0,2,8	983	Tremont St @ Playstead Rd	1	17	-16	878	5642	4764
57.0,2,8	985	Tremont St @ Waverly Ave	2	12	-10	868	5644	4776
57.0,2,8	986	Tremont St @ Hibbard Rd	1	55	-54	814	5645	4831
57.0,2,8	987	Park St @ Tremont St	4	12	-8	806	5649	4843
57.0,2,8	988	Centre St @ Jefferson St	14	248	-234	572	5663	5091
57.0,2,8	989	Galen St @ Maple St	2	53	-51	521	5665	5144
57.0,2,8	990	Galen St @ Eliot St	0	23	-23	498	5665	5167
57.0,2,8	900	Watertown Yard	0	497	-497	1	5665	5664
57.0,1,2,5,8	99999	EOL Dummy	0	1	-1	0	5665	5665

AVE
3618

Route 57 Watertown Square - Kenmore Station via Commonwealth Ave.
Weekday Outbound

All Day

Fall, 2009

Route Variation(s)	Stop Number	Stop Description	Total Ons	Total Offs	Change	Load Out From Stop	Cum. Ons	Cum. Offs
		Totals:	5665	5665				
		Net Ridership:	5664					

Route 57 Watertown Square - Kenmore Station via Commonwealth Ave.
Weekday Inbound

All Day ***Fall, 2009***

Route Variation(s)	Stop Number	Stop Description	Total Ons	Total Offs	Change	Load Out From Stop	Cum. Ons	Cum. Offs
57.0,1,3,4,5	0	BOL Dummy	1	0	1	1	1	0
57.0	900	Watertown Yard	502	0	502	503	503	0
57.0	901	Galen St @ Eliot St	14	2	12	515	517	2
57.0	902	Galen St @ Boyd St	30	3	27	542	547	5
57.0	1900	Centre St @ Pearl St	30	12	18	560	577	17
57.0	903	Washington St @ Bacon St	194	22	172	732	771	39
57.0	9031	400 Centre St	100	7	93	825	871	46
57.0	904	Park St @ Elmwood St	14	3	11	836	885	49
57.0	905	Tremont St @ opp Hibbard Rd	23	1	22	858	908	50
57.0	906	Tremont St @ Waverly Ave	26	4	22	880	934	54
57.0	907	Tremont St @ Pembroke St	17	1	16	896	951	55
57.0	908	Tremont St @ Marlboro St	12	4	8	904	963	59
57.0	909	Tremont St @ Cufflin St	64	9	55	959	1027	68
57.0	910	Tremont St @ Tremont Pl	26	1	25	984	1053	69
57.0	911	Tremont St @ Tip Top St	8	2	6	990	1061	71
57.0,1,5	912	Tremont St @ Washington St	86	15	71	1061	1147	86
57.0,1,5	913	Washington St @ Breck Ave	286	30	256	1317	1433	116
57.0,1,5	914	Washington St @ opp Montfern Ave	142	11	131	1448	1575	127
57.0,1,5	915	Washington St @ Langley Rd	103	16	87	1535	1678	143
57.0,1,5	916	Washington St @ Lake St	395	69	326	1861	2073	212
57.0,1,5	917	Washington St @ Foster St	152	44	108	1969	2225	256
57.0,1,5	918	Washington St @ Chestnut Hill Ave	305	145	160	2129	2530	401
57.3	1994	Winship St @ Union St	0	0	0	2129	2530	401
57.3	1026	Chestnut Hill Ave @ Veronica Smith Ctr	0	0	0	2129	2530	401
57.0,1,3,5	919	Washington St @ opp Waldo Terr	156	64	92	2221	2686	465
57.0,1,3,5	920	Cambridge St @ Washington St	192	43	149	2370	2878	508
57.0,1,3,5	19201	Cambridge St @ opp Elko St	100	29	71	2441	2978	537
57.0,1,3,4,5	921	Cambridge St @ Warren St	125	26	99	2540	3103	563
57.0,1,3,4,5	922	Cambridge St @ opp Dustin St	338	21	317	2857	3441	584
57.0,1,3,4,5	923	Cambridge St @ Eleanor St	19	7	12	2869	3460	591
57.0,1,3,4,5	924	Cambridge St @ Gordon St	103	26	77	2946	3563	617
57.0,1,3,4,5	925	Cambridge St @ Barrows St	137	107	30	2976	3700	724
57.0,1,3,4,5	926	Brighton Ave @ Cambridge St	229	181	48	3024	3929	905
57.0,1,3,4	927	Brighton Ave @ Allston St	128	161	-33	2991	4057	1066
57.0,1,3,4	928	Brighton Ave @ Harvard Ave	255	264	-9	2982	4312	1330
57.0,1,3,4	929	Brighton Ave @ Linden St	211	46	165	3147	4523	1376
57.0,1,3,4	930	Brighton Ave @ Chester St	183	28	155	3302	4706	1404
57.0,1,3,4	931	Brighton Ave @ Comm Ave	396	141	255	3557	5102	1545
57.0,1,3,4	932	Commonwealth Ave @ Naples Rd	44	54	-10	3547	5146	1599
57.0,1,3,4	933	Commonwealth Ave @ Babcock St	231	86	145	3692	5377	1685
57.0,1,3,4	934	Commonwealth Ave @ Pleasant St	134	114	20	3712	5511	1799
57.0,1,3,4	935	Commonwealth Ave @ St Paul St	248	103	145	3857	5759	1902
57.0,1,3,4	936	Commonwealth Ave @ Amory St	66	62	4	3861	5825	1964
57.0,1,3,4	937	Commonwealth Ave @ Carlton St	12	196	-184	3677	5837	2160
57.0,1,3,4	938	Commonwealth Ave @ St Marys St	32	482	-450	3227	5869	2642
57.0,1,3,4	939	Commonwealth Ave @ opp Granby St	28	269	-241	2986	5897	2911
57.0,1,3,4	941	Commonwealth Ave @ Blanford St	24	390	-366	2620	5921	3301
57.0,1,3,4	899	Kenmore Station Busway	8	2538	-2530	90	5929	5839
57.0,1,3,4,5	99999	EOL Dummy	0	90	-90	0	5929	5929
		Totals:	5929	5929				
		Net Ridership:	5839					

AVE
3780

TOTAL 7398

SAY 7500

SURFACE B LINE INBOUND
WARREN STREET TO PLEASANT STREET
FALL 2010 WEEKDAY HOURLY TOTAL BOARDINGS, ALIGHTINGS, AND LINE VOLUMES ON TRAINS ENTERING SUBWAY 5:15 A.M. - 12:30 A.M.

Time Interval at Blandford St. Portal	Vol. From Prior Stop	WARREN ST. Inbound		Line	ALLSTON ST. Inbound		Line	GRIGGS ST. Inbound		Line	HARVARD AVE. Inbound		Line	PACKARDS CORNER Inbound		Line	BABCOCK ST. Inbound		Line	PLEASANT ST. Inbound		Line
		Ons	Offs	Vol.	Ons	Offs	Vol.	Ons	Offs	Vol.	Ons	Offs	Vol.	Ons	Offs	Vol.	Ons	Offs	Vol.	Ons	Offs	Vol.
5:15 - 6:00 a.m.	56	18	1	73	16	1	88	15	0	103	15	6	112	11	0	123	11	1	133	1	0	134
6:00 - 7:00 a.m.	141	31	1	171	31	0	202	48	2	248	80	21	307	32	2	337	15	4	348	9	1	356
7:00 - 8:00 a.m.	450	155	13	592	168	10	750	132	2	880	216	17	1,079	187	10	1,256	56	6	1,306	51	24	1,333
8:00 - 9:00 a.m.	693	230	22	901	227	5	1,123	192	1	1,314	325	15	1,624	270	14	1,880	86	17	1,949	27	22	1,954
:00 - 10:00 a.m.	517	129	9	637	166	1	802	150	5	947	279	32	1,194	256	20	1,430	93	14	1,509	53	20	1,542
:00 - 11:00 a.m.	242	95	9	328	79	4	403	53	2	454	199	40	613	183	8	788	45	11	822	43	4	861
:00 a.m. - Noon	206	81	8	279	68	2	345	65	7	403	148	29	522	146	18	650	62	8	704	65	7	762
loon - 1:00 p.m.	213	184	9	388	62	2	448	44	4	488	126	33	581	125	11	695	40	17	718	50	5	763
1:00 - 2:00 p.m.	249	78	12	315	57	3	369	40	7	402	184	39	547	140	11	676	45	8	713	71	10	774
2:00 - 3:00 p.m.	203	266	9	460	43	16	487	36	2	521	88	45	564	90	25	629	62	12	679	35	5	709
3:00 - 4:00 p.m.	225	242	22	445	65	17	493	33	9	517	185	50	652	145	34	763	103	11	855	50	8	897
4:00 - 5:00 p.m.	272	125	20	377	55	22	410	60	6	464	138	57	545	105	22	628	135	8	755	79	18	816
5:00 - 6:00 p.m.	192	55	9	238	48	19	267	39	8	298	192	58	432	133	27	538	99	23	614	74	11	677
6:00 - 7:00 p.m.	257	53	21	289	52	15	326	55	10	371	139	49	461	59	26	494	88	12	570	67	16	621
7:00 - 8:00 p.m.	191	32	23	200	31	14	217	27	13	231	122	31	322	40	25	337	56	7	386	58	2	442
8:00 - 9:00 p.m.	82	31	6	107	24	6	125	11	19	117	72	28	161	25	11	175	27	4	198	31	4	225
:00 - 10:00 p.m.	147	30	9	168	15	1	182	6	57	131	74	15	190	75	6	259	56	15	300	42	2	340
:00 - 11:00 p.m.	99	17	5	111	19	16	114	11	8	117	82	18	181	48	12	217	31	4	244	36	4	276
1:00 - Midnght.	42	4	2	44	5	4	45	5	7	43	49	10	82	38	4	116	18	0	134	110	3	241
:00 - 12:30 a.m.	18	8	1	25	1	6	20	1	2	19	26	4	41	9	0	50	5	1	54	8	4	58
Total	**4,495**	**1,864**	**211**	**6,148**	**1,232**	**164**	**7,216**	**1,023**	**171**	**8,068**	**2,739**	**597**	**10,210**	**2,117**	**286**	**12,041**	**1,133**	**183**	**12,991**	**960**	**170**	**13,781**



SURFACE B LINE INBOUND
ST. PAUL STREET TO BLANDFORD STREET and LINE TOTAL
FALL 2010 WEEKDAY HOURLY TOTAL BOARDINGS, ALIGHTINGS, AND
LINE VOLUMES ON TRAINS ENTERING SUBWAY 5:15 A.M. - 12:30 A.M.

Time Interval at Blandford St. Portal	Vol. From Prior Stop	ST. PAUL ST.			B.U. WEST			B.U. CENTRAL			B.U. EAST			BLANDFORD ST.			ALL STOPS INBOUND		
		Inbound		Line	Inbound		Line	Inbound		Line	Inbound		Line	Inbound		Line	Total	Total	To
		Ons	Offs	Vol.	Ons	Offs	Vol.	Ons	Offs	Vol.	Ons	Offs	Vol.	Ons	Offs	Vol.	Ons	Offs	Subway
5:15 - 6:00 a.m.	134	8	1	141	0	0	141	1	5	137	0	0	137	1	6	132	153	21	132
6:00 - 7:00 a.m.	356	4	6	354	4	1	357	2	2	357	1	3	355	2	4	353	402	49	353
7:00 - 8:00 a.m.	1,333	41	13	1,361	14	10	1,365	3	78	1,290	0	28	1,262	5	135	1,132	1,484	352	1,132
8:00 - 9:00 a.m.	1,954	54	46	1,962	10	20	1,952	13	179	1,786	11	101	1,696	10	89	1,617	2,166	549	1,617
9:00 - 10:00 a.m.	1,542	87	43	1,586	13	30	1,569	14	239	1,344	15	128	1,231	18	124	1,125	1,813	688	1,125
10:00 - 11:00 a.m.	861	65	21	905	20	7	918	15	110	823	9	106	726	17	72	671	1,079	408	671
11:00 a.m. - Noon	762	25	15	772	35	12	795	39	147	687	34	89	632	29	68	593	1,019	426	593
Noon - 1:00 p.m.	763	92	13	842	55	9	888	54	119	823	32	54	801	59	72	788	1,150	362	788
1:00 - 2:00 p.m.	774	57	40	791	55	8	838	51	84	805	20	40	785	49	65	769	1,121	352	769
2:00 - 3:00 p.m.	709	56	9	756	36	9	783	78	79	782	41	46	777	18	41	754	1,078	324	754
3:00 - 4:00 p.m.	897	76	8	965	60	15	1,010	103	88	1,025	78	46	1,057	73	71	1,059	1,475	416	1,059
4:00 - 5:00 p.m.	816	147	8	955	82	15	1,022	123	55	1,090	68	41	1,117	82	102	1,097	1,516	419	1,097
5:00 - 6:00 p.m.	677	66	5	738	73	11	800	124	81	843	89	37	895	68	73	890	1,297	407	890
6:00 - 7:00 p.m.	621	59	8	672	36	7	701	124	70	755	87	44	798	60	51	807	1,168	361	807
7:00 - 8:00 p.m.	442	52	1	493	38	5	526	51	49	528	33	28	533	103	25	611	863	252	611
8:00 - 9:00 p.m.	225	12	5	232	10	2	240	44	32	252	53	18	287	32	3	316	479	163	316
9:00 - 10:00 p.m.	340	29	2	367	20	6	381	37	17	401	48	12	437	28	13	452	630	178	452
10:00 - 11:00 p.m.	276	36	3	309	20	3	326	41	20	347	56	7	396	19	17	398	533	135	398
11:00 - Midnght.	241	21	3	259	8	1	266	13	9	270	6	17	259	4	5	258	330	72	258
12:00 - 12:30 a.m.	58	3	0	61	6	0	67	9	1	75	2	2	75	1	8	68	102	34	68
Total	**13,781**	**990**	**250**	**14,521**	**595**	**171**	**14,945**	**939**	**1,464**	**14,420**	**683**	**847**	**14,256**	**678**	**1,044**	**13,890**	**19,858**	**5,968**	**13,890**



TOTAL = 14,060

SURFACE B LINE OUTBOUND
LINE TOTAL AND BLANDFORD STREET TO ST. PAUL STREET
FALL 2010 WEEKDAY HOURLY TOTAL BOARDINGS, ALIGHTINGS, AND
LINE VOLUMES ON TRAINS LEAVING SUBWAY 5:45 A.M. - 1:15 A.M.

Time Interval at Blandford St. Portal	ALL STOPS OUTBOUND			BLANDFORD ST.			B.U. EAST			B.U. CENTRAL			B.U. WEST			ST. PAUL ST.		
	Total Ons	Total Offs	From Subway	Outbound Ons	Outbound Offs	Line Vol.	Outbound Ons	Outbound Offs	Line Vol.	Outbound Ons	Outbound Offs	Line Vol.	Outbound Ons	Outbound Offs	Line Vol.	Outbound Ons	Outbound Offs	Line Vol.
5:45 - 6:00 a.m.	19	57	38	1	1	38	0	1	37	0	3	34	0	1	33	0	1	32
6:00 - 7:00 a.m.	50	216	166	1	10	157	1	8	150	1	7	144	1	8	137	0	19	118
7:00 - 8:00 a.m.	148	601	453	4	51	406	10	33	383	6	48	341	3	18	326	4	18	312
8:00 - 9:00 a.m.	184	1,250	1,066	8	92	982	21	97	906	11	142	775	1	110	666	2	149	519
:00 - 10:00 a.m.	246	790	544	53	85	512	20	72	460	24	65	419	0	62	357	4	53	308
:00 - 11:00 a.m.	310	777	467	63	56	474	75	79	470	38	75	433	5	59	379	10	24	365
:00 a.m. - Noon	271	633	362	22	26	358	42	38	362	46	45	363	5	38	330	39	50	319
Noon - 1:00 p.m.	372	804	432	52	34	450	92	63	479	66	54	491	9	60	440	23	33	430
1:00 - 2:00 p.m.	380	1,037	657	42	46	653	70	51	672	62	52	682	12	65	629	27	55	601
2:00 - 3:00 p.m.	319	869	550	49	25	574	50	22	602	56	43	615	8	10	613	21	50	584
3:00 - 4:00 p.m.	580	1,336	756	77	56	777	123	71	829	103	49	883	19	22	880	12	60	832
4:00 - 5:00 p.m.	651	1,579	928	70	31	967	174	72	1,069	145	81	1,133	29	38	1,124	44	112	1,056
5:00 - 6:00 p.m.	805	2,724	1,919	101	138	1,882	131	118	1,895	157	97	1,955	18	108	1,865	47	94	1,818
6:00 - 7:00 p.m.	582	2,024	1,442	74	56	1,460	84	49	1,495	129	46	1,578	15	42	1,551	16	95	1,472
7:00 - 8:00 p.m.	460	1,493	1,033	60	22	1,071	39	54	1,056	139	35	1,160	14	10	1,164	21	64	1,121
8:00 - 9:00 p.m.	416	1,192	776	53	11	818	68	47	839	91	28	902	26	7	921	9	60	870
:00 - 10:00 p.m.	351	1,071	720	89	8	801	29	35	795	82	32	845	17	5	857	11	31	837
:00 - 11:00 p.m.	180	815	635	18	14	639	18	10	647	43	8	682	6	9	679	7	30	656
1:00 - Midnight	132	477	345	13	4	354	8	7	355	36	4	387	4	0	391	8	18	381
2:00 - 1:00 a.m.	76	315	239	12	2	249	8	9	248	15	4	259	5	1	263	1	6	258
1:00 - 1:15 a.m.	10	36	26	0	0	26	1	1	26	5	0	31	2	0	33	0	1	32
Total	6,542	20,096	**13,554**	**862**	**768**	**13,648**	**1,064**	**937**	**13,775**	**1,255**	**918**	**14,112**	**199**	**673**	**13,638**	**306**	**1,023**	**12,921**



SURFACE B LINE OUTBOUND
PLEASANT STREET TO WARREN STREET
FALL 2010 WEEKDAY HOURLY TOTAL BOARDINGS, ALIGHTINGS, AND
LINE VOLUMES ON TRAINS LEAVING SUBWAY 5:45 A.M. - 1:15 A.M.

Time Interval at Blandford St. Portal	Vol. From Prior Stop	PLEASANT ST. Outbound Ons	Offs	Line Vol.	BABCOCK ST. Outbound Ons	Offs	Line Vol.	PACKARDS CORNER Outbound Ons	Offs	Line Vol.	HARVARD AVE. Outbound Ons	Offs	Line Vol.	GRIGGS ST. Outbound Ons	Offs	Line Vol.	ALLSTON ST. Outbound Ons	Offs	Line Vol.	WARREN ST. Outbound Ons	Offs	Line Vol.
5:45 - 6:00 a.m.	32	0	1	31	0	4	27	0	6	21	7	6	22	1	1	22	5	1	26	2	2	26
6:00 - 7:00 a.m.	118	0	7	111	1	29	83	4	3	84	19	35	68	7	5	70	4	1	73	4	39	38
7:00 - 8:00 a.m.	312	6	23	295	9	103	201	9	15	195	28	56	167	15	0	182	15	4	193	16	97	112
8:00 - 9:00 a.m.	519	2	63	458	9	139	328	13	39	302	49	67	284	7	14	277	10	9	278	13	64	227
:00 - 10:00 a.m.	308	4	64	248	5	53	200	9	39	170	52	65	157	12	7	162	10	13	159	27	55	131
:00 - 11:00 a.m.	365	7	53	319	11	49	281	13	35	259	35	109	185	14	28	171	12	17	166	13	28	151
:00 a.m. - Noon	319	3	23	299	14	51	262	13	27	248	28	101	175	7	15	167	16	29	154	12	21	145
Noon - 1:00 p.m.	430	2	53	379	4	56	327	13	29	311	34	96	249	0	32	217	17	19	215	7	50	172
1:00 - 2:00 p.m.	601	15	85	531	14	60	485	24	72	437	50	163	324	4	24	304	8	44	268	7	48	227
2:00 - 3:00 p.m.	584	7	40	551	7	38	520	28	84	464	43	130	377	3	53	327	6	53	280	16	53	243
3:00 - 4:00 p.m.	832	15	83	764	17	86	695	48	137	606	90	214	482	13	91	404	16	71	349	14	37	326
4:00 - 5:00 p.m.	1,056	7	91	972	18	83	907	33	118	822	70	305	587	11	68	530	18	90	458	4	67	395
5:00 - 6:00 p.m.	1,818	20	141	1,697	36	209	1,524	99	191	1,432	118	400	1,150	12	170	992	18	176	834	2	111	725
6:00 - 7:00 p.m.	1,472	28	85	1,415	30	120	1,325	77	262	1,140	59	330	869	20	132	757	15	159	613	6	102	517
7:00 - 8:00 p.m.	1,121	19	90	1,050	26	100	976	49	156	869	38	240	667	17	93	591	9	131	469	17	104	382
8:00 - 9:00 p.m.	870	18	77	811	22	103	730	54	181	603	36	196	443	10	43	410	17	100	327	8	92	243
:00 - 10:00 p.m.	837	20	56	801	15	46	770	23	109	684	40	213	511	7	62	456	5	84	377	5	89	293
:00 - 11:00 p.m.	656	14	36	634	12	49	597	15	102	510	28	139	399	7	78	328	2	69	261	6	60	207
1:00 - Midnight	381	14	16	379	4	27	356	9	50	315	20	94	241	11	42	210	1	45	166	1	38	129
2:00 - 1:00 a.m.	258	6	17	247	0	15	232	4	39	197	18	67	148	1	23	126	1	22	105	3	16	92
1:00 - 1:15 a.m.	32	0	0	32	0	2	30	0	5	25	1	9	17	1	2	16	0	4	12	0	6	6
Total	12,921	**207**	**1,104**	**12,024**	**254**	**1,422**	**10,856**	**537**	**1,699**	**9,694**	**863**	**3,035**	**7,522**	**180**	**983**	**6,719**	**205**	**1,141**	**5,783**	**183**	**1,179**	**4,787**



12,360

TOTAL = 26,420

Ridership and Service Statistics

Thirteenth Edition
2010











Massachusetts Bay Transportation Authority

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Chapter 1 - Introduction

The 2010 edition of *MBTA Ridership and Service Statistics ("The Blue Book")* is the thirteenth edition of this compendium. The "Blue Book" was first published in 1988.

The MBTA receives frequent inquiries from customers, students, peer transit providers, transportation consultants, government agencies, community organizations, transportation enthusiasts, and the media for information regarding its operations, and this book is intended to address these needs. Additionally, this book serves as a management and analytical tool for MBTA staff.

If you have any questions or suggestions for future updates and revisions, please contact Daniel Webber in the Service Planning Unit:

by email : **dwebber@mbta.com**.
by phone: (617) 222-5037, or write to

MBTA Blue Book
Service Planning Unit
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Although every effort has been made to ensure the accuracy of the data presented herein, the MBTA assumes no responsibility for errors, typographic and otherwise.

Information on all MBTA services can be obtained by calling 617-222-3200, 1-800-392-6100 (outside Mass.), or 617-222-5146 (TTY), or visiting **www.mbta.com**.

This and previous versions of the Blue Book are now available to download at:
http://www.mbta.com/bluebook

MBTA Service and Infrastructure Profile
July 2010

MBTA Service District

Cities and Towns	175
Size in Square Miles	3,244
Population (2000 Census)	4,663,565

Typical Weekday Ridership (FY 2010)

By Line Unlinked	
Red Line	241,603
Orange Line	184,961
Blue Line	57,273
Total Heavy Rail	**483,837**
Total Green Line (Light Rail & Trolley)	**236,096**
Bus (includes Silver Line)	361,676
Silver Line SL1 & SL2*	14,940
Silver Line SL4 & SL5**	15,086
Trackless Trolley	12,364
Total Bus and Trackless Trolley	**374,040**
TOTAL MBTA-Provided Urban Service	**1,093,973**

System Unlinked	
MBTA - Provided Urban Service	1,093,973
Commuter Rail Boardings (Inbound + Outbound)	132,720
Contracted Bus	2,603
Water Transportation	4,372
THE RIDE Paratransit Trips Delivered	6,773
TOTAL ALL MODES UNLINKED	**1,240,441**

Notes:
Unlinked trips are the number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

** Average weekday ridership taken from 2009 CTPS surveys for Silver Line SL1 & SL2.*
*** SL4 service began in October 2009. Ridership represents a partial year of operation.*

Annual Ridership (FY 2010)

Unlinked Trips by Mode	
Heavy Rail - Red Line	74,445,042
Heavy Rail - Orange Line	54,596,634
Heavy Rail - Blue Line	17,876,009
Light Rail (includes Mattapan-Ashmont Trolley)	75,916,005
Bus (includes Silver Line)	108,088,300
Trackless Trolley	3,438,160
TOTAL Subway & Bus/Trackless Trolley	**334,360,150**
Commuter Rail	**36,930,089**
THE RIDE Paratransit	**2,095,932**
Ferry (ex. Georges Island)	**1,290,900**
Contracted Bus	**734,107**
TOTAL with THE RIDE Paratransit	**375,411,178**
TOTAL Scheduled Service (Without THE RIDE)	**373,315,246**

Total Heavy Rail: **146,917,685**

Total Rubber Tire: **111,526,460**

Route Miles (One-Way, Non-Duplicative, March 2010)

Red Line (Ashmont and Braintree)	21
Orange Line	11
Blue Line	6
Green Line	23
B: 4, C: 3, D: 9, Outer E: 2, Inner E: 1, Subway: 4	
Mattapan-Ashmont Trolley	3
Total Subway	**64**
Silver Line Bus Rapid Transit	
Silver Line Waterfront Transitway Tunnel (SL1, SL2)	1
Silver Line Waterfront Surface (SL1, SL2)	7
Silver Line SL4	2
Silver Line SL5	2
Total Silver Line Bus Rapid Transit	**13**
Bus	740
Trackless Trolley	11
Total Bus & Trackless Trolley	**751**
Commuter Rail	**394**
Inner Harbor Ferry	1
Commuter Ferry*	37
Total Ferry	**38**
700-Series Private Carrier	79
Suburban Bus	165
Total Contracted Bus	**244**
Total Route Miles	**1506**

Total Heavy Rail (Red Orange, Blue): **38**

** Commuter Ferry calculated as mileage one-way from Boston-Hingham, Quincy-Hull, Hull-Logan, and Logan-Boston*

Notes: Route mile figures are rounded to the nearest whole number.

Routes, February 2010

Subway	
Red Ashmont (Dorchester), Braintree (South Shore)	2
Orange	1
Blue	1
Green Light Rail B, C, D, E	4
Mattapan-Ashmont Trolley	1
Total Subway	**9**

Bus (Variations and Supplementals not included)	
Silver Line SL1 & SL2*	3
Silver Line SL4 & SL5	2
Local, Express, Community, Limited Service	174
Crosstown (Four route segments advertised as CT1, 2, & 3)	3
Trackless Trolley (North Cambridge Carhouse)	4
Other	4
Total Bus	**187**

** Includes Route # 746 Tunnel Shuttle*

Commuter Rail*	
North Side	5
South Side	9
Total Commuter Rail	**14**

** Stoughton and Rockport considered distinct routes*

Ferry	
Inner Harbor Ferry	1
Commuter Ferry	2
Total Ferry	**3**

700-Series Private Carrier	4
Suburban Bus	6
Total Contracted Bus	**10**

TOTAL All Routes	**223**

Scheduled Weekday One-Way Trips (Fall 2009)

Subway Train-Trips	
Red Line	427
Orange Line	312
Blue Line	354
Green Line (B,C,D,E branches)	1193
Mattapan-Ashmont Trolley	302
Total Subway	**2,588**
MBTA Bus Trips	
Local, Express, etc.	13,037 *
Silver Line SL4 & SL5	480
Silver Line SL1 & SL2	647
Trackless Trolley	664
Total Bus & Trackless Trolley	**14,828**
Commuter North Side	198
Commuter South Side	293
Total Commuter Rail	**491**
Ferry	
Inner Harbor Ferry	78
Commuter Ferry	82
Total Ferry	**160**
700-Series Private Carrier	264
Suburban Bus	188
Total Contracted Bus	**452**
Total One-Way Trips	**18,519**

* Includes Key Route mid rating schedule changes

MBTA-Provided Park-n'-Ride Spaces (February 2010)

Subway	
Red Line	9,447
Orange Line	2,738
Blue Line	2,231
Green Line	2,019
Mattapan-Ashmont Trolley	241
Total Subway	**16,676**
Bus	**200**
Commuter Rail	
Commuter Rail, North Side	5,979
Commuter Rail, South Side	20,957
Total Commuter Rail	**26,936**
Ferry	**2,191**
SYSTEM TOTAL	**46,003**

Selected park-n'-ride facilities NOT operated by the MBTA are listed in Chapter 8.

Notes:
For more detailed Park-n'-Ride information see Chapter 8.

Stations and Stops (March 2010)

Subway	
Red Line	22
Orange Line	19
Blue Line	12
Green Line	13
Total Subway by Route	**66**
Total Station Facilities*	**60**

** Shared facilities are Downtown Crossing, Park Street, North Station, Haymarket, State Street, Government Center*

Surface Light Rail and Trolley	
Green Line B	18
Green Line C	13
Green Line D	13
Green Line E (Prudential, Symphony not included)	9
Total Green Line Surface	**53**
Mattapan - Ashmont Trolley, incl. Ashmont	**8**

Silver Line Bus Rapid Transit	
Silver Line SL1 & SL2**	9
Silver Line SL4 & SL5	15
Total Silver Line Bus Rapid Transit	**24**

*** Includes 4 stations in the transitway*

Commuter Rail	
North Side (incl. Mishawum & Riverworks)	57
South Side (incl. Foxboro)	78
Total Commuter Rail	**135**

TOTAL STATIONS	**286**

Bus and Trackless Trolley Stops *** **8,500**

Shelters: 675

160 MBTA-owned; 280 Wall USA-owned; 165 Cemusa USA-owned; 70 other-owned

****(Not included is the South Station Bus Terminal, owned by the MBTA and operated by others under contract)*

Ferry Terminals **8**

(excludes seasonal dock at Georges Island)

Revenue Vehicle Fleet (July 2010)

Heavy Rail	
Red #1, 01500 series	*24*
Red #1, 01600 series	*50*
Red #2, 01700 series	*58*
Red #3, 01800 series	*86*
Red Line #1, #2, #3	218
Orange Line #12	120
Blue Line #4	20
Blue Line #5	94
Total Heavy Rail	**452**
Light Rail & Trolley	
Green Line Type 7	110
Green Line Type 8	95
Total Green Line	**205**
PCC Trolleys (Mattapan - Ashmont Trolley)	**10**
Total Subway	**667**
Bus and Trackless Trolley	
40' New Flyer Diesel Bus	310
40' New Flyer CNG Bus	17
40' Neoplan Diesel Bus	193
40' Neoplan Electric Trolley Bus	28
40' NABI CNG Bus	299
40' RTS Diesel Bus	126
60' New Flyer Hybrid Diesel Bus	25
60' Articulated Bus (CNG)	27
60' Articulated Bus (CNG) Silver	17
60' DMA Diesel-Electric Bus Silver	24
60' DMA Diesel-Electric Bus Silver - Massport	8
Total Bus and Trackless Trolley	**1,074**
Commuter Rail	
Coaches and Cab Cars	410
Passenger Train Locomotives	83
Total Commuter Rail	**493**
THE RIDE, Vans and Sedans (MBTA-owned only)	**464**
Ferry (MBTA-owned only)	**2**
ALL MBTA REVENUE VEHICLES	**2,700**

On Order: 75 bi-level commuter rail cars from Rotem USA

Accessibility of Commuter Rail Stations and Ferry Terminals
January 2010

STATION	
Newburyport/Rockport (18 stas)	**15**
Newburyport	Y
Rowley	Y
Ipswich	Y
Hamilton-Wenham	Y
North Beverly	Y
Rockport	Y
Gloucester	Y
West Gloucester	Y
Manchester	Y
Beverly Farms	Y
Prides Crossing	N
Montserrat	Y
Beverly	Y
Salem	Y
Swampscott	Y
Lynn	Y
Riverworks	N
Chelsea	N
Haverhill/Reading (13 stations)	**8**
Haverhill	Y
Bradford	Y
Lawrence	Y
Andover	Y
Ballardvale	Y
North Willmington	N
Reading	Y
Wakefield	N
Greenwood	N
Melrose Highlands	Y
Melrose Cedar Pk	N
Wyoming Hill	N
Malden Center	Y
Lowell (8 stations)	**5**
Lowell	Y
North Billerica	Y
Wilmington	Y
Anderson	Y
Mishawum	Y
Winchester Center	N
Wedgemere	N
West Medford	N
Fitchburg (17 stations)	**6**
Fitchburg	Y
North Leominster	Y
Shirley	N
Ayer	N
Littleton/495	Planned
South Acton	N
West Concord	Y
Concord	N
Lincoln	N
Silver Hill	N
Hastings	N
Kendal Green	N
Brandeis/Roberts	Y
Waltham	Y
Waverley	N
Belmont	N
Porter	Y
North Station	**1**
TOTAL STATIONS - North Side	**57**
Accessible	35
Not Accessible	22

STATION	
Framingham/Worcester (15 stas)	**8**
Worcester	Y
Grafton	Y
Westborough	Y
Southborough	Y
Ashland	Y
Framingham	Y
West Natick	Y
Natick	N
Wellesley Square	N
Wellesley Hills	N
Wellesley Farms	N
Auburndale	Planned
West Newton	N
Newtonville	N
Yawkey Station	Y
Needham (9 stations)	**9**
Needham Heights	Y
Needham Center	Y
Needham Junction	Y
Hersey	Y
West Roxbury	Y
Highland	Y
Bellevue	Y
Roslindale Village	Y
Forest Hills	Y
Franklin (12 stations)	**6**
Forge Park/495	Y
Franklin/Dean College	N
Norfolk	Y
Walpole	N
Plimptonville	N
Windsor Gardens	N
Norwood Central	Y
Norwood Depot	Y
Islington	N
Dedham Corp Ctr.	Y
Endicott	N
Hyde Park	Y
Fairmount (3 stations)	**3**
Fairmount	Y
Morton Street	Y
Uphams Corner	Y
Stoughton (2 stations)	**2**
Stoughton	Y
Canton Center	Y
Attleboro/Providence (8 stas)	**7**
Providence	Y
South Attleboro	Y
Attleboro	Y
Mansfield	Y
Sharon	Planned
Canton Junction	Y
Route 128	Y
Foxboro	Y
Middleborough/Lakeville (6 stas)	**6**
Middleborough/Lakeville	Y
Bridgewater	Y
Campello	Y
Brockton	Y
Montello	Y
Holbrook/Randolph	Y

STATION		
Plymouth-Kingston (10 stations)		**10**
Plymouth		Y
Kingston		Y
Halifax		Y
Hanson		Y
Whitman		Y
Abington		Y
South Weymouth		Y
Braintree		Y
Quincy Center		Y
JFK/UMass		Y
Greenbush (7 stations)		**7**
Greenbush		Y
Scituate		Y
Cohasset		Y
Nantasket Junction		Y
W. Hingham		Y
E. Weymouth		Y
Weymouth Landing		Y
Ruggles		1
Back Bay		1
Readville		1
South Station		**1**
TOTAL STATIONS - South Side		**76**
Accessible		62
Not Accessible		14
TOTAL RAIL STATIONS - Systemwide		
Accessible	73%	97
Not Accessible	27%	36
Total		**133**

FERRY TERMINAL		
F1 (2 terminals)		**2**
Hingham Shipyard		Y
Rowes Wharf		Y
F2/F2H (4 terminals)		**4**
Fore River Shipyard		Y
Hull		Y
Logan Airport		Y
Long Wharf		Y
F4 (2 terminals)		**2**
Charlestown Navy Yard		Y
Long Wharf		Y
TOTAL FERRY TERMINALS - Systemwide		
Accessible	100%	8
Not Accessible	0%	0
Total		**8**

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Chapter 2 - Subway Service

Subway Service includes the MBTA's **heavy rail** (Red, Orange, and Blue Lines), **light rail** (Green Line), and **trolley** (Mattapan-Ashmont) systems. The Operations Control Center at 45 High Street, Boston provides dispatching support.

Subway vehicles range from 1945-vintage Electric Railway Presidents' Conference Committee ("PCC") trolleys to the newest Green Line Type 8 low-floor Light Rail Vehicles. Rail vehicles are maintained and stored at individual facilities on each line, since dimensional considerations generally preclude vehicle transfers between lines.

Subway Operations Statistical Highlights:

- Routes: 9 (4 heavy rail, 4 light rail, 1 trolley)
- Revenue Vehicle Fleet Size: 667
- Number of Stations and Stops: 121 (by route, six stations are shared)
- Route Miles of Service: 79.6 (63.5 discounting route designation overlap)

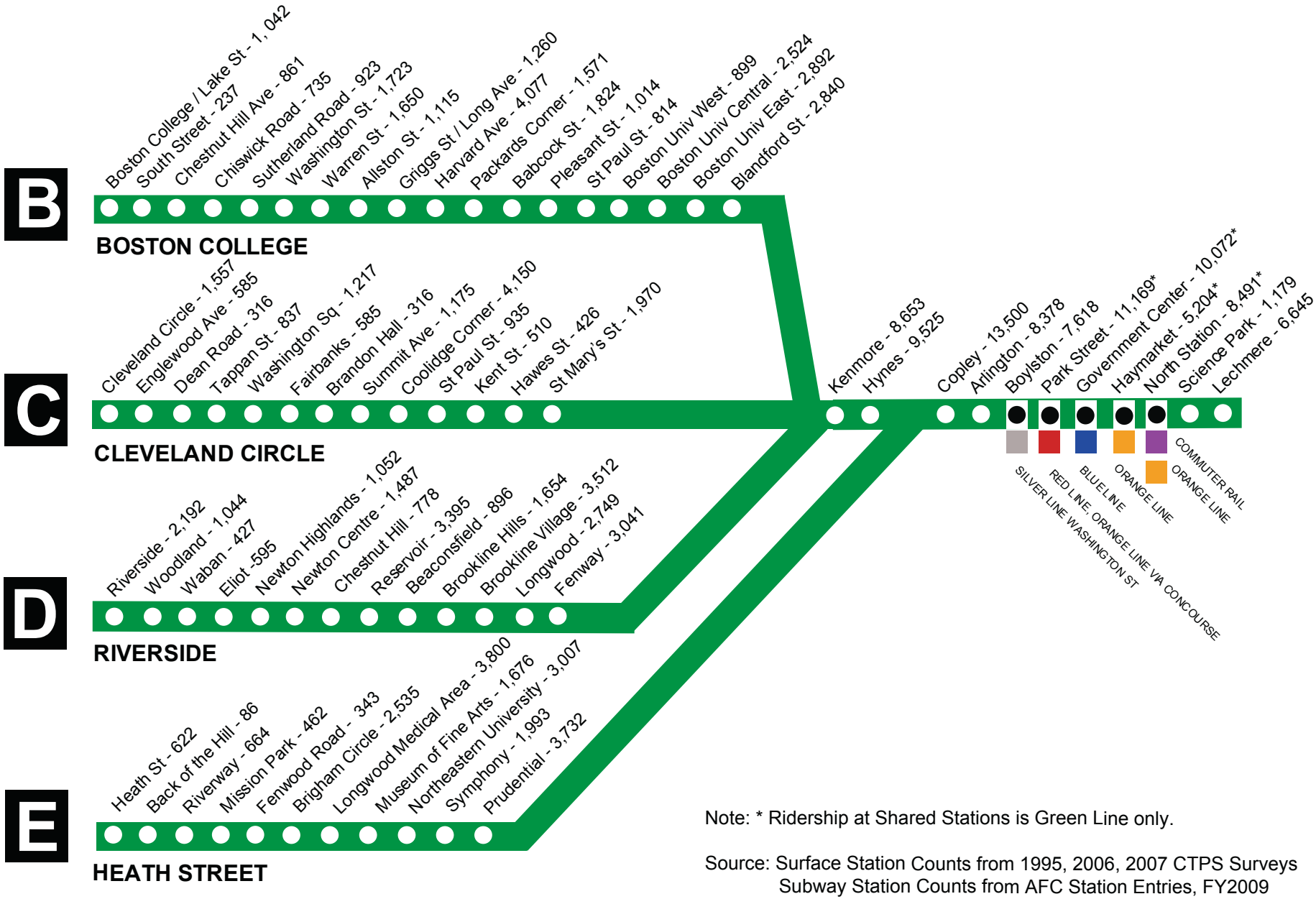
Subway / Bus Rapid Transit Ridership
Typical Weekday Station / Stop Entries



Count Dates:
Red, Blue, Orange, Green Subway Lines; Silver Line Courthouse and WTC
Source: Average of AFC Weekday Daily Data, FY2009

Mattapan Line, Winter 2010
Silver Line SL1 & SL2, Spring 2009
Silver Line SL5, Spring 2003
Source: CTPS Counts
~6AM-~12M station entrances
Two-way boardings
Green Line surface stations - See Green Line Surface Ridership

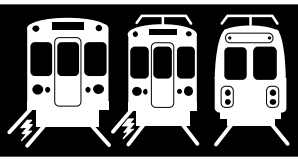
Green Line Branch Ridership
Typical Weekday Station Entries



Note: * Ridership at Shared Stations is Green Line only.

Source: Surface Station Counts from 1995, 2006, 2007 CTPS Surveys
Subway Station Counts from AFC Station Entries, FY2009

Subway Operations
Ranked Station Entries and Downtown Transfers (Typical Weekday FY2009)



Rank	Station	Entrances	Route
1	Downtown Crossing	22,880	Orange (Shared)
2	South Station	22,632	Red
3	Harvard	21,868	Red
4	Park Street	19,836	Green (shared)
5	Back Bay	16,769	Orange
6	North Station	16,702	Orange (shared)
7	Central Square	14,531	Red
8	Kendall Square	13,975	Red
9	Forest Hills	13,568	Orange
10	Copley Square	13,500	Green
TOP 10 (Percentage of total)		**176,261**	**37%**
11	State Street	12,553	Orange (Shared)
12	Davis Square	11,628	Red
13	Government Center	11,317	Green (shared)
14	Malden Center	11,258	Orange
15	Haymarket	11,223	Orange (Shared)
16	Alewife	10,657	Red
17	Charles MGH	10,615	Red
18	Hynes	9,525	Green
19	Sullivan Square	9,004	Orange
20	Kenmore Square	8,653	Green
21	Porter Square	8,552	Red
22	Ruggles	8,378	Orange
23	Arlington	8,378	Green
24	Maverick	8,134	Blue
25	Quincy Center	7,913	Red
TOP 25 (Percentage of total)		**324,048**	**67%**
26	JFK/U Mass	7,834	Red
27	Boylston	7,618	Green
28	Wellington	7,464	Orange
29	North Quincy	7,132	Red
30	Airport	6,901	Blue
31	Lechmere	6,645	Green
32	Ashmont	6,019	Red
33	Oak Grove	5,994	Orange
34	Chinatown	5,822	Orange
35	Tufts Medical Center	5,684	Orange
36	Andrew Square	5,586	Red
37	Wonderland	5,520	Blue
38	Mass Ave	5,248	Orange
39	Jackson Square	4,968	Orange
40	Aquarium	4,444	Blue
41	Braintree	4,387	Red
42	Quincy Adams	4,383	Red
43	Wollaston	4,347	Red
44	Broadway	4,200	Red
45	Fields Corner	4,152	Red
46	Orient Heights	4,121	Blue
47	Prudential	3,732	Green
48	Community College	3,695	Orange
49	Roxbury Crossing	3,693	Orange
50	Green Street	3,229	Orange
51	Stony Brook	3,163	Orange
52	Revere Beach	2,693	Blue
53	World Trade Center	2,338	Silver
54	Shawmut	2,241	Red
55	Riverside	2,192	Green
56	Symphony	1,993	Green
57	Beachmont	1,936	Blue
58	Savin Hill	1,863	Red
59	Bowdoin	1,454	Blue
60	Wood Island	1,450	Blue
61	Science Park	1,179	Green
62	Courthouse	945	Silver
63	Suffolk Downs	794	Blue
	TOTAL	**481,106**	

Source: AFC Station Entries, FY2009

Joint Stations by Line*

South Station	20,647	Red Line	North Station	8,210	Orange Line
South Station	1,985	Silver Line	North Station	8,491	Green Line
Downtown Crossing	11,134	Orange Line	Haymarket	5,204	Green Line
Downtown Crossing	11,746	Red Line	Haymarket	6,019	Orange Line
Park Street	8,237	Red Line	Government Center	10,072	Green Line
Park Street	11,169	Green Line	Government Center	1,245	Blue Line
Park Street	429	Orange Line	State	7,323	Orange Line
			State	5,230	Blue Line

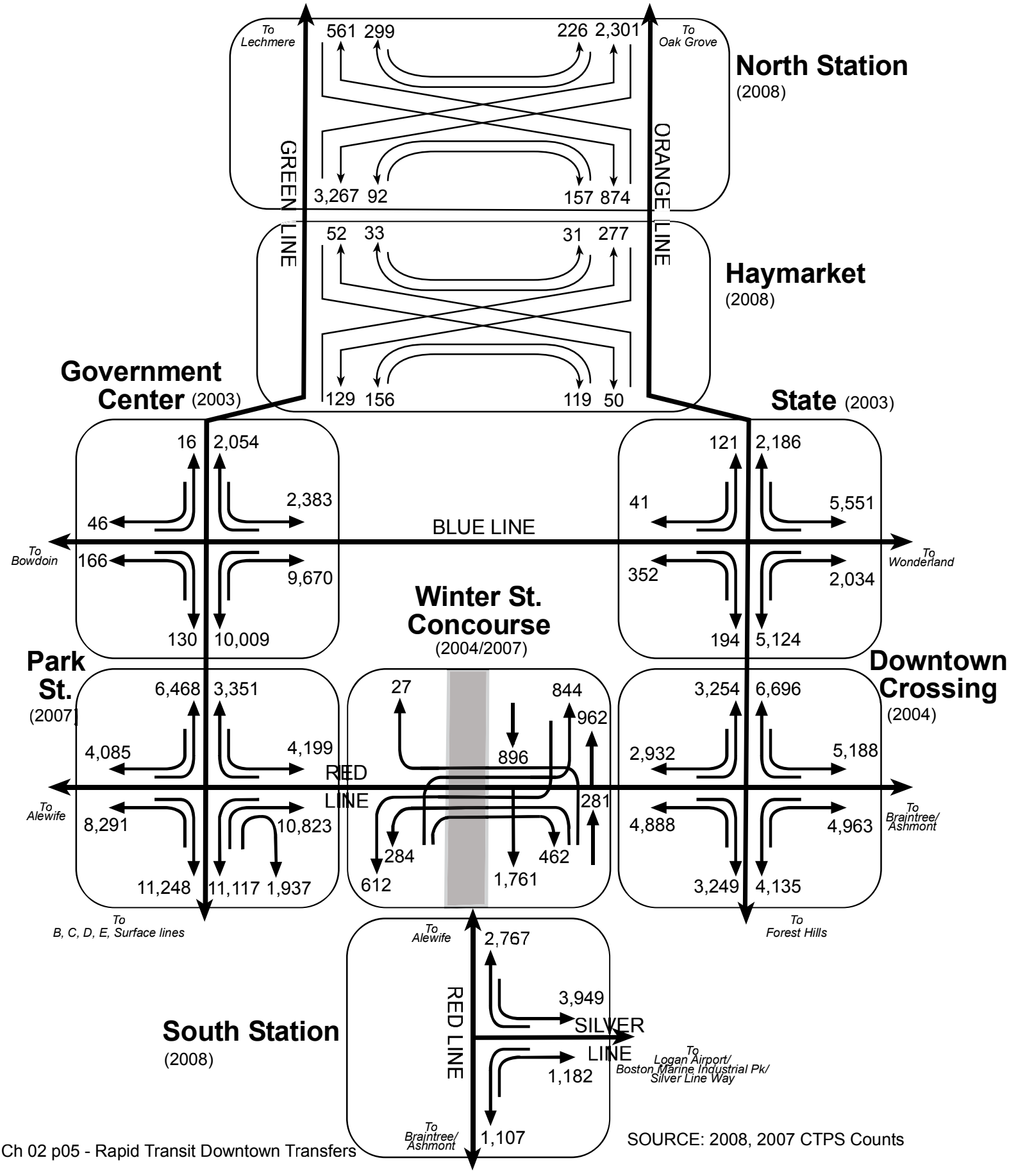
Note: * Estimated based on FY2009 AFC Station Entries and proportions from 2003, 2004, 2007, 2008 CTPS Surveys (External Entries, excludes transfers between lines).

Number of Customers Transferring From-To

Green to Red	27,398	Blue to Green	12,209
Red to Green	32,184	Green to Blue	12,275
Orange to Red	17,971	Orange to Blue	7,978
Red to Orange	17,334	Blue to Orange	7,625
Red to Silver	5,131	Green to Orange	3,502
Silver to Red	3,874	Orange to Green	3,755
		TOTAL	151,236

SOURCE: CTPS Surveys (2003, 2004, 2007, 2008)

Rapid Transit Downtown Transfers
By Initial and Final Route and Direction (6AM-12AM)



SOURCE: 2008, 2007 CTPS Counts

LINE STATISTICS

VEHICLE RECAP

MBTA Subway Operations Line Statistics

Rte. No.	TERMINALS	WEEKDAY AM PEAK V		H	AM BASE V		H	PM BASE V		H	PM PEAK V		H	LATE V		H	WEEKEND SAT PEAK V		H	SUN PEAK V		H
	GREEN LINE																					
812	Boston College - Government Ctr. Sta	20	2	5	12	2	8	12	2	8	20	2	5/6	9	2	11	17	2	6	11	2	8/9
831	Cleveland Circle - North Station	14	2	6/7	9	2	10	9	2	10	14	2	6/7	6	2	13/14	11	2	8	9	2	9/10
852	Riverside - Government Ctr Station	21	2	5/6/6	10	2	10/11	10	2	10/11	21	2	5/6/6	7	2	13	12	2	8	10	2	10
880	Heath Street - Lechmere Station	17	2	5	10	2	8	12	2	7	17	2	5	5	2	13/14	11	2	7	7	2	10
Rad	Run as Directed	3	2	X																		
	TOTAL CARS:		**150**			**82**			**86**			**144**			**54**			**102**			**74**	
	MATTAPAN*																					
899	Mattapan Sta. - Ashmont Sta.	6	1	5	3	1	10	5	1	5	6	1	5	2	1	12	3	1	8	2	1	11
	TOTAL CARS:		**6**			**3**			**5**			**6**			**2**			**3**			**2**	
	ORANGE LINE																					
903	Oak Grove Sta. - Forest Hills Sta.	17	6	4/5	10	6	8	10	6	8	17	6	4/5	6	6	13	10	6	8	6	6	13/14
	TOTAL CARS:		**102**			**60**			**60**			**102**			**36**			**60**			**36**	
	RED LINE																					
931	Alewife Sta. - Ashmont Sta.	11	6	8/9	7	6	13	7	6	13	11	6	8/9	8	6	12	7	6	14	6	6	15/16
933	Alewife Sta. - Braintree Sta.	15	6	8/9	9	6	13	9	6	13	15	6	8/9	9	6	12	8	6	14	7	6	15/16
RAD	Run As Directed	4	6	x							4	6	x									
	TOTAL CARS:		**180**			**96**			**96**			**180**			**102**			**90**			**78**	
	BLUE LINE																					
946	Wonderland Sta. - Bowdoin/Gov't Ctr. Sta.	12	6	4/5	6	6	8/9	6	6	5/6	6	6	4/5	5	6	10/11	6	6	8/9	6	6	8/9
	TOTAL CARS:		**56**			**24**			**32**			**56**			**30**			**36**			**36**	

NOTES: V = VEHICLES H = HEADWAY X = IRREGULAR HEADWAY

Green Line Pull Out and Put Up Locations

LINE	AM PEAK	VEHICLES	LAKE STREET	TOTAL RESERVOIR	RIVERSIDE	LECHMERE	GOVERNMENT/ BRATTLE
812	Boston College	40	20 a	20 b	-	-	-
831	Cleveland Circle	28	-	28	-	-	-
852	Riverside	42	-	-	42	-	-
880	Lechmere	34	-	4	-	20	10
RAD	Reservoir	6	-	-	-	-	-
	TOTAL:	**150**	**20**	**52**	**42**	**20**	**10**

LINE	PM PEAK	VEHICLES	LAKE STREET	TOTAL RESERVOIR	RIVERSIDE	LECHMERE	GOVERNMENT/ BRATTLE
812	Boston College	40	30 c	-	-	-	10 e
831	Cleveland Circle	28	-	28	-	-	-
852	Riverside	42	-	-	42	-	-
880	Lechmere	34	-	4	-	30 f	-
RAD	Reservoir	6		-		-	-
	TOTAL:	**150**	**30**	**32**	**42**	**30**	**10**

a = Six(6) of these cars put up @ the Brattle loop after the am peak

b = Four(4) of these cars put up @ the Brattle loop after the am peak

c = Fourteen(14) of these cars put up @ Reservoir.

e = Six(6) of these cars put up @ Reservoir and four(4) put up @ Lake St.

f = ten(10) of these cars put up @ Brattle Loop and twenty(20) @ Lechmere.

Subway Operations Fleet Roster

as of February 2010



Assignment and Class	Year Built	Builder	Electrical System	Remanufacturer	Principal Construction	Fleet ID	Fleet Size	Length Over Coupler Faces	Width Over Side Sheets	Height TOR to Roof	Empty Weight (AW0 #)	Seats	Pax Cap'y (Policy)	Crush Cap'y (1.5 SF/ pax)
BLUE LINE HEAVY RAIL														
No. 4 East Boston	1978-80	Hawker-Siddeley (Canada)	GE	None	Cor-Ten Steel	0600-0669	20	48'10"	111"	12' 7 3/8"	A: 60,800, B: 59,300	42	95	159
No. 5 East Boston	2007-2009	Siemens	Siemens	None	Stainless Steel	0700-0793	94	48' 10"	111"	12' 9.5"	69,000	35	95	145
ORANGE LINE HEAVY RAIL														
No. 12 Main Line	1979-81	Hawker-Siddeley (Canada)	GE	None	Cor-Ten Steel	01200-01319	120	65' 4"	111"	11' 11.75"	A: 68,780, B: 67,360	58	131	224
RED LINE HEAVY RAIL														
No. 1 Red Line	1969-70	Pullman Standard (USA)	WH	GE, 1985-86	Aluminum	01500-01523, 01600-01651	74	69' 9 3/4"	120"	12' 4 5/16"	01500 - 65,900 01600A - 64,650 01600B - 63,700	63	167	267
No. 2 Red Line	1987-89	UTDC (Canada)	WH	None	Aluminum	01700-01757	58	69' 9 3/4"	120"	12' 3 15/16"	71,600	62	167	260
No. 3 Red Line	1993-94	Bombardier (USA)	GE	None	Stainless Steel	01800-01885	86	69' 9 3/4"	120"	12' 3 3/4"	80,000	60 + 2 WC = 5	167	277
RED LINE HEAVY RAIL TOTAL							218							
ALL HEAVY RAIL TOTAL							**452**							
MATTAPAN-ASHMONT HIGH SPEED TROLLEY														
"Wartime" PCC	1945-46	Pullman Standard (USA)	WH	MBTA, 1978-83 and 1999-2005	Cor-Ten Steel	See below	10	46' (A)	100"	10'10"	39,700-40,035	40	None Designated	130
GREEN LINE LIGHT RAIL ACTIVE VEHICLES														
Type 7 (1)	1986-88	Kinki-Sharyo (Japan)	WH	None	Cor-Ten Steel	3600-3699	91	74'	104" (B)	11'10" (C)	85,500	46	101	269
Type 7 (2)	1997	Kinki-Sharyo (Japan)	ADTranz	None	Cor-Ten Steel	3700-3719	19	74'	104" (B)	11'10" (C)	85,500	46	101	269
Type 8	1998-2007	Breda (Italy)	ADTranz	None	Cor-Ten Steel	3800-3894	95	74'	104"	11' 9.5"	87,000	44	101	199 (D)
GREEN LINE LIGHT RAIL TOTAL							205							
SYSTEMWIDE FLEET TOTAL: HEAVY RAIL, TROLLEY, AND LIGHT RAIL							**667**							

NOTES

Blue Line 0600 cars 0618-0651, 0654-0669 retired in 2008/2009, cars 0600-0617 and 0652/0653 remain
Red Line 01500 cars as-built were capable of autonomous operation, but have since had one operator's cab removed.
Red Line 01600 cars as-built were operated in pairs. Cars 01604 and 01605 were damaged in a 1975 collision and are retained for spare parts.
All Red, Orange, and Blue line cars are operated in 2-car sets. A Cars are even numbered. B Cars are odd numbered.
The MBTA also rosters 36 work cars for non-revenue service, such as tool cars, flat cars, cranes, snow plows, and diesel locomotives. Blue Line - 2, Orange Line - 8, Red Line - 13, Green Line - 13
The Green Line vehicle roster includes serviceable and short-term repairable vehicles. Accident-damaged and other vehicles held in reserve for parts sources are not included.
Four Type 7 vehicle equivalents (3657A, 3602B, 3672A, 3630B, 3638AB, 3666AB) have been scrapped. Six Type 7 vehicles (3648A, 3639B, 3623A, 3679B, 3612, 3637, 3667, 3703) are stored awaiting final disposition.
PCC numbers: 3087, 3230, 3234, 3238, 3254, 3260, 3262, 3263, 3265, 3268.
(A) Over Bumpers (B) At Floor Level (C) Over air conditioning unit (D) At 1.35 SF/Pax
Not included are Green Line historic cars 5734 (owned by the Seashore Trolley Museum) and 3295.

Subway Operations
Scheduled One-way Train Trips
by Schedule Rating

	Fall 2009	Fall 2008	Fall 2007	Fall 2006	Fall 2005	Fall 2004
WEEKDAY						
Red Line	427.0	427.0	427.0	427.0	448.0	448.0
Orange Line	312.0	312.0	312.0	312.0	312.0	316.0
Blue Line	354.0	368.0	380.0	380.0	380.0	380.0
SUBTOTAL	**1,093.0**	**1,107.0**	**1,119.0**	**1,119.0**	**1,140.0**	**1,144.0**
Green Line	1,193.0	1,227.0	1,227.0	1,301.0	1,247.0	1,256.8
Mattapan Trolley	302.0	302.0	0.0	0.0	302.0	302.0
SUBTOTAL	**1,495.0**	**1,529.0**	**1,227.0**	**1,301.0**	**1,549.0**	**1,558.8**
GRAND TOTAL	**2,588.0**	**2,636.0**	**2,346.0**	**2,420.0**	**2,689.0**	**2,702.8**
SATURDAY						
Red Line	330.0	330.0	330.0	330.0	354.0	354.0
Orange Line	224.0	224.0	224.0	224.0	224.0	224.0
Blue Line	189.0	252.0	250.0	250.0	250.0	250.0
SUBTOTAL	**743.0**	**806.0**	**804.0**	**804.0**	**828.0**	**828.0**
Green Line	569.5	569.5	569.5	575.5	574.5	574.5
Mattapan Trolley	248.0	248.0	0.0	0.0	248.0	248.0
SUBTOTAL	**817.5**	**817.5**	**569.5**	**575.5**	**822.5**	**822.5**
GRAND TOTAL	**1,560.5**	**1,623.5**	**1,373.5**	**1,379.5**	**1,650.5**	**1,650.5**
SUNDAY						
Red Line	286.0	286.0	286.0	286.0	306.0	306.0
Orange Line	160.0	160.0	160.0	160.0	156.0	156.0
Blue Line	170.0	226.0	220.0	220.0	220.0	220.0
SUBTOTAL	**616.0**	**672.0**	**666.0**	**666.0**	**682.0**	**682.0**
Green Line	476.5	476.5	476.5	476.5	475.5	475.5
Mattapan Trolley	180.0	174.0	0.0	0.0	174.0	174.0
SUBTOTAL	**656.5**	**650.5**	**476.5**	**476.5**	**649.5**	**649.5**
GRAND TOTAL	**1,272.5**	**1,322.5**	**1,142.5**	**1,142.5**	**1,331.5**	**1,331.5**

Subway Operations
Scheduled Train Miles
by Schedule Rating

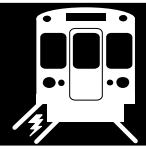
Fall 2009	Fall 2008	Fall 2007	Fall 2006	Fall 2005	Fall 2004
6,263.25	6,263.25	6,263.00	6,263.00	6,583.00	6,583.00
3,454.50	3,454.50	3,455.00	3,455.00	3,455.00	3,499.00
2,073.21	2,154.16	2,236.00	2,236.00	2,236.00	2,236.00
11,790.96	**11,871.91**	**11,954.00**	**11,954.00**	**12,274.00**	**12,318.00**
8,803.74	9,139.85	9,139.50	9,432.70	9,106.13	9,155.99
770.10	770.10	0.00	0.00	773.00	773.00
9,573.84	**9,909.95**	**9,139.50**	**9,432.70**	**9,879.13**	**9,928.99**
21,364.80	**21,781.86**	**21,093.50**	**21,386.70**	**22,153.13**	**22,246.99**
4,836.82	4,836.82	4,837.00	4,837.00	5,189.00	5,189.00
2,493.12	2,493.12	2,493.00	2,493.00	2,493.00	2,493.00
1,090.41	1,453.16	1,482.00	1,482.00	1,482.00	1,482.00
8,420.35	**8,783.10**	**8,812.00**	**8,812.00**	**9,164.00**	**9,164.00**
8,430.02	8,430.35	8,429.57	8,350.51	8,262.15	8,298.51
632.40	632.40	0.00	0.00	635.00	635.00
9,062.42	**9,062.75**	**8,429.57**	**8,350.51**	**8,897.15**	**8,933.51**
17,482.77	**17,845.85**	**17,241.57**	**17,162.51**	**18,061.15**	**18,097.51**
4,191.12	4,191.00	4,191.00	4,191.00	4,485.00	4,485.00
1,780.80	1,780.80	1,780.80	1,537.00	1,736.00	1,736.00
1,305.15	1,305.15	1,305.70	1,306.00	1,306.00	1,306.00
7,277.07	**7,276.95**	**7,277.50**	**7,034.00**	**7,527.00**	**7,527.00**
7,036.36	7,036.06	7,028.71	6,890.48	6,811.16	6,839.56
459.00	443.70	0.00	0.00	445.00	445.00
7,495.36	**7,479.76**	**7,028.71**	**6,890.48**	**7,256.16**	**7,284.56**
14,772.43	**14,756.71**	**14,306.21**	**13,924.48**	**14,783.16**	**14,811.56**

MBTA Rapid Transit Schedule and Span of Service Summary
Fall 2009

RAPID TRANSIT LINE	WEEKDAY						SATURDAY						SUNDAY					
	FIRST TRIP	RUSH HOUR SERVICE	MIDDAY SERVICE	EVENING SERVICE	LATE NIGHT SERVICE	LAST TRIP	FIRST TRIP	A.M. PEAK HEADWAY	P.M. PEAK HEADWAY	EVENING SERVICE	LATE NIGHT SERVICE	LAST TRIP	FIRST TRIP	A.M. PEAK HEADWAY	P.M. PEAK HEADWAY	EVENING SERVICE	LATE NIGHT SERVICE	LAST TRIP
RED LINE																		
LV ALEWIFE	*5:24AM*	9 MINS.	13 MINS.	12 MINS.	12 MINS.	*12:15AM*	*5:24AM*	14 MINS.	14 MINS.	14 MINS.	14 MINS.	*12:15AM*	*6:08AM*	16 MINS.	16 MINS.	16 MINS.	16 MINS.	*12:14AM*
LV BRAINTREE	*5:15AM*	9 MINS.	13 MINS.	12 MINS.	12 MINS.	*12:18AM*	*5:15AM*	14 MINS.	14 MINS.	14 MINS.	14 MINS.	*12:18AM*	*6:00AM*	16 MINS.	16 MINS.	16 MINS.	16 MINS.	*12:18AM*
LV ALEWIFE	*5:16AM*	9 MINS.	13 MINS.	12 MINS.	12 MINS.	*12:22AM*	*5:16AM*	14 MINS.	14 MINS.	14 MINS.	14 MINS.	*12:22AM*	*6:00AM*	16 MINS.	16 MINS.	16 MINS.	16 MINS.	*12:22AM*
LV ASHMONT	*5:16AM*	9 MINS.	13 MINS.	12 MINS.	12 MINS.	*12:30AM*	*5:16AM*	14 MINS.	14 MINS.	14 MINS.	14 MINS.	*12:30AM*	*6:00AM*	16 MINS.	16 MINS.	16 MINS.	16 MINS.	*12:30AM*
"M" LV ASHMONT	*5:16AM*	5 MINS.	10 MINS.	12 MINS.	12 MINS.	*1:04AM*	*5:15AM*	8 MINS.	8 MINS.	13 MINS.	13 MINS.	*1:05AM*	*6:01AM*	11 MINS.	11 MINS.	12 MINS.	12 MINS.	*1:05AM*
LV MATTAPAN	*5:05AM*	5 MINS.	10 MINS.	12 MINS.	12 MINS.	*12:53AM*	*5:05AM*	8 MINS.	8 MINS.	13 MINS.	13 MINS.	*12:50AM*	*5:51AM*	11 MINS.	11 MINS.	12 MINS.	12 MINS.	*12:50AM*
BLUE LINE																		
LV WONDERLAND	*5:13AM*	5 MINS.	9 MINS.	10 MINS.	13 MINS.	*12:26AM*	*5:25AM*	9 MINS.	9 MINS.	9 MINS.	13 MINS.	*12:26AM*	*5:58AM*	13 MINS.	9 MINS.	9 MINS.	13 MINS.	*12:26AM*
LV ORIENT HEIGHTS	*5:13AM*	5 MINS.	9 MINS.	10 MINS.	13 MINS.	*12:31AM*	*5:13AM*	9 MINS.	9 MINS.	9 MINS.	13 MINS.	*12:31AM*	*6:03AM*	13 MINS.	9 MINS.	9 MINS.	13 MINS.	*12:31AM*
LV GOV'T CENTER	*5:30AM*	5 MINS.	9 MINS.	10 MINS.	13 MINS.	*12:49AM*	*5:29AM*	9 MINS.	9 MINS.	9 MINS.	13 MINS.	*12:49AM*	*6:21AM*	13 MINS.	9 MINS.	9 MINS.	13 MINS.	*12:49AM*
ORANGE LINE																		
LV OAK GROVE	*5:16AM*	5 MINS.	8 MINS.	13 MINS.	13 MINS.	*12:26AM*	*5:16AM*	10 MINS.	8 MINS.	13 MINS.	13 MINS.	*12:26AM*	*6:00AM*	15 MINS.	14 MINS.	14 MINS.	14 MINS.	*12:26AM*
LV FOREST HILLS	*5:16AM*	5 MINS.	8 MINS.	13 MINS.	13 MINS.	*12:22AM*	*5:16AM*	10 MINS.	8 MINS.	13 MINS.	13 MINS.	*12:22AM*	*6:00AM*	15 MINS.	14 MINS.	14 MINS.	14 MINS.	*12:22AM*
GREEN LINE																		
"B" LV BOSTON COLLEGE	*5:01AM*	6 MINS.	8 MINS.	10 MINS.	11MINS.	*12:10AM*	*4:45AM**	7 MINS.	6 MINS.	7 MINS.	11 MINS.	*12:10AM*	*5:20AM**	10 MINS.	9 MINS.	10 MINS.	10 MINS.	*12:10AM*
LV GOVERNMENT CTR.	*5:39AM*	6 MINS.	8 MINS.	10 MINS.	11MINS.	*12:52AM*	*5:35AM*	7 MINS.	6 MINS.	7 MINS.	11 MINS.	*12:50AM*	*6:06AM*	10 MINS.	9 MINS.	10 MINS.	10 MINS.	*12:48AM*
"C" LV CLEVELAND CIR.	*5:01AM**	7 MINS.	10 MINS.	10 MINS.	14 MINS.	*12:10AM*	*4:50AM**	10MINS.	8 MINS.	8 MINS.	10 MINS.	*12:10AM*	*5:30AM**	10 MINS.	10 MINS.	10 MINS.	10 MINS.	*12:10AM*
LV NORTH STATION	*5:55AM*	7 MINS.	10 MINS.	10 MINS.	14 MINS.	*12:46AM*	*5:30AM*	10MINS.	8 MINS.	8 MINS.	10 MINS.	*12:50AM*	*6:06AM*	10 MINS.	10 MINS.	10 MINS.	10 MINS.	*12:48AM*
"D" LV RIVERSIDE	*4:56AM*	6 MINS.	11 MINS.	10 MINS.	13 MINS.	*12:05AM*	*4:55AM*	10MINS.	8 MINS.	10 MINS.	10 MINS.	*12:00AM*	*5:25AM*	10 MINS.	10 MINS.	10 MINS.	10 MINS.	*12:00AM*
LV GOVERNMENT CTR.	*5:34AM*	6 MINS.	11 MINS.	10 MINS.	13 MINS.	*12:47AM*	*5:34AM*	10MINS.	8 MINS.	10 MINS.	10 MINS.	*12:47AM*	*6:04AM*	10 MINS.	10 MINS.	10 MINS.	10 MINS.	*12:45AM*
"E" LV LECHMERE	*5:01AM*	6 MINS.	9 MINS.	10 MINS.	14 MINS.	*12:30AM*	*5:01AM*	10 MINS.	7 MINS.	10 MINS.	10 MINS.	*12:30AM*	*5:35AM*	11 MINS.	10 MINS.	10 MINS.	10 MINS.	*12:30AM*
LV HEATH STREET	*5:30AM*	6 MINS.	9 MINS.	10 MINS.	14 MINS.	*12:45AM*	*5:30AM*	10 MINS.	7 MINS.	10 MINS.	10 MINS.	*12:45AM*	*6:15AM*	11 MINS.	10 MINS.	10 MINS.	10 MINS.	*12:47AM*

* The first 2 "C" Line AM inbound trips run through to Lechmere Station on Weekdays. * The first "B" Line and the second "C" Line AM inbound trips run through to Lechmere Station on Saturday and Sunday.

Subway Operations
Red Line Station Entries (Typical Weekday)



STATION	1989 (a)	1990 (a)	1991 (a)	1992 (a)	1993 (a)	1995 (a)	1997 (b)		EXPANSION: Early AM	EXPANSION: Late PM	1997 Total	2001-2006 (m)	2007 (n)	2008 (n)	2009 (n)
ALEWIFE	8,927	8,235	6,723	8,404	9,990	9,425	9,317	(e)	81	11	9,409	9,567	10,047	10,315	10,657
DAVIS	7,228	6,288	5,448	8,377	5,865	9,544	10,634	(e)	48	13	10,695	10,891	10,856	10,997	11,628
PORTER	6,036	7,347	6,170	6,705	8,744	11,631	7,187	(e)	147	21	7,355	8,089	8,069	8,036	8,552
HARVARD	19,458	13,783	12,939	13,646	14,724	25,155	19,967	(k)	113	132	20,212	19,146	19,640	20,373	21,868
CENTRAL	7,719	9,286	5,853	6,836	7,877	11,655	11,553	(j)	121	62	11,736	12,415	13,537	13,750	14,531
KENDALL/MIT	5,830	10,687	9,616	12,330	8,163	14,112	11,147	(i)	27	40	11,214	11,408	12,518	12,954	13,975
CHARLES/MGH	3,033	4,126	6,805	7,814	7,208	7,748	7,799	(e)	15	41	7,855	8,672	9,016	9,650	10,615
PARK STREET	1,599	1,701	1,907	2,012	Green Line	Green Line	6,408	(h)	23	104	6,535	6,535	7,352	7,283	8,237
DOWNTOWN CROSSING	1,325	3,897	4,812	3,680	4,636	4,424	12,268	(l)	12	101	12,381	12,386	11,515	11,121	11,746
SOUTH STATION	12,064	16,287	14,742	18,629	16,278	19,441	20,712	(e)	22	44	20,778	18,826	21,432	22,157	20,647
BROADWAY	3,556	4,325	4,615	4,150	2,960	2,565	3,657	(d)	56	29	3,742	4,115	3,829	3,961	4,200
ANDREW	4,023	3,351	2,180	2,217	3,087	3,745	4,545	(d)	80	21	4,646	5,372	5,063	5,260	5,586
JFK/U. MASS	5,564	6,255	6,638	6,288	7,576	6,154	7,464	(d)	49	48	7,561	8,163	7,018	7,379	7,834
SAVIN HILL	1,368	1,159	1,119	1,267	723	1,498	1,713	(e)	56	0	1,769	2,004	1,661	1,747	1,863
FIELDS CORNER	4,333	4,465	3,655	4,500	3,777	4,032	4,520	(e)	169	8	4,697	5,203	3,480	3,709	4,152
SHAWMUT	1,253	1,261	1,178	1,138	1,157	1,465	1,655	(e)	90	0	1,745	2,196	1,891	1,979	2,241
ASHMONT	7,850	8,644	6,917	11,474	9,161	7,443	8,175	(g)	350	11	8,536	9,799	5,675	4,841	6,019
NORTH QUINCY	6,157	4,198	4,973	5,931	5,114	5,456	5,805	(f)	132	18	5,955	7,469	6,560	6,773	7,132
WOLLASTON	4,040	3,602	3,334	3,804	4,122	3,517	4,098	(d)	170	1	4,269	4,493	4,225	4,206	4,347
QUINCY CENTER	6,150	10,239	8,601	8,828	7,133	6,944	6,244	(e)	173	9	6,426	7,076	7,112	7,344	7,913
QUINCY ADAMS	4,502	5,352	5,194	5,200	5,920	3,453	4,330	(d)	145	2	4,477	4,538	4,390	4,604	4,383
BRAINTREE	7,371	8,550	6,456	5,666	5,024	3,135	3,167	(c)	255	2	3,424	3,159	3,769	4,078	4,387
TOTAL	**129,386**	**143,038**	**129,875**	**148,896**	**139,239**	**162,542**	**172,365**		2,334	718	**175,417**	**181,522**	**178,657**	**182,517**	**192,513**

(a) - MBTA Service Planning Dept turnstile counts. Does not include S-Box and gate readings. Counts for total span of service.
(b) - CTPS counts. Boardings 6:00 AM - 12:15 AM. Two Way Total Ons.
(c) - 630AM to Midnight
(d) - 600AM - Midnight
(e) - 6:00 AM - 12:15 AM. Two Way Total External Entries (inbound only at Alewife)
(f) - 600AM-1100PM external entries, north and south entrances.
(g) - 600AM - Midnight. Red Line inbound only (does not include trolley). Approx 29% of inbound riders transferred from the Mattapan-Ashmont trolley.
(h) - 600AM-1100PM External entries via Green North, Green West, Winter Street elevator, and DTX via concourse entrances, both directions.
(i) - 600AM-1215AM total ons via Main and Hayward street entrances.
(j) - 600AM-Midnight Total ons via Main, Prospect, Essex, and Pearl street entrances.
(k) - 600AM-1215AM Total ons by Main Street and Church Street entrances.
(l) - 600AM-1100PM Total ons Chauncy, Summer, and Winter street entrances, to Red Line northbound and southbound.
(m) - CTPS counts. Boardings ~6:00 AM - 12:00M. Two Way Total Ons. Park Street not counted. At Park Street 2001-2006 (m) figure was determined by using 1997 figure as a proxy.
(n) - Red Line Station Entries at Park Street, Downtown Crossing and South Station estimated from daily weekday AFC data and CTPS Surveys.

Braintree Branch Total	26,057	27,005	28,162

Ashmont Branch Total	12,707	12,276	14,275

Expanded Counts include estimates of Early AM and Late PM customers not counted by checkers.
2007 figures are based on average weekday daily station entries from AFC Data collected from January through June 2007
2008 figures are based on average weekday daily station entries from AFC Data collected from FY2008
2009 figures are based on average weekday daily station entries from AFC Data collected from FY2009

Subway Operations
Red Line Route Description
Fall 2009

Route 931_ - Alewife-Ashmont Station

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Eves	Late
NORTHBOUND									
ASHMONT	0.00	0.00	-	-	-		-	-	-
SHAWMUT	0.62	0.62	1	1	1	1	1	1	1
FIELDS CORNER	0.58	1.20	2	2	2	2	2	2	2
SAVIN HILL	1.00	2.20	3	3	3	3	3	3	3
JFK/U.MASS	0.71	2.91	3	3	3	3	3	3	3
ANDREW	0.74	3.65	3	3	3	3	3	3	3
BROADWAY	0.85	4.50	2	2	2	2	2	2	2
SOUTH STATION	0.82	5.32	2	3	2	3	3	3	2
DOWNTOWN CROSSI	0.26	5.58	2	2	1	2	2	1	2
PARK STREET	0.23	5.81	2	2	2	2	3	2	1
CHARLES/MGH	0.56	6.37	2	3	2	2	3	2	2
KENDALL	0.71	7.08	2	2	2	2	2	2	2
CENTRAL	0.95	8.03	2	2	2	2	2	2	2
HARVARD	1.07	9.10	4	4	3	3	4	4	3
PORTER	0.99	10.09	3	3	3	3	3	3	3
DAVIS	0.66	10.75	3	3	3	3	3	3	3
ALEWIFE	0.96	11.71	3	3	3	3	3	3	3
TOTAL	**11.71**		**39**	**41**	**37**	**39**	**42**	**39**	**37**

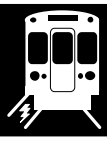
	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Eves	Late
SOUTHBOUND									
ALEWIFE	0.00	0.00	-	-	-		-	-	-
DAVIS	0.96	0.96	2	3	2	2	3	3	3
PORTER	0.66	1.62	2	2	2	2	2	2	2
HARVARD	0.99	2.61	2	3	3	3	3	3	2
CENTRAL	1.08	3.69	3	3	3	3	3	3	3
KENDALL	0.95	4.64	2	3	2	2	3	3	2
CHARLES/MGH	0.71	5.35	2	2	2	2	3	2	2
PARK STREET	0.56	5.91	2	2	2	2	2	2	2
DOWNTOWN CROSSI	0.22	6.13	2	2	2	2	2	2	2
SOUTH STATION	0.27	6.40	2	2	2	3	3	2	2
BROADWAY	0.82	7.22	2	2	2	2	2	2	2
ANDREW	0.84	8.06	2	2	2	2	2	2	2
JFK/U.MASS	0.74	8.80	2	2	2	2	2	2	2
SAVIN HILL	0.70	9.50	2	3	3	3	3	3	3
FIELDS CORNER	1.00	10.50	3	3	3	3	3	3	3
SHAWMUT	0.59	11.09	3	3	3	3	3	3	3
ASHMONT	0.62	11.71	2	2	2	2	2	2	2
TOTAL	**11.71**		**35**	**39**	**37**	**38**	**41**	**39**	**37**

Route 933_ - Alewife-Braintree Station

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Eves	Late
NORTHBOUND									
BRAINTREE	0.00	0.00	-	-	-		-	-	-
QUINCY ADAMS	1.86	1.86	2	4	3	3	3	3	3
QUINCY CENTER	1.33	3.19	2	3	3	3	3	3	3
WOLLASTON	1.28	4.47	3	4	3	3	3	3	3
NORTH QUINCY	0.80	5.27	3	3	3	2	2	3	3
JFK/U.MASS	3.53	8.80	8	9	8	9	9	9	7
ANDREW	0.78	9.58	3	3	3	3	3	3	3
BROADWAY	0.84	10.42	2	2	2	2	3	2	2
SOUTH STATION	0.82	11.24	2	3	3	3	3	3	2
DOWNTOWN CROSSI	0.27	11.51	2	2	1	2	2	1	2
PARK STREET	0.22	11.73	2	2	2	2	3	2	1
CHARLES/MGH	0.56	12.29	2	3	2	2	2	2	2
KENDALL	0.71	13.00	2	2	2	2	3	2	2
CENTRAL	0.95	13.95	2	2	2	2	2	2	2
HARVARD	1.08	15.03	4	4	4	4	4	4	3
PORTER SQUARE	0.99	16.02	3	3	3	3	3	3	3
DAVIS SQUARE	0.66	16.68	3	3	3	3	3	3	3
ALEWIFE	0.96	17.64	3	3	3	3	3	3	3
TOTAL	**17.64**		**48**	**55**	**50**	**51**	**54**	**51**	**47**

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Eves	Late
SOUTHBOUND									
ALEWIFE	0.00	0.00	-	-	-		-	-	-
DAVIS	0.96	0.96	2	3	2	2	3	3	3
PORTER	0.66	1.62	2	2	2	2	2	2	2
HARVARD	0.99	2.61	3	3	3	3	3	3	3
CENTRAL	1.08	3.69	2	3	2	3	4	3	2
KENDALL	0.95	4.64	2	3	3	3	3	3	2
CHARLES/MGH	0.71	5.35	2	2	2	2	2	2	2
PARK STREET	0.56	5.91	2	2	2	2	2	2	2
DOWNTOWN CROSSI	0.22	6.13	2	2	2	2	2	2	2
SOUTH STATION	0.27	6.40	2	2	2	2	2	2	2
BROADWAY	0.82	7.22	2	2	2	2	2	2	2
ANDREW	0.84	8.06	2	2	2	2	2	2	2
JFK/U.MASS	0.78	8.84	2	2	2	2	3	2	2
NORTH QUINCY	3.53	12.37	9	9	9	9	9	9	9
WOLLASTON	0.80	13.17	3	3	3	3	3	3	3
QUINCY CENTER	1.28	14.45	3	3	3	3	3	3	3
QUINCY ADAMS	1.33	15.78	3	3	3	3	4	3	3
BRAINTREE	1.86	17.64	3	4	3	4	4	3	3
TOTAL	**17.64**		**46**	**50**	**47**	**49**	**53**	**49**	**47**

Subway Operations
RED LINE - Location of Stations



Station Name	City/Town/Community	Street Location
Northwest Extension and Cambridge-Dorchester Subway		
Alewife	Cambridge	Alewife Brook Parkway at Cambridge Park Drive.
Davis	Somerville	College Avenue at Elm and Holland Street.
Porter	Cambridge	Massachusetts Avenue and Somerville Avenue.
Harvard	Cambridge	Harvard Square, Massachusetts Avenue, and Boylston Street, Cambridge.
Central	Cambridge	Central Square, Cambridge, Massachusetts Avenue at Western Avenue, Prospect Street, Magazine Street.
Kendall	Cambridge	Kendall Square, Cambridge, at Main Street, Broadway, and Third Street.
Charles MGH	Downtown Boston	Charles Circle, Boston, junction of Cambridge and Charles Streets near Mass. General Hospital.
Park Street	Downtown Boston	Corner of Boston Common at junction of Tremont, Park, and Winter Streets. Free transfer here from Red Line to Green Line.
Downtown Crossing	Downtown Boston	Washington and Summer Street, downtown (Washington Street) Boston. Free transfer here from Red Line to Orange Line. Mass. Pike Express buses - stop 2 blocks away at Otis and Summer Streets. Free Transfer to Silver Line/Washington Street at Temple Place.
South Station	Downtown Boston	At South Station railroad terminal, corner of Atlantic Avenue and Summer Street. South Side (including Old Colony) Commuter Rail service terminates here. Future transfer to Silver Line Transitway (Under Const.)
Broadway	South Boston	Dorchester Avenue at Broadway.
Andrew	South Boston	Dorchester Ave at Andrew Sq., Southampton, Dorchester, and Boston Streets.
JFK UMass	Dorchester	On Columbia Road near Old Colony Avenue and Morrissey Blvd.
Ashmont Branch		
Savin Hill	Dorchester	On Savin Hill Ave at Sidney St, east of Dorchester Ave, near Southeast Expwy.
Fields Corner	Dorchester	West of Dorchester Avenue, near Park Street. Access from Charles, Dorchester Avenue, and Geneva Avenues.
Shawmut	Dorchester	On Dayton Street between Centre and Lyndhurst Streets.
Ashmont	Dorchester	Dorchester Avenue at Ashmont Street and Talbot Ave. Free transfer here to Mattapan High Speed Trolley.
Braintree Branch		
North Quincy	Quincy	E. Squantum Street between Newport Avenue and Hancock Street.
Wollaston	Quincy	Newport Avenue at Beale Street or Cleveland Street off Hancock Street
Quincy Center	Quincy	Washington and Hancock Streets near Quincy City Hall.
Quincy Adams	Quincy	Burgin Parkway at Centre Street.
Braintree	Braintree	Ivory Street between Union Street and Pearl Street.

Mattapan - Ashmont Trolley
Typical Weekday Boardings & Alightings

2010	Inbound		Outbound		Two-Way Total	
	Boardings	Alightings	Boardings	Alightings	Boardings	Alightings
Mattapan	1,504		1,985		3,489	0
Capen Street	57	1	10	98	67	99
Valley Road	42	6	6	126	48	132
Central Avenue	329	211	34	193	363	404
Milton	206	40	192	330	398	370
Butler Street	137	6	2	38	139	44
Cedar Grove	81	20	1	72	82	92
Ashmont		2,069		1,425	0	3,494
TOTAL	**2,356**	**2,353**	**2,230**	**2,282**	**4,586**	**4,635**

SOURCE: CTPS Winter 2010 Survey

Route Description - Route 899_ Mattapan-Ashmont High-Speed Trolley

	Distance Between Stations		Cumulative Distance	
	Inbound	Outbound	Inbound	Outbound
Mattapan	0.00	0.26	0.00	2.55
Capen Street	0.25	0.30	0.25	2.29
Valley Road	0.31	0.44	0.56	1.99
Central Avenue	0.43	0.31	0.99	1.55
Milton	0.32	0.29	1.31	1.24
Butler	0.29	0.57	1.60	0.95
Cedar Grove	0.57	0.38	2.17	0.38
Ashmont	0.38	0.00	2.55	0.00

Scheduled Run Times, Inbound or Outbound

Weekday 6:30AM-6:00PM - 11 minutes. Other Times, 9 minutes.

Station	Location	Street Location
Mattapan	Mattapan	Blue Hill Avenue and River Street
Capen Street	Milton	Capen Street off Elliot Street.
Valley Road	Milton	Valley Road off Elliot Street.
Central Avenue	Milton	Central Avenue off Elliot Street.
Milton	Milton	Adams Street and Elliot Street.
Butler	Dorchester	Butler Street and Branchfield Street, off Adams Street
Cedar Grove	Dorchester	Adams Street and Milton Street.
Ashmont	Dorchester	Dorchester Avenue and Ashmont Street.

Note: Mattapan - Ashmont Trolley was closed from Summer 2006 to Fall 2007 to facilitate construction of Ashmont Station

Subway Operations

Green Line Subway Station Entries (Typical Weekday)

GREEN LINE	1989 (a)	1990 (a)	1991 (a)	1992 (a)	1993 (a)	1995 (a)	1997 (b)		EXPANSION: Early AM	EXPANSION: Late PM	1997 Total	2007 (g)	2008 (g)	2009 (g)
LECHMERE	5,257	4,939	4,749	4,519	5,407	5,191	5,312	(f)	50	59	5,421	5,792	6,416	6,645
SCIENCE PARK (h)	NA	NA	NA	NA	NA	NA	1,334	(c)	0	26	1,360	1,047	808	1,179
NORTH STATION	9,300	10,481	11,590	11,712	13,476	11,770	4,853	(c)	10	43	4,906	5,966	5,924	8,491
HAYMARKET	5,800	5,247	5,671	5,500	5,751	6,677	4,206	(c)	70	189	4,465	4,740	6,474	5,204
GOVERNMENT CENTER	13,864	14,922	13,095	15,460	16,902	11,500	13,618	(c)	35	610	14,263	9,614	9,903	10,072
PARK STREET	15,327	17,000	17,402	19,157	14,673	15,202	10,310	(e)	24	111	10,445	11,996	11,882	11,169
BOYLSTON	3,416	4,975	5,658	5,181	5,318	4,728	5,526	(c)	12	396	5,934	7,566	7,503	7,618
ARLINGTON	6,077	9,076	10,304	8,980	6,583	8,872	8,280	(c)	22	668	8,970	8,298	8,374	8,378
COPLEY	12,511	13,085	16,374	13,504	12,173	14,758	13,420	(c)	67	290	13,777	13,536	13,488	13,500
HYNES	7,975	7,595	9,374	9,638	9,893	9,967	8,211	(d)	118	250	8,579	8,842	9,178	9,525
KENMORE	6,412	7,646	9,130	8,729	6,486	7,357	7,249	(c)	81	280	7,610	7,797	8,133	8,653
PRUDENTIAL	1,699	2,182	2,104	1,685	1,261	1,860	NA		See Surf.	See Surf.	See Surf.	3,430	3,681	3,732
SYMPHONY	1,799	1,565	1,618	1,788	1,144	1,065	NA		See Surf.	See Surf.	See Surf.	1,887	1,999	1,993
TOTAL	**89,437**	**98,713**	**107,069**	**105,853**	**99,067**	**98,947**	**82,319**		489	2,922	**85,730**	**90,510**	**93,763**	**96,159**

(a) - MBTA Service Planning Dept turnstile counts. Does not include S-Box and gate readings. Counts for total span of service.
(b) - CTPS counts.
(c) - 600AM-1100PM external entries, both directions
(d) - 630AM-1100PM external entries, both directions
(e) - 600AM - 1100PM external entries from west, north, Winter Street elevator, and DTX via concourse entrances, both directions.
(f) - 600AM-1100PM external entries, inbound
(g) Green Line Station Entries at North Station, Haymarket, Government Center and Park Street estimated from daily weekday AFC data , and CTPS Surveys.
(h) Science Park Station Entries (2007-2008) are from 12:00PM to 6:00PM only. Onboard fare collection applies at all other times.

Expanded Counts include estimates of Early AM and Late PM customers not counted by checkers.
2007 figures are based on average weekday daily station entries from AFC Data collected from January through June 2007
2008 figures are based on average weekday daily station entries from AFC Data collected from FY 2008
2009 figures are based on average weekday daily station entries from AFC Data collected from FY 2009

Green Line Surface Ridership

Typical Weekday Boarding Counts, Both Directions

Station Name			Boardings
"B" - Boston College via Commonwealth Ave			
Blandford Street	Boston	*	2,840
BU East	Boston	*	2,892
BU Central	Boston	*	2,524
BU West	Boston		899
St. Paul Street	Boston		814
Pleasant Street	Boston		1,014
Babcock Street	Boston	*	1,824
Brighton Avenue	Boston		1,571
Harvard Avenue	Boston	*	4,077
Griggs Street	Boston		1,260
Allston Street	Boston		1,115
Warren Street	Boston	*	1,650
Washington Street	Boston	*	1,723
Sutherland Road	Boston		923
Chiswick Road	Boston		735
Chestnut Hill Avenue	Boston		861
South Street	Boston		237
Boston College	Boston		1,042
TOTAL			**28,001**
Expansion Early AM			227
Expansion Late PM			258
EXPANDED TOTAL			**28,486**
"B" Branch Stations closed Apr 20, 2004:			
Fordham Rd (Closed)	Boston		921
Summit Ave (Closed)	Boston		583
Mount Hood Rd (Closed)	Boston		282
Greycliff Road (Closed)	Boston		109
"C" - Cleveland Circle via Beacon Street			
St. Mary's Street	Boston	*	1,970
Hawes Street	Brookline		426
Kent Street	Brookline		510
St. Paul Street	Brookline	*	935
Coolidge Corner	Brookline	*	4,150
Summmit Ave	Brookline	*	1,175
Brandon Hall	Brookline		316
Fairbanks	Brookline		585
Washington Square	Brookline	*	1,217
Tappan Street	Brookline		837
Dean Road	Brookline		316
Englewood Avenue	Brookline		585
Cleveland Circle	Boston	*	1,557
TOTAL			**14,579**
Expansion Early AM			55
Expansion Late PM			84
EXPANDED TOTAL			**14,718**

Station Name			Boardings
"D" - Riverside via Highland Branch			
Fenway	Boston	*	3,041
Longwood	Brookline	*	2,749
Brookline Village	Brookline	*	3,512
Brookline Hills	Brookline	*	1,654
Beaconsfield	Brookline		896
Reservoir	Brookline	*	3,395
Chestnut Hill	Newton	*	778
Newton Centre	Newton	*	1,487
Newton Highlands	Newton	*	1,052
Eliot	Newton		595
Waban	Newton		427
Woodland	Newton		1,044
Riverside	Newton	*	2,158
TOTAL			**22,788**
Expansion Early AM			104
Expansion Late PM			30
EXPANDED TOTAL			**22,922**
"E"- Heath Street via Huntington Ave			
Prudential (underground)	Boston	***	3,732
Symphony (underground)	Boston	***	1,993
Northeastern University	Boston		3,007
Museum of Fine Arts	Boston	**	1,676
Longwood Med. Area	Boston	**	3,800
Brigham Circle	Boston	**	2,535
Fenwood Road	Boston		343
Mission Park/Parker Hill	Boston		462
Riverway	Boston		664
Back of the Hill	Boston		86
Heath Street/VA Hosp.	Boston		622
TOTAL			**18,920**
Expansion Early AM	Surface		87
Expansion Late PM	Surface		142
EXPANDED TOTAL			**19,149**
FOUR BRANCH TOTAL	As counted		**84,288**
FOUR BRANCH TOTAL	Expanded		**85,275**

Ranking & Unexpanded Boardings		
Coolidge Corner	C	4,150
Harvard Avenue	B	4,077
Longwood Med. Area	E	3,800
Prudential (underground)	E	3,681
Brookline Village	D	3,512
Reservoir	D	3,395
Fenway	D	3,041
Northeastern University	E	3,007
BU East	B	2,892
Blandford Street	B	2,840
Longwood	D	2,749
Brigham Circle	E	2,535
BU Central	B	2,524
Riverside	D	2,158
Symphony (underground)	E	1,999
St. Mary's Street	C	1,970
Babcock Street	B	1,824
Washington Street	B	1,723
Museum of Fine Arts	E	1,676
Brookline Hills	D	1,654
Warren Street	B	1,650
Brighton Avenue	B	1,571
Cleveland Circle	C	1,557
Newton Centre	D	1,487
Griggs Street	B	1,260
Washington Square	C	1,217
Summmit Ave	C	1,175
Allston Street	B	1,115
Newton Highlands	D	1,052
Woodland	D	1,044
Boston College	B	1,042
Pleasant Street	B	1,014
St. Paul Street	C	935
Sutherland Road	B	923
BU West	B	899
Beaconsfield	D	896
Chestnut Hill Avenue	B	861
Tappan Street	C	837
St. Paul Street	B	814
Chestnut Hill	D	778
Chiswick Road	B	735
Riverway	E	664
Heath Street/VA Hosp.	E	622
Eliot	D	595
Fairbanks	C	585
Englewood Avenue	C	585
Kent Street	C	510
Mission Park/Parker Hill	E	462
Waban	D	427
Hawes Street	C	426
Fenwood Road	E	343
Brandon Hall	C	316
Dean Road	C	316
South Street	B	237
Back of the Hill	E	86

* Counts from 2006
** Counts from 2007
*** AFC Station Entries, FY 2009
All other counts are from 1995

EXPANDED COUNTS include estimates of early AM and late PM boardings.

Subway Operations
Green Line Route Description
Fall 2009

Route 812_ - "B" Boston College-Government Center via Commonwealth Ave

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Evening	Late
INBOUND									
Lake St	0.000	0.00	-	-	-	-	-	-	-
Chestnut Hill Ave	0.768	0.77	2	2	2	2	2	2	2
Brighton Ave	1.947	2.72	9	15	13	15	15	12	11
Blandford St	1.273	3.99	8	10	11	12	12	11	9
Kenmore	0.264	4.25	5	5	5	6	6	5	6
Hynes	0.362	4.61	2	2	2	2	2	2	2
Copley	0.565	5.18	3	5	4	5	5	4	3
Arlington	0.363	5.54	1	1	1	1	1	1	1
Boylston	0.325	5.87	1	2	2	2	2	2	1
Park St	0.303	6.17	1	1	1	1	1	1	1
Government Center	0.249	6.42	2	2	2	2	2	2	2
TOTAL	**6.42**		**34**	**45**	**43**	**48**	**48**	**42**	**38**

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Evening	Late
OUTBOUND									
Government Center	0.000	0.00	-	-	-	-	-	-	-
Park St	0.570	0.57	2	2	1	2	3	3	2
Boylston	0.315	0.89	1	1	1	1	1	1	1
Arlington	0.318	1.20	1	2	2	2	2	2	1
Copley	0.365	1.57	1	1	1	1	1	1	1
Hynes	0.560	2.13	2	3	2	2	3	2	2
Kenmore	0.368	2.50	3	6	4	4	5	3	3
Blandford St	0.267	2.76	6	5	5	5	7	7	6
Brighton Ave	1.286	4.05	6	9	9	9	13	11	8
Chestnut Hill Ave									
Lake St	2.692	6.74	11	14	15	15	18	18	15
TOTAL	**6.74**		**33**	**43**	**40**	**41**	**53**	**48**	**39**

Route 831_ - "C" Cleveland Circle-North Station via Beacon St

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Evening	Late
INBOUND									
Cleveland Circle	0.000	0.00	-	-	-	-	-	-	-
Washington St	0.749	0.75	5	7	7	7	6	6	5
Coolidge Corner	0.783	1.53	5	7	6	6	6	5	5
St. Marys St	0.734	2.27	4	7	6	6	6	6	5
Beacon Junction	0.563	2.83	1	1	1	1	1	1	1
Kenmore	0.102	2.93	2	2	2	2	2	2	2
Copley	0.927	3.86	5	7	6	6	7	6	5
Arlington	0.363	4.22	1	1	1	1	1	1	1
Boylston	0.325	4.55	1	2	2	2	2	2	1
Park St	0.303	4.85	1	1	1	1	1	1	1
Government Center	0.249	5.10	2	2	2	2	2	2	2
Haymarket									
North Station	0.503	5.60	3	5	4	4	5	4	3
TOTAL	**5.60**		**30**	**42**	**38**	**38**	**39**	**36**	**31**

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Evening	Late
OUTBOUND									
North Station	0.000	0.00	-	-	-	-	-	-	-
Haymarket	0.220	0.22	1	4	3	4	4	3	1
Government Center	0.281	0.50	1	1	1	1	2	2	1
Park St	0.249	0.75	2	2	1	2	3	3	2
Boylston	0.315	1.07	1	1	1	1	1	1	1
Arlington	0.318	1.38	1	2	2	2	2	2	1
Copley	0.365	1.75	1	1	1	1	1	1	1
Kenmore	0.928	2.68	5	9	6	6	8	5	5
Beacon Junction	0.498	3.17	2	4	5	5	5	5	5
St. Marys St	0.598	3.77	2	2	4	4	4	4	4
Coolidge Corner	0.752	4.52	3	3	4	4	4	5	4
Washington St									
Cleveland Circle	1.516	6.04	4	4	5	6	6	7	5
TOTAL	**6.04**		**23**	**33**	**33**	**36**	**40**	**38**	**30**

Route 852_ - "D" Riverside-Government Center via Highland Branch

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Evening	Late
INBOUND									
Riverside	0.000	0.00	-	-	-	-	-	-	-
Eliot	2.225	2.23	6	7	7	7	7	7	6
Reservoir	4.040	6.27	7	10	9	9	9	8	7
Beaconsfield	0.431	6.70	2	2	2	2	2	2	2
Fenway	2.470	9.17	4	9	5	5	5	5	5
Beacon Junction	0.429	9.60	2	2	2	3	3	2	2
Kenmore	0.102	9.70	3	3	3	3	3	3	3
Copley	0.927	10.62	5	7	6	6	7	6	5
Arlington	0.363	10.99	1	1	1	1	1	1	1
Boylston	0.325	11.31	1	2	2	2	2	2	1
Park St	0.303	11.62	1	1	1	1	1	1	1
Government Center	0.249	11.86	2	2	2	2	2	2	2
TOTAL	**11.86**		**34**	**46**	**40**	**41**	**42**	**39**	**35**

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Evening	Late
OUTBOUND									
Government Center	0.000	0.00	-	-	-	-	-	-	-
Park St	0.570	0.57	2	2	1	2	3	3	2
Boylston	0.315	0.89	1	1	1	1	1	1	1
Arlington	0.318	1.20	1	2	2	2	2	2	1
Copley	0.365	1.57	1	1	1	1	1	1	1
Kenmore	0.928	2.50	5	9	6	6	8	5	5
Beacon Junction	0.498	2.99	2	4	5	5	5	5	5
Fenway	0.429	3.42	3	3	2	2	2	2	2
Beaconsfield	2.471	5.89	5	5	6	6	6	6	5
Reservoir	0.431	6.33	2	2	2	2	2	2	2
Eliot	4.040	10.37	5	5	6	6	5	5	5
Riverside	2.225	12.59	8	9	10	10	10	9	7
TOTAL	**12.59**		**35**	**43**	**42**	**43**	**45**	**41**	**36**

Route 880_ - "E" Heath Street-Lechmere via Huntington Ave

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Evening	Late
INBOUND									
Heath St	0.000	0.00	-	-	-	-	-	-	-
Brigham Circle	0.685	0.69	4	6	5	5	5	4	4
Northeastern	0.908	1.593	5	6	5	6	6	5	5
Symphony	0.284	1.877	2	2	2	2	2	2	2
Prudential	0.24	2.117	2	2	2	2	2	1	1
Copley	0.371	2.488	2	2	2	2	2	2	2
Arlington	0.363	2.851	1	1	1	1	1	1	1
Boylston	0.325	3.176	1	2	2	2	2	2	1
Park St	0.303	3.479	1	1	1	1	1	1	1
Government Center	0.249	3.728	2	2	2	2	2	2	2
Haymarket									
North Station	0.503	4.231	2	3	3	4	4	4	3
Science Park	0.485	4.716	2	3	2	3	3	3	2
Lechmere	0.397	5.113	3	5	4	5	5	5	4
TOTAL	**5.11**		**27**	**35**	**31**	**35**	**35**	**32**	**28**

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Evening	Late
OUTBOUND									
Lechmere	0.000	0.00	-	-	-	-	-	-	-
Science Park	0.397	0.40	2	2	2	2	2	2	2
North Station	0.485	0.88	1	2	2	2	2	2	2
Haymarket	0.220	1.10	1	3	2	2	3	2	2
Government Center	0.281	1.38	1	1	1	1	2	1	1
Park St	0.249	1.63	2	2	1	2	3	2	2
Boylston	0.315	1.95	1	1	1	1	1	1	1
Arlington	0.318	2.27	1	2	2	2	2	2	1
Copley	0.365	2.63	1	1	1	1	1	1	1
Prudential	0.384	3.01	2	2	2	2	3	2	2
Symphony	0.240	3.25	2	2	2	2	1	1	1
Northeastern	0.274	3.53	2	3	2	2	2	2	2
Brigham Circle	0.913	4.44	5	7	5	6	6	5	5
Heath St	0.668	5.11	4	5	4	5	5	4	4
TOTAL	**5.11**		**25**	**33**	**27**	**30**	**33**	**27**	**26**

Subway Operations

GREEN LINE - Location of Stations

Station Name	City/Town/Community	Street Location
Central Subway		
Lechmere	East Cambridge	Junction of Cambridge Street and O'Brien Highway.
Science Park	Downtown Boston	Charles River Dam at Leverett Circle.
North Station	Downtown Boston	Causeway Street at Canal Street. Free transfer to Orange Line. North Side Commuter Rail terminates here.
Haymarket	Downtown Boston	Congress Street at Sudbury Street, near Haymarket Square. Free transfer to Orange Line.
Government Center	Downtown Boston	By Boston City Hall at the junction of Tremont, Court, and Cambridge sts. Free transfer to Blue Line.
Park Street	Downtown Boston	On Tremont Street at Park and Winter Streets near the State House. Free transfer to the Red Line.
Boylston	Downtown Boston	Intersection of Boylston and Tremont Sts at the SE corner of Boston Common.
Arlington	Downtown Boston	On Boylston Street at Arlington, near the Boston Public Garden.
Copley	Downtown Boston	At Boylston and Dartmouth Streets, by Boston Public Library.
Hynes	Downtown Boston	At junction of Massachusetts Ave and Boylston St near Hynes Convention Ctr.
Kenmore	Downtown Boston	At Kenmore Square, junction of Commonwealth Ave, Beacon St, Brookline Ave.
B Branch - Boston College via Commonwealth Avenue		
Blandford Street	Boston	Commonwealth Avenue and Sherborn Street and Blandford Street.
BU East	Boston	Commonwealth Avenue between Granby and Cummington streets.
BU Central	Boston	Commonwealth Avenue and Marsh Chapel west of St. Mary's Street.
BU West	Boston	Commonwealth Avenue near Mobil Gas Station.
St. Paul Street	Boston	Commonwealth Avenue and Buick Street/St Paul St.
Pleasant Street	Boston	Commonwealth Avenue and Pleasant St.
Babcock Street	Boston	Commonwealth Avenue and Babcock Street.
Brighton Avenue	Boston	Commonwealth Avenue and Brighton Avenue. (Packard's Corner)
Harvard Avenue	Boston	Commonwealth Avenue and Harvard Avenue.
Griggs Street	Boston	Commonwealth Avenue and Griggs Street.
Allston Street	Boston	Commonwealth Avenue and Allston Street.
Warren Street	Boston	Commonwealth Avenue and Warren Street.
Washington Street	Boston	Commonwealth Avenue and Washington Street.
Sutherland Road	Boston	Commonwealth Avenue and Sutherland Road
Chiswick Road	Boston	Commonwealth Avenue and Chiswick Road.
Chestnut Hill Avenue	Boston	Commonwealth Avenue and Chestnut Hill Ave
South Street	Boston	Commonwealth Avenue and South Street.
Lake Street Discharge	Boston	Commonwealth Ave east of Lake Street (Outbound only).
Boston College	Boston	Commonwealth Avenue west of Lake Street.
C Branch - Cleveland Circle via Beacon Street		
St. Mary's Street	Boston	Beacon Street and St. Mary's Street.
Hawes Street	Brookline	Beacon Street and Hawes Street.
Kent Street	Brookline	Beacon Street and Powell Street.
St. Paul Street	Brookline	Beacon Street and St. Paul Street.
Coolidge Corner	Brookline	Beacon Street and Harvard Street.
Summit Avenue	Brookline	Beacon Street and Winchester Street.
Brandon Hall	Brookline	Beacon Street and Brandon Hall.
Fairbanks	Brookline	Beacon Street and Fairbanks Avenue.
Washington Square	Brookline	Beacon Street and Washington Street.
Tappan Street	Brookline	Beacon Street and Tappan Street.
Dean Road	Brookline	Beacon Street and Dean Road.
Englewood Avenue	Brookline	Beacon Street and Englewood Avenue.
Cleveland Circle	Boston	Beacon Street and Chestnut Hill Avenue
D Branch - Riverside via Highland Branch		
Fenway	Boston	At Park Drive across from the Riverway, next to Gateway Center (old Sears Bldg.)
Longwood	Brookline	Opposite Longwood Towers Apartments at Chapel and Longwood Sts.
Brookline Village	Brookline	On Station St off Harvard St between Rte 9 & Wash. St, next to Hearthstone Plaza.
Brookline Hills	Brookline	Next to Brookline High School near Cypress and Tappan Streets.
Beaconsfield	Brookline	Off Dean Road south of Beacon St. Auto accessible from Beaconsfield Path.
Reservoir	Brookline	Cleveland Circle near junction of Chestnut Hill Ave and Beacon Street.
Chestnut Hill	Newton	Hammond Street north of Route 9, near old Chestnut Hill Shopping Mall.
Newton Centre	Newton	Union St between Herrick St and Langley Rd, near Newton Centre shopping area.
Newton Highlands	Newton	At Lincoln and Walnut Streets near Newton Highlands shopping area.
Eliot	Newton	Route 9, near corner of Woodward St. Auto access from Lincoln St off Woodward.
Waban	Newton	Beacon Street at Waban Square.
Woodland	Newton	Washington Street, northeast of Beacon, near Newton-Wellesley Hospital.
Riverside	Newton	Grove Street off Route 128, south of Commonwealth Ave.
E Branch - Huntington Ave/Heath Street		
Symphony (underground)	Boston	Corner of Massachusetts Avenue and Huntington Ave next to Symphony Hall.
Prudential (underground)	Boston	On Huntington Avenue near Belvidere St, opposite Prudential Center.
Northeastern University	Boston	Huntington Avenue and Opera Place.
Museum of Fine Arts	Boston	Huntington Avenue and Louis Prang/Ruggles St.
Longwood Med. Area	Boston	Huntington Avenue and Longwood Avenue.
Brigham Circle	Boston	Huntington Avenue and Francis Street.
Fenwood Road	Boston	Huntington Avenue and Fenwood Road.
Mission Park/Parker Hill	Boston	Huntington Avenue and Parker Hill Avenue.
Riverway	Boston	Huntington Avenue and South Huntington Avenue.
Back of the Hill	Boston	South Huntington Avenue at Back of the Hill
Heath Street/VA Hosp.	Boston	South Huntington Avenue and Heath Street.

Subway Operations
Orange Line Station Entries (Typical Weekday)

STATION	1989 (a)	1990 (a)	1991 (a)	1992 (a)	1993 (a)	1995 (a)	1997 (b)		EXPANSION: Early AM	EXPANSION: Late PM	1997 Total	2004 (b)	2007 (k)	2008 (k)	2009 (k)
OAK GROVE	4,001	4,441	4,894	4,712	6,043	4,817	4,478	(c)	90	14	4,582	5,254	5,437	5,658	5,994
MALDEN	8,000	8,847	11,444	8,752	8,368	7,967	10,012	(d)	200	123	10,335	8,100	10,106	10,418	11,258
WELLINGTON	6,887	6,884	7,126	5,690	5,714	5,930	6,933	(d)	110	35	7,078	7,464	6,816	7,310	7,464
SULLIVAN SQUARE	8,004	8,297	9,920	9,095	9,512	7,209	8,173	(d)	406	88	8,667	7,336	8,281	8,495	9,004
COMMUNITY COLLEGE	1,888	1,103	3,521	3,382	4,743	3,122	3,520	(d)	60	83	3,663	3,843	3,327	3,424	3,695
NORTH STATION	Green Line	Green Line	Green Line	Green Line	Green Line	Green Line	8,199	(e)	4	109	8,312	9,231	10,158	10,088	8,210
HAYMARKET	NA	2,734	3,397	3,181	2,029	2,334	4,073	(f)	42	47	4,162	4,429	5,135	7,014	6,019
STATE	17,827	16,848	11,163	16,678	9,703	16,777	11,090	(g)	16	143	11,249	7,752	7,983	8,051	7,323
DOWNTOWN CROSSING (l)	19,297	28,968	33,820	18,821	19,480	18,240	12,888	(h)	24	190	13,102	11,740	11,985	11,574	11,563
CHINATOWN	4,240	5,281	4,464	5,010	3,393	4,148	3,888	(d)	12	57	3,957	4,778	5,091	5,227	5,822
TUFTS MEDICAL CENTER	8,511	6,807	5,543	5,274	4,886	4,929	6,451	(d)	32	111	6,594	5,672	5,397	5,300	5,684
BACK BAY	16,868	12,546	14,375	12,587	15,171	13,523	16,900	(i)	105	340	17,345	15,792	15,748	15,648	16,769
MASS. AVE.	4,785	4,163	3,233	3,724	2,769	3,908	5,108	(d)	43	110	5,261	4,624	4,613	4,635	5,248
RUGGLES	8,215	7,444	7,246	5,282	5,552	5,666	8,178	(d)	147	96	8,421	6,260	7,374	7,449	8,378
ROXBURY CROSSING	2,004	2,893	2,111	2,193	2,798	1,957	4,076	(d)	88	35	4,199	3,230	3,380	3,552	3,693
JACKSON SQ.	4,281	3,164	5,815	2,880	4,167	3,045	4,709	(d)	57	44	4,810	4,538	4,432	4,558	4,968
STONY BROOK	2,140	2,360	1,083	1,333	2,441	1,886	2,404	(d)	24	49	2,477	2,563	2,775	2,915	3,163
GREEN ST.	2,065	2,361	2,340	2,381	2,962	1,677	3,315	(d)	42	30	3,387	3,342	3,159	3,052	3,229
FOREST HILLS	12,065	12,074	13,681	12,834	10,936	8,060	13,162	(j)	175	85	13,422	12,584	12,251	12,763	13,568
TOTAL	**131,078**	**137,215**	**145,176**	**123,809**	**120,667**	**115,195**	**137,557**		**1,677**	**1,789**	**141,023**	**128,532**	**133,448**	**137,131**	**141,052**

(a) - MBTA Service Planning Dept turnstile counts. Does not include S-Box and gate readings. Counts for total span of service.
(b) - CTPS counts.
(c) - 630AM -1100PM
(d) - 600AM - 1100PM, 2-way total ons
(e) - 6AM-11PM external entries, both directions
(f) - 6AM-11PM external entries from Busway and Congress Street, both directions.
(g) - 6AM-11PM external entries via Old State House (north, south, and back stairs) and Milk Street, both directions
(h) - 6AM-11PM external entries via Summer, Winter, Franklin, and Park (via concourse), both directions
(i) - 6AM-11PM external ons via back stairs, main stairs,a nd elevator, both directions
(j) - Inbound ons, 600AM-1115PM.
(k) - Orange Line Station Entries at Downtown Crossing, State, Haymarket and North Station estimated from daily weekday AFC data and proportions from CTPS Surveys.
(l) - Includes Orange Line Entries at Park Street via Winter Street Concourse

Expanded Counts include estimates of Early AM and Late PM customers not counted by checkers.
2004 Counts - North Station counts before "superstation" opened, and evening counts reflect an event at the Fleet Center.
2007 figures are based on average weekday daily station entries from AFC Data collected from January through June 2007
2008 figures are based on average weekday daily station entries from AFC Data collected from FY 2008
2009 figures are based on average weekday daily station entries from AFC Data collected from FY 2009

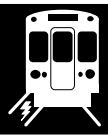
Subway Operations
Orange Line Route Description
Fall 2009

Route 903_ - Oak Grove-Forest Hills Station

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	School Peak	PM Peak	Eves	Late
SOUTHBOUND									
OAK GROVE	0.00	0.00	-	-	-	-	-	-	-
MALDEN STATION	0.83	0.83	2	2	2	2	2	2	2
WELLINGTON STATION	1.75	2.58	3	3	3	3	3	3	3
SULLIVAN STATION	1.19	3.77	3	3	3	3	3	3	3
COMMUNITY COLLEGE	0.83	4.60	2	2	2	2	2	2	2
NORTH STATION	0.81	5.41	2	2	2	2	2	2	2
HAYMARKET STATION	0.27	5.68	1	1	1	1	1	1	1
STATE STATION	0.35	6.03	1	2	1	2	2	1	1
DOWNTOWN CROSSING	0.18	6.21	1	2	1	1	1	1	1
CHINATOWN	0.25	6.46	2	2	2	2	2	2	2
N.E. MEDICAL CENTER	0.27	6.73	1	1	1	1	1	1	1
BACK BAY	0.55	7.28	2	2	2	2	2	2	2
MASS. AVE. STATION	0.69	7.97	2	2	2	2	2	2	2
RUGGLES STATION	0.41	8.38	2	2	2	2	2	2	2
ROXBURY CROSSING	0.52	8.90	1	2	2	2	2	2	1
JACKSON SQUARE STA	0.55	9.45	2	2	2	2	2	2	2
STONY BROOK STATION	0.51	9.96	1	1	1	1	1	1	1
GREEN STREET STATION	0.51	10.47	2	2	2	2	2	2	2
FOREST HILLS STATION	0.69	11.16	2	2	2	2	2	2	2
TOTAL	**11.16**		**32**	**35**	**33**	**34**	**34**	**33**	**32**

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes: Early AM	AM Peak	Midday	PM Peak	Eves	Late
NORTHBOUND								
FOREST HILLS STATION	0.00	0.00	-	-	-	-	-	-
GREEN STREET STATION	0.69	0.69	2	2	2	2	2	2
STONY BROOK STATION	0.51	1.20	2	2	2	2	2	2
JACKSON SQUARE STA	0.51	1.71	2	2	2	2	2	2
ROXBURY CROSSING	0.55	2.26	2	2	2	2	2	2
RUGGLES STATION	0.52	2.78	2	2	2	2	2	2
MASS. AVE. STATION	0.41	3.19	2	3	2	2	3	2
BACK BAY	0.69	3.88	2	2	2	2	2	2
N.E. MEDICAL CENTER	0.55	4.43	2	2	2	2	2	2
CHINATOWN	0.27	4.70	1	1	1	1	1	1
DOWNTOWN CROSSING	0.25	4.95	1	1	1	1	1	1
STATE STATION	0.25	5.20	2	2	2	2	2	1
HAYMARKET STATION	0.22	5.42	1	1	1	1	2	1
NORTH STATION	0.27	5.69	1	1	1	1	1	1
COMMUNITY COLLEGE	0.81	6.50	2	2	2	2	2	2
SULLIVAN STATION	0.83	7.33	2	2	2	2	2	2
WELLINGTON STATION	1.19	8.52	2	3	3	3	3	2
MALDEN CENTER	1.75	10.27	3	3	3	3	3	3
OAK GROVE	0.83	11.10	2	2	2	2	2	2
TOTAL	**11.10**		**33**	**35**	**34**	**34**	**36**	**34**	**32**

Subway Operations
ORANGE LINE - Location of Stations



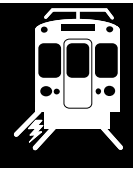
Station Name	City/Town/Community	Street Location
Haymarket North Extension		
Oak Grove	Malden	Winter Street between Main and Washington Streets
Malden	Malden	Pleasant Street between Summer and Commercial Streets
Wellington	Medford	Off Revere Beach Parkway, east of Wellington Circle.
Sullivan Sq	Charlestown	At Sullivan Square, Charlestown, near junction of Main Street, Broadway, and Cambridge Street.
Community College	Charlestown	Austin Street (Prison Point Bridge) off Rutherford Ave near Bunker Hill Community College
Washington Street Subway		
North Station	Downtown Boston	Causeway Street between Canal and Haverhill Streets. Free transfer to Green Line. North Side Commuter Rail terminates here. (Transfer temporarily suspended due to construction).
Haymarket	Downtown Boston	At Haymarket Square on Congress Street at Sudbury Street. Free transfer to Green Line. North Shore Express buses terminate here.
State	Downtown Boston	On Washington Street, northbound platform at State and Court Streets. Southbound platform at School and Milk Sts. Free transfer to Blue Line.
Downtown Crossing	Downtown Boston	On Washington Street at Summer and Winter Sts. Free transfer to Red Line. Free transfer to Silver Ilne on Temple Place
Chinatown/Essex	Downtown Boston	On Washington Street at Boylston and Essex Streets.
Southwest Corridor and South Cove Tunnel		
NE Medical Center	Downtown Boston	Between Washington and Tremont Streets, near Oak Street and NE Medical Ctr.
Back Bay South End	Downtown Boston	On Dartmouth Street between Stuart Street and Columbus Ave, and on Clarendon Street near Columbus Avenue. Commuter Rail transfer to South Side Commuter Rail service (but not Old Colony lines).
Massachusetts Ave	Roxbury	Massachusetts Avenue between Columbus Avenue and St Botolph Street.
Ruggles	Roxbury	Intersection of Ruggles Street and Tremont Street.
Roxbury Crossing	Roxbury	Intersection of Tremont Street, Columbus Ave, and New Dudley (MLK) Street.
Jackson Square	Roxbury	Intersection of Centre Street and Columbus Avenue.
Stony Brook	Jamaica Plain	On Boylston Street at Lamartine Street in Jamaica Plain.
Green Street	Jamaica Plain	On Green Street at Amory Street in Jamaica Plain.
Forest Hills	Jamaica Plain	Washington Street at Hyde Park Avenue.

Subway Operations
BLUE LINE - Location of Stations



Station Name	City/Town/Community	Street Location
Revere Extension		
Wonderland	Revere	Between North Shore Road and Ocean Avenue near Butler Circle and Wonderland Dog Track.
Revere Beach	Revere	Intersection of Ocean Avenue and Beach Street.
Beachmont	Revere	Intersection of Bennington Street and Winthrop Avenue.
Suffolk Downs	East Boston	Bennington Street near Suffolk Downs Race Track.
Orient Heights	East Boston	Intersection of Bennington Street and Saratoga Street
Wood Island	East Boston	On Bennington Street, between Neptune Road and Swift Street
Airport	East Boston	150A Porter Street, East Boston MA 02128
East Boston Tunnel		
Maverick	East Boston	At Maverick Square, intersection of Meridian Maverick Street
Aquarium	Downtown Boston	State Street at Atlantic Avenue by Long Wharf.
State	Downtown Boston	On State Street between Washington and Devonshire Streets. Free transfer to Orange Line.
Government Center	Downtown Boston	Next to Boston City Hall at Court, Cambridge, and Tremont Streets. Free transfer to Green Line.
Bowdoin	Downtown Boston	At Bowdoin Square opposite Saltonstall Building. Cambridge Street between Somerset and New Chardon Streets.

Subway Operations
Blue Line Station Entries (Typical Weekday)



BLUE LINE	1989 (a)	1990 (a)	1991 (a)	1992 (a)	1993 (a)	1995 (a)	1997 (b)		EXPANSION: Early AM	EXPANSION: Late PM	1997 Total	2003 (b)		2007 (m)	2008 (m)	2009 (m)
BOWDOIN	2,121	2,615	2,096	2,268	1,904	1,369	1,491	(c)	0	0	1,491	1,450	(k)	1,295	1,356	1,454
GOVERNMENT CENTER	Green Line	Green Line	Green Line	Green Line	Green Line	Green Line	1,652	(d)	13	160	1,825	1,460	(k)	1,188	1,224	1,556
STATE	Orange Ln	Orange Ln	Orange Ln	Orange Ln	Orange Ln	Orange Ln	5,590	(e)	4	144	5,738	5,536	(k)	4,112	4,147	5,230
AQUARIUM	3,723	3,635	1,629	3,918	4,530	3,245	2,793	(f)	7	162	2,962	3,343	(k)	4,170	4,415	4,444
MAVERICK	9,400	10,741	8,477	6,543	8,176	7,508	8,409	(f)	286	106	8,801	10,015	(l)	9,640	8,280	8,134
AIRPORT	4,125	4,083	4,502	3,878	5,125	4,420	4,229	(f)	67	261	4,557	4,912	(k)	3,670	5,497	6,901
WOOD ISLAND	2,040	1,964	1,829	769	1,769	1,889	2,144	(f)	94	7	2,245	2,734	(l)	2,646	2,121	1,450
ORIENT HEIGHTS	4,050	4,832	3,617	3,278	4,177	3,218	3,596	(g)	94	34	3,724	3,504	(l)	3,545	3,638	4,121
SUFFOLK DOWNS	952	766	550	2,762	1,283	386	941	(h)	49	35	1,025	1,065	(l)	756	803	794
BEACHMONT	2,297	2,158	2,226	2,447	2,464	1,168	2,120	(i)	55	15	2,190	2,407	(l)	2,494	2,571	1,936
REVERE BEACH	1,977	1,860	1,856	1,697	1,731	1,358	2,002	(f)	75	27	2,104	2,564	(k)	2,789	2,946	2,693
WONDERLAND	6,562	5,267	5,706	6,248	5,484	3,053	5,426	(j)	156	35	5,617	6,071	(k)	5,355	5,310	5,520
TOTAL	**37,247**	**37,921**	**32,488**	**33,808**	**36,643**	**27,614**	**40,393**		**900**	**986**	**42,279**	**45,061**		**41,661**	**42,308**	**44,233**

(a) - MBTA Service Planning Dept turnstile counts. Does not include S-Box and gate readings. Counts for total span of service.
(b) - CTPS counts.
(c) - 600AM - 630PM, Includes reverse transfers.
(d) - 600AM-1100PM external entries eastbound (zero entries westbound)
(e) - 600AM-1100PM external entries from Old State House and Milk Street, both directions
(f) - 600AM-1100PM external entries, both directions
(g) - 545AM-1100PM external entries, both directions
(h) - 615AM-1100PM external entries, both directions
(i) - 610AM-1100PM external entries, both directions
(j) - 610AM-1100PM external entries, westbound
(k) - 600AM-Midnight
(l) - 545AM-Midnight
(m) - Blue Line Station Entries at Government Center and State estimated from daily weekday AFC data and proportions from CTPS Surveys.

Expanded Counts include estimates of Early AM and Late PM customers not counted by checkers.
2007 figures are based on average weekday daily station entries from AFC Data collected from January through June 2007
2008 figures are based on average weekday daily station entries from AFC Data collected from FY 2008
2009 figures are based on average weekday daily station entries from AFC Data collected from FY 2009

Subway Operations
Blue Line Route Description
Fall 2009

Route 946_ - Wonderland-Bowdoin

	Distance Between Stations	Cumulative Distance	Sample Weekday Run Times in Minutes						
			Early AM	AM Peak	Midday	School Peak	PM Peak	Eves	Late
INBOUND FROM WONDERLAND									
WONDERLAND	0.00	0.00	-	-	-	-	-	-	-
REVERE BEACH	0.40	0.40	1	1	1	1	1	1	1
BEACHMONT	0.73	1.13	1	1	1	1	1	1	1
SUFFOLK DOWNS	0.57	1.70	2	2	2	2	2	2	2
ORIENT HEIGHTS	0.44	2.14	2	2	2	2	2	1	1
WOOD ISLAND	1.08	3.22	2	2	2	2	2	2	2
AIRPORT	0.63	3.85	2	2	2	2	2	2	2
MAVERICK	0.57	4.42	2	2	2	2	2	2	2
AQUARIUM	0.90	5.32	2	2	2	2	2	2	2
STATE STREET	0.28	5.60	2	2	1	1	1	1	1
GOVERNMENT CENTER	0.17	5.77	2	2	2	2	2	2	2
BOWDOIN	0.17	5.94	2	2	2	2	2	2	2
TOTAL	**5.94**		**20**	**20**	**19**	**19**	**19**	**18**	**18**
OUTBOUND FROM BOWDOIN									
BOWDOIN	0.00	0.00	-	-	-	-	-	-	-
GOVERNMENT CENTER	0.15	0.15	1	1	2	2	2	1	1
STATE STREET	0.18	0.33	1	1	2	2	2	1	1
AQUARIUM	0.28	0.61	2	2	2	2	2	2	2
MAVERICK	0.90	1.51	3	3	3	3	3	3	3
AIRPORT	0.57	2.08	2	2	2	2	2	2	2
WOOD ISLAND	0.63	2.71	2	2	2	2	2	2	2
ORIENT HEIGHTS	1.08	3.79	2	2	2	2	2	2	2
SUFFOLK DOWNS	0.47	4.26	2	2	2	2	2	2	2
BEACHMONT	0.54	4.80	2	2	2	2	2	2	2
REVERE BEACH	0.73	5.53	2	2	2	2	2	2	2
WONDERLAND	0.40	5.93	2	2	2	2	2	2	2
TOTAL	**5.93**		**21**	**21**	**23**	**23**	**23**	**21**	**21**

Subway Operations

Equipment at Stations (February 2010)

	CSA Booths	AFC Gates	Cashless FVMs	Full Service FVMs	Platform Validators	Elevators	Escalators	Staffed Entrances	Notes
RED LINE									
BRAINTREE	new	6	1	5	0	1	3	1	
QUINCY ADAMS	old	6	3	3	0	3	5	1	
QUINCY CENTER	old	8	0	5	0	3	1	1	Has schedule card carousel
WOLLASTON	new	6	2	3	0	0	1	1	
NORTH QUINCY North headhouse	old	5	2	4	0	4	4	2	
NORTH QUINCY South headhouse	new	5	2	3	0				
ASHMONT	new	7	0	4	0	3	2	1	Not Online
SHAWMUT	new	4	0	2	0	2	0	1	
FIELDS CORNER	new	7	0	4	0	2	1	1	
SAVIN HILL Front	new	5	0	2	0	2	1	1	
SAVIN HILL Rear	N/A	3	1	1	0				
JFK/U. MASS	new	7	1	4	0	2	1	1	
ANDREW	new	7	1	3	0	3	3	1	
BROADWAY	new	6	2	2	0	2	2	1	
SOUTH STATION - Main	HUB	11	2	5	0	6	13	2	**2 to concourse non-MBTA
SOUTH STATION - Secondary	old	7	2	3	0				**3 on Silver Line
SOUTH STATION - Outside Commuter Rail Ticket Office	N/A	0	1	1	0				
DOWNTOWN CROSSING Chauncy St Entrance	new	5	1	1	0	2	4	1	Also See Orange Line
PARK STREET		See Green Line							See Green Line
CHARLES/MGH	new	8	3	3	0	2	2	1	
KENDALL Inbound Main	new	6	1	3	0	2	2	2	2 high entrance gates inbound & outbound
KENDALL Inbound Secondary	N/A	3	0	0	0				
KENDALL Outbound Main	new	6	1	3	0				
KENDALL Outbound Secondary	N/A	3	0	0	0				
CENTRAL Outbound Main	old	7	1	3	0	2	2	2	4 high entrance gates inbound & outbound
CENTRAL Outbound Prospect Street	N/A	3	0	2	0				
CENTRAL Outbound Essex Street	N/A	3	0	0	0				
CENTRAL Inbound Main	old	7	2	2	0				
CENTRAL Inbound Pearl Street	N/A	3	0	0	0				
CENTRAL Inbound Western Avenue	N/A	3	1	1	0				
HARVARD Main	new	11	4	5	0	1	5	2	Has schedule card carousel
HARVARD Church Street	new	6	2	2	0				
PORTER SQUARE	new	12	3	3	0	3	7	1	
DAVIS SQUARE	old	10	4	3	0	2	8	1	
ALEWIFE Front	new	12	2	8	0	3	9	2	Has schedule card carousel
ALEWIFE Rear	new	3	0	2	0	1			
MATTAPAN	N/A	0	1	1	0				
TOTAL		**211**	**46**	**96**	**0**	**51**	**76**	**27**	
GREEN LINE CENTRAL SUBWAY									
LECHMERE	new	6	0	3	0	0	0	1	
SCIENCE PARK	new	4	2	2	0	0	0	0	
NORTH STATION	See Orange Line				0				See Orange Line
HAYMARKET (Green Line entrance)	new	7	3	3	0	4	1	1	Also see Orange Line
GOVERNMENT CENTER	old	6	1	4	0	0	3	1	Has schedule card carousel
PARK STREET East	old	5	1	2	0				
PARK STREET West	old	9	4	4	0				
PARK STREET Winter Street	N/A	3	1	1	0				
PARK STREET Elevator	N/A	2	0	1	0	4	3	2	Has 2 schedule card carousels
PARK STREET Boston Common	N/A	3	0	0	0				
BOYLSTON Northbound	new	4	0	2	0	0	0	2	
BOYLSTON Southbound	new	5	1	2	0				
ARLINGTON	new	6	3	3	0	3	2	2	
COPLEY Inbound	new	5	1	2	0	0	0	2	Removed 1 during construction
COPLEY Outbound	new	7	1	2	0				
HYNES Main Entrance	new	8	2	2	0	0	1	2	
HYNES Convention Center	old	3	0	0	0				
KENMORE	new	7	2	6	0	3	3	1	
SUBTOTAL		**90**	**22**	**39**	**0**	**14**	**13**	**14**	
GREEN LINE SURFACE									
B BOSTON COLLEGE	N/A	0	0	0	0	0	0	0	
C ST. MARYS	N/A	0	0	0	1				
C COOLIDGE CORNER	N/A	0	0	0	1				
C CLEVELAND CIRCLE	N/A	0	0	0	1				
D RIVERSIDE	new	4	1	4	0	0	0	1	
D WABAN	N/A	0	0	2	1				
D WOODLAND	N/A	0	0	2	1	0	0	0	
D ELIOT	N/A	0	0	2	1	0	0	0	
D NEWTON HIGHLANDS	N/A	0	0	2	1	0	0	0	
D NEWTON CENTRE	N/A	0	0	2	2	0	0	0	
D CHESTNUT HILL	N/A	0	0	2	1	0	0	0	
D RESERVOIR	N/A	0	0	3	2	0	0	0	
D BROOKLINE VILLAGE	N/A	0	0	3	2	0	0	0	
D BROOKLINE HILLS	N/A	0	0	2	1				
D LONGWOOD	N/A	0	0	3	1	0	0	0	
D FENWAY	N/A	0	0	2	6				
D BEACONSFIELD	N/A	0	0	2	1				
E HEATH	N/A	0	0	0	1				
E NORTHEASTERN	N/A	0	0	0	1				
E BRIGHAM CIRCLE	N/A	0	0	0	1				
E MUSEUM OF FINE ARTS	N/A	0	0	0	1				
E SYMPHONY Inbound	new	3	1	2	0	0	0	0	
E SYMPHONY Outbound	new	3	1	1	0				
E PRUDENTIAL	new	6	2	2	0	3	4	0	
FENWAY PARK - Gate A	N/A	0	2	0	0				
FENWAY PARK - Gate C	N/A	0	2	0	0				
FENWAY PARK - Gate E	N/A	0	1	0	0				
SUB TOTAL		**16**	**10**	**36**	**27**	**3**	**4**	**1**	
TOTAL		**106**	**32**	**75**	**27**	**17**	**17**	**15**	

	CSA Booths	AFC Gates	Cashless FVMs	Full Service FVMs	Platform Validators	Elevators	Escalators	Staffed Entrances	Notes
ORANGE LINE									
OAK GROVE	new	8	3	3	0	2	4	1	
MALDEN	new	7	1	5	0	2	2	1	
WELLINGTON	new	7	4	4	0	2	2	1	
SULLIVAN	new	9	1	7	0	2	2	1	
COMMUNITY COLLEGE	new	5	1	2	0	1	1	1	
NORTH STA South (Valenti Way) Entrance	new	9	1	2	0	2	5	1	
NORTH STA North (Causeway St) Entrance	HUB	12	4	6	0	3	5	1	
NORTH STA Outside Commuter Rail Ticket Office	N/A	0	1	1	0				
HAYMARKET Congress St Headhouse	new	7	1	3	0	2	0	1	
STATE STREET NB (Old State House ent.)	new	6	0	3	0	2	5	2	
STATE STREET SB (Wash. & Milk sts.)	new	6	2	2	0				
STATE STREET Water Street	N/A	3	0	0	0				
STATE STREET (City Hall, exit only)	N/A	3	0	0	0				
DOWNTOWN CROSSING Northbound Summer Street	new	11	3	5	0	2	2	2	Has schedule card carousel (Also see Red Line)
DOWNTOWN CROSSING Southbound Winter Street	old	8	3	3	0				
DOWNTOWN CROSSING Temple Place	N/A	3	0	2	0				
DOWNTOWN CROSSING Franklin Street	N/A	4	0	2	0				
DOWNTOWN CROSSING Across from Ticket Office	N/A	0	2	0	0				
CHINATOWN Northbound	new	5	2	2	0	2	2	2	
CHINATOWN Southbound	old	6	1	2	0				
N.E. MEDICAL CENTER Main	new	8	2	3	0	3	5	2	
N.E. MEDICAL CENTER Rear	old	3	1	2	0				
BACK BAY Main	old	11	3	9	0	4	5	1	Has schedule card carousel
BACK BAY Dartmouth Street	N/A	3	1	1	0				
MASS. AVE.	new	7	2	2	0	1	1	1	
RUGGLES	new	8	2	4	0	4	4	1	
ROXBURY CROSSING	new	8	1	3	0	1	1	1	
JACKSON SQ.	new	6	2	4	0	1	1	1	
STONY BROOK	new	6	1	3	0	1	1	1	
GREEN ST.	new	6	1	2	0	1	1	1	
FOREST HILLS	new	9	3	9	0	3	4	1	
DUDLEY (Bus)		See Silver Line				0	0	1	
TOTAL		**194**	**49**	**96**	**0**	**41**	**53**	**25**	
BLUE LINE									
BOWDOIN	new	5	1	1	0	0	1	1	
GOVERNMENT CENTER		See Green Line							See Green Line
STATE STREET		See Orange Line							See Orange Line
AQUARIUM East (Long Wharf) Entrance	old	4	1	2	0	3	2	1	
AQUARIUM West (State St) Entrance	new	7	2	2	0	3	4	1	
MAVERICK	new	11	4	4	0	2	4	1	
AIRPORT Main	new	10	2	4	0	4	4	1	Has schedule card carousel
AIRPORT Secondary	N/A	3	1	1	0				
WOOD ISLAND	new	5	1	2	0	2	1	1	
ORIENT HEIGHTS Inbound	new	6	1	3	0	0	0	1	
ORIENT HEIGHTS Outbound	N/A	3	0	1	0				
SUFFOLK DOWNS	new	5	1	1	0	0	0	1	
BEACHMONT	new	6	2	2	0	2	2	1	
REVERE BEACH	new	5	1	2	0	2	0	1	
WONDERLAND	new	8	2	4	0	0	0	1	
TOTAL		**78**	**19**	**29**	**0**	**18**	**18**	**11**	
SILVER LINE									
WORLD TRADE CENTER*	new	4	0	4	0	**3**	**4**	**1**	4 Full Service and 2 Cashless FVMs are also provided at the Boston Convention Center
COURTHOUSE*	old	9	2	2	0	**4**	**7**	**1**	
ESSEX STREET	N/A	0	0	0	1				
DUDLEY	N/A	0	0	5	0				
LOGAN - TERMINAL A	N/A	0	1	1	0				
LOGAN - TERMINAL B (near US Air baggage claim)	N/A	0	1	1	0				
LOGAN - TERMINAL B (near American Airlines baggage claim)	N/A	0	1	1	0				
LOGAN - TERMINAL C (near Air Tran baggage claim)	N/A	0	0	1	0				
LOGAN - TERMINAL C (near Jet Blue baggage claim 3)	N/A	0	1	1	0				
LOGAN - TERMINAL C (near Jet Blue baggage claim 4)	N/A	0	1	1	0				
LOGAN - TERMINAL E	N/A	0	1	1	0				
TOTAL		**13**	**8**	**18**	**1**				

Notes: Additional schedule card carousels are provided at:
State Transportation Library at Ten Park Plaza, near Boylston station,
Boston City Hall lobby, near Government Center Station, and
MBTA 45 High Street lobby, near South Station.

* Silver Line World Trade Center and Courthouse are only staffed on weekdays 3:00-7:00PM.

Chapter 3A – Bus Rapid Transit

The first segment of the Silver Line – SL5 (formerly known as Silver Line Washington Street) opened on July 20, 2002, and provides bus rapid transit (BRT) service linking Downtown Crossing at Temple Place with Dudley Square Station via Washington Street. Initial service was provided by a dedicated fleet of 17 40-foot, low floor, compressed natural gas-powered (CNG) New Flyer Industries model C40LF buses. These buses were replaced during the Summer and Fall of 2003 with the MBTA's first-ever articulated buses, a fleet of 17 60-foot Neoplan model AN460LF buses. Like the New Flyers, they are also low-floor and powered by compressed natural gas.

The SL5 includes eight BRT stops on Washington Street (Herald St, East Berkeley St, Union Park St, Newton St, Worcester Square, Mass. Ave, Lenox St, and Melnea Cass Blvd.). At Dudley Square, the existing (since 1987) bus terminal is used. At the four downtown stations:

- Tufts (formerly New England) Medical Center: Shelter is provided by the Medical Center structure itself, which covers Washington Street.
- Downtown Crossing: A shelter furnished by the Wall Corporation is provided for Silver Line customers on Temple Place. A pre-existing passageway from the Orange Line southbound platform to Temple Place was re-opened for the convenience of transferring customers here.
- Chinatown and Boylston: No permanent facilities are provided.

The second segment of the Silver Line opened along the South Boston Waterfront on Friday, December 17, 2004. Initial service was provided the length of the new South Boston Waterfront Transitway tunnel (South Station to World Trade Center via Courthouse) to the portal at D Street and turnaround loop and layover facility at Silver Line Way (Connector Road). Service was provided by a mix of 60' Dual Mode Articulated diesel-electric buses (DMAs) and 40' Electric Trolley Buses (ETBs).

On December 31, 2004 the service was expanded to include two subway-surface routes: SL2 (Design Center (formerly Boston Marine Industrial Park)) and SL3 (City Point). The service was provided by a mix of DMAs and temporarily-assigned former Silver Line Washington Street 40' C40LF model buses meeting the ETBs/DMAs at Silver Line Way.

On June 1, 2005 the SL1 (Logan Airport) was inaugurated. This replaced a temporary Sunday-only Logan Airport connecting service at Silver Line Way. Due to the fact that the DMA order was still being filled, Routes SL2 and SL3 were temporarily consolidated to allow the DMA fleet to cover all subway-surface service. The temporary route was SL2/3 (City Point - South Station via BMIP). ETBs continued to provide shuttle service Silver Line Way - South Station so as to increase the amount of service in the transitway tunnel. By the Fall of 2005, distinct Routes SL2 and SL3 were re-established. In February 2006 use of the 40' ETBs was discontinued, and the DMA fleet provided all Silver Line Waterfront service. The last two South Station-

bound SL1 trips of the night use a special all-surface routing to South Station to permit closure of the tunnel for security/maintenance purposes.

In Spring 2009 SL3 was discontinued due to low ridership and resources from the route elimination were reinvested in the Silver Line to increase service levels on SL2.

In Fall 2009 a new Silver Line route – SL4 was created linking Dudley Square and South Station. This route overlaps the original route between Dudley Square and Tufts Medical Center. New stops on this route were established at Chinatown (before Essex Street) and across from South Station on Essex Street.

A local bus fare is charged on the SL4 and SL5, with free bus-to-bus transfer, free rail-to-bus transfer or step-up bus-subway transfer. A subway fare is charged on the SL1 and SL2 with barrier-free transfers to/from the Red Line at South Station.

Vehicles are based at the Southampton Garage that opened on Saturday March 27, 2004.

Fall, 2009* Silver Line service levels were as follows:

	Weekday				Saturday				Sunday			
	In bound Trips	Out bound Trips	Total Trips	Veh. Rev. Miles	In bound Trips	Out bound Trips	Total Trips	Veh. Rev. Miles	In bound Trips	Out bound Trips	Total Trips	Veh. Rev. Miles
SL1 (741)	108	107	215	707.0	96	95	191	628.2	126	123	249	854.8
SL2 (742)	135	141	276	693.1	74	75	149	369.6	58	59	117	296.8
SL3 (743)	Discontinued Spring 2009											
Shuttle (746)	77	75	152	161.1	5	4	9	9.6	20	21	41	43.6
SL4 (751)	168	168	336	781.2	154	154	308	716.1	125	125	250	851.2
SL5 (749)	83.5	83.5	167	409.2	72	72	144	334.8	70	70	140	325.5
TOTAL	**571.5**	**574.5**	**1146**	**2751.6**	**401**	**400**	**801**	**2058.3**	**399**	**398**	**797**	**2371.9**

* After repick in October 2009

Fall, 2009* Silver Line pullout requirements and headways were as follows:

Rte. No.	TERMINALS	Weekday										Weekend			
		AM PEAK		AM BASE		PM BASE		PM PEAK		LATE		SAT PEAK		SUN PEAK	
		V	H	V	H	V	H	V	H	V	H	V	H	V	H
SL1 (741)	South Station - Logan Airport	5	10	5 - 10		5 - 10		6 - 10		4 - 12		4 - 12		6 - 8	
SL2 (742)	Design Center - South Station	6 - 5		3 - 10		3 - 10		6 - 5		2 - 15		2 - 15		2 - 15	
SL3 (743)	City Point - South Station	Discontinued Spring 2009													
Shuttle (746)	Silver Line Way - South Station	4 - 5		-		-		4 - 5		-		-	x	1 -	x
SL4 (751)	Dudley Square – South Station	9 - 4		6 - 7/8		8 - 6		10 - 4/5		2 - 15		7 - 6		5 - 8	
SL5 (749)	Dudley Square – Downtown Crossing	4 - 15		4 - 15		4 - 15		4 - 15		2 - 20		3 - 15		3 - 15	
TOTAL	**TOTAL**	**15**		**8**		**8**		**16**		**6**		**6**		**9**	

* After repick in October 2009

Round trip run times vary based on the time of day but are approximately as follows:

- SL1 (Logan Airport): 36-40 mins.
- SL2 (Design Center): 22-24 mins.
- SL3 (City Point): 28-35 mins.
- Shuttle (Silver Line Way): 13 mins.
- SL4 (South Station): 12-17 mins.
- SL5 (Downtown Crossing): 11-21 mins.

Equipment at Silver Line Subway Stations:

	CSA Booths	AFC Gates	Cashless FVMs	Full Service FVMs	Platform Validators	Elevators	Escalators	Staffed Entrances
Courthouse	old	9	2	2	0	4	7	1*
Word Trade Center**	new	4	0	4	0	3	4	1*

* Only on weekdays 3:00PM – 7:00PM

** 4 Full Service and 2 Cashless FVMs are also provided at the Boston Convention and Exhibition Center

(See Red Line for Silver Line South Station)

Equipment at SL4/SL5 Stations:

- 1 ticket/card validator (South Station)
- 1 heated shelter (South Station)
- 1 "Wall" brand shelter (Temple Place)
- 15 Canopies (Two each at Washington Street stops Herald St, East Berkeley St, Union Park St, Newton St, Worcester Square*, Mass. Ave, Lenox St, and Melnea Cass Blvd)
- 19 dot-matrix signs with real-time information (Two each at Washington Street stops, One each at Dudley Station, Temple Place and South Station)
- 16 Kiosks to showcase local artwork (Washington Street stops)
- 16 bike racks (Washington Street stops)
- 17 call boxes for contacting police or customer assistance (Washington Street stops and South Station)
- Interfaces with city traffic controllers to provide traffic signal priority to buses that fall behind schedule (select Washington Street stops, 4 intersections, 7 interfaces)

* Outbound Only

Typical Weekday Boardings by Waterfront Stations (Spring 2009) are as follows:

	Inbound	Outbound	Total
South Station	0	7,290	7,290
Courthouse	821	91	912
World Trade Center	2,412	105	2,517
Silver Line Way	866	108	974
Subtotal	**4,099**	**7,594**	**9,021**
Logan Airport Terminals			2,626

Note: For station ridership by route see Table below.

Silver Line Ridership

SL 1 (741)

	WEEKDAY				SATURDAY				SUNDAY			
	Spring 2009				Spring 2006				Spring 2006			
	Inbound		Outbound		Inbound		Outbound		Inbound		Outbound	
Stop Description	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs
BOL Dummy	1427	0	0	1416	1166	0	0	1161	1057	0	0	1057
Terminal A	588	27	0	490	166	9	82	273	242	13	40	228
Terminal B Stop 1	454	317	-	-	157	206	-	-	290	209	-	-
Terminal B Stop 2	442	280	-	-	141	185	-	-	239	112	-	-
Terminals C & D	789	588	-	-	680	569	-	-	749	523	-	-
Terminal E	353	233	-	-	246	142	-	-	186	144	-	-
Congress @ World Trade Center Sta	5	137	-	-	4	0	-	-	0	0	-	-
Silver Line Way at Manulife	153	70	100	168	40	22	29	48	33	28	12	59
World Trade Center	529	15	81	574	426	108	75	596	207	45	32	194
Court House Station	186	36	54	252	56	16	10	80	36	13	14	58
So Station Silver Line	0	3220	2664	2	0	1816	1962	0	0	1946	1498	0
Summer St @ opp South Station	-	-	-	-	0	9	-	-	0	6	-	-
EOL Dummy	0	3	3	0	0	0	0	0	0	0	0	0
Totals:	**4926**	**4926**	**2902**	**2902**	**3082**	**3082**	**2158**	**2158**	**3039**	**3039**	**1596**	**1596**
Net Ridership:	**4923**		**1486**		**3082**		**997**		**3039**		**539**	

SL 2 (742)

	Spring 2009				Spring 2006				Spring 2006			
	Inbound		Outbound		Inbound		Outbound		Inbound		Outbound	
Stop Description (peak load point in CAPS)	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs
BOL Dummy	42	0	0	41	41	0	0	41	6	0	0	7
Dry Dock Ave @ Design Center Place	25	0	0	18	17	0	0	43	0	1	0	18
21 Dry Dock Ave	6	1	1	48	11	0	-	-	0	0	-	-
25 Dry Dock Ave	105	6	1	126	2	5	-	-	1	1	-	-
88 Black Falcon	72	12	3	65	2	31	-	-	1	1	-	-
Black Falcon corner stop	0	1	-	-	-	-	-	-	-	-	-	-
Black Falcon Ave @ Design Center Place	77	1	2	13	11	0	-	-	0	0	-	-
Northern Ave @ Tide St	278	1	0	287	23	0	2	24	11	0	1	32
306 Northern Ave	48	0	0	86	8	0	1	7	2	0	0	1
Silver Line Way at Manulife	335	17	8	337	20	4	3	15	4	1	2	7
World Trade Center	1005	8	21	1332	169	1	9	128	92	1	0	110
Court House Station	355	12	28	573	33	0	0	12	17	4	0	13
So Station Silver Line	0	2266	2862	8	0	296	255	0	0	125	185	0
EOL Dummy	0	23	8	0	0	0	0	0	0	0	0	0
Totals:	**2348**	**2348**	**2934**	**2934**	**337**	**337**	**270**	**270**	**134**	**134**	**188**	**188**
Net Ridership:	**2325**		**2893**		**337**		**229**		**134**		**181**	

Shuttle (746)

	Spring 2009				Spring 2006				Fall 2009			
	Inbound		Outbound		Inbound		Outbound		Inbound		Outbound	
Stop Description (peak load point in CAPS)	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs
BOL Dummy	20	0	0	19	3	0	0	3	0	0	0	0
Silver Line Way at Manulife	378	18	0	242	27	0	0	30	12	0	0	2
World Trade Center	878	0	3	1021	185	0	2	266	25	0	0	4
Court House Station	280	12	9	494	22	1	0	21	5	0	0	0
So Station Silver Line	0	1520	1764	6	0	234	318	0	0	42	6	0
EOL Dummy	0	6	6	0	0	2	0	0	0	0	0	0
Totals:	**1556**	**1556**	**1782**	**1782**	**237**	**237**	**320**	**320**	**42**	**42**	**6**	**6**
Net Ridership:	**1550**		**1763**		**235**		**317**		**42**		**6**	

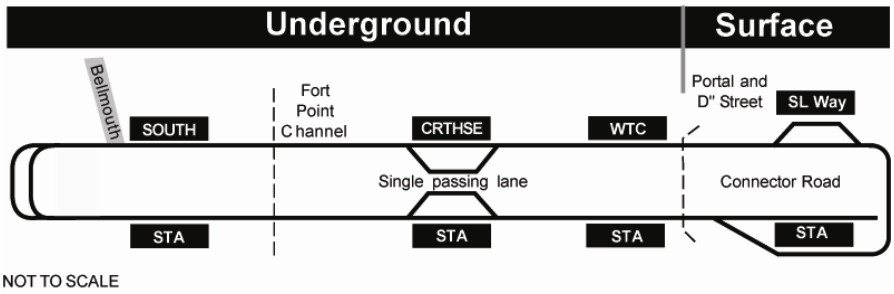
SL 5 (749)

	Spring 2009				Spring 2003							
	Inbound		Outbound		Inbound		Outbound		Inbound		Outbound	
Stop Description (peak load point in CAPS)	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs	Total Ons	Total Offs
BOL Dummy	8	0	0	8	0	0	0	0	1	0	0	19
Dudley Station @ Harvard Side	3585	2	0	3073	2124	0	0	2050	1,180	0	0	1,294
Washington St @ Melnea Cass Blvd	294	39	30	499	220	35	36	346	89	16	9	161
Washington St @ Lenox St	230	229	184	256	150	177	142	170	93	96	66	133
Washington St @ Mass Ave	626	285	284	486	356	181	258	321	321	141	169	316
Washington St @ Worcester St	480	161	138	372	198	71	49	274	250	45	46	212
Washington St @ E Newton St	936	478	398	945	437	220	247	395	357	97	108	291
Washington St @ Union Park	830	383	333	740	397	205	183	363	386	140	208	378
Washington St @ E Berkeley St	502	383	402	498	423	291	331	361	345	238	263	344
Washington St @ Herald St	67	136	149	101	38	43	76	65	38	44	95	35
Washington St @ NEMC	110	1438	1479	70	53	681	691	48	42	523	661	41
Washington St @ Essex St	354	1118	715	112	198	730	556	127	127	535	433	69
Temple Pl @ Washington St	2	2876	2588	31	0	1729	1709	0	0	1,134	1,032	16
EOL Dummy	0	496	493	0	0	231	235	0	0	220	219	0
Totals:	**8,022**	**8,022**	**7,191**	**7,191**	**4,594**	**4,594**	**4,514**	**4,520**	**3,229**	**3,229**	**3,309**	**3,309**

Net Ridership:	**7,526**	**7,183**	**4,363**	**4,514**	**3,009**	**3,290**

Silver Line Map and Wire Schematic

Silver Line Waterfront Wire Schematic



NOT TO SCALE

GREEN LINE | RED LINE | ORANGE LINE | COMMUTER RAIL

CUSTOMER SERVICE
617-222-3200, TTY 617-222-5146
WEB SITE: WWW.MBTA.COM

MBTA TRANSIT POLICE
617-222-1212, TTY 617-222-1200

*ALL SILVER LINE SERVICE IS ACCESSIBLE EXCEPT FOR THE CONNECTION TO BOYLSTON STATION

**FREE MASSPORT SHUTTLE BUS SERVICE FROM AIRPORT TERMINALS TO BLUE LINE

Chapter 3B - Bus

This chapter includes the MBTA's regular bus and trackless trolley bus networks. This surface transportation network includes approximately 200 routes with variations totaling over 550 distinct services. This does not include special purpose routes, such as emergency routes used during rail service interruptions and “supplemental” services that operate during periods of high customer demand.

There are ten active garage facilities at nine sites that, in conjunction with the Everett Main Repair Facility, house and maintain the bus and trackless trolley fleets. On a typical weekday, the MBTA’s ~1,000 surface vehicles:

- Complete 7,600 round trips (about one every twelve seconds)
- Travel over 80,000 scheduled vehicle revenue miles (about enough to circle the globe 3 times)
- Serve nearly 370,000 customers (about the population of Minneapolis, Sacramento, or Pittsburgh) - as measured in unlinked trips

The Bus Operations Control Center at 45 High Street, Boston provides dispatching support for these services, including the Silver Line segments.

Presently, the MBTA employs almost 1,600 bus operators - 1,252 full-time, and 330 part-time.

The future will see continued improvements in the MBTA’s bus operations. A major fleet renewal initiative that began with the arrival of test buses in 1999 and commenced in earnest in 2001-2003 is now complete. About 88% of the MBTA’s bus fleet is vintage 2003 or newer, and many of the remaining RTS model buses have been overhauled by an outside contractor, or rehabilitated by in-house forces at the Everett Main Repair Facility.

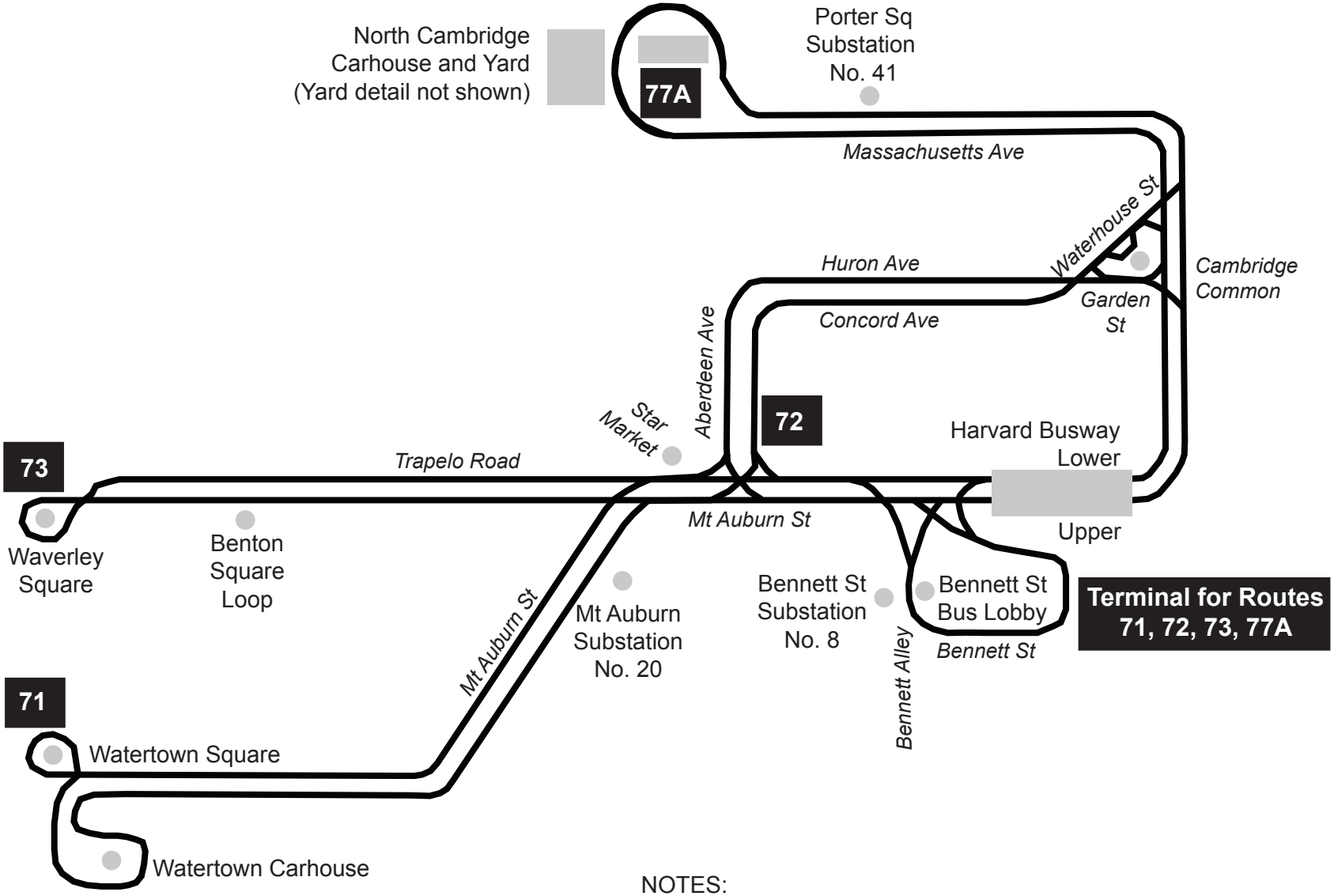
The entire bus fleet is accessible to persons with disabilities, and powered with environmentally-friendly fuels: compressed natural gas, ultra low sulfur diesel or diesel electric hybrid.

Two all-new garage facilities, Southampton and Arborway, were placed on line in early 2004.

“Talking Bus” announcement systems combining AVL technology with MBTA scheduling data are in use on all buses. 60-foot articulated buses provide service on several of the MBTA’s busiest bus routes.

Through an agreement with Cemusa, Inc. bus shelters are installed and maintained at select locations throughout the MBTA network at no expense to the taxpayers or MBTA customers. Other shelters are provided in the City of Boston by Wall Decaux.

Trackless Trolley Overhead Wire System Schematic



NOTES:
Not to Scale.
All facing point switches are power/coast, push button, or coach position controlled.
(+) Hot wire - driver's side
(-) Ground (negative) wire - curb side

File : CH 03B p23 - Trackless Trolley Wire Schematic

Bus Ridership as of April 2010

Typical for day and direction shown

Route	Garage	Terminals	Weekday Boardings			Saturday Boardings			Sunday Boardings			Most Recent Ridecheck		
			Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total	Weekday	Sat	Sun
1	Cabot	Harvard Sq - Dudley Sta. via Mass. Ave.	5,990	6,335	12,325	4,727	4,768	9,495	2,469	2,445	4,914	FA 07	WI 03	WI 03
4	Cabot	North Station - World Trade Ctr.	176	138	314	x	x	x	x	x	x	SP 09	x	x
5	Cabot	City Point - McCormack Housing	75	63	138	35	36	71	x	x	x	SP 09	WI 08	x
6	Cabot	South Sta - Haymarket Sta	27	56	83	x	x	x	x	x	x	FA 05	x	x
7	Cabot	City Point - Otis & Summer Sts.	1,375	1,299	2,674	194	144	338	x	x	x	SP 06	WI 08	x
8	Cabot	Harbor Point /U Mass - Kenmore Sta.	1,590	1,627	3,217	507	557	1,064	328	315	643	WI 06	SP 04	SP 04
9	Cabot	City Point - Copley Sq. via Broadway Sta	2,027	2,218	4,245	916	901	1,817	527	560	1,087	SP 06	WI 08	FA 04
10	Cabot	City Point - Copley Sq. Via B.C.H.	1,338	1,598	2,936	740	873	1,613	379	360	739	FA 09	WI 08	FA 04
11	Cabot	City Point - Downtown	1,409	1,120	2,529	504	445	949	420	298	718	SP 06	WI 08	FA 06
14	Arborway	Roslindale Square - Heath Street Loop	672	619	1,291	455	434	889	x	x	x	SP 09	WI 09	x
15	Cabot	Kane Sq. - Ruggles Sta.	3,614	3,337	6,951	1,946	1,810	3,756	1,276	1,240	2,516	FA 09	WI 05	WI 05
16	Cabot	Forest Hills Sta. - U Mass.	2,219	2,131	4,350	1,218	1,138	2,356	706	670	1,376	WI 05	WI 05	WI 05
17	Cabot	Fields Corner Sta. - Andrew Sta.	1,373	1,408	2,781	1,170	962	2,132	276	255	531	WI 07	SP 00	FA 05
18	Cabot	Ashmont Sta. - Andrew Sta.	331	409	740	126	104	230	65	69	134	WI 06	WI 06	FA 05
19	Cabot	Fields Corner Sta. - Ruggles or Kenmore Sta.	1,868	1,508	3,376	x	x	x	x	x	x	FA 05	x	x
21	Arborway	Ashmont Sta. - Forest Hills Sta.	2,344	2,100	4,444	536	601	1,137	240	265	505	WI 10	SP 08	FA 08
22	Cabot	Ashmont Sta. - Ruggles Sta. Via Talbot Ave	3,615	3,432	7,047	2,638	2,322	4,960	1,261	1,293	2,554	SP 07	SP 01	WI 08
23	Cabot	Ashmont Sta. - Ruggles Sta. via Washington St.	5,657	5,485	11,142	2,722	2,869	5,591	1,479	1,507	2,986	FA 07	FA 07	SP 07
24	Arborway	Wakefield Ave. - Mattapan Sta.	621	840	1,461	402	475	877	192	231	423	SP 09	SP 09	FA 08
25	Cabot	Franklin Park - Dudley Sta. Via Grove Hall	172	31	203	NDA	NDA	NDA	NDA	NDA	NDA	SP 07		
26	Arborway	Ashmont Sta. - Norfolk & Wash. Belt	439	897	1,336	328	446	774	82	89	171	SP 09	FA 04	FA 08
27	Arborway	Mattapan Sta. - Ashmont Sta.	245	206	451	154	196	350	64	63	127	FA 04	FA 04	FA 04
28	Cabot	Mattapan Sta. - Ruggles Sta.	5,439	5,168	10,607	4,003	4,098	8,101	2,489	2,567	5,056	FA 07	SP 07	FA 07
29	Arborway	Mattapan Sta. - Jackson Sq Sta.	1,031	1,041	2,072	154	278	432	x	x	x	SP 09	FA 04	x
30	Arborway	Mattapan Sta. - Roslindale Sq.	1,038	995	2,033	504	330	834	185	193	378	SP 09	FA 09	FA 08
31	Arborway	Mattapan Sta. - Forest Hills Sta.	2,098	2,036	4,134	1,320	1,472	2,792	905	834	1,739	FA 09	FA 08	FA 04
32	Arborway	Wolcott Sq or Cleary Sq. - Forest Hills Sta.	3,563	4,170	7,733	2,067	2,300	4,367	1,349	1,429	2,778	WI 07	SP 09	SP 08
33	Arborway	River & Milton Sts. - Mattapan Sta.	538	553	1,091	98	157	255	x	x	x	FA 09	FA 09	x
34	Arborway	Dedham Line - Forest Hills Sta.	1,510	1,959	3,469	787	683	1,470	378	394	772	FA 08	WI 01	SP 08
34E	Arborway	Walpole - Forest Hills Sta.	1,754	1,872	3,626	887	1,270	2,157	714	820	1,534	FA 08	WI 01	SP 08
35	Arborway	Dedham Mall - Forest Hills Sta.	1,114	1,074	2,188	563	521	1,084	209	183	392	FA 09	FA 04	SP 08
36	Arborway	VA Hosp - Forest Hills Sta. Via Chas. River Loop	1,341	1,643	2,984	590	692	1,282	638	640	1,278	FA 09	FA 04	SP 08
37	Arborway	Baker & Vermont Sts. - Forest Hills Sta.	626	735	1,361	284	333	617	x	x	x	FA 09	FA 04	x
37/38 (37-8)	Arborway	Baker & Vermont - F Hills VIA J P Monument	x	x	x	13	36	49	112	77	189	x	FA 04	SP 08
38	Arborway	Wren St. - Forest Hills Sta.	477	574	1,051	104	131	235	x	x	x	FA 08	FA 09	x
39	Southampton	Forest Hills Sta. - Back Bay Sta.	7,482	6,923	14,405	4,600	3,676	8,276	2,451	2,262	4,713	WI 05	SP 01	WI 08
40	Arborway	Georgetowne - Forest Hills Sta.	593	646	1,239	298	205	503	113	127	240	FA 08	FA 04	FA 08
41	Arborway	Centre & Eliot Sts. - JFK U Mass Sta	1,099	1,135	2,234	414	520	934	236	284	520	SP 09	FA 09	FA 08
42	Arborway	Forest Hills Sta. - Ruggles Sta.	1,423	1,395	2,818	677	729	1,406	267	283	550	FA 09	SP 08	FA 08
43	Cabot	Ruggles Sta. - Park & Tremont Sts.	1,183	1,034	2,217	407	398	805	308	281	589	FA 07	FA 07	SP 09
44	Cabot	Jackson Sq Sta. - Ruggles Sta.	1,917	1,874	3,791	856	872	1,728	348	318	666	WI 05	SP 08	WI 06
45	Cabot	Franklin Park - Ruggles Sta.	1,901	1,699	3,600	805	881	1,686	275	300	575	WI 05	SP 08	WI 06
47	Arborway	Central Sq. Camb. - Broadway Sta.	2,343	1,998	4,341	714	557	1,271	309	321	630	SP 09	FA 00	WI 07
48	Arborway	Centre & Eliot Sts. - Jamaica Plain Loop	35	50	85	23	27	50	x	x	x	FA 05	FA 05	x
50	Arborway	Cleary Sq - Forest Hills Sta Via Metropolitan	557	505	1,062	224	154	378	x	x	x	FA 04	FA 04	x
51	Arborway	Cleveland Circle - Forest Hills Sta.	1,074	1,013	2,087	318	297	615	x	x	x	FA 04	FA 04	x
52	Arborway	Dedham Mall - Watertown Yard	330	323	653	86	57	143	x	x	x	FA 09	FA 08	x
55	Cabot	Queensberry St. - Park & Tremont Sts.	531	316	847	204	99	303	149	80	229	WI 07	FA 00	WI 07
57	Albany or Cabot	Watertown Yard - Kenmore Sta.	5,839	5,665	11,504	2,321	2,306	4,627	1,640	1,684	3,324	FA 09	FA 00	WI 06
59	Albany or Cabot	Needham Junction - Watertown Sq.	606	566	1,172	155	144	299	96	105	201	WI 06	WI06	WI 06
60	Albany or Cabot	Chestnut Hill - Kenmore Sta.	705	645	1,350	229	201	430	162	100	262	WI 10	SP 08	WI 08
62	Somerville	Bedford V.A. Hospital - Alewife Sta.	502	620	1,122	x	x	x	x	x	x	FA 02	x	x
62/76	Somerville	Bedford V.A. Hospital - Alewife Sta. Via Hanscom AFB	x	x	x	215	244	459	x	x	x	x	FA 07	x
64	Somerville	Oak Sq. - University Pk. Cambridge	768	500	1,268	275	279	554	126	115	241	WI 07	RD II	FA 02
65	Albany or Cabot	Brighton Center - Kenmore Sta.	1,242	846	2,088	159	121	280	x	x	x	WI 10	WI 01	x
66	Cabot	Harvard Sq. - Dudley Sta. via Brookline	6,942	7,734	14,676	3,548	4,054	7,602	2,371	2,374	4,745	FA 09	FA 09	WI 07
67	Somerville	Turkey Hill - Alewife Sta.	331	186	517	x	x	x	x	x	x	FA 06	x	x
68	Somerville	Harvard Sq. - Kendall MIT Sta.	260	260	520	x	x	x	x	x	x	WI 04	x	x
69	Somerville	Harvard Sq. - Lechmere Sta.	1,531	1,454	2,985	946	872	1,818	455	465	920	WI 06	RD II	SP 02
70	Somerville	Cedarwood - Central Sq. Cambridge	2,115	2,539	4,654	2,079	1,951	4,030	1,349	1,498	2,847	FA 06	SP 00	FA 07
70A	Somerville	No. Waltham - University Pk., Camb.	1,025	1,007	2,032	678	669	1,347	x	x	x	FA 06	SP 00	x

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			Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total	Weekday	Sat	Sun
72/75 (72.5)	Somerville	Belmont Center - Harvard Sta via Huron Ave	x	x	x	59	85	144	163	186	349	x	FA 03	FA 04
74	Somerville	Belmont Center - Harvard Sta via Concord Ave	479	502	981	99	104	203	x	x	x	SP 04	WI 04	x
75	Somerville	Belmont Center - Harvard Sta via Fresh Pond Pkwy	235	252	487	106	139	245	x	x	x	SP 04	WI 04	x
76	Somerville	Hanscom Air Force Base - Alewife Sta.	284	342	626	x	x	x	x	x	x	FA 02	x	x
77	Somerville	Arlington Heights - Harvard Sta	3,274	3,277	6,551	2,085	2,156	4,241	1,273	1,457	2,730	FA 07	WI 05	SP 04
78	Somerville	Arlmont Village - Harvard Sta	515	634	1,149	125	203	328	97	132	229	SP 04	WI 04	WI 04
79	Somerville	Arlington Heights - Alewife Sta.	579	516	1,095	x	x	x	x	x	x	SP 04	x	x
80	Somerville	Arllington Center - Lechmere Sta.	1,009	863	1,872	681	576	1,257	303	260	563	WI 03	RD II	FA 05
83	Somerville	Rindge Ave. - Central Sq., Camb.	1,073	1,081	2,154	627	701	1,328	186	288	474	FA 04	RD II	FA 07
84	Somerville	Arlmont Loop - Alewife Sta.	152	59	211	x	x	x	x	x	x	WI 07	x	x
85	Somerville	Spring Hill - Kendall MIT Sta.	233	164	397	x	x	x	x	x	x	WI 06	x	x
86	Somerville	Sullivan Sta. - Cleveland Circle	2,469	2,670	5,139	873	1,007	1,880	557	639	1,196	FA 02	WI 03	WI 03
87	Somerville	Clarendon Hill - Lechmere Sta. via Som.	1,683	1,690	3,373	883	1,169	2,052	571	594	1,165	WI 06	FA 06	SP 02
88	Somerville	Clarendon Hill - Lechmere Sta. Via Hglnd	1,995	1,790	3,785	1,180	1,077	2,257	670	744	1,414	WI 06	RD II	SP 02
89	Charlestown	Clarendon Hill - Sullivan Sta.	1,834	1,597	3,431	731	773	1,504	308	448	756	FA 05	FA 05	WI 02
90	Charlestown	Davis Sq. Sta. - Wellington Sta.	444	476	920	240	262	502	x	x	x	WI 04	WI 04	x
91	Charlestown	Sullivan Sta. - Central Sq., Camb.	770	712	1,482	686	548	1,234	305	265	570	WI 02	FA 04	FA 04
92	Charlestown	Assembly Sq Mall - Downtown Via Main St	560	495	1,055	219	274	493	x	x	x	WI 07	WI06	x
93	Charlestown	Sullivan Sta. - Downtown Via Bunker Hill	2,196	2,014	4,210	995	974	1,969	419	374	793	WI 04	FA 04	FA 04
94	Fel or Cha	Medford Sq. - Davis Sq. Sta.	579	757	1,336	243	282	525	178	239	417	WI 09	FA 07	FA 04
95	Fel or Cha	West Medford - Sullivan Sta.	792	959	1,751	268	346	614	153	185	338	FA 08	WI06	FA 03
96	Fel or Cha	Medford Sq - Harvard Sta	949	832	1,781	516	401	917	234	205	439	WI 09	FA 05	FA 05
97	Fel or Cha	Malden Sta. - Wellington Sta.	399	343	742	176	131	307	105	85	190	WI 10	FA 02	FA 02
99	Fel or Cha	Boston Reg. Med Ctr Stoneham - Wellington Sta.	580	679	1,259	220	323	543	117	173	290	FA 08	WI06	FA 04
100	Fel or Cha	Elm St. - Wellington Sta.	463	421	884	152	178	330	80	86	166	FA 08	FA 05	FA 05
101	Charlestown	Malden Sta. - Sullivan Sta. Via Medford Sq	2,170	1,946	4,116	948	973	1,921	437	446	883	FA 05	FA 05	FA 04
104	Charlestown	Malden Sta. - Sullivan Sta. Via Ferry St	1,614	1,746	3,360	1,047	947	1,994	455	519	974	WI 02	WI 02	WI 02
105	Fel or Cha	Malden Sta. - Sullivan Sta. Via Main St	516	410	926	166	206	372	132	127	259	WI 10	FA 04	FA 04
106	Charlestown	Franklin Sq or Lebanon St. Loop - Wellington Sta.	1,177	1,140	2,317	597	514	1,111	282	349	631	FA 05	FA 07	FA 04
108	Charlestown	Linden Sq. - Wellington Sta.	1,249	1,351	2,600	714	630	1,344	214	190	404	FA 04	FA 07	FA 04
109	Charlestown	Linden Sq. - Sullivan Sta.	1,345	1,643	2,988	656	901	1,557	469	479	948	WI 02	WI 02	WI 02
110	Charlestown	Wonderland Sta. - Wellington Sta.	1,253	1,139	2,392	536	537	1,073	230	224	454	WI 03	FA 04	FA 04
111	Charlestown	Woodlawn or Bway & Park - Haymarket Sta.	4,293	4,399	8,692	3,140	2,887	6,027	1,799	1,948	3,747	WI 03	SU 04	SU 04
112	Charlestown	Wellington Sta. - Wood Island Sta.	620	593	1,213	326	346	672	168	211	379	WI 05	WI 05	WI 05
114	Lynn	Bellingham Sq - Maverick Sta	537	432	969	x	x	x	x	x	x	FA 03	x	x
114 (114.1)	Lynn	Mystic Mall - Maverick Sta	272	258	530	x	x	x	x	x	x	SP 00	x	x
116	Lynn	Wonderland Sta. - Maverick Sta. Via Revere	2,194	2,194	4,388	1,327	1,569	2,896	1,039	993	2,032	FA 03	SU 04	SU 04
117	Lynn	Wonderland Sta. - Maverick Sta. via Beach	2,086	1,972	4,058	1,407	1,388	2,795	956	1,136	2,092	FA 03	SU 04	SU 04
119	Lynn	Northgate Shopping Ctr. - Beachmont Sta.	460	324	784	151	155	306	122	114	236	WI 05	WI 05	WI 05
120	Lynn	Orient Heights Sta. - Maverick Sta.	1,179	1,539	2,718	510	678	1,188	231	303	534	WI 04	WI 04	WI 04
121	Lynn	Wood Island Sta. - Maverick Sta.	220	164	384	x	x	x	x	x	x	WI 07	x	x
130	Fel or Cha	Linwood Ave - Malden Sta. (Discontinued)	75	69	144	16	13	29	x	x	x	SP 01	FA 02	x
131	Fellsway	Melrose Highlands - Malden Sta.	280	349	629	x	x	x	x	x	x	FA 07	x	x
132	Fel or Cha	Redstone Shopping Ctr. - Malden Sta.	339	319	658	71	69	140	x	x	x	WI 10	WI06	x
134	Fel or Cha	North Woburn - Wellington Sta.	1,101	1,063	2,164	534	552	1,086	251	252	503	WI 10	FA 05	FA 05
136	Fel or Cha	Reading Depot - Malden Sta. Via Lakeside	619	453	1,072	168	191	359	NDA	NDA	NDA	WI 09	FA 04	NDA
137	Fel or Cha	Reading Depot - Malden Sta. Via North Ave	499	476	975	125	188	313	NDA	NDA	NDA	WI 09	FA 04	NDA
170	Albany	Oak Park - Dudley Sta. (Limited Service)	17	25	42	x	x	x	x	x	x	SP 09	x	x
171	Cabot	Logan Airport - Dudley Sta. Sunrise	NA	38	38	NA	28	28	NA	29	29	WI 07	WI 07	WI 07
191	Arborway	Mattapan Sta - Haymarket Sta. Sunrise	52	0	52	14	0	14	43	NA	43	FA 09	WI 07	FA 08
192	Arborway	Cleary Sq - Haymarket Sta. Sunrise	19	6	25	12	9	21	x	x	x	SP 09	WI 07	x
193	Albany or Cabot	Watertown Square - Haymarket Sta. Sunrise	13	12	25	6	4	10	x	x	x	FA 09	FA 00	x
194	Charlestown	Clarendon Hill - Haymarket Sta. Sunrise	19	NA	19	NDA	NDA	NDA	x	x	x	WI 07	NDA	x
195	Arborway	L. Shattuck Hospital - Park & Tremont Sts.	4	x	4	NDA	NDA	NDA	NDA	NDA	NDA	SU 08	NDA	NDA
197	Lynn	Wonderland Sta. - Haymarket Sta. Sunrise	28	x	28	8	x	8	72	x	72	FA 03	SP 00	SP 04
197 (197.1)	Lynn	Haymarket Sta - Logan Airport Term C Sunrise	x	0	0	NDA	NDA	NDA	Activated Sun Jan 1 2006			FA 03	NDA	NDA
201/202	Quincy	Fields Corner Sta. - Fields Corner Sta.	NA	NA	877	NA	NA	319	NA	NA	118	FA 07	FA 06	FA 06
210	Quincy	Quincy Ctr. Sta. - No. Quincy Sta or Flds Cnr Sta	337	349	686	48	131	179	x	x	x	FA 07	WI 07	x
211	Quincy	Quincy Ctr. Sta. - Squantum	348	377	725	65	77	142	35	22	57	FA 06	WI 07	WI06
212	Quincy	Quincy Ctr. Sta. - North Quincy Sta.	172	119	291	49	44	93	x	x	x	WI 09	WI 07	x
214	Quincy	Quincy Ctr. Sta. - Germantown	630	557	1,187	214	225	439	214/216 - shared routes on Sundays			WI 09	WI 07	See 216
215	Quincy	Quincy Ctr. Sta. - Ashmont Sta.	765	628	1,393	414	346	760	234	190	424	WI 09	WI 07	FA 06
216	Quincy	Quincy Ctr. Sta. - Houghs Neck	417	557	974	237	289	526	338	345	683	WI 09	WI 07	FA 06
217	Quincy	Wollaston Sta - Ashmont Sta via Wollaston Beach	120	103	223	x	x	x	x	x	x	FA 06	x	x
220	Quincy	Quincy Ctr. Sta. - Hingham	672	738	1,410	335	335	670	172	161	333	FA 06	WI 07	FA 06
221	Quincy	Quincy Ctr. Sta. - Fort Point	59	37	96	x	x	x	x	x	x	WI 09	x	x
222	Quincy	Quincy Ctr. Sta - East Weymouth	656	670	1,326	244	202	446	198	191	389	FA 06	WI 07	FA 06
225	Quincy	Quincy Ctr. Sta. - Weymouth Landing	1,228	1,329	2,557	416	379	795	195	160	355	WI 08	WI 07	WI 07
230	Quincy	Quincy Ctr. Sta. - Montello Sta.	588	717	1,305	240	201	441	156	163	319	SP 08	SP 04	WI 09

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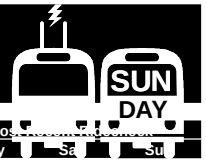
236	Quincy	Quincy Ctr. Sta. - South Shore Plaza	218	268	486	220	211	431	113	159	272	FA 07	FA 02	WI 09
238	Quincy	Quincy Ctr. Sta. - Holbrook/Randolph Comm. Rail Sta.	683	835	1,518	451	436	887	315	178	493	WI 08	WI 07	WI 05
240	Quincy	Avon Line - Ashmont Sta.	1,134	1,274	2,408	452	569	1,021	269	294	563	WI 08	WI 07	WI 05
245	Quincy	Quincy Ctr. Sta. - Mattapan Sta.	221	174	395	60	53	113	3	NA	3	WI 07	WI 07	FA 06
275	Quincy	Downtown Boston - Long Island Health Campus	136	99	235	NDA	NDA	NDA	NDA	NDA	NDA	WI 98	NDA	NDA
276	Quincy	Boston City Hospital - Long Island Health Campus	321	277	598	NDA	NDA	NDA	NDA	NDA	NDA	WI 98	NDA	NDA
277	Quincy	L. Shattuck Hospital - Park & Tremont Sts.	19	x	19	NDA	NDA	NDA	NDA	NDA	NDA	SU 08	NDA	NDA
325	Charlestown	Elm St. - Haymarket Sta.	171	149	320	x	x	x	x	x	x	SP 05	x	x
326	Charlestown	West Medford - Haymarket Sta.	227	207	434	x	x	x	x	x	x	SP 05	x	x
350	Somerville	North Burlington - Alewife Sta.	585	759	1,344	323	408	731	146	215	361	FA 05	FA 05	WI 05
351	Somerville	Oak Park - Alewife Sta.	74	71	145	x	x	x	x	x	x	FA 05	x	x
352	Charlestown	Burlington - State Street	180	197	377	x	x	x	x	x	x	FA 05	x	x
354	Fellsway	Woburn Line - State Street	365	427	792	x	x	x	x	x	x	WI 09	x	x
355	Charlestown	Mishawum Sta. - State Street	11	6	17	x	x	x	x	x	x	FA 05	x	x
411	Fel or Cha	Malden Sta. - Revere/Jack Satter House	566	508	1,074	224	160	384	x	x	x	WI 10	WI 05	x
424	Lynn	Eastern & Essex - Haymarket Sta	x	94	94	x	x	x	x	x	x	FA 07	x	x
424W	Lynn	Eastern & Essex - Wonderland Sta	93	x	93	x	x	x	x	x	x	FA 07	x	x
426	Lynn	Central Sq Lynn - Haymarket Sta. Via Cliftondale Sq.	572	894	1,466	x	x	x	x	x	x	WI 08	x	x
426W	Lynn	Central Sq Lynn - Wonderland Sta Via Cliftondale Sq.	118	x	143	224	280	504	213	173	386	WI 08	FA 03	FA 03
428	Lynn	Oaklandvale - Haymarket Sta via Granada Highlands	115	78	193	x	x	x	x	x	x	WI 08	x	x
429	Lynn	Northgate Shopping Center - Central Sq Lynn	620	625	1,245	313	375	688	217	243	460	WI 09	FA 03	FA 03
430	Fel or Cha	Saugus, Appleton St. - Malden Sta.	492	644	1,136	236	283	519	x	x	x	WI 10	WI 05	x
431	Lynn	Neptune Towers - Central Sq Lynn	58	6	64	3	0	3	1	7	8	WI 07	WI 05	WI 05
434	Lynn	Peabody - Haymarket Sta.	31	27	58	x	x	x	x	x	x	FA 07	x	x
435	Lynn	Liberty Tree Mall - Central Sq Lynn	228	287	515	232	281	513	71	87	158	WI 07	WI 05	WI 05
436	Lynn	Danvers Sq - Central Sq Lynn	363	323	686	124	163	287	87	82	169	WI 05	WI 05	WI 05
439	Lynn	Bass Point Nahant - Central Sq Lynn	35	18	53	x	x	x	x	x	x	WI 08	x	x
441	Lynn	Marblehead - Haymarket Sq Sta via Paradise Rd.	523	553	1,076	x	x	x	x	x	x	WI 08	x	x
441W	Lynn	Marblehead - Wonderland Sta via Paradise Rd.	135	x	135	281	244	525	197	195	392	WI 08	SP 03	SP 03
442	Lynn	Marblehead - Haymarket Sta via Humphrey St.	558	847	1,405	x	x	x	x	x	x	WI 08	x	x
442W	Lynn	Marblehead - Wonderland Sta via Humphrey St.	108	x	108	301	302	603	342	293	635	WI 08	SP 03	SP 03
448	Lynn	Marblehead - Downtown Crossing	72	58	130	x	x	x	x	x	x	WI 08	x	x
449	Lynn	Marblehead - Downtown Crossing	99	78	177	x	x	x	x	x	x	WI 08	x	x
450	Lynn	Salem Depot - Haymarket Sta. via Western Ave.	628	714	1,342	x	x	x	x	x	x	WI 08	x	x
450W	Lynn	Salem Depot - Wonderland Sta.	Most Wkdy Svce to Haymkt			268	315	583	199	282	481	NDA	FA 03	FA 03
451	Lynn	North Beverly - Salem Depot	117	136	253	51	18	69	x	x	x	WI 08	WI 05	x
455	Lynn	Salem Depot - Haymarket Sta.	620	591	1,211	x	x	x	x	x	x	WI 08	x	x
455W	Lynn	Salem Depot - Wonderland Sta.	238	x	238	886	818	1,704	381	407	788	WI 08	FA 03	FA 03
456	Lynn	Salem Depot - Central Sq Lynn	76	161	237	x	x	x	x	x	x	FA 07	x	x
459	Lynn	Salem Depot - Downtown Crossing	517	431	948	x	x	x	x	x	x	WI 08	x	x
465	**Lynn**	**Liberty Tree Mall - Salem Depot**	**110**	**112**	**222**	**93**	**121**	**214**	**x**	**x**	**x**	**WI 08**	**WI 05**	**x**
468	Lynn	Danvers Sq. - Salem Depot (Limited Service)	8	6	14	x	x	x	x	x	x	WI 08	x	x
500	Albany or Cabot	Riverside Sta. - Federal & Franklin Sts.	47	48	95	x	x	x	x	x	x	SP 09	x	x
501	Albany	Brighton Ctr. - Federal & Franklin Sts. (see also 503)	846	948	1,794	x	x	x	x	x	x	FA 09	x	x
502	Albany	Watertown Yard - Copley Sq.	670	542	1,212	x	x	x	x	x	x	FA 09	x	x
503	Albany	Brighton Center - Copley	236	218	454	x	x	x	x	x	x	FA 09	x	x
504	Albany or Cabot	Watertown Yard - Federal & Franklin Sts.	875	693	1,568	305	231	536	x	x	x	FA 09	FA 00	x
505	Albany	Waltham Center - Federal & Franklin Sts.	478	434	912	x	x	x	x	x	x	SP 09	x	x
553	Albany or Cabot	Roberts - Federal & Franklin Sts.	374	321	695	134	110	244	x	x	x	SP 09	FA 00	x
554	Albany or Cabot	Waverley Sq. - Federal & Franklin Sts.	330	337	667	90	105	195	x	x	x	SP 09	FA 00	x
555	Albany or Cabot	Riverside Sta. - Federal & Franklin Sts. via Newton	2	118	120	x	x	x	x	x	x	WI 06	x	x
556	Albany	Waltham Highlands - Federal & Franklin Sts.	265	197	462	x	x	x	x	x	x	SP 09	x	x
558	Albany	Riverside - Federal & Franklin Sts.	164	201	365	x	x	x	x	x	x	WI 08	x	x
701 (CT1)	Albany	Central Sq. Camb. - So. End Medical Area	1,032	982	2,014	x	x	x	x	x	x	FA 09	x	x
708 (CT3)	Albany	Longwood Medical Area - Andrew Sta.	401	685	1,086	x	x	x	x	x	x	FA 09	x	x
747 (CT2)	Albany	Kendall MIT Sta - Ruggles Sta	789	464	1,253	x	x	x	x	x	x	SP 09	x	x
748 (CT2)	Albany	Sullivan Sta. - Kendall MIT Sta	335	522	857	x	x	x	x	x	x	SP 09	x	x
		TOTAL BUS	**172,117**	**171,620**	**344,639**	**82,099**	**82,901**	**165,319**	**43,899**	**44,921**	**88,938**			

Bus Operations - Trackless Trolley Ridership

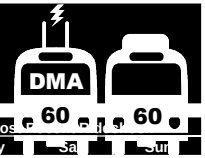
Typical for day and direction shown



Route	Garage	Terminals	Weekday Boardings			Saturday Boardings			Sunday Boardings			Most Frequent Trip Designation		
			Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total	Weekday	Sa	Su
71	North Cambridge	Watertown Sq. - Harvard Sta.	2,678	2,805	5,483	1,352	1,333	2,685	554	584	1,138	WI 10	WI 10	SP 01
72	North Cambridge	Aberdeen & Mt. Auburn - Harvard Sta.	466	331	797	185	218	403	x	x	x	WI 10	WI 10	x
73	North Cambridge	Waverley Sq. - Harvard Sta.	3,001	3,395	6,396	1,400	1,369	2,769	561	511	1,072	WI 10	WI 10	SP 01
77-4	North Cambridge	North Cambridge - Harvard Sta.	80	87	167	20	13	33	x	x	x	WI 10	WI 10	x
		TOTAL TRACKLESS TROLLEY	**6,225**	**6,618**	**12,843**	**2,957**	**2,933**	**5,890**	**1,115**	**1,095**	**2,210**			
		GRAND TOTAL BUS AND TRACKLESS TROLLEY	**178,342**	**178,238**	**357,482**	**85,056**	**85,834**	**171,209**	**45,014**	**46,016**	**91,148**			

Bus Operations - Silver Line Ridership

Typical for day and direction shown



Route	Garage	Terminals	Weekday Boardings			Saturday Boardings			Sunday Boardings			Most Frequent Trip Designation		
			Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total	Weekday	Sa	Su
746 SL	Southampton	Silver Line Way - South Sta	1,550	1,763	3,313	235	317	552	42	6	48	SP 09	SP 06	FA 09
741 SL1	Southampton	Logan Airport - South Station	4,923	1,486	6,409	3,082	997	4,079	4,499	1,382	5,881	SP 09	SP 06	FA 09
742 SL2	Southampton	Boston Marine Industrial Park - South Station	2,325	2,893	5,218	337	229	566	134	181	315	SP 09	SP 06	SP 06
750 SL4	Southampton	Dudley Sta. - South Station	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA
749 SL5	Southampton	Dudley Sta. - Downtown	7,526	7,183	14,709	4,363	4,514	8,877	3,013	3,290	6,303	SP 05	SP 03	SP 09
		SUBTOTAL TOTAL SILVER LINE WATERFRONT	**16,324**	**13,325**	**29,649**	**8,017**	**6,057**	**14,074**	**7,688**	**4,859**	**12,547**			
GRAND TOTAL BUS, TRACKLESS TROLLEY, AND BOTH SILVER LINES			**202,192**	**198,746**	**401,840**	**97,436**	**96,405**	**194,160**	**55,715**	**54,165**	**109,998**			

NOTES:

x = No Service on route noted on day of week noted.
WI - Winter, SP - Spring, SU - Summer, FA - Fall; Winter is December of the prior year to March of the noted year - e.g., Winter 2007 is December 2006 to March 2007.
NDA - No Data Available. RD II - Round II rideckecks, 1997-1998. NA - Not Applicable, e.g., "Snap" trips where data are collected continuously for a route with a loop configuration.

SL 4 service started in October 2009. SL Washington was renamed to SL 5.
Silver Line Waterfront (746, SL2, and SL3) service inaugurated Friday December 17 2004. SL3 discontinued Monday Mar 23 2009.
Silver Line Waterfront SL1 service inaugurated Wednesday June 1 2005.
Route 6 discontinued, and Route 4 extended to cover some of its former route effective Monday Mar 23 2009.
Routes 37/38 combined all day Sunday AND six one-way trips Saturday early AM.
Route 42 Weekday & Saturday service Forest Hills-Dudley. Effective Saturday Mar 26 2005.
Route 77A designation discontinued (trips are pullouts/pullbacks, Mass Ave segment of Routes 71, 72, and 73). Fall 2005 and thereafter counts recorded as Route 77-4.
Route 197 became a variation of Route 117 Saturday Dec 31 2005.
Route 214/216 is a shared route on Sundays.
Route 217 extended Wollaston Beach to Quincy Ctr Sta effective Mon June 27 2005.
Route 245 Hospital Hill Sunday Shuttle inaugurated Sun Mar 27 2005.
Route 245 service via Quarry Street inaugurated Sat Mar 27 2006.
Route 558 extended from Auburndale to Riverside Sta effective Mon Jan 3 2005.

Ranked Typical Day Bus Ridership as of April 2010

Weekday/Saturday/Sunday Boardings

Updated for Winter 2010 Ridechecks

	Weekday		Saturday		Sunday	
Rank	Route	Boardings	Route	Boardings	Route	Boardings
1	749 (SL5)	14,709	1	9,495	749 (SL5)	6,303
2	66	14,676	749 (SL5)	8,877	741 (SL1)	5,881
3	39	14,405	39	8,276	28	5,056
4	1	12,325	28	8,101	1	4,914
5	57	11,504	66	7,602	66	4,745
6	23	11,142	111	6,027	39	4,713
7	28	10,607	23	5,591	111	3,747
8	111	8,692	22	4,960	57	3,324
9	32	7,733	57	4,627	23	2,986
10	22	7,047	32	4,367	70	2,847
11	15	6,951	77	4,241	32	2,778
12	77	6,551	741 (SL1)	4,079	77	2,730
13	741 (SL1)	6,409	70	4,030	22	2,554
14	73	6,396	15	3,756	15	2,516
15	71	5,483	116	2,896	117	2,092
16	742 (SL2)	5,218	117	2,795	116	2,032
17	86	5,139	31	2,792	31	1,739
18	70	4,654	73	2,769	34E	1,534
19	21	4,444	71	2,685	88	1,414
20	116	4,388	16	2,356	16	1,376
21	16	4,350	88	2,257	36	1,278
22	47	4,341	34E	2,157	86	1,196
23	9	4,245	17	2,132	87	1,165
24	93	4,210	87	2,052	71	1,138
25	31	4,134	104	1,994	9	1,087
26	101	4,116	93	1,969	73	1,072
27	117	4,058	101	1,921	104	974
28	44	3,791	86	1,880	109	948
29	88	3,785	69	1,818	69	920
30	34E	3,626	9	1,817	101	883
31	45	3,600	44	1,728	93	793
32	34	3,469	455W	1,704	455W	788
33	89	3,431	45	1,686	34	772
34	19	3,376	10	1,613	89	756
35	87	3,373	109	1,557	10	739
36	104	3,360	89	1,504	11	718
37	746 (SL Water Shuttle)	3,313	34	1,470	216	683
38	8	3,217	42	1,406	44	666
39	109	2,988	70A	1,347	8	643
40	69	2,985	108	1,344	442W	635
41	36	2,984	83	1,328	106	631
42	10	2,936	36	1,282	47	630
43	42	2,818	47	1,271	43	589
44	17	2,781	80	1,257	45	575
45	120	2,718	91	1,234	91	570
46	7	2,674	120	1,188	80	563
47	108	2,600	21	1,137	240	563
48	225	2,557	106	1,111	42	550
49	11	2,529	134	1,086	120	534
50	240	2,408	35	1,084	17	531
51	110	2,392	110	1,073	41	520
52	106	2,317	8	1,064	21	505
53	41	2,234	240	1,021	134	503
54	43	2,217	11	949	238	493
55	35	2,188	41	934	450W	481
56	134	2,164	96	917	83	474
57	83	2,154	14	889	429	460
58	65	2,088	238	887	110	454
59	51	2,087	24	877	96	439
60	29	2,072	30	834	215	424
61	30	2,033	43	805	24	423
62	70A	2,032	225	795	94	417
63	701 (CT1)	2,014	26	774	108	404
64	80	1,872	215	760	35	392
65	501	1,794	350	731	441W	392

Rank	Weekday Route	Weekday Boardings	Saturday Route	Saturday Boardings	Sunday Route	Sunday Boardings
66	96	1,781	429	688	222	389
67	95	1,751	112	672	426W	386
68	504	1,568	220	670	112	379
69	238	1,518	37	617	30	378
70	91	1,482	51	615	350	361
71	426	1,466	95	614	225	355
72	24	1,461	442W	603	72/75 (72.5)	349
73	220	1,410	450W	583	95	338
74	442	1,405	742 (SL2)	566	220	333
75	215	1,393	64	554	230	319
76	37	1,361	746 (SL Water Shuttle)	552	742 (SL2)	315
77	60	1,350	99	543	99	290
78	350	1,344	504	536	236	272
79	450	1,342	216	526	60	262
80	26	1,336	94	525	105	259
81	94	1,336	441W	525	64	241
82	222	1,326	430	519	40	240
83	230	1,305	435	513	119	236
84	14	1,291	426W	504	55	229
85	64	1,268	40	503	78	229
86	99	1,259	90	502	59	201
87	747 (CT2)	1,253	92	493	97	190
88	429	1,245	62/76	459	37/38 (37-8)	189
89	40	1,239	222	446	26	171
90	112	1,213	230	441	436	169
91	502	1,212	214	439	100	166
92	455	1,211	29	432	435	158
93	214	1,187	236	431	18	134
94	59	1,172	60	430	27	127
95	78	1,149	72	403	201/202	118
96	430	1,136	411	384	197	72
97	62	1,122	50	378	211	57
98	79	1,095	105	372	746 (SL Water Shuttle)	48
99	33	1,091	136	359	191	43
100	708 (CT3)	1,086	27	350	171	29
101	441	1,076	7	338	431	8
102	411	1,074	100	330	245	3
103	136	1,072	78	328	4	x
104	50	1,062	201/202	319	5	x
105	92	1,055	137	313	6	x
106	38	1,051	97	307	7	x
107	74	981	119	306	14	x
108	137	975	55	303	19	x
109	216	974	59	299	29	x
110	114	969	436	287	33	x
111	459	948	65	280	37	x
112	105	926	33	255	38	x
113	90	920	75	245	48	x
114	505	912	553	244	50	x
115	100	884	38	235	51	x
116	201/202	877	18	230	52	x
117	748 (CT2)	857	465	214	62	x
118	55	847	74	203	62/76	x
119	72	797	554	195	65	x
120	354	792	210	179	67	x
121	119	784	72/75 (72.5)	144	68	x
122	97	742	52	143	70A	x
123	18	740	211	142	74	x
124	211	725	132	140	75	x
125	553	695	245	113	76	x
126	210	686	212	93	79	x
127	436	686	5	71	84	x
128	554	667	451	69	85	x
129	132	658	48	50	90	x
130	52	653	37/38 (37-8)	49	92	x
131	131	629	77-4	33	114	x
132	76	626	130	29	114 (114.1)	x
133	276	598	171	28	121	x
134	114 (114.1)	530	192	21	130	x
135	68	520	191	14	131	x

Rank	Weekday Route	Weekday Boardings	Saturday Route	Saturday Boardings	Sunday Route	Sunday Boardings
136	67	517	193	10	132	x
137	435	515	197	8	170	x
138	75	487	431	3	192	x
139	236	486	4	x	193	x
140	556	462	6	x	194	x
141	503	454	19	x	210	x
142	27	451	62	x	212	x
143	326	434	67	x	217	x
144	85	397	68	x	221	x
145	245	395	76	x	325	x
146	121	384	79	x	326	x
147	352	377	84	x	351	x
148	558	365	85	x	352	x
149	325	320	114	x	354	x
150	4	314	114 (114.1)	x	355	x
151	212	291	121	x	411	x
152	451	253	131	x	424	x
153	455W	238	170	x	424W	x
154	456	237	217	x	426	x
155	275	235	221	x	428	x
156	217	223	325	x	430	x
157	465	222	326	x	434	x
158	84	211	351	x	439	x
159	25	203	352	x	441	x
160	428	193	354	x	442	x
161	449	177	355	x	448	x
162	77-4	167	424	x	449	x
163	351	145	424W	x	450	x
164	130	144	426	x	451	x
165	426W	143	428	x	455	x
166	5	138	434	x	456	x
167	441W	135	439	x	459	x
168	448	130	441	x	465	x
169	555	120	442	x	468	x
170	442W	108	448	x	500	x
171	221	96	449	x	501	x
172	500	95	450	x	502	x
173	424	94	455	x	503	x
174	424W	93	456	x	504	x
175	48	85	459	x	505	x
176	6	83	468	x	553	x
177	431	64	500	x	554	x
178	434	58	501	x	555	x
179	439	53	502	x	556	x
180	191	52	503	x	558	x
181	170	42	505	x	701 (CT1)	x
182	171	38	555	x	708 (CT3)	x
183	197	28	556	x	747 (CT2)	x
184	192	25	558	x	748 (CT2)	x
185	193	25	701 (CT1)	x	72	x
186	194	19	708 (CT3)	x	77-4	x
187	277	19	747 (CT2)	x	25	NDA
188	355	17	748 (CT2)	x	136	NDA
189	468	14	25	NDA	137	NDA
190	195	4	194	NDA	195	NDA
191	197 (197.1)	0	195	NDA	275	NDA
192	37/38 (37-8)	x	197 (197.1)	NDA	276	NDA
193	62/76	x	275	NDA	277	NDA
194	72/75 (72.5)	x	276	NDA	750 (SL 4)	NDA
195			277	NDA		
196	750 (SL 4)	NDA	750 (SL 4)	NDA		

LINE STATISTICS

VEHICLE RECAP

LOCATIONS	WEEKDAY					WEEKEND	
	AM PEAK	AM BASE	PM BASE	PM PEAK	LATE	SAT PEAK	SUN PEAK
BUS GARAGES							
ALBANY GARAGE	90	31	46	80	0	0	0
CABOT GARAGE	174	76	146	156	54	103	60
SOUTHAMPTON GARAGE	45	25	30	49	12	24	26
ARBORWAY GARAGE	101	42	92	88	23	41	20
SOMERVILLE GARAGE	90	48	78	88	25	46	36
FELLSWAY GARAGE	49	23	32	43	-	-	-
CHARLESTOWN GARAGE	85	31	58	79	26	54	29
QUINCY GARAGE	67	26	52	57	14	29	18
LYNN GARAGE	71	37	57	69	19	30	21
BUS TOTAL:	772	339	591	709	173	327	210
TRACKLESS TROLLEY							
TOTAL:	22	9	14	22	6	9	0

Note: Reflects Line Statistics revised for Cabot and Southhampton in mid Fall09.

LINE STATISTICS

VEHICLE RECAP

Rte. No.	GARAGE	TERMINALS	WEEKDAY AM PEAK V	WEEKDAY AM PEAK H	WEEKDAY AM BASE V	WEEKDAY AM BASE H	WEEKDAY PM BASE V	WEEKDAY PM BASE H	WEEKDAY PM PEAK V	WEEKDAY PM PEAK H	WEEKDAY LATE V	WEEKDAY LATE H	WEEKEND SAT PEAK V	WEEKEND SAT PEAK H	WEEKEND SUN PEAK V	WEEKEND SUN PEAK H
1	CABOT	Harvard - Dudley Sta. Via Mass. Ave.	11	8/9	7	14	8	12	15	7/8	6	13	10	9	6	15
4	CABOT	North Station - World Trade Center	3	12/13/16					4	12-18						
5	CABOT	City Point - McCormack Housing			1	60	1	60					1	60		
6	CABOT	South Station - Haymarket														
7	CABOT	City Point - Otis and Summer Sts	10	4/5	2	21	3	18	7	6	1	40	1	40		
8.1.9	CABOT	Harbor Pt/UMASS - Kenmore Station	9	13/14	3	45	5	22	7	20	3	45	3	40	3	35
9	CABOT	City Point - Copley Sq.	10	6	3	20	6	12	8	8/10	2	25	3	21/22	2	24
10.9	CABOT	City Point - Copley Square via B.C.H	5	20	3	35	3	35	5	24	2	40-60	4	22	2	40
11.3	CABOT	City Point - Downtown	8	7/8	3	20	4	15/16	6	11/12	1	50	3	22	2	30
14	ARBORWAY	Roslindale Sq. - Heath St. via Dudley	3	35	2	60	3	40	3	40			3	35		
15	CABOT	Kane Square - Ruggles Station	9	6	4	16	6	11	8	9					1	
15.1	CABOT	Fields Corner Sta. - Ruggles Station									3	20	4	20	3	20
16.5	CABOT	Forest Hills Sta - UMASS	6	15												
16.8	CABOT	Forest Hills Sta - UMASS							6	18						
16.9	CABOT	Forest Hills Sta - Andrew Station			2	35	2	35			1	45	3	20	2	30
17	CABOT	Fields Corner Station - Andrew Station	4	14	2	25	4	14	4	14			2	20	1	40
18	CABOT	Ashmont Station - Andrew Station	2	30	1	60	1	60	2	30			1	60	1	60
19	CABOT	Fields Corner Sta - Ruggles Sta.			1	60										
19.3	CABOT	Kenmore Station - Ruggles Sta.	8	12			6	20	5	20						
21	ARBORWAY	Ashmont Station - Forest Hills Station	5	9	2	20	2	25	4	13	1	70	1	45	1	60
22	CABOT	Ashmont Station - Ruggles Sta. via Jackson	10	8	5	14	6	15	10	9	3	20	7	11	4	16
23	CABOT	Ashmont Sta. - Ruggles Sta. via Washington	15	5/5/6	7	11/12	12	7/8	14	7	3	20	8	10	4	16
24	ARBORWAY	Wakefield Ave - Mattapan Station	2	20	1	50	2	30	2	30	1	60a	2	40a	1	60a
25	CABOT	Franklin Park - Dudley Station	3	15												
26.1	ARBORWAY	Ashmont Station - Norfolk & Wash. Belt	1	30	1	30	1	30	1	30			1	30	1	60
26.2	ARBORWAY	Ashmont Station - Wash. & Norfolk Belt	1	30			1	30	1	30	1	30				
27	ARBORWAY	Mattapan Station - Ashmont Station	1	35	1	35	1	35-39	1	35-39						
28	CABOT	Mattapan Station - Ruggles Sta. via Dudley	14	6/7	9	12	13	9	13	8	4	20	10	9	7	11
29	ARBORWAY	Mattapan Station - Ruggles Station									2	30	*3	20		
29.1	ARBORWAY	Mattapan Sta.- Jackson Sq. via Blue Hill Ave.			1	70	1	70								
29.5	ARBORWAY	Mattapan Sta. - Jackson Sq. via Seaver	4	16			2	30	5	15						
30.2	ARBORWAY	Mattapan Sta. - Forest Hills Sta.	3	15	1	45/50	2	30	3	20	1	40	1	40	1	60
31	ARBORWAY	Mattapan Sta. - Forest Hills Sta.	5	8	2	18	4	10	5	10	2	20	3	13	2	18
32	ARBORWAY	Cleary Square - Forest Hills Station	6	7/8					6	8						
32.1	ARBORWAY	Wolcott Square - Forest Hills Station	6	7/8	4	12	4	12	6	8	1	30	4	12	3	20
33.5	ARBORWAY	River & Milton Sts - Mattapan Station	2	30	1	60	1	60	2	30			1	60		
34	ARBORWAY	Dedham Line - Forest Hills Station	5	9	2	30	4	15	7	7/8	1	60	3	35	1	30
34.1- 7	ARBORWAY	Walpole - Forest Hills Station	6	20	5	30	5	30	6	20	1	60d	3	35		
34.6	ARBORWAY	East Walpole - Forest Hills Station													1	60
35.1	ARBORWAY	Dedham Mall - Forest Hills Station	3	12-26	2	30-45	4	15	5	15			2	35	1	60
36.5	ARBORWAY	Rivermoor Industrial Park - Forest Hills Sta.	2	X	1	x	1	x	2	x					2	30
36.8	ARBORWAY	VA Hospital - Forest Hills via Charles Riv	4	12-30	1	x	1	x	4	15	2	30	2	30		
37	ARBORWAY	Baker & Vermont Sts - Forest Hills Station	3	20	1	45	2	30	4	15			2	30		
37.8	ARBORWAY	Baker&Vermont St-Forest Hills v Faulk Hosp.													1	60
38	ARBORWAY	Wren St. - Forest Hills Station	2	22	1	40	1	40	2	22	1	X	1	40		
39.3	SOUTHAMPTON	Forest Hills Station - Back Bay Station	15	6	7	12	10	11	16	6	5	12	8	10	7	11
39.3	ARBORWAY	Forest Hills Station - Back Bay Station									5	12	*5	12.5	*4	15
40	ARBORWAY	Georgetown - Forest Hills Station	2	30	1	50	2	30	2	30			1	60	1	60f
41	ARBORWAY	Center & Elliot Sts - JFK/Umass via Dudley	5	22	3	30	4	20	4	24			2	45	2	40
42	ARBORWAY	Forest Hills Sta. - Ruggles via Wash.													1	50
42.1	ARBORWAY	Forest Hills Sta. - Dudley Sta.	4	12	2	20	4	12/13	2	25	1	30	2	18		
43	CABOT	Ruggles Station - Park and Tremont Sts	4	10	2	20	4	12	4	12	1	35	3	15	2	20
44.1	CABOT	Jackson Sta. - Ruggles Sta. via Blue Hill	5	12	3	23	4	18	5	14	2	30	5	16	1	50
45	CABOT	Franklin Park - Ruggles Station via Blue Hill	6	10	3	23	5	14	6	12	1	30	3	16	1	45
47.8	CABOT	Central Square - Broadway Station	6	20/22	5	21	5	21	7	10/22	2	45	4	22	2	40
48	ARBORWAY	Centre & Elliot Sts. - Jackson Square Station			1	45	1	40					1	40		
50	ARBORWAY	Cleary Sq. - Forest Hills Sta. via Metropoltn	2	25	1	60	2	22	3	22			1	60		
51	ARBORWAY	Cleveland Circle- Forest Hills Station	3	25	1	60	4	22	4	22	1	60	1	60		
52.1 - .7	ARBORWAY	Dedham Mall - Watertown Sq.	3	30	2	45e	3	45e	3	30e			1	90		
55.1	CABOT	Queensbury St. - Park & Tremont Sts.	3	16/17	1	60	1	60	2	30	1	30b	1	30b	1	30
57/57.1	ALBANY/CABOT	Watertown Square - Kenmore Square	14	4/6	7	10	8	10	14	5/7	5	12	8	9	6	12

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59	CABOT	Needham Junction - Watertown Square	A		A		A		A		-		1	90	1	90
59	ALBANY	Needham Junction - Watertown Square	3	38b	2	40b	3	30b	3	30b	-		C		-	
60	CABOT	Chestnut Hill - Kenmore Sta.	A		A		A		A		1	45	2	30	1	60
60	ALBANY	Chestnut Hill - Kenmore Sta.	3	24	2	35	3	30	3	27	C		C		C	
62.3	SOMV(BENNT)	Bedford V.A Hospital - Alewife Station	3	30	2	60	2	60	3	30	-		-		-	
62.5	SOMV(BENNT)	Arlington Heights - Alewife Station	-		-		-		1	X	-		-		-	
62.7	SOMV(BENNT)	Bedford V.A Hospital - Alewife Sta v Hnscm	-		-		-		-		-		2	60	-	
64	SOMV(BENNT)	Oak Square - University Park. Cambridge	-		2	30	2	30	-		1	60	1	60	1	60
64.6	SOMV(BENNT)	Oak Square - Kendall Sq.	4	23	-		-		4	25	-		-		-	
65	ALBANY	Brighton Center - Kenmore Sta.	5	14	2	35	3	28	3	25	-		C		-	
65	CABOT	Brighton Center - Kenmore Sta.	A		A		A		A		-		1	60	-	
66.6	CABOT	Harvard Sq. - Dudley	14	8/9	7	16	13	9	14	9/10	4	20	8	15	6	18
67.4	SOMV(BENNT)	Alewife Station - Turkey Hill Reservation	2	25	1	45	1	45	2	25	-		-		-	
68	SOMV(BENNT)	Harvard Square - Kendall Square	1	30	1	30	1	30	1	30	-		-		-	
69	SOMV(BENNT)	Harvard Square - Lechmere Station	6	14	2	22/23	4	10	3	20	1	35	2	20	1	35
70	SOMV(BENNT)	Cedarwood - Central Square, Camb.	-		-		-		-		-		-		-	
70.1.4	SOMV(BENNT)	North Waltham - University Park, Cambridge	5	30	2	60	3	60	5	30	-		-	40	-	
70.3	SOMV(BENNT)	Central Sq, Waltham - Central Square, Cam.	-		-		-		-		1	X	-		-	
70.5	SOMV(BENNT)	Cedarwood - University Park , Cambridge	7	15	5	25	5	25	6	10/20	2	35	5	40	6	15
70.8	SOMV(BENNT)	Central Sq, Waltham - University Park, Cam.	-		-		-		2	30	-		6	20	-	
71	SOMV(BENNT)	Watertown Square - Harvard Subway	9	7	4	13	6	9	7	9	2	20	4	12	B	
71.2	SOMV(BENNT)	Watertown Square - Bennett St. Alley	-		-		1	X	-		-		-		3	20
72	SOMV(BENNT)	Aberdeen & Mt. Auburn - Bennett St. Alley	2	15/20	1	30	2	18	2	18	1	30	1	30	B	
72.1	SOMV(BENNT)	Aberdeen & Mt. Auburn - Bennett St. Alley	-		-		-		-		-		-		-	
73	SOMV(BENNT)	Waverley Square - Harvard Subway	12	5	4	13	6	9	13	4/5	3	20	4	12	B	
73.2	SOMV(BENNT)	Waverley Square - Bennett St. Alley	-		-		-		-		-		-		3	20
74/75	SOMV(BENNT)	Belmont Center - Bennett Street Alley	3	17a	2	30a	3	20a	3	19a	1	40	2	30	1	40
76	SOMV(BENNT)	Hanscom Air Base - Alewife Station	3	30	2	60	2	60	3	30	1	60	-		-	
77	SOMV(BENNT)	Arlington Heights - Bennett St. Alley	12	7	6	12	9	8	12	7	5	13	8	10	5	13
78.1	SOMV(BENNT)	Arlmont Village - Bennett Alley	4	17	2	30	3	20	4	19	1	60	1	60	1	60
79	SOMV(BENNT)	Arlington Heights - Alewife Station	3	16	2	25	3	16	4	16	1	45	-		-	
80	SOMV(BENNT)	Arlington Center - Lechmere Station	4	20	2	35	4	35	4	20	1	60	2	35	1	60
83.1	SOMV(BENNT)	Rindge Ave. - Central Square, Cambridge	4	15	2	30	3	20	3	20	1	60	2	25	1	40
84.1.2	SOMV(BENNT)	Arlmont Loop - Alewife Station	1	30	-		-		2	17	-		-		-	30
85	SOMV(BENNT)	Spring Hill - Kendall Station	1	30	1	40	1	40	1	40	-		-		-	
86	SOMV(BENNT)	Sullivan Station - Cleveland Circle	9	10/15	3	30	6	15	7	17	2	60	4	25	3	30
87	SOMV(BENNT)	Clarendon Hill - Lechmere Station via Som.	-		-		-		-		2	30	3	24	3	35
87.2	SOMV(BENNT)	Arlington Center - Lechmere Station via Som.	4	18	3	30	4	18	5	15	-		-		-	
88	SOMV(BENNT)	Clarendon Hill - Lechmere Sta. via Highland	5	14	2	30	4	15	4	18	1	30	3	20	3	35
89	CHARLESTOWN	Clarendon Hill - Sullivan Station	6	9	2	30	4	15	6	9/10	1	60	2	30	1	60
90	CHARLESTOWN	Davis Sq. Station - Wellington Station	2	40	1	70	2	40	2	40	1	60	1	60	1	60
91	CHARLESTOWN	Sullivan Station - Central Sq., Cambridge	2	30	2	25	2	25	2	30	1	60	2	20	1	40
92.3	CHARLESTOWN	Sullivan Station - Franklin & Arch Sts.	3	15	2	30a	2	30a	4	15	1	20	2	30a	-	
93.1	CHARLESTOWN	Sullivan Station - Franklin & Arch Sts.	8	7	3	20	3	20	8	8	1	30b	3	20	1	40
94.1	FELLSWAY	Medford Sq. - Davis Sq. Sta.	4	12/22	1	48	1	48	3	20	C		C		C	
94.1	CHARLESTOWN	Medford Sq. - Davis Sq. Sta.	F		F		F		F		1	50	1	45	1	60
95	CHARLESTOWN	West Medford - Sullivan Sta.	F		F		F		F		1	60	2	30	1	60
95	FELLSWAY	West Medford - Sullivan Sta.	3	20	2	30	2	30	3	20	C		C		C	
96	CHARLESTOWN	Medford Sq. - Bennett Alley via George	F		F		F		1	20	1	60	2	35	1	60
96	FELLSWAY	Medford Sq. - Bennett Alley via George	3	20	2	48	2	48	3	20	C		C		C	
97.5	CHARLESTOWN	Malden Station - Wellington Sta.	F		F		F		F		-		1	60	1	60
97.5	FELLSWAY	Malden Station - Wellington Sta.	2	30	1	60	1	60	2	30	-		C		-	
99.1	FELLSWAY	Boston Reg. Med Center - Malden Center	-	X	-		-		-		-		-		-	
99.7	CHARLESTOWN	Boston Reg. Med Center - Wellington Sta.	F		F		F		F		1	60	2	30	1	60
99.7	FELLSWAY	Boston Reg. Med Center - Wellington Sta.	3	20	2	45	2	45	3	25	C		C		C	
100.3	FELLSWAY	Elm Street & Fellsway - Wellington Station	2	20	1	35	1	35	2	20	C		C		C	
100.3	CHARLESTOWN	Elm Street & Fellsway - Wellington Station	F		F		F		F		-	60	2	30	1	60
101	CHARLESTOWN	Fellsway Garage - Sullivan Station	-		-		-		-		-		-		-	
101.3	CHARLESTOWN	Malden Ctr. Station - Sullivan Sta	9	10	-		2	15	6	12						
101.4	CHARLESTOWN	Malden Ctr. Station - Sullivan via Malden	-		2	30	3	15	-		1	60c	2	30	1	60
104	CHARLESTOWN	Malden Ctr. Station - Sullivan Sta via Ferry	6	14	2	40	4	20	5	15	1	60	2	30	1	60

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105.1	FELLSWAY	Malden Ctr. Station - Sullivan Station	2	40	1	70	1	70	2	35				C		C
105.1	CHARLESTOWN	Malden Ctr. Station - Sullivan Station		F		F		F		F			1	60	1	60
106.3	CHARLESTOWN	Lebanon St. Loop - Wellington Sta.	3	20	3	30	3	20	4	20	1	60	3	30	1	60
106.5	FELLSWAY	Linwood Ave. & Lynde Sts - Malden Ctr. Sta.	1	30					1	45				C		
108.6	CHARLESTOWN	Linden Sq. - Wellington Station via Malden	3	25	2	45	8	X	4	20	1	60	2	30	1	60
108.7	CHARLESTOWN	Linden Sq. - Malden Ctr. via Salem.	1	50												
109	CHARLESTOWN	Linden Sq. - Sullivan Station via Broadway	5	14	2	40	3	20	4	15		60	2	30		60
109.1	CHARLESTOWN	Glendale Sq. - Sullivan Station									1	30				
110	CHARLESTOWN	Wonderland Station- Wellington Sta.	6	20	2	35	2	35	6	20	1	60	2	30		
110.4	CHARLESTOWN	Broadway & Park Ave. - Wellington Sta		20d						20d					1	60
111.5	CHARLESTOWN	Woodlawn - Haymarket Sta.	13	5	5	12	7	8/9	13	4/5/5			6	10	4	12
111.8	CHARLESTOWN	Broadway & Park Ave. - Wellington Sta									6	10				
112	CHARLESTOWN	Wellington Sta. - Wood Island Sta.	3	35h	3	35	3	35	3	35			3	40	2	45
114	LYNN	Bellingham Sq. - Maverick Station	3	10					1	25/35	1	20				
114.1	LYNN	Mystic Mall - Maverick Station			1	50	1	50								
116.4	LYNN	Wonderland Sta. - Maverick Sta.	4	20	3	30	4	23	4	20	1	40	2	30	2	36
117.5	LYNN	Wonderland Sta. - Maverick Sta. v Beach	4	20	3	30	4	23	5	20	2	40	3	30	2	40
119.1	LYNN	North Gate Shopping - Beachmont Sta.	2	30	1	60	2	30	2	30	1	60	1	60	1	60
120	LYNN	Orient Hts Sta.- Maverick Sta	4	16	3	20	3	20	3	20	1	60	2	30	1	50
121	LYNN	Wood Island Park Sta - Maverick Sta	1	30					1	25a						
131	FELLSWAY	Melrose Highlands - Oak Grove	2	20					2	20						
131.1	FELLSWAY	Melrose Highlands - Malden Ctr. Station			1	60	1	60								
131.1	CHARLESTOWN	Melrose Highlands - Malden Ctr. Station		F		F		F		F						
132	FELLSWAY	Redstone Shopping Ctr. - Malden Station	2	30	1	60	1	60	1	45				C		
132	CHARLESTOWN	Redstone Shopping Ctr. - Malden Station		F		F		F		F			1	60		
134.5	FELLSWAY	No Woburn - Wellington Station	2	60	2	60	2	60	2	60				C		
134.5	CHARLESTOWN	No Woburn - Wellington Station		F		F		F		F			2	60		
134.6	FELLSWAY	Winthrop St. - Wellington Station	2	X	1	60	1	60	2	X		C		C		C
134.7	CHARLESTOWN	Medford Sq. - Wellington Station		F		F		F		F	1	60	1	60e		60
136.3	FELLSWAY	Wakefield Sq. - Oak Grove Station	1	X					1	X						
136.4	FELLSWAY	Wakefield Sq. - Malden Ctr. Station	1	X			1	X								
136.2	FELLSWAY	Franklin Sq., Melrose - Oak Grove Station														
136.5	CHARLESTOWN	Reading Depot - Malden Center Station		F		F		F		F			2	90	1	90
136.5	FELLSWAY	Reading Depot - Malden Center Station	5	30	2	70	2	70	3	45				C		
137.3	FELLSWAY	Reading Depot - Malden Center Station	4	30	1	70	1	70	2	35		C		C		
137.3	CHARLESTOWN	Reading Depot - Malden Center Station		F		F		F		F	1	80		90		90
170	ALBANY	Oak Park - Dudley Station	2	X					2	X						
171	CABOT	Logan Airport - Dudley via Andrew		X										X		
181	CHARLESTOWN	Wonderland Station - Orienta Hts Sta														
195	ARBORWAY	Shattuck Hospital - Park & Tremont Sts.														
201	QUINCY	Fields Corner Station Loop via Neponset	2	12	1	35	1	35	1	35	1	30	1	45	1	90
202	QUINCY	Fields Corner Station Loop via Adams	1	30	1	35	1	35	2	15			1	45		90
210	QUINCY	Quincy Center Station - North Quincy Sta.		30									1	60		
210.3	QUINCY	Quincy Center Sta. - Fields Corner Station	3	X	1	60	2	30	2	35						
211	QUINCY	Quincy Center Station - Squantum	3	15	1	60	1	60	2	30			1	55	1	60
212.2	QUINCY	Quincy Center Station - North Quincy Sta.	2	30			2	30	1	60			1	60		
214.1	QUINCY	Quincy Center Sta. - Germantown	3	11					2	20						
214.2	QUINCY	Quincy Center Sta. - Germantown			1	30	1	30					2	20		
215.1	QUINCY	Quincy Center Sta. - Ashmont Station	3	25	2	35	3	30	3	25	1	60	2	40	1	60
216.2	QUINCY	Quincy Center Sta. - Hough's Neck	4	9/12	2	30	3	20	2	20	1	60	1	30	1	60
216..4	QUINCY	Quincy Center Sta - Hough's Neck via McGrath											2	30		
217	QUINCY	Quincy Center - Ashmont Station	2	45	1	X	1	X	1	70						
220	QUINCY	Quincy Center Station - Hingham Center			1	60	1	60			1	60	1	60	1	60
220.1-7	QUINCY	Quincy Center Sta. - Hingham Center	6	10	2	35	2	35	5	X			1	60		
221	QUINCY	Quincy Center Sta. - Fort Point	1	X			1	X	1	X						
222	QUINCY	Quincy Center Sta. - East Weymouth	5	12	2	32	2	32	4	16	1	60	2	30	1	60
225_	QUINCY	Quincy Center Sta. - Weym Land / Pleas & Wash	7	7	3	30	3	30	6	10	1	60	1	60	1	60
230.3	QUINCY	Quincy Center Sta. - Montello Com. Rail Sta.	5	X	2	60	2	60	4	X	1	60	1	60	1	90
236.2	QUINCY	Quincy Center Sta. - So. Shore Plaza	1	X	1	60	1	60	2	30			1	60	1	60
238.1	QUINCY	Quincy Center Sta. - West & Willards Sts.	1	X									1	60		
238.7	QUINCY	Quincy Center Sta. - Crawford Square									1	60	2	60	1	60

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238.9	QUINCY	Quincy Ctr - Hol/Ran Com. Rail v Crawfd Sq.	4	30	3	60	3	65	4	30						
240	QUINCY	Crawford Sq. - Ashmont Station		30									1	60		
240.1	QUINCY	Avon Line - Ashmont Station		30		60		60		30	1	70	2	60	1	60
240.9	QUINCY	Hol/Ran Com.Rail - Ash. Sta. v Crawford Sq.	5	30	2	60	2	60	6	35						
245	QUINCY	Quincy Center Sta. - Mattapan Sta.	2	30	1	60	1	60	3	20			1	70		
245.7	QUINCY	Quincy Center - Quincy Center via Hospital loop													1	120
274_	QUINCY	Long Island Hospital - Boston Fire Academy	2	X			1	X	1	X	1	X	2	X	2	X
275.3	QUINCY	Downtown Boston - Long Island	1	60			1	60	1	75			1	60	1	60
276	QUINCY	Boston City Hospital - Long Island Hospital	2	X					3	X	1	X	2	35	2	X
277	QUINCY	L. Shattuck Hospital - Downtown Boston	1	X									1	x	1	x
325.1	CHARLESTOWN	Elm St. & Fellsway West - Haymarket Sq.	5	20					3	15						
326.1	CHARLESTOWN	West Medford - Haymarket Square	4	12					4	15						
350.4	SOMV(BENNT)	Burlington - Alewife Station	5	X	2	60	2	60	6	20	2	60	2	60	2	55
351	SOMV(BENNT)	Oak Pk. - Alewife Sta. v Middlesex Turnpike	3	30					3	30						
352	CHARLESTOWN	Burlington - State St, via I-95 & I-93	5	20					5	20						
354	FELLSWAY	Woburn Line - State St	6	15/25	1	90	1	90	6	20/25						
411.1	FELLSWAY	Granada Highlands - Malden Station	2	35	a		a		a				a			
411.8	CHARLESTOWN	Jack Satter House Revere - Malden Station	F		F		F		F				2	60		
411.8	FELLSWAY	Jack Satter House Revere - Malden Station			2	60	2	50	2	50			C			
424	LYNN	Eastern Ave. @ Essex St. - Haymarket Sq.							3	30						
424-6	LYNN	Eastern Ave. @ Essex St. - WndrInd(Wst)	2	30												
426	LYNN	Central Sq., Lynn - Haymarket Sq.			2	60	2	60	7	X						
426.1	LYNN	Central Sq. - Cliftondale Sq. - v E. Saugus	2	X												
426.6	LYNN	Central Square, Lynn - Wonderland(West)	4	X												
426.7	LYNN	Central Square, Lynn - Wonderland(East)		X						X			2	60	2	60
426.8	LYNN	Salem - Haymarket		X						X	3	30				
428	LYNN	Oaklandvale - Haymarket	2	40					3	30/40						
429	LYNN	Central Sq., Lynn - Nrthgt Shppng Cntr	4	X	2	60	2	60	4	30	2	60	2	60	2	60
430.1	FELLSWAY	Appleton St., Saugas - Malden Ctr. Station	2	40	2	60	1	X	3	25	C		C			
430.1	CHARLESTOWN	Appleton St., Saugas - Malden Ctr. Station	F		F		F		F		1	X	1	60		
434	LYNN	Peabody Sq. - Haymarket Square	1	X					1	X						
435	LYNN	Liberty Tree Mall - Central Sq., Lynn	2	X	2	60	2	60	2	X	2	60	3	60	1	120
435.3	LYNN	Peabody Sq. - Central Square,. Lynn	1	X					1	X						
436	LYNN	Liberty Tree Mall - Central Sq., Lynn			2	60	2	60	3	X						
436.1	LYNN	North Shore Mall - Central Sq., Lynn	3	30											1	120
439	LYNN	Nahant - Central Square, Lynn	1	X			1	X								
441/442	LYNN	Marblehead - Haymarket Sq.	5	30	5	30	5	30	9	15	2	60				
442.1	LYNN	Central Sq, Lynn - Wonderland							2	x						
441.6/442.6	LYNN	Swampscott - Wonderland(West)(Express)	7	30												
441.7/442.7	LYNN	Marblehead - Wonderland(West)											3	30	3	30
448/449	LYNN	Marblehead - Downtown Crossing	5	30					4	30						
450	LYNN	Salem - Haymarket Sq. via Western Ave.	4	30	2	80	2	80	4	30	2	60				
450.7	LYNN	Salem Depot - Wonderland(East)											2	60	2	60
451	LYNN	North Beverly - Salem Depot	2	60	3	60	3	60	3	60						
451.2	LYNN	Beverly Square - Salem Depot											1	60		
455	LYNN	Salem Depot - Haymarket Sq.	3	60	3	60	3	60	4	X						
455.6	LYNN	Salem Depot - Wonderland Station(West)	3	30												
455.7	LYNN	Salem Depot - Wonderland Station(East)											4	30	2	60
456	LYNN	Salem Depot - Central Square, Lynn			1	80	1	80								
459	LYNN	Salem Depot - Downtown Crossing	3	60	3	60	3	60	3	60						
465	LYNN	Liberty Tree Mall - Salem Depot		60	2	60	2	60		60			2	60		
500	ALBANY	Riverside Station - Federal & Franklin Sts.	1	70			1	X	1	70	C					
501	ALBANY	Brighton Center - Federal & Franklin Sts.	11	5			1	X	10	5/6						
502	ALBANY	Watertown Square - Copley Square	7	6/7					4	12						
503	ALBANY	Brighton Center - Copley Square	3	15					3	15						
504	ALBANY	Watertown Square - Federal & Franklin Sts.	7	9	2	30a	2	30a	7	8			2	35		
505	ALBANY	Waltham Center - Federal & Franklin Sts.	10	8					7	10						
553	ALBANY	Roberts - Federal & Franklin Sts.	3	25	2	60	2	60	3	60			C			
553	CABOT	Roberts - Federal & Franklin Sts.	A		A		A		A				1	60d		
554	ALBANY	Waverley Square - Federal & Franklin Sts.	3	30	2	60	2	60	2	60			C			
554	CABOT	Waverley Square - Federal & Franklin Sts.	A		A		A		A				2	60d		

LINE STATISTICS

VEHICLE RECAP

Rte. No.	GARAGE	TERMINALS	WEEKDAY AM PEAK V	WEEKDAY AM PEAK H	WEEKDAY AM BASE V	WEEKDAY AM BASE H	WEEKDAY PM BASE V	WEEKDAY PM BASE H	WEEKDAY PM PEAK V	WEEKDAY PM PEAK H	WEEKDAY LATE V	WEEKDAY LATE H	WEEKEND SAT PEAK V	WEEKEND SAT PEAK H	WEEKEND SUN PEAK V	WEEKEND SUN PEAK H
555	CABOT	Riverside Station - Federal & Franklin Sts.			-						1	X	-		-	
556	ALBANY	Waltham Highlands - Federal & Franklin Sts.	4	30	-		-		3	30	-		-		-	
556.7	ALBANY	Waltham Highlands - Newton Corner	-		1	60	1	60	-		-		-		-	
558	ALBANY	Auburndale - Federal & Franklin Sts.	2	30	-		-		3	30	-		-		-	
558.7	ALBANY	Auburndale - Newton Corner	-		-		1	60	-		-		-		-	
701	ALBANY	Central Sq. - So. End Medical Center	3	20	2	30	2	30	3	20	-		-		-	
708	ALBANY	Longwood Medical Area - Andrew Station	4	15	2	30	2	30	3	20	-		-		-	
741	SOUTHAMPTON	South Station - Logan Airport	5	10	5	10	5	10	6	10	4	12	4	12	6	8
742	SOUTHAMPTON	Boston Marine Industrial Park - South Station	6	5	3	10	3	10	6	5	2	15	2	15	2	15
743	SOUTHAMPTON	City Point - South Station via BMIPK	-		-		-		-		-		-		-	
746	SOUTHAMPTON	Silver Line Way - South Station	4	5	-		-		4	5	-		-	x	1	x
747	ALBANY	Kendall Sq. - Ruggles Station	3	20	2	30	2	30	3	20	-		-		-	
748	ALBANY	Sullivan Station - Kendall Sta./MIT Sta.	3	20	1	30	1	30	3	20	-		-		-	
749	SOUTHAMPTON	Dudley Station - Downtown	9	4	6	7/8	8	6	10	4/5	2	15	7	6	5	8
751	SOUTHAMPTON	Dudley Station - South Station	5	10	4	15	4	15	6	10	2	20	3	15	3	15
2499	ARBORWAY	Fairmount - South Station Shuttle			1	x										
RAD	CABOT	Run as Directed	1	X	-		-		1	X	-		-		-	
RAD	SOHAM	Run as Directed	-		-		-		1	X	-		-		-	
	Charlestown	Training	4	-	-		-		4	-	-		-		-	
	Somerville	Training	2	-	-		-		4	-	-		-		-	
	Fellsway	Training	1						1							
	N. Cambridge	Training	1						1							
	Cabot	Training	3						3							
	Arborway	Training	1						1							
	Albany	Training	1						1							
	Quincy	Training	1						1							
	Lynn	Training	1						1							
	ALBANY	Supplements	-		-		6	-	-		-		-		-	
	CABOT	Supplements	5	-	-		34	-	-		-		-		-	
	ARBORWAY	Supplements	17	-	-		28	-	-		-		-		-	
	SOMV(BENNT)	Supplements	0	-	-		14	-	-		-		-		-	
	FELLSWAY	Supplements	0	-	-		11	-	-		-		-		-	
	CHARLESTOWN	Supplements	1	-	-		12	-	-		-		-		-	
	QUINCY	Supplements	1	-	-		17	-	-		-		-		-	
	LYNN	Supplements	1	-	-		15	-	-		-		-		-	
	SOUTHAMPTON	Supplements							-							
		TOTAL:	**807**		**339**		**600**		**744**		**164**		**326**		**196**	

NOTES:

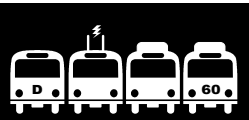
X = IRREGULAR HEADWAY
H = HEADWAY
V = VEHICLES

* These vehicles run between 8PM and 1AM and are not included in peak count.

Note: Reflects Line Statistics revised for Cabot and Southhampton in mid Fall09.

Bus Operations Mileage Book

Spring 2010 Schedule Rating



Garage	Route	Terminals	Inbound	Outbound	Round Trip
Cabot	1_	Harvard Station - Dudley Station via BU Med	5.04	4.49	9.53
Cabot	4.1	North Sta. - Tide St. via World Trade	3.22	2.61	5.83
Cabot	4_	North Sta. - Tide St. via World Trade	2.53	3.16	5.70
Cabot	5_	City Point - Mary Ellen McCormick Housing	2.63	3.92	6.55
Cabot	7.1	City Point - Otis & Summer Sts via Summer Street	3.06	2.93	5.99
Cabot	7.2	Otis & Summer - City Point		1.92	1.92
Cabot	7.4	Otis & Summer - City Point	3.52	2.39	5.91
Cabot	7.7	Bedford & Chauncy - City Point		2.00	2.00
Cabot	8.1	Harbor Pt/UMASS - Kenmore Station via BU Med	7.41	7.80	15.21
Cabot	8.2	Dudley Station - Kenmore Station via Ruggles Sta		3.33	3.33
Cabot	8.3	Ruggles Station - Kenmore Station	2.25	2.24	4.49
Cabot	8.9	Harbor Pt/UMASS - Kenmore via So.Bay & BUMED	9.18	8.66	17.83
Cabot	9.1	Copley Sta - City Point		3.18	3.18
Cabot	9.3	City Point - Broadway Station (short route)	2.39		2.39
Cabot	9.4	City Point - Kenmore (BLS) via 09/39/08.1	7.11		7.11
Cabot	9.5	City Point - Louis Patsuer via Andrew Station		7.10	7.10
Cabot	9_	City Point - Copley Station	4.59	3.84	8.42
Cabot	10.1	City Point - Dudly Station via Andrew	4.02	4.57	8.59
Cabot	10.3	Andrew Sta. - St. James Ave. via BU Medical Center		3.04	3.04
Cabot	10.4	City Point - Andrew Station		2.32	2.32
Cabot	10.5	City Point - Copley Station via Andrew St		5.66	5.66
Cabot	10.6	Andrew Sta - St. James Ave. via So. Bay		3.37	3.37
Cabot	10.8	Townsend St @ Warren - City Point via Dudley		6.53	6.53
Cabot	10.9	City Point - St. James Ave. via So. Bay Mall	5.56	5.69	11.25
Cabot	10_	City Point - St. James Ave via Andrew Station	5.21	5.36	10.57
Cabot	11.2	City Point - Kneeland & Washington Sts	4.25	4.03	8.29
Cabot	11.3	City Point - Bedford & Chauncy Sts	4.56	4.44	9.01
Cabot	11.4	Cty Pnt - Bed & Chaun (use only with 07.7)	4.56		4.56
Arborway	14.1	Roslindale Sq. - Dudley	7.18	6.42	13.60
Arborway	14.2	Dudley Station - Heath Street	2.16	2.17	4.33
Arborway	14_	Roslindale Sq. - Heath Street via Dudley	9.33	8.59	17.92
Cabot	15.1	Fields Corner - Ruggles Station via Uphams Corner	4.43	4.52	8.94
Cabot	15.2	St. Peter's Sq. - Ruggles Station via Kane Sq.	3.33	3.47	6.80
Cabot	15.3	Kane Square to Dudley Station	18.92	2.07	20.99
Cabot	15.4	Ashmont Station - Dudley Station via route 18 & 15	4.71		4.71
Cabot	15.5	Kane Square - Malcolm X Blvd opp Madison Park Schl		2.53	2.53
Cabot	15.6	Fields Corner-Malcolm X Blvd via Upms Corner		3.81	3.81
Cabot	15_	Kane Square - Ruggles Station	3.03	3.24	6.27
Cabot	16.2	Forest Hills Station - UMASS Campus via Andrew	6.14	7.04	13.19
Cabot	16.3	Forest Hills Sta - Andrew Sta via Franklin Park	4.54	4.22	8.76
Cabot	16.6	Forest Hills - Dudley Sta via Franklin Pk & Uphams	4.72		4.72
Cabot	16.8	Forest Hills Sta - UMASS Campus via JFK & So Bay	6.44	7.70	14.14
Cabot	16.9	Forest Hills - Andrew Sta via Franklin Pk & So Bay	4.89	4.80	9.69
Cabot	16_	Franklin Park - Andrew Station via Columbia Road	2.89		2.89
Cabot	17_	Fields Corner - Andrew Station via Uphams Corner	3.11	2.87	5.98
Cabot	18_	Ashmont Station - Andrew Station	4.18	4.20	8.38
Cabot	19.1	Fields Corner Sta-Malcolm X Blvd. v Grove Hall		3.41	3.41
Cabot	19.2	Fields Corner Sta - Ruggles Sta via Grove Hall	3.80		3.80
Cabot	19.3	Fields Corner Sta - Kenmore Station	6.02	6.33	12.35
Cabot	19.4	Adams@Gallivan Blvd-Louis Partuer via Flds Corner	6.32	6.69	13.01
Cabot	19.5	Adams@Gallivan-Townsend @ Warren via Fields Corner		3.47	3.47
Cabot	19_	Fields Corner Sta - Ruggles Sta via Grove Hall	3.80	3.78	7.58
Arborway	21_	Ashmont Station - Forest Hills Station	3.79	3.74	7.53
Cabot	22.1	Ashmont Station - Malcolm X Blvd.		5.05	5.05
Cabot	22.2	Ashmont - Louis Pasteur via Franklin Pk		6.25	6.25
Cabot	22.3	Ashmont Station - Townsend @ Warren Sts.		3.28	3.28
Cabot	22_	Ashmont Station - Ruggles via Jackson Sq. Station	5.59	5.36	10.95
Cabot	23.1	Ashmont Station - Townsend@Warren		2.91	2.91
Cabot	23.2	Ashmont Station - Dudley Sta via Washington St	3.72	3.92	7.64
Cabot	23.3	Ashmont Station - Malcolm X Blvd.		4.39	4.39

Garage	Route	Terminals	Inbound	Outbound	Round Trip
Charlestown	111.2	Cary Sq - Haymarket via Bellingham Sq	4.54	3.87	8.42
Charlestown	111.5	Woodlawn - Haymarket via Bellingham Sq	6.00	5.51	11.52
Charlestown	111.6	Washington Ave @ Revere Beach Pkwy - Haymarket Sta	4.76		4.76
Charlestown	111.8	Broadway & Park - Haymarket via Woodlawn	7.24	6.63	13.87
Charlestown	112.1	wellington-wood island sta (bypass mall)	8.80	8.81	17.61
Charlestown	112.2	Wellington Sta - Wood Island Sta		7.16	7.16
Charlestown	112_	Wellington-Wood Island via Mystic Mall	8.91	9.02	17.93
Lynn	114.1	Mystic Mall - Maverick Station	2.58	2.68	5.26
Lynn	114.2	Broadway @ Revere St. - Maverick Station	3.92		3.92
Lynn	114_	Bellingham Square - Maverick Station	2.12	17.38	19.50
Lynn	116.4	Wonderland-Maverick v Revere St.	5.74	5.57	11.31
Lynn	116.9	Wonderland Sta. - Broadway @ Central Ave.		2.08	2.08
Lynn	117.1	Airport Terminal C - Haymarket		2.53	2.53
Lynn	117.2	Maverick Station - Haymarket Station		11.90	11.90
Lynn	117.5	Wonderland-Maverick v Beach St.	5.13		5.13
Lynn	117.5	Wonderland-Maverick v Beach St.		5.15	5.15
Lynn	117.9	Wonderland station - Broadway @ Central Ave.	15.34		15.34
Lynn	117_	Wonderland Sta. - Haymarket Sta.	6.88		6.88
Lynn	119.1	Northgate Shopping Ctr-Beachmont Sta.	6.52	5.54	12.05
Lynn	119.2	Linden Square - Beachmont Station	5.50	3.90	9.40
Lynn	120.1	Orient Hts - Maverick Sta	2.73	2.45	5.18
Lynn	120.4	Orient Hts-Border @ Shopping Center v Waldemar		4.65	4.65
Lynn	120.5	Orient Hts-Bennington St @ Brooks St v Waldemar		4.27	4.27
Lynn	120.6	Orient Hts-Orient Heights via Waldemar		2.55	2.55
Lynn	120_	Orient Hts-Maverick Sta v Jeffries Pt & Waldemar	4.00	4.97	8.97
Lynn	121.2	Eagle Sq-Maverick Sta v Lexington St.	12.87	12.66	25.52
Lynn	121_	Wood Island Sta-Maverick Sta v Lexington St.	1.99	17.81	19.80
Fellsway	131.1	Melrose Highland - Malden Station via East Side		7.67	7.67
Fellsway	131.2	Melrose Highlands - Malden Station via Main Street	4.17	4.42	8.59
Fellsway	131.3	Melrose Highland - Malden Station via East Side	5.88		5.88
Fellsway	131.4	Melrose Highland - Oak Grove Station	3.03	3.37	6.40
Fellsway	131_	Melrose Highland - Oak Grove Station via East Side	4.74	5.38	10.13
Fellsway	132_	Redstone Shpg Plaza-Malden Station	6.05	6.05	12.10
Fellsway	134.1	No Woburn - Wellington Station via Vets Memorial	12.95		12.95
Fellsway	134.2	No Woburn - Wellington Station via Vets Memorial	13.51	14.07	27.58
Charlestown	134.3	No Woburn - Wellington Station via Riverside AVe	12.01	12.58	24.59
Fellsway	134.4	Winthrop at Brooks - Middlesex Ave.	2.95	2.95	5.91
Charlestown	134.5	No Woburn - Wellington Station via Riverside AVe	11.46	12.02	23.48
Charlestown	134.6	Winthrop St - Wellington Station via Riverside	4.25	4.53	8.77
Charlestown	134.7	Medford Sq - Wellington Station via Riverside	2.83	2.81	5.64
Charlestown	134.9	Woburn Square - Wellington Station via River	8.38	8.46	16.85
Charlestown	134.C	Winthrop St - Wellington Sta. via court	5.26	5.15	10.41
Fellsway	136.3	Wakefield Sq.-Oak Grove Station via Main St.	4.84	4.84	9.68
Fellsway	136.4	Wakefield Sq. - Malden Ctr Station via Oak Grove	7.10	7.13	14.23
Fellsway	136.5	Reading Depot - Malden Center Station	11.43	11.62	23.05
Fellsway	137.3	Reading Depot - Malden Center Station	10.34	10.66	20.99
Albany	170.3	Waltham - Dudley Sta	20.61		20.61
Albany	170_	Dudley Sta - Waltham		21.22	21.22
Cabot	171_	Logan Airport - Dudley via Andrew &Terminals		10.19	10.19
Arborway	191_	Mattapan Station - Haymarket Station	9.63	9.93	19.56
Arborway	192_	Cleary Sq. - Haymarket Station via Forest Hills	10.23	6.48	16.70
Albany	193_	Watertown Square - Haymarket Square	8.58	8.54	17.12
Charlestown	194_	Clarendon Hill - Haymarket Sta via Sullivan Statio	5.98	6.02	12.00
Quincy	201.3	Fields Corner Station - Quincy Bus Garage		4.34	4.34
Quincy	201.7	Fields Corner Station - North Quincy Station	4.39	3.34	7.72
Quincy	201.8	Fields Corner Loop via Neponset & Keystone	2.51	2.28	4.79
Quincy	201.9	Fields Cnr Loop via Neponset, Puritan & Keystone	2.51	2.36	4.87
Quincy	201_	Fields Corner Loop via Neponset Ave	18.37	2.40	20.77
Quincy	202.3	Quincy MBTA Garage - Fields Corner	4.64		4.64
Quincy	202.4	Fields Corner Station - Hallett Square	2.41	2.40	4.81

Garage	Route	Terminals	Inbound	Outbound	Round Trip
Cabot	23.4	Franklin Park - Dudley Sta. via Warren St.		2.12	2.12
Cabot	23.6	Warren @ Latin - Dudley Station	9.67		9.67
Cabot	23_	Ashmont Station - Ruggles Station via Washington	4.86	5.11	9.97
Arborway	24.1	Wakefield Ave/Truman Pkwy - Logan Square		2.33	2.33
Arborway	24.2	Wakefield Ave/Truman Pkwy - Ashmont Station	5.55	6.77	12.32
Arborway	24.3	Wakefield Ave. - Mattapan Station	3.72		3.72
Arborway	24.4	Logan Square - Mattapan Station	2.09	1.98	4.07
Arborway	24.5	Logan Square - Ashmont Station	4.55		4.55
Arborway	24_	Wakefield Ave/Truman Pkwy - Mattapan Station	3.10	4.31	7.41
Cabot	25_	Franklin Park - Ruggles Station via Dudley	3.21	3.62	6.83
Arborway	26.1	Ashmont Station/Norfolk St Loop via Norfolk	2.20	2.20	4.39
Arborway	26.2	Ashmont Station Loop via Washington St	15.94	2.80	18.74
Arborway	27_	Mattapan Station - Ashmont Station	2.46	2.45	4.91
Cabot	28.2	Mattapan Station - Dudley Station	4.69		4.69
Arborway	28.3	Mattapan Station - Townsend @ Warren Sts Roxbury		3.81	3.81
Arborway	28.5	Townsend & Warren St. - Ruggles Station via Dudley	2.11		2.11
Arborway	28.6	Mattapan Station - Malcom X Blvd omits Dudley		5.03	5.03
Cabot	28.7	Metropolitian Ave. @ Central Ave. - Ruggles	7.68		7.68
Arborway	28.9	Mattapan Station - Louis Pasteur via Dudley Sta.		7.15	7.15
Cabot	28_	Mattapan Station - Ruggles via Dudley	5.84	6.01	11.84
Arborway	29.1	Mattapan Square - Jackson Sq via Franklin Field	5.82	5.65	11.47
Arborway	29.5	Mattapan Square - Jackson Sq Station	4.79	4.61	9.40
Arborway	29_	Mattapan Sq - Ruggles Sta via Jackson Sq	6.16	5.82	11.98
Arborway	30.2	Mattapan - Forest Hills via Roslindale Sq	3.50	4.12	7.62
Arborway	30_	Mattapan Square - Roslindale Square	2.47	2.76	5.23
Arborway	31_	Mattapan Square - Forest Hills Station	3.27	3.29	6.56
Arborway	32.1	Wolcott Sq - Forest Hills Station via Cleary Squar	4.60	4.60	9.21
Arborway	32.3	Wolcott Sq - Forest Hills via Westinghouse Ind	4.88	5.28	10.16
Arborway	32.5	River St. & Milton St - Forest Hills	6.01	5.58	11.59
Arborway	32.9	Townsend St. @ Humbolt Ave. - Wolcott Sq.	7.67	7.53	15.20
Arborway	32_	Cleary Square - Forest Hills Station	3.25	3.28	6.53
Arborway	33.1	River & Milton - Mattapan Sta via westinghouse	6.11	5.88	11.99
Arborway	33.4	River & Milton Sts - Forest Hills via Cleary Squar	4.93	5.58	10.51
Arborway	33.5	River & Milton Sts, Dedham - Mattapan Station	5.32	5.75	11.06
Arborway	33.6	River & Milton Sts - Mattapan Sta via W. Milton St	5.98	5.45	11.43
Arborway	33.7	River & Milton Sts Dedham - Forest Hills Station	5.59		5.59
Arborway	34.1	Walpole Ctr - Forest Hills	14.86	14.92	29.78
Arborway	34.2	Walpole Ctr - Forest Hills Sta via 1A		13.54	13.54
Arborway	34.3	Walpole Ctr - Forest Hills via Dedham Mall		14.97	14.97
Arborway	34.4	Walpole Ctr - Forest Hills Sta	14.86	14.31	29.17
Arborway	34.5	Walpole Ctr - Forest Hills (Limited Lagrange PM)	14.86	14.31	29.17
Arborway	34.6	East Walpole - Forest Hills (Local Stops)	12.21	11.65	23.85
Arborway	34.7	Walpole Ctr - Forest Hills v Dedham Mall (Local)	15.55	15.09	30.64
Arborway	34.8	E. Walpole - Forest Hills via Dedham Mall (Local)	12.89	12.42	25.32
Arborway	34.9	Walpole Ctr - Forest Hills Sta via 1A	13.84	14.19	28.03
Arborway	34.K	Townsend St. @ Humbolt Ave. - Dedham Line	7.31	7.27	14.58
Arborway	34.T	Walpole Ctr - Forest Hills Sta via 1A		14.84	14.84
Arborway	34.U	Walpole Ctr - Forest Hills v Dedham Mall (Local)	16.84	16.39	33.23
Arborway	34.Y	E. Walpole - Forest Hills via Dedham Mall (Local)	14.19		14.19
Arborway	34_	Dedham Line - Forest Hills Station via Washington	4.20	4.20	8.39
Arborway	35.1	Dedham Mall - Forest Hills via Centre & Belgrade	5.66	5.59	11.26
Arborway	35.2	Washington/Stimson Sts - Louis Pasteur Ave	7.61		7.61
Arborway	35.3	Louis Pasteur Ave. - Dedham Mall		8.04	8.04
Arborway	35_	Stimson & Washington Sts - Forest Hills Station	4.77	4.68	9.46
Arborway	36.3	Dedham Line - Forest Hills via Charlestownes River Loop		7.77	7.77
Arborway	36.4	Bro. Heeron Way @ Baker St. - Forest Hills Sta.	3.89		3.89
Arborway	36.5	Industrial Park WRox - Forest Hills via VA Hosp	4.79	5.09	9.88
Arborway	36.6	Belgrade & Corinth (ros sq) - Rivermoor		3.73	3.73
Arborway	36.7	Bro. Heeran @ Baker St. - Roslindale Sq	2.46		2.46
Arborway	36.8	VA Hospital W. Roxbury - Forest Hills via Charlestownes	4.41	4.36	8.77
Arborway	36.9	Townsend St. @ Humbolt Ave. - Charlestownes River Loop	7.32	7.13	14.45
Arborway	36_	Charlestownes River Loop - Forest Hills Station	4.14	4.11	8.25
Arborway	37.3	LaGrange & Corey Sts. - Forest Hills Station	5.87	5.37	11.24
Arborway	37_	Baker & Vermont Sts - Forest Hills Station	4.32	4.03	8.35
Arborway	38.1	Townsend St. @ Humbolt Ave. - Wren St. Loop		6.85	6.85

Garage	Route	Terminals	Inbound	Outbound	Round Trip
Quincy	202.5	Fields Corner Loop via Adams, Keystone & Puritan	3.85	2.48	6.33
Quincy	202.6	Fields Corner Loop via Adams St & Keystone Apts	2.47	2.48	4.95
Quincy	202.7	Fields Corner Station - North Quincy via Adams	4.44	4.16	8.61
Quincy	202.8	North Quincy Sta - Quincy MBTA Garage		16.24	16.24
Quincy	210.1	Braintree Station - Fields Corner Station		9.81	9.81
Quincy	210.3	Quincy Center Sta - Fields Corner Sta	5.33	5.19	10.52
Quincy	210_	Quincy Center Sta - North Quincy Sta	2.27	2.22	4.48
Quincy	211.1	Hollis Ave @ Newbury Ave- Squantum		2.81	2.81
Quincy	211.3	E. Squantum @ Newbury Ave - Squantum		2.63	2.63
Quincy	211.7	Quincy Center Sta. - Squantum via Billlings Rd	5.72	5.89	11.61
Quincy	211.9	Hancock @ Butler - Squantum		6.00	6.00
Quincy	211_	Quincy Ctr Sta - Squantum via N. Quincy Sta	6.13	6.28	12.41
Quincy	212.2	Quincy Ctr Station - North Quincy Station	2.99	2.90	5.89
Quincy	212.5	Hancock @ Greenleaf - North Quincy Station	2.68		2.68
Quincy	214.1	Quincy Ctr - Germantown	3.15	3.26	6.40
Quincy	214.2	Quincy Center - Germantown via Oceanview	3.36	3.55	6.91
Quincy	214.3	Calvin Rd @ Moffat Rd.- Germantown		17.34	17.34
Quincy	214.4	Coddington @ Woodward - Germantown		2.79	2.79
Quincy	214_	Quincy Ctr - Germantown	3.15	3.00	6.14
Quincy	215.1	Qunicy Ctr - Ashmont Station via W Quincy	6.76	7.20	13.96
Quincy	215.2	Quincy Ctr - Adams St. @ Robertson St.		3.77	3.77
Quincy	215.3	Quincy Ctr - Fields Corner via W Quincy	8.18	8.76	16.94
Quincy	215.4	Independence @ Washington - Ashmont Station	6.70		6.70
Quincy	215.7	Quincy Ctr Station - East Milton Sq	3.82		3.82
Quincy	215_	Quincy Ctr - No. Quincy via W. Quincy	5.59	5.98	11.57
Quincy	216.1	Calvin Rd. @ Moffat Rd. - Hough's Neck		2.27	2.27
Quincy	216.2	Quincy Ctr - Hough's Neck via Oceanview	3.76	6.34	10.10
Quincy	216.3	Coddington @ Woodward - Hough's Neck		3.32	3.32
Quincy	216.4	Quincy Ctr - Hough's Neck via McGrath Hwy	4.47	6.64	11.11
Quincy	216_	Quincy Center - Hough's Neck	4.26	3.79	8.05
Quincy	217.6	Quincy Center - Brook Rd & Centre		5.69	5.69
Quincy	217.7	Quincy Center - Ashmont Station	9.60	9.33	18.93
Quincy	217.8	Quincy Center - Ashmont Station		9.39	9.39
Quincy	217.9	Quincy Center - Ashmont Station	5.59	5.59	11.18
Quincy	220.3	Quincy Ctr - Hingham Sq via Fore River Bridge	7.54	8.05	15.60
Quincy	220.4	Quincy Ctr - Hingham Sq via Hingham Ctr	7.54	10.50	18.04
Quincy	220.5	Quincy Ctr - Hingham Sq via Shipyard	7.88	8.41	16.30
Quincy	220.9	Quincy Ctr. - Hingham Sq and Hingham Center		10.86	10.86
Quincy	221_	Quincy Ctr - Fort Point via North Weymouth	5.07	5.06	10.14
Quincy	222.1	Quincy Ctr - E. Weymouth via Essex Street	8.39	7.07	15.46
Quincy	222.9	Quincy Ctr - Pleasant/Washington St Weymouth	7.14	7.71	14.85
Quincy	222_	Quincy Ctr - East Weymouth	7.67	6.34	14.00
Quincy	225.1	Quincy Ctr - Weymouth Landing via DesMoines	4.51	5.79	10.30
Quincy	225.2	Quincy Center Station - Fore River Shipyard	2.48	2.94	5.42
Quincy	225.3	Quincy Ctr - Columbian Sq via Desmoines	8.58	8.17	16.75
Quincy	225.4	Quincy Ctr - Weymouth Landing via Shaw	4.19	5.47	9.66
Quincy	225.5	Quincy Ctr - Columbian Sq via Shaw St	8.26	7.85	16.11
Quincy	225_	Quincy Ctr - Weymouth Landing	3.94	5.22	9.15
Quincy	230.3	Quincy Ctr - Montello Commuter Rail via Braintree	12.04	11.78	23.83
Quincy	230.5	Quincy Ctr - Montello Comuter Rail v Linwood Hsing	12.55	12.29	24.84
Quincy	236.2	Quincy Ctr - So Shore Plaza via Braintree Station	8.69	7.26	15.95
Quincy	236.3	Quincy Ctr - Braintree Station via E. Braintree	5.11	4.79	9.91
Quincy	238.1	Quincy Ctr - West & Williard Sts	3.27		3.27
Quincy	238.3	Quincy Ctr - Avon Sq via SS Plaza & Crawford Sq		14.52	14.52
Quincy	238.5	Quincy Ctr - Crawford Sq Randolph		8.89	8.89
Quincy	238.7	Quincy Ctr - Crawford Sq via Quincy Adams	10.24	12.36	22.61
Quincy	238.8	Quincy Ctr - Avon Square	11.17	13.31	24.48
Quincy	238.9	Quincy Ctr - Crawford Sq via Holb/Rand RR Station	11.20	13.23	24.43
Quincy	238_	Quincy Ctr - Crawford Sq	9.03	10.07	19.11
Quincy	240.1	Avon Square - Ashmont Station	11.63	11.74	23.37
Quincy	240.2	Crawford Sq., Randolph - North Randolph @ 128/28	8.03	2.80	10.83
Quincy	240.3	Holbrook/Randolph RR Sta - N. Randolph @ 128/28	9.02	3.82	12.84
Quincy	240.4	Avon Square - Ashmont Station		12.28	12.28
Quincy	240.7	Avon Sq. - Quincy Ctr. Sta. (Rear)	10.21	5.10	15.31
Quincy	240.8	Avon Sq. - Holbrook/Randolph RR Sta.		3.15	3.15

Garage	Route	Terminals	Inbound	Outbound	Round Trip
Arborway	38.2	Centre St @ W. Roxbury Pkwy - Louis Pasteur Ave.	5.09		5.09
Arborway	38.3	Wren St - Louis Pasteur Ave.	6.17		6.17
Arborway	38.7	37/38 Baker & Vermont Sts- Forest Hills Sunday	4.99	4.80	9.78
Arborway	38_	Wren St - Forest Hills Station	4.00	3.82	7.82
Southampton	39.3	Forest Hills Station - Back Bay Station	5.16	5.16	10.33
Arborway	39.7	Forest Hills - Huntington @ Longwood Aves	3.33	3.32	6.64
Arborway	39.9	Forest Hills - Louis Pastuer Ave via Brigham Cir		3.32	3.32
Arborway	40.5	Cleary Square- Forest Hills via Gtown	4.06	5.54	9.60
Arborway	40_	Georgetown - Forest Hills Station via Alwin Street	4.96	5.44	10.39
Arborway	41.1	Center & Elliott Sts - Dudley Station		2.67	2.67
Arborway	41_	Center & Elliott Sts - JFK Umass via Dudley	5.31	5.21	10.52
Arborway	42.1	Forest Hills - Dudley Sq Terminal via garage	2.60	2.52	5.12
Arborway	42_	Forest Hills - Ruggles Station via Dudley	3.74	4.02	7.76
Arborway	43_	Ruggles Station - Park & Tremont Sts	2.73	2.21	4.95
Cabot	44.1	Jackson Square - Ruggles Station vis Seaver St	4.17	4.15	8.31
Cabot	44.2	Jackson Square - Ruggles Station vis Seaver St		1.94	1.94
Cabot	44.3	Jackson Square - Ruggles Sta via Eliot	4.17	4.46	8.63
Cabot	45.1	Ashmont Sta - Ruggles Sta via Talbot & Grove Hall	5.61	5.86	11.47
Cabot	45.2	Franklin Park - Dudley via Grove Hall	2.41		2.41
Cabot	45.3	Franklin Park - Ruggles Sta via Eliot	3.55	3.96	7.51
Arborway	45_	Franklin Park - Ruggles Station via Grove Hall	3.55	3.64	7.19
Albany	47.3	Central Sq, Camb - BU Medical Center (BCH)	5.71	5.78	11.49
Cabot	47.8	Central Sq. - Broadway Station	6.68	7.13	13.80
Arborway	48_	Centre & South Sts - Jackson Square Sta.	2.07	2.98	5.05
Arborway	48_	Centre & South Sts - Jackson Square Sta.		2.98	2.98
Arborway	50_	Cleary Square - Forest Hills Station	4.06	4.01	8.07
Arborway	51.1	Greenough St. @ Tappan St.- Forest Hills Sta	10.92		10.92
Arborway	51.9	Union Sq - Forest Hills via Cleveland Circle	10.10	9.75	19.85
Arborway	51_	Reservoir Station - Forest Hills Station	7.96	7.66	15.62
Arborway	52.1	Dedham Mall - Watertown via Oak Hill	10.06	10.17	20.23
Arborway	52.3	Charlestownes River Loop - Newton Corner	8.15		8.15
Arborway	52.4	Charlestownes River Loop - Watertown via Meadowbrook	8.72	8.80	17.51
Arborway	52.5	Dedham Mall - Watertown via Oak Hill& Meadowbrook	10.18	10.07	20.25
Arborway	52.6	Chas River Loop - Watertown via Jewish Comm Ctr		9.78	9.78
Arborway	52.7	Dedham Mall - Watertown via Oak Hill & JewishComCt	11.16	11.05	22.22
Arborway	52.8	Chas River Loop - Brighton Ctr via Oak Hill & JCC	11.22		11.22
Arborway	52_	Charlestownes River Loop - Watertown via Oak Hill	8.60	8.68	17.28
Cabot	55.1	Jersey & Queensbury - Park & Tremont Sts	2.64	2.88	5.52
Cabot	55_	Jersey & Queensbury - St. James @ Dartmouth St.	16.55	18.13	34.69
Albany	57.1	Oak Square - Kenmore Square	3.91	3.92	7.83
Albany	57.2	Watertown Bus Yard - Union Square		3.34	3.34
Albany	57.3	Brighton Ctr. - Kenmore Sta.	3.36		3.36
Albany	57.4	Cambridge St. @ Warren St. - Kenmore Sta.	2.76		2.76
Cabot	57.5	Oak Square, Brighton - Union Square Allston	17.27	17.81	35.08
Albany	57.8	Louis Pasteur Ave - Watertown Bus Yard		5.84	5.84
Albany	57_	Watertown Bus Yard - Kenmore Square	5.85	5.47	11.32
Albany	59.2	Needham Junction - Watertown Square	8.93		8.93
Albany	59.2	Needham Junction - Watertown Square		9.27	9.27
Albany	59.3	Needham Junction - Needham Heights		14.46	14.46
Albany	59_	Needham Junction - Watertown Square	8.92	9.00	17.92
Albany	60.2	Chestnut Hill - Kenmore Square	4.94	7.29	12.23
Albany	60.3	Chestnut Hill - Brookline Ave. & Wash. St. (Brkvl)	4.99	3.82	8.81
Albany	60.4	Boylston @ Tully Street - Brookline Ave. & Wash. S		5.54	5.54
Albany	60_	Chestnut Hill - Kenmore Square	6.65	5.58	12.23
Somerville	62.3	Bedford VA Hosp - Alewife Sta via Lexington Ctr	12.11	12.58	24.69
Somerville	62.4	Bedford Ctr - Alewife Station via Lexington Ctr	11.08	11.28	22.36
Somerville	62.6	Bedford VA Hosp.-Alewife Sta. Express Rte 2		12.58	12.58
Somerville	62.7	Bedford VA Hosp - Alewife via Lexington & Hanscom	20.82	21.29	42.11
Somerville	62.8	Lexington Ctr - Alewife Station	6.38	6.78	13.16
Somerville	64.3	Faneuil Sq., Allston - Central Sq., Cambridge		4.34	4.34
Somerville	64.6	Oak Square - Kendall/MIT Sta via Union & Central	6.25	6.16	12.42
Somerville	64_	Oak Square - University park	5.48	5.14	10.62
Albany	65_	Brighton Center - Kenmore Square	4.31	4.11	8.42
Cabot	66.1	Union Sq - Dudley Sq	4.04	3.84	7.89
Cabot	66.3	Union Sq Allston - Malcolm X Blvd.		3.45	3.45
Cabot	66.5	Brighton Center - Dudley Sq via Union Sq., Al		4.90	4.90

Garage	Route	Terminals	Inbound	Outbound	Round Trip
Quincy	240.9	Holbrook/Randolph RR Sta - Ashmont via Crawford Sq	10.45	10.45	20.90
Quincy	240.G	Memorial Parkway, Randolph - Ashmont Station	9.46		9.46
Quincy	240_	Crawford Sq, Randolph - Ashmont Station	9.46	9.44	18.90
Quincy	245.1	Quincy Ctr.-Mattapan v. Quarry St.&Brook Rd.	7.50	7.56	15.06
Quincy	245.2	Quincy Ctr.-Mattapan v. Quarry St.&Canton Ave.		7.91	7.91
Quincy	245.3	QuincyCtr.-QuincyCtr.v.Hosp.Hill&Quarry	4.87		4.87
Quincy	245.5	Hancock @ Butler - Beale @ Newport Ave	4.48		4.48
Quincy	245.7	Quincy Ctr. Sta. - Quincy Ctr. Sta.	2.29		2.29
Arborway	245.9	Brook Rd & Centre St - Mattapan Sta	2.29	2.39	4.68
Quincy	245_	Quincy Ctr.-Mattapan v. Quarry St.&Edgehill Rd.	8.10	8.03	16.13
Arborway	249.9	Fairmount Commuter Rail Shuttle	10.61		10.61
Quincy	274_	Firehouse, Long Island - Long Island Hospital	3.39	3.39	6.78
Quincy	275.1	Albany Street - Long Island Hospital	10.39	10.33	20.72
Quincy	275.3	Kneeland@Washington Sts, Boston - Long Island Hosp	11.02		11.02
Quincy	275.5	JFK/UMASS Station - Long Island Hospital	8.56		8.56
Quincy	275.8	Kneeland@Wash Sts- Long Is. Firehouse	10.68	10.65	21.33
Quincy	276.5	BU Medical Area - Long Island Firehouse	9.61		9.61
Quincy	276.6	Downtown Boston - Long Island Firehouse	10.80		10.80
Quincy	276_	BU Medical Area - Long Island Hospital		11.03	11.03
Quincy	277_	Lemuel Shattuck Hospital - Downtown Boston	5.10		5.10
Charlestown	325.1	Elm Street - Haymarket Sq (AM version)	7.44	6.01	13.45
Charlestown	325.2	Roosevelt Circle - Haymarket Station		7.67	7.67
Charlestown	325_	Elm Street - Haymarket Station (PM Version)	6.43	7.06	13.50
Charlestown	326.1	West Medford - Haymarket Station	7.61	6.47	14.08
Charlestown	326.2	Medford Square - Haymarket Station		4.91	4.91
Charlestown	326_	West Medford - Haymarket Station	7.12	7.10	14.22
Somerville	350.3	Burligton Mall - Alewife Sta.		9.42	9.42
Somerville	350.4	Burlington (chestnut ave.) - Alewife Station	10.55	10.64	21.19
Somerville	350.5	Burlington (chestnut ave) - Alewife Station	13.19	13.46	26.66
Somerville	350.6	Woburn Line - Alewife Station	8.36		8.36
Somerville	350.7	Alewife Station - Burlington (outb. routing only)		13.43	13.43
Somerville	350.9	Burlington - Arlington Center	8.69	8.68	17.37
Somerville	351.3	Oak Park/Bedfd Wds-Alewife via Mall Rd.	2.01	22.95	24.96
Charlestown	352_	Burlington (Chestnut Ave) - State St., Boston	19.55	18.28	37.83
Charlestown	354.3	Woburn Line - Government Ctr via WC Park	16.96	17.52	34.49
Charlestown	354.4	Burlington (Chestnut Ave) - State St via Woburn Sq		18.28	18.28
Charlestown	354.5	Woburn Line - Government Ctr via WC Park	17.34	18.01	35.35
Charlestown	354_	Woburn Line - State St., Boston via Woburn Sq	15.88	16.04	31.93
Charlestown	355_	Mishwaum Station - Government Center via WC	13.25	13.75	26.99
Fellsway	411.1	Granada Highlands - Malden Center Station	3.25	3.32	6.57
Fellsway	411.8	Jack Satter House (Revere) - Malden Station	11.17	11.22	22.39
Lynn	424.6	Eastern Ave./Essex St. - Wonderland Sta.	7.98		7.98
Lynn	424_	Eastern Ave./Essex St.-Haymarket Station		11.84	11.84
Lynn	426.1	West Lynn - Haymarket via Cliftondale Sq.	10.48	10.27	20.75
Lynn	426.2	Central Sq., Lynn - O'Callaghan Way & Holyoke St.		2.73	2.73
Lynn	426.3	Central Sq., Lynn-O'Callahan Way & Osbourne St.		3.10	3.10
Lynn	426.4	Central Sq., Lynn - Linden Sq. via Cliftondale Sq.		5.56	5.56
Lynn	426.5	Central Sq., Lynn - Haymarket via Bell Circle	12.40	13.42	25.82
Lynn	426.6	Central Sq., Lynn - Wonderland via Cliftondale	8.43		8.43
Lynn	426.7	Central Sq.-Wonderland (East Side) via Cliftondale	8.96	9.79	18.74
Lynn	426.8	Salem Depot-Haymarket Sta via Cliftondale	18.88	18.68	37.56
Lynn	426.9	Central Sq.-Wonderland (East Side) via Cliftondale		8.90	8.90
Lynn	426.A	Central Sq., Lynn - Haymarket via Cliftondale Sq.		11.63	11.63
Lynn	426_	Central Sq., Lynn - Haymarket via Cliftondale Sq.	11.51	12.52	24.03
Lynn	428_	Wakefield HS Oaklandvale -Haymarket via G	15.13	15.58	30.71
Lynn	429.1	Northgate Shop Ctr - Central Sq., Lynn via No Suag	13.62	14.45	28.06
Lynn	429.2	Northgate Shop Ctr - Cent Sq., Lynn v Sq 1 & N Sau	14.90	14.11	29.01
Lynn	429.3	O'Callaghan & Osborne - Central Sq	3.15	3.46	6.61
Lynn	429.4	O'Callaghan Way & Holyoke St.- Cenral Sq.,Lynn	2.78	3.11	5.89
Lynn	429_	Northgate Shop.Ctr.-Central Sq., Lynn v Sq. 1 Mall	14.08	12.84	26.91
Charlestown	430.1	Saugus Center - Malden Station	8.96	7.70	16.66
Charlestown	430.2	Saugus Center - Malden Sta via Granada	10.07	8.82	18.89
Fellsway	430.5	Saugus Center - Malden Station	7.47	7.58	15.05
Fellsway	430.6	Saugus Center - Malden Station	8.83	7.58	16.41
Fellsway	430.7	Salem & Sprague - Square One		4.83	4.83
Lynn	431_	Neptune Towers - Central Sq.	14.01	14.68	28.69

Garage	Route	Terminals	Inbound	Outbound	Round Trip
Cabot	66.6	Harvard Sq - Dudley Sq via Union Sq., Allston	6.16	6.15	12.31
Cabot	66.7	Cambridge St. @ Warren St. - Dudley Sq	4.55		4.55
Somerville	67.4	Turkey Hill - Alewife Sta via Arlington Ctr	4.53	4.41	8.94
Somerville	68_	Harvard Sq - Kendall Station	2.30	2.16	4.46
Somerville	69.1	Cambridge St @ Felton St - Lechmere Sta	17.51		17.51
Somerville	69_	Harvard Sq - Lechmere Station	2.38	2.49	4.87
Somerville	70.1	North Waltham(Lakeview) - University Pk v Cent Sq.	14.79	14.23	29.03
Somerville	70.2	Watertown Sq. - Central Sq., Cambridge		4.23	4.23
Somerville	70.3	Central Sq., Waltham - Central Sq., Cambridge	7.72	7.30	15.02
Somerville	70.4	N. Waltham - University Pk. via Totten Pond Rd	11.84	11.28	23.12
Somerville	70.5	Cedarwood - University Park via Central Sq Waltham	10.21	9.75	19.96
Somerville	70.8	Central Sq Waltham - University Park via Camb	8.11	7.64	15.75
Somerville	70_	Cedarwood, Waltham - Central Sq., Cambridge	9.66	9.42	19.07
North Cambrid	71.1	Watertown Sq - Harvard Square	3.74	3.70	7.44
Somerville	71.2	Watertown Sq. - Bennett St. Alley	4.27	4.05	8.32
North Cambrid	71_	Watertown Sq - Harvard Sub via Mt Auburn St	4.06	4.01	8.08
Somerville	72.5	72/75 Belmont Ctr - Bennett St Alley via Huron	4.60	4.52	9.13
Somerville	72.6	Aberdeen @ Mt Auburn - Cambridge @ Felton	2.31		2.31
North Cambrid	72_	Aberdeen Ave & Mt Auburn - Bennett St via Huron	2.29	2.42	4.71
North Cambrid	73.1	Waverly Square - Harvard Square	4.13	4.00	8.13
Somerville	73.2	Waverly Square - Bennett St Alley	4.67	4.34	9.01
North Cambrid	73_	Waverly Square - Harvard Subway via Belmont	4.46	4.31	8.77
Somerville	74_	Belmont Center - Bennett Street Alley	4.66	4.62	9.28
Somerville	75_	Belmont Center - Bennett Alley via Huron Towers	4.98	4.90	9.87
Somerville	76.3	Lincoln Lab - Alewife Station via Hanscom Inb.	16.14	11.77	27.91
Somerville	76.4	Five Forks - Alewife Sta.	9.28	9.31	18.58
Somerville	76_	Lincoln Lab/Hanscom-Alewife Station v.Hanscom Out	11.85	16.06	27.91
North Cambrid	77.4	N Cambridge - Harvard Square	18.32	18.33	36.65
Somerville	77_	Arlington Heights - Bennett St Alley	5.82	5.75	11.57
Somerville	78.1	Arlmont Village - Bennett Alley	7.16	7.93	15.09
Somerville	78.2	Arlington Hts - Bennett St. Alley via Park Circle	6.21	6.33	12.53
Somerville	79.1	Appleton St/Mass Ave - Alewife Station	3.32		3.32
Somerville	79_	Arlington Heights - Alewife Station	3.85	3.86	7.72
Somerville	80.1	Arlington Ctr. - Medford @ School Sts.		4.39	4.39
Somerville	80_	Arlington Center - Lechmere Station	6.51	6.29	12.81
Somerville	83.1	Rindge Avenue - Central Sq., Cambridge	3.66	3.53	7.19
Somerville	83.2	Rindge Avenue - Broadway @ Felton St		2.42	2.42
Somerville	84.1	Alewife Station - Alewife Station via Arlmont Loop	4.12	3.33	7.45
Somerville	84.2	Arlmont - Alewife Station	4.12	3.33	7.45
Somerville	85_	Spring Hill - Kendall Station	2.46	2.37	4.84
Somerville	86.8	Sullivan Station - Harvard Sq./Sta.	2.75	2.96	5.71
Somerville	86.9	Harvard Sq./Sta. - Cleveland Circle	4.05	4.15	8.20
Somerville	86_	Sullivan Station - Cleveland Circle	6.79	6.70	13.50
Somerville	87.2	Arlington Center - Lechmere Station	5.39	5.31	10.69
Somerville	87_	Clarendon Hill - Lechmere Station	4.17	4.25	8.43
Somerville	88.1	Clarendon Hill - Highland Ave @ School St.		2.33	2.33
Somerville	88.3	Clarendon Hill - Davis Square	13.93	9.40	23.34
Somerville	88_	Clarendon Hill - Lechmere Station via Highland Ave	4.29	3.97	8.27
Charlestown	89.1	Broadway & Endicott - Sullivan Station	3.14		3.14
Charlestown	89.2	Davis - Sullivan Station	2.90	3.54	6.44
Charlestown	89.3	Powder House Sq. - Sull. Sta./Main@Dorrance	2.45		2.45
Charlestown	89.4	Clarendon Hill - Sullivan Sta via Davis		4.48	4.48
Charlestown	89_	Clarendon Hill - Sullivan Station	3.41	3.54	6.94
Charlestown	90_	Davis Station - Wellington Station via Sullivan	5.50	5.52	11.03
Charlestown	91_	Central Sq., Cambridge - Sullivan Station	2.89	2.52	5.41
Charlestown	92.1	Assembly Sq Mall - Franklin St via Sullivan	3.69	4.02	7.71
Charlestown	92.3	Sullivan Sta - Franklin St Downtown via Haymarket	2.75	2.72	5.47
Charlestown	92_	Sullivan Station - Haymarket Station via Main St	2.44	2.11	4.55
Charlestown	93.1	Sullivan Station - Downtown Boston via Bunker Hill	3.13	3.10	6.23
Charlestown	93.2	Sullivan - Franklin@Washington via Constitution	3.75	3.74	7.49
Charlestown	93.4	Bunker Hill @ Concord - Haymarket Sta	18.41		18.41
Charlestown	93_	Sullivan Station - Haymarket Sta via Bunker Hill	2.82	2.49	5.31
Charlestown	94.1	Medford Sq - Davis Sq via West Medford	4.55	4.09	8.64
Fellsway	94.2	Medford Sq. - Davis Sq. Sta. via Medford High		5.43	5.43
Fellsway	95.2	West Medford - Fellswayway via High Street	3.27	3.44	6.71
Fellsway	95.5	West Medford - Fellswayway Garage via Winthrop St	2.28	2.35	4.64

Garage	Route	Terminals	Inbound	Outbound	Round Trip
Lynn	434_	Main St., Peabody - Haymarket via Goodwin Circle	17.88	17.88	35.77
Lynn	435.1	Liberty Tree Mall - Central Sq. via Pine Hill	11.07	11.03	22.11
Lynn	435.2	Main St, Peabody - Central Sq., Lynn	7.41		7.41
Lynn	435.3	Main St.,Peabody - Central Sq., Lynn via Pine Hill	7.45	6.99	14.44
Lynn	435.4	Liberty Tree Mall-Central Sq., Lynn v Danvers loop	11.03	15.63	26.66
Lynn	435.5	Central Sq.,Lynn - Danvers Sq. via Liberty Tree Ma		12.93	12.93
Lynn	435_	Liberty tree mall - Central Sq., Lynn via Euclid	11.03	10.99	22.02
Lynn	436.1	North Shore Mall - Central Sq., Lynn v Goodwin Cir	11.16	10.99	22.15
Lynn	436.2	Goodwins Circle - Central Sq., Lynn	5.43	5.30	10.73
Lynn	436.8	Broadway @ Conomo Ave. - Lynn Garage	4.49		4.49
Lynn	436.9	Goodridge St @ Memorial Park Ave-Lynn Garage	3.38		3.38
Lynn	436_	Liberty Tree Mall - Central Sq., Lynn v Goodwin Cr	12.24	12.59	24.83
Lynn	439.1	Nahant - Central Sq., Lynn via Wharf St.	5.34		5.34
Lynn	439.2	Nahant - Central Sq., Lynn via Cliff St.		3.64	3.64
Lynn	439.9	Nahant - Vinnin Square via Central Sq., Lynn		7.46	7.46
Lynn	439.9	Nahant - Vinnin Square via Central Sq., Lynn	8.60		8.60
Lynn	439_	Nahant - Central Sq., Lynn	5.55	3.18	8.73
Lynn	441.6	Swampscott-Wonderland v Cent Sq & Paradise	8.70	8.33	17.03
Lynn	441.7	Marblehead-Wndrlnd (West)vCentral Sq,Lyn	12.49	11.77	24.26
Lynn	441.9	Marblehead-Lynn Garage v Paradise Rd	9.29	9.02	18.31
Lynn	441_	Marblehead-Haymarket v Censq Sq & Paradise Rd.	17.74	17.05	34.79
Lynn	442.1	Central Sq, Lynn-Wonderland v Gen'l Edwar	4.90	4.53	9.43
Lynn	442.6	Swampscott - Wondl v Cent Sq & Humphrey	8.29	7.75	16.03
Lynn	442.7	Marblehead-Wndrlnd(West)vHumphrey,Cent S	12.18	11.30	23.48
Lynn	442.9	Marblehead-Lynn Garage v Humphrey St	8.99	8.54	17.53
Lynn	442_	Marblehead - Haymarket via Cent Sq & Humphrey St	17.43	16.57	34.01
Lynn	448.1	Mrblhead-Downtown Xing via Paradise & Cent Sq		19.78	19.78
Lynn	448.2	Mrblhead-Downtown Xing via Paradise & Cent Sq		19.60	19.60
Lynn	448_	Marblehead - Downtown Xing Express via Paradise Rd	2.03		2.03
Lynn	449.1	Mrblhead-Dntown Xing via Humphrey & Cent Sq		19.30	19.30
Lynn	449.2	Mrblhead-Dntown Xing via Humphrey & Cent Sq		19.13	19.13
Lynn	449_	Marblehead - Downtown Xing Express via Humphrey	2.00		2.00
Lynn	450.6	Salem - Wonderland West via Highland & Western Ave	10.71		10.71
Lynn	450.7	Salem Center - Wonderland (east) via Western	11.24	11.73	22.96
Lynn	450.8	Salem Ctr. - Haymarket Sq.(inb Mclln)	14.67		14.67
Lynn	450.9	Lynn Garage-Salem Depot via Highland	6.35	6.88	13.23
Lynn	450_	Salem Ctr. - Haymarket Sq. via Western Ave.	14.67	15.37	30.04
Lynn	451.1	North Beverly - Salem via Tozar & Cummings Off. Pk	6.45	7.82	14.27
Lynn	451.2	Beverly Square - Salem Center via Cabot St.	2.93	3.33	6.25
Lynn	451_	North Beverly - Salem via Dodge St. & Cum. Off. Pk	6.66	7.51	14.17
Lynn	455.1	Central Sq., Lynn - Haymarket via West Lynn	10.02		10.02
Lynn	455.2	Salem -Central Sq., via Loring Ave & Shetland	7.37		7.37
Lynn	455.3	Eastern & Essex - West Lynn via Central Sq.,Lynn	3.30	3.15	6.44
Lynn	455.4	Salem - Central Sq, Lynn via Loring Ave	6.91	6.65	13.56
Lynn	455.5	Central Sq.,Lynn-Wonderland(east) via Western Ave	6.58		6.58
Lynn	455.6	Salem - Wonderland Sta. v Central Sq. & WLynn	13.42		13.42
Lynn	455.7	Salem-Wonderland(east) v Loring,Wstrn Ave &Cent Sq	13.48	13.06	26.54
Lynn	455.8	Salem Depot-Lynn Garage v Loring (Route 455)	8.60	8.96	17.56
Lynn	455.9	Salem Depot-Lynn Garage v Shetland Pk (Rte 4551)	9.06	8.83	17.89
Lynn	455_	Salem Depot - Haymarket v Central Sq & West Lynn	17.38	17.10	34.49
Lynn	456.9	Salem - West Lynn via Central Sq. & Highland		8.67	8.67
Lynn	456_	Salem - Central Sq., Lynn via Highland & Eastern	6.46	6.90	13.35
Lynn	459_	Salem Depot - Downtown Xing v Cent. Sq. & WLynn	21.03	2.00	23.03
Lynn	465_	Danvers Sq. - Salem Dpt v Lbrty Tree Mall	8.46	7.65	16.11
Lynn	468_	Danvers - Salem Depot via North St.	4.43	4.48	8.91
Albany	500_	Riverside Station - Federal & Franklin St.	12.37	13.32	25.69
Albany	501.1	Brighton - Federal & Franklin St.	9.35	9.91	19.25
Albany	501.2	Brighton Center - Otis&Summer Sts.(DowntownBoston)	6.05		6.05
Albany	501.3	Brighton - Federal & Franklin	5.89		5.89
Albany	501_	Brighton - Federal & Franklin St.	9.35	6.92	16.26
Albany	502_	Watertown Square - Copley Square	6.93	6.91	13.84
Albany	503.1	Brighton - Copley Square	7.96	8.42	16.38
Albany	503_	Brighton - Copley Square	7.96	4.87	12.82
Albany	504.2	Watertown Square - Federal & Franklin St.	8.13	8.34	16.47
Albany	504_	Watertown Square - federal & Franklin	8.32	8.40	16.72
Albany	505.1	Waltham Center - Federal & Franklin	13.03	13.61	26.65

Garage	Route	Terminals	Inbound	Outbound	Round Trip
Fellsway	95_	West Medford - Sullivan Sta via Mystic Ave	5.34	6.10	11.44
Charlestown	96_	Medford Sq - Bennett Alley via Davis Sq & George	4.78	4.79	9.57
Fellsway	97.5	Malden Station - Wellington Sta via Commercial St	4.61	4.47	9.08
Charlestown	99.1	Boston Reg Med Ctr (Upper Hghlnd) - Malden Station	5.04		5.04
Charlestown	99.7	Boston Reg Med Ctr (Upper Hghlnd) - Wellington Sta	6.76	7.24	14.01
Charlestown	99.8	Boston Reg Med Ctr - Well via Gateway	7.59	7.92	15.51
Charlestown	100.1	Roosevelt Circle-Wellington Station (late night)	2.85	3.32	6.16
Fellsway	100.3	Elm Street - Wellington Station via Fellswayway	3.35	3.48	6.83
Fellsway	100_	Fellswayway Garage to Elm Street	18.78	14.86	33.64
Fellsway	101.1	Medford Sq - Sullivan Station via Winter Hill	3.44	3.59	7.02
Fellsway	101.2	Winthrop @ Brooks St. - Main & Henry via George S		2.76	2.76
Charlestown	101.3	Malden Ctr Station - Sullivan Sta. via Winter Hill	5.25	5.65	10.90
Charlestown	101.4	Malden Sta - Sullivan Sta via Malden Sq	5.25	6.80	12.05
Charlestown	101.8	Winthrop @ Brooks St. - Sullivan Sta.	6.17		6.17
Fellsway	101_	Fellswayway Garage - Sullivan Station via Winter Hill	4.59	4.55	9.14
Charlestown	104_	Malden Center Station - Sullivan Station via Ferry	5.37	4.79	10.16
Charlestown	105.1	Malden Sta.-Sullivan Sta. via Newland St. Housing	6.83	6.34	13.17
Charlestown	106.3	Lebanon Loop - Wellington Sta via Sylvan St	6.11		6.11
Charlestown	106.4	Lebanon Loop - Malden Station	2.40	2.41	4.81
Charlestown	106.5	Linwood Ave @ Lynde St. - Malden Station	3.72	3.56	7.28
Charlestown	106.6	Wellington Sta. - Linwood Ave. & Lynde St.		6.62	6.62
Charlestown	106.7	Franklin Sq. - Wellington Sta. v. Forest St.	7.77	7.98	15.75
Fellsway	106.F	Malden Station - Franklin Sq.		4.82	4.82
Charlestown	106_	Lebanon Loop - Wellington Station via Malden Sta	5.31	5.47	10.78
Charlestown	108.1	Linden Sq - Wellington via Malden and Pearl St	6.13	6.86	12.99
Charlestown	108.2	Salem St. @ Sprague St. - Linden Sq.		2.75	2.75
Charlestown	108.6	Linden Sq - Wellington Station via Malden Station	5.46	6.51	11.97
Charlestown	108.7	Linden Sq., - Malden Center Station via Salem St	2.83	3.38	6.21
Charlestown	109.1	Glendale Square - Sullivan Station via Broadway	3.43	2.72	6.15
Charlestown	109_	Linden Square - Sullivan Station via Broadway	5.47	4.89	10.36
Charlestown	110.2	Woodlawn - Wellington Station via Everett Sq		3.14	3.14
Charlestown	110.4	Broadway & Park Ave- Wellington Sta via Woodlawn	4.33	4.31	8.64
Charlestown	110.9	Medford & Main Sts. - Sullivan Station		2.47	2.47
Charlestown	110_	Wonderland Station - Wellington Sta via Woodlawn	5.80	6.09	11.89

Garage	Route	Terminals	Inbound	Outbound	Round Trip
Albany	505_	Waltham Center - Federal & Franklin	13.57	13.07	26.65
Albany	553.7	Roberts - Newton Corner	7.56	7.32	14.88
Albany	553_	Roberts - Federal & Franklin Sts	15.29	15.27	30.56
Albany	554.2	Waverly Sq - Fed & Frank Via Trapelo Rd	19.30	18.94	38.24
Albany	554.7	Waverly Sq - Newton Corner via Beaver St	9.21	8.64	17.84
Albany	554_	Waverly Sq. - Federal & Franklin Sts.	16.94	16.58	33.52
Albany	555_	Riverside Station - Federal & Franklin St.	12.19	12.70	24.89
Albany	556.7	Waltham Hghlands - Newton Corner	5.48	5.76	11.24
Albany	556_	Waltham Hghlands - Federal & Franklin Sts	13.21	13.71	26.93
Albany	558.7	Riverside - Newton Corner via Bemis	8.17	8.94	17.11
Albany	558_	Riverside - Federal & Franlklin Sts	15.90	16.89	32.79
Albany	701.1	CT-1 Central Sq, Camb - BU Medical Center	3.18		3.18
Albany	701_	CT-1 Central Sq, Camb - BU Medical Center	3.18	3.36	6.54
Albany	708.1	Louis Pasteur Ave - Andrew Sta via Beth Israel	4.40	3.90	8.30
Albany	708_	Longwood Medical Area - Andrew Station	4.04	3.92	7.96
Southampton	741_	Airport - South Station - SL1	4.06	2.52	6.57
Southampton	742.1	Design Center - South Station - SL2	16.78	2.56	19.34
Southampton	742.3	Design Center - South Station - SL2	2.51	2.06	4.58
Southampton	742_	Design Center - South Station - SL2	2.51	2.06	4.58
Southampton	746_	Silver Line Phase 2	10.65	10.65	21.30
Albany	747_	Kendall/MIT Station - Ruggles Station (CT2)	3.98	4.35	8.33
Albany	748_	CT2 Sullivan Sta. - Kendall Sq/MIT via Union Sq	2.83	2.63	5.46
Southampton	749_	Dudley Sta - Downtown (temple) - SL5	2.27	2.41	4.67
Southampton	751_	Dudley Sta - South Station (essex) - SL4	2.36	2.53	4.89
Charlestown	9109	Bunker Hill @ Main - Powder House Square	4.90		4.90
Charlestown	9111	Powder House Square - Main @ Bunker Hill	4.85		4.85
Quincy	9501	Newbury & Hollis A.- Bryant A. & Upton S.	3.28	3.90	7.19
Quincy	9507	E. Squantum @ Newbury - Bryant @ Upton		3.30	3.30
Cabot	9701	Warren @ Cambridge Sts. - Ruggles Sta.	5.75		5.75
Cabot	9702	Warren @ Cambridge Sts. - Andrew Square	7.89		7.89
Cabot	9703	Warren @ Cambridge Sts. - Jackson Sta.	6.99		6.99

Bus Operations
Supplemental Services
Fall 2009

In addition to regular scheduled bus service in communities, the MBTA provides the supplementary bus service listed below. This service operates only on days when secondary schools are in full session as a convenience to our riders because of the increased demand for service on these days. However, it should be noted that in doing so, the MBTA reserves its right to change or terminate any or all of these trips at any time without giving prior notice. Please note that all times indicated on this timetable are approximate. For more information on these or any MBTA route, please call 617-222-3200 or visit www.mbta.com.

NORTH-SIDE SUPPLEMENTAL BUS SERVICE

Trip Number	Departure Time	Origin Location	Destination Location	Route Supplemented
9109	7:15A	Bunker Hill St at Main St	Powderhouse Square	89/92/93
9111	2:25P	Powderhouse Square	Main St at Bunker Hill St	89/93

SOUTH-SIDE SUPPLEMENTAL BUS SERVICE

Trip Number	Departure Time	Origin Location	Destination Location	Route Supplemented
9501	7:40A	Bryant Ave. at Upton St.	Newbury Ave. at Hollis Ave.	211/215/217
9502	7:45A	Quincy Ave. at Blanchard St.	Granite St. at Water St.	225
9701	2:15P	Cambridge St. at Warren St.	Ruggles Station	39/66/501/503
9702	2:15P	Cambridge St. at Warren St.	Andrew Station	39/66/501/503
9701	2:20P	Cambridge St. at Warren St.	Ruggles Station	39/66/501/503
9703	2:20P	Cambridge St. at Warren St.	Jackson Sq. Station	39/66/501/503
9501	2:40P	Newbury Ave. at Hollis Ave.	Bryant Ave. at Upton St.	211/215/217
9502	2:40P	Granite St. at Water St.	Quincy Ave. at Scammell St.	225/230
9507	2:40P	E. Squantum St. at Newbury Ave.	Bryant Ave. at Upton St.	211
9701	4:00P	Cambridge St. at Warren St.	Ruggles Station	39/66/501/503

Bus Operations
Scheduled Vehicle Miles by Schedule Rating Period
Fall 2009



	Fall 2009	Fall 2008	Fall 2007	Fall 2006	Fall 2005	Fall 2004		Fall 2003		Fall 2002		Fall 2001		Fall 2000	Fall 1999
WEEKDAY						Mon-Thurs	Fri Night Owl	Mon-Thurs	Fri Night Owl	Mon-Thurs	Fri Night Owl	Mon-Thurs	Fri Night Owl		
Albany	9,694	9,949	10,141	9,113	11,356	12,589	12,589	12,562	12,562	11,113	11,113	11,670	11,670	11,484	11,376
Cabot	16,182	16,197	17,916	17,908	17,027	16,266	16,642	13,889	14,224	16,386	16,957	16,135	16,706	15,808	15,806
Arborway	11,770	11,007	12,262	12,129	11,306	11,573	11,609	12,725	12,793	14,822	14,962	14,541	14,680	14,856	14,775
Southampton	4,245	4,452	4,073	4,585	4,141	2,476	2,513	2,659	2,696						
Quincy	8,483	8,414	8,624	8,378	8,527	8,535	8,628	8,540	8,632	8,535	9,659	8,526	8,650	8,417	8,282
Bennett TT	2,421	2,421	2,488	2,443	2,488	2,518	2,518	2,363	2,363	2,363	2,363	2,363	2,363	2,483	2,489
Somerville	12,229	12,393	11,954	11,384	12,235	12,216	12,272	10,984	11,040	11,041	11,131	11,021	11,111	11,238	11,338
Fellsway	5,438	5,521	5,444	5,282	5,284	5,341	5,341	5,186	5,186	5,180	5,180	5,154	5,454	6,159	7,030
Charlestown	10,190	10,258	10,343	9,800	10,078	10,361	10,438	10,021	10,092	9,998	10,072	10,069	10,143	8,523	7,875
Lynn	9,821	10,488	8,417	9,594	9,629	9,757	9,809	9,699	9,746	9,765	9,828	10,353	10,416	9,754	9,674
TOTAL	**90,472**	**91,102**	**91,661**	**90,616**	**92,071**	**91,633**	**92,359**	**88,629**	**89,335**	**89,203**	**91,265**	**89,831**	**91,193**	**88,722**	**88,645**

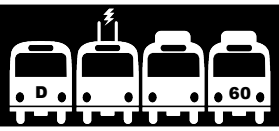
SATURDAY						Night Owl	Night Owl	Night Owl	Night Owl		
Albany	0	0	0	0	0	0	0	0	0	0	0
Cabot	13,854	13,755	15,362	14,749	15,201	16,410	14,086	15,179	15,295	14,340	14,468
Arborway	6,802	6,937	8,058	7,903	6,620	6,843	7,875	9,431	9,118	9,069	9,083
Southampton	3,079	2,634	2,535	3,103	3,314	2,055	2,142				
Quincy	5,497	5,491	5,410	5,235	5,210	5,288	5,318	5,350	5,352	5,191	5,193
Bennett TT	1,572	1,572	1,613	1,601	1,601	1,587	1,439	1,439	1,503	1,530	1,530
Somerville	7,882	7,951	7,702	7,456	8,184	8,022	6,942	6,975	6,890	7,105	7,063
Fellsway	0	0	0	0	0	0	0	0	0	0	0
Charlestown	8,635	8,928	9,148	8,765	8,828	8,885	8,552	8,541	8,557	8,323	8,249
Lynn	5,050	5,494	4,318	5,072	5,090	5,142	5,059	5,054	5,326	5,087	5,087
TOTAL	**52,371**	**52,763**	**54,145**	**53,884**	**54,048**	**54,230**	**51,413**	**51,969**	**52,042**	**50,645**	**50,673**

SUNDAY											
Albany	0	0	0	0	0	0	0	0	0	0	0
Cabot	9,008	9,004	9,703	9,572	9,657	9,794	7,239	7,931	7,887	7,750	7,733
Arborway	3,377	3,398	4,279	4,138	3,199	3,093	3,672	4,940	4,681	4,711	4,707
Southampton	3,137	2,699	2,486	2,463	2,968	1,715	1,760				
Quincy	3,381	3,348	3,316	3,330	3,336	3,136	3,165	3,165	3,157	3,158	3,187
Bennett TT	0	0	0	0	0	0	0	0	0	0	0
Somerville	5,735	5,673	5,401	5,579	6,236	6,156	4,767	4,767	4,763	4,677	4,543
Fellsway	0	0	0	0	0	0	0	0	0	0	0
Charlestown	4,798	4,700	4,764	4,394	4,433	4,321	3,993	3,977	3,857	3,822	3,815
Lynn	3,466	3,826	3,033	3,403	3,336	3,348	3,207	3,185	3,342	3,117	3,119
TOTAL	**32,902**	**32,646**	**32,982**	**32,879**	**33,165**	**31,563**	**27,803**	**27,965**	**27,686**	**27,235**	**27,104**

Note: Reflects scheduled vehicle miles revised for Cabot and Southhampton in mid Fall09.

Bus Operations *Fleet Roster*

Revised July 2010



Autonomous Fleet

Fleet ID	Fleet Size	Active Vehicles	Builder	Model	Propulsion	Year Built	A/C	Acce-ssible	Over-hauled	Length	Width	Seats	Crush Capacity	Planning Capacity
0755-0909	155	155	New Flyer	D40LF	Diesel Cummins ISL	2008	Y	R	None	40'	102"	39	75	54
0600-0754	155	155	New Flyer	D40LF	Diesel Cummins ISL	2006-2007	Y	R	None	40'	102"	39	75	54
6000, 6001	2	2	New Flyer	C40LF	CNG Detroit Series 50G	1999	Y	R	None	40'	102"	39	75	54
6002-6016	15	15	New Flyer	C40LF	CNG Detroit Series 50G	2001	Y	R	None	40'	102"	39	75	54
0401-0593	193	193	Neoplan	AN 440 LF	Diesel Caterpillar C9	2004-05	Y	R	None	40'	102"	38	72	53
2001-2124	124	124	NABI	40LFW	CNG Cummins C8.3	2003	Y	R	underway	40'	102"	39	73	54
2125-2299	175	175	NABI	40LFW	CNG Cummins C8.3	2004	Y	R	underway	40'	102"	39	73	54
0001-0400	142	126	TMC and Nova BUS	RTS T80206	Diesel Detroit Series 50	1994-95	Y	L	2004-05	40'	102"	40	77	56
1001-1044	44	44	Neoplan	AN 460 LF	CNG Series 60 400 HP	2003	Y	R	None	60'	102"	57	104	79
1101-1124 (SL1 & SL2)	24	24	Neoplan	DMA LF	Diesel Detroit Series 60 500HP*	2004-05	Y	R	None	60'	102"	47	96	65
1125-1132 (SL1)	8	8	Neoplan	DMA LF	Diesel Detroit Series 60 500HP*	2005	Y	R	None	60'	102"	38	~96	~65
1200-1224	25	25	New Flyer	DE60LFR	Cummins Diesel/Electric Hybrid	2010	Y	R	None	60'	102"	57	104	79
Total		**1046**												

NOTES

Midlife overhaul of NABI CNG buses underway 2010-2011, 25-30 vehicles out of service for overhaul at any time.
Overhaul does not include periodic/preventative maintenance and engine rebuild/retrofits.
Units #1001-1020, 1030 assigned to Silver Line/Washington Street. #1021-1029, 1031-1044 assigned to Bus Route 39 (Forest Hills-Back Bay)
PLANNING CAPACITY refers to 140% of seated capacity.
CRUSH CAPACITY refers to seated capacity + 2 square feet of space per standing customer.
ACCESSIBILITY: L = Lift; R = Ramp
** Skoda ML 3444 K/4 Traction Motor

Trackless Trolley Fleet (For Routes 71, 72, 73)

Fleet ID	Fleet Size	Active Vehicles	Builder	Model	Propulsion	Year Built	A/C?	Acce-ssible	Over-hauled	Length	Width	Seats	Crush Capacity	Planning Capacity
4101-4128	28	28	Neoplan	AN 440 LF/ETB	Straight Electric*	2003-2004	Y	R	None	40'	102"	31	68	43

Trackless trolley routes are served by autonomous buses when Sunday schedules are operated.
*Skoda 7ML3550K/4, 420VAC, 50Hz traction motor

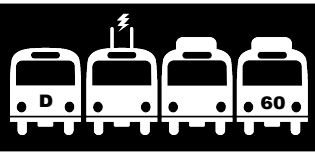
Other Buses

Fleet ID		Active Buses	Builder	Model	Propulsion	Year Built	Function
0119		1	TMC	RTS T80206	Diesel	1994	MBTA Police
0215, 0267, 0291		3	Nova Bus	RTS T80206	Diesel	1995	North Cambridge ice-cutter work buses
1000		1	Neoplan	AN 460 LF	CNG	2003	Stored Training bus
2600		1	GMC	TDH 4512	Diesel	1957	Historic Bus
5000, 5001		2	Orion	06.601 Hybrid	Diesel Hybridrive	1999	Stored experimental hybridrive buses. Lo-floor, seats 31, 40'X102".
6019		1	Chevrolet	Shuttle Van	Diesel	2007	
8545		1	GMC	RTS T80604	Diesel	1985	Command Post Bus
9471		1	Flyer	D901	Diesel	1982	Public Safety Support Bus

Bus Assignments by Vehicle Class and Garage July 2010

Garage	2006/200 New Flyer ECD	2008 New Flyer ECD	1999 New Flyer CNG	2001 New Flyer CNG	2004/2005 Neoplan ECD	2003 Neoplan ETB	2003/200 NABI CNG	1994/95 RTS 0001-0400	2010 New Flyer Hybrid Diesel artic	2003/200 Neoplan CNG artic	2004/200 Neoplan DMA	Total by Assign ment
Albany					117							117
Arborway							119					119
Cabot	16	22	2	3			180					223
Charlestown	139							79				218
Fellsway					76							76
Lynn		69						27				96
North Cambridge						28						28
Southampton			0	12					25	44	32	113
Quincy		64						20				84
Total Active	155	155	2	15	193	28	299	126	25	44	32	1074

Bus Operations
Maintenance and Storage Facilities
August 2008



District	Garage	Location	Hours
Arborway	**Arborway**	500 Arborway, Jamaica Plain, 02130	All Times (Opened Dec 27, 2003)
Arborway	**Bartlett Street**	2565 Washington St, Roxbury, 02119	Closed after Jan 16, 2004
Salem St	**Fellsway**	465 Salem Street, Medford, 02155	Closed Weekends (see Charlestown)
Salem St	**Charlestown**	21 Arlington Ave, Charlestown, 02129	All Times
Bennett	**Somerville at Charlestown**	21 Arlington Ave, Charlestown, 02129	All Times
Bennett	**North Cambridge Carhouse TT**	2375 Massachusetts Ave, Cambridge, 02140	Closed Sundays (see Somerville)
Cabot	**Albany**	421 Albany Street, Boston, 02118	Closed Weekends (see Cabot)
Cabot	**Cabot**	275 Dorchester Ave, South Boston, 02127	All Times
Southampton	**Southampton**	236 Southampton Street, Boston, 02118	All Times (Opened March 27, 2004)
Lynn	**Lynn**	905 Western Ave, Lynn, 01905	All Times
Quincy	**Quincy**	954 Hancock Street, Quincy, 02170	All Times
None	**Everett Main Repair Facility**	80 Broadway, Everett, 02149	NA

Chapter 4 - Commuter Rail

A third party contractor, currently the Massachusetts Bay Commuter Railroad Company (a joint venture of Bombardier, Veolia Transportation, formerly Connex North America, and Alternate Concepts), operates and maintains the MBTA's Commuter Rail service.

Commuter Rail service is provided along 13 active trunkline routes essentially split into two districts. They are:

North Side: North Station Routes

- Newburyport/Rockport Line ("Eastern" Line)
- Haverhill/Lawrence Line ("Western" or B&M Line - this line also hosts Amtrak "Downeaster" service to Portland, Maine that began December 15, 2001)
- Lowell Line ("New Hampshire" Line)
- Fitchburg Line

South Side: South Station Routes

- Framingham/Worcester Line ("Boston and Albany" Line)
- Needham Line
- Forge Park/495 Line ("Franklin" Line)
- Attleboro/Providence Line ("Northeast Corridor" or "Shore" Line)
- Stoughton Line
- Fairmount Line ("Midlands" or "Dorchester" Line)

And three routes referred to as the Old Colony Railroad:

- Middleborough/Lakeville Line
- Plymouth/Kingston Line
- Greenbush Line

Heavy maintenance on trains is performed at the Commuter Rail Maintenance Facility (at the former Boston Engine Terminal site) in Somerville. Dispatching for North Side routes is controlled at the nearby Cobble Hill facility, while South Side dispatching is coordinated with Amtrak's Centralized Electric and Traffic Control (CETC) system at South Station. Running maintenance and special work are performed at the Southside Service and Inspection Facility near South Station, and at the Readville Interim Repair facility in Hyde Park, Boston.

In addition to regular service, railroad operations special trains are operated for major events such as sporting events, First Night, and chartered trains.

The MBTA owns about 500 pieces of commuter rail rolling stock, including passenger locomotives, utility locomotives, work train equipment (such as flat cars, hopper cars, etc.), snow plows, midtrain coaches, and cab cars. Operation, staffing, and maintenance of this equipment is the responsibility of the contractor. The MBTA also owns the majority of the trackage upon which commuter rail service is provided, including the "Wildcat" branch that

links the Haverhill and Lowell lines near Wilmington. Several trains per day use this route variation. Exceptions to MBTA track ownership include:

- Worcester Line - Back Bay to Newton (r-of-w owned by MassDOT (formerly Mass Turnpike Authority))
- Worcester Line - Framingham to Worcester, owned by CSX Transportation
- Foxboro Station - Connecting trackage owned by CSX Transportation
- The "Grand Junction" line from Beacon Park to Somerville, used in non-revenue service to transfer trains from one district to another, is owned by CSX Transportation.

Rail freight service is provided along many commuter rail lines by agreement with private railroad corporations. Carriers include the Providence and Worcester Railroad, CSX Transportation, the Bay Colony Railroad, Guilford Transportation, and Fore River Transportation.

Railroad Operations Statistical Highlights:

- Revenue Vehicle Fleet Size: 80 Passenger Locomotives, 410 active coaches (including 33 900-series double deckers)
- Number of Stations: 134*
- Route Miles of Service: Approximately 394 (169 North Side, 146 South Side, 79 Old Colony including Greenbush)
- Approximate ridership (inbound + outbound boardings) is as follows:

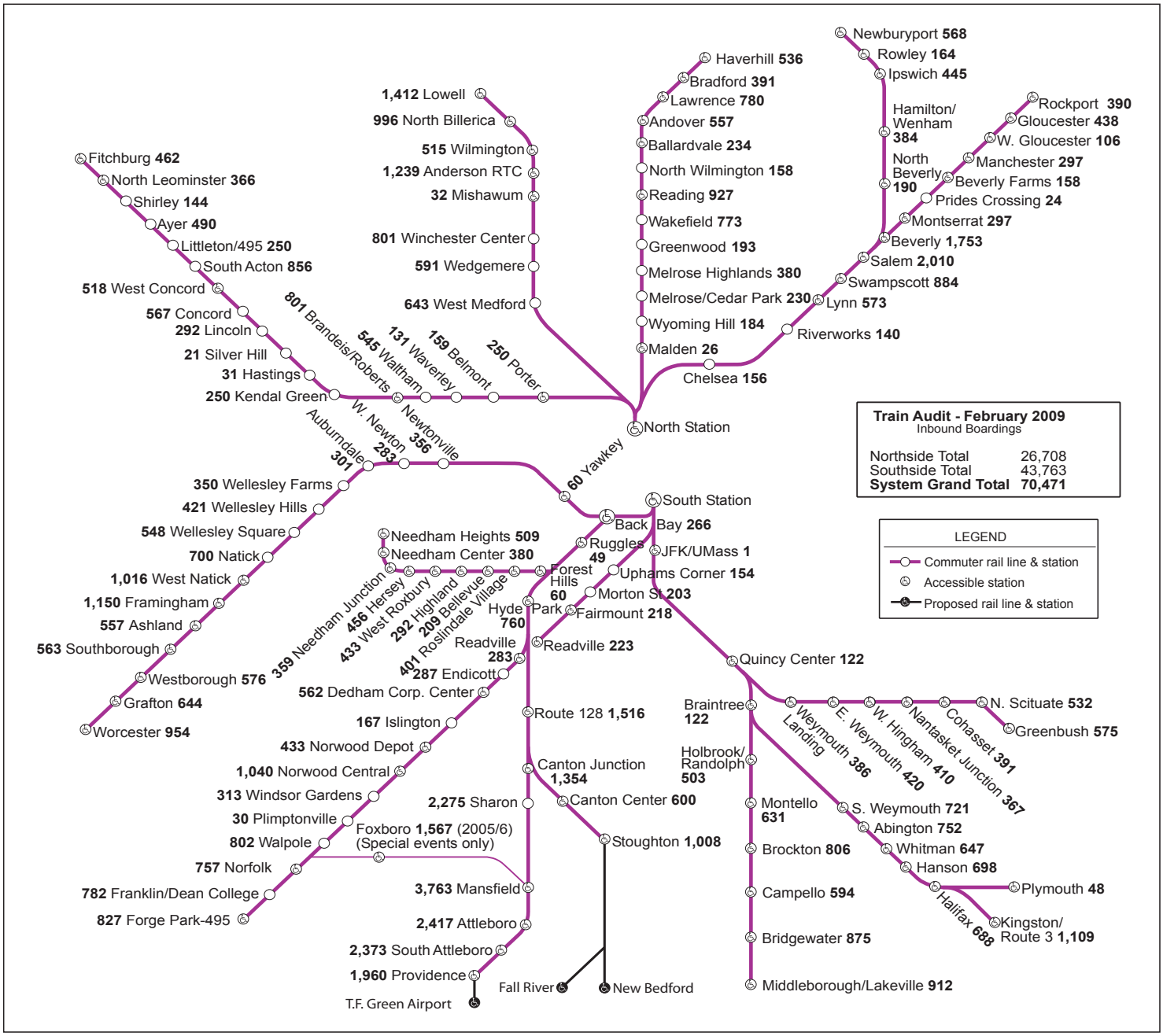
	Weekday	Saturday	Sunday
FY 2009	146,961	33,783	25,793
FY 2008	138,928	30,680	23,134
FY 2007	140,825	33,072	24,039
FY 2006	136,805	31,319	23,460
FY 2005	135,923	32,625	24,658
FY 2004	143,092	36,135	26,874
FY 2003	145,616	37,627	28,385
FY 2002	141,116	36,433	29,672
FY 2001	132,829	34,297	25,648
FY 2000	130,055	32,642	24,719
FY 1999	127,759	36,255	24,287

- Approximate weekday fleet Utilization and Service (Winter, 2010) is as follows:

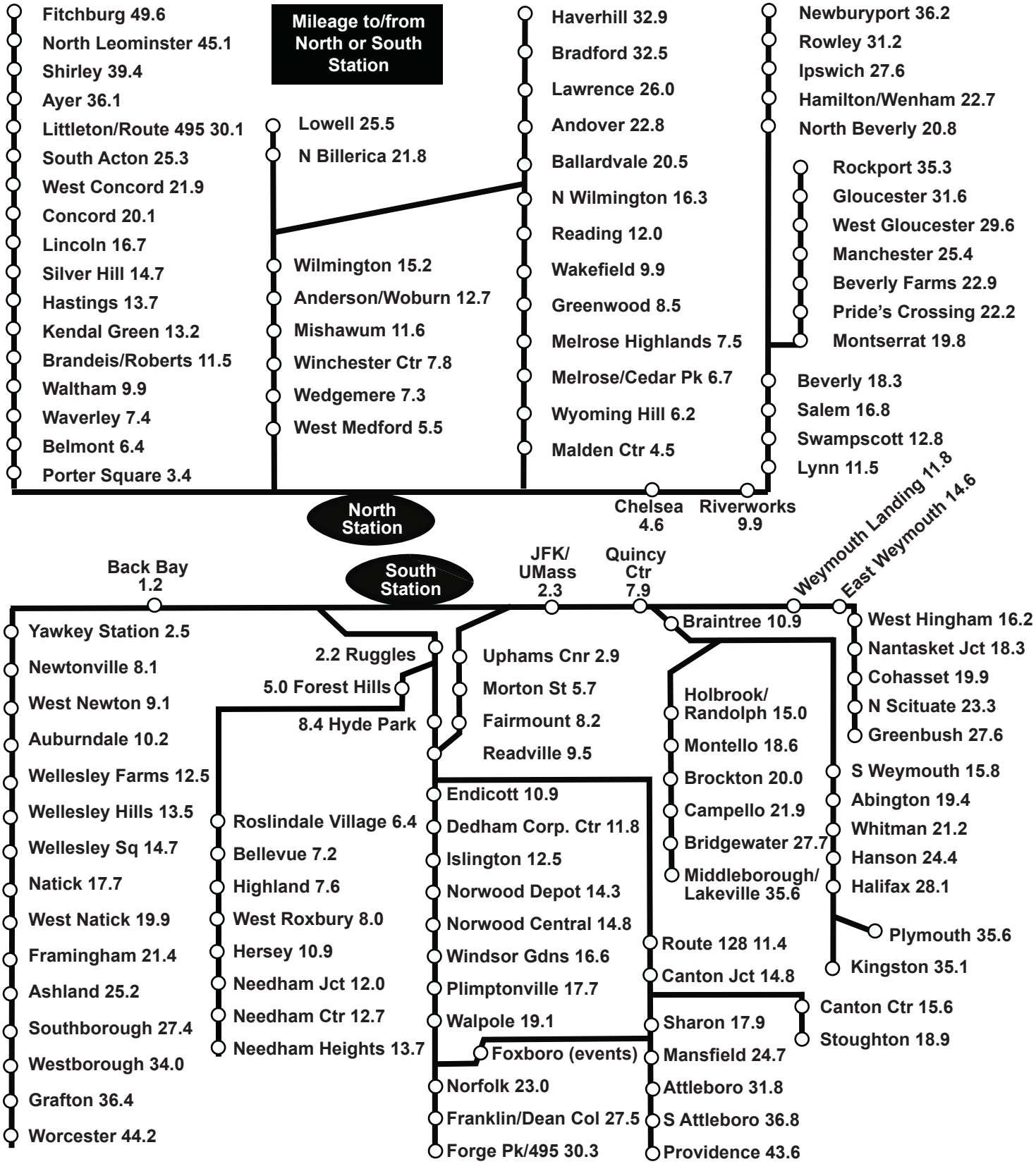
	Trainsets	Stations*	One Way Trips
North Side (excluding 1 spare train)	23	57	198
South Side	35	77	293
SYSTEM TOTAL	**58**	**134**	**491**

* Includes limited-service stations at Foxboro, Riverworks, and Mishawum.
Readville East (Fairmount) and Readville West (Franklin) counted separately.

Commuter Rail System Map
Typical Boston Bound Weekday Boardings
February 2009



Commuter Rail Mileage
August 2010



File: CH 04 p04 - Commuter Rail Mileage Map

Commuter Rail
Annual Train and Coach Mile Totals
Ridership Highlights



Year	Span	Train Miles	Coach Miles	Annual Ridership	Typical Weekday Inbound Boardings
2009	FY	4,113,978	23,974,827	40,582,915	74,267
2008	FY	4,041,791	23,421,385	39,207,383	73,590
2007	FY	3,890,433	22,746,973	38,815,838	71,609
2006	FY	3,845,887	22,407,017	37,797,601	69,547
2005	FY	3,860,082	22,339,203	37,890,179	69,487
2004	FY	3,847,504	22,152,273	39,965,738	72,831
2003	FY	3,812,416	22,592,151	40,633,172	73,939
2002	FY	3,794,662	22,694,155	39,224,061	71,010
2001	FY	3,705,112	22,177,182	36,992,648	66,449
2000	FY	3,672,656	21,710,012	36,416,818	63,147
1999	FY	3,605,613	21,372,889	35,873,060	61,163
1998	FY	3,338,080	19,749,127	31,348,078	60,711
1997	FY	2,901,799	17,044,374	27,813,050	51,123
1996	FY	2,854,986	16,229,262	26,978,444	49,187
1995	FY	2,837,913	15,482,442	25,495,214	47,415
1994	FY	2,730,361	15,998,668	23,280,075	42,582
1993	FY	2,717,180	15,730,206	21,595,853	41,928
1992	FY	2,592,315	14,898,376	19,949,255	38,280
1991	FY	2,573,775	14,614,062	19,855,272	37,486
1990	FY	2,573,922	13,186,129	19,207,977	38,659
1989	FY	2,523,374	13,125,016	18,536,535	32,525
1988	FY	2,327,763	10,983,437	16,270,282	32,466
1987	FY	2,153,959	8,516,780	13,618,004	26,359
1986	FY	1,840,664	7,729,163	11,577,221	22,713
1985	FY	2,007,063	8,430,927	11,274,177	21,713
1984	CY	2,035,048	8,598,204	11,158,170	20,261
1983	CY	1,929,554	8,001,501	11,346,012	
1982	CY	1,882,692	7,101,669	10,043,486	
1981	CY	1,834,299	6,879,071	9,153,089	
1980				9,339,015	
1979				8,640,481	
1978				7,841,648	
1977				7,842,310	
1976				7,562,304	

Commuter Rail Boardings
Typical Day, By Route



Fiscal Year	LINE	WEEKDAY INB	WEEKDAY OUTB	WEEKDAY TOTAL	SATURDAY INB	SATURDAY OUTB	SATURDAY TOTAL	SUNDAY INB	SUNDAY OUTB	SUNDAY TOTAL
FY 2009	ROCKPORT	3,694	3,643	7,337	2,009	1,938	3,947	1,599	1,469	3,068
ANNUAL	NEWBURYPORT	5,733	5,433	11,166	1,681	1,779	3,460	1,384	1,325	2,709
AVERAGE	HAVERHILL	5,540	5,505	11,045	1,366	1,468	2,834	1,256	1,190	2,446
	LOWELL	6,677	6,216	12,893	1,741	1,847	3,588	1,325	1,348	2,673
	FITCHBURG	4,776	4,872	9,648	1,493	1,612	3,105	1,242	1,220	2,462
	FRAMINGHAM	8,846	8,536	17,382	1,669	1,790	3,459	1,437	1,418	2,855
	NEEDHAM	3,910	4,308	8,218	572	547	1,119	18	9	27
	FRANKLIN	6,755	6,736	13,491	1,483	1,470	2,953	991	1,163	2,154
	ATTLEBORO	10,923	9,450	20,373	2,421	2,507	4,928	1,762	1,728	3,490
	STOUGHTON	3,892	4,750	8,642	-	-	-	-	-	-
	FAIRMOUNT	691	870	1,561	-	-	-	-	-	-
	MIDDLEBOROUGH	5,034	4,896	9,930	918	920	1,838	884	856	1,740
	PLYMOUTH	4,789	4,449	9,238	686	698	1,384	613	597	1,210
	GREENBUSH	3,007	3,030	6,037	564	604	1,168	488	471	959
	TOTAL SYSTEM	74,267	72,694	140,924	16,603	17,180	33,783	12,999	12,794	25,793
FY 2008	ROCKPORT	3,825	3,540	7,365	2,122	2,084	4,206	1,700	1,549	3,249
ANNUAL	NEWBURYPORT	5,643	5,015	10,658	1,728	1,676	3,404	1,364	1,283	2,647
AVERAGE	HAVERHILL	5,028	5,429	10,457	1,190	1,231	2,421	1,109	979	2,088
	LOWELL	6,497	6,072	12,569	1,630	1,620	3,250	1,276	1,133	2,409
	FITCHBURG	5,020	4,878	9,898	1,450	1,472	2,922	1,093	1,106	2,199
	FRAMINGHAM	9,085	8,511	17,596	1,732	1,952	3,684	1,492	1,602	3,094
	NEEDHAM	3,666	3,938	7,604	493	444	937	0	0	0
	FRANKLIN	6,740	6,226	12,966	1,330	1,360	2,690	822	942	1,764
	ATTLEBORO	10,487	8,694	19,181	2,293	2,046	4,339	1,595	1,587	3,182
	STOUGHTON	4,130	4,552	8,682	0	0	0	0	0	0
	FAIRMOUNT	1,017	826	1,843	0	0	0	0	0	0
	MIDDLEBOROUGH	4,903	4,831	9,734	826	782	1,608	683	738	1,421
	PLYMOUTH	5,133	5,242	10,375	618	601	1,219	542	539	1,081
	GREENBUSH	2,416	2,154	4,570	573	559	1,132	448	473	921
	TOTAL SYSTEM	73,590	67,754	138,928	15,412	15,268	30,680	11,676	11,458	23,134
FY 2007	ROCKPORT	3,753	3,477	7,230	2,083	2,012	4,095	1,437	1,349	2,786
ANNUAL	NEWBURYPORT	5,705	5,104	10,809	1,774	1,820	3,594	1,423	1,384	2,807
AVERAGE	HAVERHILL	5,006	5,422	10,428	1,177	1,231	2,408	1,111	1,136	2,247
	LOWELL	6,171	6,038	12,209	1,927	1,752	3,679	1,471	1,409	2,880
	FITCHBURG	5,088	4,921	10,009	1,548	1,597	3,145	1,333	1,241	2,574
	FRAMINGHAM	9,909	9,155	19,064	1,907	1,808	3,715	1,465	1,431	2,896
	NEEDHAM	3,789	4,129	7,918	640	547	1,187	0	0	0
	FRANKLIN	6,699	6,321	13,020	1,546	1,438	2,984	951	1,088	2,039
	ATTLEBORO	10,621	8,944	19,565	2,461	2,499	4,960	1,540	1,446	2,986
	STOUGHTON	3,997	4,693	8,690	0	0	0	0	0	0
	FAIRMOUNT	950	1,010	1,960	0	0	0	0	0	0
	MIDDLEBOROUGH	5,096	4,634	9,730	1,045	1,017	2,062	838	827	1,665
	PLYMOUTH	4,825	5,368	10,193	573	670	1,243	619	540	1,159
	TOTAL SYSTEM	71,609	69,216	140,825	16,681	16,391	33,072	12,188	11,851	24,039
FY 2006	ROCKPORT	3,582	3,484	7,066	1,921	1,841	3,762	1,512	1,398	2,910
ANNUAL	NEWBURYPORT	5,627	5,003	10,630	1,790	1,685	3,475	1,424	1,379	2,803
AVERAGE	HAVERHILL	5,371	5,269	10,640	1,024	1,132	2,156	938	939	1,877
	LOWELL	5,641	5,483	11,124	1,935	1,754	3,689	1,406	1,379	2,785
	FITCHBURG	4,867	4,540	9,407	1,410	1,449	2,859	1,267	1,150	2,417
	FRAMINGHAM	9,287	8,962	18,249	1,895	1,803	3,698	1,579	1,543	3,122
	NEEDHAM	4,259	4,301	8,560	536	533	1,069	0	0	0
	FRANKLIN	6,818	6,545	13,363	1,598	1,580	3,178	956	1,011	1,967
	ATTLEBORO	9,301	8,532	17,833	2,101	2,116	4,217	1,325	1,255	2,580
	STOUGHTON	3,922	4,471	8,393	0	0	0	0	0	0
	FAIRMOUNT	986	1,015	2,001	0	0	0	0	0	0
	MIDDLEBOROUGH	5,081	4,445	9,526	1,070	981	2,051	873	876	1,749
	PLYMOUTH	4,805	5,208	10,013	596	569	1,165	624	626	1,250
	TOTAL SYSTEM	69,547	67,258	136,805	15,876	15,443	31,319	11,904	11,556	23,460
FY 2005	ROCKPORT	3,806	3,407	7,213	1,787	1,871	3,658	1,459	1,378	2,837
ANNUAL	NEWBURYPORT	5,253	4,826	10,079	1,546	1,502	3,048	1,362	1,282	2,644
AVERAGE	HAVERHILL	5,104	5,128	10,232	1,059	1,071	2,130	970	1,034	2,004
	LOWELL	5,441	5,148	10,589	1,772	1,673	3,445	1,479	1,442	2,921
	FITCHBURG	4,769	4,462	9,231	1,550	1,522	3,072	1,234	1,100	2,334
	FRAMINGHAM	9,212	8,936	18,148	2,001	1,952	3,953	1,730	1,579	3,309
	NEEDHAM	4,232	4,668	8,900	620	577	1,197	0	0	0
	FRANKLIN	7,504	7,090	14,594	1,820	1,664	3,484	1,024	1,084	2,108
	ATTLEBORO	9,402	8,002	17,404	2,534	2,265	4,799	1,589	1,461	3,050
	STOUGHTON	4,175	4,493	8,668	0	0	0	0	0	0
	FAIRMOUNT	1,080	1,062	2,142	0	0	0	0	0	0
	MIDDLEBOROUGH	4,990	4,151	9,141	1,081	921	2,002	956	919	1,875
	PLYMOUTH	4,519	5,063	9,582	932	905	1,837	728	848	1,576
	TOTAL SYSTEM	69,487	66,436	135,923	16,702	15,923	32,625	12,531	12,127	24,658

Commuter Rail
Station Boardings (Inbound)
Typical Weekday

	Feb 09	Feb 08	Jun 07	Apr 06	Feb 05	Feb 04	Feb 03
Newburyport/Rockport Line							
Rockport	390	291	421	266	222	327	281
Gloucester	438	531	497	496	404	515	517
West Gloucester	106	80	128	72	53	81	91
Manchester	297	314	349	312	313	333	394
Beverly Farms	158	136	263	133	127	142	241
Prides Crossing	24	14	244	11	24	30	30
Montserrat	297	317	507	345	301	464	407
Newburyport	568	497	610	683	464	604	741
Rowley	164	167	156	189	120	136	156
Ipswich	445	430	561	607	412	447	498
Hamilton-Wenham	384	416	356	496	266	338	365
North Beverly	190	346	232	264	255	228	258
Beverly	1753	2178	931	1965	1,755	1,879	1,892
Salem	2010	2504	1160	2217	1,826	1,848	2,085
Swampscott	884	977	224	963	765	780	791
Lynn	573	612	266	770	629	565	659
Riverworks	140	26	31	58	37	28	37
Chelsea	156	117	36	189	125	192	233
TOTAL	**8,977**	**9,953**	**6,972**	**10,036**	**8,098**	**8,937**	**9,676**
Haverhill/Reading Line							
Haverhill	536	583	479	516	469	568	507
Bradford	391	480	365	372	340	381	324
Lawrence	780	738	602	596	594	665	524
Andover	557	553	562	493	614	763	638
Ballardvale	234	292	307	264	295	377	303
North Willmington	158	227	230	234	223	266	203
Reading	927	898	868	626	809	743	829
Wakefield	773	795	678	541	612	651	716
Greenwood	193	185	158	79	171	141	180
Melrose Highlands	380	343	283	247	316	333	348
Melrose Cedar Pk	230	341	208	139	213	203	262
Wyoming Hill	184	220	188	129	192	124	220
Malden	26	72	56	41	31	28	76
TOTAL	**5,369**	**5,727**	**4,984**	**4,277**	**4,879**	**5,243**	**5,130**
Lowell Line							
Lowell	1412	1398	1364	1778	1,751	1,554	1,299
North Billerica	996	1043	856	780	1,150	1,000	894
Wilmington	515	638	594	484	827	567	416
Anderson	1239	1398	1123	875	864	793	911
Mishawum	32	41	184	18	17	19	38
Winchester Center	801	746	741	465	639	674	635
Wedgemere	591	567	556	410	539	555	463
West Medford	643	603	620	545	715	548	498
TOTAL	**6,229**	**6,434**	**6,038**	**5,355**	**6,502**	**5,710**	**5,154**
Fitchburg Line							
Fitchburg	462	440	386	363	307	195	236
North Leominster	366	408	357	321	311	186	176
Shirley	144	218	191	179	180	130	116
Ayer	490	427	327	336	292	245	209
Littleton/495	250	244	223	245	209	138	104
South Acton	856	885	796	705	585	508	563
West Concord	518	516	442	416	383	413	442
Concord	567	541	512	404	419	413	503
Lincoln	292	275	251	273	226	219	300
Silver Hill	21	15	10	6	6	13	13
Hastings	31	38	22	22	43	29	25
Kendal Green	250	165	139	140	98	70	80
Brandeis/Roberts	801	629	504	481	437	447	474
Waltham	545	556	526	513	437	397	542
Waverley	131	110	534	125	90	58	75
Belmont	159	154	151	140	103	69	79
Porter	250	206	212	269	219	130	108
TOTAL	**6,133**	**5,827**	**5,583**	**4,938**	**4,345**	**3,660**	**4,045**
Franklin Line							
Forge Park/495	827	951	967	511	803	1,107	1,380
Franklin/Dean College	782	1101	1,078	480	746	935	992
Norfolk	757	1125	977	451	690	888	994
Walpole	802	949	779	603	776	795	910
Plimptonville	30	10	8	6	3	3	5
Windsor Gardens	313	454	309	316	530	542	641
Norwood Central	1040	1334	1,064	812	1,085	1,125	1,260
Norwood Depot	433	599	372	346	450	564	547
Islington	167	229	225	214	212	218	304
Dedham Corp Ctr.	562	782	673	420	561	711	830
Endicott	287	346	258	319	325	344	429
Readville	283	304	231	253	Fair	Fair	Fair
Hyde Park	760	662	928	1,094	920	945	943
TOTAL	**7,043**	**8,846**	**7,869**	**5,825**	**7,101**	**8,177**	**9,235**
Stoughton Line							
Stoughton	1008	1376	1111	1,182	1,032	980	1,311
Canton Center	600	1955	921	809	768	767	775
TOTAL	**1,608**	**3,331**	**2,032**	**1,991**	**1,800**	**1,747**	**2,086**

	Feb 09	Feb 08	Jun 07	Apr 06	Feb 05	Feb 04	Feb 03
Fairmount Line							
Readville	223	399	321	294	710	804	955
Fairmount	218	344	300	331	350	357	441
Morton Street	203	253	275	214	231	208	271
Uphams Corner	154	142	171	131	99	130	140
TOTAL	**798**	**1,138**	**1,067**	**970**	**1,390**	**1,499**	**1,807**
Framingham/Worcester Line							
Worcester	954	930	1045	927	823	940	930
Grafton	644	723	640	542	596	617	622
Westborough	576	661	630	562	491	514	455
Southborough	563	697	567	559	526	501	541
Ashland	557	596	521	616	582	434	631
Framingham	1150	1247	1466	1,374	1,255	1,211	1,732
West Natick	1016	1032	1094	1,067	857	841	1,018
Natick	700	783	830	799	699	728	723
Wellesley Square	548	778	805	784	712	734	793
Wellesley Hills	421	511	537	471	385	411	455
Wellesley Farms	350	397	430	354	338	494	793
Auburndale	301	415	459	332	344	339	346
West Newton	283	375	482	267	269	282	402
Newtonville	356	447	478	371	370	426	543
Yawkey Station	60	23	19	15	1	18	6
TOTAL	**8,479**	**9,615**	**10,003**	**9,040**	**8,248**	**8,590**	**9,990**
Needham Line							
Needham Heights	509	504	415	434	456	464	447
Needham Center	380	431	319	376	451	511	466
Needham Junction	359	563	426	497	435	567	542
Hersey	456	617	469	766	610	657	514
West Roxbury	433	477	394	395	506	578	482
Highland	292	434	355	467	398	608	441
Bellevue	209	330	256	304	351	395	309
Roslindale Village	401	391	368	656	568	608	469
Forest Hills	60	60	77	102	82	134	77
Ruggles	49	64	153	87	157	101	32
Back Bay	266	411	468	300	347	376	154
TOTAL	**3,414**	**4,282**	**3,700**	**4,384**	**4,361**	**4,999**	**3,933**
Attleboro/Providence Line							
Providence	1346	1960	2014	1,009	1,061	1,047	1,079
South Attleboro	1380	2373	1476	1,858	1,768	1,776	1,493
Attleboro	1583	2417	1456	1,480	1,782	1,764	1,627
Mansfield	1871	3763	1396	1,370	1,680	1,881	1,752
Sharon	1061	2275	1447	843	959	933	1,162
Canton Junction	1354	2472	2141	1,630	1,736	1,174	1,748
Route 128	1516	2572	2122	1,989	2,024	1,963	2,090
Foxboro (1,567*)	NA	NA	NA	NA	NA	NA	NA
TOTAL	**10,111**	**17,832**	**12,052**	**10,179**	**11,010**	**10,538**	**10,951**
Plymouth-Kingston Line (Old Colony RR)							
Plymouth	48	85	109	62	52	69	58
Kingston	1109	1132	1068	1,026	1,096	964	794
Halifax	688	715	686	600	694	691	563
Hanson	698	731	717	612	623	734	558
Whitman	647	650	776	568	657	646	570
Abington	752	845	913	648	596	599	560
South Weymouth	721	959	930	735	579	653	521
Braintree	122	214	192	102	208	191	177
Quincy Center	122	185	199	164	177	165	305
JFK Umass	1	14	1	5	6	5	20
TOTAL	**4,908**	**5,530**	**5,591**	**4,522**	**4,688**	**4,717**	**4,126**
Middleboro/Lakeville Line (Old Colony RR)							
Middleborough/Lakeville	912	1008	1208	1,079	988	1,079	955
Bridgewater	875	932	1008	893	1,010	1,161	916
Campello	594	701	730	640	719	656	675
Brockton	806	905	1006	884	920	1,035	871
Montello	631	702	738	704	768	811	732
Holbrook/Randolph	503	556	635	609	633	729	572
TOTAL	**4,321**	**4,804**	**5,325**	**4,809**	**5,038**	**5,471**	**4,721**
Greenbush Line (Opened October 2007)							
Greenbush	575	476					
North Scituate	532	380					
Cohasset	391	356					
Nantasket Junction	367	272					
West Hingham	410	325					
East Weymouth	420	420					
Weymouth Landing	386	393					
TOTAL	**3,081**	**2,622**					
SOUTH SIDE TOTAL	**43,763**	**58,000**	**47,639**	**41,720**	**43,636**	**45,738**	**46,849**
NORTH SIDE TOTAL	**26,708**	**27,941**	**23,577**	**24,606**	**23,824**	**23,550**	**24,005**
SYSTEM GRAND TOTAL	**70,471**	**85,941**	**71,216**	**66,326**	**67,460**	**69,288**	**70,854**

* Average of 11 trains serving Foxboro for the 2005-2006 football season

Commuter Rail Fleet Roster

February 2010



Passenger Coaches

Builder	Date	Fleet ID	Fleet Size	Classification	Seats	Restroom?	Dimensions	Notes
Bombardier	1987	350-389	40	BTC-1A	127	N	85'X126"	
Bombardier	1989-90	600-653	54	BTC-1B	122	N	85'X126"	
Pullman	1978-79	200-258*	57	BTC-1C	114	N	85'X126"	Rebuilt 1995-96, Amerail
MBB	1987-88	500-532	33	BTC-3	86	Y	85'X120"	Rebuild planned
Kawasaki	1990-91	700-749	50	BTC-4	185	N	85'X120"	
Kawasaki	1997	750-766	17	BTC-4 (A)	182	N	85'X120"	
Kawasaki	2001	767-781	15	BTC-4 (B)	182	N	85'X120"	
Kawasaki	2005	900-932	33	BTC -4 (C)	178	Y	85'X120"	
Total Blind (Trail) Cars:			**299**					
Bombardier	1989-90	1627-1652	25	CTC-1B	122	N	85'X126"	
Bombardier	1989-90	1600-1626***	27	CTC-1B(M)	122	N	85'X126"	
MBB	1987-88	1500-1533	34	CTC-3	96	Y	85'X120"	
Kawasaki	1990-91	1700-1724	25	CTC-4	175	N	85'X120"	
Control Cars Used as Control Cars:			**84**					
Control Cars Used as Blind Cars:			**27**		***326***		***Total fleet used as non-control cars***	
TOTAL FLEET:			**410**					

* Coaches 203 and 215 are retired.
** Coach 1648 is retired.
*** Cab controls have been deactivated. Coaches 1600 - 1626 are blind trailer cars.
Cars assigned to the Old Colony Lines are equipped with electric doors.
Coaches assigned to the Old Colony Lines are equipped with activated electric doors.
In general, Control Cars have 1000 series numbers. Kawasaki coaches are bi-level (double deckers).
Set protocol: Trainsets have at least one restroom-equipped coach.

Locomotives

Builder	Date	Fleet ID	Fleet Size	Model	Horsepower		Separate HEP?	Rebuilt
EMD	1978	1000-1012	13	F40PH	3000		No	1989-90 Bombardier
EMD	1980	1013-1017	5	F40PH	3000		No	1989-90 Bombardier
MK	1991	1025-1033	9	F40PHM-2C	3000		Yes	2003-04, Boise Loco.
MK	1993	1034-1036	3	F40PHM-2C	3000		Yes	2003-04, Boise Loco.
EMD	1987	1050-1067	18	F40PH-2C	3000		Yes	2001-03, Boise Loco.
EMD	1988	1068-1075*	7	F40PH-2C	3000		Yes	2001-03, Boise Loco.
GMD	1973-75 (x)	1115-1139	25	GP40MC	3000		Yes	1997 AMF Transport
EMD	1957-60	902, 904	2	GP9	1750		NO HEP	
EMD	1971	3247	1	GP40-1	3000		NO HEP	
TOTAL FLEET:			**83**					

* Unit 1073 was damaged in a collision at Back Bay Station in 1990 and scrapped.
Units 902, 904, 3247 are utility/recovery locomotives not used in revenue service.
"HEP" stands for Head End Power - Light, Heat, and Air Conditioning power for the passenger coaches.
(X) - Original build date for Canadian National Railways; units were remanufactured for MBTA service.
Units 1006 and 1011 are out of service as of this writing.

Commuter Rail
Scheduled Service (One-Way Trips)
Fall 2009

Line and Termini	Weekday Trips				Weekend Trips	
	AM Peak	PM Peak	Off Peak	Total	Saturday	Sunday
NORTH SIDE						
Newburyport, Rockport, Hamilton-Wenham, Beverly*	10	10	44	64	26	26
Haverhill, Andover, Reading **	7	6	33	46	12	12
Lowell, Anderson/Woburn	10	7	37	54	16	16
Fitchburg , South Acton	6	6	22	34	16	16
Total	**33**	**29**	**136**	**198**	**70**	**70**
SOUTH SIDE						
Worcester, Framingham	8	7	26	41	18	16
Needham Heights	5	5	22	32	18	0
Forge Pk, Franklin, Walpole, Norwood Central***	7	6	24	37	18	14
Providence, Attleboro, Mansfield	8	5	21	34	18	14
Stoughton, Canton Center	4	4	26	34	0	0
Readville via Fairmount Line****	5	4	30	39	0	0
Middleborough/Lakeville	4	4	16	24	16	16
Plymouth, Kingston, Whitman	5	5	18	28	16	16
Greenbush	5	5	14	24	16	16
Total	**51**	**45**	**197**	**293**	**120**	**92**
SYSTEM TOTAL	**84**	**74**	**333**	**491**	**190**	**162**

* Includes Weekday Beverly-Newburyport and Salem-Rockport (2 one way trips each) shuttles.
** Includes any trains via the "Wildcat" Branch
*** Includes any trains via Dorchester Branch (aka Fairmount Line)
**** Fairmount service includes "Readville Shuttles" only

Commuter Rail
Span of Service
Fall 2009

Line	Weekdays		Saturdays		Sundays	
	First IB Train Leaves Terminal	Last OB Train Leaves Boston	First IB Train Leaves Terminal	Last OB Train Leaves Boston	First IB Train Leaves Terminal	Last OB Train Leaves Boston
NORTH SIDE						
Newburyport	05:22 AM	10:30 PM (a)	08:48 AM	10:15 PM	08:48 AM	10:15 PM
Rockport	05:05 AM	12:10 AM	07:00 AM	11:30 PM	07:00 AM	11:30 PM
Haverhill	05:05 AM	12:10 AM	07:15 AM	11:30 PM	07:15 AM	11:30 PM
Lowell	05:35 AM	12:10 AM	07:00 AM	11:30 PM	07:00 AM	11:30 PM
Fitchburg	05:15 AM	12:10 AM	06:50 AM	11:30 PM	06:50 AM	11:30 PM
SOUTH SIDE						
Worcester	04:45 AM	10:20 PM	09:25 AM	11:00 PM (b)	09:25 AM (b)	11:00 PM (b)
Framingham	05:35 AM	11:25 PM	08:15 AM	11:00 PM (b)	10:05 AM (b)	11:00 PM (b)
Needham	06:10 AM	10:30 PM	07:58 AM	10:45 PM		
Franklin	05:05 AM	11:50 PM	06:35 AM	11:20 PM	10:40 AM	11:20 PM
Providence	05:07 AM	11:59 PM	06:35 AM	11:10 PM	11:20 AM	11:10 PM
Stoughton	06:28 AM	11:00 PM				
Fairmount	05:48 AM (c)	09:40 PM				
Middleborough/Lakeville	05:10 AM	10:30 PM	06:30 AM	10:50 PM	06:30 AM	10:50 PM
Plymouth	10:40 AM	06:20 PM	09:21 AM	05:25 PM	09:21 AM	05:25 PM
Kingston	05:22 AM	10:45 PM	09:42 AM	10:40 PM	09:52 AM	11:42 AM

(a) - Transfer in Beverly from Rockport Train (b) - Same train (c) - Franklin train
Weekend service South Attleboro - Providence inaugurated Saturday July 29, 2006.

Commuter Rail
Train Assignments by Train Length and Line
Typical Weekday, February 2010



ROUTE	Train Assignment								Coach Assignment*				
	3-car	4-car	5-car	6-car	7-car	8-car	TOTAL		Kaw	MBB	Pull	Bom	TOTAL
NORTH SIDE													
Newburyport/Rockport #100			5	1	2		8						45
Haverhill #200			2	2			4						22
Lowell #300			3	2	1		6						34
Fitchburg #400			3	2			5						27
Spare							0						0
Total	**0**	**0**	**13**	**7**	**3**	**0**	**23**		**0**	**0**	**0**	**0**	**128**
SOUTH SIDE													
Attleboro #800				2	4		6						48
Stoughton #900				2			2						12
Franklin #700				4	1		5						37
Worcester #500				5		1	6						46
Needham #600				3			3						18
Fairmount #740			1				1						6
Plymouth/Kingston #030				4			4						23
Middleborough #000				4			4						23
Greenbush				4			4						20
Total	**0**	**0**	**1**	**28**	**5**	**1**	**35**		**0**	**0**	**0**	**0**	**233**
SYSTEM TOTAL	**0**	**0**	**14**	**35**	**8**	**1**	**58**		**0**	**0**	**0**	**0**	**361**

Trainlength includes midtrain coaches and cab car. Does not include locomotive.
* Kaw = Kawasaki Double Decker
* "Flat Top" single level coaches, 3 types: MBB = Messerschmitt, Pull = Pullman, Bom = Bombardier
"#xxx" refers to timetable/train numbers.

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Chapter 5A - Ferry

There are three principal ferry routes operated under contract to the MBTA.

Commuter Ferries

- **F1** Hingham–Boston (*Hingham Shipyard - Rowes Wharf, operated by Boston Harbor Cruises*).

- **F2** Quincy–Boston via Logan Airport, also known as Harbor Express (*Fore River Shipyard–Long Wharf via Logan Airport, operated by Water Transportation Alternatives, Inc.).* Certain trips serve Pemberton Point, Hull and are designated route **F2H**. Seasonal service may also be provided to Georges Island. The Harbor Express service became MBTA-owned on May 1, 2002 when the MBTA purchased certain assets of the service contractor Water Transportation Alternatives, Inc.

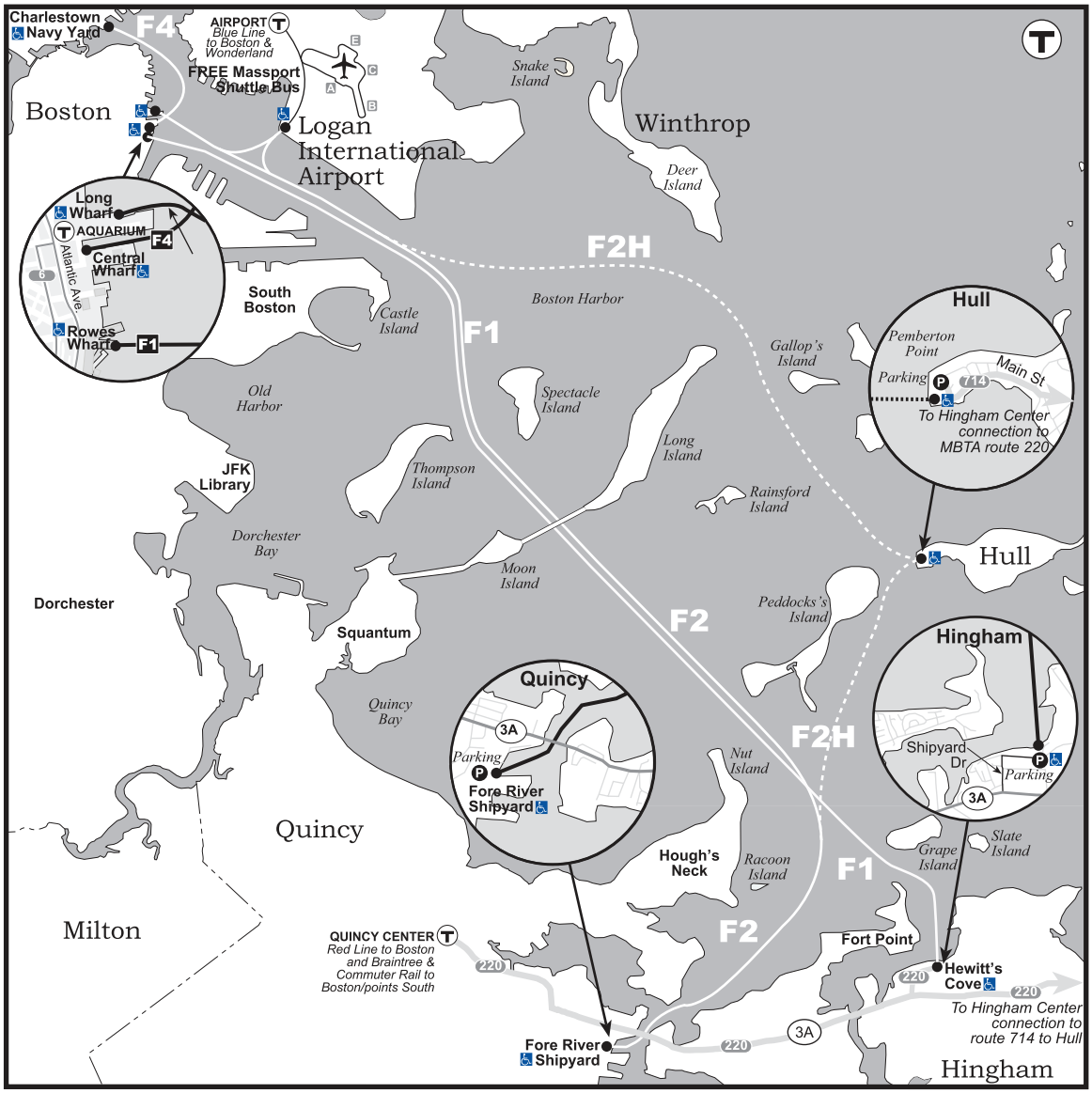
Inner Harbor Ferry

- **F4** Boston - Charlestown *(Long Wharf - Charlestown Navy Yard, operated by Boston Harbor Cruises)*

Inner Harbor Ferries F3 and F5 were discontinued after Friday, January 21, 2005. (Route F5X was not subsidized by the MBTA. Service on F5X continued until February 24, 2006, as it was operated and funded by others.)

The MBTA selects ferry operators based on their ability to provide quality, cost-effective service. The MBTA owns and/or maintains all docking/landside facilities, and sets all boat fares and schedules. The MBTA owns two vessels “Lightning” and “Flying Cloud”, which operate on F2/F2H and the terminal building in Quincy. The operators provide and maintain all non-MBTA owned vessels used in MBTA ferry service. All terminals, docks, and vessels, are accessible to persons with disabilities.

Ferry Route Map
February 2010



SERVICE INFORMATION:

F1: Weekday/Workday service Approx 6:00AM-9:05PM

F2: Weekday/Workday service Approx 5:45AM-11:05PM
Weekend/Holiday service Approx 8:00AM-10:55PM

F2H: Weekday/Workday service Approx 6:05AM-10:30PM

F4: Weekday/Workday service Approx 6:30AM-8:25PM

Weekend/Holiday service Approx 10:00AM-6:15PM

File: CH05A p2 - Ferry Network

Ferry Average Weekday Ridership

		FY2009	FY2008	FY2007	FY2006	FY2005	FY 2004	FY 2003	FY 2002	FY 2001
Commuter	F1 Hingham - Boston	2,314	2,582	3,046	3,016	2,977	2,990	3,500	3,614	3,775
Ferries	F2H Hull - Boston	377	321	291	276	257	176	160	163	167
	F2 Quincy - Boston	368	446	424	349	302	213	315	NA	NA
	F2 Quincy - Logan	136	191	245	167	194	292	214	NA	NA
Inner	F3 North Station - Charlestown*	NA	NA	NA	NA	30	70	72	91	120
Harbor	F4 Charlestown - Boston	942	906	878	812	825	867	939	1,018	1,101
Ferries	F5,F5X North Sta.-Courthouse-WT	NA	NA	NA	NA	49	63	86	120	185
	TOTAL	**4,137**	**4,446**	**4,884**	**4,620**	**4,634**	**4,671**	**5,286**	**5,006**	**5,348**

* Figures for FY05 are Sep 2004-Jan 2005. Service discontinued thereafter.

Ferry Fleet Roster

Name	Year	Length	Pax Cap
F1			
Aurora	1999	122'	400
Nora Vittoria	1998	110'	400
Matthew J. Hughes	1990	111'	348
Massachusetts	1988	88'	346
Back-up Vessels:			
Salacia	2000	155'	600
James J. Doherty	1992	100'	348
F2/F2H			
Flying Cloud (MBTA owned vessel)	1996	76'	149
Lightning (MBTA owned vessel)	1996	76'	149
Voyager III	1998	95'	349
F4			
Anna	1983	61'	149
Rita (formerly Edward Rowe Snow)	1982	58'	190
Rookie (formerly Bostonian II)	1979	57'	149

Total Ferry Ridership by FY

2009	1,505,817
2008***	1,295,373
2007	1,405,835
2006	1,338,992
2005**	1,328,012
2004	1,312,506
2003	1,467,106
2002	1,369,083
2001	1,462,593
2000	1,424,518
1999	1,281,448
1998	823,074
1997*	966,877
1996*	937,962
1995	864,675
1994	808,953
1993	750,018
1992	694,449
1991	781,676
1990	777,244

* Includes East Boston Service

** Incl part-year F3,F5,F5X

*** Includes part-year of Greenbush

Ferry Ridership by Month

F1 HINGHAM-BOSTON Commuter Ferry *Hingham Shipyard - Rowes Wharf*

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY Total
FY 2009	57,682	52,305	53,692	56,122	42,680	43,174	44,003	42,161	48,048	49,249	47,261	53,631	590,008
FY 2008	69,123	75,929	64,905	75,711	48,690	38,564	47,719	42,132	44,132	49,601	48,971	52,940	658,417
FY 2007	66,716	74,788	64,512	70,295	64,914	55,821	65,045	53,937	62,663	58,041	68,003	68,838	773,573
FY 2006	64,104	72,206	67,448	64,497	62,785	58,791	63,334	54,755	67,794	57,812	67,617	70,843	771,986
FY 2005	63,680	66,399	65,767	62,522	61,030	58,076	57,650	55,132	63,159	59,721	60,831	68,499	742,466
FY 2004	76,244	69,593	69,846	72,454	56,406	60,438	47,138	48,175	62,911	59,439	58,575	66,231	747,450
FY 2003	88,859	84,976	77,148	86,806	71,392	68,888	70,090	57,108	67,727	69,808	68,006	71,272	882,080
FY 2002	85,263	91,179	77,273	89,026	75,977	65,158	78,634	68,223	70,456	76,037	77,467	74,228	928,921
FY 2001	89,242	92,665	79,514	83,718	77,768	67,080	78,344	68,274	72,937	74,742	84,924	85,888	955,096

Service Note: Route F1 trips annulled 16 Jan - 1 Feb 2004 due to harbor ice conditions.

F2 F2H QUINCY-HULL-BOSTON-LOGAN AIRPORT Commuter Ferry

Hull - Boston	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY Total
FY 2009	9,987	8,972	8,424	8,688	6,348	7,138	7,163	7,051	7,724	8,313	7,622	9,165	96,595
FY 2008	7,975	8,487	6,836	7,674	6,317	5,009	5,921	5,705	6,010	6,474	6,599	7,670	80,677
FY 2007	7,117	7,858	5,859	6,488	5,960	4,868	5,439	4,905	5,787	5,686	6,596	7,685	74,248
FY 2006	6,165	7,651	6,357	5,701	5,725	5,025	5,348	5,007	5,958	5,482	5,901	6,610	70,930
FY 2005	6,061	6,564	5,892	5,342	4,886	4,831	4,600	5,137	5,933	5,161	5,368	6,588	66,363
FY 2004	5,693	4,933	4,568	4,669	3,464	3,907	4,210	3,924	4,584	4,835	4,687	5,858	55,332
FY 2003	5,151	5,086	4,224	4,452	3,596	3,276	4,044	3,658	4,409	4,470	4,468	4,710	51,544
FY 2002	4,019	4,449	3,431	3,848	3,231	2,370	3,081	3,082	3,316	3,487	3,567	3,941	41,822
FY 2001	4,019	4,572	3,670	3,951	3,448	2,643	3,231	2,683	3,161	3,271	3,646	3,993	42,288

Quincy - Boston	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY Total
FY 2009	29,504	34,208	12,165	10,926	6,674	4,746	3,527	4,859	6,390	10,395	11,572	12,435	147,401
FY 2008	28,583	32,118	17,497	11,502	7,168	6,265	5,441	6,055	6,318	12,379	12,092	19,077	164,495
FY 2007	25,812	31,860	14,992	10,489	8,512	8,270	6,036	6,083	8,016	8,947	12,177	19,330	160,524
FY 2006	23,170	26,804	13,816	7,178	7,300	6,295	4,907	4,895	6,684	9,921	9,347	11,775	132,092
FY 2005	18,781	21,083	13,163	8,464	5,747	4,859	2,492	3,095	5,085	9,499	7,561	15,233	115,062
FY 2004	22,938	25,601	9,920	6,103	4,356	5,295	1,425	3,406	4,302	6,284	9,234	13,754	112,618
FY 2003	22,484	24,816	11,855	8,841	6,169	5,710	3,072	2,692	5,607	7,599	7,575	13,302	119,722
FY 2002	29,787	32,292	16,605	12,895	10,594	10,353	4,800	7,497	6,430	9,522	11,648	15,199	167,622
FY 2001	42,910	25,882	18,356	17,752	11,982	7,165	8,254	8,554	8,645	13,073	13,842	20,498	196,913

Quincy - Logan	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY Total
FY 2009	5,522	4,914	3,854	3,917	2,694	2,673	2,023	2,168	3,091	3,361	3,328	3,396	40,941
FY 2008	6,969	7,534	5,359	5,480	4,084	3,088	2,925	3,278	3,693	4,934	4,384	5,215	56,943
FY 2007	13,603	11,529	6,135	6,655	5,467	4,339	3,304	3,276	4,397	4,443	5,341	6,185	74,674
FY 2006	6,263	6,055	4,672	3,985	4,069	3,141	2,735	2,902	3,886	4,519	4,388	4,840	51,455
FY 2005	7,335	8,047	5,763	5,373	4,123	4,424	2,274	2,547	4,131	4,747	4,815	5,261	58,840
FY 2004	7,011	6,399	5,819	6,525	5,832	4,548	1,459	2,745	4,348	4,616	4,879	5,676	59,857
FY 2003	7,938	8,295	6,112	6,465	4,775	4,842	3,093	2,650	4,435	4,891	4,983	5,663	64,142
FY 2002	9,633	10,600	5,209	5,708	4,998	4,005	3,356	3,841	4,510	6,361	3,346	6,630	68,197
FY 2001	8,822	9,295	7,662	7,990	7,213	6,371	4,998	5,272	6,087	7,540	8,472	9,317	89,039

*Georges Island**	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY Total
FY 2009	4,619	5,935	462	0	0	0	0	0	0	0	0	386	11,402
FY 2008	7,990	6,303	2,304	0	0	0	0	0	0	0	0	1,058	17,655
FY 2007	5,744	6,961	1,526	0	0	0	0	0	0	0	0	1,308	15,539
FY 2006	13,552	8,690	3,637	0	0	0	0	0	0	0	0	390	26,269
FY 2005	11,721	12,168	6,626	1,685	17	0	0	0	0	0	2,371	12,778	47,366
FY 2004	0	0	0	0	0	0	0	0	0	0	4,412	11,133	15,545

TOTAL F2 & F2H	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY Total
FY 2009	45,013	48,094	24,443	23,531	15,716	14,557	12,713	14,078	17,205	22,069	22,522	24,996	284,937
FY 2008	51,517	54,442	31,996	24,656	17,569	14,362	14,287	15,038	16,021	23,787	23,075	33,020	319,770
FY 2007	52,276	58,208	28,512	23,632	19,939	17,477	14,779	14,264	18,200	19,076	24,114	34,508	324,985
FY 2006	49,150	49,200	28,482	16,864	17,094	14,461	12,990	12,804	16,528	19,922	19,636	23,615	280,746
FY 2005	43,898	47,862	31,444	20,864	14,773	14,114	9,366	10,779	15,149	19,407	20,115	39,860	287,631
FY 2004	35,642	36,933	20,307	17,297	13,652	13,750	7,094	10,075	13,234	15,735	23,212	36,421	243,352
FY 2003	35,573	38,197	22,191	19,758	14,540	13,828	10,209	9,000	14,451	16,960	17,026	23,675	235,408
FY 2002	43,439	47,341	25,245	22,451	18,823	16,728	11,237	14,420	14,256	19,370	18,561	25,770	277,641
FY 2001	55,751	39,749	29,688	29,693	22,643	16,179	16,483	16,509	17,893	23,884	25,960	33,808	328,240

Greenbush Commuter Rail service commenced on October 31, 2007.
In FY2007 Logan ridership in July and August increased during the Ted Williams Tunnel temporary closure
* Service to Georges Island first operated in May 2004. Ridership for Georges Island is MBTA service only and does not represent total ridership to the island.
Service Note: Route F2/F2H service annulled 15 Jan - 5 Feb 2004 due to harbor ice conditions.
Route F2 became an MBTA service in May 2002. Prior data provided by private operator.

F4 BOSTON-CHARLESTOWN Inner Harbor Ferry *Charlestown Navy Yard - Long Wharf*

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FY Total
FY 2009	56,453	53,228	30,166	30,683	16,112	11,316	8,866	11,461	15,823	29,433	31,772	39,220	334,533
FY 2008	49,889	46,785	31,382	28,117	15,102	10,792	10,723	10,718	15,959	26,865	29,892	40,962	317,186
FY 2007	47,201	44,023	29,051	27,197	17,966	13,892	10,970	9,703	16,472	22,094	30,018	38,690	307,277
FY 2006	43,091	40,002	28,485	22,087	16,920	11,772	11,554	11,131	17,811	26,228	25,625	31,554	286,260
FY 2005	42,679	42,247	27,688	26,720	15,782	12,462	9,087	10,473	15,805	22,433	22,055	35,990	283,421
FY 2004	47,904	39,247	27,227	27,051	15,961	14,092	10,403	13,075	17,158	25,167	27,429	38,989	303,703
FY 2003	51,228	49,150	30,296	28,057	17,118	13,121	11,272	10,250	15,759	21,368	21,620	33,712	302,951
FY 2002	52,868	47,903	26,070	24,491	19,657	15,943	15,559	18,492	22,660	28,771	33,014	39,282	344,710
FY 2001	84,289	53,563	37,019	34,071	19,019	14,105	13,346	13,939	18,557	29,531	30,335	39,864	387,638

Chapter 5B – Contracted Bus Services

Certain bus services are operated by third parties under contract to the MBTA. These contracted bus services are categorized under distinct programs.

Private Carrier Program: Local bus service in MBTA-service district member communities such as Winthrop, Medford, Hingham, Hull, and Canton.

The MBTA selects bus carriers based on their ability to provide quality, cost-effective service. Competitive bids are advertised periodically. The MBTA determines fares and schedules, and monitors the service. The operators provide and maintain all vehicles.

Suburban Transportation Program: Local bus service in certain communities within the MBTA service district.

The MBTA makes financial assistance available to suburban communities within the MBTA service district to assist them in providing public transportation in underserved areas.

Inter-District Services Program: Beginning in 1987, the Commonwealth of Massachusetts provided financial assistance to Commuter Bus Operators who were providing services deemed essential to commuters in eastern Massachusetts. The routes complemented MBTA services, but did not compete with them. All funding for this program was eliminated by the Commonwealth in February 2009.

Estimated Average Weekday Contracted Bus Ridership

	FY 2009	FY 2008	FY 2007	FY 2006	FY 2005	FY 2004	FY 2003	FY 2002	FY 2001	FY 2000
Private Carrier Program	2,076	1,800	1,744	1,400	1,400	1,400	1,900	1,800	2,100	2,700
Suburban Carrier Program	691	746	1,305	1,100	1,100	1,000	1,500	1,600	1,700	1,800
Inter District Program*	n/a	1,571	1,591	1,900	1,900	2,000	2,100	2,400	2,400	2,200
TOTAL	**4,117**	**4,117**	**4,640**	**4,400**	**4,400**	**4,400**	**5,500**	**5,700**	**6,300**	**6,700**

* Last service ended in February 2009. Most services ended in November 2008.

Total Contracted Services Bus Ridership Since 1990

FY	Ridership	FY	Ridership
2009	992,486	1999	1,679,013
2008	1,116,445	1998	1,634,326
2007	1,247,736	1997	1,820,716
2006	1,291,691	1996	1,871,105
2005	1,273,785	1995	1,977,432
2004	1,275,960	1994	2,016,502
2003	1,383,389	1993	2,135,418
2002	1,431,539	1992	2,384,883
2001	1,565,143	1991	2,382,708
2000	1,683,655	1990	2,593,539

NOTE: In FY2008, Framingham, Natick and surrounding communities formed the Metrowest Regional Transit Authority. Five bus routes, previously included in the above figures in the Suburban Program, are now operated by MWRTA. Needham was withdrawn in September 2008.

Contracted Bus Services

Monthly Ridership

FY 09

Private Carrier Program	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL YTD
710 N Medford - Medford Sq or Meadow Glen Mall (Joseph's)	915	1,038	1,275	1,488	1,116	1,153	1,057	1,146	1,871	1,550	1,796	1,716	16,121
712/713 Point Shirley, Winthrop - Orient Heights (Paul Revere)	44,670	43,848	47,410	45,280	34,246	39,315	39,163	37,722	40,027	42,369	39,375	44,265	497,690
714 Hingham-Hull (JBL)	6,635	5,901	5,031	4,901	3,768	3,963	4,059	4,331	4,902	5,389	5,117	5,109	59,106
716 Cobbs Corner, Canton - Mattapan Station (JBL)	1,784	1,858	2,139	2,351	1,856	1,972	1,736	1,828	1,970	2,369	2,287	2,269	24,419
Totals	54,004	52,645	55,855	54,020	40,986	46,403	46,015	45,027	48,770	51,677	48,575	53,359	597,336

Suburban Carrier Program	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL YTD
Bedford Local Transit	576	523	578	550	439	429	549	577	552	645	595	634	6,647
Beverly Shoppers' Shuttle	1,660	1,663	1,751	1,604	1,433	1,531	1,544	1,486	1,558	1,694	1,562	1,499	18,985
Burlington B-Bus 1,2,3,4,5,6	5,194	4,481	4,227	4,138	3,483	3,688	2,070	1,942	2,119	2,158	2,184	2,182	37,866
Dedham Local Bus	1,797	1,902	1,945	2,011	1,553	1,664	1,575	1,678	1,882	1,927	1,873	1,988	21,795
Lexington Lexpress 1,2,3,4,5,6	3,847	3,549	6,762	7,707	6,592	6,121	5,852	5,581	7,056	5,663	6,317	6,094	71,141
Mission Hill Link Red, Blue, Green	1,894	1,917	1,800	1,922	1,529	1,515	1,665	1,650	1,535	1,573	1,552	1,584	20,136
Needham	726	586	620	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,932
Totals	15,694	14,621	17,683	17,932	15,029	14,948	13,255	12,914	14,702	13,660	14,083	13,981	178,502

Inter-District Carrier Program	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL YTD
Bloom (Taunton-Boston)	7,222	6,961	7,470	7,756	5,774	6,611	6,440	6,456					54,690
Cavalier Coach (Northborough-Boston)	750	560	823	689	420	0	0	0					3,242
Cavalier Coach (Marlborough-Boston)	868	1,087	819	856	482	0	0	0					4,112
Peter Pan (Worcester-Boston)	1,724	1,617	1,723	1,782	780	0	0	0	Inter District Program was discontinued in February 2009				7,626
Plymouth and Brockton (Plymouth-Boston, Duxbury-Boston)	12,019	10,472	12,200	12,507	9,089	11,570	12,608	11,917					92,382
Plymouth and Brockton (Marshfield-Braintree MBTA)	900	834	819	981	501	0	0	0					4,035
The Coach Company (Plaistow, NH-Boston)	12,096	10,806	11,779	10,567	5,313	0	0	0					50,561
Totals	35,579	32,337	35,633	35,138	22,359	18,181	19,048	18,373	0	0	0	0	216,648

GRAND TOTAL	105,277	99,603	109,171	107,090	78,374	79,532	78,318	76,314	63,472	65,337	62,658	67,340	**992,486**

Private Carrier Operators: Paul Revere - Paul Revere Transportation Company. JBL - JBL Bus Lines. Joseph's: Joseph's Transportation Inc.
FY2008-2009 Changes: Needham withdrew from the Suburban Transportation Program in September 2008.

Contracted Bus Services
Communities Served, March 2010

Private Carrier Program	
710 N Medford - Wellington/Meadow Glen Mall via Medford Sq	Medford
712/713 Point Shirley, Winthrop - Orient Heights	Winthrop, Boston
714 Hingham-Hull	Hingham, Cohasset, Hull
716 Cobbs Corner, Canton - Mattapan Station	Canton, Milton, Boston

Suburban Carrier Program	
Bedford Local Transit (Fixed Route Service)	Bedford, Burlington
Beverly Shoppers' Shuttle/Commuter Bus	Beverly
Burlington B-Line	Burlington, Lexington
Dedham Local Bus	Dedham, Boston
Lexington Lexpress	Lexington, Burlington
Mission Hill Link - Red, Green, Blue routes	Boston

CHAPTER 6 - THE RIDE

THE RIDE is the MBTA's door-to-door Paratransit program for persons who are unable to use fixed-route MBTA services due to a disability. THE RIDE is a shared-ride service - customers may travel with others who are going in the same general direction.

THE RIDE is compliant with the Americans with Disabilities Act (ADA), and began with two lift-equipped vans serving an area of 12 square miles in Brookline and parts of Boston in April, 1977. The MBTA's Office for Transportation Access (OTA) manages THE RIDE program and determines customer eligibility via a written application process. ADA-certified visitors are eligible for THE RIDE service with prior arrangement.

THE RIDE (as of Fall, 2009) serves:

- An area of 688 square miles
- Over 65,000 registered customers
- All areas with MBTA bus, trackless trolley, light rail/trolley, or rapid transit service. (ADA does not require Paratransit service in areas with express service [commuter boat, commuter bus, and commuter rail] only, or in areas without mass transit service.)

THE RIDE service is provided by three private firms under contact to the MBTA. One of THE RIDE contractors also uses a subcontractor. In total, these firms employ approximately 995 people to provide THE RIDE service. Contractors hire and train all required staff; take trip requests; schedule trips; maintain, operate, and provide storage for all RIDE vehicles; and investigate and resolve service complaints. THE RIDE service is provided utilizing a fleet of lift-equipped vans, and sedans. All RIDE vehicles are equipped with radios, global position satellite/automatic vehicle location equipment, and mobile data computers. The MDC/ AVL units in each vehicle are in connected via wireless communication network to the new RIDE Computer System for more effective scheduling, dispatching, and monitoring.

Customers can request THE RIDE service to and from any point in the 60 RIDE-served communities. Boston customers have a choice of contractors for intracity trips. THE RIDE service is provided daily generally from 6AM to 1AM, including holidays running as a complementary service to our Fixed Route. Customers reserve RIDE trips by contacting the appropriate contracted firm daily 8:00 AM to 4:00 PM. Although same-day and after 4:00 PM requests for service are accommodated whenever possible, customers are strongly encouraged to call in advance (up to 14 days) to secure a reservation. There is no limit to the number of trips a RIDE customer can take.

THE RIDE fares are paid through a debit account that is established by the customer. Fare is a one way flat fee of $2.00 regardless of area traveled. If you are traveling with a Personal Care Assistant, PCA, the PCA is not charged. Guest fare is $2.00. Contractor service areas remain the same and vehicle transfers are still required where necessary. Trips that cross contractor service area boundaries may require vehicle transfers arranged between contractors, with any additional fare being deducted automatically from the customer's RIDE account. To ensure the personal safety of the customer, THE RIDE vehicles wait for each other when transferring patrons. The use of prepaid paper tickets for THE RIDE service was discontinued effective March 1, 2005, although any remaining tickets can be returned for

credit into the new RIDE Account System. THE RIDE fare deposits may be made by phone as well as the Internet, US Mail or in person.

THE RIDE customers are allowed at least one companion (more by arrangement and if space permits). The companion's fare is paid using the customer's account and must travel with the customer. Animals, other than service animals, are not permitted, and school transportation for minors (grades K-12) is not provided by THE RIDE. THE RIDE customers are also allowed to travel with a Personal Care Attendant, PCA. The PCA travels with the RIDE customer free.

THE RIDE budget for FY 2010 is $75M, an increase of approximately 20.6% over FY 2009 levels. THE RIDE has improved in the following significant areas:

- Ridership- increased by 11.3% in FY08, & 12.4% in FY09
- Record ridership, with a new high of 179,994 passenger trips in October 2009
- There was a 0% trip denial rate in FY09.
- On-time service- is currently at 99.18% within 30 min. & 94.38% within 15 min.
- 21,543 RIDE documents (new applications, re-certifications, denials, etc). were processed in FY09

Typical day RIDE requests are approximately:

	Weekday	**Saturday**	**Sunday**
FY 2009	7,543	3,183	2,490
FY 2008	7,226	3,049	2,386
FY 2007	6,510	2,747	2,150
FY 2006	5,995	2,530	1,980
FY 2005	5,400	2,300	1,800
FY 2004	5,300	2,250	1,750
FY 2003	5,500	2,100	1,600
FY 2002	5,000	2,000	1,500
FY 2001	4,800	1,700	1,300

THE RIDE contact information is:

MBTA Office for Transportation Access
10 Park Plaza, Room 5750
Boston, MA 02116
800-533-6282(V) toll-free in Massachusetts; 617-222-5123(V); 617-222-5415(TTY)
Email THERIDE@MBTA.COM

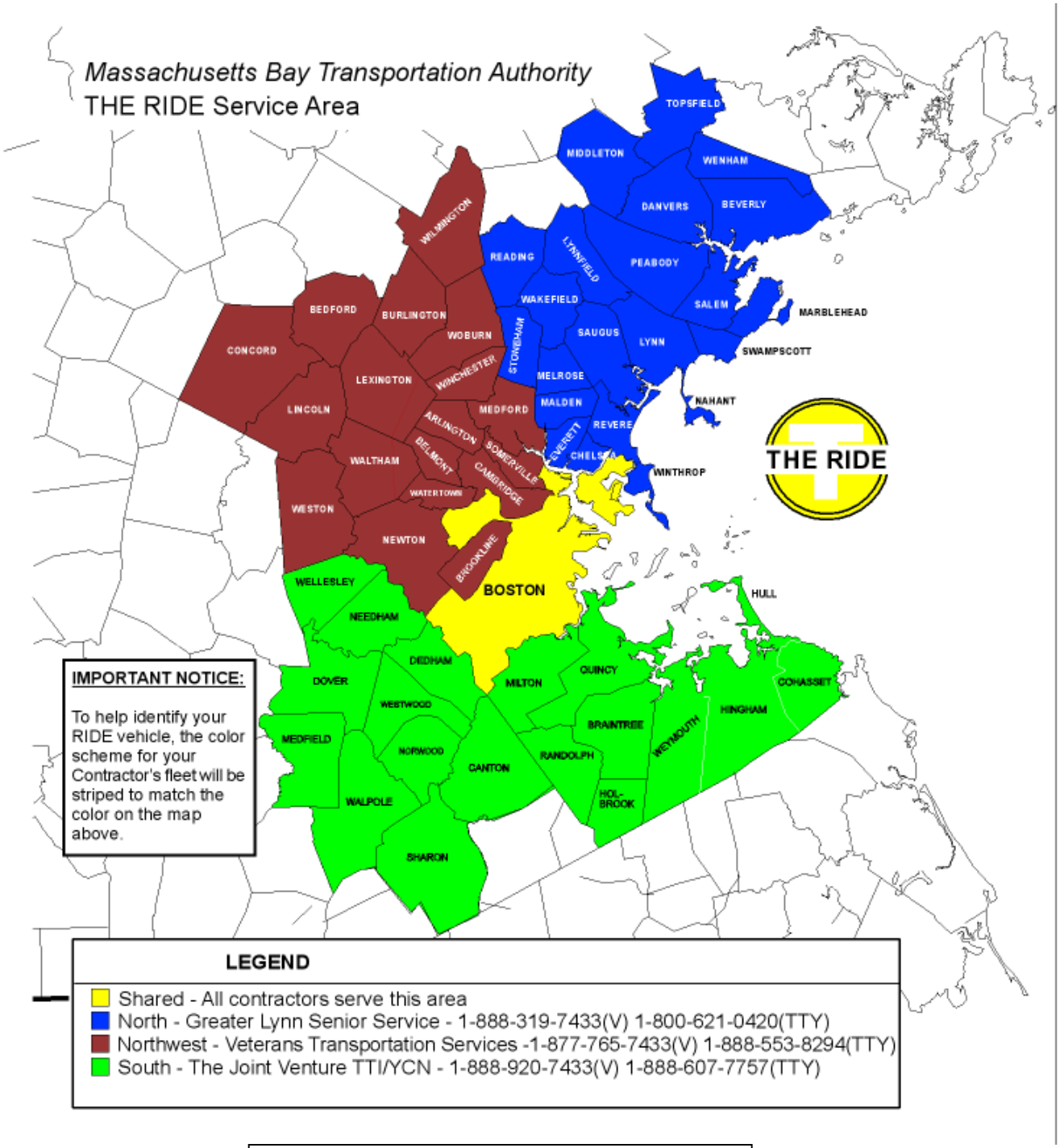
And for in-person RIDE Account Deposits:

MBTA Office for Transportation Access
Back Bay Station — Orange Line
145 Dartmouth Street
Boston, MA, 02116
Walk-in office hours, Monday – Friday, 8:30AM – 5:00PM.

For Deposits by the internet or phone:

https://commerce.mbta.com/THERIDE/
888-844-0355 (V) – 7:00AM to 11:00PM Mon-Fri and 8:00AM-5:00PM Sat-Sun, (except Thanksgiving, Christmas and New Years)

The RIDE Service Area



Colors
North/GLSS - Blue
Northwest/Veterans - Brown
South/The Joint Venture TTI/YCN - Green

THE RIDE
Service Area Regions
February 2010



	G	V	J
URBAN CORE	**NORTH: 22**	**NORTHWEST: 18**	**SOUTH: 19**
Boston: Neighborhoods	Beverly	Arlington	Braintree
Allston	Chelsea	Bedford	Canton
Back Bay	Danvers	Belmont	Cohasset
Beacon Hill	Everett	Brookline	Dedham
Brighton	Lynn	Burlington	Hingham
Charlestown	Lynnfield	Cambridge	Holbrook
Chinatown	Malden	Concord	Hull
Dorchester	Marblehead	Lexington	Medfield
Downtown Boston	Melrose	Lincoln	Milton
East Boston	Middleton	Medford	Needham
Fenway	Nahant	Newton	Norwood
Hyde Park	Peabody	Somerville	Quincy
Jamaica Plain	Reading	Waltham	Randolph
Mattapan	Revere	Watertown	Sharon
North End	Salem	Weston	Walpole
Roslindale	Saugus	Wilmington	Wellesley
Roxbury	Stoneham	Winchester	Westwood
South Boston	Swampscott	Woburn	Weymouth
South End	Topsfield		
West Roxbury	Wakefield		
	Wenham		
	Winthrop		

Total Number of Communities Served: 59

CONTRACTORS

NORTH: (G)
Greater Lynn Senior Services, Inc (GLSS)
147 Summit Drive Unit 2A
Peabody, MA 01960
1-888-319-7433 1-800-621-0420 TTY

NORTHWEST: (V)
Veterans Transportation LLC. (VT LLC)
224 Calvery Street
Waltham, MA 02154
1-877-765-7433 1-888-553-8294 TTY

SOUTH: (T)
The Joint Venture of Thompson Transit, Inc and YCN Transportation, Inc (TTI/YCN)
110 Meadow RoadBld 400
Readville, MA 02136
1-888-920-7433 1-888-607-7757 TTY

Note on Boston Neighborhoods: Trips with pickups and dropoffs in Boston may select the contractor of their choice.

THE RIDE
Trip Origin by Community



Community	FY 09 TOTAL	FY 08 TOTAL	FY 07 TOTAL	FY 06 TOTAL	FY 05 TOTAL	FY 04 TOTAL	FY 03 TOTAL	FY 02 TOTAL	FY 01 TOTAL	FY 00 TOTAL	FY 99 TOTAL	FY 09 Relative
Arlington	23,630	19,776	17,750	17,573	13,371	10,788	9,374	10,751	10,918	12,716	10,515	1.19%
Bedford	6,954	5,964	3,684	3,448	3,338	3,455	3,107	2,278	1,727	2,304	3,608	0.35%
Belmont	11,766	10,064	8,439	7,680	6,359	6,995	5,611	5,544	4,824	3,959	3,353	0.59%
Beverly	15,459	12,883	12,374	8,902	8,639	9,772	10,316	8,971	7,953	8,271	8,396	0.78%
Boston	491,372	431,277	399,445	377,139	363,244	373,429	323,652	291,795	271,817	278,687	251,071	24.77%
Braintree	20,475	16,942	14,395	16,245	15,844	14,087	13,099	13,428	13,961	13,047	12,309	1.03%
Brookline	59,483	56,515	52,247	49,836	44,752	50,021	51,911	57,404	64,291	74,417	74,314	3.00%
Burlington	9,782	9,182	8,150	6,838	4,482	5,041	3,936	3,239	3,089	4,024	3,775	0.49%
Cambridge	41,656	38,065	35,121	34,515	27,780	24,229	21,259	19,435	15,771	18,800	19,912	2.10%
Canton	14,620	12,839	12,600	12,291	10,730	9,390	6,929	8,594	8,416	7,744	7,190	0.74%
Chelsea	29,058	27,901	25,872	21,581	18,145	18,559	16,935	13,591	12,940	11,438	8,767	1.46%
Cohasset	1,194	1,182	462	468	643	1,417	679	614	596	408	477	0.06%
Concord	3,747	3,944	2,585	2,437	2,084	1,960	1,683	1,567	1,341	1,790	1,629	0.19%
Danvers	13,067	11,531	9,841	9,880	10,368	10,278	8,074	7,203	7,385	7,170	7,417	0.66%
Dedham	17,052	15,316	14,465	12,946	11,507	9,669	9,091	9,454	9,259	9,117	9,958	0.86%
Dover	354	404	339	121	132	191	17	24	0	39	21	0.02%
Everett	22,478	18,609	16,997	15,277	12,275	13,044	13,975	11,477	12,174	10,320	10,991	1.13%
Framingham	41,221	38,366	38,979	38,824	38,717	36,197	32,345	33,962	34,917	38,098	43,714	2.08%
Hingham	6,411	5,447	5,269	5,466	5,103	4,779	3,957	2,965	2,082	1,728	1,686	0.32%
Holbrook	4,284	3,801	3,688	3,319	3,198	4,087	3,357	3,880	3,462	3,449	2,897	0.22%
Hull	4,671	4,168	3,665	2,687	2,372	2,042	1,844	2,047	2,618	3,121	2,513	0.24%
Lexington	17,376	13,199	10,786	10,357	9,145	9,904	8,104	7,085	7,433	9,361	10,515	0.88%
Lincoln	2,215	1,986	1,483	1,253	764	923	245	204	615	1,017	1,438	0.11%
Lynn	87,628	81,294	76,881	70,088	67,939	67,007	61,278	53,655	50,382	43,808	40,303	4.42%
Lynnfield	3,997	3,105	2,987	2,150	2,795	3,265	3,976	3,562	2,730	1,613	1,966	0.20%
Malden	50,471	42,065	35,272	29,627	25,971	26,696	24,446	23,491	22,436	17,485	16,536	2.54%
Marblehead	6,479	5,838	4,676	4,409	4,081	4,228	4,170	4,608	4,334	4,397	3,186	0.33%
Medfield	1,886	2,107	2,475	2,319	1,946	759	508	474	1,629	1,531	1,396	0.10%
Medford	41,460	36,403	29,950	28,580	22,211	18,594	16,450	15,154	13,939	14,429	10,643	2.09%
Melrose	14,811	12,270	10,516	9,139	8,426	8,921	7,152	7,181	7,050	5,464	14,768	0.75%
Middleton	3,653	4,036	3,124	2,788	1,487	1,119	923	459	224	262	223	0.18%
Milton	16,683	14,229	13,065	11,668	10,386	9,549	8,411	8,006	6,875	7,185	6,437	0.84%
Nahant	2,689	2,650	2,303	1,913	2,249	2,591	2,526	1,977	1,838	1,343	1,492	0.14%
Natick	18,450	17,353	16,321	14,927	13,795	13,918	12,440	12,574	11,022	14,310	15,467	0.93%
Needham	14,174	12,659	12,637	14,239	13,905	14,233	12,653	12,715	13,338	14,612	14,960	0.71%
Newton	91,934	85,970	82,452	76,251	69,568	70,520	63,642	66,467	71,216	76,418	76,857	4.63%
Norwood	21,663	21,512	20,870	20,897	21,193	20,642	19,506	20,099	21,415	24,724	25,128	1.09%
Peabody	48,981	43,301	34,105	28,173	21,795	21,243	18,876	16,799	16,227	16,609	15,776	2.47%
Quincy	76,702	68,863	59,560	56,300	51,277	50,178	43,130	40,761	37,959	32,679	29,882	3.87%
Randolph	22,792	21,908	18,116	18,483	21,927	21,393	20,812	18,054	17,217	15,882	13,036	1.15%
Reading	8,348	7,376	5,804	4,200	3,336	2,724	2,194	1,658	1,736	1,331	1,597	0.42%
Revere	64,028	57,512	50,291	42,701	38,321	37,284	36,272	28,987	25,469	21,539	13,042	3.23%
Salem	30,086	24,990	20,435	18,220	14,335	14,587	14,543	15,709	13,646	12,314	11,964	1.52%
Saugus	23,482	22,039	18,588	17,108	14,672	13,908	11,891	8,361	7,504	6,938	7,044	1.18%
Sharon	9,979	10,528	9,781	8,123	7,837	7,008	5,733	5,008	4,541	6,576	6,021	0.50%
Somerville	39,950	33,909	30,915	30,051	23,193	19,651	19,460	18,701	18,115	19,380	17,324	2.01%
Stoneham	12,971	9,638	7,107	6,247	5,398	5,627	4,115	4,662	5,909	5,300	3,818	0.65%
Swampscott	13,395	12,502	11,183	9,571	9,010	8,868	7,298	6,069	6,213	6,337	5,833	0.68%
Topsfield	1,477	976	1,004	1,050	612	480	471	498	695	907	856	0.07%
Wakefield	11,667	9,915	8,983	7,851	6,548	6,886	4,722	4,876	3,895	3,656	2,069	0.59%
Walpole	10,647	9,440	8,837	7,640	6,759	6,716	6,713	7,419	7,586	7,448	8,841	0.54%
Waltham	34,593	33,035	29,600	25,565	20,530	18,251	18,724	18,145	18,544	23,207	22,346	1.74%
Watertown	27,756	26,689	24,143	21,921	17,325	15,920	15,999	14,809	14,681	15,678	12,416	1.40%
Wellesley	7,556	8,039	7,439	7,218	6,966	6,695	6,146	5,894	4,387	3,610	4,338	0.38%
Wenham	1,070	755	566	706	442	153	152	57	389	367	0	0.05%
Weston	2,426	1,940	1,662	1,587	1,428	744	288	460	579	948	610	0.12%
Westwood	10,349	8,413	7,082	6,601	5,519	5,017	4,639	3,198	3,506	3,561	5,888	0.52%
Weymouth	33,034	28,687	27,155	24,728	24,001	22,846	21,741	20,480	18,249	16,268	16,108	1.67%
Wilmington	5,016	5,710	6,548	5,965	4,684	3,288	2,458	2,139	2,041	2,431	4,419	0.25%
Winchester	3,527	3,298	2,764	2,734	4,176	4,632	3,031	2,252	1,966	2,648	3,848	0.18%
Winthrop	21,795	19,323	16,110	14,458	11,105	9,908	9,911	8,050	7,318	6,114	5,163	1.10%
Woburn	23,035	19,898	18,705	17,250	14,881	13,923	13,082	10,805	9,321	13,712	10,849	1.16%
Other and Transfers	204,524	174,577	145,734	126,295	110,225	109,207	98,137	87,323	76,925	61,769	180,758	10.31%
TOTAL	**1,983,489**	**1,764,113**	**1,584,382**	**1,458,824**	**1,325,246**	**1,309,436**	**1,178,119**	**1,097,108**	**1,050,635**	**1,055,815**	**1,129,674**	**100.00%**
Growth Over Previous Year	**12.4%**	**11.3%**	**8.6%**	**10.1%**	**1.2%**	**11.1%**	**7.4%**	**4.4%**	**-0.5%**	**-6.5%**	**-3.3%**	
Growth Over FY99	**75.6%**	**56.2%**	**40.3%**	**29.1%**	**17.3%**	**15.9%**	**4.3%**	**-2.9%**	**-7.0%**	**-6.5%**	**0.0%**	

THE RIDE
Fleet as of February 2010



MBTA-Owned Vehicles

Year Built	Builder/ Rebuilder	Vehicle Type	Seating Capacity	Length (Feet)	Width (Inches)	Fuel	Engine Manufacturer	Fleet Size
2008	Shepard Br.	Van	8			Gas	Ford	42
2007	Shepard Br.	Van	8			Gas	Ford	84
2006	Shepard Br.	Van	8			Gas	Ford	50
2003	Braun Corp	Van	8	19	81	Gas	Dodge	79
TOTAL VANS								**255**
2009	Ford	Sedan	5			Gas	Ford	14
2008	Ford	Sedan	5			Gas	Ford	7
2007	Ford	Sedan	5			Gas	Ford	26
2005	Ford	Sedan	5			Gas	Ford	162
TOTAL SEDANS								**209**

TOTAL MBTA-OWNED FLEET SIZE **464**

Contractor-Owned Vehicles

VANS:	Lift -equipped, comparable to MBTA-owned vehicles	55
SEDANS:	Ford Crown Victorias, etc.	76
TAXIS:	Available for RIDE use	51

TOTAL CONTRACTOR-OWNED FLEET SIZE **182**

Total Ride Vehicles **646**

THE RIDE
Growth Since Inception

Fiscal Year	Fleet Size	Total Trips
2009	T464/C182/646	1,983,489
2008	T419/C157/576	1,764,113
2007	T367/C172/539	1,584,382
2006	T367/C172/539	1,458,824
2005	T300/C203/503	1,325,246
2004	T127/C303/430	1,309,436
2003	T117/C290/407	1,178,119
2002	T226/C186/412	1,097,108
2001	T241/C168/409	1,050,635
2000	T265/C166/431	1,055,815
1999	T290/C131/421	1,129,674
1998	T255/C118/373	1,168,052
1997	T155/C226/381	1,056,592
1996	T198/C148/346	933,380
1995	T161/C124/285	807,255
1994	T139/C120/259	606,149
1993	T129/C120/249	515,828
1992	T116/C105/221	458,652
1991	121	404,099
1990	103	328,683
1989	103	265,069
1988	86	231,380
1987	87	201,727
1986	70	183,226
1985	47	146,368
1984	44	112,846
1983	44	96,000
1982	29	81,923
1981	29	82,794
1980	31	73,542
1979	27	38,787
1978	2	18,247
1977	2	9,086

Chapter 7 - Revenue

Assessments to Cities & Towns

(All figures in $)

Community	FY2010	FY2009	FY2008	FY2007	FY2006	FY2005	FY2004	FY2003	FY2002	FY2001	FY2000
Abington	78,888	81,376	88,016	88,865	86,152	66,375	46,652	30,164	14,959		
Acton	108,703	107,610	108,251	104,882	101,104	76,468	51,009	27,590	4,613		
Amesbury	38,819	18,650	46,366	40,370	25,274	6,548	0	0	0		
Andover	66,366	80,457	95,468	96,361	80,250	43,501	0	0	0		
Arlington	2,527,027	2,483,453	2,489,938	2,416,521	2,348,168	2,458,336	2,581,291	2,685,729	2,823,203	2,883,493	2,883,493
Ashburnham	15,485	18,043	23,747	24,295	22,781	15,403	6,095	776	0		
Ashby	15,160	16,132	15,038	12,585	12,040	8,583	9,732	5,485	2,958		
Ashland	68,705	99,411	98,778	95,219	91,429	139,248	185,857	235,594	285,195	335,112	335,112
Attleboro	0	0	35,479	61,956	58,167	7,560	0	0	0		
Auburn	0	1,416	14,989	15,870	0	6,308	0	0	0		
Ayer	26,462	26,401	28,724	28,661	29,534	21,264	12,499	4,750	0		
Bedford	269,138	259,662	250,903	242,723	235,043	257,808	280,564	303,355	333,140	347,752	347,752
Bellingham	24,649	100,794	100,258	96,654	92,794	73,157	54,055	36,033	19,758		
Belmont	1,434,505	1,409,235	1,411,613	1,372,925	1,337,016	1,351,163	1,369,992	1,377,965	1,393,282	1,387,749	1,387,749
Berkley	35,268	34,953	35,492	35,600	33,784	25,589	17,184	10,495	3,785		
Beverly	808,479	796,841	802,840	778,751	751,939	789,704	821,280	860,087	902,866	933,929	933,929
Billerica	71,776	71,196	67,301	63,038	51,992	7,598	0	0	0		
Boston	74,728,852	71,436,756	67,531,540	66,210,888	65,185,386	65,075,413	64,591,394	63,915,492	63,045,635	62,237,657	62,237,657
Boxborough	300	22,261	32,154	30,930	29,614	23,164	17,183	11,454	5,105		
Boxford	50,267	50,750	50,433	45,326	48,533	38,375	27,960	18,637	11,334		
Braintree	704,722	688,959	678,113	656,741	630,018	706,996	784,188	860,718	947,127	1,010,598	1,010,598
Bridgewater	143,127	143,952	144,206	141,927	133,206	105,206	72,896	41,758	10,622		
Brockton	0	0	0	0	0	0	0	0	0		
Brookline	4,488,424	4,453,268	4,476,864	4,357,560	4,232,153	4,445,753	4,665,485	4,867,457	5,053,501	5,251,271	5,251,271
Burlington	512,522	501,729	469,088	450,254	426,805	488,284	551,060	613,188	682,347	735,299	735,299
Cambridge	8,302,878	8,171,565	8,064,231	7,815,118	7,590,333	7,418,110	7,266,091	7,117,570	6,905,662	6,784,520	6,784,520
Canton	448,687	438,789	434,298	416,946	400,038	423,776	445,543	474,522	507,533	530,518	530,518
Carlisle	23,341	20,255	30,673	29,617	28,727	22,756	16,650	11,099	5,940		
Carver	30,407	31,310	23,424	47,158	45,609	31,610	17,752	5,146	0		
Chelmsford	14,384	15,636	21,226	18,627	12,188	0	0	0	0		
Chelsea	2,346,393	1,982,651	1,964,095	1,932,646	1,911,239	1,855,800	1,775,408	1,681,503	1,514,478	1,483,967	1,483,967
Cohasset	147,038	145,571	145,404	141,030	136,210	140,876	145,766	150,920	156,754	160,538	160,538
Concord	357,910	338,362	338,905	328,032	316,373	326,435	336,786	346,670	362,747	364,828	364,828
Danvers	547,367	520,634	524,375	497,485	477,968	505,258	536,132	569,018	607,466	632,406	632,406
Dedham	494,056	475,933	477,886	450,293	434,184	496,420	560,389	621,697	687,590	742,111	742,111
Dover	115,202	113,687	113,573	109,680	106,080	108,169	109,990	113,141	117,030	118,916	118,916
Dracut	128,717	160,234	158,071	151,053	145,369	111,042	77,192	44,157	12,898		
Duxbury	79,001	92,570	93,119	90,086	86,620	129,341	172,178	216,331	262,933	304,677	304,677
East Bridgewater	57,808	56,490	58,710	59,756	58,954	47,044	31,594	17,327	1,845		
Easton	146,310	146,035	146,271	141,411	135,714	106,497	78,711	52,468	26,621		
Essex	19,358	19,602	19,787	19,107	17,932	14,137	9,799	5,996	2,573		
Everett	2,289,028	2,237,556	2,224,963	2,163,445	2,103,674	2,110,447	2,128,991	2,129,098	2,110,100	2,119,176	2,119,176
Fitchburg	0	0	0	0	0	0	0	0	0		
Foxborough	26,900	97,187	103,618	100,284	96,794	76,952	57,345	38,226	20,306		
Framingham	729,544	1,305,201	1,309,879	1,271,835	1,237,379	1,302,992	1,367,976	1,427,829	1,491,741	1,541,200	1,541,200
Franklin	54,303	192,255	196,229	185,140	178,291	140,561	104,341	69,552	35,678		
Freetown	35,127	23,659	57,034	55,010	52,362	40,951	29,904	19,934	10,975		
Georgetown	45,129	46,066	46,358	46,605	33,953	24,214	26,039	17,357	9,582		
Gloucester	0	0	0	0	0	0	0	0	0		
Grafton	107,302	105,382	101,376	94,644	86,822	69,891	48,617	27,984	10,149		
Groton	47,998	47,812	47,466	45,218	41,961	29,072	16,218	5,411	0		
Groveland	38,407	38,095	40,653	34,495	37,472	29,184	21,313	14,207	7,356		
Halifax	49,048	49,376	49,602	47,714	46,028	36,283	26,474	17,647	9,050		
Hamilton	167,633	166,612	168,093	163,366	157,467	161,038	164,794	169,630	172,974	178,514	178,514
Hanover	88,962	89,501	89,567	84,948	80,847	121,197	161,277	203,170	246,239	286,993	286,993
Hanson	63,418	63,338	63,049	60,695	58,205	46,108	33,515	22,341	12,213		
Harvard	26,794	29,166	31,649	30,727	29,765	22,388	9,270	5,219	14,542		
Haverhill	0	2,592	46,252	9,394	4,775	0	0	0	0		
Hingham	458,473	439,030	433,009	410,993	379,546	405,588	432,480	463,257	500,077	522,934	522,934
Holbrook	218,304	216,250	216,937	210,014	203,064	225,252	247,817	271,119	297,698	316,707	316,707
Holden	68,284	72,194	69,994	63,264	28,461	10,495	0	0	0		
Holliston	61,164	88,112	87,955	85,353	82,590	65,635	48,715	32,473	16,888		
Hopkinton	82,914	89,862	89,637	86,039	82,826	65,359	47,109	31,402	14,393		
Hull	226,575	226,348	227,105	219,476	211,114	223,406	233,108	246,586	260,046	272,499	272,499
Ipswich	79,547	79,938	80,092	77,612	74,573	57,860	41,793	26,608	11,909		
Kingston	24,394	42,317	52,116	55,713	56,826	38,009	26,921	13,417	5,369		
Lakeville	52,521	52,917	58,074	56,529	53,963	40,929	27,178	15,804	4,686		
Lancaster	26,324	28,033	24,150	21,898	20,158	16,672	15,041	9,002	0		

Assessments to Cities & Towns

(All figures in $)

Community	FY2010	FY2009	FY2008	FY2007	FY2006	FY2005	FY2004	FY2003	FY2002	FY2001	FY2000
Lawrence	0	0	0	14,912	43,649	0	0	0	0		
Leicester	0	17,977	3,800	748	4,754	0	0	0	0		
Leominster	0	0	0	0	0	0	0	0	0		
Lexington	620,987	609,270	609,357	589,773	572,168	623,478	675,020	729,369	785,946	835,207	835,207
Lincoln	163,662	160,183	159,679	155,106	150,668	161,739	172,487	183,583	195,667	205,014	205,014
Littleton	29,737	33,594	42,298	39,963	38,353	23,833	14,371	5,727	0		
Lowell	0	0	0	0	0	0	0	0	0		
Lunenburg	34,855	36,624	39,039	37,783	36,269	24,135	12,934	3,269	0		
Lynn	1,783,651	1,773,354	1,787,685	1,734,964	1,673,131	1,788,094	1,909,168	2,033,081	2,140,426	2,272,494	2,272,494
Lynnfield	233,024	230,620	232,460	225,680	218,306	231,682	245,868	261,136	278,029	290,583	290,583
Malden	3,421,780	3,361,354	3,374,621	3,218,847	3,127,827	3,170,258	3,223,482	3,258,650	3,277,490	3,313,687	3,313,687
Manchester	107,790	106,613	107,411	104,115	100,178	105,124	110,971	117,689	126,486	130,631	130,631
Mansfield	52,545	69,447	90,929	99,952	104,389	68,010	49,271	31,917	12,890		
Marblehead	410,259	407,732	408,647	394,960	382,012	418,851	456,796	495,111	535,755	569,821	569,821
Marlborough	182,084	175,075	182,228	181,859	180,132	132,686	82,163	44,195	0		
Marshfield	147,542	157,481	158,098	152,180	146,385	218,836	290,672	364,416	439,010	511,972	511,972
Maynard	0	64,550	64,979	63,295	61,295	49,012	36,826	24,548	12,939	0	0
Medfield	251,122	247,831	248,506	240,357	231,886	236,879	241,043	247,084	253,195	258,002	258,002
Medford	3,412,752	3,366,553	3,232,800	3,152,365	3,067,194	3,207,250	3,369,013	3,493,003	3,643,709	3,726,134	3,726,134
Medway	5,089	64,144	65,894	79,018	76,220	60,470	43,939	29,289	14,681		
Melrose	548,308	537,421	530,818	514,430	500,309	577,886	657,812	733,594	814,547	882,613	882,613
Merrimac	4,720	0	2,915	0	0	0	0	0	0		
Methuen	0	0	0	0	0	0	0	0	0		
Middleborough	4,495	34,758	59,623	95,338	93,815	64,694	42,063	24,168	5,100		
Middleton	191,362	187,814	186,697	176,569	167,816	155,951	137,461	133,959	125,591	126,218	126,218
Millbury	52,411	51,831	54,533	54,372	35,693	20,683	5,181	0	0		
Millis	44,360	44,635	41,721	41,617	41,709	67,704	99,432	138,532	169,886	199,898	199,898
Milton	1,613,602	1,566,072	1,572,459	1,503,854	1,448,139	1,453,640	1,462,388	1,464,289	1,474,424	1,461,277	1,461,277
Nahant	72,045	71,627	72,299	70,186	67,787	85,373	103,232	120,964	139,847	156,091	156,091
Natick	378,937	642,625	643,121	622,617	603,737	651,332	699,877	749,728	802,905	846,392	846,392
Needham	578,630	571,724	572,151	562,688	544,261	581,369	618,228	657,656	697,835	733,781	733,781
Newbury	44,117	44,094	44,476	42,225	40,539	32,149	23,710	15,805	7,643		
Newburyport	20,874	0	7,432	0	0	0	0	0	0		
Newton	5,114,430	5,007,355	5,022,762	4,874,336	4,725,307	4,742,915	4,818,821	4,882,424	4,945,829	4,988,614	4,988,614
Norfolk	176,369	207,586	211,199	203,422	195,200	201,571	208,027	214,471	224,152	226,367	226,367
North Andover	67,716	75,659	92,947	106,272	100,221	67,412	34,336	3,834	0		
North Attleborough	5,861	9,458	58,658	87,621	84,548	49,498	16,726	0	0		
North Reading	89,312	88,454	88,602	85,727	82,868	126,810	171,097	215,919	260,946	305,602	305,602
Northborough	73,790	72,111	73,722	63,122	61,413	44,543	29,563	11,591	0		
Northbridge	91,567	91,466	90,299	85,126	80,977	63,440	46,530	31,016	17,712		
Norton	28,027	39,349	71,743	73,259	79,332	49,908	32,243	20,566	8,102		
Norwell	65,425	65,748	66,034	63,712	60,793	93,242	125,557	159,592	194,623	227,693	227,693
Norwood	576,767	571,663	573,359	553,497	536,659	595,838	654,035	714,382	780,308	832,384	832,384
Paxton	28,855	28,952	28,952	27,846	26,778	21,053	15,482	10,320	5,453		
Peabody	1,053,153	1,042,638	1,031,615	976,590	929,468	963,314	988,522	1,033,837	1,091,858	1,119,909	1,119,909
Pembroke	118,447	116,718	111,694	104,816	98,524	149,114	196,367	256,915	310,240	361,812	361,812
Plymouth	74,490	152,446	243,830	257,790	251,026	179,039	117,289	64,870	2,625		
Plympton	17,657	17,526	17,665	16,894	16,095	12,678	9,308	6,205	3,364		
Princeton	18,474	18,461	20,164	19,861	19,382	15,535	10,986	6,717	2,702		
Quincy	1,875,779	1,835,166	1,817,039	1,743,183	1,663,568	2,068,285	2,470,041	2,883,846	3,304,135	3,703,282	3,703,282
Randolph	617,631	611,184	613,424	596,152	577,641	650,993	725,537	799,466	876,972	944,416	944,416
Raynham	45,243	46,006	66,731	74,293	69,959	53,469	37,408	24,179	10,468		
Reading	473,521	465,271	466,370	452,949	440,553	476,691	514,680	550,867	589,923	621,003	621,003
Rehoboth	57,440	56,789	58,492	56,932	53,824	39,484	25,351	13,638	1,590		
Revere	3,398,993	2,831,591	2,766,753	2,685,416	2,633,907	2,740,116	2,831,393	2,923,938	2,975,094	3,096,299	3,096,299
Rochester	6,426	13,623	14,315	31,900	29,945	23,164	16,170	10,779	5,828		
Rockland	113,256	113,475	113,311	109,525	106,165	157,235	207,690	259,527	312,760	363,252	363,252
Rockport	0	0	0	0	0	0	0	0	0		
Rowley	37,193	37,252	37,127	35,076	33,147	26,153	19,414	12,941	6,752		
Salem	848,013	833,219	840,690	812,602	785,786	842,582	884,178	949,340	1,013,333	1,075,854	1,075,854
Salisbury	26,893	30,968	43,433	43,298	7,907	0	27,628	18,416	8,987		
Saugus	556,703	546,310	541,890	518,870	494,836	569,939	646,372	726,283	813,638	883,662	883,662
Scituate	113,899	114,661	115,096	111,573	107,382	161,410	215,537	270,730	326,777	381,166	381,166
Seekonk	1,991	28,397	16,795	36,880	50,585	30,815	26,585	11,295	4,613		
Sharon	348,717	345,477	346,436	336,329	326,067	351,074	375,601	401,017	427,592	450,204	450,204
Sherborn	26,210	26,708	26,824	25,939	25,188	39,564	54,335	69,140	84,138	98,763	98,763
Shirley	29,085	32,840	34,269	31,521	28,969	15,128	6,796	0	0		
Shrewsbury	139,262	141,794	142,329	132,034	112,991	91,481	42,430	0	0		
Somerville	4,569,887	4,507,642	4,527,781	4,398,489	4,275,489	4,397,366	4,535,169	4,634,653	4,731,583	4,812,541	4,812,541
Southborough	56,904	56,853	56,963	54,516	53,453	40,292	28,622	18,575	4,806		
Sterling	37,933	37,829	37,947	34,656	32,470	22,784	11,217	3,933	0		
Stoneham	440,333	432,722	434,520	422,297	411,339	438,938	467,555	494,071	524,967	545,004	545,004
Stoughton	49,858	64,538	71,893	72,498	72,654	43,238	17,121	0	0		
Stow	1,037	39,427	39,248	37,522	36,255	28,546	20,833	13,887	7,278		
Sudbury	103,868	107,965	108,402	105,251	101,899	150,160	197,811	247,149	296,264	345,872	345,872
Sutton	51,586	48,918	41,254	39,565	27,918	25,502	7,826	0	0		

Assessments to Cities & Towns

(All figures in $)

Community	FY2010	FY2009	FY2008	FY2007	FY2006	FY2005	FY2004	FY2003	FY2002	FY2001	FY2000
Swampscott	286,499	284,854	287,666	279,832	269,955	312,448	356,247	399,925	443,559	485,930	485,930
Taunton	36,140	44,090	92,212	109,141	107,925	39,030	0	0	0		
Tewksbury	0	0	0	0	0	0	0	0	0		
Topsfield	124,210	123,543	124,485	120,751	116,765	121,734	126,849	132,990	140,163	144,691	144,691
Townsend	47,719	47,439	47,564	46,055	44,195	32,853	21,871	11,305	1,567		
Tyngsborough	51,096	49,327	48,748	59,650	56,691	43,231	29,428	16,624	3,998		
Upton	41,569	41,114	40,633	38,399	36,143	28,180	19,915	13,275	6,925		
Wakefield	502,899	495,058	494,557	477,961	462,894	507,791	555,341	601,632	652,737	691,876	691,876
Walpole	472,641	466,863	465,323	436,586	420,678	459,211	484,113	513,265	546,766	569,411	569,411
Waltham	1,235,036	1,196,169	1,199,063	1,148,409	1,100,104	1,180,359	1,267,252	1,348,409	1,437,547	1,505,129	1,505,129
Wareham	0	0	45,240	64,202	68,232	35,468	18,356	2,075	0		
Watertown	1,997,411	1,944,741	1,951,109	1,896,352	1,844,497	1,895,199	1,967,283	2,027,856	2,097,240	2,140,338	2,140,338
Wayland	76,966	82,240	82,587	80,103	77,934	120,193	162,394	205,033	247,549	290,350	290,350
Wellesley	552,465	543,891	543,159	514,081	496,461	515,954	536,788	556,938	581,929	594,717	594,717
Wenham	94,483	93,030	93,621	86,336	83,310	84,187	85,613	87,004	89,718	89,364	89,364
West Boylston	27,184	8,343	9,858	11,043	13,180	8,630	0	0	0		
West Bridgewater	36,059	33,660	32,577	33,328	32,042	24,869	18,716	11,009	3,931		
West Newbury	25,144	26,298	25,574	25,488	25,200	19,898	14,645	9,762	5,019		
Westborough	110,524	109,972	97,828	105,339	102,659	78,936	54,862	34,466	11,017		
Westford	76,712	75,787	105,380	117,569	111,930	85,925	59,820	35,725	12,213		
Westminster	18,563	22,182	23,710	22,307	20,435	11,616	1,904	0	0		
Weston	239,494	234,711	233,165	224,807	217,521	218,727	219,375	222,083	223,831	226,409	226,409
Westwood	286,827	278,767	279,854	271,824	263,622	280,407	297,187	314,096	329,893	346,579	346,579
Weymouth	1,090,639	1,080,365	1,082,936	1,050,885	1,018,531	1,137,200	1,250,685	1,372,402	1,506,333	1,610,760	1,610,760
Whitman	74,390	78,492	81,860	79,672	76,421	59,486	41,300	26,963	11,400		
Wilmington	443,835	433,811	432,304	418,167	403,848	407,419	410,859	417,019	424,820	427,311	427,311
Winchester	432,739	425,085	426,446	410,393	395,667	424,280	454,328	487,372	522,719	551,496	551,496
Winthrop	412,614	347,089	343,657	338,539	335,874	378,031	418,757	457,398	495,140	532,957	532,957
Woburn	758,361	745,892	747,895	726,053	706,249	762,603	812,282	870,873	936,609	984,538	984,538
Worcester	0	0	0	0	0	0	0	0	0		
Wrentham	12,658	64,601	70,461	67,980	65,160	51,381	37,254	24,833	12,854		
TOTAL	**150,148,212**	**146,486,060**	**142,913,229**	**139,427,540**	**136,026,688**	**137,732,241**	**139,437,614**	**141,142,988**	**142,848,361**	**144,578,734**	**144,578,734**

Fares: Commuter Rail Zone

Zone	Adults	Half Fare	Adult 12-Ride	Half-Fare 10-Ride	Family Fare
1A	$1.70	$0.85	$20.40	$8.50	$6.80
1	$4.25	$2.10	$51.00	$21.00	$17.00
2	$4.75	$2.35	$57.00	$23.50	$19.00
3	$5.25	$2.60	$63.00	$26.00	$21.00
4	$5.75	$2.85	$69.00	$28.50	$23.00
5	$6.25	$3.10	$75.00	$31.00	$25.00
6	$6.75	$3.35	$81.00	$33.50	$27.00
7	$7.25	$3.60	$87.00	$36.00	$29.00
8	$7.75	$3.85	$93.00	$38.50	$31.00

Fares: Commuter Rail InterZone

Number of zones traveled	Adults	Half Fare	Family Fare
1	$2.00	$1.00	$8.00
2	$2.25	$1.10	$9.00
3	$2.50	$1.25	$10.00
4	$2.75	$1.35	$11.00
5	$3.00	$1.50	$12.00
6	$3.50	$1.75	$14.00
7	$4.00	$2.00	$16.00
8	$4.50	$2.25	$18.00

Notes

Half Fare applies to students with MBTA Pupil Badges and to seniors and persons with disabilities. Seniors may show Senior CharlieCards, other RTA Senior Cards, Council on Aging Cards, driver's licences (with proof of age) or Medicare cards. Persons with disabilities may show TAP CharlieCards or Medicare cards.

Family Fare applies to same-day, round-trip, off-peak hour service only. Fare is one-half of family fare if one adult shows valid monthly commuter rail pass when purchasing and when using family fare ticket. Family: a group consisting of a maximum of five persons, of whom at least one, but not more than two are eighteen years of age or older.

Passes: Commuter Rail Zone

Zone 1A Pass ($59.00/Month)
Valid on: Local Bus, Rapid Transit, Inner Harbor Ferry and travel up to Zone 1A

Zone 1 Pass ($135.00/Month)
Valid on: Local Bus, Rapid Transit, Inner and Outer Express Bus (see listing), Inner Harbor Ferry and travel up to Zone 1

Zone 2 Pass ($151.00/Month)
Valid on: Local Bus, Rapid Transit, Inner and Outer Express Bus (see listing), Inner Harbor Ferry and travel up to Zone 2

Zone 3 Pass ($163.00/Month)
Valid on: Local Bus, Rapid Transit, Inner and Outer Express Bus (see listing), Inner Harbor Ferry and travel up to Zone 3

Zone 4 Pass ($186.00/Month)
Valid on: Local Bus, Rapid Transit, Inner and Outer Express Bus (see listing), Inner Harbor Ferry and travel up to Zone 4

Zone 5 Pass ($210.00/Month)
Valid on: Local Bus, Rapid Transit, Inner and Outer Express Bus (see listing), Inner Harbor Ferry, Commuter Boat and travel up to Zone 5

Zone 6 Pass ($223.00/Month)
Valid on: Local Bus, Rapid Transit, Inner and Outer Express Bus (see listing), Inner Harbor Ferry, Commuter Boat and travel up to Zone 6

Zone 7 Pass ($235.00/Month)
Valid on: Local Bus, Rapid Transit, Inner and Outer Express Bus (see listing), Inner Harbor Ferry, Commuter Boat and travel up to Zone 7

Zone 8 Pass ($250.00/Month)
Valid on: Local Bus, Rapid Transit, Inner and Outer Express Bus (see listing), Inner Harbor Ferry, Commuter Boat and travel up to Zone 8

Passes: Commuter Rail InterZone

InterZone 1 Pass ($65.00/Month)
Valid on: Local Bus and travel within 1 Zone

InterZone 2 Pass ($77.00/Month)
Valid on: Local Bus and travel within 2 Zones

InterZone 3 Pass ($89.00/Month)
Valid on: Local Bus and travel within 3 Zones

InterZone 4 Pass ($101.00/Month)
Valid on: Local Bus and travel within 4 Zones

InterZone 5 Pass ($113.00/Month)
Valid on: Local Bus and travel within 5 Zones

InterZone 6 Pass ($125.00/Month)
Valid on: Local Bus and travel within 6 Zones

InterZone 7 Pass ($137.00/Month)
Valid on: Local Bus and travel within 7 Zones

InterZone 8 Pass ($149.00/Month)
Valid on: Local Bus and travel within 8 Zones

Commuter Rail Stations

All Commuter Rail Zone fares and passes are valid for travel to or from North Station, South Station, Back Bay Station and other Zone 1A stations. Your fare or pass depends on the highest zone to which you travel.

Commuter Rail InterZone fares and passes are intended for suburban travel. All Commuter Rail InterZone fares and passes are NOT valid for travel to or from North Station, South Station, Back Bay Station and other Zone 1A stations. Your fare or pass depends on the number of zones through which you travel.

Zone 1A Stations
Back Bay, Chelsea, JFK/UMASS, Forest Hills, Malden Center, Morton Street, Porter Square, Ruggles, Uphams Corner, West Medford and Yawkey
Customers ride free between Back Bay station and South Station, inbound only.

Zone 1 Stations
Bellevue, Belmont, Fairmount, Highland, Hyde Park, Melrose Cedar Park, Melrose Highlands, Newtonville, Quincy Center, Roslindale Village, Waverley, Wedgemere, West Roxbury, Winchester and Wyoming Hill

Zone 2 Stations
Anderson/Woburn, Auburndale, Braintree, Brandeis/Roberts, Dedham Corporate, Endicott, Greenwood, Hersey, Lynn, Mishawum, Needham Center, Needham Heights, Needham Junction, Reading, Readville, Riverworks, Route 128, Wakefield, Waltham and West Newton

Zone 3 Stations
Canton Center, Canton Junction, Hastings, Islington, Kendal Green, North Wilmington, Norwood Central, Norwood Depot, Randolph/Holbrook, Salem, Silver Hill, South Weymouth, Swampscott, Wellesley Farms, Wellesley Hills, Wellesley Square and Wilmington

Zone 4 Stations
Abington, Ballardvale, Beverly, Brockton, Lincoln, Montello, Montserrat, Natick, Plimptonville, Sharon, Stoughton, West Natick, Walpole and Windsor Gardens

Zone 5 Stations
Andover, Beverly Farms, Campello, Concord, Framingham, Hamilton/Wenham, North Billerica, Norfolk, North Beverly, Prides Crossing, West Concord and Whitman

Zone 6 Stations
Ashland, Bridgewater, Forge Park, Franklin, Hanson, Ipswich, Lawrence, Lowell, Manchester, Mansfield, South Acton and Southborough

Zone 7 Stations
Attleboro, Bradford, Gloucester, Halifax, Haverhill, Littleton, Rowley, South Attleboro, West Gloucester and Westborough

Zone 8 Stations
Ayer, Fitchburg, Grafton, Kingston, Middleborough, North Leominister, Newburyport, Plymouth, Providence, Rockport, Shirley and Worcester

Fares: Express Bus

Price Per Trip	Inner Express Bus	Outer Express Bus
CharlieCard	$2.80	$4.00
CharlieTicket	$3.50	$5.00
Cash on Board	$3.50	$5.00
Senior / TAP	$1.40	$2.00
Student	$1.40	$2.00

Inner Express Bus Routes
170, 325, 326, 351, 424, 426, 428, 434, 441, 442, 448, 449, 450, 455, 459, 501, 502, 503, 504, 553, 554, 555, 556, 558
Outer Express Bus Routes
352, 354, 355, 500, 505

Fare for local portions of express bus routes equals the local bus fare.
Some express bus routes do not allow local travel (see below).

Local / Express Fare Zone Boundary	Routes
Route 128	351
I-93	354, 355
Tobin Bridge / Harbor Tunnels	424, 426, 428, 434, 441, 442, 448, 449, 450, 455, 459
Masspike	170, 553, 554, 555, 556, 558
Express Fare ONLY	325, 326, 352, 500, 501, 502, 503, 504, 505

Notes
Local Bus includes Silver Line Washington Street and all Rapid Transit Bus Replacement Services.

Rapid Transit includes Silver Line Waterfront, Mattapan High Speed Line and all Green Line Surface routes (both inbound and outbound).

Pupil CharlieCard or CharlieTicket required to receive student fare. Students may obtain Pupil CharlieCards or CharlieTickets from their schools. Reduced fares are only in effect on days when school is in session, and are valid only until 8:00pm. Monthly passes for students are available from schools.

Senior/Transportation Access Pass (TAP) CharlieCard required to receive senior/TAP fare. Seniors and persons with disabilities may apply for and obtain these cards at the Office for Transportation Access, located at Back Bay Station. Office Hours are 8:30am to 5:00pm, Mon-Fri (closed holidays). MBTA will review applications. Medicare Card holders are automatically eligible for the TAP CharlieCard. Monthly passes for seniors and persons with disabilities are available. For information call 617-222-5438, TTY 617-222-5854.

Passes: Local Bus, Rapid Transit and Express Bus

Local Bus Pass ($40.00/Month)
Valid on: Local Bus

LinkPass ($59.00/Month)
Valid on: Local Bus and Rapid Transit

Inner Express Bus Pass ($89.00/Month)
Valid on: Local Bus, Rapid Transit, Inner Express Bus (see listing), Commuter Rail Zone 1A and Inner Harbor Ferry

Outer Express Bus Pass ($129.00/Month)
Valid on: Local Bus, Rapid Transit, Inner and Outer Express Bus (see listing), Commuter Rail Zone 1A and Inner Harbor Ferry

1-Day LinkPass ($9.00/Day)
7-Day LinkPass ($15.00/7 Days)
Valid on: Local Bus, Rapid Transit, Commuter Rail Zone 1A and Inner Harbor Ferry
1-Day and 7-Day LinkPasses are valid for one or seven days from date and time of purchase.

Student Pass ($20.00/Month)
Valid on: Local Bus, Rapid Transit, Inner and Outer Express Bus (see listing), and Commuter Rail Zones 1A through 2
The Student Pass is only available on a CharlieTicket. This pass is only in effect on days when school is in session, is valid until 8:00pm, and is only available from schools.

Senior/TAP Pass ($20.00/Month)
Valid on: Local Bus and Rapid Transit
The Senior/Transportation Access Pass (TAP) is only available on a Senior/TAP CharlieCard. Seniors and persons with disabilities may apply for and obtain these cards at the Office for Transportation Access, located at Back Bay Station. Office Hours are 8:30am to 5:00pm, Mon-Fri (closed holidays). MBTA will review applications. Medicare Card holders are automatically eligible for the TAP CharlieCard. Monthly passes for seniors and persons with disabilities are available and can be loaded onto Senior/TAP CharlieCards. For information call 617-222-5438, TTY 617-222-5854.

THE RIDE

THE RIDE is the MBTA's Paratransit program that provides door-to-door, shared-ride service to eligible people who cannot use general public transportation (subways, buses and trains), all or some of the time, because of a physical, cognitive or mental disability. Lift equipped vans and sedans are used to serve persons with disabilities, including those who use wheelchairs and scooters.

The one-way fare for each registered passenger and each guest is $2.00. Personal Care Assistants traveling with a passenger are not charged a fare.

For more information and to obtain an application for THE RIDE, please call 617-222-5123, TTY 617-222-5415. You may also consult www.mbta.com for additional information.

Transfers: Local Bus, Rapid Transit and Express Bus

Transfer discounts between Local Bus, Rapid Transit and Express Bus are available only on CharlieCards. All other trips pay full fare transfers.

From	To	CharlieCard	
		Transfer Cost	Total Trip Cost
Local Bus	Local Bus	$0.00	$1.25
	Rapid Transit	$0.45	$1.70
	Inner Express Bus	$1.55	$2.80
	Outer Express Bus	$2.75	$4.00
Rapid Transit	Local Bus	$0.00	$1.70
	Inner Express Bus	$1.10	$2.80
	Outer Express Bus	$2.30	$4.00
Inner Express Bus (see listing)	Local Bus	$0.00	$2.80
	Rapid Transit	$0.00	$2.80
	Inner Express Bus	$0.00	$2.80
	Outer Express Bus	$1.20	$4.00
Outer Express Bus (see listing)	Local Bus	$0.00	$4.00
	Rapid Transit	$0.00	$4.00
	Inner Express Bus	$0.00	$4.00
	Outer Express Bus	$0.00	$4.00

Notes
Senior/TAP CharlieCard customers receive the following transfer discounts:
- Free Local Bus-to-Local Bus transfer for a total trip cost of 40¢.
- 20¢ transfer from Local Bus to Rapid Transit for a total trip cost of 60¢.
- Free transfer from Rapid Transit to Local Bus for a total trip cost of 60¢.

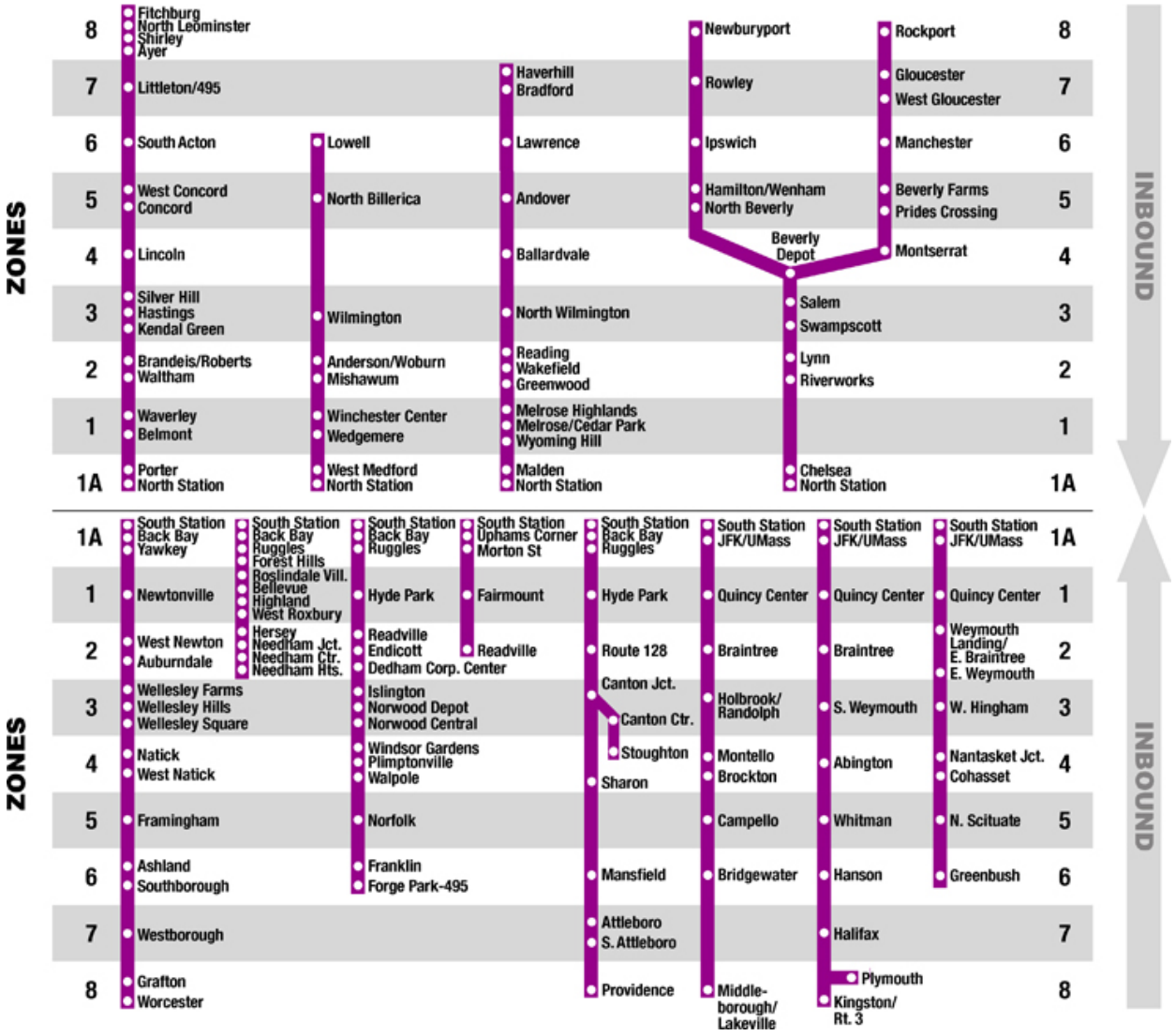
Pupil CharlieCard customers receive the following transfer discounts:
- Free Local Bus-to-Local Bus transfer for a total trip cost of 60¢.
- 25¢ transfer from Local Bus to Rapid Transit for a total trip cost of 85¢.
- Free transfer from Rapid Transit to Local Bus for a total trip cost of 85¢.

CharlieTicket customers receive the following transfer discounts:
- Free Local Bus-to-Local Bus transfer for a total trip cost of $1.50.
- 50¢ transfer from Silver Line Washington Street to Rapid Transit for a total trip cost of $2.00 (Senior/TAP transfer is 20¢ for a total trip cost of 60¢, and Pupil transfer is 25¢ for a total trip cost of 85¢).
- Free transfer from Rapid Transit to the Silver Line Washington Street for a total trip cost of $2.00 (Free Senior/TAP transfer for a total trip cost of 60¢, and free Pupil transfer for a total trip cost of 85¢).

Free transfers between the Mattapan High Speed Line and the Red Line at Ashmont.

All Rapid Transit Bus Replacement Services receive the same transfer discounts as the Silver Line Washington Street.

Commuter Rail Fare Zones



Source: www.mbta.com

Zone Fares : All commuter rail zone fares and passes are valid for travel to or from North Station, South Station, Back Bay Station and other Zone 1A stations. Your fare or pass depends on the highest zone to which you travel.

Interzone Fares : Commuter Rail Interzone fares and passes are intended for suburban travel. All Commuter Rail Interzone fares and passes are NOT valid for travel to or from North Station, South Station, Back Bay Station or other Zone 1A stations. Your fare or pass depends on the number of zones through which you travel.

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Chapter 8 - Park-n'-Ride

Parking for transit customers is available at many MBTA commuter rail, rapid transit, bus, and water transportation facilities. In many cases, parking lots or garages are directly owned or leased by the MBTA; typically these facilities are operated by concessionaires under contract, and a nominal user fee is charged.

Other facilities are owned and operated by municipalities or entrepreneurs who set their own rates and may also accommodate others, such as patrons of an adjacent venue (e.g., a shopping mall). The following tables thus make distinctions between MBTA-provided customer-only parking, and parking provided by others where transit customers are allowed.

Altogether, over 63,000 parking spaces are available to MBTA customers. Over 45,000 of these spaces are provided by the MBTA; which has risen from about 30,000 spaces in 1990.

Type of Facility	MBTA-Provided Spaces				Commuter Spaces	Total
	Number of Facilities	Auto Spaces	Accessible Spaces	Bicycle Spaces	Provided by Others	Auto Spaces
Rapid Transit Stations & Stops	24	16,676	257	1,545	4,160	20,836
Commuter Rail Stations	70	26,936	778	701	9,552	36,488
Ferry Terminals	2	2,191	20	8	390	2,581
Bus Facilities & Stops	1	200	6	100	4,351	4,551
TOTAL	**97**	**46,003**	**1,061**	**2,354**	**18,453**	**64,456**

Notes on above table: Joint bus/subway or commuter rail/subway are listed as subway

Notes on tables that follow: *Designated park and ride facilities* refer to facilities under MBTA auspices and municipal/private facilities that offer park and ride services to MBTA customers. *Other park and ride* services near MBTA facilities, where known, are tabulated separately. The MBTA is not responsible for the accuracy of any data regarding park and ride facilities operated by others.

Park and Ride

Subway - Light Rail - Trolley - BRT Parking Inventory

February 2010

Station Name	MBTA Auto Spaces	MBTA Fee	Accessible Spaces	Bicycle Spaces	Other Commuter Spaces	Other Fee	Total Auto Spaces
RED LINE							
Alewife	2,733	$7.00	24	350			2,733
Davis	0	NA	0	190			0
Porter	0	NA	0	34			0
Harvard	0	NA	0	21			0
Central	0	NA	0	36			0
Kendall/MIT	0	NA	0	58			0
Charles/MGH	0	NA	0	0			0
Park St	0	NA	0	0			0
Downtown Crossing	0	NA	0	0			0
South Station	226	Variable	8	8			226
Broadway	0	NA	0	0			0
Andrew	0	NA	0	0			0
JFK/U Mass	0	NA	0	18			0
North Quincy	1,206	$5.00	26	43			1,206
Wollaston	550	$5.00	0	30	150	$2.50	700
Quincy Center	872	$7.00	16	20			872
Quincy Adams	2,538	$7.00	29	64	117	$3.00	2,655
Braintree	1,322	$7.00	22	30			1,322
Savin Hill	0	NA	0	0			0
Fields Corner	0	NA	0	0			0
Shawmut*	0	NA	0	0			0
Ashmont*	0	NA	0	8			0
Heavy Rail Subtotal	**9,447**		**125**	**910**	**267**		**9,714**
Cedar Grove	0	NA	0	0	12	Free	12
Butler	0	NA	0	0	60	Free	60
Milton	41	$5.00	4	8			41
Central Ave	0	NA	0	0			0
Valley Road	0	NA	0	0			0
Capen Street	0	NA	0	0			0
Mattapan	200	$4.50	4	8			200
Trolley Subtotal	**241**		**8**	**16**	**72**		**313**
Heavy Rail + Trolley	**9,688**		**133**	**926**	**339**		**10,027**
GREEN LINE							
Riverside	925	$5.75	21	See separate table			925
Woodland	548	$6.00	16	See separate table			548
Waban	74	$5.50	3	See separate table			74
Eliot	55	$5.50	0	See separate table			55
Chestnut Hill	70	$5.50	3	See separate table			70
Lechmere	347	$5.50	0	See separate table			347
Green Line Subtotal	**2,019**		**43**				**2,019**

* Station Under Reconstruction

Station Name	MBTA Auto Spaces	MBTA Fee	Accessible Spaces	Bicycle Spaces	Other Commuter Spaces	Other Fee	Total Auto Spaces
BLUE LINE							
Wonderland	1,257	$5.00	18	24			1,257
Wonderland-former MDC					292	Free	292
Wonderland-Private					1,223	$4.00	1,223
Revere Beach	0	NA	0	12			0
Beachmont	430	$5.00	6	6			430
Suffolk Downs	110	$5.00	4	12			110
Orient Heights	434	$5.00	2	8			434
Wood Island	0	NA	0	10	110	$3.00	110
Airport	0	NA	0	0			0
Maverick-Private	0	NA	0	8	102	$4-$7	102
Aquarium	0	NA	0	0			0
State	0	NA	0	0			0
Government Center	0	NA	0	0			0
Bowdoin	0	NA	0	0			0
Blue Line Subtotal	**2,231**		**30**	**80**	**1,727**		**3,958**
ORANGE LINE							
Oak Grove	788	$5.50	13	42			788
Malden Center	188	$5.50	4	66			188
Wellington Station	1,316	$5.50	22	16	215	$3.50	1,531
Mystic Ctr Gar at Wellington Sta					950	$3.00	950
Sullivan Square	240	$5.50	7	16	437	$5-$6	677
Community College	0	NA	0	5			0
North Station	0	NA	0	0			0
Haymarket	0	NA	0	0			0
State		See Blue Line		0			0
Downtown Crossing		See Red Line		0			0
Chinatown	0	NA	0	0			0
New England Medical Ctr	0	NA	0	0			0
Back Bay	0	NA	0	16			0
Massachusetts Ave	0	NA	0	24			0
Ruggles	0	NA	0	20			0
Roxbury Crossing	0	NA	0	16			0
Jackson Square	0	NA	0	8			0
Stony Brook	0	NA	0	12			0
Green Street	0	NA	0	22	184	Varies	184
Forest Hills	206	$6.00	5	31	308	$4.00	514
Orange Line Subtotal	**2,738**		**51**	**294**	**2,094**		**4,832**
SILVER LINE WATERFRONT							
South Station		See Red Line		0			0
Courthouse		See Note		0			0
World Trade Center		See Note		0			0
Silver Line Way		See Note		0			0
Silver Line Wat. Subtotal	**0**			**0**			**0**
GRAND TOTAL	**16,676**		**257**	**1,300**	**4,160**		**20,836**

Silver Line Waterfront Note: There is no MBTA-provided parking at Silver Line Waterfront stations, however there are of private parking lots adjacent to Courthouse, World Trade Center, and Silver Line Way stations.

Bicycle Parking
Surface Inventory
February 2010



Route	Spaces
B - Boston College *via Commonwealth Ave*	
Blandford Street	0
BU East	0
BU Central	0
BU West	0
St. Paul Street	0
Pleasant Street	0
Babcock Street	0
Brighton Avenue	0
Harvard Avenue	0
Griggs Street	0
Allston Street	0
Warren Street	0
Washington Street	0
Sutherland Road	0
Chiswick Road	0
Chestnut Hill Avenue	0
South Street	0
Boston College	0
TOTAL	**0**
C - Cleveland Circle *via Beacon Street*	
St. Mary's Street	10
Hawes Street	0
Kent Street	0
St. Paul Street	0
Coolidge Corner	20
Summit Ave	0
Brandon Hall	0
Fairbanks Street	0
Washington Square	20
Tappan Street	0
Dean Road	0
Englewood Avenue	0
Cleveland Circle	10
TOTAL	**60**
Green Line Central Subway	
Kenmore	8
Hynes/ICA	0
Copley	0
Arlington	0
Boylston	0
Park St	Red
Government Center	Blue
Haymarket	Orange
North Station	0
Science Park	0
Lechmere	0
TOTAL	**8**

Route	Spaces
D - Riverside *via Highland Branch*	
Riverside	48
Woodland	16
Waban	12
Eliot	8
Newton Highlands	0
Newton Centre	15
Chestnut Hill	8
Reservoir	8
Beaconsfield	8
Brookline Hills	6
Brookline Village	15
Longwood	15
Fenway	18
TOTAL	**177**
E - Heath Street *via Huntington Ave*	
Symphony (underground)	0
Prudential (underground)	0
Northeastern University	0
Museum of Fine Arts	0
Longwood Med. Area	0
Brigham Circle	0
Fenwood Road	0
Mission Park/Parker Hill	0
Riverway	0
Back of the Hill	0
Heath Street/VA Hosp.	0
TOTAL	**0**
Silver Line (Washington Street)	
Dudley Station	0
Melnea Cass Blvd	12
Lenox St	12
Massachusetts Ave	12
Worcester Square	12
E. Newton St.	12
Union Park St	12
E. Berkeley St	12
Herald St.	12
New England Medical Ctr	0
Chinatown	0
Downtown Cross. @ Temple Pl.	0
Boylston	0
TOTAL	**96**
Bus Facilities	
Watertown Bus	4
GRAND TOTAL SURFACE	**345**

Park and Ride

North Side Commuter Rail Parking Inventory

February 2010

Station Name	MBTA Spaces	MBTA Fee	Accessible Spaces	Bicycle Spaces	Other Spaces (Commuter)	Other Fee	Total Auto Spaces
Newburyport/Rockport Line							
Newburyport	801	$4.00	24	22			801
Rowley	282	$4.00	8	11			282
Ipswich	0	NA	4	8	170	Free/Town	170
Hamilton-Wenham	194	$4.00	6	0			194
North Beverly	87	$4.00	3	0			87
Rockport	0	NA	0	7	88	Free/Town	88
Gloucester	100	$4.00	4	5			100
West Gloucester	44	$4.00	2	7			44
Manchester	0	NA	6	7	71	Free/City	71
Beverly Farms	25	Free	1	7			25
Prides Crossing	6	Free	0	0			6
Montserrat	116	$4.00	3	7			116
Beverly Depot	122	$5.00	8	0			122
Salem	340	$4.00	8	5			340
Swampscott	131	$4.00	6	0			131
Lynn	965	$4.00	23	14			965
Riverworks	0	NA	0	0			0
Chelsea	0	NA	0	0			0
Subtotal	**3,213**		**106**	**100**	**329**		**3,542**
Haverhill/Reading Line							
Haverhill	159	$4.00	6	0			159
Bradford	303	$4.00	9	12			303
Lawrence	0	NA	5	0	400	$3/City	400
Andover	152	$4.00	4	6			152
Ballardvale	120	$4.00	3	9			120
North Willmington	0	NA	0	0	20	Free/Town	20
Reading	113	$4.00	2	10			113
Wakefield	117	$4.00	6	6			117
Greenwood	0	NA	0	6	76	$2/Town	76
Melrose Highlands	0	NA	2	0	77	$2/City	77
Melrose Cedar Pk	0	NA	3	0	87	$2/City	87
Wyoming Hill	0	NA	1	0	28	$2/City	28
Malden		See Orange Line					0
Subtotal	**964**		**41**	**49**	**688**		**1,652**

Station Name	MBTA Spaces	MBTA Fee	Accessible Spaces	Bicycle Spaces	Other Spaces (Commuter)	Other Fee	Total Auto Spaces
Lowell Line							
Lowell	0	NA	7	18	695	$5/City	695
North Billerica*	0	NA	13	14	541	$2/LRTA	541
Wilmington	191	$4.00	7	12			191
Anderson	1,541	$4/Day	24	0	885	$11/Overnight	2,426
Mishawum	0	NA	0	0			0
Winchester Center	0	NA	2	27	237	Permit/Town	237
Wedgemere	0	NA	0	0	103	Permit/Town	103
West Medford	0	NA	0	0	30	Free/Town	30
Subtotal	**1,732**		**53**	**71**	**2,491**		**4,223**
Fitchburg Line							
Fitchburg	0	NA	10	20	540	$3/MART	540
North Leominster	0	NA	4	0	150	$3/MART	150
Shirley	0	NA	2	0	25	Free/Town	25
Ayer	0	NA	0	0	30	Free/Town	30
Littleton/495	0	NA	0	0	96	Free/Town	96
South Acton	0	NA	6	44	287	$2.50/Town	287
West Concord*	0	NA	3	10	146	$4/Town	146
Concord	0	NA	2	10	86	Free/Town	86
Lincoln	0	NA	0	21	161	$3/Town*	161
Silver Hill	0	NA	0	0			0
Hastings	0	NA	0	0	6	Free/Town	6
Kendal Green	0	NA	0	0	57	Free/Town	57
Brandeis/Roberts	70	$4.00	3	8			70
Waltham	0	NA	4	8	50	$1/12hr/City	50
Waverley	0	NA	0	0			0
Belmont	0	NA	0	8			0
Porter Square		See Red Line					0
Subtotal	**70**		**34**	**129**	**1,634**		**1,704**
TOTAL NORTH	**5,979**		**234**	**349**	**5,142**		**11,121**

* Spaces owned by MBTA but managed by the Town.

** Parking in the unmarked lot for Lincoln residents is free of charge.

Park and Ride
South Side Commuter Rail Parking Inventory
February 2010



Station Name	MBTA Spaces	MBTA Fee	Accessible Spaces	Bicycle Spaces	Other Spaces (Commuter)	Other Fee	Total Auto Spaces
Framingham/Worcester Line							
Worcester	0	NA	9	5	790	$1-$8/City	790
Grafton	373	$4.00	7	8			373
Westborough	443	$4.00	8	4			443
Southborough	364	$4.00	8	0			364
Ashland	678	$4.00	16	0			678
Framingham	166	$4.00	8	10			166
West Natick	178	$4.00	4	5			178
Natick	0	NA	4	0	71	Permit/Town	71
Wellesley Square	0	NA	2	0	224	$4.50/Town	224
Wellesley Hills	0	NA	0	0	51	$4.50/Town	51
Wellesley Farms	0	NA	4	16	199	$4.50/Town	199
Auburndale	0	NA	0	0	30	Free/MassDOT	30
West Newton**	0	NA	3	0	45	Free/City	45
Newtonville	0	NA	0	0	53	Free/City	53
Yawkey	0	NA	0	0			0
Subtotal	**2,202**		**73**	**48**	**1,463**		**3,665**
Needham Line							
Needham Heights*	0	NA	1	6	243	$4/Town	243
Needham Center*	0	NA	2	6	36	$4/Town	36
Needham Junction*	0	NA	4	6	175	$4/Town	175
Hersey	0	NA	8	11	322	$4/Town	322
West Roxbury	62	$4.00	2	8			62
Highland	175	$4.00	6	0			175
Bellevue	37	$4.00	2	8			37
Roslindale Village	143	$4.00	4	0			143
Forest Hills	See Orange Line						0
Subtotal	**417**		**29**	**45**	**776**		**1,193**
Fairmount Line							
Readville	See Franklin Line						
Fairmount	51	$4.00	0	0			51
Morton Street	0	NA	0	0			0
Uphams Corner	0	NA	0	0			0
Subtotal	**51**		**0**	**0**	**0**		**51**

Station Name	MBTA Spaces	MBTA Fee	Accessible Spaces	Bicycle Spaces	Other Spaces (Commuter)	Other Fee	Total Auto Spaces
Franklin Line							
Forge Park/495	716	$4.00	15	14			716
Franklin	173	$4.00	3	7			173
Norfolk	530	$4.00	11	8			530
Walpole	343	$4.00	4	5	580	$3/Private	923
Plimptonville	0	NA	0	0			0
Windsor Gardens	0	NA	0	0			0
Norwood Central	782	$4.00	16	27			782
Norwood Depot	227	$4.00	8	0			227
Islington	39	$4.00	1	0			39
Dedham Corp Ctr.	497	$4.00	11	0			497
Endicott	0	NA	0	0	45	Free/Town	45
Readville	354	$4.00	15	0			354
Subtotal	**3,661**		**84**	**61**	**625**		4,286
Attleboro/Providence Line							
Providence	0	NA	13	0	330	$7.70	330
South Attleboro	567	$4.00	14	2			567
Attleboro	794	$4.00	16	28			794
Mansfield	318	NA	9	12	488	$4/Town	806
Sharon*	238	NA	4	8	304	$4/Town	542
Canton Junction	764	$4.00	11	0			764
Route 128***	2,589	$3.00	44	0			2,589
Hyde Park	121	$4.00	4	10			121
Ruggles	See Orange Line						0
Subtotal	**5,391**		**115**	**60**	**1,122**		**6,513**
Stoughton Line							
Stoughton	333	NA	10	6	124	$4/Town	457
Canton Center	215	$4.00	4	10			215
Subtotal	**548**		**14**	**16**	**124**		**672**
SUBTOTAL SOUTH (excluding Old Colony)	**12,270**		**315**	**230**	**4,110**		**16,380**

* Spaces owned by MBTA but managed by the Town.

** 170 spaces at St Bernard's Church are also regularly used by Route 505 express bus customers.

*** Rt 128 $3/1st 14 hrs, $10/day thereafter

Park and Ride
Old Colony RR Commuter Rail Parking Inventory
February 2010



Station Name	MBTA Spaces	MBTA Fee	Accessible Spaces	Bicycle Spaces	Other Spaces (Commuter)	Other Fee	Total Auto Spaces
Plymouth - Kingston Line							
Plymouth	96	$4.00	9	8			96
Kingston	1,039	$4.00	25	0			1,039
Halifax	408	$4.00	10	8			408
Hanson	428	$4.00	8	8			428
Whitman	199	$4.00	7	8			199
Abington	405	$4.00	9	8	100	$40/Month	505
South Weymouth	543	$4.00	9	10			543
Braintree		See Red Line					0
Quincy Center		See Red Line					0
JFK/U Mass		See Red Line					0
Subtotal	**3,118**		**77**	**50**	**100**		**3,218**
Middleborough/Lakeville Line							
Middleborough/Lakeville	735	$4.00	14	8			735
Bridgewater	497	$4.00	10	24			497
Campello	546	$4.00	11	8			546
Brockton (BAT)*	0	NA	10	8	200	$1/City	200
Montello	425	$4.00	12	16			425
Holbrook/Randolph	369	$4.00	14	8			369
Subtotal	**2,572**		**71**	**72**	**200**		**2,772**
Greenbush Line							
Weymouth Landing	290	$4.00	13				290
East Weymouth	335	$4.00	8				335
West Hingham	214	$4.00	7				214
Nantasket Junction	495	$4.00	9				495
Cohasset	410	$4.00	10				410
North Scituate	253	$4.00	12				253
Greenbush	1,000	$4.00	22				1,000
Subtotal	**2,997**		**81**	**0**	**0**		**2,997**
SUBTOTAL OLD COLONY	**8,687**		**229**	**122**	**300**		**8,987**

* An expansion is planned at Brockton.

Park and Ride
System Recap: Commuter Rail Parking Inventory
February 2010



North Side Total	**5,979**		**234**	**349**	**5,142**		**11,121**
South Side with Old Colony	**20,957**		**544**	**352**	**4,410**		**25,367**
System Grand Total	**26,936**		**778**	**701**	**9,552**		**36,488**

Source for MBTA Parking info: MBTA Planning/Parking Services. Inventory includes designated commuter parking.
Information on non-MBTA operated parking facilities is provided as a courtesy. The MBTA is not responsible for the accuracy of these data.

Park and Ride
Bus Parking Inventory, February 2010

Location	Operator	Principal Connecting Bus Service	MBTA Spaces	MBTA Fee	Other Spaces (Commuter)	Other Fee	Other Spaces (General Use)	Other Fee	Total Spaces
Arlington #15	Mass Highway Dept	#76, 78			10	Free			10
Barnstable #52	Mass Highway Dept	P&B (Seasonal), CCRTA			365	Free			365
Bourne #47	Mass Highway Dept	P&B (Seasonal)			377	Free			377
Canton #22	Mass Highway Dept	#716					120	Free	120
Framingham #12 (Exit 12)	MassDOT	Peter Pan, Gulbankian			120	Free			120
Framingham #13 (Flutie Pass)*	Mass Highway Dept	Peter Pan, LIFT					114	Free	114
Framingham #14 (Shoppers World)	Massport	Peter Pan. Gulbankian			576	$11.00			576
Georgetown #19	Private	Coach Co.			110	Free			110
Hingham Bathing Beach	Town of Hingham	#220					100	Free	100
Kingston (Rt3, Exit 10)	P&B	P&B					100	Free	100
Marlborough	Granger Blvd Garages	Gulbankian, Cavalier					374	Free	374
Milton (I93, Exit 11)	Mass Highway Dept	#215					200	Free	200
Newburyport #20	Mass Highway Dept/ C&J	Coach Co., Vermont Transit			510	Free			510
Newton	Misc private, public	#505			See Framingham/Worcester Commuter Rail				0
Plymouth (Rt3, Exit 5)	Mass Highway Dept	GATRA, P&B			234	Free			234
Rockland (Rt3, Exit 4)	Mass Highway Dept	P&B			450	Free			450
Taunton (Bloom Terminal)	Private	GATRA, Bloom Bus					160	Free	160
W. Bridgewater (Rt24, Exit 16)	Mass Highway Dept	Bloom Bus			140	Free			140
W. Bridgewater #31, 106&24	Mass Highway Dept	Bloom Bus			65	Free			65
Waltham Center	City of Waltham	#550-series				See Fitchburg Commuter Rail			0
Worcester #8 (Grafton St, Rt 122)	MassDOT	Peter Pan			90	Free			90
Burlington - Presbyterian Church	Private	#350, #352			59	Free			59
Riverside	MBTA	#500				See Green Line Light Rail			0
Watertown Yard**	MBTA	#502/504,70/70A,71	200	$5.00					200
Woburn I	City of Woburn	#354			37	Free			37
Woburn II	City of Woburn	#354			40	Free			40
Total Bus			**200**		**3,183**		**1,168**		**4,551**

* Commuter parking allowed 5AM to 7PM (Mon-Thurs) or 6PM (Fri).

** 6 Accessible Spaces

SOURCES: MBTA Spaces, MBTA Revenue Department/Parking Services. Other Spaces, CTPS, MHD, or operators.

NOTE: Most contracted/private bus services became funded by the Executive Office of Transportation after June 30, 2005.

Park and Ride
Ferry
February 2010

Landside Facility Name	MBTA Spaces	MBTA Fee	Accessible Spaces	Bicycle Spaces	Other Spaces (Commuter)	Other Fee	Total Spaces
Hingham Shipyard 349 Lincoln St, Hingham MA 02043	1,841	$3/Day	10	8	290	Private	2,131
Fore River Shipyard 703 Washington St, Quincy MA 02169	350	$3/Day, $6 Overnight	10	0			350
Pemberton Point 180 Main St, Hull MA 02045	0				100	Free	100
Total Commuter Ferry	**2,191**		**20**	**8**	**390**		**2,581**

Other Park and Ride Facilities

Nearest MBTA Facility	Type of Parking Facility	Spaces Presumed Available to MBTA Customers
Gloucester	Private Lots	53
Beverly Farms	Private Lots	60
Reading	Town Resident Lots	313
Littleton	Informal Lots	60
Belmont	Town Lot	115
Newtonville	Long Term Meters	113
Needham Center	Permit Parking	91
Highland	Town Lot	118
South Attleborough	Shopping Center	426
TOTAL SPACES		**1,349**

The selected facilities above were identified in a survey performed by CTPS in 2000 as offering parking to MBTA customers, soley to local area residents, and or other motorists seeking parking.

The MBTA is not responsible to the accuracy of this data.

Chapter 9 - MBTA District and Service

Today's MBTA service network was crafted from the networks of several private-sector predecessors.

Government's role in transit service provision grew substantially when, in 1947, the State Legislature created the Metropolitan Transit Authority (MTA), a new entity charged with providing transit service in a 14-member community district with Boston as its hub.

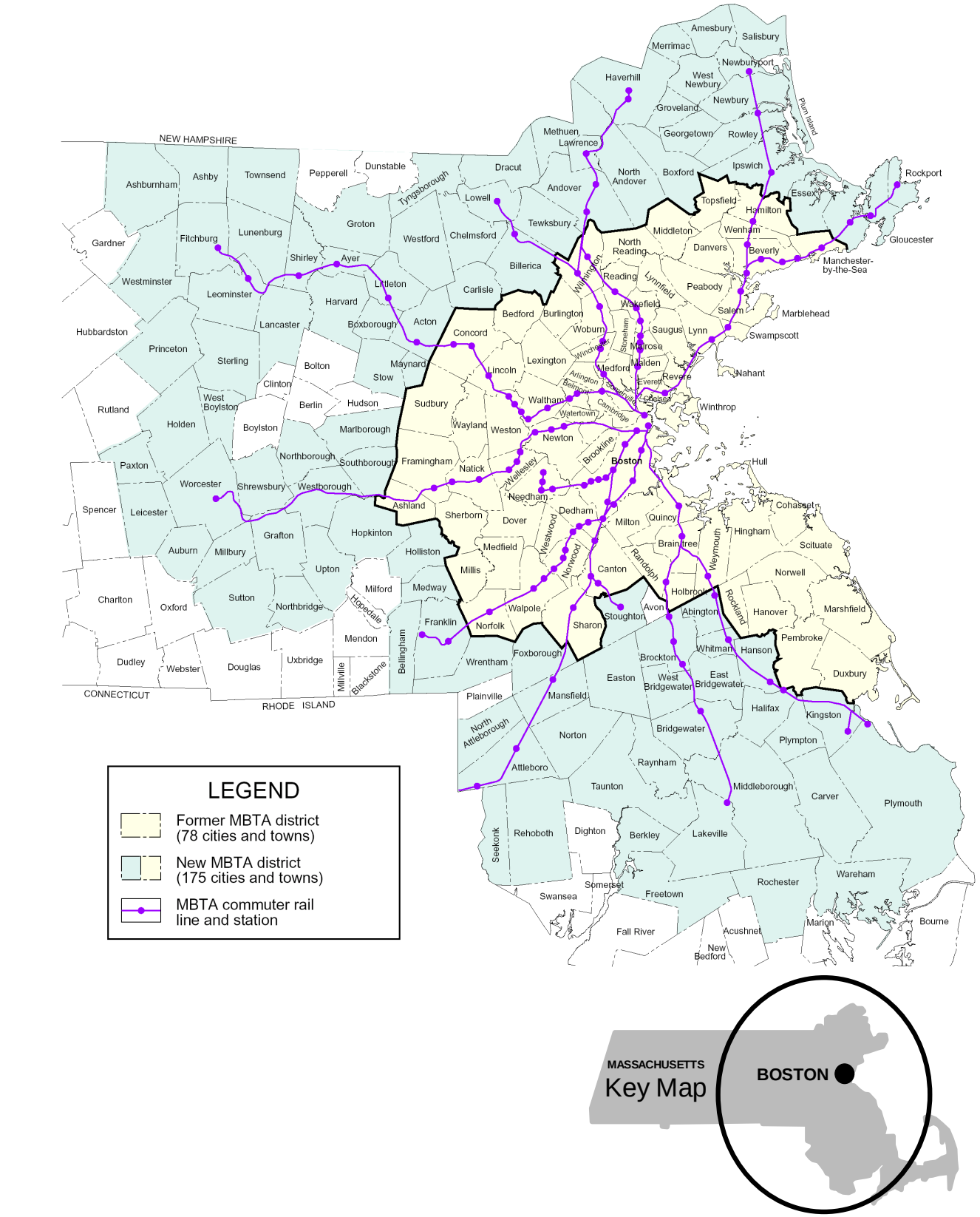
The MBTA was created by the State Legislature in 1964. The MBTA's charge was to craft a transit network serving 78 member communities, including the old MTA district. Over the next decade the MBTA network grew at a rapid pace.

The role of the MBTA was expanded in 2000 when the state legislature expanded the authority's service district from 78 to 176 member communities. Many communities within the former 78-member district receive local bus and subway service. Others receive (or are proximate to) commuter rail service, and may (or may not, depending on the community) belong to a regional transit authority that provides local bus service. Member communities are represented on the MBTA Advisory Board, and contribute assessment fees (see Chapter 7). These fees – along with a portion of the statewide sales tax revenue and revenues from operations (fares, park-n'-ride fees, advertising revenues) – are the principal sources of revenue that ensure continued provision of MBTA service.

Service District Statistical Profiles

	Communities In Service District	Area Served (Sq. Mi.)	Population in Service District
Metropolitan Transit Authority of 1947	14	112	1.5 M
MBTA of 1964	78	1,038	2.7 M
MBTA Today	176	3,249	4.6 M

MBTA Service District Map



File: CH09 p2 - MBTA Service District Map

Service District: The 176 Member Communities



	City or Town	2000 Population	Land Area Sq. Miles
1	ABINGTON	14,605	9.97
2	ACTON	20,331	20.06
3	AMESBURY	16,450	12.65
4	ANDOVER	31,247	31.1
5	**ARLINGTON**	42,389	5.18
6	ASHBURNHAM	5,546	39.15
7	ASHBY	2,845	23.66
8	**ASHLAND**	14,674	12.41
9	ATTLEBORO	42,068	27.51
10	AUBURN	15,901	15.7
11	AVON	4,443	4.6
12	AYER	7,287	8.82
13	**BEDFORD**	12,595	13.73
14	BELLINGHAM	15,314	18.55
15	**BELMONT**	24,194	4.59
16	BERKLEY	5,749	15.56
17	**BEVERLY**	39,862	15.14
18	BILLERICA	38,981	25.46
19	**BOSTON**	589,141	43.68
20	BOXBOROUGH	4,868	10.39
21	BOXFORD	7,921	23.8
22	**BRAINTREE**	33,828	13.7
23	BRIDGEWATER	25,185	27.29
24	BROCKTON	94,304	21.37
25	**BROOKLINE**	57,107	6.62
26	**BURLINGTON**	22,876	11.84
27	**CAMBRIDGE**	101,355	6.25
28	**CANTON**	20,775	19.01
29	CARLISLE	4,717	15.37
30	CARVER	11,163	38.41
31	CHELMSFORD	33,858	22.54
32	**CHELSEA**	35,080	1.86
33	**COHASSET**	7,261	9.86
34	**CONCORD**	16,993	24.96
35	**DANVERS**	25,212	13.64
36	**DEDHAM**	23,464	10.5
37	**DOVER**	5,558	15.16
38	DRACUT	28,562	20.84
39	**DUXBURY**	14,248	24.32
40	EAST BRIDGEWAT	12,974	17.29
41	EASTON	22,299	29.04
42	ESSEX	3,267	14.18
43	**EVERETT**	38,037	3.36
44	FITCHBURG	39,102	27.47
45	FOXBOROUGH	16,246	19.77
46	FRAMINGHAM	66,910	23.92
47	FRANKLIN	29,560	26.8
48	FREETOWN	8,472	34.57
49	GEORGETOWN	7,377	13.1
50	GLOUCESTER	30,273	26.18
51	GRAFTON	14,894	22.83
52	GROTON	9,547	32.54
53	GROVELAND	6,038	8.9
54	**HALIFAX**	7,500	16.15
55	**HAMILTON**	8,315	14.66
56	HANOVER	13,164	15.46
57	HANSON	9,495	15.17
58	HARVARD	5,981	26.35
59	**HAVERHILL**	58,969	33.11
60	**HINGHAM**	19,882	22.46
61	HOLBROOK	10,785	7.3
62	HOLDEN	15,621	35.5
63	HOLLISTON	13,801	18.9
64	**HOPKINTON**	13,346	26.4
65	HULL	11,050	2.43
66	IPSWICH	12,987	33.21
67	KINGSTON	11,780	18.55
68	LAKEVILLE	9,821	29.54
69	LANCASTER	7,380	27.65
70	LAWRENCE	72,043	6.75
71	LEICESTER	10,471	22.7
72	**LEOMINSTER**	41,303	28.81
73	**LEXINGTON**	30,355	16.48
74	LINCOLN	8,056	14.56
75	LITTLETON	8,184	16.46
76	LOWELL	105,167	13.38
77	**LUNENBURG**	9,401	26.63
78	**LYNN**	89,050	10.47
79	**LYNNFIELD**	11,542	10.22
80	**MALDEN**	56,340	5.08
81	MANCHESTER	5,228	7.72
82	**MANSFIELD**	22,414	20.22
83	MARBLEHEAD	20,377	4.4
84	**MARLBOROUGH**	36,255	20.99
85	MARSHFIELD	24,324	28.35
86	**MAYNARD***	10,433	5.24
87	**MEDFIELD**	12,273	14.43
88	MEDFORD	55,765	8.21
89	**MEDWAY**	12,448	11.6
90	MELROSE	27,134	4.73
91	MERRIMAC	6,138	8.66
92	METHUEN	43,789	22.41
93	**MIDDLEBOROUGH**	19,941	69.98
94	MIDDLETON	7,744	14.27
95	**MILLBURY**	12,784	15.84
96	**MILLIS**	7,902	12.17
97	**MILTON**	26,062	13.1
98	**NAHANT**	3,632	1.04
99	**NATICK**	32,170	14.88
100	NEEDHAM	28,911	12.5
101	NEWBURY	6,717	23.97
102	**NEWBURYPORT**	17,189	8.3
103	**NEWTON**	83,829	17.9
104	NORFOLK	10,460	15.1
105	NORTH ANDOVER	27,202	26.63
106	**NORTH ATTLEBOROUGH**	27,143	19.05
107	NORTH READING	13,837	13.26
108	NORTHBOROUGH	14,013	18.47
109	NORTHBRIDGE	13,182	17.33
110	**NORTON**	18,036	27.91
111	**NORWELL**	9,765	20.97
112	NORWOOD	28,587	10.47
113	**PAXTON**	4,386	14.87
114	**PEABODY**	48,129	16.45
115	PEMBROKE	16,927	21.53
116	PLYMOUTH	51,701	97.57
117	PLYMPTON	2,637	14.92
118	**PRINCETON**	3,353	35.39
119	**QUINCY**	88,025	16.51
120	RANDOLPH	30,963	10.08
121	**RAYNHAM**	11,739	20.3
122	READING	23,708	9.84
123	**REHOBOTH**	10,172	47.25
124	REVERE	47,283	5.95
125	**ROCHESTER**	4,581	33.76
126	ROCKLAND	17,670	10.02
127	ROCKPORT	7,767	7.02
128	**ROWLEY**	5,500	19.01
129	SALEM	40,407	7.99
130	**SALISBURY**	7,827	15.74
131	**SAUGUS**	26,078	10.58
132	SCITUATE	17,863	16.9
133	**SEEKONK**	13,425	18.63
134	**SHARON**	17,408	23.58
135	SHERBORN	4,200	16.89
136	SHIRLEY	6,373	15.81
137	**SHREWSBURY**	31,640	20.78
138	SOMERVILLE	77,478	3.93
139	SOUTHBOROUGH	8,781	13.78
140	**STERLING**	7,257	30.52
141	STONEHAM	22,219	6.03
142	STOUGHTON	27,149	16.25
143	**STOW**	5,902	17.68
144	SUDBURY	16,841	24.37
145	**SUTTON**	8,250	32.48
146	SWAMPSCOTT	14,412	3.08
147	TAUNTON	55,976	47.29
148	**TEWKSBURY**	28,851	20.7
149	TOPSFIELD	6,141	12.8
150	TOWNSEND	9,198	32.66
151	TYNGSBOROUGH	11,081	16.86
152	**UPTON**	5,642	21.65
153	**WAKEFIELD**	24,804	7.35
154	**WALPOLE**	22,824	20.56
155	WALTHAM	59,226	12.41
156	**WAREHAM**	20,335	36.68
157	**WATERTOWN**	32,986	4.06
158	**WAYLAND**	13,100	15.29
159	**WELLESLEY**	26,613	10.05
160	WENHAM	4,440	7.75
161	WEST BOYLSTON	7,481	12.69
162	WEST BRIDGEWATEF	6,634	15.48
163	WEST NEWBURY	4,149	13.9
164	WESTBOROUGH	17,997	21.05
165	WESTFORD	20,754	30.25
166	**WESTMINSTER**	6,907	35.64
167	**WESTON**	11,469	17.17
168	**WESTWOOD**	14,117	11.15
169	WEYMOUTH	53,988	16.7
170	**WHITMAN**	13,882	6.7
171	**WILMINGTON**	21,363	17.08
172	**WINCHESTER**	20,810	5.9
173	**WINTHROP**	18,303	1.56
174	WOBURN	37,258	12.86
175	WORCESTER	172,648	37.16
176	WRENTHAM	10,554	22.02
	TOTAL	**4,668,008**	**3,249**

BOLD & UNDERLINED TITLES: Towns in former MTA 14-member community service district

BOLD TITLES: Towns in former MBTA 78-member community service district

*Maynard joined then subsequently left a 79-member MBTA service district

Source: Mass. Dept. of Revenue Division of Local Services, Municipal Data Bank
http://www.state.ma.us/dls/mdmstuf/POP00.xls DATE: 10-16-01

Service by Mode and Member Community February 2010



RAIL RAPID TRANSIT

RED LINE
1 Boston
2 Braintree
3 Cambridge
4 Quincy
5 Somerville

ORANGE LINE
1 Boston
2 Malden
3 Medford

BLUE LINE
1 Boston
2 Revere

GREEN LINE
1 Boston
2 Brookline
3 Cambridge
4 Newton

MATTAPAN TROLLEY
1 Boston
2 Milton

RAIL RAPID TRANSIT TOTAL
1 Boston
2 Braintree
3 Brookline
4 Cambridge
5 Malden
6 Medford
7 Milton
8 Newton
9 Quincy
Revere
Somerville

BUS RAPID TRANSIT

1 Boston

FERRY

1 Boston
2 Hingham
3 Quincy
4 Hull

TRACKLESS TROLLEY

1 Cambridge
2 Watertown
3 Belmont

THE RIDE

1 Arlington
2 Bedford
3 Belmont
4 Beverly
5 Boston
6 Braintree
7 Brookline
8 Burlington
9 Cambridge
10 Canton
11 Chelsea
12 Cohasset
13 Concord
14 Danvers
15 Dedham
16 Dover
17 Everett
18 Framingham
19 Hingham
20 Holbrook
21 Hull
22 Lexington
23 Lincoln
24 Lynn
25 Lynnfield
26 Malden
27 Marblehead
28 Medfield
29 Medford
30 Melrose
31 Middleton
32 Milton
33 Nahant
34 Natick
35 Needham
36 Newton
37 Norwood
38 Peabody
39 Quincy
40 Randolph
41 Reading
42 Revere
43 Salem
44 Saugus
45 Sharon
46 Somerville
47 Stoneham
48 Swampscott
49 Topsfield
50 Wakefield
51 Walpole
52 Waltham
53 Watertown
54 Wellesley
55 Wenham
56 Weston
57 Westwood
58 Weymouth
59 Wilmington
60 Winchester
61 Winthrop
62 Woburn

COMMUTER RAIL

1 Abington
2 Acton
3 Andover
4 Ashland
5 Attleboro
6 Ayer
7 Belmont
8 Beverly
9 Billerica
10 Boston
11 Braintree
12 Bridgewater
13 Brockton
14 Cambridge
15 Canton
16 Chelsea
17 Cohasset
18 Concord
19 Dedham
20 Fitchburg
21 Foxborough
22 Framingham
23 Franklin
24 Gloucester
25 Grafton
26 Halifax
27 Hamilton
28 Hanson
29 Haverhill
30 Hingham
31 Holbrook
32 Ipswich
33 Kingston
34 Lakeville
35 Lawrence
36 Leominster
37 Lincoln
38 Littleton
39 Lowell
40 Lynn
41 Malden
42 Manchester-by-the-Sea
43 Mansfield
44 Marshfield
45 Medford
46 Melrose
47 Middleborough
48 Natick
49 Needham
50 Newburyport
51 Newton
52 Norfolk
53 Norwood
54 Plymouth
55 Quincy
56 Randolph
57 Reading
58 Rockport
59 Rowley
60 Salem
61 Scituate
62 Sharon
63 Shirley

(cont'd)

64 Southborough
65 Stoughton
66 Swampscott
67 Wakefield
68 Walpole
69 Waltham
70 Wellesley
71 Wenham
72 Westborough
73 Weston
74 Westwood
75 Weymouth
76 Wilmington
77 Winchester
78 Woburn
79 Worcester

MBTA BUS

1 Arlington
2 Avon
3 Bedford
4 Belmont
5 Beverly
6 Boston
7 Braintree
8 Brockton
9 Brookline
10 Burlington
11 Cambridge
12 Chelsea
13 Danvers
14 Dedham
15 Everett
16 Hingham
17 Holbrook
18 Lexington
19 Lynn
20 Lynnfield
21 Malden
22 Marblehead
23 Medford
24 Melrose
25 Milton
26 Nahant
27 Needham
28 Newton
29 Norwood
30 Peabody
31 Quincy
32 Randolph
33 Reading
34 Revere
35 Salem
36 Saugus
37 Somerville
38 Stoneham
39 Swampscott
40 Wakefield
41 Walpole
42 Waltham
43 Watertown
44 Westwood
45 Weymouth
46 Winchester
47 Woburn

CONTRACTED BUS

1 Bedford
2 Beverly
3 Boston
4 Burlington
5 Canton
6 Dedham
7 Hingham
8 Hull
9 Lexington
10 Medford
11 Milton
12 Winthrop

Service District:
Services in Member Communities
February 2010



MUNICIPALITY	MODE	Bus Routes/Stations
Abington	Commuter Rail	Abington
Acton	Commuter Rail	South Acton
Andover	Commuter Rail	Andover, Ballardvale
Arlington	Bus	62, 62/76, 67, 76, 77, 78, 79, 80, 84, 87, 350
Ashland	Commuter Rail	Ashland
Attleboro	Commuter Rail	Attleboro, South Attleboro
Avon	Bus	238, 240
Ayer	Commuter Rail	Ayer
Bedford	Bus	62, 62/76, 351
	Contracted Bus	Bedford Local Transit
Belmont	Bus	62, 62/76, 67, 72/75, 74, 75, 76, 78, 84, 554
	Commuter Rail	Waverley, Belmont Center
Beverly	Bus	451
	Commuter Rail	Beverly Farms, Pride's Crossing, Montserrat, North Beverly, Beverly Depot
	Contracted Bus	Beverly Shoppers' Shuttle
Billerica	Commuter Rail	North Billerica
Boston	Bus	1, 4, 5, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 34E, 35, 36, 37, 37/38, 38, 39, 40, 41, 42, 43, 44, 45, 47,48, 50, 51, 52, 55, 57, 60 64, 65, 66, 70/70A, 86, 89, 90, 91, 92, 93, 95, 101, 104, 105, 109, 111, 112, 114, 116, 117, 120 ,121, 170, 201, 202, 210, 215, 217, 240, 245, 275, 276, 277, 325, 326, 352, 354, 355, 426, 428, 436, 439, 441, 442, 448, 449, 450, 455, 456, 459, 500, 501, 502, 503, 504, 505, 553, 554, 555, 556, 558, CT1, CT2, CT3; SL1, SL2, SL4, SL5
	Rapid Transit	Green Subway: Kenmore, Hynes Copley, Arlington, Boylston, Park St., Government Center, Haymarket, North Station, Science Park, Symphony, Prudential Green 'B': Blandford St., BU East, BU Central, BU West, St. Paul St, Pleasant St, Babcock St, Packards Corner, Fordham Rd, Harvard Ave, Griggs St, Allston St, Warren St, Summit Ave, Washington St, Mt Hood Rd, Sutherland Rd, Chiswick Rd, Chestnut Hill Ave, South St, Greycliff Rd, Boston College Green 'C': Cleveland Circle Green 'D': Fenway Green 'E': Northeastern, Museum of Fine Arts, Longwood Medical Area, Brigham Circle, Fenwood Rd, Mission Park, Riverway, Back of the Hill, Heath St Blue: Suffolk Downs, Orient Heights, Wood Island, Airport, Maverick, Aquarium, State, Government Center, Bowdoin Orange: Sullivan, Community College, North Station, Haymarket, State, Downtown Crossing, Chinatown, New England Medical Center, Back Bay, Mass Ave, Ruggles, Roxbury Crossing Red: Charles/MGH, Park St., Downtown Crossing, South Station, Broadway, Andrew, JFK/Umass, Savin Hill, Fields Corner, Shawmut, Ashmont Mattapan Trolley: Ashmont, Cedar Grove, Butler, Mattapan
	Commuter Rail	North Station, South Station, Back Bay, Ruggles, Readville, Hyde Park, JFK/Umass, Forest Hills, Roslindale Village, Bellevue, Highland, West Roxbury, Uphams Corner, Morton Street, Fairmount, Yawkey
	Ferry	F1, F2/F2H, F4
	Contracted Bus	Mission Hill Link, Dedham Local Bus, 712/713, 716
Braintree	Bus	230, 236, 238
	Rapid Transit	Braintree
	Commuter Rail	Braintree
Bridgewater	Commuter Rail	Bridgewater
Brockton	Bus	230
	Commuter Rail	Montello, Brockton, Campello
Brookline	Bus	47, 51, 57, 60, 65, 66, 86, 193, CT2
	Rapid Transit	Green 'C': St. Marys St, Hawes St, Kent St, St Paul St, Coolidge Corner, Summit Ave, Brandon Hall, Fairbanks St, Washington Sq, Tappan St, Dean Rd, Englewood Ave Green 'D': Longwood, Brookline Village, Brookline Hills, Beaconsfield, Reservoir
Burlington	Bus	350, 351, 352, 354
	Contracted Bus	B Line
Cambridge	Bus	1, 47, 62, 62/76, 64, 66, 67, 68, 69, 70/70A, 71, 72, 73, 74, 75, 76, 77/77A, 78, 79, 80, 83, 84, 85, 86, 87, 88, 91, 96, 350, 351, CT1, CT2
	Rapid Transit	Red: Alewife, Porter, Harvard, Central, Kendall/MIT Green 'Subway': Lechmere
	Commuter Rail	Porter
Canton	Commuter Rail	Canton Junction, Canton Center
	Contracted Bus	716
Chelsea	Bus	111, 112, 114, 116, 117
	Commuter Rail	Chelsea
Cohasset	Commuter Rail	Cohasset
	Contracted Bus	714
Concord	Commuter Rail	Concord, West Concord
Danvers	Bus	435, 436, 465, 468
Dedham	Bus	33, 34, 34E, 35, 52
	Commuter Rail	Route 128, Endicott, Dedham Corporate Center
	Contracted Bus	Dedham Local Bus
Everett	Bus	97, 99, 104, 105, 106, 109, 110, 111, 112
Fitchburg	Commuter Rail	Fitchburg
Framingham	Commuter Rail	Framingham
Franklin	Commuter Rail	Franklin, Forge Park/495
Gloucester	Commuter Rail	Gloucester, West Gloucester
Halifax	Commuter Rail	Halifax
Hamilton	Commuter Rail	Hamilton-Wenham
Hanson	Commuter Rail	Hanson
Haverhill	Commuter Rail	Haverhill, Bradford
Hingham	Bus	220, 222
	Commuter Rail	West Hingham, Nantasket Junction
	Ferry	F1
	Contracted Bus	714
Holbrook	Bus	230, 238, 240
	Commuter Rail	Holbrook/Randolph
Hull	Ferry	F2H
	Contracted Bus	714
Ipswich	Commuter Rail	Ipswich
Kingston	Commuter Rail	Kingston/Route 3

MUNICIPALITY	MODE	Bus Routes/Stations
Lakeville	Commuter Rail	Middleborough/Lakeville
Lawrence	Commuter Rail	Lawrence
Leominster	Commuter Rail	North Leominster
Lexington	Bus	62, 62/76, 76, 78
	Contracted Bus	Lexpress, B Line
Lincoln	Commuter Rail	Lincoln
Littleton	Commuter Rail	Littleton/495
Lowell	Commuter Rail	Lowell
Lynn	Bus	424, 426, 429, 431, 434, 435, 436, 439, 441, 442, 448, 449, 450, 455, 456, 459
	Commuter Rail	Lynn, Riverworks
Lynnfield	Bus	434, 436
Malden	Bus	97, 99, 100, 101, 104, 105, 106, 108, 109, 119, 131, 132, 136, 137, 411, 426, 428, 429, 430
	Commuter Rail	Malden Center
Manchester-by-the-sea	Commuter Rail	Manchester
Mansfield	Commuter Rail	Mansfield
Marblehead	Bus	441, 442, 448, 449
Medford	Bus	80, 89, 90, 94, 95, 96, 97, 99, 100, 101, 106, 108, 110, 112, 134, 325, 326
	Commuter Rail	West Medford
	Contracted Bus	710
Melrose	Bus	106, 131, 132, 136, 137, 430
	Commuter Rail	Wyoming Hill, Melrose Cedar Park, Melrose Highlands
Middleborough	Commuter Rail	Middleborough/Lakeville
Milton	Bus	24, 28, 29, 31, 215, 217, 240, 245
	Rapid Transit	Mattapan Trolley: Milton, Central Ave, Valley Rd, Capen St
	Contracted Bus	716
Nahant	Bus	439
Natick	Commuter Rail	West Natick, Natick
Needham	Bus	59
	Commuter Rail	Hersey, Neddham Junction, Needham Center, Needham Heights
Newton	Bus	52, 57, 59, 60, 193, 500, 501, 502, 503, 504, 505, 553, 554, 555, 556, 558
	Rapid Transit	Green 'D': Riverside, Woodland, Waban, Eliot, Newton Highlands, Newton Centre, Chestnut Hill
	Commuter Rail	Auburndale, West Newton, Newtonville
Norfolk	Commuter Rail	Norfolk
Norwood	Bus	34E
	Commuter Rail	Windsor Gardens, Norwood Central, Norwood Depot
Peabody	Bus	434, 435, 436, 465, 468
Plymouth	Commuter Rail	Plymouth
Quincy	Bus	201, 202, 210, 211, 212, 214, 215, 216, 217, 217/245, 220, 221, 222, 225, 230, 236, 238, 240, 245, 275, 276
	Rapid Transit	Red: North Quincy, Wollaston, Quincy Center, Quincy Adams
	Commuter Rail	Quincy Center
	Ferry	F2/F2H
Randolph	Bus	238, 240
Reading	Bus	136, 137
	Commuter Rail	Reading
Revere	Bus	108, 110, 111, 116, 117, 119, 197, 411, 426, 428, 429, 434, 441, 442, 448, 449
	Bus	450, 455, 459
	Rapid Transit	Wonderland, Revere Beach, Beachmont
Rockport	Commuter Rail	Rockport
Rowley	Commuter Rail	Rowley
Salem	Bus	439, 441, 448, 450, 451, 455, 459
	Commuter Rail	Salem
Saugus	Bus	424, 426, 428, 429, 430, 434, 450, 455, 459
Scituate	Commuter Rail	North Scituate, Greenbush
Sharon	Commuter Rail	Sharon
Shirley	Commuter Rail	Shirley
Somerville	Bus	80, 83, 85, 86, 87, 88, 89, 90, 91, 92, 94, 95, 96, 101, CT2
	Rapid Transit	Red: Davis
Southborough	Commuter Rail	Southborough
Stoneham	Bus	99, 132
Stoughton	Commuter Rail	Stoughton
Swampscott	Bus	439, 441, 442, 448, 449, 455, 458, 459
	Commuter Rail	Swampscott
Wakefield	Bus	136, 137, 428
	Commuter Rail	Greenwood, Wakefield
Walpole	Bus	34E
	Commuter Rail	Walpole, Plimptonville
Waltham	Bus	70/70A, 170, 505, 553, 554, 556, 558
	Commuter Rail	Waltham, Brandeis/Roberts
Watertown	Bus	52, 57, 59, 70/70A, 71, 73, 502, 504, 554, 558
Wellesley	Commuter Rail	Wellesley Square, Wellesley Hills, Wellesley Farms
Wenham	Commuter Rail	Hamilton-Wenham
Westborough	Commuter Rail	Westborough
Weston	Commuter Rail	Silver Hill, Hastings, Kendal Green
Westwood	Bus	34E
	Commuter Rail	Islington, Route 128
Weymouth	Bus	220, 221, 222, 225
	Commuter Rail	Weymouth Landing, East Weymouth
Wilmington	Commuter Rail	Wilmington, North Wilmington
Winchester	Bus	134, 350
	Commuter Rail	Wedgemere, Winchester
Winthrop	Contracted Bus	712/713
Woburn	Bus	134, 350, 354, 355
	Commuter Rail	Anderson, Mishawum
Worcester	Commuter Rail	Worcester

INBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Distance to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes Serving Stop	Route 57 Ons (Fall09)	Route 57 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bench	Existing Bus Stop Length (ft)	Summary of Recommendations	Final Recommendations 30% Design
1	900		Watertown Yard	820'	4	Busway	57, 52, 502, 504	502	0	-	-	Watertown	-	Cemusa (2)	Yes	-	Maintain	Add trash receptacles.
2	901	Galen St	Eliot St	820'	4	mid-block	57, 52, 502, 504	14	2	59	2	Watertown	11'	No	No	132'	Eliminate	Remove stop to improve stop spacing, ridership is low. Distance to previous or next stop is ~820'. Reinsate 3-4 unregulated parking spaces in former stop location. Revised distance between stops is ~1640'
3	902	Galen St	Boyd St	570'	3	near side	57, 52, 502, 504	30	3	87	3	Watertown	10'	No	No	132' (25' on curb extension)	Maintain	Add rear sign on curb extension to redefine bus stop area.
4	1900	Centre St	Pearl St	710'	3	near side	57, 52, 502, 504	30	12	102	15	Newton	11'	Awning of abutter	No	31'	Maintain	Add rear sign on curb extension to redefine bus stop area.
5	903	Washington St	Bacon St	1930'	9	near side	52, 57, 502, 504	194	22	563	225	Newton	16'	MBTA brown (2)	Yes	140'	Maintain	Relocate front sign closer to Bacon St and add rear sign to redefine bus stop area. Add bus stop pavement markings.
6	9031	Centre St	#400	770'	4	mid-block	52, 57, 502, 504	100	7	435	46	Newton	16'	Newton Built in place	Yes (concrete)	130'	Maintain	Add pavement markings.
7	904	Park St	Elmwood St	510'	2	far side	52, 57, 501, 503	14	3	15	68	Newton	5'	No	No	45'	Maintain	Retain stop and construct concrete landing pad. Add pavement markings.
8	905	Tremont St	opp Hibbard Rd	600'	3	mid-block	52, 57, 501, 503	23	1	23	16	Newton	5'	No	No	82'	Maintain	Construct concrete landing pad. Add pavement markings and add rear sign on new post before crosswalk. Improve visibility by trimming trees.
9	906	Tremont St	Waverly Ave	740'	4	near side	52, 57, 501, 503	26	4	26	24	Newton	5'	No	No	60'	Maintain	Add rear sign and pavement markings. Improve visibility by trimming trees.
10	907	Tremont St	Pembroke St	420'	2	near side	52, 57, 501, 503	17	1	17	29	Newton	5'	No	No	70'	Maintain	Construct concrete landing pad at front of stop. Add pavement markings.
11	908	Tremont St	Marlboro St	500'	2	far side	52, 57, 501, 503	12	4	12	20	Newton	5'	No	No	51'	Eliminate	Remove stop due to proximity to previous stop at Pembroke (420'), low ridership, and lack of concrete landing pad. Revised distance between stops will be 920'.
12	909	Tremont St	Cufflin St	490'	2	near side	52, 57, 501, 503	64	9	64	31	Boston	12'	No	Yes (2 wooden at Laundromat)	60'	Relocate	Relocate farside of Cufflin & add a concrete landing pad = - 3 parking spaces but 2 could be reinstated at former stop location. Add pavement markings.
13	910	Tremont St	Tremont Pl	520'	2	mid-block	52, 57, 501, 503	26	1	26	16	Boston	11'	No	No	63'	Maintain	Add bench and pavement markings. Move rear sign back to driveway of apt. building to lengthen stop and relocate front sign to provide 100' of curb space including driveway.
14	911	Tremont St	Tip Top St	560'	3	near side	52, 501, 503	8	2	8	42	Boston	6'	No	No	56'	Eliminate	Remove stop due to low ridership, insufficent bus stop length (would require parking elimination) and improve bus stop spacing. Closest stop is 520' away. Revised stop spacing will be 1080'.
15	912	Tremont St	Washington St	590'	3	mid-block	52, 57, 501, 503	86	15	87	146	Boston	12'	Wall	Yes	36'	Maintain	Lengthen stop by relocating rear sign further back to provide accessible path from shelter/landing pad to bus= ~ 1-2 unregulated parking spaces. Add pavement markings.
16	913	Washington St	Breck Ave	540'	3	mid-block	52, 57, 501, 503	286	30	286	66	Boston	12'	No	No	48'	Maintain	Add bench, trash receptacle and pavement markings. Revised Recomm: shelter can not be accomodated at this location.
17	914	Washington St	opp Montfern Ave	500'	2	mid-block	52, 501, 503	142	11	143	66	Boston	11'	No	No	56'	Consolidate	Remove stop by consolidating with Langley & locate new stop midway between Oak Sq Av & Langley = - 2/3 spaces. Reinstate 1 parking space at existing stop.

Key Bus Route Improvement Program
Route 57 - Final Recommendations

INBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Distance to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes Serving Stop	Route 57 Ons (Fall09)	Route 57 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bench	Existing Bus Stop Length (ft)	Summary of Recommendations	Final Recommendations 30% Design
	NEW STOP	Washington St	opp. Oak Sq. Ave.									Boston					New	Add new stop opp. Oak Square Ave to improve bus stop spacing and the potential to add shelter with abutter permission. Add trash receptacle and pavement markings.
18	915	Washington St	Langley Rd	890'	4	near side	52, 501, 503	103	16	103	80	Boston	12'	No	No	63'	Consolidate	Remove stop by consolidating with Montfern, as above. Reinstate 3 parking spaces at existing bus stop.
19	916	Washington St	Lake St	770'	4	mid-block	52, 57, 501, 503	395	69	396	139	Boston	12'	Wall	Yes	23'	Maintain	Lengthen stop by removing parking space nearside of driveway and relocate rear sign nearside of driveway. Replace existing trash receptacle. Add pavement markings. Investigate signal improvements at Lake St, including inbound queue jump lane.
20	917	Washington St	Foster St	840'	4	near side	52, 57, 501, 503	152	44	152	135	Boston	11'	No	No	40'	Relocate	Relocate farside (hydrant will be to the rear of the stop) (bus will use crosswalk for access and driveway for egress) = -1 parking space but 1 space could be reinstated at existing bus stop (unless install right turn/bus lane). Add bench, trash receptacle and pavement markings. Investigate signal improvements and shared right turn/bus lane at Foster St.
21	918	Washington St	Baldwin Pl	540'	3	near side	52, 501, 503	305	145	306	205	Boston	12'	No	No	48'	Consolidate	Remove stop and consolidate with opp. Waldo Terrace with a new stop nearside of Academy Hill Rd. Reinstate 2 parking spaces at existing stop. Investigate signal improvements at Market St.
	NEW STOP	Washington St	Academy Hill Road									**Boston**					New	Add a new stop nearside of Academy Hill Road (in front of Dunkin Donuts parking lot) = -3 parking spaces (1 loading/2hr; 2 2hr). Investigate shelter opportunity with abutter permission. Add pavement markings.
22	919	Washington St	opp Waldo Terr	550'	3	mid-block	52, 57, 65, 501, 503	156	64	251	81	Boston	10'	No	No	55'	Consolidate	Remove stop and consolidate with Baldwin as above. Reinstate 2-3 parking spaces at existing stop.
23	920	Cambridge St	Washington St	320'	2	far side	57	192	43	192	43	Boston	25'	Wall	Yes	58'	Maintain	Relocate front sign onto a new post.
24	19201	Cambridge St	opp Elko St	590'	3	mid-block	57	100	29	100	29	Boston	17'	Wall	Yes	54'	Maintain	Add rear sign and relocate front sign closer to hydrant to provide 90-100' curb space.
25	921	Cambridge St	Warren St	460'	2	near side	57, 66, 501	125	26	186	26	Boston	12'	Concrete	No	64'	Eliminate	Remove stop to improve bus stop spacing. 590' to closest stop at Elko St. Maintain no parking to corner. Revised distance between stops will be 1050'
26	922	Cambridge St	opp Dustin St	770'	4	mid-block	57, 66, 501	338	21	360	21	Boston	12'	Wall	Yes	78'	Maintain	Relocate rear sign onto new post.
27	923	Cambridge St	Eleanor St	820'	4	near side	57, 66, 501	19	7	35	7	Boston	12 (6' concrete, 6' grass)	No	No	58'	Eliminate	Remove stop due to low ridership, and improve bus stop spacing. Reinstate 4 unregulated parking spaces. Revised bus stop spacing will be approximately 1400' due to the relocation of Gordon St.
28	924	Cambridge St	Gordon St	570'	3	near side	57, 66, 501	103	26	105	26	Boston	15' (9' concrete, 6' grass)	No	No	45'	Relocate	Relocate stop further back, before hydrant (eliminating conflict with parking demand for stores). Front sign would fall near hydrant, existing concrete landing pad =-2/3 unregulated spaces, but 2 can be reinstated at front of stop. Add shelter (bench alternatively) and pavement markings.
29	925	Cambridge St	Barrows St	520'	2	near side	57, 66, 501	137	107	140	107	Boston	11'	No	No	57'	Maintain	Retain stop due to nearby transfers to Route 64. Add shelter, trash receptacle and pavement markings. Relocate front sign closer to Barrow St and relocate rear sign to provide 90-100' curb space = -2 parking spaces.

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INBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Distance to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes Serving Stop	Route 57 Ons (Fall09)	Route 57 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bench	Existing Bus Stop Length (ft)	Summary of Recommendations	Final Recommendations 30% Design
30	926	Brighton Ave	Cambridge St	580'	3	far side	57, 66	536	141	1072	282	Boston	10'	No	No	63'	Maintain	Add curb extension (pending survey) if permission to add a shelter. Add benches with abutter permission.
31	927	Brighton Ave	Allston St	650'	3	near side	57, 66	232	141	464	282	Boston	10'	No	No	35'	Maintain	Improve in coordination with Route 66. Retain stop and install bench and improve sidewalk conditions.
32	928	Brighton Ave	Harvard Ave	510'	2	near side	57, 66	288	198	576	396	Boston	10'	No	No	30'	Maintain	Improve in coordination with Route 66. Relocate rear sign further back to provide sufficent stop length = -2 parking spaces. Add bench (beside signal box) and pavement markings.
33	929	Brighton Ave	Linden St	580'	3	near side	57	211	46	211	46	Boston	10'	No	No	50'	Maintain	Retain stop due to high ridership and connection to the neighborhood via Linden St. Relocate rear sign onto post and provide 90-100' curb space = -2 parking spaces. Relocate bike rack to provide bench if sidewalk clearance for rear door access allows. Add pavement markings.
34	930	Brighton Ave	Chester St	750'	4	far side	57	183	28	183	28	Boston	10'	No	No	55'	Eliminate	Remove stop as an alternative to removing Linden St due to higher ridership and neighborhood connectivity.
35	931	Brighton Ave	Comm Ave	520'	2	near side	57	396	141	396	141	Boston	9'	No	No	30'	Maintain	Retain stop and lengthen to provide 90-100' of curb space = -3-4 parking spaces. Investigate adding a bench and add pavement markings.
36	932	Comm. Ave	Naples Rd	650'	3	near side	57	44	54	44	54	Boston	22'	No	No	44'	Eliminate	Revised Recomm: Remove stop to improve stop spacing. Reinstate 1-2 parking spaces.
37	933	Comm. Ave	Babcock St	750'	4	far side	57	231	86	231	86	Boston	22'	No	No	63'	Maintain	Add shelter & bench.
38	934	Comm. Ave	Pleasant St	760'	4	near side	57	134	114	134	114	Boston	21'	No	No	47'	Relocate	Improve in co-ordination with City of Boston Comm Ave Reconstruction Project by relocating stop farside of Pleasant to improve bus stop spacing, and provide a safer bus stop location = -3 metered spaces. (Curb Extension is proposed at part of Reconstruction Project). Add shelter, trash receptacle and pavement markings. Relocate vending machine if obstructing clear zone.
39	935	Comm. Ave	St Paul St	560'	3	far side	57	248	103	248	103	Boston	22'	No	No	35'	Consolidate	Remove stop in co-ordination with City of Boston Comm Ave Reconstruction Project by consolidating with Amory St. to improve bus stop spacing and due to insufficient bus stop length at St. Paul. Reinstate 1 metered parking space (hydrant in current stop).
	NEW STOP	Comm. Ave	@ Citibank			far side						Boston					New	Improve in co-ordination with City of Boston Comm Ave Reconstruction Project with a new consolidated stop farside of Citibank driveway = -2 parking spaces (hydrant in stop). Add shelter with abutter permission. Add bench & trash receptacle and pavement markings.
40	936	Comm. Ave	Amory St	1340'	6	far side	57	66	62	66	62	Boston	14'	No	No	38'	Consolidate	Consolidate with St. Paul as above. Add 1 metered parking space.
41	937	Comm. Ave	Carlton St	640'	3	mid-block	57	12	196	12	196	Boston	17'	Wall (narrow)	Yes	58'	Maintain	Relocate and replace front sign. Revised Recomm: add pavement markings.
42	938	Comm. Ave	St Marys St	910'	4	far side	57	32	482	32	482	Boston	21'	No	Yes	46'	Maintain	Relocate rear sign onto new post.
43	939	Comm. Ave	opp Granby St	940'	4	mid-block	57	28	269	28	269	Boston	22'	Wall	Yes	65'	Maintain	Lengthen stop at rear (no parking impact) & replace front sign on a new post. Relocate rear sign onto post. Rename stop Comm Ave @ Hinsdale St.
44	941	Comm. Ave	Blandford St	1050'	5	mid-block	57	24	390	24	390	Boston	17'	Wall	Yes	100'	Maintain	Relocate and replace front sign on a new post. Relocate rear sign onto post. No parking impact.

INBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Distance to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes Serving Stop	Route 57 Ons (Fall09)	Route 57 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bench	Existing Bus Stop Length (ft)	Summary of Recommendations	Final Recommendations 30% Design
45	899	Comm. Ave	Kenmore Station Busway	N/A	N/A	Busway	Multiple	8	2538	-	-	Boston	NA	Station	Yes	-	N/A	None.

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Key Bus Route Improvement Program
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OUTBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Distance to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes serving stop	Route 57 Ons (Fall09	Route 57 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bus Stop Length (ft)	Summary of Recommendations	Final Recommendations 30% Design
1	899	NA	Kenmore Station Busway	1450'	7	Busway	Multiple	2224	2	-	-	Boston	NA	Station	-		None
2	951	Comm. Ave	Sherborn St	840'	4	far side	57	546	2	546	2	Boston	28'	Wall	68'		Replace front sign and locate onto new sign post. Relocate rear sign onto new sign post. Lengthen stop to 86' (no parking impact). Rename Comm Ave @ Silber Way
3	952	Comm. Ave	Granby St	710'	3	far side	57	272	8	272	8	Boston	29'	Wall	50'		Replace Tow Zone sign at rear with rear T sign and relocate front sign onto new post.
4	953	Comm. Ave	St Marys St	670'	3	mid-block	57	447	31	447	31	Boston	25'	No	46'		Relocate west to clear crosswalks (currently no parking zone in this area). Landing pad will fall between a flower bed & signal box/lamppost. Bench & trash receptacle are already very close by. Add pavement markings.
5	954	Comm. Ave	University Rd	1320'	6	near side	57	207	17	207	17	Boston	13'	Wall	52'		Install new front sign (clarify confusion with other stop serving 47 & CT1 in right turn only lane further west). Relocate signs onto new posts. Add pavement markings
6	955	Comm. Ave	opp Amory St	630'	3	mid-block	57	53	56	53	56	Boston	22'	No	57'		Remove stop to improve bus stop spacing. 2 meter parking spaces can be reinstated. Closest stop is 660' away at Buick St. Although revised stop spacing would be 1760' the distance from University Rd is exacerbated by the bridge.
7	956	Comm. Ave	Buick St	660'	3	far side	57	122	234	122	234	Boston	30'	Wall	65'		Retain stop and add trash receptacle & replace rear sign. Redefine bus stop area with correctly located signs and remove parking pavement markings in stop area.
8	957	Comm. Ave	Agganis Way	840'	4	near side	57	82	161	82	161	Boston	30'	No	82'		Remove stop to improve bus stop spacing, Buick stop is on the same block and not ideally located between intersection and a crosswalk. Closest stop is 570' at Babcock. St on same block as Buick & stop not ideal between crosswalk & intersection). Its companion stop at Pleasant St is being relocated, so it will be paired with Buick. Revised stop distance is 1410'.
9	958	Comm. Ave	Babcock St	570'	3	far side	57	90	178	90	178	Boston	25'	Wall	51'		Add a trash receptacle and pavement markings and replace rear sign.
10	959	Comm. Ave	#1079	740'	4	mid-block	57	151	225	151	225	Boston	24'	Wall	40'		Retain stop despite proximity to Babcock (570'). Relocate signs and provide landing pad around the hydrant = -3 metered parking spaces. Bus will use driveway for egress.
11	960	Brighton Ave	#19	540'	3	mid-block	57	55	96	55	96	Boston	10'	No	50'		Revised Recomm: Retain stop due to proximity to grocery store (Super 88). Relocate front sign onto post to provide 100' stop length, including driveway. Add bench, trash receptacle and pavement markings.
12	961	Brighton Ave	Chester St	500'	2	near side	57	35	170	35	170	Boston	10'	No	42'		Remove stop to improve bus stop spacing and retention of Linden St stops.
13	962	Brighton Ave	Linden St	520'	2	near side	57	31	192	31	192	Boston	10'	No	47'		Relocate to farside of Linden St. to improve traffic flow, and bus stop spacing = -3 2h parking spaces. 2 spaces could be reinstated at existing stop. Bicycle rack may need to be relocated to facilitate clear zone to the rear of the bus. Add pavement markings. Add "Harvard Ave" to onboard bus stop announcement.

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OUTBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Distance to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes serving stop	Route 57 Ons (Fall09	Route 57 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bus Stop Length (ft)	Summary of Recommendations	Final Recommendations 30% Design
14	963	Brighton Ave	Harvard Ave	530'	3	near side	57	156	278	156	278	Boston	10'	No	35'		Remove stop due to relocation of Linden St stop farside onto the same block as this stop. Connections to Route 66 outbound can be made at the next stop at Quint St. Reinstate 2 parking spaces at existing stop.
15	964	Brighton Ave	opp Quint Ave	560'	3	near side	57, 66	180	304	360	608	Boston	15'	Wall	40'		In coordination with Rte 66 improvements, remove parking space behind stop and relocate rear sign to provide sufficient bus stop length. Add pavement markings.
16	965	Brighton Ave	Craftsman St	570'	3	far side	57, 66	116	392	232	784	Boston	10'	Wall	80'		In coordination with Rte 66 improvements, remove bus stop to improve access to left turn lane. Existing shelter will need to be relocated. Although bus stop also serves Route 66 the next stop is located on the opposite side of the fire house. When eliminated stop spacing would be less than 1100' when North Beacon is relocated and the closest stop at Quint is 560'.
17	966	Cambridge St	N Beacon St	860'	4	mid-block	57, 501, 503	153	229	153	233	Boston	11'	No	47'		Relocate to farside between North Beacon St and driveway, due to insufficent space for landing area = -2 30 min parking spaces, and reinstate 1 space at existing bus stop location (pavement markings already in place). Relocate newspaper boxes to provide clear landing area. Add bench, trash receptacle and pavement markings.
18	967	Cambridge St	Gordon St	600'	3	mid-block	57, 501, 503	18	79	18	80	Boston		No	52'		Remove stop by consolidating with opp. Eleanor and add a new stop farside of Saunders to improve bus stop spacing. 2 spaces could be reinstated at existing stop.
NEW STOP		**Cambridge St**	**Saunders St**									**Boston**					Consolidate Gordon and Eleanor stops with a new stop farside of Saunders (hydrant will be at back of stop) = -2 parking spaces. Construct concrete landing pad. Add pavement markings.
19	968	Cambridge St	opp Eleanor St	770'	4	mid-block	57, 501, 503	16	9	16	19	Boston	13'	Wall	39'		Remove stop by consolidating with Gordon as above. Existing shelter will need to be relocated. 2 parking spaces could be reintated at existing stop.
20	969	Cambridge St	Dustin St	560'	3	near side	57, 501, 503	13	300	13	624	Boston	6'	No	26'		Retain stop due to high ridership and neighborhood connectivity and relocate rear sign onto post. Lengthen stop to provide 90-100' curb space = -2 parking spaces. Construct concrete landing pad.
21	970	Cambridge St	Sparhawk St	550'	3	far side	57, 501, 503	59	164	59	171	Boston	13'	Wall	71'		Add trash receptacle and pavement markings.
22	971	Cambridge St	Elko St	790'	4	far side	57, 501, 503	25	123	25	125	Boston	10'	No	55'		Relocate to farside of Henshaw St. (in front of Allston-Brighton CDC public gardens), closer to the ped signal at Washington St, to provide a safer crossing of Cambridge St (no parking impact). 3 2hr parking spaces could be reinstated at existing stop. Add trash receptacle. Relocate bicycle rack to maintain clear zone at the rear door. Bus stop length will be slightly shorter than normal because a stopped bus will slighly overhang the curb radius at Henshaw because of a lamppost in the rear door clear zone and raised planter & tree restricting location of landing area. Henshaw is one-way away from Cambridge St., therefore a stopped bus will not obstruct access.
23	972	Washington St	Waldo Terr	360'	2	near side	57, 501, 503	52	186	106	186	Boston	9'	No	25'		Retain stop and relocate rear sign onto post to provide 90-100' of curb space = -4 parking spaces.

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OUTBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Distance to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes serving stop	Route 57 Ons (Fall09	Route 57 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bus Stop Length (ft)	Summary of Recommendations	Final Recommendations 30% Design
24	9721	Washington St	Market St	340'	2	near side	57, 501, 503	84	157	135	157	Boston	10'	No	50'		Remove stop by consolidating with Leicester St and locate new stop farside of Market St. to improve bus stop spacing, insufficient bus stop length and crowded landing area at Market St, and parking enforcement problems and blocking crosswalk at Leicester St. =-3 /4 parking spaces. Add bench and pavement markings. Revised bus stop spacing would be ~ 800ft Investigate signal improvements and adding a shared right turn/bus lane in former Market St stop location.
NEW STOP		**Washington St**	**Market St**			**far side**						**Boston**					Consolidate Market St and Leicester St with a new stop farside of Market St.
25	973	Washington St	Leicester St	730'	3	near side	57, 501, 503	76	166	126	166	Boston	11'	No	70'		Remove stop by consolidating with Market St. as above. Reinstate 3 parking spaces.
26	974	Washington St	Foster St	910'	4	far side	57, 501, 503	42	211	136	211	Boston	11'	No	57'		Current bus stop blocks crosswalk. Eliminate 1-2 parking spaces in front of stop and relocate signs to provide 60-65' of curb space. Investigate signal improvements at Foster.
27	975	Washington St	Brock St	650'	3	far side	57, 501, 503	67	297	185	297	Boston	12'	Wall	43'		Relocate front sign closer to shelter and rear sign closer to crosswalk to better define bus stop area and provide 60-65' of curb space. Add trash receptacle. Investigate adding signal improvements and a shared right turn/bus lane at Brock St OB.
28	976	Washington St	Fairbanks St	560'	3	near side	57, 501, 503	12	109	78	109	Boston	13'	No	58'		Remove stop to improve bus stop spacing. Revised bus stop spacing would be 1210'. 2-3 parking spaces could be reinstated.
29	977	Washington St	Montfern Ave	600'	3	near side	57, 501, 503	15	150	114	151	Boston	12'	No	33'		Relocate stop to farside of Oak Sq Ave= - 3 parking spaces but 3 spaces will remain nearside of Montferm Ave. Existing trash receptacle will need to be relocated.
30	9780	Washington St	Oak Sq	540'	3	mid-block	57, 501, 503	40	360	127	362	Boston	10'	Wall	57'		Relocate front sign further west to nearside of YMCA driveway to provide sufficient bus stop length = - 2 parking spaces. Relocate rear sign onto new post and add trash receptacle.
31	979	Tremont St	Washington St	550'	3	far side	57, 501, 503	26	77	175	78	Boston	11'	Wall	61'		Add trash receptacle and pavement markings.
32	980	Tremont St	Tip Top St	520'	2	near side	57, 501, 503	2	11	21	11	Boston	10'	No	40'		Remove stop to improve stop spacing, low ridership and very insufficent stop length. Companion being eliminated also. Closest stop is 550' at Washington St. Revised distance between stops will be 1070'
33	981	Tremont St	opp Tremont Pl	580'	3	mid-block	57, 501, 503	5	52	25	52	Boston	10'	No	42'		Remove 1 parking space to provide sufficient bus stop length. Add pavement markings.
34	982	Tremont St	opp Cufflin St	500'	2	mid-block	57, 501, 503	9	43	43	44	Boston	12'	No	80'		Trim tree at front of stop to improve visibility of stop. Add pavement markings.
35	984	Tremont St	Marlboro St	330'	2	mid-block	57, 501, 503	2	13	27	13	Newton	5' + 7' grass	No	83'		Remove stop to improve bus stop spacing (closest stop at Playstead is 330'), due to low ridership, and lack of a concrete landing pad. Reinstate 3 parking spaces. Revised bus stop spacing 1050'.
36	983	Tremont St	Playstead Rd	720'	3	near side	57, 501, 503	1	17	26	17	Newton	5' + 7' grass	No	89'		Add concrete landing pad. Relocate signs to better define bus stop area.

For explanation of terms, please see Glossary and Abbreviations handout.

Key Bus Route Improvement Program
Route 57 - Final Recommendations

OUTBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Distance to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes serving stop	Route 57 Ons (Fall09	Route 57 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bus Stop Length (ft)	Summary of Recommendations	Final Recommendations 30% Design
37	985	Tremont St	Waverly Ave	730'	3	near side	57, 501, 503	2	12	20	12	Newton	5' + grass	No	57'		Add concrete landing pad closer to front of stop and relocate front sign west of landing pad.
38	986	Tremont St	Hibbard Rd	520'	2	mid-block	57, 501, 503	1	55	36	55	Newton	5' + grass	No	85'		Relocate signs and add pavement markings to improve definition of stop. Bus will use driveways for access and egress.
39	987	Park St	Tremont St	1150'	5	mid-block	57, 501, 503	4	12	28	12	Newton	6'	No	84'		Retain stop. Relocate rear sign to front of stop on new post and add rear sign on existing post.
40	988	Centre St	Jefferson St	800'	4	near side	52, 57	14	248	18	270	Newton	23'	No	70'		Replace rear sign.
41	989	Galen St	Maple St	730'	3	near side/mid block	52, 57	2	53	2	55	Watertown	5'/11'	No	at curb extension		Relocate bus stop sign south of hydrant to free up landing area. Or expand curb extension between it & the driveway to the south.
42	990	Galen St	Eliot St	1070'	5	mid-block	52, 57, 502, 504	0	23	0	52	Watertown	11'/5'	No	70'		Remove stop to improve bus stop spacing (closest stop at Maple is 730'), absence of an accessible and sufficient landing area and low ridership. Revised distance between stops would be 1800'.
43	900	Galen St	Watertown Yard	N/A	N/A	Busway	57, 52, 502, 504	0	497	-	-	Watertown	-	Cemusa (2)	-		Add trash receptacles.

For explanation of terms, please see Glossary and Abbreviations handout.

MBTA Surveys: 2008-09

Commuter Rail Survey

Trip Purpose, Reasons for Using the MBTA, and Alternative Means

Expanded Results

Framingham/Worcester Line

Alight Yawkey Station

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	468	99.2%	99.2%
Home-based School	0	0.0%	99.2%
Home-based Shopping	0	0.0%	99.2%
Home-based Social Activity	0	0.0%	99.2%
Home-based Personal Business	0	0.0%	99.2%
Home-based Work-related	0	0.0%	99.2%
Home-based Other	0	0.0%	99.2%
Work-based	4	0.8%	100.0%
Non-Home/Non-Work-based	0	0.0%	100.0%
TOTAL	472		
No Answer	4		

Reasons for Using the MBTA:	Number of Riders	Percent of Riders*
Convenience	229	48.7%
Speed/travel time	134	28.5%
Avoid driving/traffic	414	87.8%
Avoid parking at destination	309	65.6%
Environmentally responsible	263	55.8%
Less expensive	185	39.3%
Can read/do work	321	68.2%
Only transportation available	25	5.2%
Other	11	2.3%
TOTAL RIDERS GIVING AT LEAST 1 REASON:	471	

Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders
Yes	211	44.7%
No	261	55.3%
TOTAL	472	100.0%
No answer	4	

Other Modes Reported by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Drive alone	161	77.8%
Non-MBTA bus	0	0.0%
Carpool/vanpool	11	5.2%
Bicycle	0	0.0%
Other MBTA service	70	33.9%
Other	0	0.0%
TOTAL RIDERS GIVING AT LEAST 1 OTHER MODE:	208	
(No other modes reported)	4	

**Note: Percentages may total to more than 100 because of multiple choices checked.*

MBTA Surveys: 2008-09

Commuter Rail Survey

Destination Locations and Activities

Framingham/Worcester Line

Expanded Results

Alight Yawkey Station

DESTINATION LOCATIONS			DESTINATION ACTIVITIES								
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work-rel.	Social/ Rec.	Other
Boston: Longwood Med Area	229	48.2%	1.8%			98.2%					
Boston: Fenway	163	34.2%				100.0%					
Boston: B U	32	6.7%				100.0%					
Cambridge: Kendall/MIT	28	5.8%				100.0%					
Boston: Prudential/Hancock	9	1.9%				100.0%					
Boston: Beacon Hill	4	0.8%				100.0%					
Brookline: North Brookline	4	0.9%				100.0%					
Cambridge: Harvard Square	4	0.8%				100.0%					
Boston: Allston	3	0.7%				100.0%					
Other (< 0.5 % of riders)	0	0.0%									
OVERALL TOTAL	476	100.0%	0.8%			99.2%					

Note: Totals shown may differ from column total because of rounding.

MBTA Surveys: 2008-09

Commuter Rail Survey

Egress from the Commuter Rail System

Expanded Results

Framingham/Worcester Line

Alight Yawkey Station

Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	316	66.4%
Drive/Park Egress	0	0.0%
Pick-up Egress	0	0.0%
Taxi Egress	0	0.0%
Shuttle/Van Egress	143	30.1%
Bicycle Egress	9	2.0%
Other Egress	0	0.0%
Total Private Trans.	468	98.5%
MBTA Bus	0	0.0%
Other Bus	0	0.0%
Rapid Transit	7	1.5%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	7	1.5%
TOTAL	476	100.0%
No Answer	0	

Trip time from station to trip destination by private transportation:

	WALK		DRIVE/PARK		PICK-UP		OTHER		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-5 minutes	80	27.1%					21	17.1%	101	24.2%
6-10	87	29.5%					65	52.7%	152	36.4%
11-15	79	26.7%	(No responses)		(No responses)		30	24.1%	109	26.0%
16-20	28	9.4%					8	6.1%	35	8.4%
21-30	13	4.5%					0	0.0%	13	3.2%
31-45	8	2.6%					0	0.0%	8	1.8%
Over 45	0	0.0%					0	0.0%	0	0.0%
TOTAL	295	100.0%					124	100.0%	419	100.0%
No Answer	21						29		50	
Avg. Time (min)	11.7						10.3			

MBTA Surveys: 2008-09

Commuter Rail Survey

Origin-Destination Cross-tabulation

Expanded Results

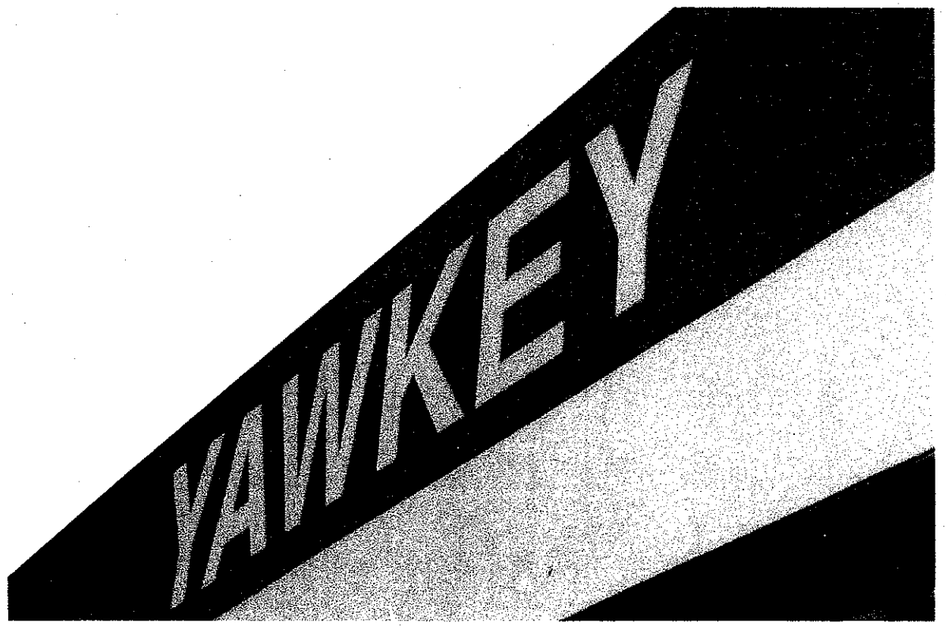
Framingham/Worcester Line

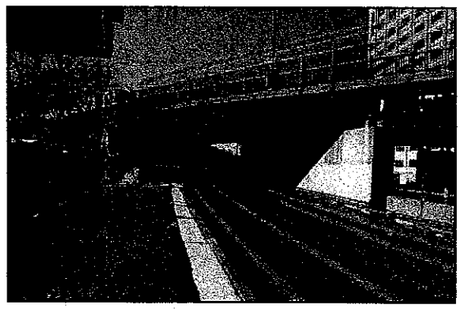
Alight Yawkey Station

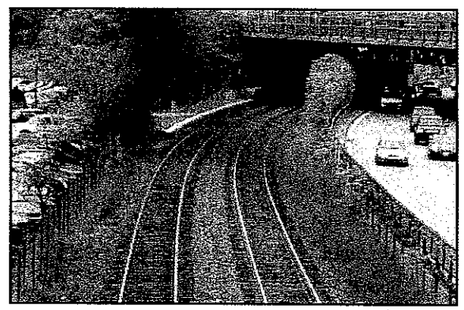
Destination Town/Neighborhood:

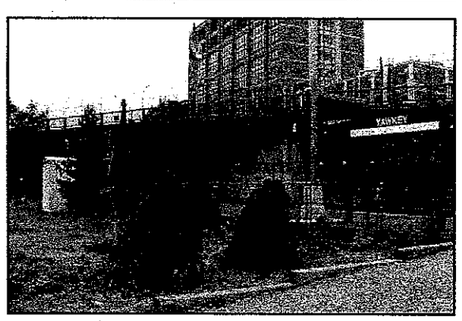
Origin Town/ Neighborhood:	Boston: Longwood Med Area	Boston: Fenway	Boston: B U	Cambridge: Kendall/M	Boston: Prudential /Hancock	Brookline: North Brookline	Boston: Beacon Hill	Cambridge: Harvard	Boston: Allston			Row Total & % of Overall
Natick	75	41	17	4	4	0	0	0	0			140
												29.8%
Framingham	39	27	8	4	0	0	4	0	0			82
												17.3%
Newton	20	5	0	5	0	4	0	0	0			35
												7.5%
Ashland	15	12	0	0	0	0	0	0	0			26
												5.6%
Westborough	10	10	0	0	5	0	0	0	0			25
												5.4%
Worcester	9	7	3	0	0	0	0	0	3			22
												4.6%
Hopkinton	7	10	0	4	0	0	0	0	0			22
												4.6%
Wellesley	11	0	4	0	0	0	0	4	0			19
												4.0%
Grafton	5	0	0	5	0	0	0	0	0			11
												2.3%
Upton	0	4	0	5	0	0	0	0	0			9
												1.9%
Shrewsbury	5	3	0	0	0	0	0	0	0			8
												1.8%
Holliston	0	8	0	0	0	0	0	0	0			8
												1.7%
Needham	4	4	0	0	0	0	0	0	0			8
												1.8%
Northbridge	0	5	0	0	0	0	0	0	0			5
												1.2%
Waltham	0	5	0	0	0	0	0	0	0			5
												1.2%
Lancaster	0	5	0	0	0	0	0	0	0			5
												1.1%
Northborough	0	5	0	0	0	0	0	0	0			5
												1.1%
Boylston	5	0	0	0	0	0	0	0	0			5
												1.1%
Other & % of Column	19	12	0	0	0	0	0	0	0			31
	8.4%	*7.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*			*6.5%*
Column Total & % of Overall	225	163	32	28	9	4	4	4	3			**472**
	47.7%	*34.5%*	*6.8%*	*5.9%*	*1.9%*	*0.9%*	*0.9%*	*0.8%*	*0.7%*			

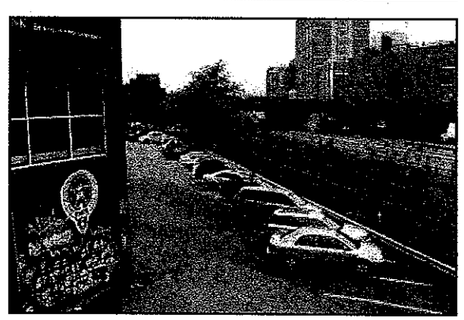
MBTA YAWKEY STATION
FEASIBILITY STUDY











AUGUST 2007

S E A CONSULTANTS INC.

HATCH MOTT MACDONALD

EDWARDS & KELCEY | KEVILLE ENTERPRISES, INC. | NITSCH ENGINEERING

S E A CONSULTANTS INC.
Scientists/Engineers/Architects

3.0 OPERATIONS ANALYSIS

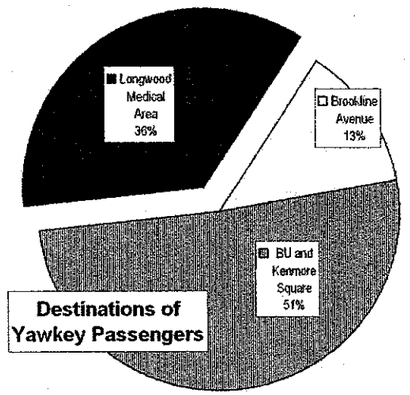
SUMMARY OF EXISTING OPERATIONS

Key Findings

A total of 43 weekday passenger trains presently pass Yawkey Station, 41 MBTA trains and 2 Amtrak trains. Reported weekday ridership averages approximately 11,000 inbound and 9,500 outbound trips. 18 MBTA trains currently call at Yawkey. The other 23 weekday MBTA train by-pass the station. The team found that 18 of the 23 trains not presently serving the Yawkey Station are not strictly restricted by the single track station configuration from serving the station. The present station is capable of accommodating 36 out of scheduled weekday 41 trains without any infrastructure improvement.

Present Ridership

Of the 18 MBTA trains currently serving Yawkey, nine eastbound trains carry an average of 6,685 passengers each day, 5% (318) of which use Yawkey Station. Nine westbound trains carry an average of 4,807 weekday passengers, 6% (267) of which use Yawkey Station. Of the passengers that use Yawkey, approximately half are traveling to Boston University or Kenmore Square. About ⅓ work in the Longwood Medical Area; the remaining one-sixth walk to destinations convenient to Brookline Avenue.



As of this writing, passengers wishing to alight at the station must exit via the three cars closest to the rear of the train. These are the only cars that are berthed at Yawkey when a train calls at the station. The new platforms would allow a nine-car train to be accommodated if the outer end door of the car nearest to the locomotive and the outer end door of the cab car are not used. The new high level platforms represent a vast improvement over the present condition and are expected to significantly reduce station dwell times.

Impacts of New Station

With the development of a two platform station at Yawkey no conflicts with other MBTA trains would prevent MBTA from allowing all trains to call at Yawkey. However the new design for the station would have some impacts on MBTA operations. These impacts include:

- Increased travel time for all inbound trips due to speed restriction on inbound track
- Increased travel time for all new trains calling on Yawkey due to new station stop
- Decreased travel time for all current trains calling on Yawkey due to new high platforms
- Increased ridership to Yawkey responding to new travel options
- Decreased ridership to Boston and Back Bay due to the two minute increase in scheduled time resulting from new station stop

The analysis indicates that if all 23 weekday trains that do not presently call on Yawkey were scheduled to serve that station, 350 additional daily riders would be expected to use the station. This represents a 2% increase in overall line ridership. The analysis also indicates that approximately 200 trips between Central Boston and the Western Suburbs would be expected to divert from the passenger rail service due to the increased travel time from the added station stop. This represents a loss of 1% of line ridership. The net effect of the change is a net gain of approximately 150 new commuter rail riders weekly.

Table 1:
Net Ridership Effect of Adding Yawkey Stops to All Trains

All Trains	New Yawkey Riders	Expected Loss of Line Riders	Net Ridership Effect
Inbound	176	91	+85
Outbound	176	103	+73
Total	352	194	+158

Based on separate projections of increased ridership to Yawkey and decreased ridership to Central Boston, the benefits of increased Yawkey ridership definitely outweigh the potential losses for 9 out of the 23 trains that do not currently stop there. For the remaining 14 trains, the projected level of Yawkey weekday ridership is less than 10 passengers per train. At this low ridership level, the MBTA may wish to consider adding Yawkey to these trains as "flag stops" to reduce impacts on scheduled line-haul travel times.

Stopping pattern on the Framingham/Worcester line fall into three major categories. Local trains make all stops. "Semi-fast" trains skip Auburndale and stops in Newton. Express trains skip most stops between West Natick and Back Bay. Shaded areas denote trains that currently call at Yawkey.

Table 2:
Projected Yawkey Ridership on Inbound Trains

Train	Origin	Class	Yawkey Arrival Time	2006 Total Ridership	Yawkey Riders[1]	Future Riders
500	Framingham	Local	06:42	443	18	44.
502	Worcester	Express	07:13	1,241	94	1,241
504	Framingham	Local	07:37	1,099	36	1,099
506	Worcester	Local	07:56	1,108	71	1,108
508	Worcester	Express	08:11	1,231	70	1,270
510	Framingham	Local	08:38	849	64	849
512	Worcester	Semi-fast	08:47	563	32	583
514	Framingham	Local	09:06	554	32	583
516	Worcester	Semi-fast	09:26	595	26	605
518	Worcester	Local	11:44	289	8	290
520	Framingham	Local	12:50	118	5	118
522	Framingham	Local	14:35	163	4	163
524	Worcester	Semi-Fast	15:08	225	5	227
526	Framingham	Local	16:32	301	9	301
528	Framingham	Semi-Fast	18:05	509	20	509
530	Worcester	Semi-Fast	18:47	400	6	400
532	Framingham	Semi-Fast	19:23	220	5	219
534	Framingham	Semi-Fast	19:58	39	<1	39
536	Worcester	Express	20:41	76	<1	76
538	Worcester	Express	23:43	35	<1	35
540	Framingham	Express	00:53	27	<1	27
			Total	10,086	494	10,171
			Change		176	85
			% Change		36%	1%

[1] *Reported ridership for current Yawkey stop.*
Forecast ridership for new stops.

Table 3:
Projected Yawkey Ridership on Outbound Trains

Train	Origin	Class	Yawkey Arrival Time	2006 Total Ridership	Yawkey Riders[2]	Future Riders
501	Framingham	Express	05:18	7	<1	7
503	Worcester	Express	06:58	146	<1	146
505	Framingham	Semi-Fast	07:05	173	2	171
507	Framingham	Semi-Fast	07:43	222	5	221
509	Worcester	Semi-Fast	09:00	149	<1	149
511	Framingham	Local	11:08	144	3	144
513	Worcester	Local	12:18	362	13	366
515	Framingham	Local	13:13	209	4	206
517	Framingham	Local	14:48	374	13	375
519	Worcester	Express	18:18	767	44	796
521	Framingham	Local	16:38	687	52	687
523	Worcester	Express	17:06	1,417	81	1,470
525	Framingham	Local	17:13	710	49	710
527	Worcester	Local	17:38	1,282	83	1,282
529	Worcester	Express	18:05	809	46	839
531	Framingham	Local	18:28	703	30	703
533	Worcester	Local	19:23	473	30	473
535	Worcester	Local	20:28	251	13	251
537	Worcester	Local	22:13	437	5	437
539	Framingham	Local	23:33	120	2	120
		Total		9,442	443	9,515
		Change			176	73
		% Change			38%	1%

[2] 2006 riders plus new Yawkey passengers less ridership lost due to increased travel time.

Background

Three separate studies provide insight into the Yawkey Station operation analysis.

- **Yawkey Station Service Expansion Study**[3] – In 2000, KKO and Associates completed a study for the MBTA Planning Department that considered options for expanding service to the existing Yawkey Station. The scope of the project was limited to the addition of service using existing Framingham/Worcester commuter rail trains. The study team consulted with several stakeholders including the City of Boston, MASCO, the Massachusetts Turnpike, Boston University, and the Red Sox. The common objectives of all stakeholders included a desire to enhance the Kenmore/Fenway area as an urban destination, develop non-highway mobility options, and reduce parking and traffic impacts on the neighborhood. Increased commuter rail service to the Yawkey Station was seen as an effective mechanism to address the stakeholder concerns. The study recommended weekday commuter rail service to an expanded Yawkey Station. Soon after this study was published the MBTA instituted limited weekday service to the station.

- **Worcester Service Expansion Study**[4] – In 2002, KKO and Associates under subcontract to Stone and Webster/Howard Stein Hudson completed a study for the MBTA Planning Department that focused on improving the existing commuter rail service on the Framingham/Worcester corridor, with an emphasis on improving travel options between Worcester and Boston. Discussions with CSX who owns the railroad west of Framingham proved to be time consuming and entailed a detailed analysis of freight operations on the line. The follow-up work in 2004-5 showed that with minor changes in schedules, additional service could be provided to Worcester. The preferred improvement option from that study called for two additional weekday trains to call at Yawkey Station.

- **Commuter Rail Infrastructure Needs Assessment (CRINA) Study**[5] – In 2004, Vanasse Hangen Brustlin (VHB) and KKO and Associates conducted a Commuter Rail Infrastructure Needs Assessment (CRINA) for the MBTA. The study determined what additional baseline services and infrastructure would be required to accommodate future ridership growth as projected by Central Transportation Planning Staff (CTPS) for 2010 and 2025. According to the forecasts, three additional peak trips will need to be added to the Framingham/Worcester line by 2010. By 2025, the total required number of new trips on the line expands to five. No specific recommendations for Yawkey Station were made in the report.

Existing and Future Conditions

Current Conditions

A total of 43 weekday passenger trains pass Yawkey Station, 41 MBTA trains and 2 Amtrak trains. Freight service past Yawkey is very limited since there are no current freight customers between Yawkey and South Station[6].

Table 4:
Total Inbound Boardings for the Framingham/ Worcester Line

Train Number	Boston Time	Total Boardings
P500	654	499
P502	724	1399
P504	749	1239
P506	808	1249
P508	823	1387
P510	850	957
P512	859	634
P514	918	624
P516	938	671
P518	1156	326
P520	1302	133
P522	1447	184
P524	1520	254
P526	1632	339
P528	1817	574
P530	1859	451
P532	1923	248
P534	2010	44
P536	2053	86
P538	0:55	39
P540	1:05	30
	Total	11,367

[3]KKO and Associates, Feasibility of Full-Time Commuter Rail Service to the Fenway/Kenmore Area, Final Report, Spring 2000.

[4]KKO and Associates, Worcester Service Expansion Study, Technical Memo #2, December 2002.

[5]Vanasse Hangen Brustlin, Inc., MBTA Commuter Rail Infrastructure Needs Assessment Study, April 2004.

[6]All south side freight customers are served via a freight-only route running from Framingham to Mansfield via Walpole with connections to passenger routes at those junctions.

Reported[8] total inbound ridership averages approximately 11,000 daily passengers. The Worcester Framingham service carries more weekday passengers than all but one[9] MBTA commuter rail route. Most inbound travelers (~75%) use trains arriving in Boston before 9am. During the afternoon another peak occurs as approximately one sixth (~16%) of total inbound riders use trains arriving in Boston between 3pm and 7pm.

Table 5:
Total Outbound Boardings for the Framingham/ Worcester Line[7]

Train Number	Boston Time	Total Boardings
P501	5:10	7
P503	6:50	146
P505	7:05	173
P507	7:35	222
P509	9:00	149
P511	11:00	144
P513	12:10	362
P515	13:05	209
P517	14:40	374
P519	16:10	767
P521	16:30	687
P523	16:58	1417
P525	17:05	710
P527	17:30	1282
P529	18:05	809
P531	18:20	703
P533	19:15	473
P535	20:20	251
P537	22:05	437
P539	23:25	120
	Total	9,442

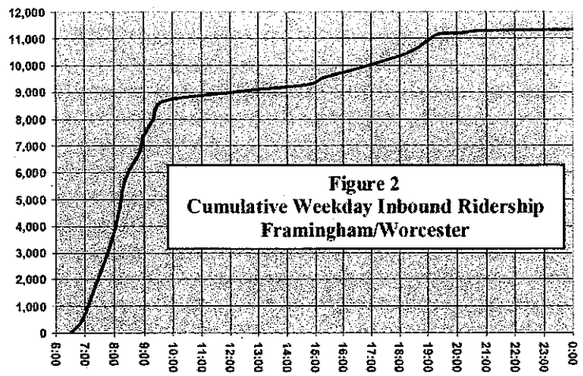


Figure 2
Cumulative Weekday Inbound Ridership
Framingham/Worcester

Table 5:
Total Outbound Boardings for the Framingham/ Worcester Line[7]

Train Number	Boston Time	Total Boardings
P501	5:10	7
P503	6:50	146
P505	7:05	173
P507	7:35	222
P509	9:00	149
P511	11:00	144
P513	12:10	362
P515	13:05	209
P517	14:40	374
P519	16:10	767
P521	16:30	687
P523	16:58	1417
P525	17:05	710
P527	17:30	1282
P529	18:05	809
P531	18:20	703
P533	19:15	473
P535	20:20	251
P537	22:05	437
P539	23:25	120
	Total	9,442

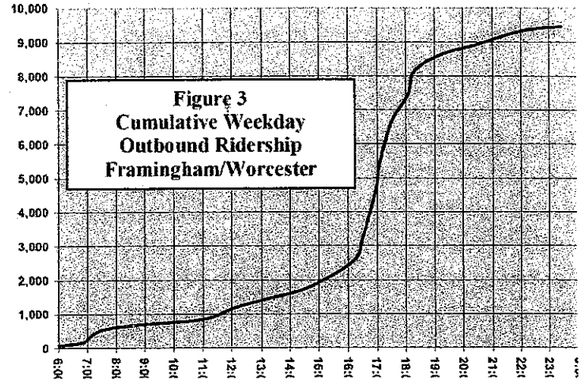


Figure 3
Cumulative Weekday
Outbound Ridership
Framingham/Worcester

Reported outbound ridership on the line is somewhat lower than inbound ridership carrying approximately 9,500 passengers on the typical weekday. Most outbound travelers (~68%) use trains leaving Boston between 4pm and 7pm. Another 19% use trains leaving Boston before 4pm. The remaining outbound passengers (~13%) use trains leaving Boston after 7pm.

Future Conditions

As noted previously, the CRINA study used CTPS forecasts of ridership for 2010 and 2025 that were based on actual year 2000 ridership as shown in Table 6. Ridership on the line is forecast to increase by 60% over the base year in 2010, and by 90% in 2025. Inbound ridership on the line in the most recent train audit conducted in September of 2006 totaled 10,086[10].

Table 6: Forecast Inbound Boardings for the Framingham/Worcester Line

Reported Ridership		CTPS Forecasts		Growth Over 200 Reports	
2000	2006	2010	2025	2010	2025
8,747	11,367	14,010	16,640	60%	90%

[7]Average weekday ridership reported during September 2006
[8]One month average of MBTA Conductors' daily estimates.
[9]Providence/Attleboro -- Stoughton Line.

[10]The September 2006 Train Audit Data was found to be missing data for several trains. These discrepancies were corrected by EK using MBCR's daily conductor counts. Data were corrected for Trains 520, 532, 536 and 540 for which Train Audit data was either incomplete or missing. The total before adjustment was 9,705. The Train Audit total was corrected to 10,086. Table 5 shows the reported ridership using MBCR's daily conductor counts, which were slightly higher at 11,367 passengers. In the remainder of the document, adjusted Train Audit data was used.

[11]MASCO data are daily counts for inbound peak trains for September 2006. CTPS data includes most trains arriving or departing before 8 p.m. for the fall of 2005. MASCO and EK collaborated to develop data for Trains 511, 535, 537 and 539 in February 2007. Estimates of current total ridership per train are based on MBTA averages for the month of September 2006.

CURRENT SERVICE AND RIDERSHIP AT YAWKEY STATION

Eighteen MBTA trains currently provide service to the Yawkey Station, five in the morning peak and four in the afternoon peak as shown in Table 7. Using a combination of ridership field information collected by MASCO, CTPS and EK it is possible to estimate typical daily boardings and alightings at Yawkey for each train[11].

Table 7:
Summary of Existing Eastbound Service and Ridership at Yawkey Station

Train	Origin	Yawkey Time	Total Psgrs	Yawkey Total	Yawkey Ons	Yawkey Offs	% Yawkey Psgrs
500	Framingham	6:42	499	18	0	18	4%
502	Worcester (Exp)	7:13	1,399	94	3	91	7%
504	Framingham	7:37	1,239	36	0	36	3%
506	Worceser	7:56	1,249	71	3	68	6%
510	Framingham	8:38	957	64	6	58	7%
520	*Framingham*	*12:50*	*133*	*5*	*0*	*5*	*4%*
522	*Framingham*	*14:35*	*184*	*4*	*0*	*4*	*2%*
528	*Framingham*	*18:05*	*574*	*20*	*4*	*16*	*3%*
530	*Worcester*	*18:47*	*451*	*6*	*0*	*6*	*1%*
		Totals	**6,685**	**318**	**16**	**302**	**5%**

The nine eastbound trains serving Yawkey carry an average of 6,685 passengers each day. Yawkey ridership on those trains averages 5% of that total. Yawkey riders on eastbound peak trains tend to constitute 3% to 7% of total ridership on each train. During the limited off peak service (shown in italics) the Yawkey fraction of overall eastbound ridership ranges between 1% and 4%.

Table 8:
Summary of Existing Westbound Service and Ridership at Yawkey Station

Train	Origin	Yawkey Time	Total Psgrs	Yawkey Total	Yawkey Ons	Yawkey Offs	% Yawkey Psgrs
511	*Framingham*	*11:08*	*144*	*3*	*3*	*0*	*2%*
521	Framingham	16:38	687	52	52	0	8%
525	Framingham	1713	710	49	45	4	7%
527	Worcester	1738	1282	83	74	9	6%
531	Framingham	*1828*	*703*	*30*	*28*	*3*	*4%*
533	*Worcester*	*1923*	*473*	*30*	*13*	*2*	*6%*
535	*Worcester*	*2028*	*251*	*13*	*5*	*0*	*5%*
537	*Worcester*	*2213*	*437*	*5*	*5*	*0*	*1%*
539	Framingham	*2333*	*120*	*2*	*2*	*0*	*2%*
		Totals	**4807**	**267**	**249**	**18**	**6%**

The nine westbound trains serving Yawkey carry an average of 4,807 passengers each day. Yawkey ridership on those trains averages 6% of that total. Yawkey riders on westbound peak trains tend to constitute 4% to 8% of total ridership on each train serving Yawkey. During the limited off peak westbound service (shown in italics) the Yawkey fraction of overall westbound ridership ranges between 1% and 6%.

Appendix E

Agganis Arena Special Events Logistics Plan



Agganis Arena

Special Events Logistics Plan
(AASELP)
At
Boston University
925 Commonwealth Avenue
Boston, MA 02215



For Submission to Boston Transportation Department

Introduction

This document contains information for managing traffic and parking for events held at the Boston University's Agganis Arena. The principal objective is to facilitate orderly, efficient and safe access and egress to/from the site for both motorists and pedestrians, while at the same time limiting the impact on the neighboring community. It is our expectation that this is a working document, and as such, will need to be updated periodically in conjunction with the Boston Police Department, Boston Transportation Department and the Boston University Police Department.

Attendance by Event Type and Projected Transportation Arrival Mode

It is currently anticipated that there will be primarily three (3) types of events that will be held at the Agganis Arena, see Table 1, Column A. Attendance capacities for each of these event types are also shown in Column B. We have compiled projections on the number of attendees who will arrive by modes other than by Automobile, Column C Walking + Column D Other; as well as the number of attendees projected to arrive by automobile, Column E. We have assumed for these projections that there will be an average of three guests per automobile. Based on these factors, the total number of automobiles projected to arrive for each event type was calculated and are shown in, Column F.

Table 1 Agganis Arena Event Types, Attendance Capacities and Mode Shares

Column A	Column B	Column C	Column D	Column E	Column F
		Arrive by mode other than Automobile			
Event Type	**Attendance Capacity**	**Walk**	**Other (Transit, Bike)**	**Arrive via Automobile**	**Calculated Number of Automobiles (Assumes 3 Persons/Auto)**
Hockey	6,300	3,119	347	2,835	945
Basketball	7,000	3,465	385	3,150	1,050
Center Stage Event	8,000	3,960	440	3,600	1,200

Boston University-Owned Event Parking Capacity

Table 2 and Figure 1 present the capacities and locations of Boston University's designated event parking facilities that are either at, or in close proximity to, the Agganis Arena. Agganis Arena guests are advised of parking options and parking availability via advance e-mail updates/reminders, pre-printed materials, and the Arena's web site at www.agganisarena.com. Parking is processed by either scanned pre-paid passes or pay-on-entry options. The Agganis Arena utilizes a total of six (6) Boston University owned and

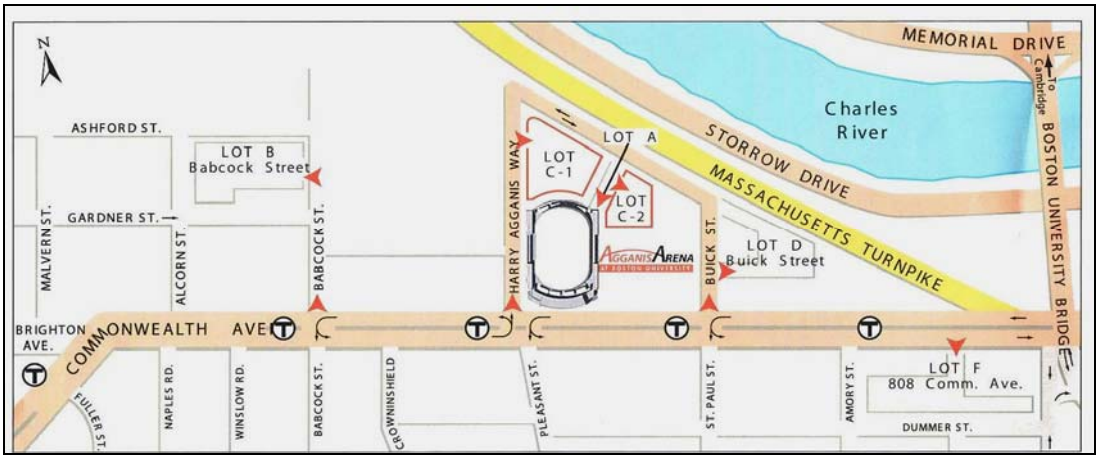
operated parking facilities for off-street event parking. The total number of parking spaces that are available for off-street event parking is 1,572.

Table 2 Boston University-Owned Event Parking Facilities and Capacities*

Lot or Facility	Parking Capacities (spaces)
On-Site Surface Parking Lot (Lot C-1)	150
On-Site Surface Parking Lot (Lot C-2)	100
On-Site Below Grade Parking Garage Facility (Lot A)	629
Babcock Street Surface Parking Lot (Lot B)	305
Buick Street Surface Parking Lot (Lot D)	126
808 Commonwealth Ave. Surface Parking Lot (Lot F)	262
TOTAL	**1,572**

* As of January 2005
NOTE: Parking Lot designations (A, B, etc.) correlate to Lot designations illustrated in Figure 1

Figure 1 Agganis Arena Parking Facility Locations



Expected Transportation System Impacts

Based on the attendance and mode split projections noted above, it is projected that approximately 45 percent of the attendees will arrive by automobile. Approximately 60 to 65 percent of the attendees will arrive via Commonwealth Avenue westbound (from the east) and approximately 35 to 40 percent via Commonwealth Avenue eastbound (from the west). With an assumed vehicle occupancy rate of 3.0 persons/vehicle (which is conservative as the industry standard at such facilities is approximately 3.5 persons/vehicle), it is estimated that the maximum number of vehicles that would arrive for a hockey game (the most common event) will be approximately 945 vehicles. For basketball games, the maximum number of vehicles that would arrive is approximately 1,050. For the largest event, center stage, it is estimated that the maximum number of vehicles arriving will be approximately 1,200. Not all

event trips will be new trips to the area as many on the trips are already being made carrying attendees to hockey games at Walter Brown Arena or to basketball games at the Case Gymnasium.

Based on past experience at other events at Boston University, and at other similar venues around the country, approximately 15 percent of the attendees arrive 1 to 2 hours before an event and approximately 85 percent of attendees arrive 0 to 1 hour before the event. Therefore, for an event with an 8:00 pm start, attendees will start arriving after 6:00 pm, which is after the peak period of 5:00 pm to 6:00 pm on Commonwealth Avenue. For a hockey game with a 7:00 pm start time, the maximum number of vehicles that vehicles will arrive during the 5:00 pm to 6:00 pm peak period will be approximately 145. The maximum number of vehicles that will arrive between 6:00 pm and 7:00 pm will be approximately 800. For a basketball game, the maximum number of vehicles expected to arrive between 5:00 pm to 6:00 pm is approximately 155, with a maximum of approximately 895 vehicles arriving between 6:00 pm and 7:00 pm. For the largest event-type at the arena with a 7:00 pm start, the maximum number of vehicles that will arrive between 5:00 pm and 6:00 pm is approximately 180, with a maximum arriving between 6:00 pm and 7:00 pm of approximately 1,020 vehicles.

Many of the events at the arena will begin in the early evening, and as a result there will be minimal impacts on the easterly and westerly traffic flow on Commonwealth Avenue. For a typical event with a 7:00 pm or 8:00 pm start time, the arrival of guests usually will be staggered during the preceding 1.5 to 2 hours (i.e., from 5:00 pm to 7:00 pm or from 6:00 pm to 8:00 pm). Consequently, the peaking characteristics associated with post-event traffic will not be present during the pre-event time period, and most of the attendees will arrive after the peak period on Commonwealth Avenue, which occurs between 5:00 pm and 6:00 pm.

Those events that are scheduled on the weekends will also have a minimal impact on the traffic flows on Commonwealth Avenue. Traffic volumes on Commonwealth Avenue during the early evening pre-event time period (5:00 pm to 8:00 pm) are 15 percent lower on Saturdays and 25 percent lower on Sundays than during a typical weekday. Saturday and Sunday midday volumes on Commonwealth Avenue are even lower for those events with earlier start times.

Transportation Mitigation Measures/Event Operating Procedures

Police Details

To ensure safe and efficient access and egress to the Agganis Arena for pedestrians and automobiles, Boston Police details will be present to assist in traffic flow at the intersections of Commonwealth Avenue with Buick Street and with Harry Agganis Way for all weekday and weekend events held at the Arena. For events with higher attendance, a Boston Police detail will also be stationed at the intersection of Commonwealth Avenue and Babcock Street (see Figure 2).

Parking Meters

It is recommended that ten (10) meters be bagged directly in front of the arena lobby entrance at 925 Commonwealth Avenue on event days (see Figure 2). These meters will be bagged in order to provide much needed curbside drop off space for disabled guests, taxis, bus drop-off and to aid the B.P.D. in managing vehicle and pedestrian traffic flows. It is also recommended that six (6) additional meters be bagged directly in front of McDonald's on the west side of Harry Agganis Way to aid the B.P.D. and B.U.P.D. in managing vehicle and pedestrian traffics flows during ingress and egress. The bagging of these meters is critical to managing both pedestrian traffic and vehicle traffic during events. The meters on Commonwealth Avenue and Harry Agganis way will be bagged by noon on the day of the event.

Bus Access and Parking

When buses arrive for an event, they will be directed onto Harry Agganis Way and then stopped to be unloaded. Once unloaded, the buses will be directed to proceed to the northeast portion of Harry Agganis Way to be parked. As shown on Figure 2, there is approximately 220 feet of parallel parking available along the east side of Harry Agganis Way, which will allow for four to five buses to be parked. If there are more than four to five buses at an event, the additional buses will be backed in and parked on the ramp leading to Nickerson Field at the northwest corner of Harry Agganis Way. Five additional buses can be parked on this ramp. At the end of the event, after the garage and two surface parking lots have been emptied, the buses will be called up to the southern portion of Harry Agganis Way (just north of Commonwealth Avenue) for loading.

Truck Access and Loading

Commercial truck access and egress for loading and unloading at the arena will be from Commonwealth Avenue via Harry Agganis Way and/or Buick Street to the North Perimeter Road. There are two loading bays and one loading ramp at the loading dock area, with direct access off the North Perimeter Road. To the extent possible, loading and unloading at the arena will occur during off-peak periods and outside of the pre- and post-event time periods. In fact, much of the loading and unloading will occur in the one or two days leading up to an event and the one or two days after an event. No loading or unloading will occur along Commonwealth Avenue or other public ways. State and City anti-idling regulations will be enforced at the loading dock area and for any trucks or buses parked on-site.

Public Transportation

Agganis Arena guests are advised of public transportation options via advanced e-mail updates and reminders, pre-printed materials, and the Arena's web site at www.agganisarena.com.

Guest Parking

Agganis Arena guests receive information and direction regarding parking availability for on-site and off-site lots via signage and parking lot attendants. Parking managers utilize computer systems and two-way radios to direct vehicles to parking lots with space availability during events.

Boston University Contact Information

Boston University Police Sergeant Kevin Bourque is the key contact (617.353.2068) with the B.T.D and B.P.D. for arena events. Other key Agganis Arena contacts are:

Kris Brassil Event Coordinator	(617) 358-7000
Brad Mount, Operations Manager	(617) 358-7000
Webb Lancaster, Director of Parking Services	(617) 353-2160
Amy Brown General Manager	(617) 358-7000

Appendix F

Detailed Future LOS Analysis Results and Synchro Sheets

FUTURE BUILD SCENARIO (2022) AM - UNSIGNALIZED

INTID	NAME	MOVEMENT	V/C	DELAY	LOS	95th Q
15	Beacon Street & Commonwealth Avenue (WB)					
		WB L	0.01	3.3	A	1
		NB LR	0.01	9.7	A	1
		Intersection		1.7	A	
25	Ashford Street & Babcock Street					
		EB LR	0.08	9.2	A	7
		NB L	0.01	6.7	A	1
		Intersection		6.5	A	
26	Gardner Street & Alcorn Street					
		EB LTR	0.13*	7.7	A	
		WB LTR	0.03*	7.2	A	
		NB TR	0.04*	7.4	A	
		SB LT	0.03*	7.6	A	
		Intersection	0.30*	7.6	A	
27	Gardner Street & Babcock Street					
		EB LR	0.14	10.4	B	12
		NB L	0.04	3.1	A	3
		Intersection		3.9	A	
28	Bay State Road & Granby Street					
		EB R	0.01	6.7	A	
		WB LT	0.26	8.4	A	
		Intersection	0.44	8.3	A	
29	Bay State Road & Silber Way					
		WB LTR	0.41*	10.2	B	
		NB LT	0.11*	8.5	A	
		SB TR	0.01*	7.5	A	
		Intersection	0.39*	9.8	A	
30	Bay State Road & Deerfield Street					
		WB LTR	0.41*	9.9	A	
		NB LT	0.05*	8.4	A	
		SB TR	0.02*	7.6	A	
		Intersection	0.32*	9.7	A	

* - Indicates Degree Utilization was used in place of V/C ratio

FUTURE BUILD SCENARIO (2022) AM - SIGNALIZED

INTID	NAME	MOVEMENT	V/C	DELAY	LOS	50th Q	95th Q	Storage
1	Brighton Avenue & Commonwealth Avenue							
		EB TR	0.43	32.3	C	149	199	772
		WB L	0.99	93.5	F	150	#212	835
		WB T	0.92	42.8	D	472	#567	835
		NE R	0.5	14.7	B	202	257	568
		Intersection	0.76	38.6	D			
2	Commonwealth Avenue & Babcock Street							
		EB TR	0.62	20.9	C	247	360	835
		WB L2L	0.45	45.4	D	27	m61	215
		WB TR	0.44	14.3	B	123	220	724
		NB LTR	0.83	48.3	D	173	242	411
		SB LTR	0.48	30	C	77	m117	362
		Intersection	0.65	23.3	C			
3	Commonwealth Avenue & Harry Agganis Way							
		EB L2L	0.59	70.1	E	32	m58	100
		EB TR	0.65	8.6	A	72	83	724
		WB TR	0.6	21.7	C	188	m284	645
		NB LTR	0.71	46.9	D	121	#217	357
		SB LTR	0.31	37.2	D	41	71	410
		Intersection	0.6	19.1	B			
4	Commonwealth Avenue & Buick Street							
		EB TR	0.97	28.5	C	95	#571	645
		WB L2L	0.85	37	D	109	#302	375
		WB TR	0.44	1.1	A	1	4	464
		NB LTR	0.9	60	E	205	#365	315
		SB LTR	0.33	30.6	C	39	70	348
		Intersection	0.92	25	C			
5	Commonwealth Avenue & Amory Street							
		EB TR	0.68	2.9	A	63	m96	464
		WB T	0.54	7.1	A	86	196	693
		NB R	0.88	54	D	199	276	611
		Intersection	0.74	10.5	B			
6	Commonwealth Avenue & Essex Street							
		EB T	0.75	12.4	B	180	m215	693
		EB R	0.71	42.8	D	125	m167	100
		WB T	0.31	13.5	B	72	m87	343
		WB R	0.85	47.5	D	192	m#233	225
		NB TR	0.95	42.6	D	420	m#573	126
		SB T	1.01	64.9	E	~458	#708	1030
		SB R	0.63	26.4	C	197	302	135
		Intersection	0.88	33.5	C			
8	Commonwealth Avenue & Carlton Street							
		EB T	0.51	31.3	C	222	285	343
		EB R	0.64	2.2	A	3	4	343
		WB T	0.36	9.6	A	44	59	708
		WB R	0.07	16.7	B	8	17	125
		NB L	0.98	54.5	D	188	m#229	225
		NB TR	0.44	15.1	B	141	m136	440
		SB R	0.88	59.3	E	187	#318	354
		Intersection	0.74	24.2	C			
9	Commonwealth Avenue & St. Mary's St.							
		EB TR	0.45	6.5	A	225	287	708
		WB L2L	0.26	21.5	C	19	22	336
		WB T	0.24	0.8	A	77	6	336
		Intersection	0.41	5	A			
10	Commonwealth Avenue & Cummington Street							
		EB U	0.04	5.5	A	11	m19	336
		EB T	0.32	9.1	A	235	331	336
		WB T	0.33	16.5	B	80	182	315
		NB L	0.21	43.1	D	19	39	165
		NB R	0.09	42.1	D	5	17	165
		Intersection	0.32	12.7	B			
11	Commonwealth Avenue & Granby Street							
		EB T	0.37	1.6	A	16	9	315
		WB T	0.2	8.5	A	56	165	760
		SB L	0.28	37.6	D	35	63	283
		SB R	0.5	39.4	D	60	95	283
		Intersection	0.4	8	A			
12	Commonwealth Avenue & Silber Way							
		EB T	0.35	5.6	A	94	61	760
		WB TR	0.3	4.5	A	42	m63	909
		SB LTR	0.61	39.6	D	80	90	325
		Intersection	0.41	8.4	A			
13	Commonwealth Avenue & Beacon Street							
		EB TR	0.54	21.4	C	89	85	909
		NB R2	0.29	21.7	C	68	103	621
		SB R2	0.02	29.1	C	0	0	455
		NE RR2	1.19	135.4	F	~381	#516	887
		SW L	0.61	26	C	129	190	150
		SW LTR	3.15dr	41.2	D	~729	#881	298
		Intersection	0.95	57.4	E			
18	Mountfort Street & Carlton Street							
		EB L	1.04	57	E	~499	m#690	565
		EB T	0.45	13.8	B	101	m176	565
		WB LTR	1.57dr	47.3	D	200	#275	528
		NB L2L	0.73	41.7	D	184	256	67
		NB TR	0.45	33.4	C	110	163	67
		SB R2	0.33	0.4	A	0	0	440
		Intersection	0.91	32.6	C			
45	Mountfort Street & St. Mary's St.							
		EB TR	0.7	12.4	B	204	#400	528
		WB LT	0.81	50.9	D	108	148	569
		NB LTR	0.04	25.5	C	7	14	431
		SB LTR	0.06	43.3	D	11	22	436
		Intersection	0.47	25.7	C			

FUTURE BUILD SCENARIO (2022) PM - UNSIGNALIZED

INTID	NAME	MOVEMENT	V/C	DELAY	LOS	95th Q
15	Beacon Street & Commonwealth Avenue (WB)					
		WB L	0.01	3.8	A	1
		NB LR	0.03	9.6	A	2
		Intersection		3.8	A	
25	Ashford Street & Babcock Street					
		EB LR	0.07	9.7	A	5
		NB L	0.03	5.3	A	2
		Intersection		7	A	
26	Gardner Street & Alcorn Street					
		EB LTR	0.16*	7.7	A	
		WB LTR	0.04*	7.2	A	
		NB TR	0.07*	7.6	A	
		SB LT	0.04*	7.6	A	
		Intersection	0.33*	7.6	A	
27	Gardner Street & Babcock Street					
		EB LR	0.13	10	B	11
		NB L	0.01	1.7	A	1
		Intersection		4.2	A	
28	Bay State Road & Granby Street					
		EB R	0.08	7	A	
		WB LT	0.24	8.5	A	
		Intersection		8.1	A	
29	Bay State Road & Silber Way					
		WB LTR	0.32*	9.4	A	
		NB LT	0.18*	8.7	A	
		SB TR	0.03*	7.6	A	
		Intersection	0.40*	9.1	A	
30	Bay State Road & Deerfield Street					
		WB LTR	0.28*	8.6	A	
		NB LT	0.05*	7.8	A	
		SB TR	0.02*	7.1	A	
		Intersection	0.33*	8.4	A	

* - Indicates Degree Utilization was used in place of V/C ratio

FUTURE BUILD SCENARIO (2022) PM - SIGNALIZED

INTID	NAME	MOVEMENT	V/C	DELAY	LOS	50th Q	95th Q	Storage
1	Brighton Avenue & Commonwealth Avenue							
		EB TR	0.84	61.8	E	195	#281	772
		WB L	0.84	37.6	D	259	332	835
		WB T	1.05	61.4	E	~851	#1040	835
		NE R	0.23	4.5	A	55	73	568
		Intersection	0.82	44.6	D			
2	Commonwealth Avenue & Babcock Street							
		EB TR	0.56	22.3	C	224	341	835
		WB L2L	0.39	29.1	C	57	m87	215
		WB TR	0.63	5.6	A	117	175	724
		NB LTR	0.81	54.7	D	142	206	411
		SB LTR	0.83	55.6	E	165	m236	362
		Intersection	0.68	19.9	B			
3	Commonwealth Avenue & Harry Agganis Way							
		EB L2L	0.27	73.5	E	4	m7	724
		EB TR	0.52	5	A	72	68	724
		WB TR	0.72	16.4	B	163	295	645
		NB LTR	0.78	56.4	E	145	#255	357
		SB LTR	0.41	44.6	D	40	108	410
		Intersection	0.69	17.3	B			
4	Commonwealth Avenue & Buick Street							
		EB TR	0.72	22.7	C	90	337	645
		WB L2L	1.08	105.8	F	~317	#505	375
		WB TR	0.65	5.6	A	417	33	464
		NB LTR	0.83	57	E	158	#264	315
		SB LTR	0.65	42	D	113	148	348
		Intersection	0.84	29.1	C			
5	Commonwealth Avenue & Amory Street							
		EB TR	0.54	2.8	A	53	m105	464
		WB T	0.64	8.5	A	428	607	693
		NB R	0.77	54.2	D	134	179	611
		Intersection	0.67	9.2	A			
6	Commonwealth Avenue & Essex Street							
		EB T	0.64	26.2	C	302	362	693
		EB R	0.74	49.4	D	153	m214	100
		WB T	0.53	18.7	B	179	m210	343
		WB R	0.82	45.7	D	157	m#233	225
		NB TR	0.67	24.2	C	300	367	126
		SB T	1.1	94.2	F	~710	#950	1030
		SB R	0.74	29.2	C	287	426	135
		Intersection	0.9	38.6	D			
8	Commonwealth Avenue & Carlton Street							
		EB T	0.46	15.7	B	67	102	343
		EB R	0.23	95.1	F	153	236	343
		WB T	0.65	23.2	C	136	314	708
		WB R	0.39	46.9	D	14	74	125
		NB L	0.83	44	D	268	362	225
		NB TR	0.34	24.7	C	144	160	440
		SB R	0.84	68.2	E	126	#287	354
		Intersection	0.72	36.5	D			
9	Commonwealth Avenue & St. Mary's St.							
		EB TR	0.39	4.8	A	46	61	708
		WB L2L	0.61	64.1	E	114	183	336
		WB T	0.41	1.7	A	75	77	336
		Intersection	0.44	7.7	A			
10	Commonwealth Avenue & Cummington Street							
		EB U	0.11	3.5	A	2	m13	336
		EB T	0.29	2.4	A	15	55	336
		WB T	0.5	20.6	C	294	384	315
		NB L	0.49	44.7	D	85	146	165
		NB R	0.17	41.1	D	23	55	165
		Intersection	0.48	15.2	B			
11	Commonwealth Avenue & Granby Street							
		EB T	0.35	7.5	A	124	210	315
		WB T	0.33	6.3	A	104	310	760
		SB L	0.26	37.1	D	48	80	283
		SB R	0.66	44.8	D	118	168	283
		Intersection	0.42	11.8	B			
12	Commonwealth Avenue & Silber Way							
		EB T	0.39	12.5	B	85	323	760
		WB TR	0.43	2	A	28	m18	909
		SB LTR	0.7	48.1	D	104	152	325
		Intersection	0.49	10.9	B			
13	Commonwealth Avenue & Beacon Street							
		EB TR	0.54	33.2	C	120	223	909
		NB R2	0.56	30.4	C	167	227	621
		SB R2	0.04	28.1	C	0	0	455
		NE RR2	1.04	85.7	F	~338	#475	887
		SW L	0.46	28.9	C	99	150	150
		SW LTR	4.86dr	141.9	F	~1080	#1237	298
		Intersection	1.03	87.2	F			
18	Mountfort Street & Carlton Street							
		EB L	0.68	23.5	C	223	m196	565
		EB LT	0.69	23.4	C	235	m195	565
		WB LTR	1.14dr	22.1	C	297	m#362	528
		NB L2L	0.69	48.8	D	136	198	67
		NB TR	0.69	48.9	D	144	208	67
		SB R2	0.22	0.3	A	0	0	440
		Intersection	0.65	23.8	C			
45	Mountfort Street & St. Mary's St.							
		EB TR	0.54	22.5	C	242	301	528
		WB LT	0.88	54.2	D	207	238	569
		NB LTR	0.18	39.1	D	17	24	431
		SB LTR	0.46	53.6	D	72	91	436
		Intersection	0.63	40.5	D			

Movement	EBT	EBR	WBU	WBL	WBT	NEL	NER
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	13
Total Lost time (s)	4.0			4.0	4.0		4.0
Lane Util. Factor	0.95			0.97	1.00		0.88
Frpb, ped/bikes	0.99			1.00	1.00		1.00
Flpb, ped/bikes	1.00			0.94	1.00		1.00
Frt	1.00			1.00	1.00		0.85
Flt Protected	1.00			0.95	1.00		1.00
Satd. Flow (prot)	3335			3117	1358		2880
Flt Permitted	1.00			0.60	1.00		1.00
Satd. Flow (perm)	3335			1964	1358		2880
Volume (vph)	417	13	17	286	567	0	796
Peak-hour factor, PHF	0.90	0.90	0.81	0.81	0.81	0.93	0.93
Adj. Flow (vph)	463	14	21	353	700	0	856
RTOR Reduction (vph)	2	0	0	0	0	0	0
Lane Group Flow (vph)	475	0	0	374	700	0	856
Confl. Peds. (#/hr)		141	9	141			9
Heavy Vehicles (%)	7%	0%	0%	6%	7%	0%	2%
Bus Blockages (#/hr)	0	15	0	0	11	0	0
Parking (#/hr)		20			20		
Turn Type			Perm		pt+ov		
Protected Phases	2			1	1 2		1 8
Permitted Phases			1				1 8
Actuated Green, G (s)	36.0			21.0	63.0		70.0
Effective Green, g (s)	40.0			23.0	67.0		72.0
Actuated g/C Ratio	0.33			0.19	0.56		0.60
Clearance Time (s)	8.0			6.0			
Vehicle Extension (s)	2.0			2.0			
Lane Grp Cap (vph)	1112			376	758		1728
v/s Ratio Prot	0.14				c0.52		c0.30
v/s Ratio Perm				c0.19			
v/c Ratio	0.43			0.99	0.92		0.50
Uniform Delay, d1	31.1			48.4	24.2		13.7
Progression Factor	1.00			1.00	1.00		1.00
Incremental Delay, d2	1.2			45.1	18.6		1.0
Delay (s)	32.3			93.5	42.8		14.7
Level of Service	C			F	D		B
Approach Delay (s)	32.3				60.5	14.7	
Approach LOS	C				E	B	

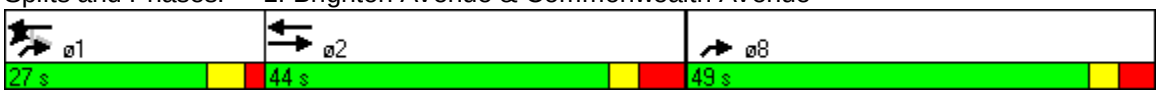
Intersection Summary			
HCM Average Control Delay	38.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBU	WBL	WBT	NER	ø8
Lane Configurations						
Volume (vph)	417	17	286	567	796	
Turn Type		Perm		pt+ov		
Protected Phases	2		1	1 2	1 8	8
Permitted Phases		1			1 8	
Detector Phases	2	1	1	1 2	1 8	
Minimum Initial (s)	8.0	8.0	8.0			8.0
Minimum Split (s)	25.0	16.0	16.0			33.0
Total Split (s)	44.0	27.0	27.0	71.0	76.0	49.0
Total Split (%)	36.7%	22.5%	22.5%	59.2%	63.3%	41%
Yellow Time (s)	3.0	4.0	4.0			3.0
All-Red Time (s)	5.0	2.0	2.0			4.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	Max	Max			Max
Act Effct Green (s)	40.0		23.0	67.0	72.0	
Actuated g/C Ratio	0.33		0.19	0.56	0.60	
v/c Ratio	0.43		0.99	0.92	0.50	
Control Delay	32.4		93.3	44.0	14.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	32.4		93.3	44.0	14.9	
LOS	C		F	D	B	
Approach Delay	32.4			61.2		
Approach LOS	C			E		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38 (32%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 39.0	Intersection LOS: D
Intersection Capacity Utilization 61.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Avenue & Commonwealth Avenue



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	11	11	10	10	11	11	12	16	12	12	10
Total Lost time (s)		4.0			4.0	4.0			4.0			4.0
Lane Util. Factor		0.95			1.00	0.95			1.00			1.00
Frpb, ped/bikes		0.98			1.00	0.95			0.94			0.97
Flpb, ped/bikes		1.00			1.00	1.00			0.88			0.96
Frt		0.99			1.00	0.98			0.96			0.99
Flt Protected		1.00			0.95	1.00			0.97			0.98
Satd. Flow (prot)		3249			1613	3143			1619			1429
Flt Permitted		1.00			0.95	1.00			0.72			0.74
Satd. Flow (perm)		3249			1613	3143			1204			1082
Volume (vph)	0	912	38	19	50	737	83	152	29	77	67	54
Peak-hour factor, PHF	0.97	0.97	0.97	0.95	0.95	0.95	0.95	0.87	0.87	0.87	0.85	0.85
Adj. Flow (vph)	0	940	39	20	53	776	87	175	33	89	79	64
RTOR Reduction (vph)	0	3	0	0	0	7	0	0	0	0	0	4
Lane Group Flow (vph)	0	976	0	0	73	856	0	0	297	0	0	152
Confl. Peds. (#/hr)			232	95	232		155	231		95	95	
Heavy Vehicles (%)	0%	4%	14%	11%	2%	4%	3%	3%	4%	1%	16%	2%
Parking (#/hr)			20				20			10		
Turn Type				Prot	Prot			Perm			Perm	
Protected Phases		2		1	1	6			8			4
Permitted Phases								8			4	
Actuated Green, G (s)		46.4			8.0	60.4			27.6			27.6
Effective Green, g (s)		48.4			10.0	62.4			29.6			29.6
Actuated g/C Ratio		0.48			0.10	0.62			0.30			0.30
Clearance Time (s)		6.0			6.0	6.0			6.0			6.0
Vehicle Extension (s)		3.0			3.0	3.0			3.0			3.0
Lane Grp Cap (vph)		1573			161	1961			356			320
v/s Ratio Prot		c0.30			0.05	c0.27						
v/s Ratio Perm									c0.25			0.14
v/c Ratio		0.62			0.45	0.44			0.83			0.48
Uniform Delay, d1		19.0			42.4	9.7			32.9			28.8
Progression Factor		1.00			1.03	1.42			1.00			1.00
Incremental Delay, d2		1.9			1.6	0.6			15.4			1.1
Delay (s)		20.9			45.4	14.3			48.3			30.0
Level of Service		C			D	B			D			C
Approach Delay (s)		20.9				16.8			48.3			30.0
Approach LOS		C				B			D			C

Intersection Summary			
HCM Average Control Delay	23.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



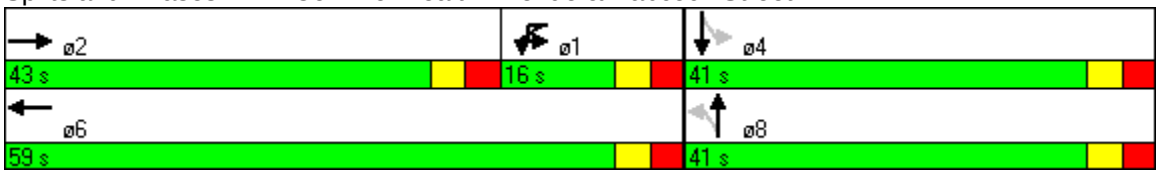
Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	11
Peak-hour factor, PHF	0.85
Adj. Flow (vph)	13
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	231
Heavy Vehicles (%)	40%
Parking (#/hr)	10
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	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Volume (vph)	912	50	737	152	29	67	54
Turn Type		Prot		Perm		Perm	
Protected Phases	2	1	6		8		4
Permitted Phases				8		4	
Detector Phases	2	1	6	8	8	4	4
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	25.0	14.1	25.0	25.0	25.0	25.0	25.0
Total Split (s)	43.0	16.0	59.0	41.0	41.0	41.0	41.0
Total Split (%)	43.0%	16.0%	59.0%	41.0%	41.0%	41.0%	41.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes					
Recall Mode	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	49.6	11.6	62.4		29.6		29.6
Actuated g/C Ratio	0.50	0.12	0.62		0.30		0.30
v/c Ratio	0.61	0.39	0.44		0.83		0.48
Control Delay	22.8	47.5	15.7		51.4		31.6
Queue Delay	0.0	0.0	0.0		0.0		0.0
Total Delay	22.8	47.5	15.7		51.4		31.6
LOS	C	D	B		D		C
Approach Delay	22.8		18.2		51.4		31.6
Approach LOS	C		B		D		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 2 (2%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Commonwealth Avenue & Babcock Street



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	11	11	11	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	
Frpb, ped/bikes	1.00	0.98			0.99			0.95			0.86	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			1.00			0.97			0.94	
Flt Protected	0.95	1.00			1.00			0.97			0.98	
Satd. Flow (prot)	1685	3230			3269			1659			1366	
Flt Permitted	0.95	1.00			1.00			0.97			0.98	
Satd. Flow (perm)	1685	3230			3269			1659			1366	
Volume (vph)	52	1028	42	0	762	19	124	18	47	27	2	27
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.95	0.95	0.95	0.77	0.77	0.77
Adj. Flow (vph)	55	1094	45	0	856	21	131	19	49	35	3	35
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	55	1139	0	0	877	0	0	199	0	0	73	0
Confl. Peds. (#/hr)	171		232	232		171	140		96	96		140
Heavy Vehicles (%)	0%	5%	5%	0%	5%	6%	1%	0%	5%	16%	0%	4%
Parking (#/hr)			20			10			10			10
Turn Type	Prot						Split			Split		
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases												
Actuated Green, G (s)	5.6	53.0			43.4			15.0			15.0	
Effective Green, g (s)	5.6	54.0			44.4			17.0			17.0	
Actuated g/C Ratio	0.06	0.54			0.44			0.17			0.17	
Clearance Time (s)	4.0	5.0			5.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	94	1744			1451			282			232	
v/s Ratio Prot	0.03	c0.35			0.27			c0.12			c0.05	
v/s Ratio Perm												
v/c Ratio	0.59	0.65			0.60			0.71			0.31	
Uniform Delay, d1	46.1	16.3			21.1			39.1			36.4	
Progression Factor	1.36	0.43			0.95			1.00			1.00	
Incremental Delay, d2	7.4	1.6			1.7			7.8			0.8	
Delay (s)	70.1	8.6			21.7			46.9			37.2	
Level of Service	E	A			C			D			D	
Approach Delay (s)		11.4			21.7			46.9			37.2	
Approach LOS		B			C			D			D	

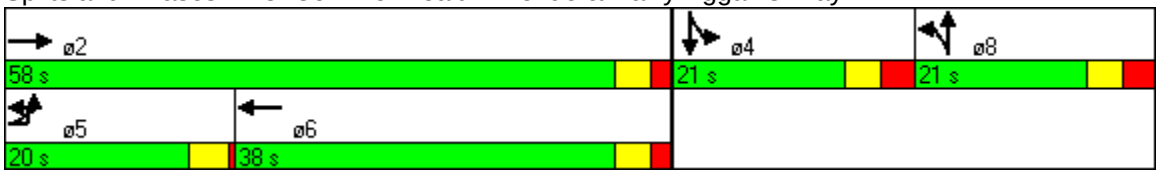
Intersection Summary			
HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Configurations					
Volume (vph)	52	1028	762	18	2
Turn Type	Prot				
Protected Phases	5	2	6	8	4
Permitted Phases					
Detector Phases	5	2	6	8	4
Minimum Initial (s)	4.0	8.0	8.0	8.0	8.0
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0
Total Split (s)	20.0	58.0	38.0	21.0	21.0
Total Split (%)	20.0%	58.0%	38.0%	21.0%	21.0%
Yellow Time (s)	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	0.5	2.0	2.0	3.0	3.0
Lead/Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	None
Act Effct Green (s)	8.1	54.0	46.0	17.0	17.0
Actuated g/C Ratio	0.08	0.54	0.46	0.17	0.17
v/c Ratio	0.40	0.65	0.58	0.71	0.31
Control Delay	65.8	8.7	22.0	54.1	40.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	65.8	8.7	22.0	54.1	40.7
LOS	E	A	C	D	D
Approach Delay		11.3	22.0	54.1	40.7
Approach LOS		B	C	D	D

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 32 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 19.9 — Intersection LOS: B
Intersection Capacity Utilization 53.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Commonwealth Avenue & Harry Agganis Way



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	11	11	10	10	11	11	12	15	12	12	15
Total Lost time (s)		4.0			4.0	4.0			4.0			4.0
Lane Util. Factor		0.95			1.00	0.95			1.00			1.00
Frpb, ped/bikes		0.98			1.00	0.90			0.90			0.98
Flpb, ped/bikes		1.00			1.00	1.00			0.93			0.96
Frt		0.99			1.00	0.97			0.92			0.99
Flt Protected		1.00			0.95	1.00			0.99			0.96
Satd. Flow (prot)		3227			1640	2881			1568			1642
Flt Permitted		1.00			0.95	1.00			0.89			0.53
Satd. Flow (perm)		3227			1640	2881			1420			898
Volume (vph)	0	1154	62	72	190	654	133	84	50	168	49	8
Peak-hour factor, PHF	0.93	0.93	0.93	0.94	0.94	0.94	0.94	0.90	0.90	0.90	0.79	0.79
Adj. Flow (vph)	0	1241	67	77	202	696	141	93	56	187	62	10
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1308	0	0	279	837	0	0	336	0	0	77
Confl. Peds. (#/hr)			179	88	179		402	193		88	88	
Heavy Vehicles (%)	0%	5%	5%	2%	3%	7%	3%	5%	0%	1%	17%	0%
Parking (#/hr)			20				10					
Turn Type				Prot	Prot			Perm			Perm	
Protected Phases		2		1	1	6			8			4
Permitted Phases								8			4	
Actuated Green, G (s)		39.8			18.0	63.8			24.2			24.2
Effective Green, g (s)		41.8			20.0	65.8			26.2			26.2
Actuated g/C Ratio		0.42			0.20	0.66			0.26			0.26
Clearance Time (s)		6.0			6.0	6.0			6.0			6.0
Vehicle Extension (s)		3.0			3.0	3.0			3.0			3.0
Lane Grp Cap (vph)		1349			328	1896			372			235
v/s Ratio Prot		c0.41			c0.17	0.29						
v/s Ratio Perm									c0.24			0.09
v/c Ratio		0.97			0.85	0.44			0.90			0.33
Uniform Delay, d1		28.5			38.6	8.2			35.7			29.8
Progression Factor		0.44			0.54	0.05			1.00			1.00
Incremental Delay, d2		16.0			16.3	0.6			24.3			0.8
Delay (s)		28.5			37.0	1.1			60.0			30.6
Level of Service		C			D	A			E			C
Approach Delay (s)		28.5				10.0			60.0			30.6
Approach LOS		C				B			E			C

Intersection Summary			
HCM Average Control Delay	25.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



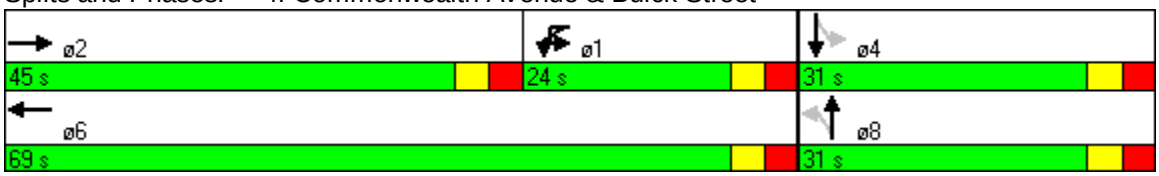
Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	10
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	4
Peak-hour factor, PHF	0.79
Adj. Flow (vph)	5
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	193
Heavy Vehicles (%)	0%
Parking (#/hr)	
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	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Volume (vph)	1154	190	654	84	50	49	8
Turn Type		Prot		Perm		Perm	
Protected Phases	2	1	6		8		4
Permitted Phases				8		4	
Detector Phases	2	1	6	8	8	4	4
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	32.0	24.0	32.0	24.0	24.0	24.0	24.0
Total Split (s)	45.0	24.0	69.0	31.0	31.0	31.0	31.0
Total Split (%)	45.0%	24.0%	69.0%	31.0%	31.0%	31.0%	31.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes					
Recall Mode	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	41.8	20.0	65.8		26.2		26.2
Actuated g/C Ratio	0.42	0.20	0.66		0.26		0.26
v/c Ratio	0.97	0.85	0.44		0.90		0.32
Control Delay	30.9	43.5	1.1		64.5		33.7
Queue Delay	0.0	0.0	0.0		0.0		0.0
Total Delay	30.9	43.5	1.1		64.5		33.7
LOS	C	D	A		E		C
Approach Delay	30.9		11.7		64.5		33.7
Approach LOS	C		B		E		C

Intersection Summary			
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 26 (26%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 27.4		Intersection LOS: C	
Intersection Capacity Utilization 78.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 4: Commonwealth Avenue & Buick Street



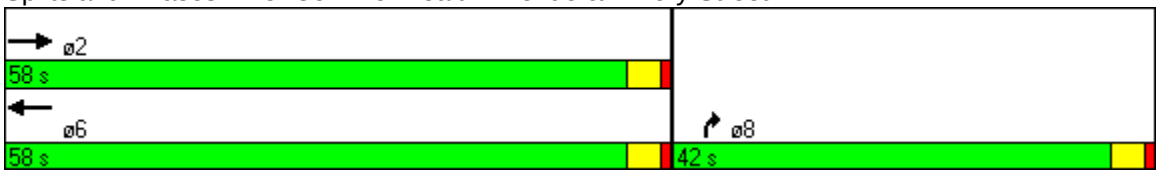
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	10	10	10
Total Lost time (s)	4.0			4.0		4.0
Lane Util. Factor	0.95			0.95		1.00
Frpb, ped/bikes	0.99			1.00		1.00
Flpb, ped/bikes	1.00			1.00		1.00
Frt	0.99			1.00		0.86
Flt Protected	1.00			1.00		1.00
Satd. Flow (prot)	3256			3209		1304
Flt Permitted	1.00			1.00		1.00
Satd. Flow (perm)	3256			3209		1304
Volume (vph)	1282	57	0	1003	0	321
Peak-hour factor, PHF	0.95	0.95	0.91	0.91	0.96	0.96
Adj. Flow (vph)	1349	60	0	1102	0	334
RTOR Reduction (vph)	3	0	0	0	0	4
Lane Group Flow (vph)	1406	0	0	1102	0	330
Confl. Peds. (#/hr)		364	364		278	
Heavy Vehicles (%)	5%	8%	0%	5%	0%	0%
Parking (#/hr)		20				10
Turn Type						custom
Protected Phases	2			6		8
Permitted Phases						
Actuated Green, G (s)	63.2			63.2		28.8
Effective Green, g (s)	63.2			63.2		28.8
Actuated g/C Ratio	0.63			0.63		0.29
Clearance Time (s)	4.0			4.0		4.0
Vehicle Extension (s)	3.0			3.0		3.0
Lane Grp Cap (vph)	2058			2028		376
v/s Ratio Prot	c0.43			0.34		c0.25
v/s Ratio Perm						
v/c Ratio	0.68			0.54		0.88
Uniform Delay, d1	11.9			10.3		33.9
Progression Factor	0.19			0.59		1.00
Incremental Delay, d2	0.7			1.0		20.1
Delay (s)	2.9			7.1		54.0
Level of Service	A			A		D
Approach Delay (s)	2.9			7.1	54.0	
Approach LOS	A			A	D	

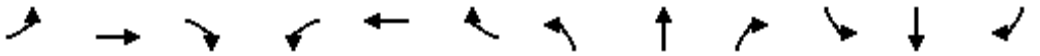
Intersection Summary			
HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBR
Lane Configurations			
Volume (vph)	1282	1003	321
Turn Type			custom
Protected Phases	2	6	8
Permitted Phases			
Detector Phases	2	6	8
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	22.0	22.0	25.0
Total Split (s)	58.0	58.0	42.0
Total Split (%)	58.0%	58.0%	42.0%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	Min
Act Effct Green (s)	63.2	63.2	28.8
Actuated g/C Ratio	0.63	0.63	0.29
v/c Ratio	0.68	0.54	0.88
Control Delay	3.2	8.0	57.0
Queue Delay	0.1	0.0	0.0
Total Delay	3.4	8.0	57.0
LOS	A	A	E
Approach Delay	3.4	8.0	
Approach LOS	A	A	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 25 (25%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 11.4	Intersection LOS: B
Intersection Capacity Utilization 64.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Commonwealth Avenue & Amory Street





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	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		0.95	0.88		0.91	0.88		0.95			1.00	1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.85		1.00	0.85		1.00			1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		3388	2355		4686	2694		3455			1801	1561
Flt Permitted		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		3388	2355		4686	2694		3455			1801	1561
Volume (vph)	0	1263	379	0	700	505	0	1195	0	0	673	367
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.91	0.91	0.91	0.93	0.93	0.93
Adj. Flow (vph)	0	1329	399	0	761	549	0	1313	0	0	724	395
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	1
Lane Group Flow (vph)	0	1329	399	0	761	549	0	1313	0	0	724	394
Confl. Peds. (#/hr)			270			725						672
Heavy Vehicles (%)	0%	3%	5%	0%	7%	2%	0%	1%	0%	7%	2%	0%
Parking (#/hr)			20									
Turn Type			custom			custom						Prot
Protected Phases		1 2	1		1 2	1		4			4	4
Permitted Phases												
Actuated Green, G (s)		50.0	22.0		50.0	22.0		37.0			37.0	37.0
Effective Green, g (s)		52.0	24.0		52.0	24.0		40.0			40.0	40.0
Actuated g/C Ratio		0.52	0.24		0.52	0.24		0.40			0.40	0.40
Clearance Time (s)			6.0			6.0		7.0			7.0	7.0
Vehicle Extension (s)			2.0			2.0		4.0			4.0	4.0
Lane Grp Cap (vph)		1762	565		2437	647		1382			720	624
v/s Ratio Prot		c0.39	0.17		0.16	c0.20		0.38			c0.40	0.25
v/s Ratio Perm												
v/c Ratio		0.75	0.71		0.31	0.85		0.95			1.01	0.63
Uniform Delay, d1		19.0	34.8		13.8	36.3		29.0			30.0	24.1
Progression Factor		0.54	1.08		0.96	1.01		0.98			1.00	1.00
Incremental Delay, d2		2.1	5.1		0.3	10.7		14.1			34.9	2.3
Delay (s)		12.4	42.8		13.5	47.5		42.6			64.9	26.4
Level of Service		B	D		B	D		D			E	C
Approach Delay (s)		19.4			27.8			42.6			51.3	
Approach LOS		B			C			D			D	

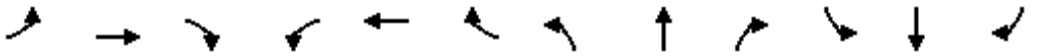
Intersection Summary			
HCM Average Control Delay	33.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	WBR	NBT	SBT	SBR	ø2
Lane Configurations								
Volume (vph)	1263	379	700	505	1195	673	367	
Turn Type		custom		custom			Prot	
Protected Phases	1 2	1	1 2	1	4	4	4	2
Permitted Phases								
Detector Phases	1 2	1	1 2	1	4	4	4	
Minimum Initial (s)		8.0		8.0	8.0	8.0	8.0	8.0
Minimum Split (s)		23.0		23.0	24.0	24.0	24.0	23.0
Total Split (s)	56.0	28.0	56.0	28.0	44.0	44.0	44.0	28.0
Total Split (%)	56.0%	28.0%	56.0%	28.0%	44.0%	44.0%	44.0%	28%
Yellow Time (s)		3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)		3.0		3.0	4.0	4.0	4.0	3.0
Lead/Lag		Lead		Lead				Lag
Lead-Lag Optimize?		Yes		Yes				Yes
Recall Mode		C-Max		C-Max	None	None	None	Max
Act Effct Green (s)	52.0	24.0	52.0	24.0	40.0	40.0	40.0	
Actuated g/C Ratio	0.52	0.24	0.52	0.24	0.40	0.40	0.40	
v/c Ratio	0.75	0.71	0.31	0.85	0.95	1.01	0.63	
Control Delay	12.6	43.4	13.6	48.3	44.2	66.2	29.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	12.6	43.4	13.6	48.3	44.2	66.2	29.5	
LOS	B	D	B	D	D	E	C	
Approach Delay	19.7		28.2		44.2	53.2		
Approach LOS	B		C		D	D		

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 45 (45%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 34.5	Intersection LOS: C
Intersection Capacity Utilization 77.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Commonwealth Avenue & Essex Street





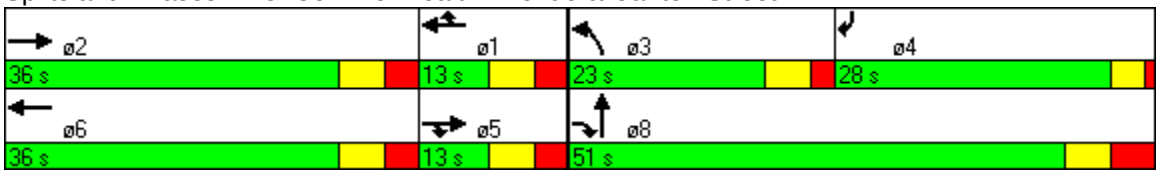
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	12	12	12
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0				4.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95				1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00				1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00				1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.98				0.86
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00				1.00
Satd. Flow (prot)		3421	1453		3323	1484	1728	3431				1644
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00				1.00
Satd. Flow (perm)		3421	1453		3323	1484	1728	3431				1644
Volume (vph)	0	771	497	0	481	26	305	560	70	0	0	285
Peak-hour factor, PHF	0.93	0.93	0.93	0.84	0.84	0.84	0.95	0.95	0.95	0.92	0.92	0.92
Adj. Flow (vph)	0	829	534	0	573	31	321	589	74	0	0	310
RTOR Reduction (vph)	0	0	0	0	0	22	0	0	0	0	0	0
Lane Group Flow (vph)	0	829	534	0	573	9	321	663	0	0	0	310
Confl. Peds. (#/hr)			268			797						
Heavy Vehicles (%)	0%	2%	1%	0%	5%	1%	1%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	15	0	0	10	0	0	0	0	0	0
Turn Type			custom			custom	Prot					custom
Protected Phases		2 5	5 8		1 6	1	3	8				4
Permitted Phases												
Actuated Green, G (s)		44.6	53.4		44.6	6.0	17.0	40.4				21.4
Effective Green, g (s)		47.6	57.4		47.6	9.0	19.0	44.4				21.4
Actuated g/C Ratio		0.48	0.57		0.48	0.09	0.19	0.44				0.21
Clearance Time (s)						7.0	6.0	8.0				4.0
Vehicle Extension (s)						3.0	3.0	3.0				2.0
Lane Grp Cap (vph)		1628	834		1582	134	328	1523				352
v/s Ratio Prot		c0.24	c0.37		0.17	0.01	c0.19	0.19				c0.19
v/s Ratio Perm												
v/c Ratio		0.51	0.64		0.36	0.07	0.98	0.44				0.88
Uniform Delay, d1		18.1	14.3		16.6	41.7	40.3	19.2				38.1
Progression Factor		1.72	0.08		0.54	0.38	0.71	0.79				1.00
Incremental Delay, d2		0.2	1.1		0.6	1.0	25.9	0.1				21.2
Delay (s)		31.3	2.2		9.6	16.7	54.5	15.1				59.3
Level of Service		C	A		A	B	D	B				E
Approach Delay (s)		19.9			10.0			28.0			59.3	
Approach LOS		B			A			C			E	

Intersection Summary			
HCM Average Control Delay	24.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBR	ø2	ø5	ø6
Lane Configurations										
Volume (vph)	771	497	481	26	305	560	285			
Turn Type		custom		custom	Prot		custom			
Protected Phases	2 5	5 8	1 6	1	3	8	4	2	5	6
Permitted Phases										
Detector Phases	2 5	5 8	1 6	1	3	8	4			
Minimum Initial (s)				6.0	8.0	8.0	8.0	8.0	6.0	8.0
Minimum Split (s)				13.0	16.0	27.0	12.0	27.0	13.0	20.0
Total Split (s)	49.0	64.0	49.0	13.0	23.0	51.0	28.0	36.0	13.0	36.0
Total Split (%)	49.0%	64.0%	49.0%	13.0%	23.0%	51.0%	28.0%	36%	13%	36%
Yellow Time (s)				4.0	4.0	4.0	3.0	4.0	4.0	4.0
All-Red Time (s)				3.0	2.0	4.0	1.0	3.0	3.0	3.0
Lead/Lag				Lag	Lead		Lag	Lead	Lag	Lead
Lead-Lag Optimize?				Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode				Max	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	47.6	57.4	47.6	9.0	19.0	44.4	21.4			
Actuated g/C Ratio	0.48	0.57	0.48	0.09	0.19	0.44	0.21			
v/c Ratio	0.51	0.64	0.36	0.20	0.98	0.44	0.88			
Control Delay	33.3	3.6	10.0	10.7	58.3	15.2	64.0			
Queue Delay	0.5	1.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	33.8	4.6	10.0	10.7	58.3	15.2	64.0			
LOS	C	A	B	B	E	B	E			
Approach Delay	22.4		10.0			29.3				
Approach LOS	C		B			C				

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 20 (20%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 26.1	Intersection LOS: C
Intersection Capacity Utilization 57.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: Commonwealth Avenue & Carlton Street





Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	12	12
Total Lost time (s)	4.0			4.0	4.0		
Lane Util. Factor	0.95			1.00	0.95		
Frpb, ped/bikes	1.00			1.00	1.00		
Flpb, ped/bikes	1.00			1.00	1.00		
Frt	1.00			1.00	1.00		
Flt Protected	1.00			0.95	1.00		
Satd. Flow (prot)	3209			1567	2989		
Flt Permitted	1.00			0.95	1.00		
Satd. Flow (perm)	3209			1567	2989		
Volume (vph)	727	23	34	29	521	0	0
Peak-hour factor, PHF	0.89	0.89	0.90	0.90	0.90	0.92	0.92
Adj. Flow (vph)	817	26	38	32	579	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	843	0	0	70	579	0	0
Confl. Peds. (#/hr)		182	198	182		367	198
Heavy Vehicles (%)	8%	5%	15%	7%	8%	0%	0%
Parking (#/hr)		10			10		
Turn Type			Prot	Prot			
Protected Phases	1		5	5	1 5		
Permitted Phases	1						
Actuated Green, G (s)	56.8			15.0	77.8		
Effective Green, g (s)	58.8			17.0	79.8		
Actuated g/C Ratio	0.59			0.17	0.80		
Clearance Time (s)	6.0			6.0			
Vehicle Extension (s)	2.0			2.0			
Lane Grp Cap (vph)	1887			266	2385		
v/s Ratio Prot	c0.26			0.04	c0.19		
v/s Ratio Perm							
v/c Ratio	0.45			0.26	0.24		
Uniform Delay, d1	11.5			36.1	2.5		
Progression Factor	0.50			0.59	0.33		
Incremental Delay, d2	0.7			0.2	0.0		
Delay (s)	6.5			21.5	0.8		
Level of Service	A			C	A		
Approach Delay (s)	6.5				3.1	0.0	
Approach LOS	A				A	A	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.2
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	ø3
Lane Configurations				
Volume (vph)	727	29	521	
Turn Type		Prot		
Protected Phases	1	5	1 5	3
Permitted Phases	1			
Detector Phases	1	5	1 5	
Minimum Initial (s)	8.0	4.0		4.0
Minimum Split (s)	21.0	21.0		23.0
Total Split (s)	37.0	40.0	77.0	23.0
Total Split (%)	37.0%	40.0%	77.0%	23%
Yellow Time (s)	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		2.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	None		None
Act Effct Green (s)	61.2	17.0	83.8	
Actuated g/C Ratio	0.61	0.17	0.84	
v/c Ratio	0.43	0.26	0.23	
Control Delay	8.1	21.6	1.3	
Queue Delay	0.0	0.0	0.0	
Total Delay	8.1	21.6	1.3	
LOS	A	C	A	
Approach Delay	8.1		3.5	
Approach LOS	A		A	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 60 (60%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 6.1	Intersection LOS: A
Intersection Capacity Utilization 37.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Commonwealth Avenue & St. Mary's St.





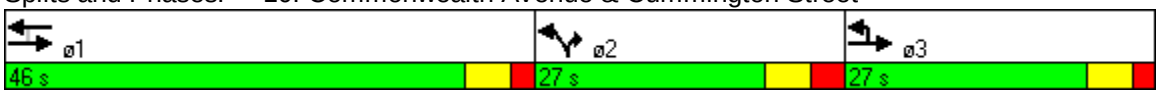
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	1.00
Flpb, ped/bikes	0.95	1.00			1.00	1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1706	3231			2908	1671	1129
Flt Permitted	0.41	1.00			1.00	0.95	1.00
Satd. Flow (perm)	740	3231			2908	1671	1129
Volume (vph)	26	721	0	0	509	25	7
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.78	0.78
Adj. Flow (vph)	31	848	0	0	553	32	9
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	31	848	0	0	553	32	9
Confl. Peds. (#/hr)	301					301	488
Heavy Vehicles (%)	0%	8%	0%	0%	11%	8%	43%
Parking (#/hr)			10		10		
Turn Type	D.P+P						Prot
Protected Phases	3	1 3			1	2	2
Permitted Phases	1						
Actuated Green, G (s)	74.9	80.9			55.3	6.1	6.1
Effective Green, g (s)	78.9	82.9			57.3	9.1	9.1
Actuated g/C Ratio	0.79	0.83			0.57	0.09	0.09
Clearance Time (s)	6.0				6.0	7.0	7.0
Vehicle Extension (s)	4.0				4.0	4.0	4.0
Lane Grp Cap (vph)	793	2678			1666	152	103
v/s Ratio Prot	0.01	c0.26			c0.19	c0.02	0.01
v/s Ratio Perm	0.02						
v/c Ratio	0.04	0.32			0.33	0.21	0.09
Uniform Delay, d1	2.4	2.0			11.3	42.1	41.6
Progression Factor	2.32	4.56			1.42	1.00	1.00
Incremental Delay, d2	0.0	0.1			0.5	0.9	0.5
Delay (s)	5.5	9.1			16.5	43.1	42.1
Level of Service	A	A			B	D	D
Approach Delay (s)		9.0			16.5	42.9	
Approach LOS		A			B	D	

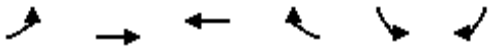
Intersection Summary			
HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBU	EBT	WBT	NBL	NBR
Lane Configurations					
Volume (vph)	26	721	509	25	7
Turn Type	D.P+P				Prot
Protected Phases	3	1 3	1	2	2
Permitted Phases	1				
Detector Phases	3	1 3	1	2	2
Minimum Initial (s)	1.0		4.0	8.0	8.0
Minimum Split (s)	18.0		31.0	20.0	20.0
Total Split (s)	27.0	73.0	46.0	27.0	27.0
Total Split (%)	27.0%	73.0%	46.0%	27.0%	27.0%
Yellow Time (s)	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	3.0	3.0
Lead/Lag			Lead	Lag	Lag
Lead-Lag Optimize?			Yes	Yes	Yes
Recall Mode	None		C-Max	None	None
Act Effct Green (s)	81.7	87.3	60.1	12.3	12.3
Actuated g/C Ratio	0.82	0.87	0.60	0.12	0.12
v/c Ratio	0.04	0.30	0.32	0.16	0.06
Control Delay	5.7	10.4	19.8	40.2	38.6
Queue Delay	0.0	0.7	0.0	0.0	0.0
Total Delay	5.7	11.1	19.8	40.2	38.6
LOS	A	B	B	D	D
Approach Delay		10.9	19.8	39.8	
Approach LOS		B	B	D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 13 (13%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.32	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 37.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Commonwealth Avenue & Cummington Street





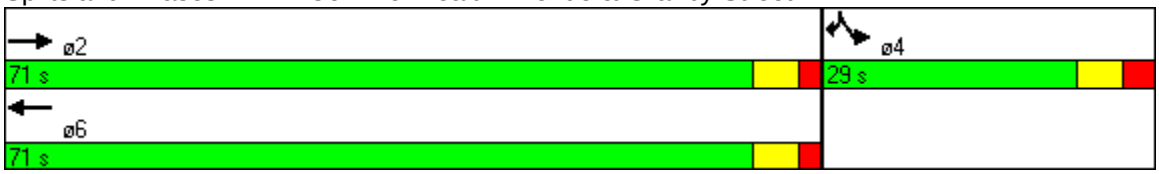
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		2961	3116		1475	1333
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		2961	3116		1475	1333
Volume (vph)	0	738	429	0	51	83
Peak-hour factor, PHF	0.87	0.87	0.90	0.90	0.80	0.80
Adj. Flow (vph)	0	848	477	0	64	104
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	848	477	0	64	104
Confl. Peds. (#/hr)					164	191
Heavy Vehicles (%)	0%	9%	12%	0%	4%	3%
Parking (#/hr)		10		10	10	10
Turn Type						Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		74.5	74.5		12.5	12.5
Effective Green, g (s)		76.5	76.5		15.5	15.5
Actuated g/C Ratio		0.76	0.76		0.16	0.16
Clearance Time (s)		6.0	6.0		7.0	7.0
Vehicle Extension (s)		2.0	2.0		2.0	2.0
Lane Grp Cap (vph)		2265	2384		229	207
v/s Ratio Prot		c0.29	0.15		0.04	c0.08
v/s Ratio Perm						
v/c Ratio		0.37	0.20		0.28	0.50
Uniform Delay, d1		3.9	3.3		37.3	38.7
Progression Factor		0.29	2.56		1.00	1.00
Incremental Delay, d2		0.5	0.2		0.2	0.7
Delay (s)		1.6	8.5		37.6	39.4
Level of Service		A	A		D	D
Approach Delay (s)		1.6	8.5		38.7	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	8.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	39.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Volume (vph)	738	429	51	83
Turn Type				Prot
Protected Phases	2	6	4	4
Permitted Phases				
Detector Phases	2	6	4	4
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	46.0	46.0	29.0	29.0
Total Split (s)	71.0	71.0	29.0	29.0
Total Split (%)	71.0%	71.0%	29.0%	29.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	3.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	None
Act Effct Green (s)	78.7	78.7	17.1	17.1
Actuated g/C Ratio	0.79	0.79	0.17	0.17
v/c Ratio	0.36	0.19	0.25	0.46
Control Delay	1.7	9.9	37.4	43.2
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	1.9	9.9	37.4	43.2
LOS	A	A	D	D
Approach Delay	1.9	9.9	41.0	
Approach LOS	A	A	D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 54 (54%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 39.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Commonwealth Avenue & Granby Street



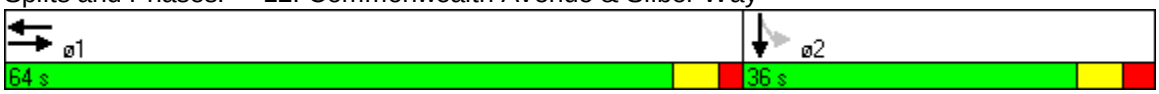
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	12	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0						4.0	
Lane Util. Factor		0.95			0.95						1.00	
Frpb, ped/bikes		1.00			0.90						0.87	
Flpb, ped/bikes		1.00			1.00						0.76	
Frt		1.00			0.97						0.94	
Flt Protected		1.00			1.00						0.97	
Satd. Flow (prot)		3172			2755						993	
Flt Permitted		1.00			1.00						0.97	
Satd. Flow (perm)		3172			2755						993	
Volume (vph)	0	659	0	0	436	95	0	0	0	55	0	38
Peak-hour factor, PHF	0.87	0.87	0.87	0.93	0.93	0.93	0.50	0.50	0.50	0.67	0.67	0.67
Adj. Flow (vph)	0	757	0	0	469	102	0	0	0	82	0	57
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	757	0	0	571	0	0	0	0	0	139	0
Confl. Peds. (#/hr)	319		216	216		319	146		384	384		146
Heavy Vehicles (%)	0%	10%	5%	0%	12%	6%	0%	0%	0%	18%	0%	15%
Parking (#/hr)			10			20			10			10
Turn Type										Perm		
Protected Phases		1			1						2	
Permitted Phases										2		
Actuated Green, G (s)		66.9			66.9						20.1	
Effective Green, g (s)		68.9			68.9						23.1	
Actuated g/C Ratio		0.69			0.69						0.23	
Clearance Time (s)		6.0			6.0						7.0	
Vehicle Extension (s)		4.0			4.0						4.0	
Lane Grp Cap (vph)		2186			1898						229	
v/s Ratio Prot		c0.24			0.21							
v/s Ratio Perm											0.14	
v/c Ratio		0.35			0.30						0.61	
Uniform Delay, d1		6.4			6.1						34.4	
Progression Factor		0.81			0.73						1.00	
Incremental Delay, d2		0.4			0.0						5.2	
Delay (s)		5.6			4.5						39.6	
Level of Service		A			A						D	
Approach Delay (s)		5.6			4.5			0.0			39.6	
Approach LOS		A			A			A			D	

Intersection Summary			
HCM Average Control Delay	8.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBT
Lane Configurations			
Volume (vph)	659	436	0
Turn Type			
Protected Phases	1	1	2
Permitted Phases			
Detector Phases	1	1	2
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	35.0	35.0	21.0
Total Split (s)	64.0	64.0	36.0
Total Split (%)	64.0%	64.0%	36.0%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0
Lead/Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	68.9	68.9	23.1
Actuated g/C Ratio	0.69	0.69	0.23
v/c Ratio	0.35	0.30	0.60
Control Delay	6.3	5.1	44.7
Queue Delay	0.0	0.0	0.0
Total Delay	6.3	5.1	44.7
LOS	A	A	D
Approach Delay	6.3	5.1	44.7
Approach LOS	A	A	D

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 98 (98%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 9.5	Intersection LOS: A
Intersection Capacity Utilization 39.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Commonwealth Avenue & Silber Way



Movement	EBT	EBR	EBR2	NBR2	SBR2	NER	NER2	SWL2	SWL	SWT	SWR	SWR2
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	4.0			4.0	4.0		
Lane Util. Factor	0.91			0.88	1.00	0.88			0.86	0.86		
Frpb, ped/bikes	0.95			1.00	1.00	1.00			1.00	0.75		
Flpb, ped/bikes	1.00			1.00	1.00	1.00			0.65	1.00		
Frt	0.98			0.85	0.86	0.85			1.00	0.94		
Flt Protected	1.00			1.00	1.00	1.00			0.95	1.00		
Satd. Flow (prot)	4320			2450	1508	2791			1915	2029		
Flt Permitted	1.00			1.00	1.00	1.00			0.95	1.00		
Satd. Flow (perm)	4320			2450	1508	2791			1915	2029		
Volume (vph)	449	34	36	252	24	734	65	52	387	781	528	26
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.72	0.92	0.92	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	493	37	40	274	33	798	71	54	399	805	544	27
RTOR Reduction (vph)	8	0	0	0	25	6	0	0	9	0	0	0
Lane Group Flow (vph)	562	0	0	274	8	863	0	0	444	1376	0	0
Confl. Peds. (#/hr)		221	109	26	54	140		140	221		54	357
Heavy Vehicles (%)	11%	15%	12%	16%	9%	2%	0%	10%	4%	8%	20%	0%
Bus Blockages (#/hr)	0	0	15	0	0	0	0	0	0	0	0	11
Parking (#/hr)			20									20
Turn Type				custom	custom	custom		custom	Prot			
Protected Phases	2			3	2	1			3	1 3		
Permitted Phases								3				
Actuated Green, G (s)	19.0			38.0	19.0	22.0			38.0	60.0		
Effective Green, g (s)	24.0			38.0	24.0	26.0			38.0	64.0		
Actuated g/C Ratio	0.24			0.38	0.24	0.26			0.38	0.64		
Clearance Time (s)	9.0			4.0	9.0	8.0			4.0			
Vehicle Extension (s)	2.0			2.0	2.0	2.0			2.0			
Lane Grp Cap (vph)	1037			931	362	726			728	1380		
v/s Ratio Prot	c0.13			0.11	0.01	c0.31				c0.38		
v/s Ratio Perm									0.23	0.30		
v/c Ratio	0.54			0.29	0.02	1.19			0.61	3.15dr		
Uniform Delay, d1	33.2			21.6	29.0	37.0			25.0	17.9		
Progression Factor	0.59			1.00	1.00	1.00			1.00	1.00		
Incremental Delay, d2	1.9			0.1	0.1	98.4			1.0	23.3		
Delay (s)	21.4			21.7	29.1	135.4			26.0	41.2		
Level of Service	C			C	C	F			C	D		
Approach Delay (s)	21.4									37.5		
Approach LOS	C									D		

Intersection Summary			
HCM Average Control Delay	57.4	HCM Level of Service	E
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

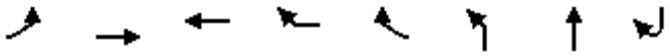
Lane Group	EBT	NBR2	SBR2	NER	SWL	SWT
Lane Configurations						
Volume (vph)	449	252	24	734	387	781
Turn Type		custom	custom	custom	Prot	
Protected Phases	2	3	2	1	3	1 3
Permitted Phases						
Detector Phases	2	3	2	1	3	1 3
Minimum Initial (s)	17.0	12.0	17.0	12.0	12.0	
Minimum Split (s)	27.0	23.0	27.0	29.0	23.0	
Total Split (s)	28.0	42.0	28.0	30.0	42.0	72.0
Total Split (%)	28.0%	42.0%	28.0%	30.0%	42.0%	72.0%
Yellow Time (s)	4.0	3.0	4.0	4.0	3.0	
All-Red Time (s)	5.0	1.0	5.0	4.0	1.0	
Lead/Lag	Lag		Lag	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	C-Max	None	C-Max	None	None	
Act Effct Green (s)	24.0	38.0	24.0	26.0	38.0	64.0
Actuated g/C Ratio	0.24	0.38	0.24	0.26	0.38	0.64
v/c Ratio	0.55	0.29	0.05	1.19	0.61	3.15dr
Control Delay	21.2	22.7	0.1	131.8	28.6	324.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	22.7	0.1	131.8	28.6	324.5
LOS	C	C	A	F	C	F
Approach Delay	21.2					251.2
Approach LOS	C					F

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 28 (28%), Referenced to phase 2:EBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.66	
Intersection Signal Delay: 165.7	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 13: Commonwealth Avenue & Beacon Street





Movement	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	SBR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	16	16	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	0.95			1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.87			1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00	1.00	1.00
Frt	1.00	1.00	0.86			1.00	1.00	0.86
Flt Protected	0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (prot)	1805	3610	2600			1805	1900	1644
Flt Permitted	0.95	1.00	1.00			0.95	1.00	1.00
Satd. Flow (perm)	1805	3610	2600			1805	1900	1644
Volume (vph)	681	584	30	315	155	287	185	497
Peak-hour factor, PHF	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	740	635	34	358	176	312	201	540
RTOR Reduction (vph)	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	740	635	568	0	0	312	201	540
Confl. Peds. (#/hr)	57			48	57	48		
Heavy Vehicles (%)	0%	0%	0%	4%	5%	0%	0%	0%
Turn Type	Split					Split		Free
Protected Phases	1	1	2			3	3	
Permitted Phases								Free
Actuated Green, G (s)	37.9	37.9	23.0			21.6	21.6	100.0
Effective Green, g (s)	39.4	39.4	25.0			23.6	23.6	100.0
Actuated g/C Ratio	0.39	0.39	0.25			0.24	0.24	1.00
Clearance Time (s)	5.5	5.5	6.0			6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)	711	1422	650			426	448	1644
v/s Ratio Prot	c0.41	0.18	c0.22			c0.17	0.11	
v/s Ratio Perm								0.33
v/c Ratio	1.04	0.45	1.57dr			0.73	0.45	0.33
Uniform Delay, d1	30.3	22.3	36.0			35.3	32.6	0.0
Progression Factor	0.61	0.59	0.93			1.00	1.00	1.00
Incremental Delay, d2	38.6	0.7	14.0			6.4	0.7	0.4
Delay (s)	57.0	13.8	47.3			41.7	33.4	0.4
Level of Service	E	B	D			D	C	A
Approach Delay (s)		37.1	47.3				38.4	
Approach LOS		D	D				D	

Intersection Summary			
HCM Average Control Delay	32.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBL	NBT	SBR2
Lane Configurations						
Volume (vph)	681	584	30	287	185	497
Turn Type	Split			Split		Free
Protected Phases	1	1	2	3	3	
Permitted Phases						Free
Detector Phases	1	1	2	3	3	
Minimum Initial (s)	10.0	10.0	4.0	4.0	4.0	
Minimum Split (s)	30.0	30.0	22.0	19.0	19.0	
Total Split (s)	37.0	37.0	29.0	34.0	34.0	0.0
Total Split (%)	37.0%	37.0%	29.0%	34.0%	34.0%	0.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.5	2.5	3.0	3.0	3.0	
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Max	Max	C-Max	None	None	
Act Effct Green (s)	39.4	39.4	25.0	23.6	23.6	100.0
Actuated g/C Ratio	0.39	0.39	0.25	0.24	0.24	1.00
v/c Ratio	1.04	0.45	1.57dr	0.73	0.45	0.33
Control Delay	61.9	14.6	48.3	45.1	34.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	14.6	48.3	45.1	34.8	0.4
LOS	E	B	D	D	C	A
Approach Delay		40.0	48.3		41.1	
Approach LOS		D	D		D	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 82 (82%), Referenced to phase 2:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 34.6 Intersection LOS: C
Intersection Capacity Utilization 83.8% ICU Level of Service E
Analysis Period (min) 15
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 18: Mountfort Street & Carlton Street

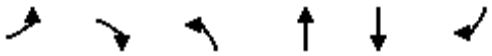




Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	56	9	12	16	4	4
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Hourly flow rate (vph)	76	12	16	22	5	5
Pedestrians	2			80	23	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			7	2	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			111		161	185
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			111		161	185
tC, single (s)			4.3		6.4	6.4
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.5
p0 queue free %			99		99	99
cM capacity (veh/h)			1364		808	734

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	88	38	11
Volume Left	0	16	5
Volume Right	12	0	5
cSH	1700	1364	769
Volume to Capacity	0.05	0.01	0.01
Queue Length 95th (ft)	0	1	1
Control Delay (s)	0.0	3.3	9.7
Lane LOS		A	A
Approach Delay (s)	0.0	3.3	9.7
Approach LOS			A

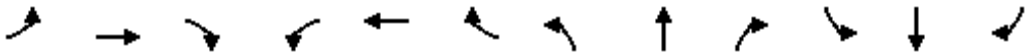
Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	71	16	2	31	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	76	17	2	33	0
Pedestrians	16			25		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	1			2		
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				762		
pX, platoon unblocked						
vC, conflicting volume	86	74	49			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	86	74	49			
tC, single (s)	6.4	6.3	4.3			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.4			
p0 queue free %	100	92	99			
cM capacity (veh/h)	897	925	1436			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	76	19	33
Volume Left	0	17	0
Volume Right	76	0	0
cSH	925	1436	1700
Volume to Capacity	0.08	0.01	0.02
Queue Length 95th (ft)	7	1	0
Control Delay (s)	9.2	6.7	0.0
Lane LOS	A	A	
Approach Delay (s)	9.2	6.7	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	6.5		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	80	18	14	0	11	0	21	6	19	5	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	89	20	16	0	12	0	23	7	21	6	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	117	28	30	27
Volume Left (vph)	8	16	0	21
Volume Right (vph)	20	12	7	0
Hadj (s)	0.01	-0.08	0.00	0.23
Departure Headway (s)	4.1	4.1	4.2	4.5
Degree Utilization, x	0.13	0.03	0.04	0.03
Capacity (veh/h)	867	866	812	775
Control Delay (s)	7.7	7.2	7.4	7.6
Approach Delay (s)	7.7	7.2	7.4	7.6
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.6		
HCM Level of Service	A		
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations								
Sign Control		Stop				Free	Free	
Grade		0%				0%	0%	
Volume (veh/h)	1	11	82	1	43	73	132	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	13	96	0	51	86	155	1
Pedestrians		28				7	22	
Lane Width (ft)		12.0				12.0	12.0	
Walking Speed (ft/s)		4.0				4.0	4.0	
Percent Blockage		2				1	2	
Right turn flare (veh)								
Median type		None						
Median storage veh)								
Upstream signal (ft)						442		
pX, platoon unblocked	0.00			0.00				
vC, conflicting volume	0	393	191	0	184			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	0	393	191	0	184			
tC, single (s)	0.0	6.4	6.3	0.0	4.1			
tC, 2 stage (s)								
tF (s)	0.0	3.5	3.4	0.0	2.2			
p0 queue free %	0	98	88	0	96			
cM capacity (veh/h)	0	568	816	0	1370			

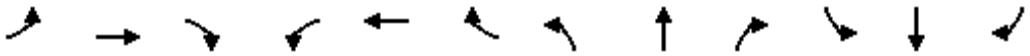
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	109	136	156
Volume Left	13	51	0
Volume Right	96	0	1
cSH	776	1370	1700
Volume to Capacity	0.14	0.04	0.09
Queue Length 95th (ft)	12	3	0
Control Delay (s)	10.4	3.1	0.0
Lane LOS	B	A	
Approach Delay (s)	10.4	3.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	12	89	99	0	0	0	1	0	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	0	0	15	109	121	0	0	0	1	0	1	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	15	229	1	2
Volume Left (vph)	0	109	0	0
Volume Right (vph)	15	0	1	1
Hadj (s)	-0.46	0.11	-0.60	-0.30
Departure Headway (s)	3.7	4.0	3.8	4.1
Degree Utilization, x	0.01	0.26	0.00	0.00
Capacity (veh/h)	966	887	876	820
Control Delay (s)	6.7	8.4	6.8	7.1
Approach Delay (s)	6.7	8.4	6.8	7.1
Approach LOS	A	A	A	A

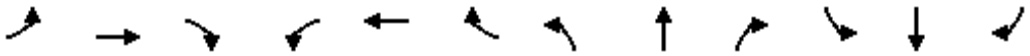
Intersection Summary				
Delay	8.3			
HCM Level of Service	A			
Intersection Capacity Utilization	43.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	104	164	6	51	15	0	0	2	3
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	1	130	205	8	64	19	0	0	2	4

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	343	83	6
Volume Left (vph)	0	130	64	0
Volume Right (vph)	1	8	0	4
Hadj (s)	-0.60	0.16	0.21	-0.36
Departure Headway (s)	3.9	4.3	4.9	4.4
Degree Utilization, x	0.00	0.41	0.11	0.01
Capacity (veh/h)	882	816	685	737
Control Delay (s)	6.9	10.2	8.5	7.5
Approach Delay (s)	6.9	10.2	8.5	7.5
Approach LOS	A	B	A	A

Intersection Summary				
Delay	9.8			
HCM Level of Service	A			
Intersection Capacity Utilization	38.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	23	252	8	21	4	0	0	2	12
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Hourly flow rate (vph)	0	0	1	29	319	10	27	5	0	0	3	15

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	358	32	18
Volume Left (vph)	0	29	27	0
Volume Right (vph)	1	10	0	15
Hadj (s)	-0.60	0.07	0.45	-0.27
Departure Headway (s)	3.8	4.1	5.2	4.5
Degree Utilization, x	0.00	0.41	0.05	0.02
Capacity (veh/h)	916	867	647	734
Control Delay (s)	6.8	9.9	8.4	7.6
Approach Delay (s)	6.8	9.9	8.4	7.6
Approach LOS	A	A	A	A

Intersection Summary			
Delay	9.7		
HCM Level of Service	A		
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			0.95	
Frpb, ped/bikes		1.00			1.00			0.94			0.96	
Flpb, ped/bikes		1.00			1.00			0.88			0.87	
Frt		0.99			1.00			0.97			0.96	
Flt Protected		1.00			1.00			0.96			0.98	
Satd. Flow (prot)		3466			3406			1475			2842	
Flt Permitted		1.00			0.76			0.86			0.87	
Satd. Flow (perm)		3466			2593			1313			2536	
Volume (vph)	0	585	33	3	315	0	9	0	2	15	10	8
Peak-hour factor, PHF	0.88	0.88	0.88	0.95	0.95	0.95	0.55	0.55	0.55	0.64	0.64	0.64
Adj. Flow (vph)	0	665	38	3	332	0	16	0	4	23	16	12
RTOR Reduction (vph)	0	4	0	0	0	0	0	3	0	0	8	0
Lane Group Flow (vph)	0	699	0	0	335	0	0	17	0	0	43	0
Confl. Peds. (#/hr)			16	16		16	57		112	112		57
Heavy Vehicles (%)	0%	3%	6%	0%	6%	0%	0%	0%	0%	0%	0%	0%
Turn Type				Perm			Perm			Perm		
Protected Phases		7			5			1			1	
Permitted Phases				5			1			1		
Actuated Green, G (s)		29.0			16.0			29.4			29.4	
Effective Green, g (s)		29.0			16.0			29.4			29.4	
Actuated g/C Ratio		0.29			0.16			0.29			0.29	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1005			415			386			746	
v/s Ratio Prot		c0.20										
v/s Ratio Perm					c0.13			0.01			c0.02	
v/c Ratio		0.70			0.81			0.04			0.06	
Uniform Delay, d1		31.6			40.5			25.3			25.3	
Progression Factor		0.34			1.00			1.00			1.70	
Incremental Delay, d2		1.6			10.4			0.2			0.1	
Delay (s)		12.4			50.9			25.5			43.3	
Level of Service		B			D			C			D	
Approach Delay (s)		12.4			50.9			25.5			43.3	
Approach LOS		B			D			C			D	

Intersection Summary			
HCM Average Control Delay	25.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	25.6
Intersection Capacity Utilization	33.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT	ø2
Lane Configurations								
Volume (vph)	585	3	315	9	0	15	10	
Turn Type		Perm		Perm		Perm		
Protected Phases	7		5		1		1	2
Permitted Phases		5		1		1		
Detector Phases	7	5	5	1	1	1	1	
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.0
Minimum Split (s)	14.0	14.0	14.0	31.0	31.0	31.0	31.0	20.0
Total Split (s)	16.0	29.0	29.0	35.0	35.0	35.0	35.0	20.0
Total Split (%)	16.0%	29.0%	29.0%	35.0%	35.0%	35.0%	35.0%	20%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag				Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	29.0		16.0		31.0		31.0	
Actuated g/C Ratio	0.29		0.16		0.31		0.31	
v/c Ratio	0.70		0.76		0.05		0.06	
Control Delay	21.4		51.7		21.3		34.1	
Queue Delay	0.0		0.0		0.0		0.0	
Total Delay	21.4		51.7		21.3		34.1	
LOS	C		D		C		C	
Approach Delay	21.4		51.7		21.3		34.1	
Approach LOS	C		D		C		C	

Intersection Summary			
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 95 (95%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 31.1		Intersection LOS: C	
Intersection Capacity Utilization 33.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 45: Mountfort Street & St. Mary's St.



Movement	EBT	EBR	WBU	WBL	WBT	NEL	NER
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	13
Total Lost time (s)	4.0			4.0	4.0		4.0
Lane Util. Factor	0.95			0.97	1.00		0.88
Frpb, ped/bikes	0.98			1.00	1.00		1.00
Flpb, ped/bikes	1.00			0.93	1.00		1.00
Frt	0.99			1.00	1.00		0.85
Flt Protected	1.00			0.95	1.00		1.00
Satd. Flow (prot)	3329			3188	1431		2852
Flt Permitted	1.00			0.57	1.00		1.00
Satd. Flow (perm)	3329			1924	1431		2852
Volume (vph)	458	27	37	621	880	0	466
Peak-hour factor, PHF	0.98	0.98	0.87	0.87	0.87	0.93	0.93
Adj. Flow (vph)	467	28	43	714	1011	0	501
RTOR Reduction (vph)	3	0	0	0	0	0	0
Lane Group Flow (vph)	492	0	0	757	1011	0	501
Confl. Peds. (#/hr)		334	11	254			11
Heavy Vehicles (%)	5%	8%	3%	2%	2%	0%	3%
Bus Blockages (#/hr)	0	10	0	0	10	0	0
Parking (#/hr)		20			20		
Turn Type			Perm		pt+ov		
Protected Phases	2			1	1 2		1 8
Permitted Phases			1				1 8
Actuated Green, G (s)	17.0			54.0	77.0		89.0
Effective Green, g (s)	21.0			56.0	81.0		91.0
Actuated g/C Ratio	0.18			0.47	0.68		0.76
Clearance Time (s)	8.0			6.0			
Vehicle Extension (s)	2.0			2.0			
Lane Grp Cap (vph)	583			898	966		2163
v/s Ratio Prot	0.15				c0.71		c0.18
v/s Ratio Perm				0.39			
v/c Ratio	0.84			0.84	1.05		0.23
Uniform Delay, d1	47.9			28.1	19.5		4.3
Progression Factor	1.00			1.00	1.00		1.00
Incremental Delay, d2	13.9			9.5	41.9		0.3
Delay (s)	61.8			37.6	61.4		4.5
Level of Service	E			D	E		A
Approach Delay (s)	61.8				51.2	4.5	
Approach LOS	E				D	A	

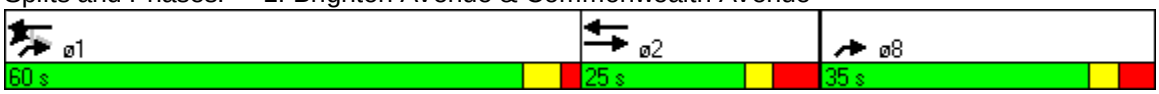
Intersection Summary			
HCM Average Control Delay	44.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBU	WBL	WBT	NER	ø8
Lane Configurations						
Volume (vph)	458	37	621	880	466	
Turn Type		Perm		pt+ov		
Protected Phases	2		1	1 2	1 8	8
Permitted Phases		1			1 8	
Detector Phases	2	1	1	1 2	1 8	
Minimum Initial (s)	8.0	8.0	8.0			8.0
Minimum Split (s)	25.0	16.0	16.0			33.0
Total Split (s)	25.0	60.0	60.0	85.0	95.0	35.0
Total Split (%)	20.8%	50.0%	50.0%	70.8%	79.2%	29%
Yellow Time (s)	3.0	4.0	4.0			3.0
All-Red Time (s)	5.0	2.0	2.0			4.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	Max	Max			Max
Act Effct Green (s)	21.0		56.0	81.0	91.0	
Actuated g/C Ratio	0.18		0.47	0.68	0.76	
v/c Ratio	0.84		0.84	1.05	0.23	
Control Delay	61.8		38.6	62.9	4.5	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	61.8		38.6	62.9	4.5	
LOS	E		D	E	A	
Approach Delay	61.8			52.5		
Approach LOS	E			D		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 64 (53%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 45.5	Intersection LOS: D
Intersection Capacity Utilization 66.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Avenue & Commonwealth Avenue



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	11	11	10	10	11	11	12	16	12	12	10
Total Lost time (s)		4.0			4.0	4.0			4.0			4.0
Lane Util. Factor		0.95			1.00	0.95			1.00			1.00
Frpb, ped/bikes		0.97			1.00	0.96			0.94			0.91
Flpb, ped/bikes		1.00			1.00	1.00			0.90			0.95
Frt		0.99			1.00	0.99			0.97			0.97
Flt Protected		1.00			0.95	1.00			0.97			0.98
Satd. Flow (prot)		3301			1685	3289			1685			1446
Flt Permitted		1.00			0.95	1.00			0.60			0.79
Satd. Flow (perm)		3301			1685	3289			1042			1169
Volume (vph)	0	778	44	21	82	1234	90	126	26	48	93	88
Peak-hour factor, PHF	0.94	0.94	0.94	0.95	0.95	0.95	0.95	0.93	0.93	0.93	0.90	0.90
Adj. Flow (vph)	0	828	47	22	86	1299	95	135	28	52	103	98
RTOR Reduction (vph)	0	3	0	0	0	4	0	0	0	0	0	10
Lane Group Flow (vph)	0	872	0	0	108	1390	0	0	215	0	0	248
Confl. Peds. (#/hr)			147	122	147		176	377		122	122	
Heavy Vehicles (%)	0%	2%	2%	0%	0%	1%	4%	0%	8%	0%	2%	1%
Parking (#/hr)			20				20			10		
Turn Type				Prot	Prot			Perm			Perm	
Protected Phases		2		1	1	6			8			4
Permitted Phases								8			4	
Actuated Green, G (s)		49.9			16.0	71.9			26.1			26.1
Effective Green, g (s)		51.9			18.0	73.9			28.1			28.1
Actuated g/C Ratio		0.47			0.16	0.67			0.26			0.26
Clearance Time (s)		6.0			6.0	6.0			6.0			6.0
Vehicle Extension (s)		3.0			3.0	3.0			3.0			3.0
Lane Grp Cap (vph)		1557			276	2210			266			299
v/s Ratio Prot		0.26			0.06	c0.42						
v/s Ratio Perm									0.21			c0.21
v/c Ratio		0.56			0.39	0.63			0.81			0.83
Uniform Delay, d1		20.9			41.1	10.3			38.4			38.7
Progression Factor		1.00			0.69	0.45			1.00			1.00
Incremental Delay, d2		1.5			0.7	1.0			16.3			16.9
Delay (s)		22.3			29.1	5.6			54.7			55.6
Level of Service		C			C	A			D			E
Approach Delay (s)		22.3				7.3			54.7			55.6
Approach LOS		C				A			D			E

Intersection Summary			
HCM Average Control Delay	19.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



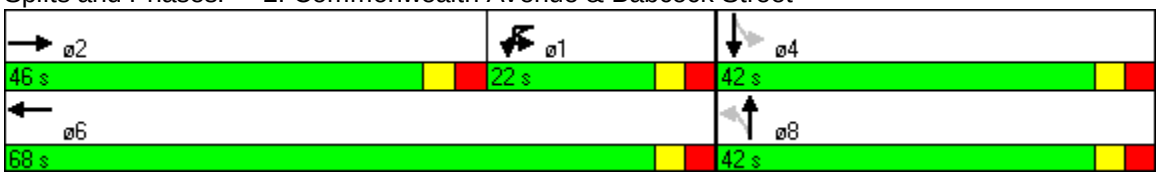
Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	51
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	57
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	377
Heavy Vehicles (%)	0%
Parking (#/hr)	10
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	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Volume (vph)	778	82	1234	126	26	93	88
Turn Type		Prot		Perm		Perm	
Protected Phases	2	1	6		8		4
Permitted Phases				8		4	
Detector Phases	2	1	6	8	8	4	4
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	25.0	14.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	46.0	22.0	68.0	42.0	42.0	42.0	42.0
Total Split (%)	41.8%	20.0%	61.8%	38.2%	38.2%	38.2%	38.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes					
Recall Mode	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	51.9	18.0	73.9		28.1		28.1
Actuated g/C Ratio	0.47	0.16	0.67		0.26		0.26
v/c Ratio	0.56	0.39	0.63		0.77		0.83
Control Delay	23.9	31.9	6.3		55.6		58.1
Queue Delay	0.0	0.0	0.0		0.1		0.2
Total Delay	23.9	31.9	6.3		55.7		58.2
LOS	C	C	A		E		E
Approach Delay	23.9		8.1		55.7		58.2
Approach LOS	C		A		E		E

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 26 (24%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Commonwealth Avenue & Babcock Street



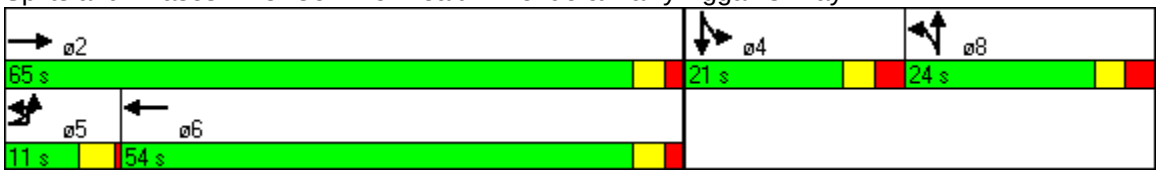
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	
Frpb, ped/bikes	1.00	0.95			0.99			0.93			0.77	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			1.00			0.97			0.90	
Flt Protected	0.95	1.00			1.00			0.96			0.99	
Satd. Flow (prot)	1745	3218			3415			1643			1279	
Flt Permitted	0.95	1.00			1.00			0.96			0.99	
Satd. Flow (perm)	1745	3218			3415			1643			1279	
Volume (vph)	6	877	80	0	1197	20	163	4	51	26	12	94
Peak-hour factor, PHF	0.98	0.98	0.98	0.93	0.93	0.93	0.96	0.96	0.96	0.90	0.90	0.90
Adj. Flow (vph)	6	895	82	0	1287	22	170	4	53	29	13	104
RTOR Reduction (vph)	0	0	0	0	0	0	0	10	0	0	71	0
Lane Group Flow (vph)	6	977	0	0	1309	0	0	217	0	0	75	0
Confl. Peds. (#/hr)	191		224	224		191	185		127	127		185
Heavy Vehicles (%)	0%	2%	1%	0%	1%	0%	1%	0%	0%	10%	0%	0%
Parking (#/hr)			20			10			10			10
Turn Type	Prot						Split			Split		
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases												
Actuated Green, G (s)	1.4	62.7			57.3			16.7			13.6	
Effective Green, g (s)	1.4	63.7			58.3			18.7			15.6	
Actuated g/C Ratio	0.01	0.58			0.53			0.17			0.14	
Clearance Time (s)	4.0	5.0			5.0			6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	22	1864			1810			279			181	
v/s Ratio Prot	0.00	c0.30			c0.38			c0.13			c0.06	
v/s Ratio Perm												
v/c Ratio	0.27	0.52			0.72			0.78			0.41	
Uniform Delay, d1	53.8	14.0			19.7			43.7			43.0	
Progression Factor	1.27	0.29			0.74			1.00			1.00	
Incremental Delay, d2	5.4	0.9			1.9			12.8			1.5	
Delay (s)	73.5	5.0			16.4			56.4			44.6	
Level of Service	E	A			B			E			D	
Approach Delay (s)		5.4			16.4			56.4			44.6	
Approach LOS		A			B			E			D	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Configurations					
Volume (vph)	6	877	1197	4	12
Turn Type	Prot				
Protected Phases	5	2	6	8	4
Permitted Phases					
Detector Phases	5	2	6	8	4
Minimum Initial (s)	4.0	8.0	8.0	8.0	8.0
Minimum Split (s)	8.0	20.0	20.0	21.0	21.0
Total Split (s)	11.0	65.0	54.0	24.0	21.0
Total Split (%)	10.0%	59.1%	49.1%	21.8%	19.1%
Yellow Time (s)	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	0.5	2.0	2.0	3.0	3.0
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None
Act Effct Green (s)	6.0	63.7	61.5	18.7	15.6
Actuated g/C Ratio	0.05	0.58	0.56	0.17	0.14
v/c Ratio	0.06	0.52	0.69	0.78	0.58
Control Delay	63.3	5.2	15.7	60.6	29.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	63.3	5.2	15.7	60.6	29.5
LOS	E	A	B	E	C
Approach Delay		5.6	15.7	60.6	29.5
Approach LOS		A	B	E	C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 29 (26%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 16.6	Intersection LOS: B
Intersection Capacity Utilization 61.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Commonwealth Avenue & Harry Agganis Way



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	11	11	10	10	11	11	12	15	12	12	15
Total Lost time (s)		4.0			4.0	4.0			4.0			4.0
Lane Util. Factor		0.95			1.00	0.95			1.00			1.00
Frpb, ped/bikes		0.95			1.00	0.98			0.84			0.97
Flpb, ped/bikes		1.00			1.00	1.00			0.91			0.91
Frt		0.99			1.00	1.00			0.93			0.99
Flt Protected		1.00			0.95	1.00			0.98			0.97
Satd. Flow (prot)		3141			1675	3260			1425			1692
Flt Permitted		1.00			0.95	1.00			0.78			0.63
Satd. Flow (perm)		3141			1675	3260			1133			1098
Volume (vph)	0	815	86	100	253	1229	35	100	6	112	90	40
Peak-hour factor, PHF	0.96	0.96	0.96	0.89	0.89	0.89	0.89	0.90	0.90	0.90	0.76	0.76
Adj. Flow (vph)	0	849	90	112	284	1381	39	111	7	124	118	53
RTOR Reduction (vph)	0	0	0	0	0	2	0	0	0	0	0	0
Lane Group Flow (vph)	0	939	0	0	396	1418	0	0	242	0	0	184
Confl. Peds. (#/hr)			268	177	268		1312	313		177	177	
Heavy Vehicles (%)	0%	4%	2%	2%	0%	4%	3%	3%	0%	0%	7%	3%
Parking (#/hr)			20				10					
Turn Type				Prot	Prot			Perm			Perm	
Protected Phases		2		1	1	6			8			4
Permitted Phases								8			4	
Actuated Green, G (s)		43.8			22.0	71.8			26.2			26.2
Effective Green, g (s)		45.8			24.0	73.8			28.2			28.2
Actuated g/C Ratio		0.42			0.22	0.67			0.26			0.26
Clearance Time (s)		6.0			6.0	6.0			6.0			6.0
Vehicle Extension (s)		3.0			3.0	3.0			3.0			3.0
Lane Grp Cap (vph)		1308			365	2187			290			281
v/s Ratio Prot		c0.30			c0.24	0.44						
v/s Ratio Perm									c0.21			0.17
v/c Ratio		0.72			1.08	0.65			0.83			0.65
Uniform Delay, d1		26.7			43.0	10.5			38.7			36.6
Progression Factor		0.74			0.87	0.41			1.00			1.00
Incremental Delay, d2		2.9			68.2	1.3			18.3			5.4
Delay (s)		22.7			105.8	5.6			57.0			42.0
Level of Service		C			F	A			E			D
Approach Delay (s)		22.7				27.5			57.0			42.0
Approach LOS		C				C			E			D

Intersection Summary			
HCM Average Control Delay	29.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	10
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)	10
Peak-hour factor, PHF	0.76
Adj. Flow (vph)	13
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	313
Heavy Vehicles (%)	0%
Parking (#/hr)	
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	

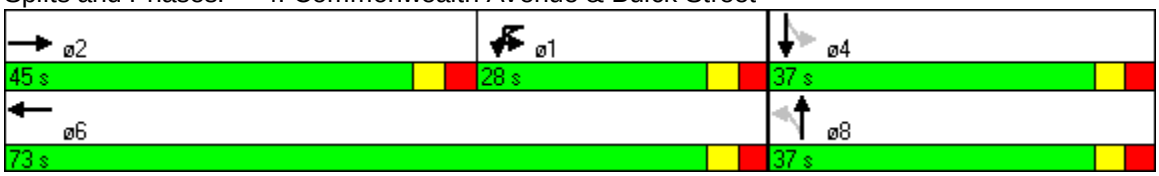
Intersection Summary

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Volume (vph)	815	253	1229	100	6	90	40
Turn Type		Prot		Perm		Perm	
Protected Phases	2	1	6		8		4
Permitted Phases				8		4	
Detector Phases	2	1	6	8	8	4	4
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	31.0	24.0	31.0	24.0	24.0	24.0	24.0
Total Split (s)	45.0	28.0	73.0	37.0	37.0	37.0	37.0
Total Split (%)	40.9%	25.5%	66.4%	33.6%	33.6%	33.6%	33.6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes					
Recall Mode	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	45.8	24.0	73.8		28.2		28.2
Actuated g/C Ratio	0.42	0.22	0.67		0.26		0.26
v/c Ratio	0.72	1.08	0.65		0.83		0.64
Control Delay	23.8	105.4	6.1		61.9		46.2
Queue Delay	0.0	0.0	0.1		0.0		0.0
Total Delay	23.8	105.4	6.2		61.9		46.2
LOS	C	F	A		E		D
Approach Delay	23.8		27.8		61.9		46.2
Approach LOS	C		C		E		D

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 31 (28%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 30.3 Intersection LOS: C
Intersection Capacity Utilization 73.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: Commonwealth Avenue & Buick Street





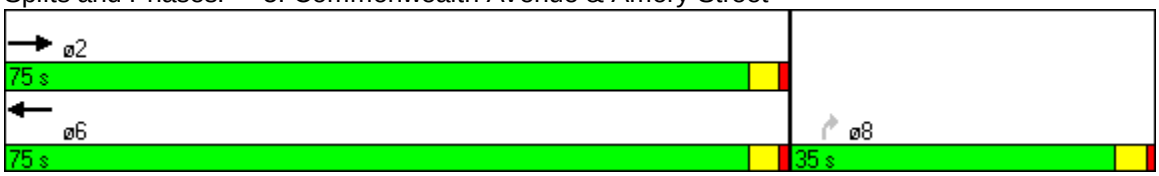
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	10	10	10
Total Lost time (s)	4.0			4.0		4.0
Lane Util. Factor	0.95			0.95		1.00
Frpb, ped/bikes	0.99			1.00		1.00
Flpb, ped/bikes	1.00			1.00		1.00
Frt	0.99			1.00		0.86
Flt Protected	1.00			1.00		1.00
Satd. Flow (prot)	3320			3303		1304
Flt Permitted	1.00			1.00		1.00
Satd. Flow (perm)	3320			3303		1304
Volume (vph)	1093	50	0	1432	0	172
Peak-hour factor, PHF	0.88	0.88	0.93	0.93	0.83	0.83
Adj. Flow (vph)	1242	57	0	1540	0	207
RTOR Reduction (vph)	2	0	0	0	0	8
Lane Group Flow (vph)	1297	0	0	1540	0	199
Confl. Peds. (#/hr)		475				
Heavy Vehicles (%)	3%	0%	0%	2%	0%	0%
Parking (#/hr)		20				10
Turn Type						custom
Protected Phases	2			6		
Permitted Phases						8
Actuated Green, G (s)	80.1			80.1		21.9
Effective Green, g (s)	80.1			80.1		21.9
Actuated g/C Ratio	0.73			0.73		0.20
Clearance Time (s)	4.0			4.0		4.0
Vehicle Extension (s)	3.0			3.0		3.0
Lane Grp Cap (vph)	2418			2405		260
v/s Ratio Prot	0.39			c0.47		
v/s Ratio Perm						c0.15
v/c Ratio	0.54			0.64		0.77
Uniform Delay, d1	6.7			7.6		41.6
Progression Factor	0.33			0.97		1.00
Incremental Delay, d2	0.6			1.1		12.6
Delay (s)	2.8			8.5		54.2
Level of Service	A			A		D
Approach Delay (s)	2.8			8.5	54.2	
Approach LOS	A			A	D	

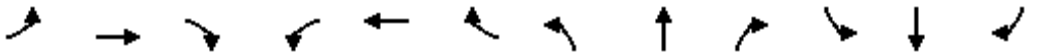
Intersection Summary			
HCM Average Control Delay	9.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBR
Lane Configurations			
Volume (vph)	1093	1432	172
Turn Type			custom
Protected Phases	2	6	
Permitted Phases			8
Detector Phases	2	6	8
Minimum Initial (s)	8.0	4.0	8.0
Minimum Split (s)	22.0	22.0	25.0
Total Split (s)	75.0	75.0	35.0
Total Split (%)	68.2%	68.2%	31.8%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	80.1	80.1	21.9
Actuated g/C Ratio	0.73	0.73	0.20
v/c Ratio	0.54	0.64	0.77
Control Delay	3.1	9.6	58.0
Queue Delay	0.1	0.4	0.0
Total Delay	3.2	10.0	58.0
LOS	A	A	E
Approach Delay	3.2	10.0	
Approach LOS	A	A	

Intersection Summary		
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 16 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.77		
Intersection Signal Delay: 10.3	Intersection LOS: B	
Intersection Capacity Utilization 49.5%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 5: Commonwealth Avenue & Amory Street





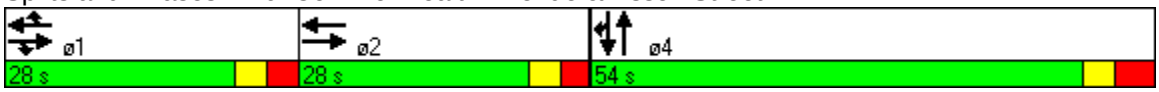
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	10	10	10
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		0.95	0.88		0.91	0.88		0.95			1.00	1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.85		1.00	0.85		1.00			1.00	0.85
Flt Protected		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		3421	2424		4868	2694		3490			1756	1507
Flt Permitted		1.00	1.00		1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		3421	2424		4868	2694		3490			1756	1507
Volume (vph)	0	979	366	0	1100	440	0	960	0	0	846	487
Peak-hour factor, PHF	0.94	0.94	0.94	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.96	0.96
Adj. Flow (vph)	0	1041	389	0	1209	484	0	1055	0	0	881	507
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1041	389	0	1209	484	0	1055	0	0	881	507
Confl. Peds. (#/hr)			417			1426						19
Heavy Vehicles (%)	0%	2%	2%	0%	3%	2%	0%	0%	0%	0%	1%	0%
Parking (#/hr)			20									
Turn Type			custom			custom						Prot
Protected Phases		1 2	1		1 2	1		4			4	4
Permitted Phases												
Actuated Green, G (s)		50.0	22.0		50.0	22.0		47.0			47.0	47.0
Effective Green, g (s)		52.0	24.0		52.0	24.0		50.0			50.0	50.0
Actuated g/C Ratio		0.47	0.22		0.47	0.22		0.45			0.45	0.45
Clearance Time (s)			6.0			6.0		7.0			7.0	7.0
Vehicle Extension (s)			2.0			2.0		4.0			4.0	4.0
Lane Grp Cap (vph)		1617	529		2301	588		1586			798	685
v/s Ratio Prot		c0.30	0.16		0.25	c0.18		0.30			c0.50	0.34
v/s Ratio Perm												
v/c Ratio		0.64	0.74		0.53	0.82		0.67			1.10	0.74
Uniform Delay, d1		22.0	40.0		20.3	41.0		23.5			30.0	24.7
Progression Factor		1.12	1.05		0.89	0.91		0.98			1.00	1.00
Incremental Delay, d2		1.6	7.4		0.6	8.6		1.2			64.2	4.6
Delay (s)		26.2	49.4		18.7	45.7		24.2			94.2	29.2
Level of Service		C	D		B	D		C			F	C
Approach Delay (s)		32.5			26.4			24.2			70.5	
Approach LOS		C			C			C			E	

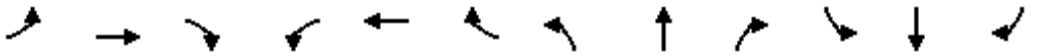
Intersection Summary			
HCM Average Control Delay	38.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	WBR	NBT	SBT	SBR	ø2
Lane Configurations								
Volume (vph)	979	366	1100	440	960	846	487	
Turn Type		custom		custom			Prot	
Protected Phases	1 2	1	1 2	1	4	4	4	2
Permitted Phases								
Detector Phases	1 2	1	1 2	1	4	4	4	
Minimum Initial (s)		8.0		8.0	3.0	3.0	3.0	8.0
Minimum Split (s)		22.0		22.0	24.0	24.0	24.0	22.0
Total Split (s)	56.0	28.0	56.0	28.0	54.0	54.0	54.0	28.0
Total Split (%)	50.9%	25.5%	50.9%	25.5%	49.1%	49.1%	49.1%	25%
Yellow Time (s)		3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)		3.0		3.0	4.0	4.0	4.0	3.0
Lead/Lag		Lead		Lead				Lag
Lead-Lag Optimize?		Yes		Yes				Yes
Recall Mode		C-Max		C-Max	None	None	None	Max
Act Effct Green (s)	52.0	24.0	52.0	24.0	50.0	50.0	50.0	
Actuated g/C Ratio	0.47	0.22	0.47	0.22	0.45	0.45	0.45	
v/c Ratio	0.64	0.74	0.53	0.82	0.67	1.10	0.74	
Control Delay	26.5	50.0	18.8	46.4	25.6	94.3	32.7	
Queue Delay	0.0	0.0	0.6	0.0	0.0	0.0	0.0	
Total Delay	26.5	50.0	19.5	46.4	25.6	94.3	32.7	
LOS	C	D	B	D	C	F	C	
Approach Delay	32.9		27.2		25.6	71.8		
Approach LOS	C		C		C	E		

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 104 (95%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 39.5	Intersection LOS: D
Intersection Capacity Utilization 78.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Commonwealth Avenue & Essex Street





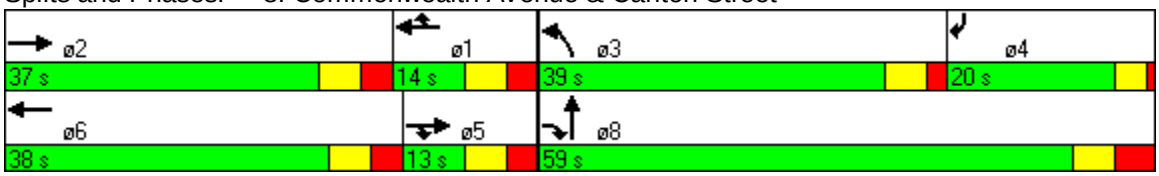
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	12	12	12
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0				4.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95				1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00				1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00				1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.95				0.86
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00				1.00
Satd. Flow (prot)		3455	1499		3455	1484	1745	3284				1644
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00				1.00
Satd. Flow (perm)		3455	1499		3455	1484	1745	3284				1644
Volume (vph)	0	643	336	0	944	81	380	325	160	0	0	261
Peak-hour factor, PHF	0.96	0.96	0.96	0.95	0.95	0.95	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	0	670	350	0	994	85	404	346	170	0	0	284
RTOR Reduction (vph)	0	0	148	0	0	32	0	3	0	0	0	85
Lane Group Flow (vph)	0	670	202	0	994	53	404	513	0	0	0	199
Confl. Peds. (#/hr)			325			842						
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	1%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	10	0	0	10	0	0	0	0	0	0
Turn Type			custom			custom	Prot					custom
Protected Phases		2 5	5 8		1 6	1	3	8				4
Permitted Phases												
Actuated Green, G (s)		40.5	59.5		42.5	7.0	28.7	46.5				15.8
Effective Green, g (s)		46.5	63.5		48.5	10.0	30.7	50.5				15.8
Actuated g/C Ratio		0.42	0.58		0.44	0.09	0.28	0.46				0.14
Clearance Time (s)						7.0	6.0	8.0				4.0
Vehicle Extension (s)						3.0	3.0	3.0				2.0
Lane Grp Cap (vph)		1461	865		1523	135	487	1508				236
v/s Ratio Prot		0.19	0.13		c0.29	0.04	c0.23	0.16				c0.12
v/s Ratio Perm												
v/c Ratio		0.46	0.23		0.65	0.39	0.83	0.34				0.84
Uniform Delay, d1		22.7	11.4		24.1	47.1	37.2	19.1				45.9
Progression Factor		0.68	8.36		0.87	0.83	0.95	1.29				1.00
Incremental Delay, d2		0.2	0.1		2.1	8.0	8.5	0.1				22.3
Delay (s)		15.7	95.1		23.2	46.9	44.0	24.7				68.2
Level of Service		B	F		C	D	D	C				E
Approach Delay (s)		42.9			25.0			33.1			68.2	
Approach LOS		D			C			C			E	

Intersection Summary			
HCM Average Control Delay	36.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBR	ø2	ø5	ø6
Lane Configurations										
Volume (vph)	643	336	944	81	380	325	261			
Turn Type		custom		custom	Prot		custom			
Protected Phases	2 5	5 8	1 6	1	3	8	4	2	5	6
Permitted Phases										
Detector Phases	2 5	5 8	1 6	1	3	8	4			
Minimum Initial (s)				6.0	8.0	6.0	8.0	6.0	6.0	6.0
Minimum Split (s)				13.0	16.0	27.0	19.0	26.0	13.0	13.0
Total Split (s)	50.0	72.0	52.0	14.0	39.0	59.0	20.0	37.0	13.0	38.0
Total Split (%)	45.5%	65.5%	47.3%	12.7%	35.5%	53.6%	18.2%	34%	12%	35%
Yellow Time (s)				4.0	4.0	4.0	3.0	4.0	4.0	4.0
All-Red Time (s)				3.0	2.0	4.0	1.0	3.0	3.0	3.0
Lead/Lag				Lag	Lead		Lag	Lead	Lag	Lead
Lead-Lag Optimize?				Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode				Max	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	46.5	63.5	48.5	10.0	30.7	50.5	15.8			
Actuated g/C Ratio	0.42	0.58	0.44	0.09	0.28	0.46	0.14			
v/c Ratio	0.46	0.35	0.65	0.51	0.83	0.34	0.88			
Control Delay	14.9	8.9	22.5	35.3	46.7	24.0	58.5			
Queue Delay	0.0	2.2	0.0	0.0	0.0	0.0	0.0			
Total Delay	15.0	11.1	22.5	35.3	46.7	24.0	58.5			
LOS	B	B	C	D	D	C	E			
Approach Delay	13.6		23.5			34.0				
Approach LOS	B		C			C				

Intersection Summary			
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 95 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 26.4		Intersection LOS: C	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: Commonwealth Avenue & Carlton Street





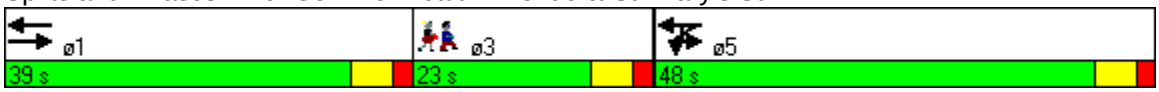
Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	12	12
Total Lost time (s)	4.0			4.0	4.0		
Lane Util. Factor	0.95			1.00	0.95		
Frpb, ped/bikes	0.98			1.00	1.00		
Flpb, ped/bikes	1.00			1.00	1.00		
Frt	0.99			1.00	1.00		
Flt Protected	1.00			0.95	1.00		
Satd. Flow (prot)	3201			1707	3104		
Flt Permitted	1.00			0.95	1.00		
Satd. Flow (perm)	3201			1707	3104		
Volume (vph)	622	68	57	83	958	0	0
Peak-hour factor, PHF	0.87	0.87	0.93	0.93	0.93	0.92	0.92
Adj. Flow (vph)	715	78	61	89	1030	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	793	0	0	150	1030	0	0
Confl. Peds. (#/hr)		323	682	323			
Heavy Vehicles (%)	6%	3%	4%	1%	4%	0%	0%
Parking (#/hr)		10			10		
Turn Type			Prot	Prot			
Protected Phases	1		5	5	1 5		
Permitted Phases	1						
Actuated Green, G (s)	68.0			13.8	87.8		
Effective Green, g (s)	70.0			15.8	89.8		
Actuated g/C Ratio	0.64			0.14	0.82		
Clearance Time (s)	6.0			6.0			
Vehicle Extension (s)	2.0			2.0			
Lane Grp Cap (vph)	2037			245	2534		
v/s Ratio Prot	0.25			c0.09	c0.33		
v/s Ratio Perm							
v/c Ratio	0.39			0.61	0.41		
Uniform Delay, d1	9.7			44.2	2.8		
Progression Factor	0.44			1.38	0.62		
Incremental Delay, d2	0.5			2.8	0.0		
Delay (s)	4.8			64.1	1.7		
Level of Service	A			E	A		
Approach Delay (s)	4.8				9.7	0.0	
Approach LOS	A				A	A	

Intersection Summary			
HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.2
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	ø3
Lane Configurations				
Volume (vph)	622	83	958	
Turn Type		Prot		
Protected Phases	1	5	1 5	3
Permitted Phases	1			
Detector Phases	1	5	1 5	
Minimum Initial (s)	8.0	4.0		4.0
Minimum Split (s)	22.0	21.0		23.0
Total Split (s)	39.0	48.0	87.0	23.0
Total Split (%)	35.5%	43.6%	79.1%	21%
Yellow Time (s)	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0		2.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	None		None
Act Effct Green (s)	72.4	15.8	93.8	
Actuated g/C Ratio	0.66	0.14	0.85	
v/c Ratio	0.38	0.61	0.39	
Control Delay	5.6	69.6	2.5	
Queue Delay	0.0	0.0	0.0	
Total Delay	5.6	69.6	2.6	
LOS	A	E	A	
Approach Delay	5.6		11.1	
Approach LOS	A		B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 23 (21%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 42.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Commonwealth Avenue & St. Mary's St.





Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1803	3292			3104	1770	1482
Flt Permitted	0.24	1.00			1.00	0.95	1.00
Satd. Flow (perm)	452	3292			3104	1770	1482
Volume (vph)	48	684	0	0	901	121	34
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.93	0.93
Adj. Flow (vph)	52	743	0	0	990	130	37
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	52	743	0	0	990	130	37
Confl. Peds. (#/hr)	16					16	502
Heavy Vehicles (%)	0%	6%	0%	0%	4%	2%	9%
Parking (#/hr)			10		10		
Turn Type	D.P+P						Prot
Protected Phases	3	1 3			1	2	2
Permitted Phases	1						
Actuated Green, G (s)	77.4	83.4			67.7	13.6	13.6
Effective Green, g (s)	81.4	85.4			69.7	16.6	16.6
Actuated g/C Ratio	0.74	0.78			0.63	0.15	0.15
Clearance Time (s)	6.0				6.0	7.0	7.0
Vehicle Extension (s)	4.0				4.0	4.0	4.0
Lane Grp Cap (vph)	478	2556			1967	267	224
v/s Ratio Prot	0.01	c0.23			c0.32	c0.07	0.02
v/s Ratio Perm	0.07						
v/c Ratio	0.11	0.29			0.50	0.49	0.17
Uniform Delay, d1	4.6	3.6			10.8	42.8	40.7
Progression Factor	0.74	0.65			1.82	1.00	1.00
Incremental Delay, d2	0.1	0.1			0.9	1.9	0.5
Delay (s)	3.5	2.4			20.6	44.7	41.1
Level of Service	A	A			C	D	D
Approach Delay (s)		2.5			20.6	43.9	
Approach LOS		A			C	D	

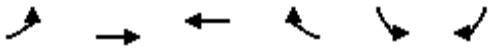
Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBU	EBT	WBT	NBL	NBR
Lane Configurations					
Volume (vph)	48	684	901	121	34
Turn Type	D.P+P				Prot
Protected Phases	3	1 3	1	2	2
Permitted Phases	1				
Detector Phases	3	1 3	1	2	2
Minimum Initial (s)	1.0		4.0	8.0	8.0
Minimum Split (s)	21.0		31.0	20.0	20.0
Total Split (s)	21.0	89.0	68.0	21.0	21.0
Total Split (%)	19.1%	80.9%	61.8%	19.1%	19.1%
Yellow Time (s)	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	3.0	3.0
Lead/Lag			Lead	Lag	Lag
Lead-Lag Optimize?			Yes	Yes	Yes
Recall Mode	None		C-Max	None	None
Act Effct Green (s)	81.4	85.4	69.7	16.6	16.6
Actuated g/C Ratio	0.74	0.78	0.63	0.15	0.15
v/c Ratio	0.11	0.29	0.50	0.49	0.17
Control Delay	2.7	2.6	21.2	49.5	42.6
Queue Delay	0.0	0.1	0.6	0.0	0.0
Total Delay	2.7	2.7	21.8	49.5	42.6
LOS	A	A	C	D	D
Approach Delay		2.7	21.8	48.0	
Approach LOS		A	C	D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 101 (92%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 42.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Commonwealth Avenue & Cummington Street





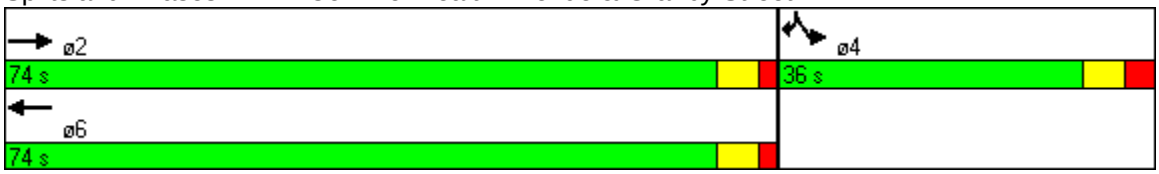
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	12	12	12
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3045	3355		1504	1333
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3045	3355		1504	1333
Volume (vph)	0	720	723	0	68	152
Peak-hour factor, PHF	0.92	0.92	0.90	0.90	0.86	0.86
Adj. Flow (vph)	0	783	803	0	79	177
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	783	803	0	79	177
Confl. Peds. (#/hr)					345	303
Heavy Vehicles (%)	0%	6%	4%	0%	2%	3%
Parking (#/hr)		10		10	10	10
Turn Type						Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		77.8	77.8		19.2	19.2
Effective Green, g (s)		79.8	79.8		22.2	22.2
Actuated g/C Ratio		0.73	0.73		0.20	0.20
Clearance Time (s)		6.0	6.0		7.0	7.0
Vehicle Extension (s)		2.0	2.0		2.0	2.0
Lane Grp Cap (vph)		2209	2434		304	269
v/s Ratio Prot		c0.26	0.24		0.05	c0.13
v/s Ratio Perm						
v/c Ratio		0.35	0.33		0.26	0.66
Uniform Delay, d1		5.6	5.5		37.0	40.4
Progression Factor		1.27	1.09		1.00	1.00
Incremental Delay, d2		0.4	0.3		0.2	4.4
Delay (s)		7.5	6.3		37.1	44.8
Level of Service		A	A		D	D
Approach Delay (s)		7.5	6.3		42.4	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Volume (vph)	720	723	68	152
Turn Type				Prot
Protected Phases	2	6	4	4
Permitted Phases				
Detector Phases	2	6	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	46.0	46.0	29.0	29.0
Total Split (s)	74.0	74.0	36.0	36.0
Total Split (%)	67.3%	67.3%	32.7%	32.7%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	3.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	None
Act Effct Green (s)	79.8	79.8	22.2	22.2
Actuated g/C Ratio	0.73	0.73	0.20	0.20
v/c Ratio	0.35	0.33	0.26	0.66
Control Delay	8.3	6.8	37.8	51.9
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	8.4	6.9	37.8	51.9
LOS	A	A	D	D
Approach Delay	8.4	6.9	47.6	
Approach LOS	A	A	D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 68 (62%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 44.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Commonwealth Avenue & Granby Street



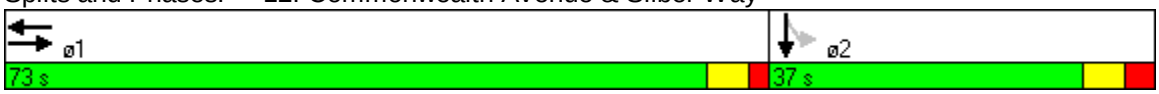
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	11	11	12	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0						4.0	
Lane Util. Factor		0.95			0.95						1.00	
Frpb, ped/bikes		1.00			0.86						0.80	
Flpb, ped/bikes		1.00			1.00						0.72	
Frt		1.00			0.97						0.94	
Flt Protected		1.00			1.00						0.97	
Satd. Flow (prot)		3261			2814						987	
Flt Permitted		1.00			1.00						0.97	
Satd. Flow (perm)		3261			2814						987	
Volume (vph)	0	787	0	0	671	135	0	0	0	74	0	61
Peak-hour factor, PHF	0.90	0.90	0.90	0.97	0.97	0.97	0.50	0.50	0.50	0.84	0.84	0.84
Adj. Flow (vph)	0	874	0	0	692	139	0	0	0	88	0	73
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	874	0	0	831	0	0	0	0	0	161	0
Confl. Peds. (#/hr)			655	655		779	408		593	593		408
Heavy Vehicles (%)	0%	7%	5%	0%	5%	2%	0%	100%	0%	2%	6%	0%
Parking (#/hr)			10			20			10			10
Turn Type										Perm		
Protected Phases		1			1						2	
Permitted Phases										2		
Actuated Green, G (s)		74.3			74.3						22.7	
Effective Green, g (s)		76.3			76.3						25.7	
Actuated g/C Ratio		0.69			0.69						0.23	
Clearance Time (s)		6.0			6.0						7.0	
Vehicle Extension (s)		4.0			4.0						4.0	
Lane Grp Cap (vph)		2262			1952						231	
v/s Ratio Prot		0.27			c0.30							
v/s Ratio Perm											0.16	
v/c Ratio		0.39			0.43						0.70	
Uniform Delay, d1		7.1			7.3						38.6	
Progression Factor		1.70			0.26						1.00	
Incremental Delay, d2		0.5			0.1						9.5	
Delay (s)		12.5			2.0						48.1	
Level of Service		B			A						D	
Approach Delay (s)		12.5			2.0			0.0			48.1	
Approach LOS		B			A			A			D	

Intersection Summary			
HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBT
Lane Configurations			
Volume (vph)	787	671	0
Turn Type			
Protected Phases	1	1	2
Permitted Phases			
Detector Phases	1	1	2
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	35.0	35.0	21.0
Total Split (s)	73.0	73.0	37.0
Total Split (%)	66.4%	66.4%	33.6%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0
Lead/Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	76.3	76.3	25.7
Actuated g/C Ratio	0.69	0.69	0.23
v/c Ratio	0.39	0.43	0.70
Control Delay	14.0	2.3	53.8
Queue Delay	0.0	0.0	0.0
Total Delay	14.0	2.3	53.8
LOS	B	A	D
Approach Delay	14.0	2.3	53.8
Approach LOS	B	A	D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 18 (16%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 50.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Commonwealth Avenue & Silber Way



Movement	EBT	EBR	EBR2	NBR2	SBR2	NER	NER2	SWL2	SWL	SWT	SWR	SWR2
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	4.0			4.0	4.0		
Lane Util. Factor	0.91			0.88	1.00	0.88			0.86	0.86		
Frpb, ped/bikes	0.95			1.00	1.00	1.00			1.00	0.71		
Flpb, ped/bikes	1.00			1.00	1.00	1.00			0.70	1.00		
Frt	0.98			0.85	0.86	0.85			1.00	0.94		
Flt Protected	1.00			1.00	1.00	1.00			0.95	1.00		
Satd. Flow (prot)	4557			2707	1644	2820			2045	2117		
Flt Permitted	1.00			1.00	1.00	1.00			0.95	1.00		
Satd. Flow (perm)	4557			2707	1644	2820			2045	2117		
Volume (vph)	572	44	53	468	38	582	158	66	260	944	667	25
Peak-hour factor, PHF	0.93	0.93	0.93	0.91	0.62	0.93	0.93	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	615	47	57	514	61	626	170	68	268	973	688	26
RTOR Reduction (vph)	9	0	0	0	43	20	0	0	17	0	0	0
Lane Group Flow (vph)	710	0	0	514	18	776	0	0	319	1687	0	0
Confl. Peds. (#/hr)		170		98	50	98			170		64	454
Heavy Vehicles (%)	6%	5%	7%	5%	0%	1%	0%	3%	8%	1%	4%	4%
Parking (#/hr)			20									20
Turn Type				custom	custom	custom		Perm	Prot			
Protected Phases	2			3	2	1			3	1 3		
Permitted Phases								1 3				
Actuated Green, G (s)	27.0			37.0	27.0	25.0			37.0	62.0		
Effective Green, g (s)	32.0			37.0	32.0	29.0			37.0	66.0		
Actuated g/C Ratio	0.29			0.34	0.29	0.26			0.34	0.60		
Clearance Time (s)	9.0			4.0	9.0	8.0			4.0			
Vehicle Extension (s)	2.0			2.0	2.0	2.0			2.0			
Lane Grp Cap (vph)	1326			911	478	743			688	1347		
v/s Ratio Prot	c0.16			0.19	0.01	0.28				c0.42		
v/s Ratio Perm									0.16	0.38		
v/c Ratio	0.54			0.56	0.04	1.04			0.46	4.86dr		
Uniform Delay, d1	32.8			29.9	28.0	40.5			28.7	22.0		
Progression Factor	0.97			1.00	1.00	1.00			1.00	1.00		
Incremental Delay, d2	1.4			0.5	0.1	45.2			0.2	119.9		
Delay (s)	33.2			30.4	28.1	85.7			28.9	141.9		
Level of Service	C			C	C	F			C	F		
Approach Delay (s)	33.2									123.1		
Approach LOS	C									F		

Intersection Summary			
HCM Average Control Delay	87.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

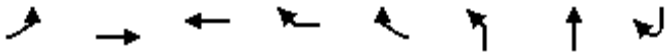
Lane Group	EBT	NBR2	SBR2	NER	SWL	SWT
Lane Configurations						
Volume (vph)	572	468	38	582	260	944
Turn Type		custom	custom	custom	Prot	
Protected Phases	2	3	2	1	3	1 3
Permitted Phases						
Detector Phases	2	3	2	1	3	1 3
Minimum Initial (s)	17.0	12.0	17.0	12.0	12.0	
Minimum Split (s)	27.0	23.0	27.0	29.0	23.0	
Total Split (s)	36.0	41.0	36.0	33.0	41.0	74.0
Total Split (%)	32.7%	37.3%	32.7%	30.0%	37.3%	67.3%
Yellow Time (s)	4.0	3.0	4.0	4.0	3.0	
All-Red Time (s)	5.0	1.0	5.0	4.0	1.0	
Lead/Lag	Lag		Lag	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	C-Max	None	C-Max	None	None	
Act Effct Green (s)	32.0	37.0	32.0	29.0	37.0	66.0
Actuated g/C Ratio	0.29	0.34	0.29	0.26	0.34	0.60
v/c Ratio	0.54	0.56	0.08	1.04	0.48	4.86dr
Control Delay	32.9	32.8	0.2	83.1	29.2	529.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	32.8	0.2	83.1	29.2	529.3
LOS	C	C	A	F	C	F
Approach Delay	32.9					446.2
Approach LOS	C					F

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 81 (74%), Referenced to phase 2:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.12
Intersection Signal Delay: 245.4 Intersection LOS: F
Intersection Capacity Utilization Err% ICU Level of Service H
Analysis Period (min) 15
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 13: Commonwealth Avenue & Beacon Street





Movement	EBL	EBT	WBT	WBR	WBR2	NBL	NBT	SBR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	16	16	12	12	12
Total Lost time (s)	4.0	4.0	4.0			4.0	4.0	4.0
Lane Util. Factor	0.91	0.91	0.95			1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96			1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00	1.00	1.00
Frt	1.00	1.00	0.85			1.00	1.00	0.86
Flt Protected	0.95	0.99	1.00			0.95	1.00	1.00
Satd. Flow (prot)	1643	3438	2929			1805	1900	1644
Flt Permitted	0.95	0.99	1.00			0.95	1.00	1.00
Satd. Flow (perm)	1643	3438	2929			1805	1900	1644
Volume (vph)	390	584	21	395	323	179	190	336
Peak-hour factor, PHF	0.92	0.92	0.96	0.96	0.96	0.89	0.89	0.92
Adj. Flow (vph)	424	635	22	411	336	201	213	365
RTOR Reduction (vph)	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	341	718	769	0	0	201	213	365
Confl. Peds. (#/hr)	20			20		9		
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%	0%	0%
Turn Type	Split					Split		Free
Protected Phases	1	1	2			3	3	
Permitted Phases								Free
Actuated Green, G (s)	32.0	32.0	44.7			15.8	15.8	110.0
Effective Green, g (s)	33.5	33.5	46.7			17.8	17.8	110.0
Actuated g/C Ratio	0.30	0.30	0.42			0.16	0.16	1.00
Clearance Time (s)	5.5	5.5	6.0			6.0	6.0	
Vehicle Extension (s)	3.0	3.0	2.0			2.0	2.0	
Lane Grp Cap (vph)	500	1047	1243			292	307	1644
v/s Ratio Prot	0.21	c0.21	c0.26			0.11	c0.11	
v/s Ratio Perm								0.22
v/c Ratio	0.68	0.69	1.14dr			0.69	0.69	0.22
Uniform Delay, d1	33.6	33.6	24.7			43.5	43.5	0.0
Progression Factor	0.67	0.68	0.83			1.00	1.00	1.00
Incremental Delay, d2	0.9	0.5	1.6			5.3	5.4	0.3
Delay (s)	23.5	23.4	22.1			48.8	48.9	0.3
Level of Service	C	C	C			D	D	A
Approach Delay (s)		23.4	22.1				48.9	
Approach LOS		C	C				D	

Intersection Summary			
HCM Average Control Delay	23.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBL	NBT	SBR2
Lane Configurations						
Volume (vph)	390	584	21	179	190	336
Turn Type	Split			Split		Free
Protected Phases	1	1	2	3	3	
Permitted Phases						Free
Detector Phases	1	1	2	3	3	
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	20.5	20.5	23.0	21.0	21.0	
Total Split (s)	33.0	33.0	38.0	39.0	39.0	0.0
Total Split (%)	30.0%	30.0%	34.5%	35.5%	35.5%	0.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.5	2.5	3.0	3.0	3.0	
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	C-Max	None	None	
Act Effct Green (s)	33.5	33.5	46.7	17.8	17.8	110.0
Actuated g/C Ratio	0.30	0.30	0.42	0.16	0.16	1.00
v/c Ratio	0.68	0.69	1.14dr	0.69	0.69	0.22
Control Delay	23.8	23.4	25.1	55.4	55.0	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	23.4	25.1	55.4	55.0	0.3
LOS	C	C	C	E	E	A
Approach Delay		23.5	25.1		55.2	
Approach LOS		C	C		E	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 39 (35%), Referenced to phase 2:WBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 25.8	Intersection LOS: C
Intersection Capacity Utilization 65.0%	ICU Level of Service C
Analysis Period (min) 15	

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 18: Mountfort Street & Carlton Street

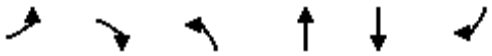




Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	22	4	13	13	15	2
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Hourly flow rate (vph)	31	6	18	18	21	3
Pedestrians	8			38	42	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			3	4	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			78		138	113
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			78		138	113
tC, single (s)			4.1		6.4	6.7
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.8
p0 queue free %			99		97	100
cM capacity (veh/h)			1479		815	770

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	36	36	24
Volume Left	0	18	21
Volume Right	6	0	3
cSH	1700	1479	809
Volume to Capacity	0.02	0.01	0.03
Queue Length 95th (ft)	0	1	2
Control Delay (s)	0.0	3.8	9.6
Lane LOS		A	A
Approach Delay (s)	0.0	3.8	9.6
Approach LOS			A

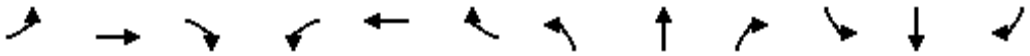
Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	2	45	35	14	6	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	53	41	16	7	0
Pedestrians	21			82	102	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	2			7	8	
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				762		
pX, platoon unblocked						
vC, conflicting volume	229	110	28			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	229	110	28			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	100	94	97			
cM capacity (veh/h)	668	835	1551			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	55	58	7
Volume Left	2	41	0
Volume Right	53	0	0
cSH	826	1551	1700
Volume to Capacity	0.07	0.03	0.00
Queue Length 95th (ft)	5	2	0
Control Delay (s)	9.7	5.3	0.0
Lane LOS	A	A	
Approach Delay (s)	9.7	5.3	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	7.0		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	81	49	16	0	15	0	46	6	6	23	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	9	87	53	17	0	16	0	49	6	6	25	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	148	33	56	31
Volume Left (vph)	9	17	0	6
Volume Right (vph)	53	16	6	0
Hadj (s)	-0.20	-0.19	-0.04	0.04
Departure Headway (s)	3.9	4.0	4.3	4.4
Degree Utilization, x	0.16	0.04	0.07	0.04
Capacity (veh/h)	893	860	799	783
Control Delay (s)	7.7	7.2	7.6	7.6
Approach Delay (s)	7.7	7.2	7.6	7.6
Approach LOS	A	A	A	A

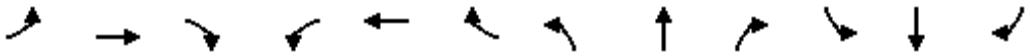
Intersection Summary			
Delay	7.6		
HCM Level of Service	A		
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations								
Sign Control		Stop				Free	Free	
Grade		0%				0%	0%	
Volume (veh/h)	1	3	92	1	17	64	84	2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	3	106	0	20	74	97	2
Pedestrians		49				16	20	
Lane Width (ft)		12.0				12.0	12.0	
Walking Speed (ft/s)		4.0				4.0	4.0	
Percent Blockage		4				1	2	
Right turn flare (veh)								
Median type		None						
Median storage veh)								
Upstream signal (ft)						442		
pX, platoon unblocked	0.00			0.00				
vC, conflicting volume	0	279	163	0	148			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	0	279	163	0	148			
tC, single (s)	0.0	6.4	6.2	0.0	4.1			
tC, 2 stage (s)								
tF (s)	0.0	3.5	3.3	0.0	2.2			
p0 queue free %	0	99	87	0	99			
cM capacity (veh/h)	0	665	835	0	1387			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	109	93	99
Volume Left	3	20	0
Volume Right	106	0	2
cSH	828	1387	1700
Volume to Capacity	0.13	0.01	0.06
Queue Length 95th (ft)	11	1	0
Control Delay (s)	10.0	1.7	0.0
Lane LOS	B	A	
Approach Delay (s)	10.0	1.7	0.0
Approach LOS	B		

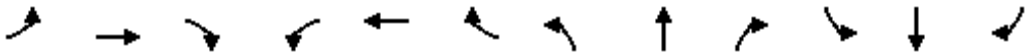
Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	63	134	38	0	0	0	1	0	9	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	0	0	76	161	46	0	0	0	1	0	11	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	76	207	1	12
Volume Left (vph)	0	161	0	0
Volume Right (vph)	76	0	1	1
Hadj (s)	-0.46	0.18	-0.60	-0.06
Departure Headway (s)	3.7	4.2	3.9	4.4
Degree Utilization, x	0.08	0.24	0.00	0.01
Capacity (veh/h)	963	854	849	749
Control Delay (s)	7.0	8.5	6.9	7.5
Approach Delay (s)	7.0	8.5	6.9	7.5
Approach LOS	A	A	A	A

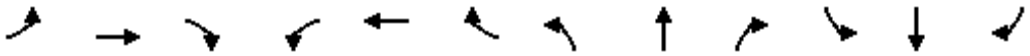
Intersection Summary			
Delay	8.1		
HCM Level of Service	A		
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	85	148	6	80	44	0	0	9	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	0	1	93	163	7	88	48	0	0	10	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	263	136	21
Volume Left (vph)	0	93	88	0
Volume Right (vph)	1	7	0	11
Hadj (s)	-0.60	0.09	0.17	-0.23
Departure Headway (s)	4.0	4.4	4.7	4.5
Degree Utilization, x	0.00	0.32	0.18	0.03
Capacity (veh/h)	848	790	723	744
Control Delay (s)	7.0	9.4	8.7	7.6
Approach Delay (s)	7.0	9.4	8.7	7.6
Approach LOS	A	A	A	A

Intersection Summary				
Delay	9.1			
HCM Level of Service	A			
Intersection Capacity Utilization	40.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	25	206	4	19	15	0	0	4	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	1	26	217	4	20	16	0	0	4	13

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	247	36	17
Volume Left (vph)	0	26	20	0
Volume Right (vph)	1	4	0	13
Hadj (s)	-0.60	0.04	0.16	-0.45
Departure Headway (s)	3.7	4.1	4.6	4.0
Degree Utilization, x	0.00	0.28	0.05	0.02
Capacity (veh/h)	950	873	733	825
Control Delay (s)	6.7	8.6	7.8	7.1
Approach Delay (s)	6.7	8.6	7.8	7.1
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.4		
HCM Level of Service	A		
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

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			4.0	
Lane Util. Factor		0.95			0.95			1.00			0.95	
Frpb, ped/bikes		0.99			1.00			1.00			0.91	
Flpb, ped/bikes		1.00			1.00			0.79			0.84	
Frt		0.99			1.00			1.00			0.96	
Flt Protected		1.00			1.00			0.95			0.98	
Satd. Flow (prot)		3484			3504			1419			2523	
Flt Permitted		1.00			0.82			0.54			0.82	
Satd. Flow (perm)		3484			2872			812			2105	
Volume (vph)	0	533	47	2	496	0	14	0	0	74	50	45
Peak-hour factor, PHF	0.96	0.96	0.96	0.86	0.86	0.86	0.50	0.50	0.50	0.74	0.74	0.74
Adj. Flow (vph)	0	555	49	2	577	0	28	0	0	100	68	61
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	0	0	39	0
Lane Group Flow (vph)	0	599	0	0	579	0	0	28	0	0	190	0
Confl. Peds. (#/hr)			54	54			148		229	229		148
Heavy Vehicles (%)	0%	2%	0%	0%	3%	0%	0%	0%	0%	3%	4%	2%
Turn Type				Perm			Perm			Perm		
Protected Phases		7			5			1			1	
Permitted Phases				5			1			1		
Actuated Green, G (s)		34.8			25.1			21.7			21.7	
Effective Green, g (s)		34.8			25.1			21.7			21.7	
Actuated g/C Ratio		0.32			0.23			0.20			0.20	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)		1102			655			160			415	
v/s Ratio Prot		c0.17										
v/s Ratio Perm					c0.20			0.03			c0.09	
v/c Ratio		0.54			0.88			0.18			0.46	
Uniform Delay, d1		31.0			41.0			36.7			39.0	
Progression Factor		0.72			1.00			1.00			1.29	
Incremental Delay, d2		0.2			13.1			2.4			3.4	
Delay (s)		22.5			54.2			39.1			53.6	
Level of Service		C			D			D			D	
Approach Delay (s)		22.5			54.2			39.1			53.6	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM Average Control Delay	40.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	28.4
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT	ø2
Lane Configurations								
Volume (vph)	533	2	496	14	0	74	50	
Turn Type		Perm		Perm		Perm		
Protected Phases	7		5		1		1	2
Permitted Phases		5		1		1		
Detector Phases	7	5	5	1	1	1	1	
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.0
Minimum Split (s)	14.0	14.0	14.0	31.0	31.0	31.0	31.0	20.0
Total Split (s)	16.0	37.0	37.0	37.0	37.0	37.0	37.0	20.0
Total Split (%)	14.5%	33.6%	33.6%	33.6%	33.6%	33.6%	33.6%	18%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag				Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min	C-Min	Min
Act Effct Green (s)	34.8		25.1		21.7		21.7	
Actuated g/C Ratio	0.32		0.23		0.20		0.20	
v/c Ratio	0.55		0.86		0.17		0.51	
Control Delay	25.3		54.0		40.0		44.1	
Queue Delay	0.0		0.0		0.0		0.0	
Total Delay	25.3		54.0		40.0		44.1	
LOS	C		D		D		D	
Approach Delay	25.3		54.0		40.0		44.1	
Approach LOS	C		D		D		D	

Intersection Summary			
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 74 (67%), Referenced to phase 1:NBSB, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 40.1		Intersection LOS: D	
Intersection Capacity Utilization 32.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 45: Mountfort Street & St. Mary's St.

