Project Notification Form

THE SKATING CLUB OF BOSTON

Allston, Massachusetts

PREPARED BY

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SUBMITTED BY

The Skating Club of Boston

1240 Soldiers Field Road
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IN ASSOCIATION WITH

Colliers International

ARC/Architectural Resources Cambridge

Rackemann Sawyer & Brewster

Nitsch Engineering

Rist-Frost-Shumway Engineering

Haley & Aldrich, Inc

November 2013

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Submitted by	The Skating Club of Boston 1240 Soldiers Field Road Boston, MA 02135
Prepared by	**VHB/Vanasse Hangen Brustlin, Inc.** **99 High Street, 10th Floor** **Boston, Massachusetts 02110**
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Project Description and Impact Summary

Skating Club of Boston

The Skating Club of Boston (herein referred to as "Proponent", "Skating Club" or "SCoB") was founded in 1912 and is the third oldest skating club in the country. The Proponent currently occupies a single rink located at 1240 Soldiers Field Road in Allston/Brighton, which was constructed in 1938. The Skating Club of Boston is widely recognized as a national leader in premier ice skating training and education, and has developed numerous members to Olympic and national success.

In addition to membership instruction, the Skating Club of Boston also provides a wide variety of public programming that benefits the Allston/Brighton community and the City of Boston. The Skating Club of Boston operates and manages the Frog Pond on Boston Common year round, providing instruction and public ice during the skating season and family-based programming the rest of the year. Ice skating on the Frog Pond is a much-beloved Boston tradition, made possible by the expertise of the Skating Club of Boston's professional ice management staff. Additional programs currently offered and planned for the future facility by the Skating Club are as follows:

Skating Academy

- 1,800 students currently enrolled;
- Limited programming at 1240 Soldiers Field Road because of ice availability;
- Adding weekday, advanced beginner and adult classes in planned ice schedule at new facility; and,
- Planned 6 hours additional learn-to-skate programming each week for new facility, doubling outreach to beginners.

Skate Therapy Boston

- A recently organized Skating Club program for kids with mental, physical and emotional challenges;

- Currently one day per week; and,
- The Skating Club will be able to guarantee consistent ice for this well-received program in its new facility.

Skating in the Schools

- Skating in the Schools is an innovative collaboration integrating the Boston Public Schools, Boston Parks & Recreation Department and The Skating Club of Boston. The program is managed by the SCoB's Skating Academy, and is designed to connect the students' experience of learning how to ice skate to concepts of physical science, technology, engineering, sports science, and health and wellness;
- The program is currently limited to ice availability at the Boston Common Frog Pond due to full schedule at the existing Brighton facility;
- With current underwriting from The Friends of the Public Garden and the P&G Fund, the program will be expanded to additional schools once more ice is available; and,
- Additional information on this program, including a magazine article published in July 2013, can be found in **Appendix A**.

Hockey Leagues

- SCoB currently operates late-night hockey for adult pick-up games seven days per week. A more formal adult professionals league is expected to be established once a new facility is available; and,
- Afternoon, evening, and weekend hockey is planned in Rink 3, the one rink planned to be set up for hockey use.

Recreational and Competitive Speed Skating

- Training for speed skating has not been available in Boston for almost 2 decades but will be possible when the new facility opens;
- An Olympic size ice sheet will bring back to Boston the area's premier speed skating club for training, skating school, and special events introducing the sport to the public;
- The opportunity to host speed skating Olympic trials in a 2,000 seat performance center will be available at the new facility - the only suitable venue available in Boston for such an event; and,
- The proposed facility provides an important opportunity to guarantee ice for a sport that has been squeezed out of ice rinks by burgeoning hockey and figure skating programs.

Public Skating

- Currently limited to 2.5 hours per week: Tuesdays (9:40 PM– 10:30 PM) and Saturdays (3:30 PM – 5:00 PM); and,
- The planned schedule for the proposed facility will include ice for public skating three times per week for a minimum of 10 hours of public skating each week, quadrupling public skating opportunities.

The proposed facility will accomplish several key objectives for the Skating Club of Boston as it looks forward to the next chapter in its 100-year history in Boston, and will result in the creation of a major new community recreational amenity, new streetscape improvements, and myriad other public benefits, including expanded and inclusive membership opportunities for the public.

Project Description

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Project Description

The Project is a state-of-the-art, world-class ice skating facility featuring 3 ice rinks in an approximately 190,000 square foot facility (the "Proposed Project"). The main ice rink will host a variety of Skating Club programs and events of varying sizes. Two secondary ice rinks will host Skating Club programs, community programs, hockey-related activities, and other skating programs. The Skating Club is currently recognized around the world as an international leader in figure skating education and training, having sent numerous individuals to National and Olympic prominence. The Proposed Project will be known as an international hub of figure skating education and activity, while expanding the Skating Club's core mission of providing ice skating education and programming for residents of the Allston/Brighton community and the City of Boston as a whole.

The Proposed Project will be developed in two phases: the first phase (Phase I) will consist of approximately 165,000 square feet in a two-story structure containing the primary ice skating facilities, including the 3 rinks and all support and accessory spaces. The second phase (Phase II) will include approximately 25,000 square feet of additional office, recreational, and/or retail space, or additional Phase I accessory space. Phase II will be developed on the northern edge of the Phase I building in a two-story structure that will complete the project Site's redevelopment. The Project Site Plan is shown in **Figure 1-1**. The construction cost of the Proposed Project is anticipated to be approximately $45 million.

Site Description

The Proposed Project will be located on a 5.2-acre level site bounded by Everett Street to the east, Lincoln Street to the south, a former railroad right-of-way currently owned by an affiliate of Harvard University to the west, and the property currently owned by an affiliate of Harvard University located at 100 Holton Street to the north (the "Project Site"), as shown in **Figure 1-2**. The Project Site is currently improved with a vacant approximately 450,000 square-foot structure known as the Boston Tech Center, a project partially completed in 2000 that redeveloped and added to the former Casey & Hayes warehouse complex that occupied the Project Site for many decades prior to its redevelopment. The Project Site enjoys visual prominence from the Massachusetts Turnpike (I-90) and is surrounded with a mix of commercial, light industrial, self-storage, and residential uses. Access to and from the Project Site is provided by Everett Street and Lincoln Street. The existing survey of the Site is shown in **Figure 1-3**.

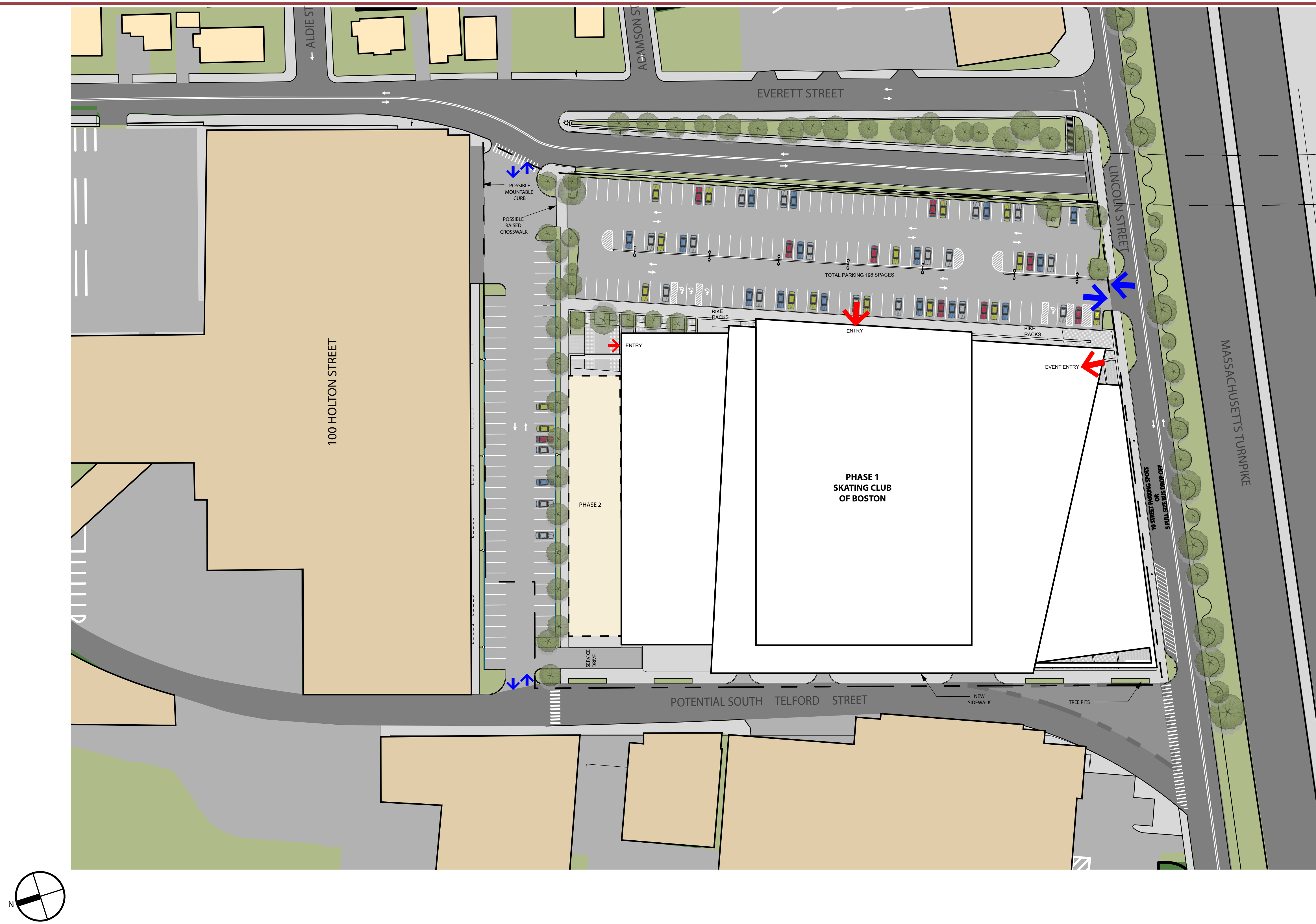
Public Benefits

The development of the Proposed Project will generate numerous public benefits for the surrounding neighborhood as a result of the creation of a new state-of-the-art recreational facility. These public benefits fall into two categories, as outlined below.

Community Benefits

Development of the Proposed Project will result in significant community benefits to the City and its residents, including:

- Additional public programming for Allston/Brighton residents, including youth learn-to-skate programs and free skate ice time;
- Available ice time for youth and Boston Public School hockey teams;
- Opportunities to use the Proposed Project's other fitness facilities, dance studios, function spaces, and other amenities;
- Creation of approximately 15 new full-time jobs for the SCoB; and
- Creation of over 250 construction jobs related to the Proposed Project.



The Skating Club of Boston

176 Lincoln Street Allston, MA

ARC Architectural Resources Cambridge

VHB Vanasse Hangen Brustlin, Inc.

Figure 1-1

Proposed Site Plan

The Skating Club of Boston

176 Lincoln Street Allston, MA

VHB *Vanasse Hangen Brustlin, Inc.*

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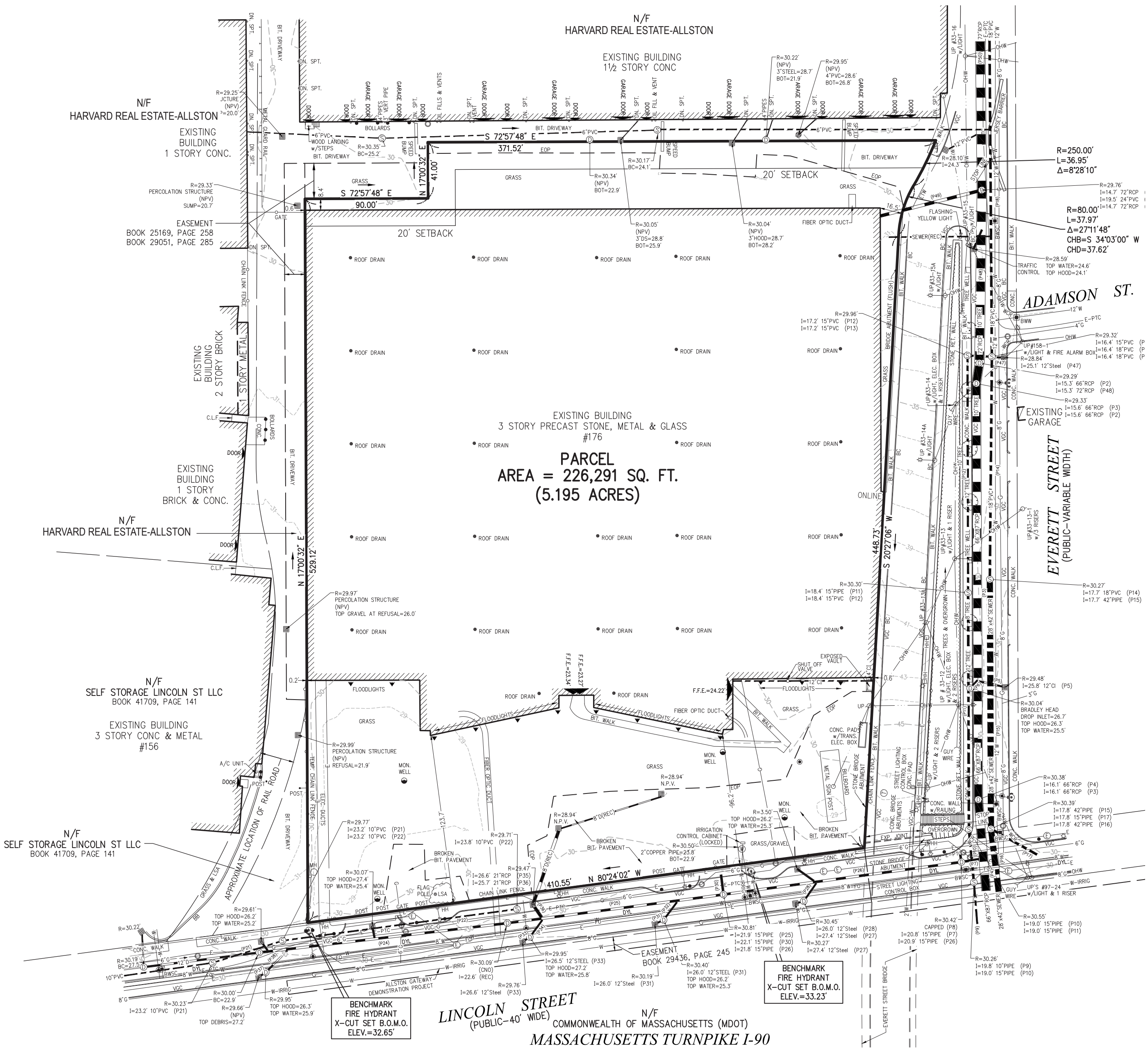
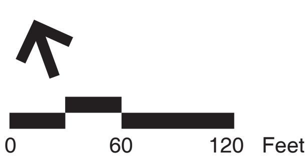
Figure 1-2

Locus Map





The Skating Club of Boston

176 Lincoln Street Allston, MA

VHB Vanasse Hangen Brustlin, Inc.

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Figure 1-3

Exiting Survey

Urban Design Benefits

The Proposed Project will enhance the Everett Street and Lincoln Street corridors adjacent to the Proposed SCoB facility. These improvements will include the following:

- New granite curbing & concrete paving, resulting in ADA/AAB-compliant sidewalks on site bordering the parking lot, along Lincoln Street and the west side of the property along the potential South Telford Street expansion pursuant to City of Boston standards;
- New access drive connecting Everett Street and the potential South Telford Street expansion. Streetscape improvements along the new access drive include:
  - Trees lining portions of the driveway closest to the new Skating Club facility,
  - Enhanced street lighting, and
  - Adjacent concrete sidewalks.
- New street furniture, lighting, and other amenities on public streets adjacent to the Proposed Project; and
- Installation of public bicycle storage racks in close proximity to the Project Site pursuant to City of Boston standards.

Schedule

The following list provides a preliminary assessment of the construction schedule for the Proposed Project:

Project Review, Approval, and Permitting	Fall 2013 – Spring 2014
Design Completion	Spring 2014
Start Site Excavation and Construction	June 2014
Completion/Occupancy	Fall 2015

It is anticipated that the Project construction will commence by June 2014. The entire construction schedule is anticipated to be approximately 14 months with completion in Fall 2015.

Community Outreach

The Proposed Project is at the early stages of the public review process. A Letter of Intent to develop the Proposed Project was submitted to the BRA on September 24, 2012. The Proponent has met periodically with BRA staff and the staff of other City

Departments to review specific aspects of the development proposal in advance of this filing, which begins the Proposed Project's formal public review process.

An Impact Advisory Group has been formed and the Skating Club looks forward to working with its longtime neighbors and other stakeholders during the course of the Article 80B Large Project Review process.

Project Impacts

This section summarizes the Proposed Project's impacts, including transportation, environmental protection, and infrastructure. In depth discussions of the analysis completed and results provided can be found in Chapter 4, Chapter 5, and Chapter 6 of this report.

Transportation

The evaluation of existing and future transportation infrastructure and operations of the Skating Club is presented in Chapter 4, *Transportation*. A summary of key findings of the transportation component for the Proposed Project is as follows:

- The Proposed Project will generate approximately 27 entering and 13 exiting additional vehicle trips during the weekday morning peak hour and approximately 119 entering and 78 exiting vehicle trips during the weekday evening peak hour. The Site is currently permitted for the approved Boston Tech Center which will generate 340 trips during the morning peak hour (260 in/80 out) and 330 trips during the evening peak hour (120 in/210 out). The Proposed Project reduces trip generation during both peaks, in both directions.
- The Study Area intersections will continue to operate at the same levels of service when the Proposed Project opens as under the future No-Build Condition, with the exception of Cambridge Street at Lincoln Street and Lincoln Street at Everett Street Extension. However, both intersections will still operate at an acceptable LOS C during weekday evening peak hour under future Build Conditions.
- Most trips to and from the Proposed Skating Club will be made via automobile due to the nature of the Skating Club activities and where their members reside.
- The Skating Club is committed to designing and installing ADA/AAB sidewalks, ramps, and crosswalks to safely and efficiently manage pedestrian activity on and around the Site.
- A drop-off/pick-up area, large enough for ten cars, will be provided along Lincoln Street. This will also serve as a bus drop-off/pick-up for up to five

full-sized coach buses, supporting occasional events and performances to be held at the new facility once completed.

- On-site parking will include approximately 198 spaces, 27 of which will be subject to a shared parking arrangement with 100 Holton Street located immediately adjacent to the Project Site, which will support the daily parking demands generated by the Project. The Site is currently permitted to support up to 652 parking spaces as stipulated in the approved Boston Tech Center project. The Proposed Project reduces the Site's future parking supply by 454 spaces (or by approximately 69 percent).
- Additional parking demands that will be generated during occasional events hosted at the Skating Club will be accommodated in defined off-site parking lots including within the eight (8) parking spaces located on the portion of the abutting 100 Holton Street property immediately adjacent to the northwest property line of the Site pursuant to a shared parking arrangement with the owner of 100 Holton Street. A shuttle bus service will be contracted to transport attendees from these off-site lots to and from the Skating Club during these events, identical to how events are accommodated at their existing facility on Soldiers Field Road.
- There will be a dedicated off-street loading area provided on site to minimize impacts on adjacent streets.
- Zamboni activities will be accommodated inside the facility. The Zamboni's will not be permitted to drive on city streets and ice shavings will be managed via the use of melters located inside the facility.

Environmental Protection

Details of each of these environmental components described below are provided in Chapter 5, *Environmental Protection Component*.

Wind

The Proposed Project will have a net beneficial impact on wind conditions in the vicinity of the Project Site as a result of the reduction in height of the existing streetwalls along Everett Street and the potential South Telford Street alignment from just under 60 feet in the existing condition to between 35 and 55 feet in the proposed condition.

Shadow

Overall, the Proposed Project will have no material net-new shadow impact on the surrounding community, and in general shadow impacts will be decreased as a result of the Proposed Project's development.

Daylight

The Proposed Project will result in a significant decrease in obstruction of daylight along Everett Street. With the proposed off-set from the street, the building will only obstruct 12.8% of daylight compared to the existing 64.4% obstruction. The majority of residential homes and pedestrian activity occurs along Everett Street, which will be improved in comparison to existing conditions. An increase in obstruction will occur on Lincoln Street and the potential South Telford Street.

Solar Glare

Solar glare impacts on neighbors and adjacent roadways are not anticipated due to the proposed building's design, which does not include highly reflective glass or other reflective materials that would contribute to solar glare.

Water Quality and Conservation

Site runoff will be collected by a closed drainage system and treated before overflowing to the BWSC storm drainage system. Stormwater runoff will be collected by a series of catch basins in the proposed parking lots which will then flow to a proposed recharge system. Roof runoff will also flow to a proposed recharge system. The recharge system will overflow to the 66-inch by 87-inch BWSC drain line in Everett Street, and/or the 15-inch drain line in Lincoln Street.

The stormwater management system will decrease or maintain the flow and volume of stormwater runoff from the Site. Stormwater runoff will not be directed towards any abutters.

Wetlands and Flood Hazards

The FEMA Flood Zone designation for the Proposed Project Site is located outside the 0.2 percent annual chance floodplain, identifying it as an area of minimal flooding.

Geotechnical and Groundwater Analysis

The existing buildings that neighbor the Site are separated by roadways, driveways or parking lots, at distances exceeding 25 feet from the proposed building. The planned excavations are not anticipated to impact any of the neighboring facilities.

Hazardous Materials and Solid Waste

Any on-site hazardous materials will be handled in accordance with federal, state, and local regulations. Regarding solid waste during operations, the building will include recycling receptacles/space at the loading dock for collection. Retail tenants will utilize disposal services that recycle waste off site.

Air Quality

The mobile source air quality analysis demonstrates that the Proposed Project's motor vehicle emissions at nearby intersections meet the Massachusetts and National Ambient Air Quality Standards (NAAQS) for CO, PM_{10} and $PM_{2.5}$. The air quality evaluation demonstrates that the Proposed Project complies with city, state, and federal air quality requirements. The microscale analysis evaluated impacts from the Proposed Project's generated motor vehicle traffic at the most congested intersections in the Study Area. State and federal modeling procedures were used to determine worst-case concentrations. The results demonstrate that all existing and future No-Build and Build CO, PM_{10}, and $PM_{2.5}$ concentrations will be below the NAAQS.

The air quality study demonstrates that the Proposed Project conforms to the Clean Air Act Amendments because:

- No new violation of the NAAQS will be created,
- No increase in the frequency or severity of any existing violations will occur, and
- No delay in attainment of any NAAQS will result.

Noise

The noise analysis evaluated the sound levels associated with the Proposed Project. A noise assessment of the daytime and nighttime sound levels at existing conditions was compared to the Project's generated sound levels to determine the sound levels at the built condition. These results were compared to the City of Boston standards for residential and industrial districts. During the nighttime hours, the Proposed Project does not exceed the City's standards for residential, business or industrial districts, 50 dBA, 65 dBA and 70 dBA respectively. During the daytime hours, the Proposed Project does not exceed the City's daytime standards for residential, business or industrial districts, 60 dBA, 65 dBA and 70 dBA respectively.

Construction Impacts

Construction of the Proposed Project is expected to last approximately 14 months, with occupancy expected in Fall of 2015. Typical construction hours will be from

7:00 AM to 3:30 PM, Monday through Friday. The Proponent will require its contractors to construct the Proposed Project in compliance with all applicable City, State, and Federal regulations governing noise, dust, and traffic maintenance. In addition, the Proponent will develop a Construction Management Plan with the Boston Transportation Department to address pedestrian and vehicular access concerns.

Rodent Control

The Massachusetts State Sanitary Code, Chapter 11, 105 CMR 510.550 and the state Building Code, Section 108.6, Policy Number 87-5 (City of Boston) states that extermination of rodents shall be required for issuance of permits for demolition, excavation, foundation, and basement rehabilitation. In compliance with the City's requirements, a rodent extermination certificate will be filed with the Proponent's building permit application to the City of Boston and a rodent control program for the Proposed Project will be developed prior to construction.

Historic Resources

The Project Site has not been individually inventoried, nor has it been inventoried within an area.

Sustainable Practices

The Proposed Project will pursue silver level certification under the LEED 2009 for New Construction and Major Renovations. In addition, the design team is internally committed to AIA 2030, a commitment signed by the design firm to design buildings that aggressively improve their energy consumption. The Proposed Project will comply with Article 37 of the zoning code which describes requirements for sustainable design practices.

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Infrastructure

Utility connections supporting the Proposed Project will be designed and constructed in accordance with City, State, and Federal standards. The following are regulatory agencies that the Proponent will coordinate with throughout the design and construction process:

- The Boston Water and Sewer Commission (BWSC) is responsible for the majority of water, sewer, and stormwater systems. BWSC reviews any modifications of on and off-site water, sewer, and drainage systems through its site plan review and approval process. This process includes a comprehensive design review of the proposed service connections, assessment of system demands and capacity and establishment or updating of service accounts.

- The Boston Fire Department (BFD) will review the Proposed Project with respect to fire protection measures such as siamese connections and standpipes.
- Design of the Project Site access, hydrant locations, and energy systems (electric) will also be coordinated with the respective system owner.
- New utility connections will be authorized by the Boston Public Works Department through the street opening permit process, as required.

2

General Information

Applicant Information

Development Team

The Proponent has assembled a development team of experts familiar with the City's substantive requirements and approval processes.

Proponent

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Thomas Chamberlain, Sr. Estimator

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Legal Information

Legal Judgments or Actions Pending Concerning the Proposed Project

The Proponent is not aware of any legal judgments or pending legal actions relating to the Proposed Project.

History of Tax Arrears on Property Owned in Boston by Development Entity

The Proponent owns no real estate in Boston for which real estate tax payments are in arrears.

Evidence of Site Control over Entire Project Area

The Proponent has entered into an agreement to acquire the Project Site from its current owner and expects to take ownership of the Project Site in advance of the commencement of construction of the Proposed Project.

Regulatory Controls and Permits

Project Scope

The Proposed Project will be developed in two phases: the first phase (Phase I) will consist of approximately 165,000 square feet in a two-story structure containing the primary ice skating facilities, including the 3 rinks and all support and accessory spaces. The second phase (Phase II) will include approximately 25,000 square feet of additional office, recreational, and/or retail space, or additional Phase I accessory space, to be developed on the northern edge of the Phase I building in a two-story structure that will complete the Project Site's redevelopment.

Consistency with Zoning

The Proposed Project is located within the Holton Street Local Industrial Subdistrict (LI-1) in the Allston Brighton Neighborhood District, as depicted on the City of Boston Zoning Map 7A/7B/7C/7D (as amended, effective October 13, 2010) and subject to the City of Boston Zoning Code (the Code) at Article 51. The Proponent will file a petition to the Boston Zoning Commission to amend the Code to allow for the creation of a Planned Development Area (PDA) applicable to the Proposed Project and will submit a PDA development plan (PDA Plan) to the Boston Redevelopment Authority (BRA) for approval. The PDA Plan will establish the use, dimensional, parking and other zoning controls applicable to the Project. The Proposed Project will be deemed to be in compliance with the requirements of the underlying zoning for the Project to the extent that such requirements have been addressed in the PDA Plan.

Permitted Uses

There is no mention in Article 51 of the Code regarding an ice-skating facility, but a fitness center use is permitted as-of-right. There is no definition of fitness center in the Code. In addition to ice skating instruction and training, the Proposed Project will include a dance studio, workout, and locker rooms. The foregoing uses can reasonably be characterized as a fitness center. To remove any doubt as to whether the proposed uses are allowed at the Site, all of the contemplated proposed uses will be enumerated in the PDA Plan. Other uses that may occur on the Project Site, especially as part of the second phase of the development, may include retail, office, and restaurant uses.

Dimensional Restrictions

Height

Excluding rooftop mechanicals, the maximum height of Phase I of the Project will be up to 60 feet and the height of Phase II will be approximately 35 feet. The maximum height currently allowed in the Holton Street LI-1 Subdistrict is 35 feet. The Proponent will seek relief from this and certain other provisions of the Code as applicable to the Project Site through the creation of the PDA Plan applicable to the Proposed Project. The PDA Plan establishing the dimensional controls applicable to the Project will include the building heights, and other dimensional controls that will apply to the Project.

Floor Area Ratio

Phase I of the Proposed Project will have a floor area ratio (FAR) of 0.75 and Phase II of the Project will bring the Project to a FAR of 0.9. The as-of-right FAR in the Holton Street LI-1 Subdistrict is 1.0. The Project will comply with this requirement.

Off-Street Parking

The Site is currently approved for 652 parking spaces, as approved by the BRA in the Notice of Project Change to the so-called Boston Tech Center project dated December 2001. The Proponent proposes to reduce that amount and provide approximately 198 parking spaces, 27 of which will be shared with the users and inviteesof 100 Holton Street. Under the Code, the BRA determines off-street parking requirements during Large Project Review under Article 80B of the Code. Moreover, parking requirements applicable to the Site will be included in the PDA Plan, thereby establishing parking requirements.

Off-Street Loading

As set forth in the Code, the BRA will determine any off-street loading requirements during Large Project Review and any such requirements will be included in the PDA Plan.

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Article 80 – Large Project Review

The Proposed Project will undergo Large Project Review by the BRA under Article 80B of the Code. The Proponent commenced Large Project Review under Article 80B of the Code with the submission of a Letter of Intent (LOI) to the BRA on September

24, 2012. The LOI indicates the Proponent's intention to file this Expanded Project Notification Form (PNF) for the Project. The Proponent has met with City agencies, neighborhood representatives and groups, elected officials, and other interested parties.

The PNF sets forth details about the Proposed Project and provides various analyses of transportation, environmental protection, infrastructure, and other components of the Project, in order to inform City agencies, neighborhood residents and organizations, and other stakeholders about the Proposed Project, its potential impacts, and mitigation proposed to address those potential impacts.

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Massachusetts Environmental Policy Act ("MEPA")

Section 61 of MEPA requires agencies and other instrumentalities of the Commonwealth of Massachusetts to review, evaluate, and determine the environmental impacts of Agency Actions, as defined in the MEPA regulations at 301 C.M.R. 11.00 *et seq*. The Proposed Project was determined to not be subject to review under MEPA and a submission of an ENF is not required. This finding was presented in an Advisory Opinion Letter dated October 23, 2013 from the MEPA Director, Deidre Buckley.

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State and Local Permits & Other Approvals Anticipated

The Proponent anticipates seeking the following federal, state and/or local permits and taking the following actions in relation to the Proposed Projects' development (See **Table 2-1**).

Table 2-1
Anticipated Permits and Approvals

Agency Name	Permit or Action
Federal Government	
US Environmental Protection Agency	NPDES Notice of Intent
Commonwealth of Massachusetts	
Massachusetts Department of Environmental Protection	Sewer Connection Permit; Air Quality Plan approval; Construction Notice;
Massachusetts Water Resources Authority	Temporary Construction Dewatering Permit; Sewer Use Discharge Permit
City of Boston	
Boston Redevelopment Authority	Article 80 Large Project Review; PDA Plan Review
Boston Civic Design Commission	Schematic Design Review
Boston Inspectional Service Department	Demolition Permit; Foundation and Building Permit; Certificate of Occupancy
Boston Transportation Department	Transportation Access Plan Agreement; Construction Management Plan
Boston Water and Sewer Commission	Site Plan Approval; Water and Sewer Connection Permits; Construction Dewatering Permit
Boston Fire Department	Site Access Plan; Flammable Materials License(s) and other permits
Boston Zoning Commission	PDA Plan Approval; PDA Area Designation
Public Improvement Commission	Specific Repair Plan Approval

The table above sets forth a preliminary list of permits and approvals from federal, state and local governmental agencies, which are presently expected to be required to construct the Proposed Project, based on project information currently available. It is possible that not all of these permits or actions will be required, or that additional permits or actions may be needed as the design process continues.

3

Urban Design

This chapter describes the urban context, the proposed architectural design, the pedestrian amenities, and the landscape treatment for the Proposed Project as seen in **Figure 3-1**.

Building Concept

The building concept for the new facility was born from a recognition that typical skating facilities are large, utilitarian buildings of humble structure and cladding with limited aesthetic value. The Skating Club recognizes the high visibility of the Project Site and is sensitive to its context in the Allston Brighton community and the greater City of Boston. Accordingly, the design team gravitated towards an architectural expression that breaks down the respective volume of the three rinks into a human-scaled composition while recognizing its proximity to the Mass Pike as a significant aspect of the building. The design of the building creates a balance between the respective scales of the Mass Pike and the urban context and creates a forward-looking expression for a long-standing Boston institution with deep roots in the Allston Brighton community.

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Massing

The building has been conceived of as three nesting "shells", each shell representing the volume of the three ice rinks. Each shell is lifted away to expose the programmatic spaces, including the ice sheets. The lifted shells reveal a language of infill and further broken down in scale through textured solids and a combination of vision and translucent glazing.

Materials

The materiality of the shells, infill and glazing are designed to reinforce how the building addresses two very distinct scales. The shells, being the building element that expresses the urban scale, is comprised of large format high density cement fiber board. This material exudes the strength, weight and solidity of a long standing Boston institution and its Allston Brighton home. The solid infill material is comprised of ribbed coated aluminum paneling which adds a level texture that incorporates the pedestrian scale. The glazing throughout the building is of two distinct types, clear vision glass and insulated translucent glass. Great effort has gone in to maximizing the amount of glazing the building can accept without compromising the performance of the ice rinks themselves.

Urban Design

The design for the Skating Club's new home carefully considers both the current and future urban context. The design acknowledges that the building must be sensitive to all four sides of the Project Site to match the current urban conditions while recognizing the potential extension and reconfiguration of South Telford Street.

The Project Site is bounded by two major city streets, Everett Street to the east, and Lincoln Street to the south. To the east, the building faces a stone bridge abutment for the majority of the length of the Site along Everett Street and the residential neighborhood east of Everett Street. The front entrance to the building, and much of the occupied spaces of the building address Everett Street, provide an active building edge. This edge is activated by the presence of human scale elements, exterior plazas and a sense of transparency contributing to the character of the street.

The southern edge of the building addresses two major urban conditions. One is the strong street edge of Lincoln Street, and the other is the proximity of the building edge to the Mass Pike. At the street level the building engages passer-bys with moments of visibility into one of the ice rinks. The dynamic motion of skaters will contribute to the experience of traveling Lincoln Street. The main event entrance is also located along Lincoln Street. There is an entry plaza provided as the main event lobby sets back from the street to denote entrance and to enhance the public realm. While this edge addresses the human scale of the street, it also addresses the fast-moving scale of the Mass Pike by giving the building a strong visual presence in both the inbound and outbound directions. The façade appropriately addresses the Mass Pike with larger-scale elements of the conceptual design. The nested shells are a strong legible statement visible at high speeds while balancing the Mass Pike view and the human scale of Lincoln Street by breaking up the mass of the façade with a) clearstory glazing; b) vertical architectural elements; and c) multiple materials and texturing.

The other two sides of the building, while not bordering any city streets, are still significant building faces addressed by the design. The north side of the building faces an adjacent commercial building. The same care of materiality and addressing of human and future urban scales has been incorporated in the design. The neighboring tenants at 100 Holton Street are a vibrant and diverse set of users and will not be adversely impacted by the Proposed Project.

The west side of the building is similar to the north in that it abuts a private way that separates this building and a number of light industrial/storage facilities. These facilities continue to have active loading and unloading functions. This side of the building treats what is now the Private Alley like a pedestrian and vehicular corridor, which it may become.

The design of the building acknowledges the potential South Telford Street and has been set back approximately 10 feet from the property line. The design of this façade brings together many human scale architectural elements, large areas of transparency and textured materials that reinforce the potential of the Private Alley becoming a street which will be attractive and accommodating to pedestrian and vehicular traffic.

The Skating Club of Boston

176 Lincoln Street Brighton, MA

ARC Architectural Resources Cambridge

Figure 3-1

Proposed Site Plan

SOUTH FACADE FROM LINCOLN ST

SOUTH FACADE FROM LINCOLN ST

WEST FACADE LOOKING NORTH ON
POTENTIAL SOUTH TELFORD ST

NORTH FACADE FROM HOLTON ST

NORTH FACADE FROM 100 HOLTON ST
LOADING AREA

EAST FACADE LOOKING SOUTH ON EVERETT ST

The Skating Club of Boston
176 Lincoln Street Allston, MA

ARC Architectural Resources Cambridge

Figure 3-2

Existing Site Photos

CORNER OF LINCOLN ST & POTENTIAL SOUTH TELFORD ST

POTENTIAL SOUTH TELFORD ST LOOKING SOUTH

POTENTIAL SOUTH TELFORD ST LOOKING NORTH

HOLTON ST LOADING DOCK AREA AT EVERETT ST

EVERETT ST LOOKING SOUTH

LINCOLN ST LOOKING WEST

The Skating Club of Boston

176 Lincoln Street Allston, MA

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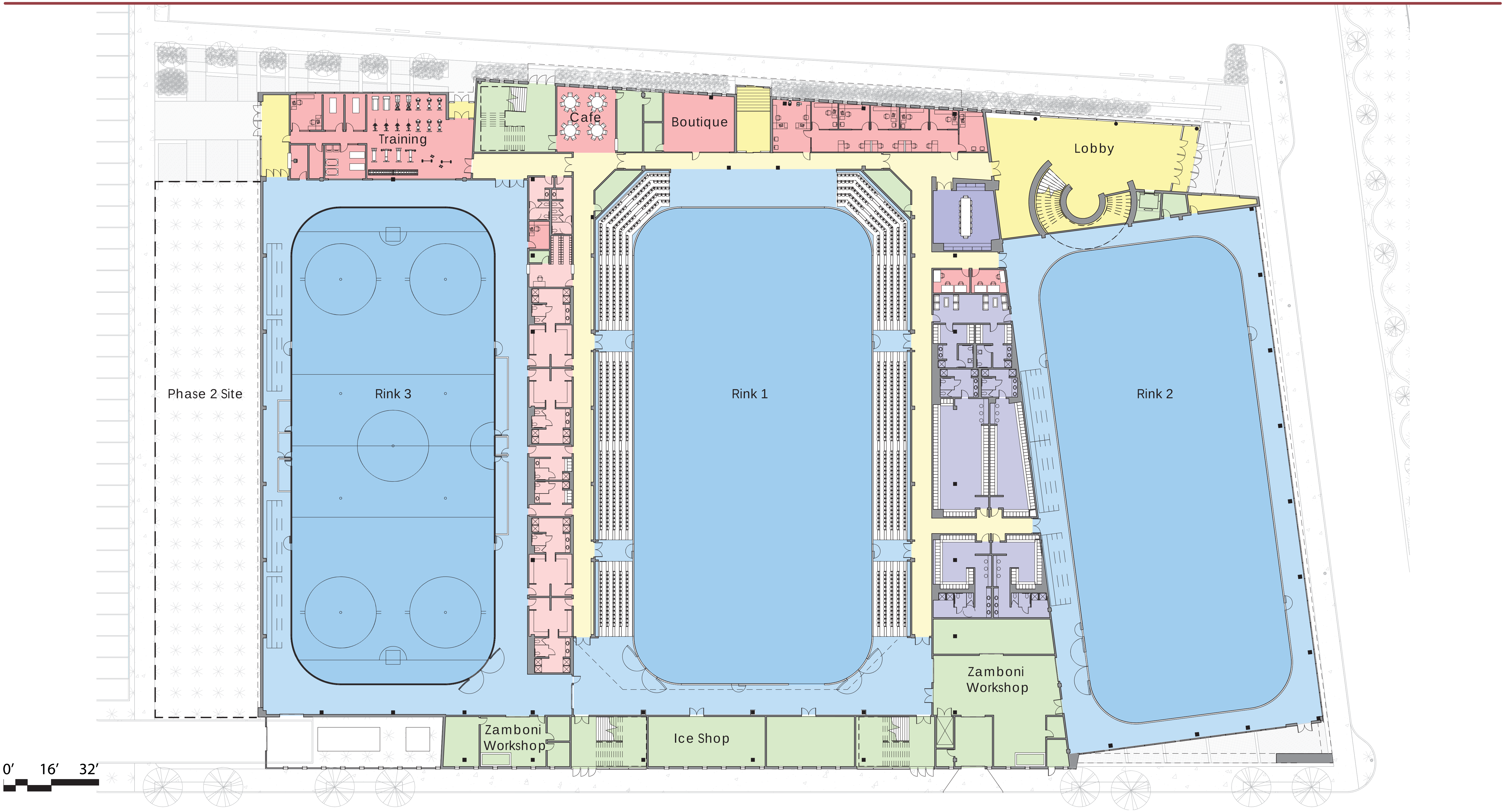
Figure 3-3

Neighborhood Context Photos

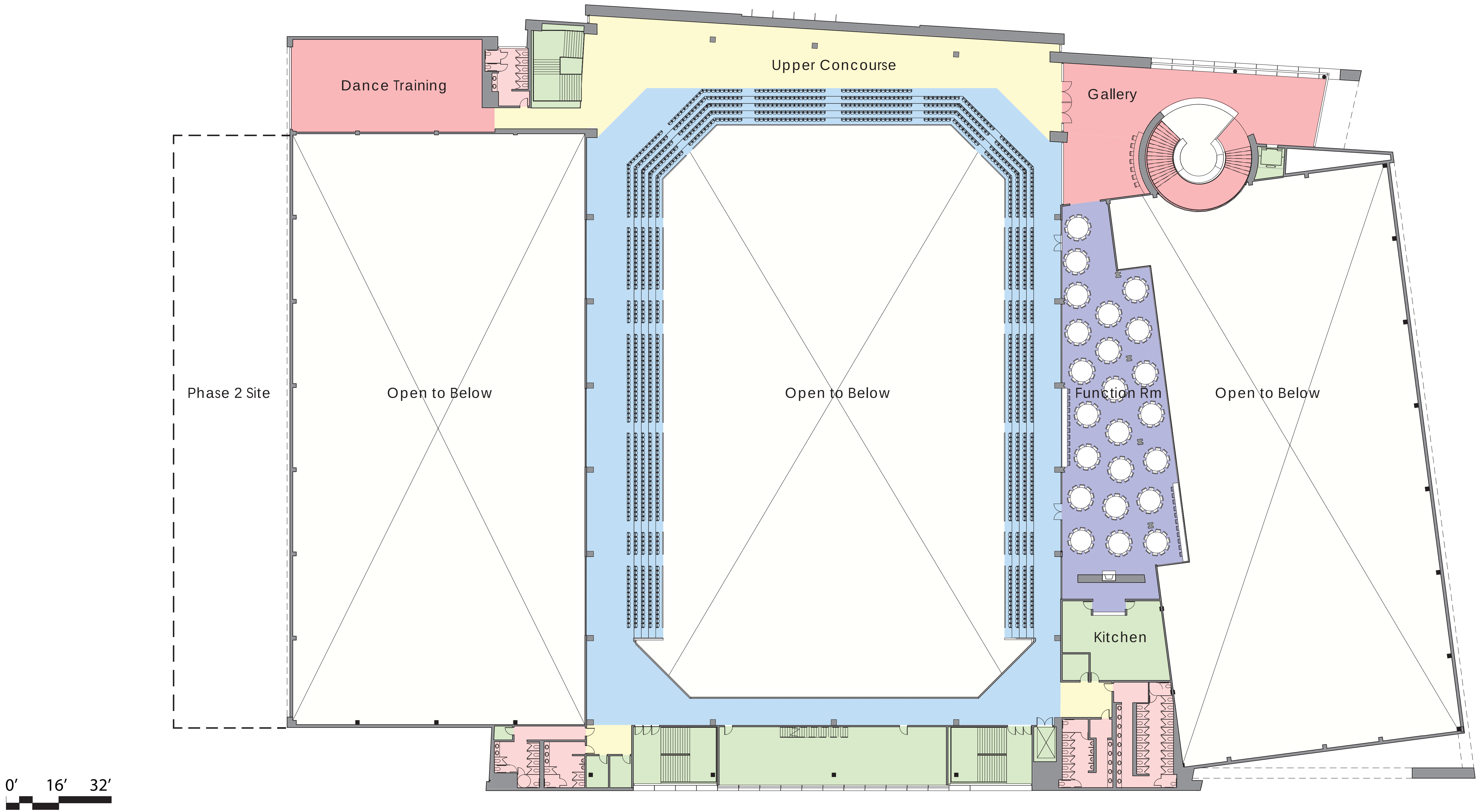


The Skating Club of Boston
176 Lincoln Street Allston, MA

ARC Architectural Resources Cambridge

Figure 3-4

First Floor Plan



The Skating Club of Boston
176 Lincoln Street Allston, MA

ARC Architectural Resources Cambridge

Figure 3-5

Second Floor Plan

East Elevation 1/32"=1'-0"

South Elevation 1/32"=1'-0"

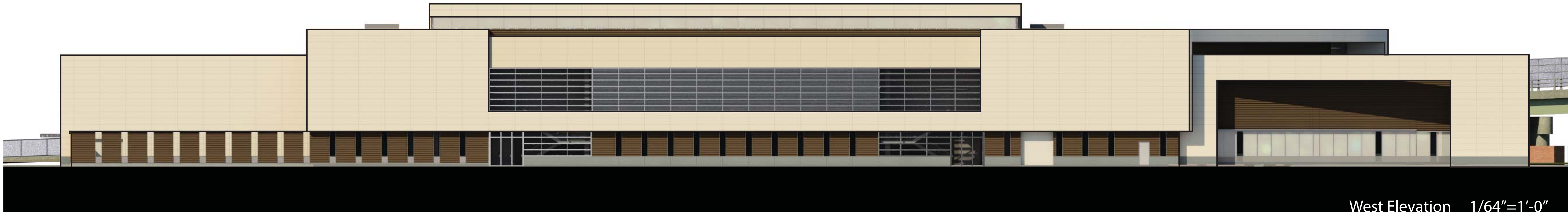
0' 16' 32'

The Skating Club of Boston
176 Lincoln Street Allston, MA

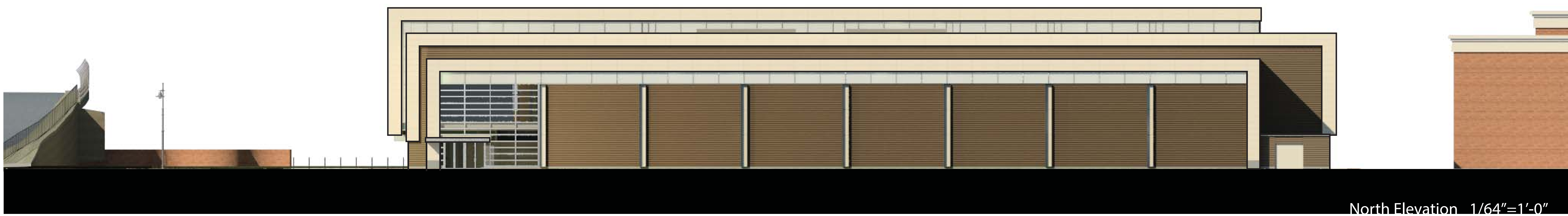
ARC Architectural Resources Cambridge

Figure 3-6

Elevations



West Elevation 1/64″=1′-0″



North Elevation 1/64″=1′-0″

0′ 16′ 32′

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176 Lincoln Street Allston, MA

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Figure 3-7

Elevations

The Skating Club of Boston

176 Lincoln Street Allston, MA

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Figure 3-8

Perspective - South Facade and Potential South Telford St.

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176 Lincoln Street Allston, MA

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Figure 3-9

Perspective - East Facade @ Gallery

The Skating Club of Boston

176 Lincoln Street Allston, MA

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Figure 3-10

Perspective - East Facade facing Public Entrance

4

Transportation

Introduction

This chapter presents an evaluation and summary of existing and future transportation infrastructure and operations at 176 Lincoln Street, the future home of the Skating Club of Boston. This transportation study has been developed in order to understand and mitigate the transportation impacts of the Proposed Project.

The transportation analysis presented in this chapter includes the following:

- Definition and quantification of existing transportation conditions in the Proposed Project study area (the "Study Area");
- Projection of future transportation conditions with and without the Proposed Project;
- An assessment of parking conditions in the Study Area;
- A discussion on various events the Skating Club hosts;
- An overview of construction-related activities as they pertain to transportation; and
- Vehicular level of service (LOS) analyses for Study Area intersections.

The transportation analysis considers three specific analysis scenarios as follows:

- 2013 Existing Condition;
- 2018 No-Build Condition based on expected traffic growth and surrounding development projects with a five year horizon; and,
- 2018 Build Condition for a 5-year time horizon assuming completion and occupancy of the Proposed Project.

The transportation analysis has been performed in accordance with standard Boston Transportation Department (BTD) methodologies, including the projection of project trips and the application of local travel characteristics established through the Access Boston 2000-2010 initiative. *Synchro 6* software was used to facilitate the evaluation of traffic operations based on 2000 Highway Capacity Manual (HCM)[1] methodologies.

Proposed Project

The Proposed Project will be developed in two phases: the first phase (Phase I) will consist of approximately 165,000 square feet in a two-story structure containing the primary ice skating facilities, including the three rinks and all support and accessory spaces. The second phase (Phase II) will include approximately 25,000 square feet of additional office, recreational, and/or retail space, or additional Phase I accessory space, to be developed on the northern edge of the Phase I building in a two-story structure that will complete the Project Site's redevelopment. The technical analyses included within this Expanded PNF evaluate the Proposed Project as a whole without Phasing.

Summary of Findings

A summary of key findings of the transportation component for the Proposed Project are as follows:

- The Project will generate approximately 27 entering and 13 exiting additional vehicle trips during the weekday morning peak hour and approximately 119 entering and 78 exiting vehicle trips during the weekday evening peak hour. The Site is currently permitted for the approved Boston Tech Center which will generate 340 trips during the morning peak hour (260 in/80 out) and 330 trips during the evening peak hour (120 in/210 out). The Project reduces trip generation during both peaks, in both directions.
- The Study Area intersections will continue to operate at the same levels of service when the Project opens as under the future No-Build Condition, with the exception of the Rear Driveway at Everett Street/Everett Street Extension and Lincoln Street at Everett Street Extension.
- Most trips to and from the Proposed Skating Club will be made via automobile due to the nature of the Skating Club activities and where their members reside.
- The Skating Club is committed to designing and installing ADA/AAB sidewalks, ramps, and crosswalks to safely and efficiently manage pedestrian activity on and around the Site.
- A drop-off/pick-up area, large enough for ten cars, will be provided along Lincoln Street. This will also serve as a bus drop-off/pick-up for up to five

[1] 2000 Highway Capacity Manual, Transportation Research Board, Washington D.C. (2000).

full-sized coach buses, supporting occasional events and performances to be held at the Skating Club once completed.

- On-site parking will include approximately 198 spaces, 27 of which will be subject to a shared parking arrangement with 100 Holton Street located immediately adjacent to the Project Site, which will support the daily parking demands generated by the Project. The Site is currently permitted to support up to 652 parking spaces as stipulated in the approved Boston Tech Center project. The Project reduces the Site's future parking supply by 454 spaces (or by approximately 69 percent).
- Additional parking demands that will be generated during occasional events hosted at the Skating Club will be accommodated in defined off-site parking lots including the eight (8) parking spaces located on the portion of the abutting 100 Holton Street property immediately adjacent to the northwest property line of the Site pursuant to a shared parking arrangement with the owner of 100 Holton Street. A shuttle bus service will be contracted to transport attendees from these off-site lots to and from the Skating Club during these events, identical to how events are accommodated at its existing facility on Soldiers Field Road.
- There will be a dedicated off-street loading area provided on site to minimize impacts on adjacent streets. Zamboni activities will be accommodated inside the facility. The Zambonis will not be permitted to drive on city streets and ice shavings will be managed via the use of melters located inside the facility.

2013 Existing Transportation Conditions

This section provides a summary of existing transportation conditions surrounding the Project Site, 176 Lincoln Street in Allston. Discussions include the following:

- Existing area roadways and intersections;
- Public transportation options;
- Study area crash analysis;
- Nearby parking options and regulations;
- Existing loading activities and deliveries; and
- Pedestrian and bicycle activity and amenities.

Roadway Network

The Project Site is located on Lincoln Street adjacent to the Mass Pike in Allston at the Everett Street Extension intersection. The Site is bounded by Lincoln Street to the south, Everett Street to the east, a Private Alley (the potential South Telford Street or "Private Alley") to the west and an industrial building to the north. **Figure 4-1** provides an illustration of the building site and the surrounding street network.

The Mass Pike is an interstate highway that traverses from Boston to the Massachusetts border with New York with three lanes provided in either direction adjacent to the Site. Lincoln Street is a local roadway that runs east/west connecting Cambridge Street and Birmingham Parkway. Everett Street is a local roadway that travels over the Mass Pike connecting North Beacon Street (US Route 20) to Western Avenue and Soldiers Field Road. The Everett Street Extension, which travels parallel to Everett Street, is the at-grade continuation of Everett Street. Soldiers Field Road is an arterial roadway that runs along the Charles River with two lanes in either direction. Western Avenue is an arterial roadway that runs through Brighton, connecting the City of Cambridge and Watertown while crossing the Charles River at two locations.

Study Intersections

The Study Area includes nine key intersections, as illustrated in **Figure 4-2**.

1. Birmingham Parkway/Lincoln Street/Market Street (*signalized*)
2. Soldiers Field Road/Everett Street (*signalized*)
3. Everett Street/Western Avenue (*signalized*)
4. Everett Street/Holton Street (*signalized*)
5. Everett Street/North Beacon Street (US Route 20) (*signalized*)
6. Lincoln Street/Cambridge Street (*signalized*)
7. Everett Street/Everett Street Extension/Rear Driveway (*unsignalized*)
8. Lincoln Street/Private Alley (Potential South Telford Street) (*unsignalized*)
9. Everett Street Extension/Lincoln Street (*unsignalized*)

Intersection geometry and physical characteristics are described below for the nine Study Area intersections. Traffic operations and level of service (LOS) analysis are presented later in this chapter.

Birmingham Parkway/Lincoln Street/Market Street is an actuated, signalized intersection with concurrent pedestrian movements crossing Market Street and Birmingham Parkway's west leg. Lincoln Street is one-way westbound into the intersection and is a two-lane (left and through/right) approach. Three lanes approach the intersection from the north on Birmingham Parkway. There is a right-turn only lane and two general purpose lanes. From the west, Birmingham Parkway has one exclusive left and one general purpose lane. Market Street approaches from the south with a left/through and a through lane.

Soldiers Field Road/Everett Street/Jughandle is a four-legged intersection that operates under a two-phase actuated traffic signal control. There are no crosswalks or pedestrian movements at the intersection. Soldiers Field Road travels in the

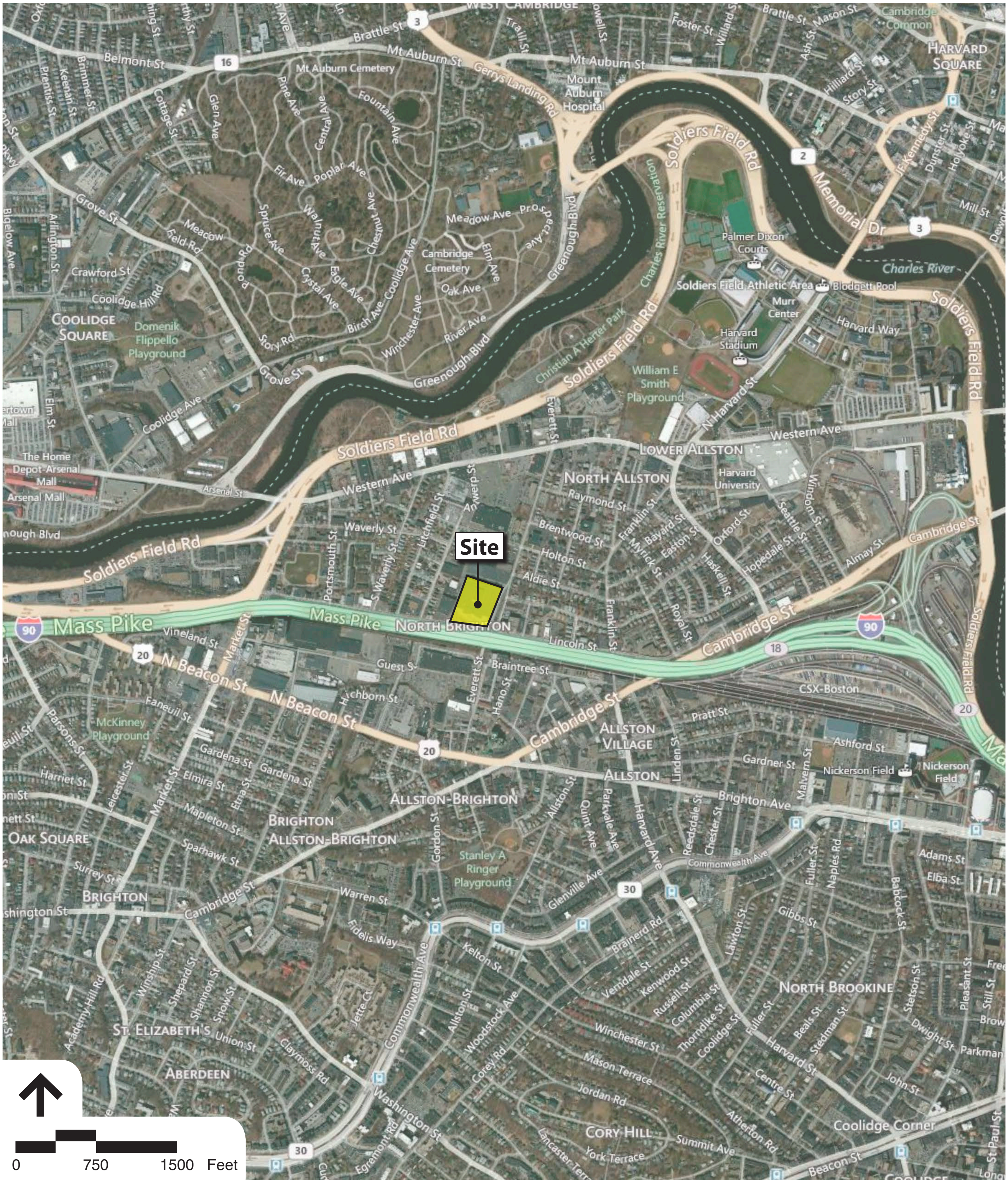

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Figure 4-1

Project Site Location/
Area Roadway Network

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Figure 4-2

Study Area Intersections

east/west direction and is a two lane roadway in both directions. Vehicles traveling westbound and want to turn left onto Everett Street are channeled into a jughandle to provide access directly across the street sharing a phase with the northbound Everett Street approach. The jughandle operates as two lanes (left and though/right) in the southbound direction. Everett Street is a single left/right lane traveling in the northbound direction.

Everett Street/Western Avenue is a four-phase, signalized intersection which includes an exclusive pedestrian phase. Each leg of the intersection is equipped with a crosswalk and accessible ramps. Everett Street has a single general purpose approach lane in the southbound direction. In the northbound direction Everett Street has two lanes, a left and a through/right. Western Avenue has two lanes (left and through/right) in the westbound direction and a two lane (right and through/left) in the eastbound direction.

Everett Street/Holton Street is a four-legged signalized intersection. To the west, Holton Street is one-way in the westbound direction, away from the intersection. The other three approaches are single general purpose lanes. Each leg of the intersection is equipped with a crosswalk. The three phase cycle includes an actuated exclusive pedestrian phase.

Everett Street/North Beacon Street is a three-legged, signalized intersection. Everett Street approaches the intersection with a single general purpose lane in the southbound direction. North Beacon Street is two lanes in both the eastbound and westbound directions. The two lanes in the eastbound direction operate as a left/through and a through; while in the westbound direction, the two lanes operate as a through and right only lane. Crosswalks are present across the Everett Street leg and the North Beacon Street west leg. The cycle is set at three phases with an exclusive actuated pedestrian phase.

Lincoln Street/Cambridge Street is a four-legged signalized intersection. The northbound approach is the entrance driveway to the currently vacant rail yard. The Lincoln Street approaches the intersection from the north with a single general purpose lane. Cambridge Street is three lanes, a left and two general purpose lanes, in westbound direction and four lanes, a left and three general purpose lanes, in the eastbound direction. Crosswalks are present on both Cambridge Street legs and the northern Everett Street leg although there are no pedestrian signals at the intersection.

Everett Street/Everett Street Extension/Rear Driveway is a four-legged unsignalized intersection. Everett Street Extension is stop controlled in the northbound direction. Everett Street, which spans the Turnpike just south of the intersection, is uncontrolled in either direction. The Rear Driveway of the Site is assumed to be stopped controlled. Each approach is a single general purpose lane. Sidewalks are in place in the north/south directions along Everett Street and Everett Street extension, however there are no pedestrian crosswalks in the vicinity of the intersection.

Lincoln Street/Private Alley is a three-legged intersection. Lincoln Street runs east/west and is uncontrolled at the intersection. It is a single general purpose lane in either direction. The Private Alley is assumed to be stop controlled and is approximately 30 feet wide with no striping to delineate the entrance/exit lanes. The Private Alley curves to the west and meets Lincoln Street at an approximately 60 degree angle.

Everett Street Extension/Lincoln Street is a three-legged intersection with stop control in the southbound direction on the Everett Street Extension approach. The Everett Street Extension approach is a single general purpose lane with a crosswalk. Lincoln Street is a single general purpose lane in both the east and west directions with no control at the intersection. Sidewalks are provided along the north side of Lincoln Street.

Data Collection

To properly assess the traffic conditions in the surrounding street network, both manual Turning Movement Counts (TMCs) and an Automatic Traffic Recorder (ATR) were used. TMCs were captured at all Study Area intersections during the morning and evening peak period, 7:00 AM – 9:00 AM and 4:00 PM – 6:00 PM, respectively. An ATR was placed on Lincoln Street south of the Project Site and on Everett Street east of the Project Site. The TMCs were collected on Tuesday, November 15, 2011 and the ATR was placed from November 15 through 17, 2011. In addition to these counts, 2012 counts from the Harvard Allston Campus IMP were used to supplement the 2011 TMCs to ensure consistency at overlapping study area intersections.

These counts were compared to previous counts done for the Boston Tech Center project approved by the BRA in 2001. All Study Area intersection had similar or slightly higher volumes than the counts performed for the Proposed Project November 2011. Due to this flat to negative growth over the past ten years, the 2011 counts were not adjusted and are used as the volumes for the Project's 2013 Existing Condition.

The average morning peak hour volume collected on Lincoln Street adjacent to the Site was 360 vehicles and 450 vehicles during the evening peak hour. The average peak hour volume on Everett Street was 630 vehicles during the morning peak hour and 710 vehicles during the evening peak hour.

Throughout the daytime hours, traffic volumes vary between approximately 190 and 450 vehicles per hour on Lincoln Street and approximately 225 to 710 vehicles on the Everett Street. Overnight volumes drop to approximately 10 vehicles on Lincoln Street and 20 on Everett Street. A summary of hourly traffic activity that was collected is presented in **Table 4-1.** Detailed ATR data are provided in the **Appendix B**.

Table 4-1
Existing Hourly Traffic Volumes

Time	Lincoln Street	Everett Street
6:00 - 7:00 AM	188	224
7:00 – 8:00 AM	311	495
8:00 – 9:00 AM	355	628
9:00 – 10:00 AM	272	472
10:00 – 11:00 AM	230	410
11:00 – 12:00 PM	230	450
12:00 – 1: 00 PM	249	506
1:00 – 2:00 PM	287	533
2:00 – 3:00 PM	281	577
3:00 – 4:00 PM	347	584
4:00 – 5:00 PM	386	641
5:00 – 6:00 PM	448	710
6:00 – 7:00 PM	336	600
7:00 – 8:00 PM	228	423

Source: Precision Data Industries, LLC

Pedestrian crossing movements and bicycle volumes were also collected during the morning and evening peak periods. These raw count data are included in the **Appendix A**.

The intersection TMCs, and the supplemental 2012 Harvard IMP counts, were used to establish traffic networks for the 2013 Existing Condition. From the TMCs, the Study Area's traffic peak hours were determined to be 7:45 AM to 8:45 AM for the morning peak and 5:00 PM to 6:00 PM for the evening peak. Existing peak hour traffic volumes are shown in **Figures 4-3** and **Figure 4-4** for the morning and evening commuter peaks, respectively.

■

Crash Analysis

Crash data was investigated and quantified for the Study Area. Data were obtained from the Massachusetts Department of Transportation (MassDOT) for the most recent three-year period available (2008 through 2010) for the intersections within the Study Area. Crash results are summarized in **Table 4-2**.

Of the reported accidents, 72 percent occurred during a weekday outside of the traditional peak travel periods of 7:00-9:00 AM and 4:00-6:00 PM. The majority of the reported incidents (57 percent) occurred during dry pavement conditions. Although most accident severity ranged from non-fatal injury to property damage, there was one fatality (collision with a pedestrian) in the Study Area.

The City of Boston is located within MassDOT District 6, which is comprised of several communities within the greater Boston area. The average intersection crash rate for District 6 signalized intersections is 0.76 crashes per million entering vehicles (MEV). The average for unsignalized intersection in District 6 is 0.58 crashes per MEV. District 6 has a slightly lower average than the Statewide Average of 0.80 crashes per MEV for signalized intersections and 0.60 crashes per MEV for unsignalized intersections.

Over the three year period, all intersections within the Study Area had lower crash rates than the district and state average. Almost half of the accidents (46 percent) were rear-end collisions, which might be indicative of a lack of driver awareness in the Study Area. The intersections of Everett Street/Everett Street Extension/Rear Driveway and Lincoln Street/Private Alley had no reported crashes during the three year analysis period.

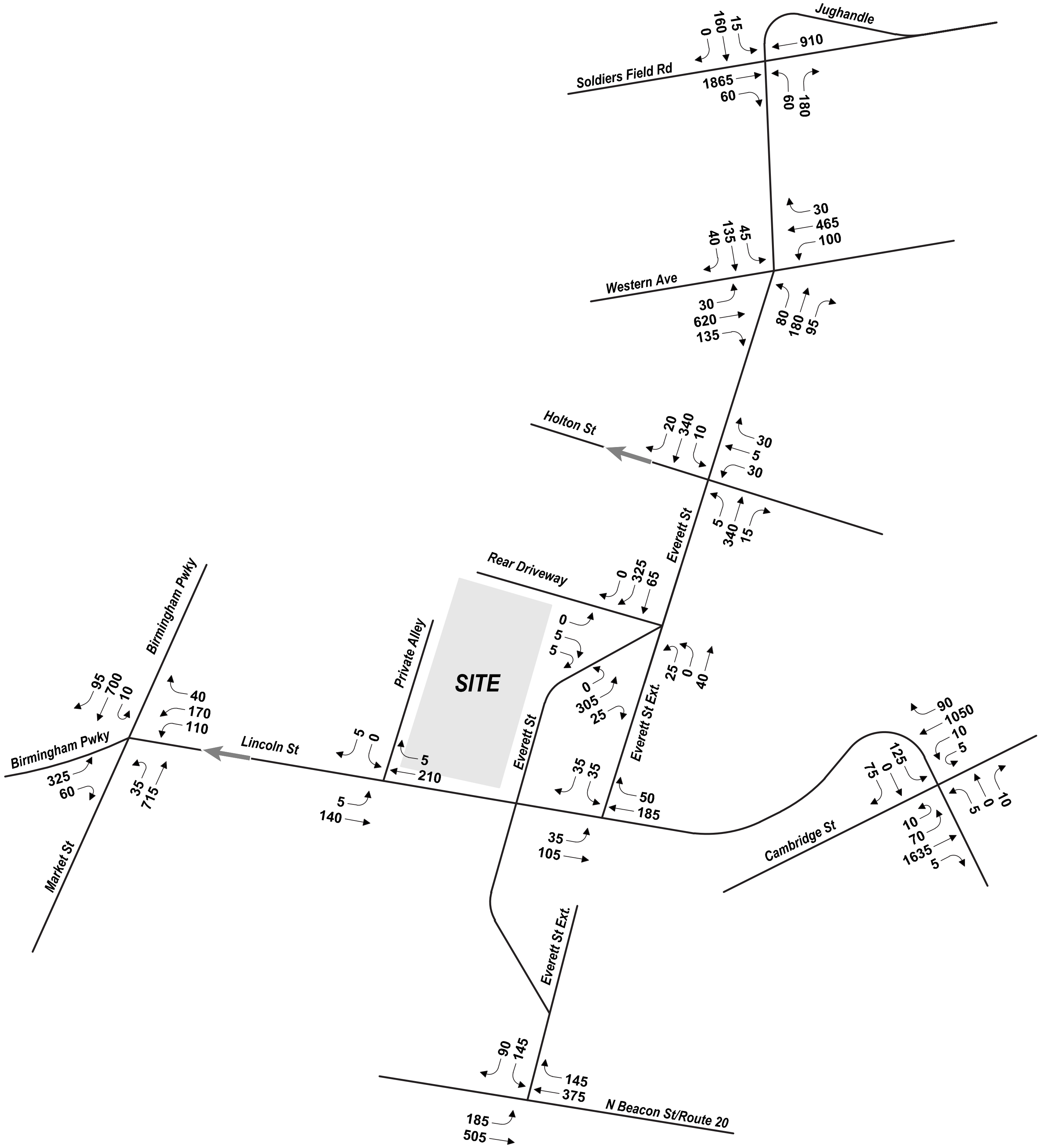

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Figure 4-3

2013 Existing Condition
Morning Peak Hour
Traffic Volumes

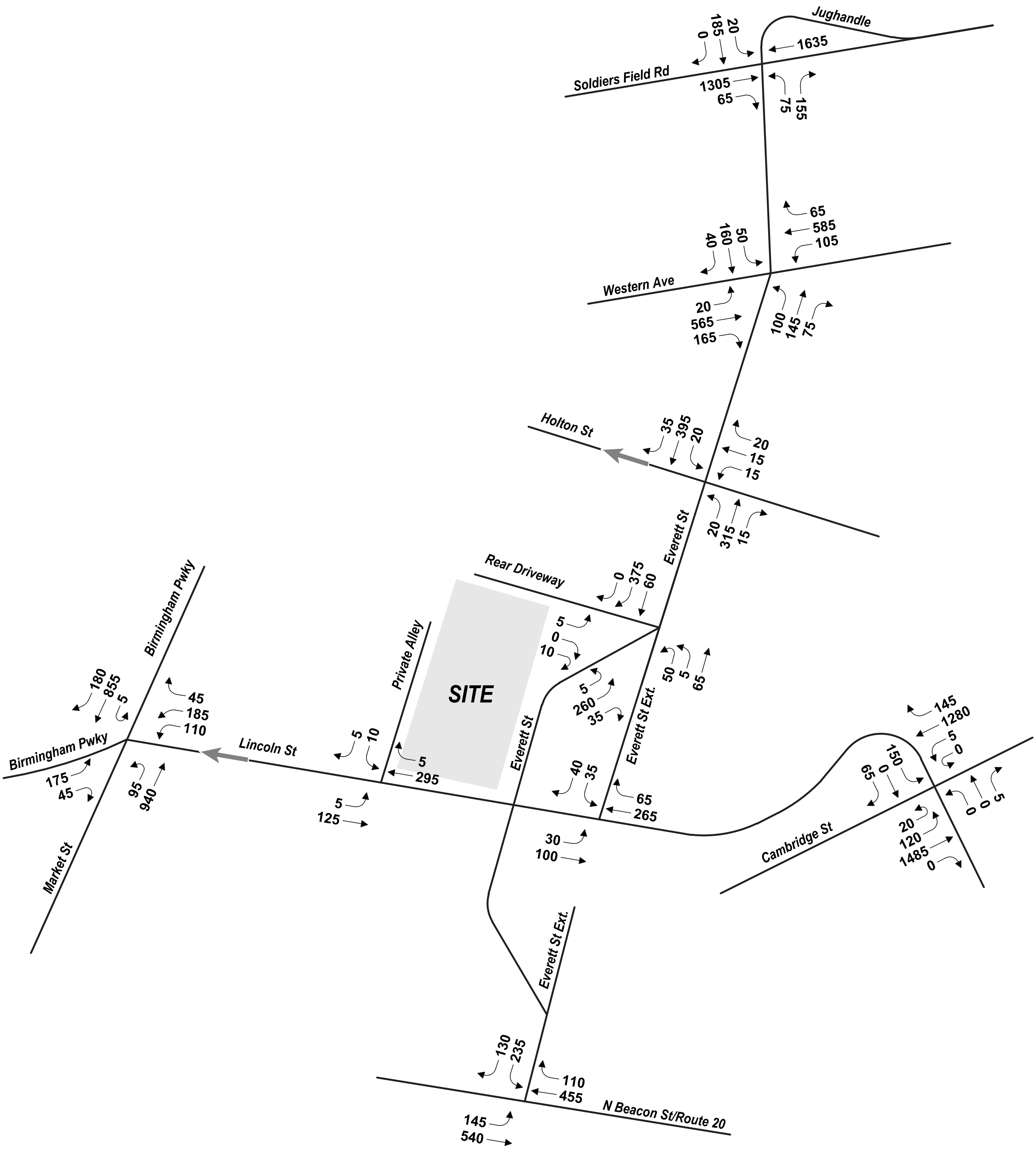

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Figure 4-4

2013 Existing Condition
Evening Peak Hour
Traffic Volumes

Table 4-2
Crash Summary

	Everett Street at:						Lincoln Street at:		
	Soldiers Field Road	Western Avenue	Holton Street	Everett Street Ext/Site Rear Driveway	Lincoln Street	North Beacon Street (Rte 20)	Birmingham Parkway/ Market Street	Site Driveway	Cambridge Street
Currently Signalized?	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes
MassHighway ACR	0.76	0.76	0.76	0.58	0.58	0.76	0.76	0.58	0.76
MassHighway CCR	0.41	0.42	0.29	0.00	0.16	0.05	0.28	0.00	0.18
Exceeds?	No	No	No	No	No	No	No	No	No
Year									
2008	7	6	2	0	1	0	4	0	5
2009	7	3	0	0	0	0	2	0	0
2010	2	1	1	0	0	1	3	0	2
Total	16	10	3	0	1	1	9	0	7
Collision Type									
Angle	4	0	0	0	0	0	1	0	1
Head-on	0	0	0	0	0	0	1	0	0
Rear-end	9	5	0	0	1	0	2	0	4
Sideswipe, opposite direction	0	2	1	0	0	0	0	0	0
Sideswipe, same direction	1	2	0	0	0	0	2	0	0
Single vehicle crash	2	0	0	0	0	0	2	0	0
Not Reported/Unknown	0	1	2	0	0	0	1	0	2
Total	16	10	3	0	1	0	9	0	7
Crash Severity									
Fatal injury	1	0	0	0	0	0	0	0	0
Non-fatal injury	5	1	2	0	1	0	6	0	4
Property damage only (none injured)	8	7	0	0	0	1	2	0	3
Not Reported/Unknown	2	2	1	0	0	0	1	0	0
Total	16	10	3	0	1	1	9	0	7
Time of Day									
Weekday, 7:00 AM - 9:00 AM	2	2	0	0	0	0	2	0	0
Weekday, 4:00 PM - 6:00 PM	3	1	1	0	1	0	1	0	0
Saturday, 11:00 AM - 2:00 PM	0	0	0	0	0	0	0	0	0
Weekday, other time	5	5	1	0	0	1	3	0	5
Weekend, other time	6	2	1	0	0	0	3	0	2
Total	16	10	3	0	1	1	9	0	7

	Everett Street at:						Lincoln Street at:		
	Soldiers Field Road	Western Avenue	Holton Street	Everett Street Ext/Site Rear Driveway	Lincoln Street	North Beacon Street (Rte 20)	Birmingham Parkway/ Market Street	Site Driveway	Cambridge Street
Pavement Conditions									
Dry	8	7	2	0	1	1	7	0	1
Wet	7	3	1	0	0	0	1	0	6
Snow	1	0	0	0	0	0	1	0	0
Other	0	0	0	0	0	0	0	0	0
Total	16	10	3	0	1	1	9	0	7
Non Motorist (Bike, Pedestrian)									
Total	1	0	1	0	0	0	0	0	0

■

Pedestrians

An inventory of sidewalks and pedestrian crosswalks was taken in the Project Study Area. Sidewalks were found to be in good condition with varying widths of between approximately four and eight feet. Crosswalk and accessible ramp descriptions are provided by intersection in the Study Intersections section of this chapter.

Pedestrian crossing volumes taken simultaneously with traffic volume counts during the peak hours are presented in **Figures 4-5** and **Figure 4-6**. Overall, pedestrian activity in the Project Study Area is low with no intersection experiencing more than 90 pedestrian crossings and most below 60 crossings during any measured peak hour.

■

Bicycles

Within the Study Area, there are limited bicycle facilities available, either on-street or off-street. As seen in the bicycle counts, presented in **Figures 4-7** and **Figure 4-8**, this has not impeded cyclist activity in the area. Some area intersections, bicyclist activity totaled more than 20 bike trips during the morning or evening peak hour.

The Site is well connected to area cycle facilities. To the north is the Emerald Necklace Multi-Use Path and to the east are connection to facilities along North Harvard Street and Western Avenue.

Hubway, the region's bike sharing program, was started in Boston in July 2011 and now has over 100 stations and 1,000 bikes in Boston, Brookline, Cambridge, and

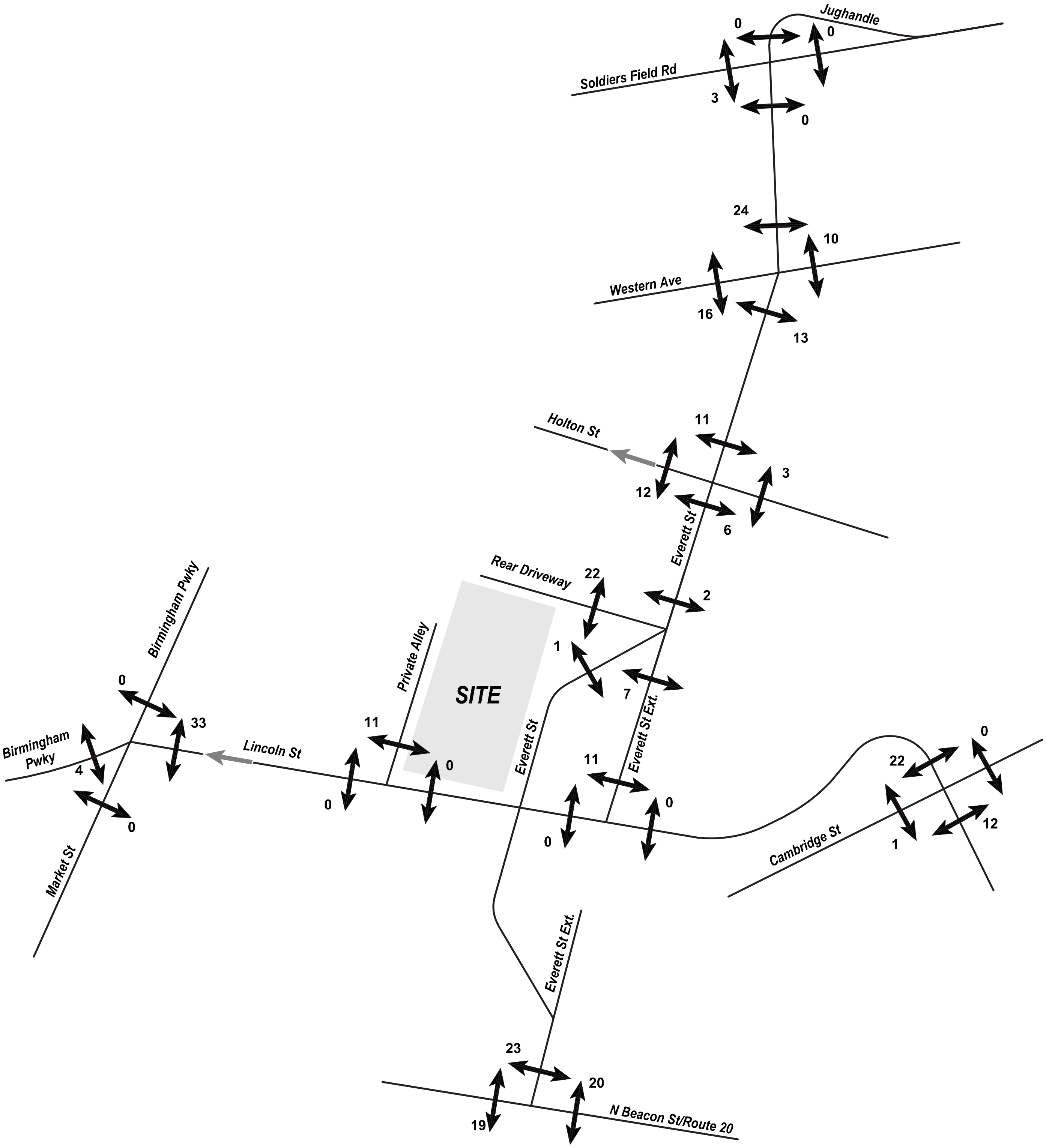

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Figure 4-5

2013 Existing Condition
Morning Peak Hour
Pedestrian Volumes

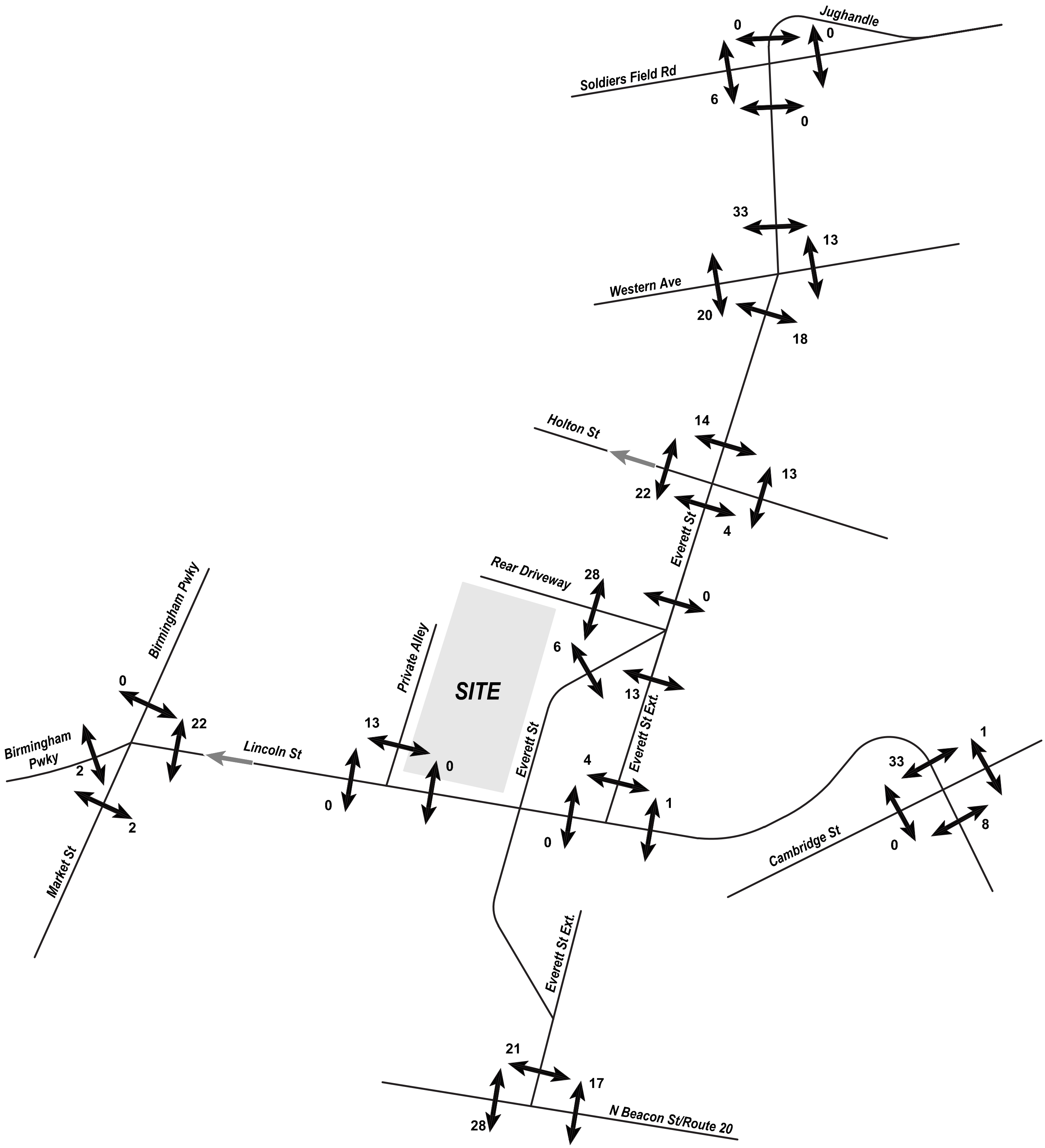

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Figure 4-6

2013 Existing Condition
Evening Peak Hour
Pedestrian Volumes

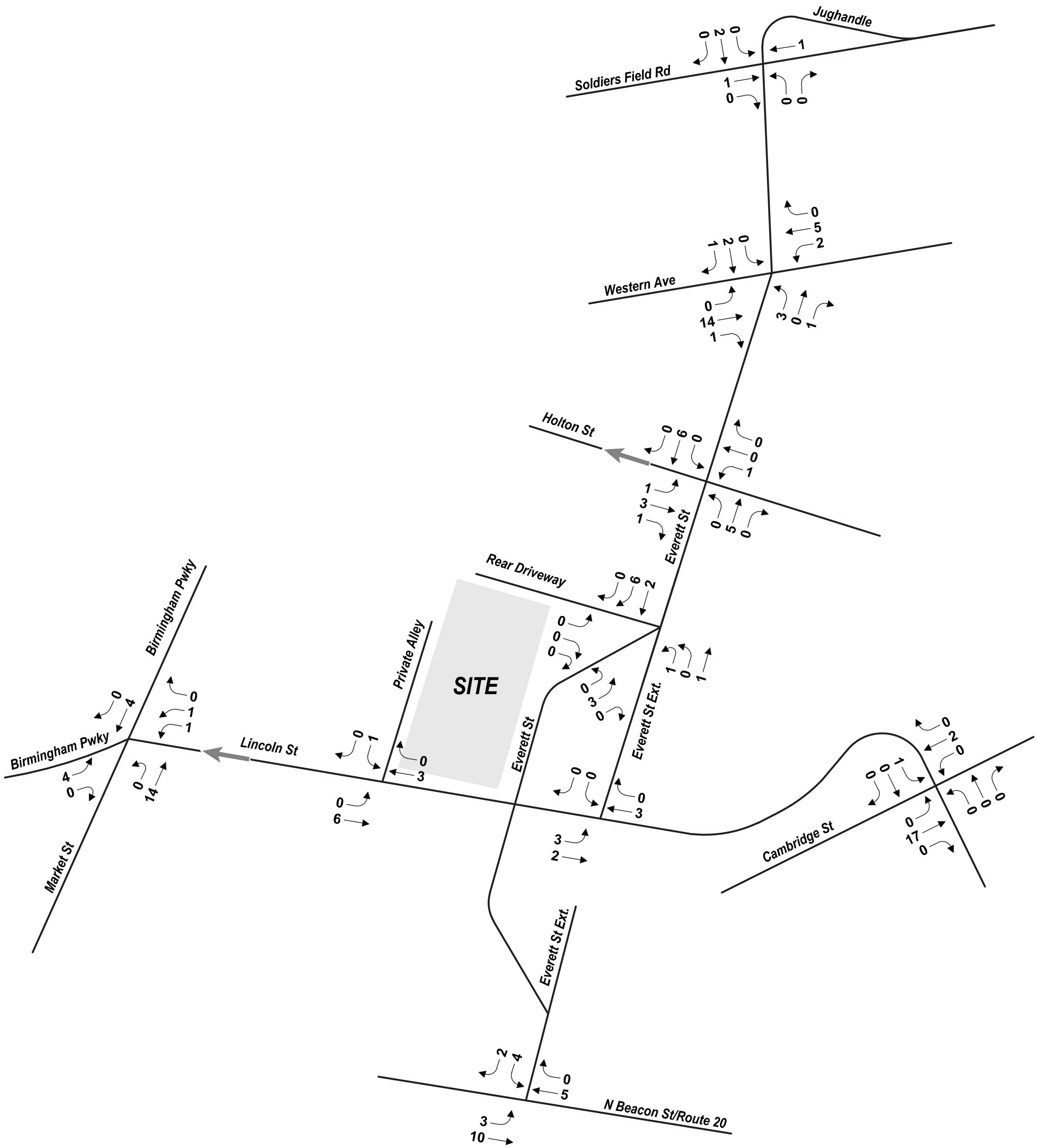

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Figure 4-7

2013 Existing Condition
Morning Peak Hour
Bicycle Volumes

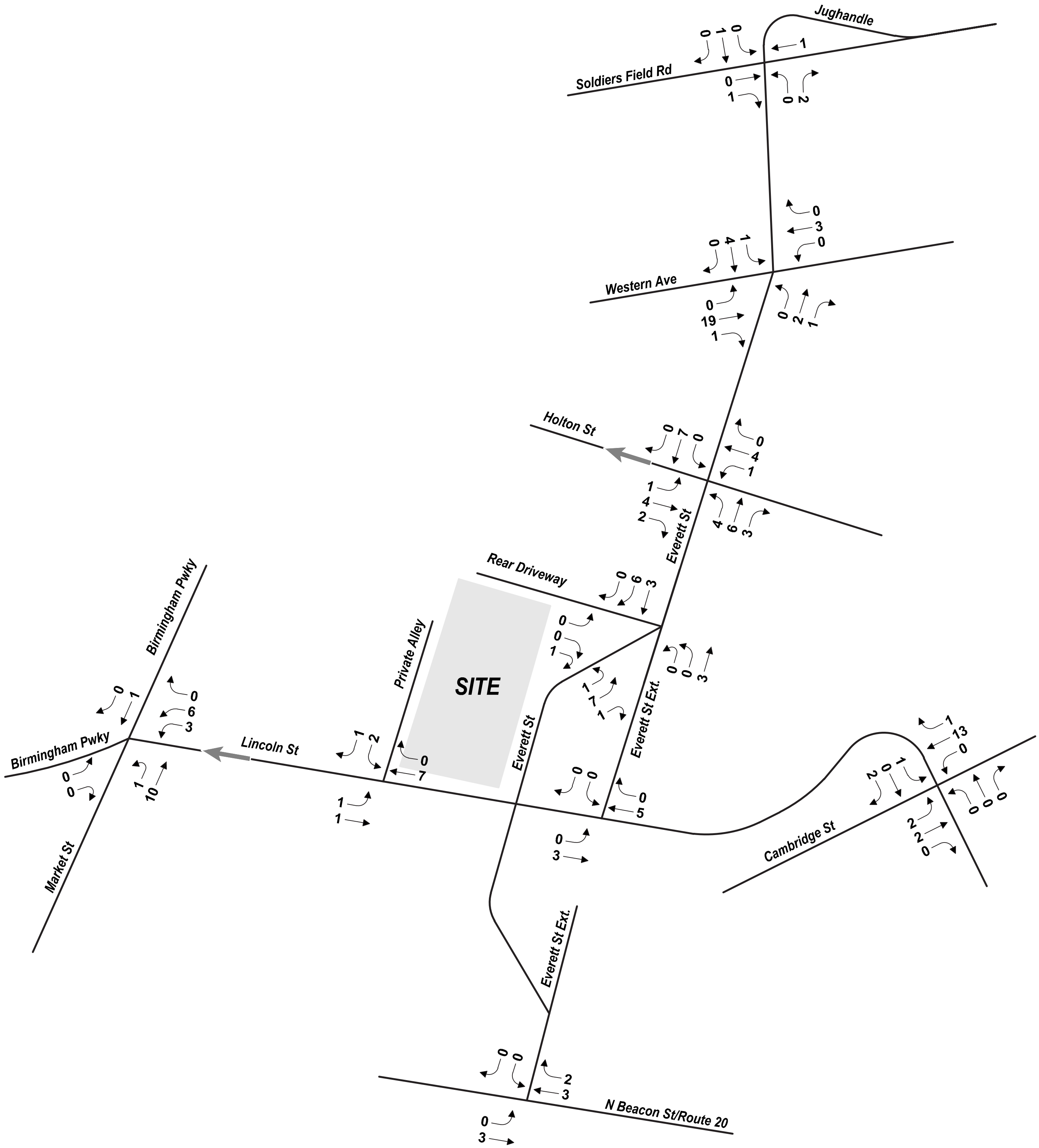

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Figure 4-8

2013 Existing Condition
Evening Peak Hour
Bicycle Volumes

Somerville. There are three stations in the system that are within approximately a third of a mile from the Project Site:

- Harvard Real Estate/Brighton Mills, 370 Western Avenue,
- Union Square, Brighton Avenue at Cambridge Street, and
- New Balance, 38 Guest Street.

Public Transportation

The Massachusetts Bay Transportation Authority (MBTA) currently provides local bus service within the Project Study Area. The following provides a brief outline of the transit services the area provides within walking distance (1/2 mile) of the Project Site. **Figure 4-9** provides a summary of these transit options in a graphical format.

- ***Route # 57 and 57A (Watertown Square(57) or Oak Square(57A) – Kenmore Station)*** - This route travels from Watertown Square via local roadways to Newton Corner, Oak Square, Brighton Center and Union Square. From there it continues to Packard's Corner and onto Commonwealth Avenue to Kenmore Station. The route operates from 4:30 AM to 1:20 AM on weekdays, with 5 to 10-minute headways during peak periods.
- ***Route # 64 (Oak Square - Central Square, Cambridge)*** - This route travels from Oak Square via local roadways to North Beacon Street, then along North Beacon Street to Cambridge Street and to Central Square in Cambridge. It operates from 5:30 AM to 1:15 AM on weekdays, with 15 to 20-minute headways during weekday AM peak period and with 25 to 30-minute headways during weekday PM peak period.
- ***Route # 66 (Harvard Square - Dudley Station)*** - This route travels from Harvard Square via North Harvard Street, Cambridge Street, Brighton Avenue to Harvard Avenue, Harvard Street to Coolidge Corner and Brookline Village, Huntington Avenue to Brigham Circle, Tremont Street to Roxbury Crossing, and to Dudley Station. It operates from 5:00 AM to 1:30 AM, with 10-minute or less headways during peak periods.
- ***Route # 70 and 70A Cedarwood(70) or North Waltham(70A) – University Park)*** - This route travels from North Waltham (70A only) to Cedarwood via Main Street, Waltham, Arsenal Street and Western Avenue, to Watertown Square to Central Square, Cambridge, and to University Park. It operates from 5:30 AM to 1:30 AM on weekdays, with 10-minute headways during the AM and PM peak periods.
- ***Route # 86 (Sullivan Square Station - Cleveland Circle)*** - This route travels from Cleveland Circle along Chestnut Hill Avenue and Market Street to Western Avenue to North Harvard Street and to Harvard Square. From there it continues on to Sullivan Square. The route operates from 5:00 AM to

1:00 AM on weekdays, with 10 to 15-minute headways during AM peak period and 15-minute headways during PM peak period.

Several other routes operate within 1 mile of the Site, including the #501 Express Bus servicing Brighton Center and Downtown Boston via Oak Square, the #503 Express Bus servicing Brighton Center and Copley Square via Oak Square, and the #65 bus servicing Brighton Center and Kenmore Station via Washington Street, Brookline Village and Brookline Avenue. There are numerous connecting points between most MBTA bus routes, allowing the potential for this Site to be reached by bus from many locations within the City of Boston and the surrounding suburbs.

There is no available rapid transit to the Site. The closest MBTA rapid transit route is the "B" (Boston College) branch of the Green Line, which travels along Commonwealth Avenue. The closest stop is approximately 0.6 miles south of the Project Site. Additionally, the Cleveland Circle area, which is approximately 1½ miles south of the Site, is serviced by three Green Line branches ("B", "C", and "D"). The closest existing MBTA commuter rail station is the Yawkey Station on the Framingham/Worcester line, located along Beacon Street, approximately two miles east of the Project Site.

■

Public Parking

There is a limited amount of public parking within the Study Area. While there are no parking garages within a quarter-mile of the Site, there is some on-street parking available. There are currently no parking restrictions on Lincoln Street adjacent to the building; however the roadway is a snow emergency arterial. Parking is not allowed on Everett Street along the side of the building. Parking is permitted on the east side of the Everett Street Extension between Lincoln Street and Everett Street. On-street curb regulations surrounding the Project Site are illustrated in **Figure 4-10**.

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Loading and Service Activities

Although no loading and service activities occur at the Site currently, loading occurs at the building directly north of the Site, at 100 Holton Street. This loading currently takes place in the driveway between the two buildings. In addition, another landowner along the Private Alley to the west performs loading activities along this alley.

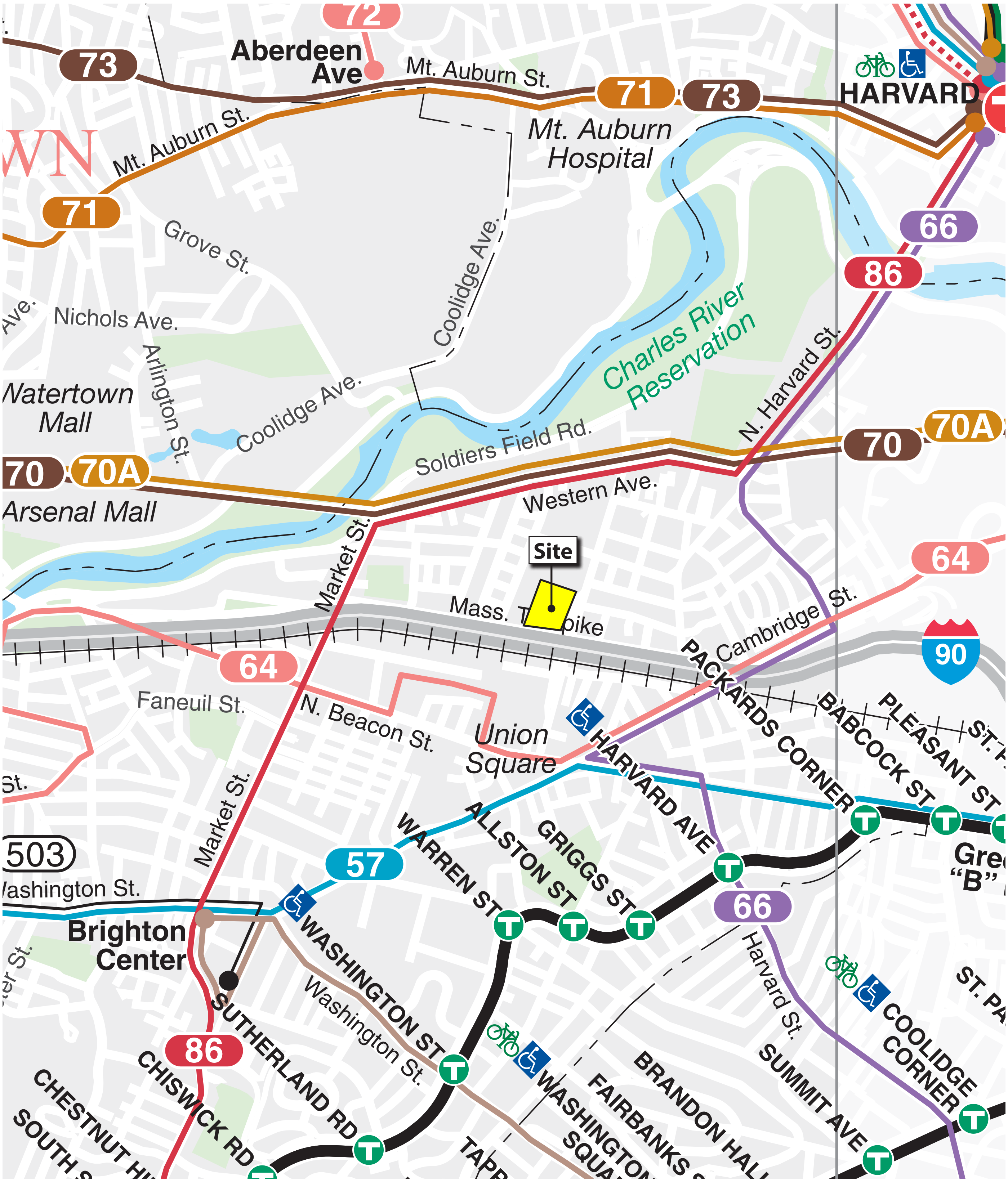

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Figure 4-9

Public Transportation

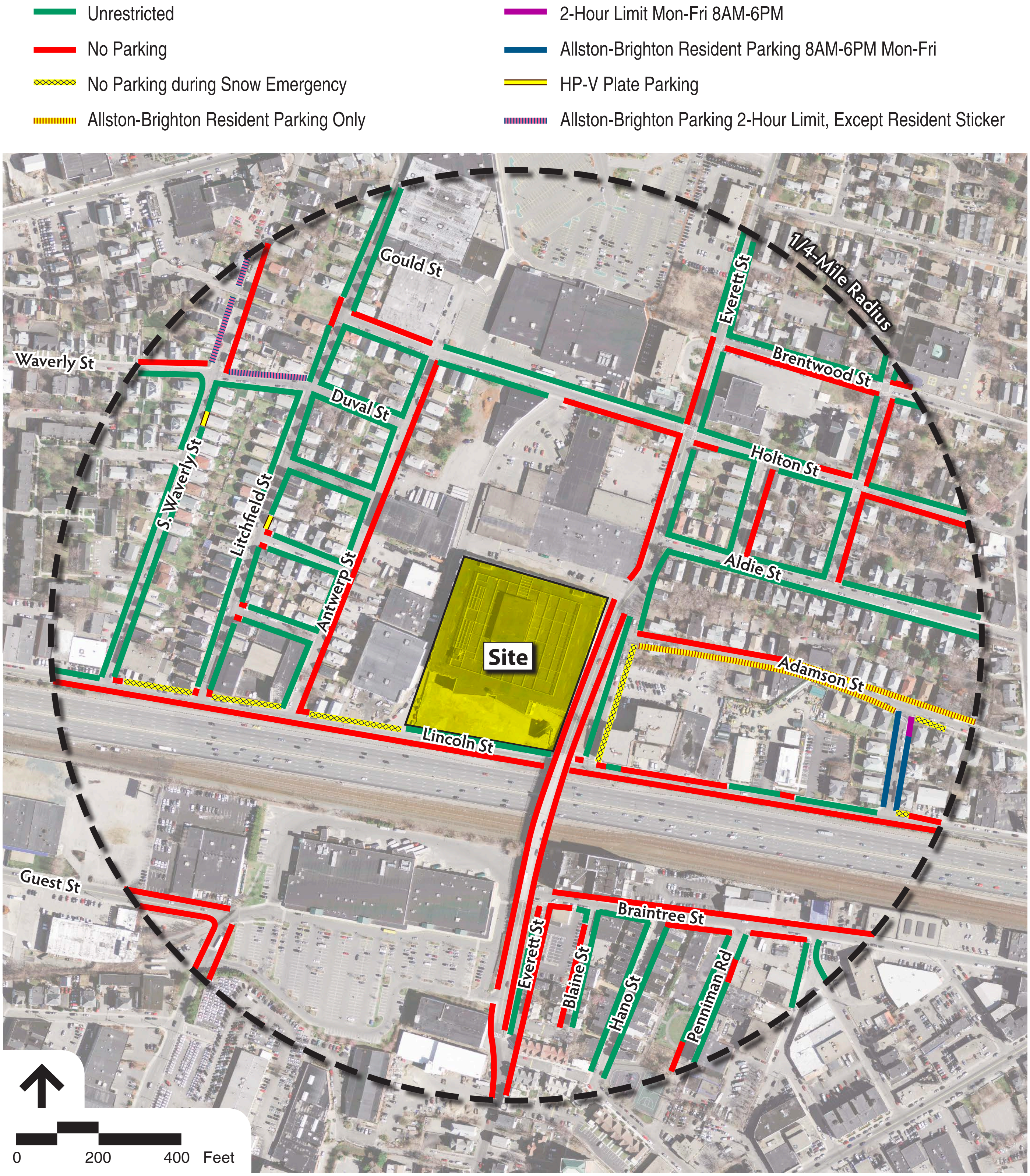

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Figure 4-10

On-Street Parking Regulations

2018 Future Traffic Conditions

The Study Area was evaluated for both the future 2018 No-Build and Build Conditions as described below:

- 2018 No-Build Condition, assuming no changes to the Project Site, but includes background growth associated with other planned projects and general background regional growth;
- 2018 Build Condition, assuming the same 2018 No-Build Condition, plus the Proposed Project.

2018 No-Build Condition

The 2018 No-Build Condition was developed and analyzed to evaluate future transportation conditions in the Study Area without consideration of the Proposed Project.

The 2018 future analysis year represents a five-year horizon from the 2013 Existing Condition analysis. Under the No-Build Condition, anticipated increases in traffic activity on Study Area roadways due to continued general area-wide traffic growth and approved developments in the area are added to the defined morning and evening peak hour traffic networks.

Step 1 – Account for General Background Traffic Growth

The first step in projecting No-Build traffic volumes was to estimate general area-wide traffic growth and determine an annualized growth rate that could be applied to existing condition peak hour traffic volumes to reasonably account for future through traffic growth in the Project Study Area.

An annual growth rate of 0.5 percent per year between 2013 and 2018 was applied to the 2013 Existing Condition vehicle volumes. This is a conservative rate of growth given the historical trend of traffic growth in the area has been flat to negative for the last ten years.

Step 2 – Development Projects

There are currently nine approved or planned development projects that are expected to have an influence on future year peak hour traffic volumes on Study Area roadways and intersections. The vehicle trips generated by these projects have been added to the 2018 No-Build volumes to estimate future conditions without the Proposed Project in place. A description of each planned project and/or master plan is provided below.

- **37 North Beacon Street** is a BRA approved five story, mixed use building consisting of 3,810 square feet of ground floor retail space and 44 residential units.
- **375 Market Street** is a four story, mixed used building consisting of 39 residential units with 3,290 square feet of first floor retail. The building will also provide 58 parking spaces in a below-grade parking garage under the building. This project is under construction.
- **Barry's Corner Residential and Retail Commons** is a project developed by Samuels and Associates under a long term ground lease from Harvard. The project entails 325 residential units, 45,000 square feet of retail space, 180 below-grade parking spaces, and 41 new on-street parking spaces.
- **Charlesview Redevelopment** is a relocation and reconstruction of existing Charlesview Apartments to two new Allston locations along Western Avenue, the Brighton Mills site and Telford Street site. The Brighton Mills site contains 260 residential apartment units, 26 residential condominium units, 13,150 square feet of retail, 1,772 square feet of management office space and 9,800 square feet of community space. There are also 260 parking garage and 111 surface parking spaces. At the Telford Street site 74 residential condominium units are accompanied by a 150 car parking garage. Traffic associated with the existing Charlesview complex was removed from the existing network, while trips associated with the relocation/ redevelopment project were added to the network.
- **District 9 at 61 North Beacon Street** is a four story office building, approximately 72,000 square feet in size.
- **Harvard Allston Campus Master Plan** is an Institutional Master Plan consisting of a range of projects involving renovation, re-use, building replacement and new construction. As described in Harvard's July 2013 IMP filing, the ten-year plan includes nine projects: seven new construction projects totaling 1.4 million square feet and two renovation projects totaling 501,000 square feet. To be conservative, the peak hour traffic generated by the ten-year plan is included in the no-build project network.
- **Harvard Science Complex** was part of the BRA approved 2007 Harvard Allston Campus Institutional Master Plan Ammendment. The complex was designed as a four building, consisting of approximately 589,000 square foot of laboratory, office, and research space. Construction began in 2007, but is currently on hold. The restart of this project is anticipated for 2014.
- **New Brighton Landing** is a BRA approved, mixed use projects revolving around a new New Balance World Headquarters office. There will be 900,000 square feet of new office space, a 323,000 square feet sports complex, a 175 room hotel and 65,000 square feet of retail and restaurant space. Additionally, up to 1,750 parking spaces will be provided. The project is scheduled to begin construction sometime in 2013.

- **Pennimar on the Park** is a new development of 32 residential condominium units. The building will also provide a 9,160 square foot in-ground parking garage.

Step 3 – Infrastructure Changes

The New Brighton Landing project is proposing a geometric change at the intersection of Birmingham Parkway/Lincoln Street/Market Street as part of the project's mitigation strategy. This change involves the restriping of the Lincoln Street approach from a left only lane and a shared through/right lane to a shared through/left lane and a shared through/right lane. This improvement is expect to be in place upon the completion of the New Brighton Landing project and is included in the 2018 No-Build and 2018 Build Conditions.

The State of Massachusetts is planning a two year project to completely rebuild a bridge that carries Cambridge Street over the Mass Pike and commuter rail tracks east of the study area. The bridge currently carries three lanes of traffic in each direction, and will carry two lanes of traffic and bicycle lane in each direction when rebuilt. Buffered bicycle lanes are also planned by the City along Birmingham Parkway and Western Avenue within the study area.

Other Area Wide Planning Initiatives

The BRA, via collaboration with the local community, is in the process of developing a future Lower Allston access vision that includes a new connection from Western Avenue to Lincoln Street. This connection, called South Telford Street, is envisioned to be an extension of Telford Street from Western Avenue to Lincoln Street. A portion of this potential South Telford Street will consist of the Private Alley adjacent to the west-side of the Project Site.

This connection will help the flow of traffic in the Lower Allston area by providing increased access connection from Western Avenue to future development in the area around the Proposed Project. It will also provide an increased pedestrian and bicycle link between the Esplanade and the residential/commercial area south of Western Avenue. An existing pedestrian walkway provides a safe connection over Soldiers Field Road at Telford Street. Currently, there is no timetable for this new South Telford Street connection and, to be conservative, it is not included in the transportation analysis of the future conditions.

No-Build Condition Traffic Volumes

Volumes from Step 1, general background growth, and Step 2, area development projects, were added to the 2013 Existing Condition volumes to create the 2018

No-Build Condition peak hour traffic volumes. **Figures 4-11** and **Figure 4-12** present the 2018 No-Build Condition traffic volume networks for the Weekday Morning and Evening peak hours, respectively.

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2018 Build Condition

The 2018 Build Condition was developed in order to evaluate the future transportation conditions associated with the Proposed Project. The 2018 Build Condition traffic volumes for Study Area roadways were developed by estimating Project-generated traffic volumes, distributing these volumes, and assigning them to the Study Area roadways. The traffic volumes expected to be generated by the Proposed Project were added to an adjusted 2018 No-Build Condition traffic volumes to create the year 2018 Build Condition traffic volume networks. The following sections describe the procedures used to develop the Build Condition traffic volume networks.

Trip Generation

To determine future 2018 Build Condition trip generation, existing vehicle trip generation was first quantified based on the existing travel characteristics of the Skating Club members with the understanding of similar ice rink operations in the Boston area. Existing trends were then applied to the projected ice activity at the Proposed Project.

A unique mode share was created and applied to trips generated by the Skating Club of Boston. Based on observations and discussions with the Skating Club, most trips generated by the Skating Club are made via a vehicle. Many members and coaches live outside the Downtown Boston area and arrive carrying skating and training gear which makes walking/biking and transit restrictive. The mode share at the existing Skating Club is presented in **Table 4-3**.

Table 4-3
Existing Skating Club of Boston Mode Shares

	Mode Share
Automobile	95%
Transit	4%
Walk/Bike/Other	1%

Source: Skating Club of Boston, 2013

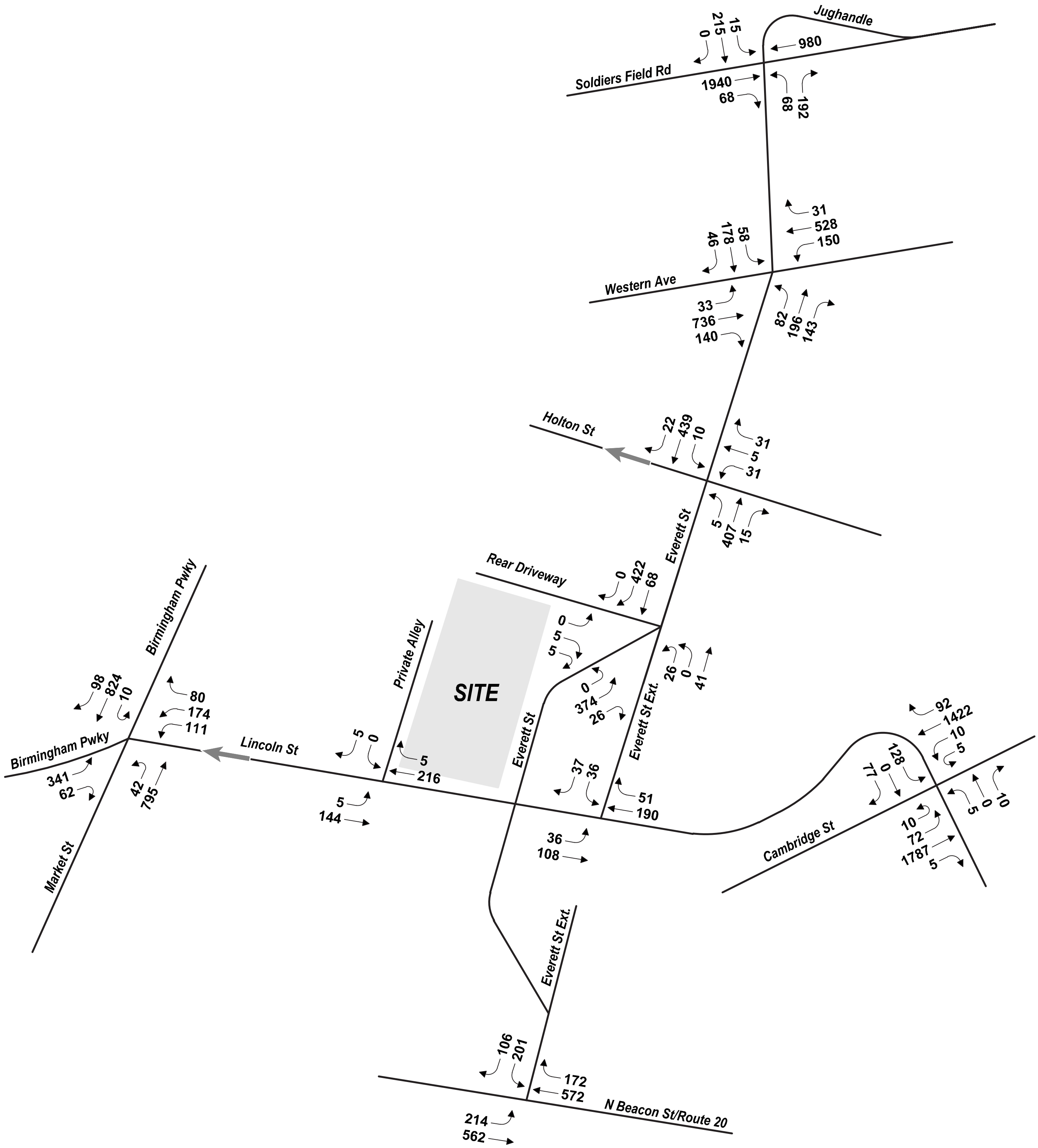

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Figure 4-11

2018 No-Build Condition
Morning Peak Hour
Traffic Volumes

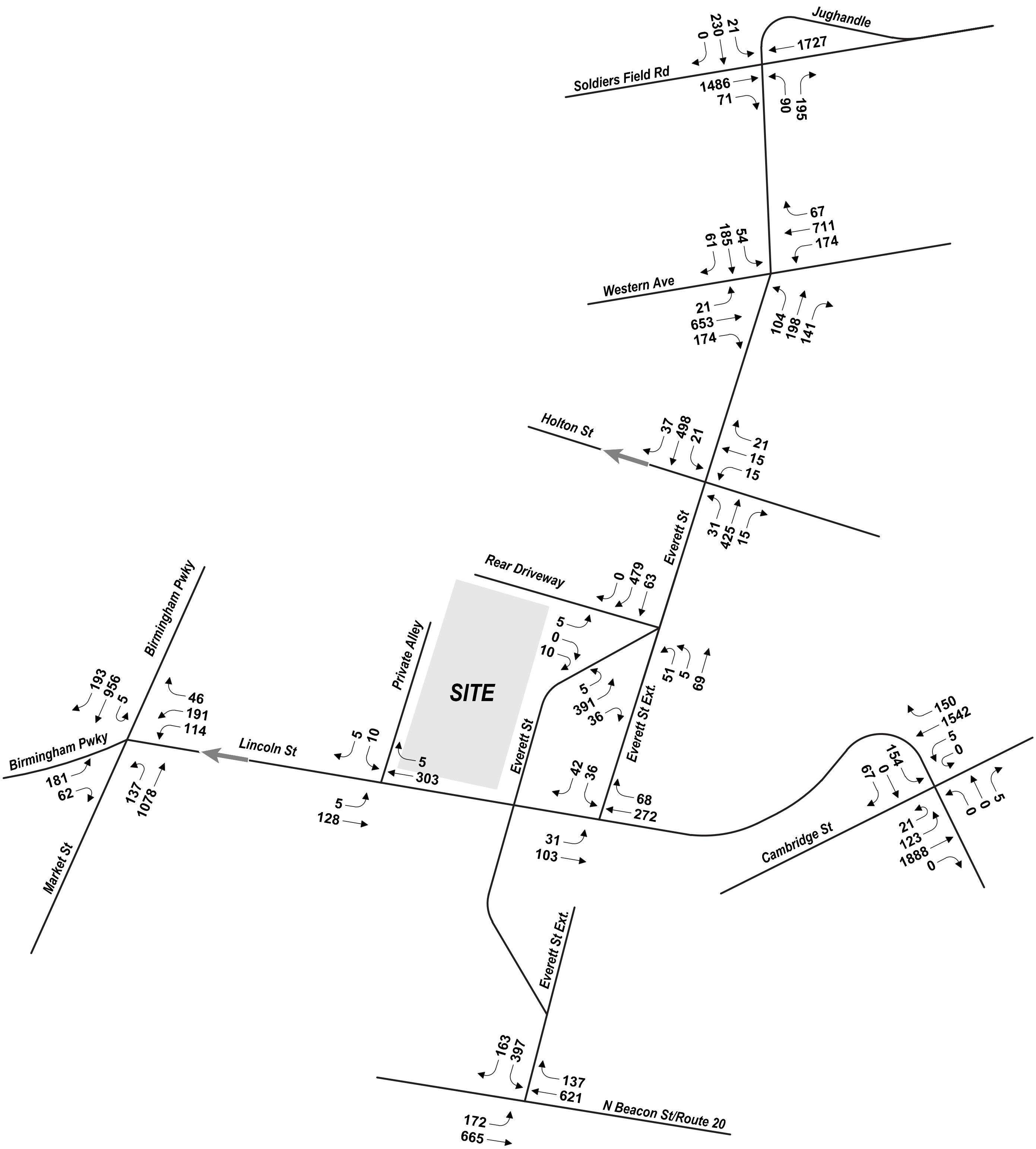

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Figure 4-12

2018 No-Build Condition
Evening Peak Hour
Traffic Volumes

The use of Institute of Transportation Engineer's (ITE) trip generation was investigated for the Proposed Project. The only land use code (LUC) that matched the Proposed Project was LUC 465, Ice Skating Rink. However, this LUC is based on a single observation for a 70 ksf ice skating rink with 300 seats. Data was only collected to create a weekday daily and a weekday evening peak hour generation rate. Based on this limited sample size and inconsistent ice rink size comparison, the resulting trip estimates based on ITE rates were not used for this analysis.

Future peak hour trips were calculated based the anticipated activity at each of the three rinks at the Proposed Project. These rinks were further classified and divided into two groups, figure skating and ice hockey/general use.

The future person trips generation associated with the proposed two figure skating rinks was based on the estimated future schedule of ice use by rink. This information, provided by the Skating Club, can be found in Appendix A. The third rink will support a combination of figure skating, ice hockey, and other general skating activities (public skate, learn to skate programs, etc.). The future trip generation associated with this rink is based on a study of the Mark Bavis Ice Arena (formally Mass Sports Club) in Rockland, MA, a comparable hockey rink facility in the Boston area.

Future peak hour trips were estimated by applying the mode share, as presented in **Table 4-3**, to the person trips generated by the each rink at the Proposed Project. It should be noted that a vehicle occupancy rate (VOR) of 1.2 was applied to vehicle trips generated by the Proposed Project. Estimated Project-generated trips for the 2018 Build Condition are shown below in **Table 4-4**.

Table 4-4
Estimated Project Generated Trips

	Entering	Exiting	Total
Morning Peak Hour			
Automobile	27	13	40
Transit	1	1	2
Walk/Bike/Other	0	0	0
Evening Peak Hour			
Automobile	119	78	197
Transit	6	4	10
Walk/Bike/Other	1	1	2

Source: VHB

The Proposed Project is expected to generate 40 vehicle trips (27 in/13 out) during the morning peak hour and 197 vehicle trips (119 in/78 out) during the evening peak hour. These trips were distributed through the Study Area based on the distribution presented below.

Trip Distribution

Project trips for the 2018 Build Condition were distributed through the Study Area intersections. Trip assignments for the vehicles traveling to the Site were based on zip-code data for current members of the Skating Club of Boston.

The Project trip distribution is shown in **Table 4-5** and graphically in **Figure 4-13**. The Project generated vehicle trips, presented previously in **Table 4-4**, have been assigned to the roadway network using the trip distribution, thus resulting in the 2018 Project generated trips. Morning peak hour trips are presented in **Figure 4-14** and evening peak hour trips are presented in **Figure 4-15**.

Table 4-5
Trip Distribution

Route	Percentage
Soldiers Field Road to/from East	6%
Western Avenue to/from West	6%
Western Avenue to/from East	4%
Birmingham Parkway to/from West	1%
Market Street to/from South	1%
North Beacon Street to/from West	5%
North Beacon Street to/from East	11%
Cambridge Street to/from East	66%
Total	100%

Source: Skating Club of Boston, 2013

As previously mentioned, Project generated trips were added to the 2018 No-Build traffic volumes to develop the 2018 Build Condition peak hour traffic volumes. These volumes are shown in **Figures 4-16** and **Figure 4-17**.

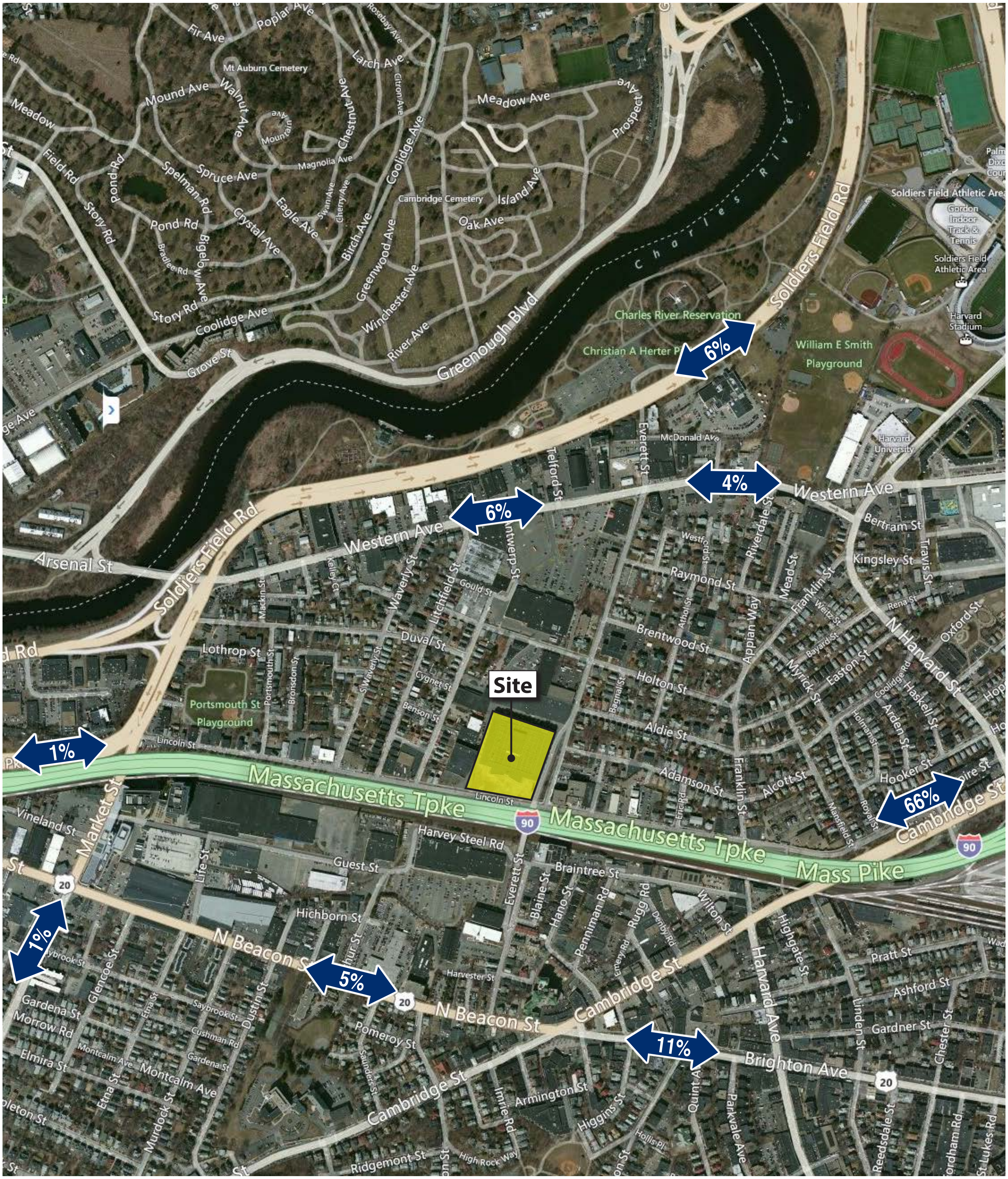

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Figure 4-13

Project Trip Distribution

Project Generated Trips	
In	27
Out	13
Total	40

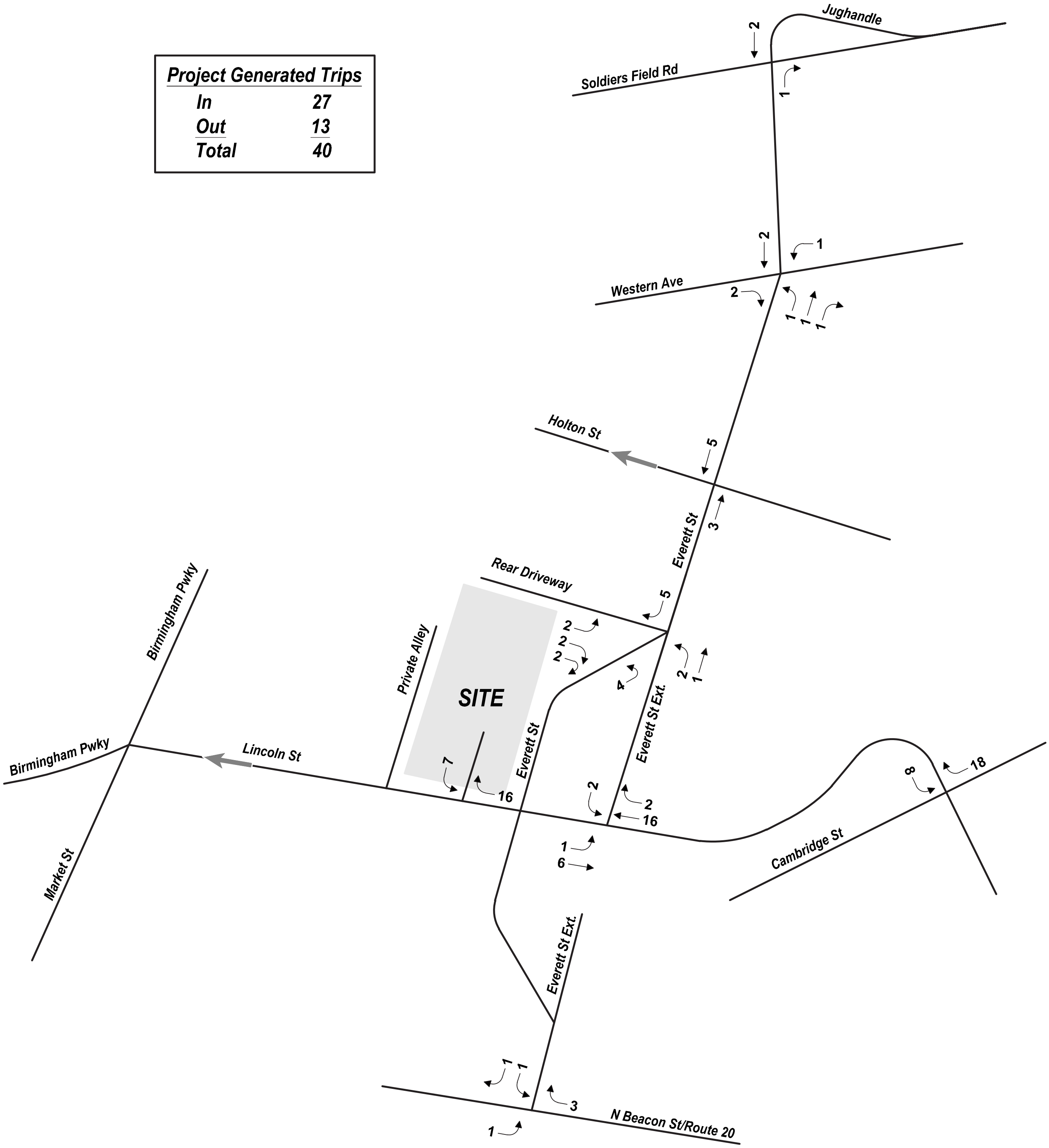

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Figure 4-14

Project Generated
Morning Peak Hour
Traffic Volumes

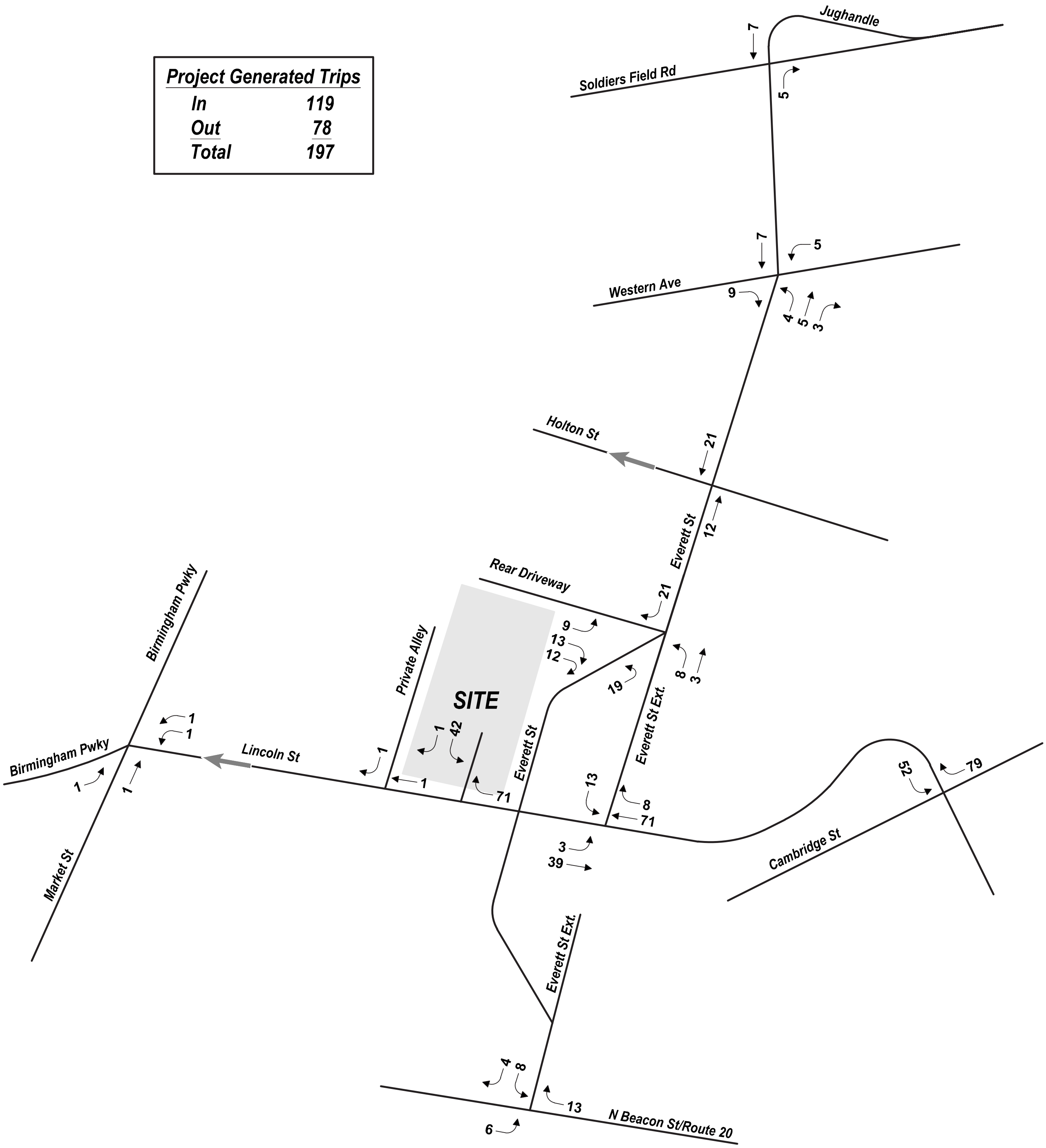

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Figure 4-15

Project Generated
Evening Peak Hour
Traffic Volumes

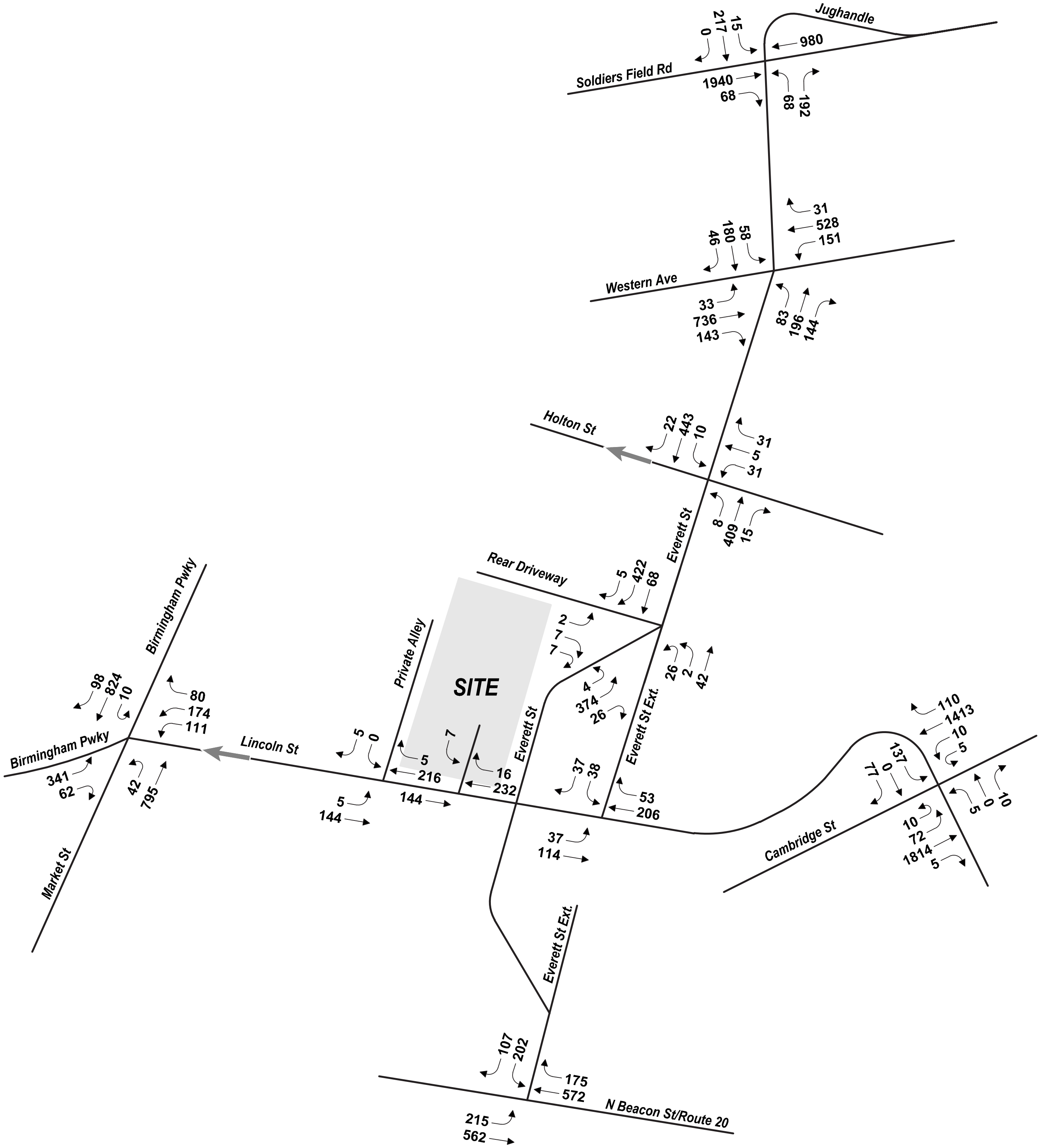

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Figure 4-16

2018 Build Condition
Morning Peak Hour
Traffic Volumes

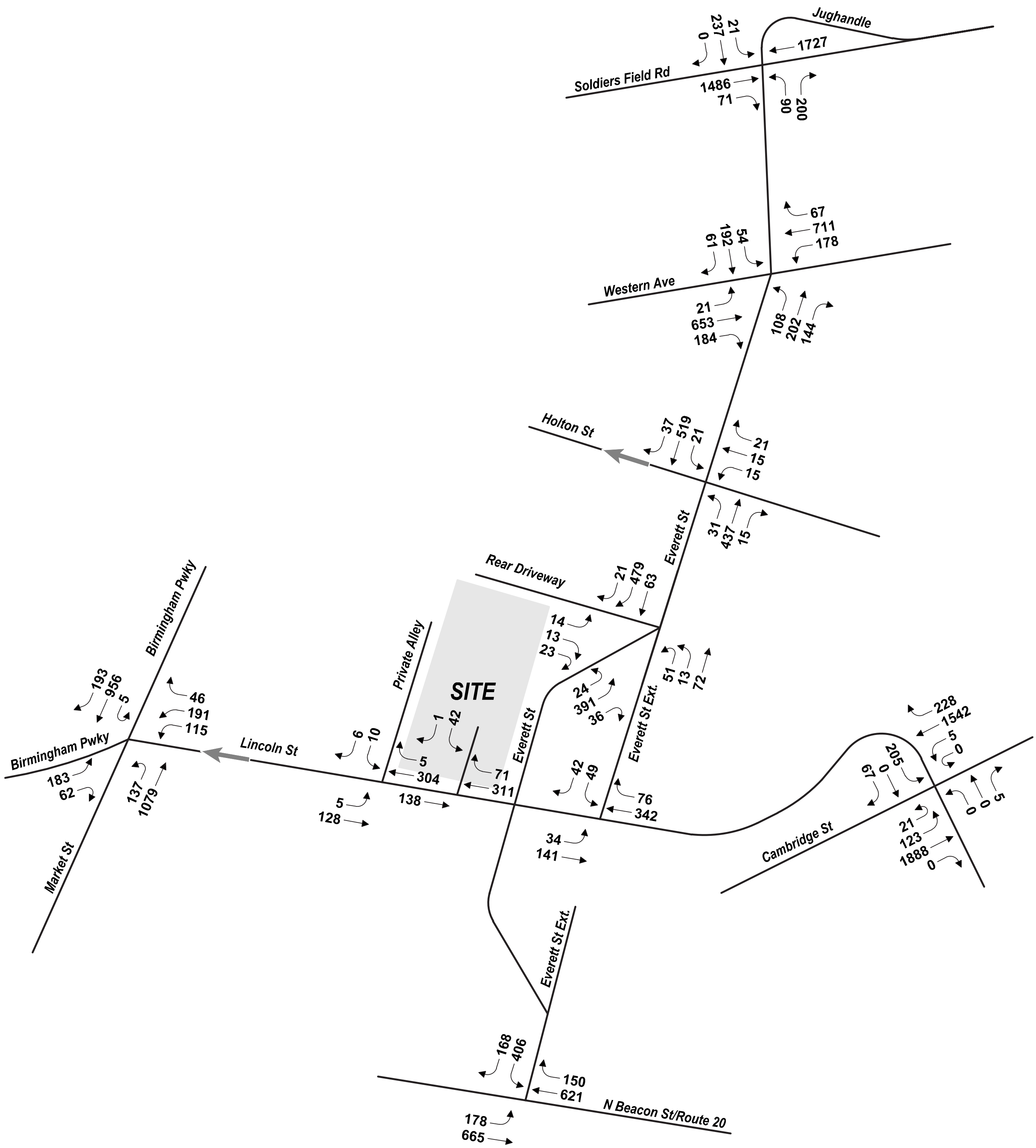

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Figure 4-17

2018 Build Condition
Evening Peak Hour
Traffic Volumes

Parking and Access/Circulation

The Proposed Project will accommodate approximately 198 parking spaces on site in two main parking lots. The parking on the east side of the Site, adjacent to Everett Street, will be the main parking lot. This lot contains approximately 134 parking spaces, including the building's accessible spaces. Access to this lot is provided by an existing curb cut along Lincoln Street or through the second parking lot. The parking lot on the north side of the Site, between the Proposed Skating Club and 100 Holton Street, contains approximately 64 parking spaces. Of the 64 parking spaces, 27 of these spaces will be shared between the users and invitees of 100 Holton Street and the future Skating Club facility. An additional 8 spaces are located north west of the parking area, which are owned and used daily by the users and invitees 100 Holton Street. The 8 spaces will be available for use by the Skating Club on specific Skating Club event days in accordance with the shared parking arrangement between the Skating Club and the owner of 100 Holton Street. This lot can be accessed at the intersection of Everett Street and Everett Street Extension or from the potential South Telford Street. The curb cut at Everett Street Extension will be designed and implemented to ensure that adequate sight distances are maintained to allow for safe and efficient access and egress from this site driveway.

In addition to on-site parking, the Skating Club is proposing to extend an existing cut out in front of the Site along Lincoln Street to create a drop-off/pick-up/bus parking area. It is expected that this area will be used daily by parents to drop-off and pick-up their skaters. Approximately ten passenger vehicles will be able to use this area. When events are held at the Skating Club, as discussed later in this chapter, this area will be used as a bus drop-off/pick-up area. Approximately five full-sized coach buses will be able park in this area at one time. This configuration will keep large buses separate from passenger vehicles and pedestrians in the on-site parking lots.

Loading and Emergency Vehicle Access

Loading and service functions for the Proposed Project will be accommodated via a service drive into the northwest corner of the Proposed Building. This service drive will be accessed from the north parking lot. It is anticipated that the Skating Club will have a minimal amount of deliveries, all of which will be made with a single unit truck or smaller. It is expected that vendors will make most deliveries during off peak hours, thus further reducing the impacts to the Site.

All parking lot entrances and layouts will be designed to accommodate emergency vehicles access to the Project Site. The Skating Club is committed to work with the Boston Fire Department (BFD) to address any issues they may have in the review process.

Pedestrians

The Skating Club intends to create a solid pedestrian environment on and around the Project Site. The Skating Club proposes to reconstruct portions of the sidewalk along Lincoln Street where necessary and construct a new pedestrian sidewalk with accommodations for street furniture on the Project Site along the potential South Telford Street right of way. Crosswalks will be striped across all Site driveway entrances. Within the Project Site itself, the Skating Club intends to provide ample sidewalk space and crosswalks to ensure the safety of their members, guests, and members of the public. These pedestrian amenities include a raised crosswalk across the access drive between the north and east on-site parking lots, as well as a public plaza in front of the entrance to rink three and a sidewalk all along the front of the Proposed Project to facilitate pedestrian movement within and through the Project Site. The Proponent will provide accessible ramps throughout the Project Site to promote circulation throughout the Project Site by persons with disabilities.

Traffic Operations Analysis

Capacity analysis were conducted for the 2013 Existing, 2018 No-Build, and 2018 Build Conditions to determine how well the roadway facilities serve the existing and future traffic demands. These roadway operating conditions are classified by quantified levels of service.

■

Level-Of-Service Criteria

Level-of-service (LOS) is qualitative measure of control delay at an intersection providing an index to the operational qualities of a roadway or intersection. Level-of-service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level-of-service designation is reported differently for signalized and unsignalized locations.

For signalized intersections, the analysis considers the operation of each lane or lane group entering the intersection and the LOS designation is for overall conditions at the intersection. For unsignalized intersections, however, the analysis assumes that traffic on the mainline is not affected by traffic on the side streets. The LOS is only determined for left turns from the main street and all movements from the minor street. The LOS designation is for the most critical movement, which is most often the left turn out of the side street.

The evaluation criteria used for the LOS analysis are based on the 2000 Highway Capacity Manual. **Table 4-6** below presents the level of service delay threshold criteria as defined in the HCM.

Table 4-6
Level of Service Criteria

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

Consistent with BTD's guidelines, *Synchro 6* software was used to model LOS operations at the Study Area intersections. Overall intersection LOS and delay are only provided for signalized intersections by Synchro. Intersection operations summary reports are presented in Appendix A.

Signalized Intersection Capacity Analysis

The Study Area contains six signalized intersection in the 2013 Existing, 2018 No-Build and 2018 Build Conditions. Capacity analyses were conducted for these signalized intersections. A summary of the signalized capacity analysis is presented in **Table 4-7**.

Table 4-7
Signalized Intersection Capacity Analysis Summary

Location	Weekday Peak	2013 Existing Conditions V/C[1]	Delay[2]	LOS[3]	2018 No-Build Conditions V/C	Delay	LOS	2018 Build Conditions V/C	Delay	LOS
Soldiers Field Road at	Morning	0.93	31.3	C	>1.0	43.3	D	>1.0	43.4	D
Everett Street/Jughandle	Evening	0.80	18.0	B	0.95	25.3	C	0.96	25.4	C
Western Avenue at	Morning	>1.0	58.9	E	>1.0	>80.0	F	>1.0	>80.0	F
Everett Street	Evening	0.98	48.1	D	>1.0	>80.0	F	>1.0	>80.0	F
Holton Street at	Morning	0.41	7.4	A	0.49	8.6	A	0.48	7.6	A
Everett Street	Evening	0.40	7.1	A	0.48	7.1	A	0.49	7.1	A
North Beacon Street at	Morning	0.71	26.1	C	>1.0	54.6	D	>1.0	54.9	D
Everett Street	Evening	0.79	31.5	C	>1.0	>80.0	F	>1.0	>80.0	F
Birmingham Parkway at	Morning	0.68	28.9	C	0.73	29.8	C	0.73	29.8	C
Lincoln Street/Market Street	Evening	0.86	27.3	C	>1.0	67.3	E	>1.0	67.5	E
Cambridge Street at	Morning	0.67	19.1	B	0.83	25.2	C	0.85	26.5	C
Lincoln Street	Evening	0.85	25.4	C	0.97	37.7	D	>1.0	53.4	D

Source: VHB
1. V/C = volume to capacity ratio
2. Delay = Average delay in seconds per vehicle
3. LOS = Level of Service

Under 2013 Existing Conditions, all intersections operate at LOS C or better during morning and evening peak hours except for the intersection of Western Avenue at Everett Street. This intersection operates at LOS E during the morning peak hour and LOS D during the evening peak hour.

Under 2018 No-Build Condition, all intersections experience a decrease in LOS during at least one of the peak hours with the exception of Holton Street at Everett Street. The intersection of Soldiers Field Road at Everett Street/Jughandle decreases to LOS D during the morning peak hour and LOS C during the evening peak hour. Western Avenue at Everett Street worsens to LOS F during both peak hours. North Beacon Street operates at LOS D during the morning peak hour and at LOS F during the evening peak hour. During the evening peak hour Birmingham Parkway at Lincoln Street/Market Street declines to LOS E. Cambridge Street at Lincoln Street falls from LOS B to LOS C during the morning peak hour and LOS C to LOS D during the evening peak hour.

Under 2018 Build Conditions, all intersections operate at the same LOS as they did in the No-Build Condition with only modest increases in overall intersection delay.

Unsignalized Intersection Capacity Analysis

Capacity analyses were also conducted for the three unsignalized intersections identified in the Study Area. Capacity analyses were conducted for the 2013 Existing, 2018 No-Build and the 2018 Build Conditions. A summary of the unsignalized capacity analysis is presented in **Table 4-8**.

Table 4-8
Unsignalized Intersection Capacity Analysis Summary

			2013 Existing Conditions			2018 No-Build Conditions			2018 Build Conditions		
Location	Weekday Peak	Critical Approach	V/C[1]	Delay[2]	LOS[3]	V/C	Delay	LOS	V/C	Delay	LOS
Rear Driveway at Everett Street/Everett Street Extension	Morning	EB	0.07	21.2	C	0.10	29.8	D	0.18	36.9	E
	Evening	NWB	0.09	22.0	C	0.64	45.4	E	0.97	>50	F
Lincoln Street at Everett Street Extension	Morning	SB	0.15	11.9	B	0.15	12.0	B	0.17	12.4	B
	Evening	SB	0.19	12.8	B	0.20	13.0	B	0.28	15.8	C
Lincoln Street at Driveway	Morning	SB	0.02	11.0	B	0.02	11.0	B	0.02	11.0	B
	Evening	SB	0.05	12.1	B	0.05	12.2	B	0.06	12.2	B

Source: VHB
1. V/C = volume to capacity ratio of critical approach
2. Delay = Average delay in seconds per vehicle of critical approach
3. LOS = Level of Service of critical approach

Under 2013 Existing Conditions, all of the unsignalized Study Area intersections currently operate at LOS C or better during morning and evening peak hours.

Under 2018 No-Build Conditions, the intersection of the Rear Driveway at Everett Street/Everett Street Extension declines from LOS C to LOS D during the morning peak and LOS E during the evening peak. These increases in delay occur for vehicles on the minor side street are due to the increased volume on the major roadway, Everett Street. All other intersections continue to operate at the same LOS as under Existing Conditions.

Under 2018 Build Conditions, the intersections of Rear Driveway at Everett Street/Everett Street Extension and Lincoln Street at Everett Street Extension experience a decline in LOS from the No-Build Conditions. During the morning peak, Rear Driveway at Everett Street/Everett Street Extension operates at LOS E and LOS F during the evening peak. This is due to the large increase in traffic on the minor roadways, Rear Driveway and Everett Street Extension. Lincoln Street at Everett Street Extension operates at LOS C during the evening peak hour due to an increase in volume on the minor roadway, Everett Street Extension, as vehicles exit the Project Site.

Event Management

The Skating Club of Boston has a long history of hosting events both on site at their existing Western Avenue facility, and off site at other locations. These events range in size from their annual junior holiday pageant held for the enjoyment of Skating Club members to the U.S. Figure Skating National Championships. To help quantify both size of the events and the level of management, typical events have been classified into three categories:

- Small Annual Competitions and Shows that are currently held on site and will continue to be held on site at the proposed facility in the future;
- Medium-Sized Competitions and Shows that are currently held off site but will be held on site at the new Proposed Skating Club; and
- Large Competitions that are currently held off site and will continue to be held off site in the future.

Small Annual Competitions/Shows

These competitions and shows are held annually by the Skating Club on site. Typical events included in this classification are the Boston Open and the Holiday Pageant. These events are small in nature, with competitions attracting 120-150 skaters and shows attracting 150-200 attendees. Tickets are not sold for events like these, as they are mostly local skaters supported by their families and friends. They can range in length from a single performance to events spaced over a three day period (typically over a weekend).

Parking for these small events is accommodated in the limited on-site lots and in larger off-site lots when needed. Shuttle bus service is contracted and operated continuously during the events to and from these off-site parking lots and the Skating Club. This event management strategy is expected to continue to be utilized at the Proposed Skating Club once completed and opened.

Medium-Sized Competitions/Shows

These competitions are currently hosted by the Skating Club at nearby, larger venue ice skating rinks, but are planned to be held on site at the Proposed Skating Club. Typical events included in this classification are U.S. Figure Skating Qualifying Competitions and Ice Chips. These events can occur annually (Ice Chips celebrated its 100th anniversary in 2012) or every few years through a bid awarded by U.S. Figure Skating. The competitions and shows are sizable in nature, attracting approximately 2,000 spectators for each day of competition or performance. Tickets are required for events of this size, which can be held over multiple days. Competitions usually run from 8:00 AM to 8:00 PM, with events and flows of competitors/spectators evenly spread throughout the day. Shows are usually held on weekends, with multiple performances on Saturday and a single performance on Sunday.

In the future, parking for these events will be accommodated in a similar fashion to the small events currently held on site. Most attendees will park in off-site lots and will be shuttled to the Proposed Skating Club by buses operating on a regular schedule throughout the day. Directions to these off-site lots will be provided with the event ticket and on the Skating Club website. Parking on site will be restricted to special permit holders only.

Large Competitions

The Skating Club has, and will continue to host large national and international competitions. These events attract the top figure skaters and spectators from around the country and the world. Events of this size are typically held in downtown Boston, at large venues such as the TD Garden and the Boston Convention and Exhibition Center, and are not expected to be held on-site at the Proposed Skating Club. These events are typically a week long in length and have open practices and qualifying skates leading up to the championship competitions.

The Skating Club has the chance to host these events every few years through a bid process awarded through U.S. Figure Skating. Upcoming event of this scale include the 2014 U.S. Figure Skating National Championships and the 2016 ISU World Figure Skating Championships.

Previously Permitted Project On Site

The site of the Proposed Project has been looked at for other projects and currently the BRA approved for the Boston Tech Center. This project included a 444,000 square foot biotechnical research and manufacturing facility with 652 parking spaces. Although this project was permitted, no portion of the project was constructed except for the outer shell of the building.

Table 4-9 compares this previously permitted project to the Proposed Skating Club. The Proposed Skating Club is much smaller in size than the Boston Tech Center. It will also have less parking spaces (198 spaces vs. 652 spaces) and produce fewer trips during both the morning (40 trips vs. 340 trips) and evening (197 trips vs. 330 trips) peak hours that the Boston Tech Center.

Table 4-9
Previously Permitted Project Comparison

	Boston Tech Center	Skating Club of Boston
Building Size (ksf)	444	190
Number of On-Site Parking Spaces	652	198
Morning Peak Hour Vehicle Trips		
In	260	27
Out	80	13
Total	340	40
Evening Peak Hour Vehicle Trips		
In	120	119
Out	210	78
Total	330	197

Construction Management

Following the Article 80 review process, a detailed Construction Management Plan (CMP) will be developed and submitted to BTD and other appropriate City of Boston agencies for its approval in connection with the Proposed Project. The CMP will provide a detailed evaluation of potential short-term construction related transportation impacts during the course of the Proposed Project's construction. The CMP will include truck routing, construction staging on site, and pedestrian circulation around the Project Site. The Proponent will coordinate the Project's construction efforts with other construction projects in the area including the Brighton Landing Project, Harvard's Institutional Master Plan Projects, and the nearby MassDOT Bridge Projects.

Construction vehicles will be necessary to move construction materials to and from the Proposed Project Site. The Proponent recognizes that construction traffic is a concern to area residents. No roadway closures are anticipated with the construction project. The need for street occupancy (i.e. temporary removal of parking or single lane closures) along roadways adjacent to the Proposed Project Site is possible during certain periods of construction.

Contractors will be required to devise access plans for their personnel that de-emphasizes auto use (such as seeking off-site parking, provide transit subsidies, etc.). Construction worker parking will be provided on site, thereby eliminating the need for construction worker parking elsewhere in the area. Also, staging areas for construction are anticipated to be located directly on the Project Site.

5

Environmental Protection Component

This chapter presents the findings of technical studies that were conducted to determine the direct or indirect impact to the environment reasonably attributable to the Proposed Project as described in Chapter 1, Project Description and Impact Summary. Existing conditions and proposed conditions are shown in **Figure 5-1** and **Figure 5-2**, respectively. The categories of environmental impacts for which studies and mitigation are addressed herein include wind, shadow, daylight, solar glare, air quality, solid and hazardous waste, noise, stormwater management, flood hazards/wetlands, geotechnical and groundwater analysis, construction impacts, rodent control, historical resources, and sustainable design.

Overall, as described below, the Proposed Project will not have significant environmental impacts, and in several instances will enhance existing conditions on the Project Site.

Wind

The Proposed Project involves the redevelopment of the existing 5.2 acre Boston Tech Center parcel, which will involve the removal of the existing 450,000 square-foot, 3-story building that is approximately 59 feet in height and its replacement with an approximately 155,000 square foot 1-2 story structure of significantly lower massing with a maximum height of approximately 55 feet (at the center ice rink) and a primary height of approximately 35 feet (at the north and south ice rinks that form the majority of the Proposed Project's pedestrian streetwall).

The Proposed Project will have a net beneficial impact on wind conditions in the vicinity of the Project Site as a result of the reduction in height of the existing streetwalls along Everett Street and the potential South Telford Street alignment from just under 60 feet in the existing condition to between 35 and 55 feet in the proposed condition. In addition to the reduction in height on the Project Site, the Proposed Project will be set back from both Everett Street and South Telford Street to a significantly greater degree than the existing structure. The new streetwall on Lincoln Street will be approximately 35 feet in height, roughly equivalent to a 3-4 story low-rise residential structure and not tall enough to create any type of wind-shear condition along the pedestrian sidewalk.

Because the Proposed Project is not a high-rise structure, a wind tunnel analysis was not conducted. This qualitative analysis describes the Proposed Project's effect of improving existing conditions with respect to wind impacts in the vicinity of the proposed Project Site.

Shadow Analysis

The Proposed Project is located in a transitional, urban-scale neighborhood characterized by widely varying building heights and massing. Recognizing the importance of natural daylight in maintaining and enhancing the quality of the streetscape, the Project Proponent has conducted a detailed shadow analysis to assess the Proposed Project's shadow impacts within its urban context.

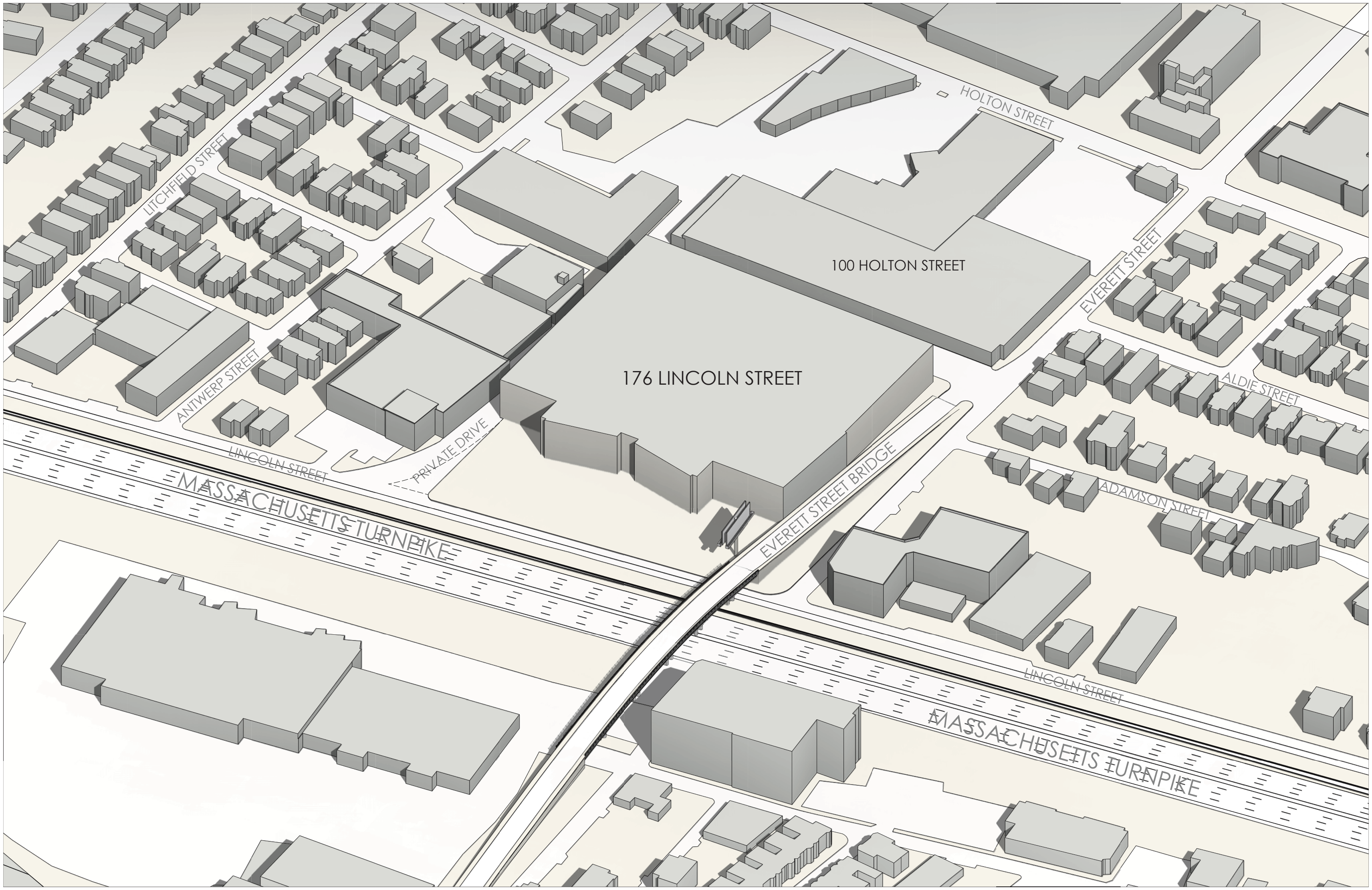
The primary purpose of the shadow analysis is twofold: first, the analysis examines the extent to which the Proposed Project creates net new shadow on the surrounding area, and second, the analysis examines the difference between the net new shadow cast by the Proposed Project and the existing Boston Tech Center structure, which is significantly larger than the Proposed Project in terms of height and massing.

Shadow studies were conducted for the following dates and times, consistent with BRA Development Review guidelines and customary practice:

- March 21 (spring equinox): 9:00AM, 12:00PM, 3:00PM
- June 21 (summer solstice): 9:00AM, 12:00PM, 3:00PM, 6:00PM
- September 21 (fall equinox): 9:00AM, 12:00PM, 3:00PM
- December 21 (winter solstice): 9:00AM, 12:00PM, 3:00PM

The graphical results of the shadow studies are included and shown in **Figure 5-3** through **Figure 5-15**. In summary, the shadow studies yielded the following conclusions about the Proposed Project's shadow impacts:

- The Proposed Project will cast <u>no net-new shadow</u> on public sidewalks or green spaces.
- Due to the height of the existing structure located on the Project Site, the proposed project will cast significantly less shadow on the surrounding areas than the existing structure.
- Only a small section of the potential South Telford Street alignment that is not currently cast in shadow by the existing structure would be cast in shadow by the Proposed Project, and only in the morning hours.



The Skating Club of Boston

176 Lincoln Street Allston, MA

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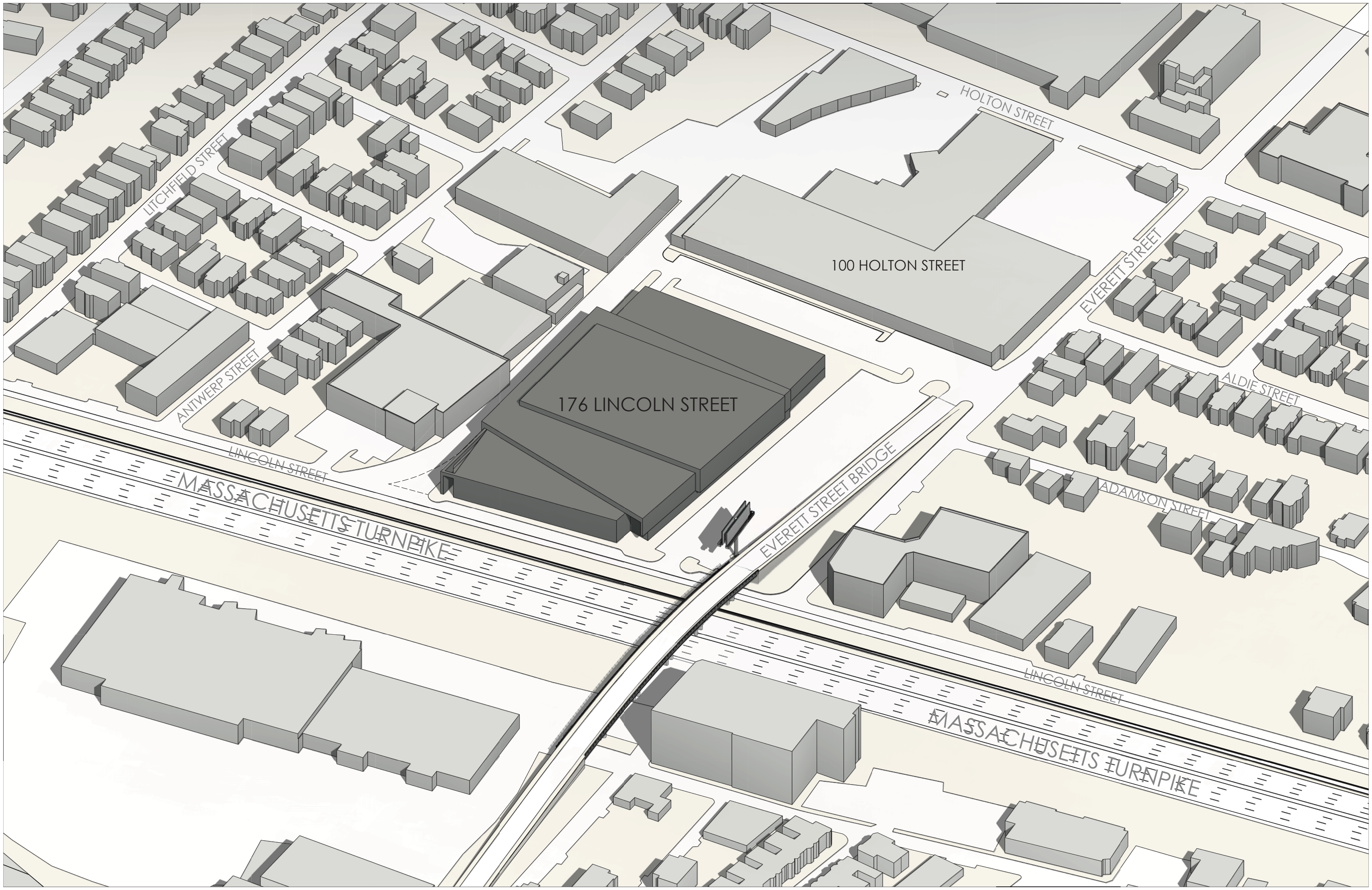
Figure 5-1

Assumed Existing Conditions



The Skating Club of Boston
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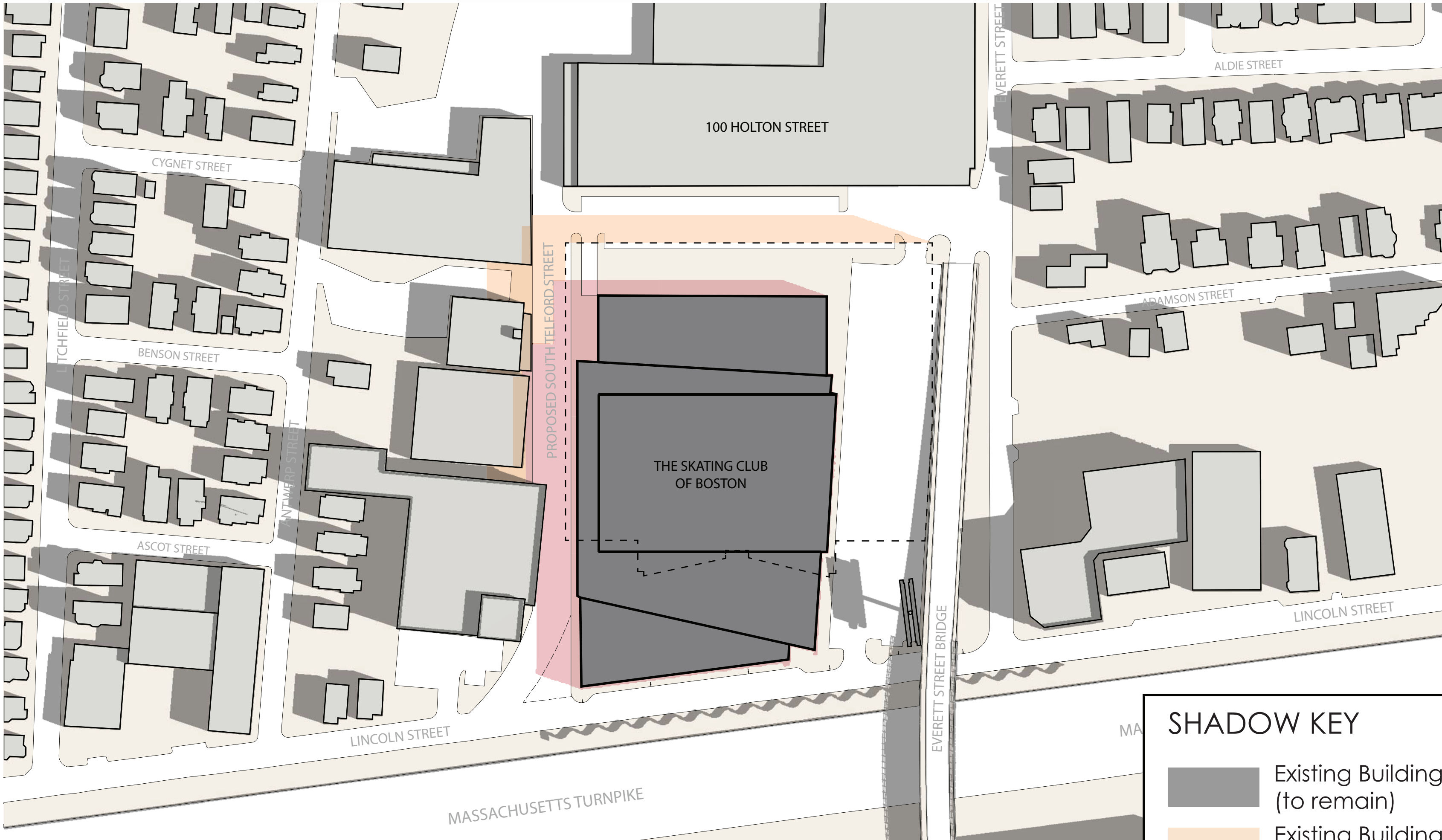
Figure 5-2

Assumed Built Conditions



SHADOW KEY

Existing Buildings (to remain)

Existing Building (to be demolished)

Proposed Building

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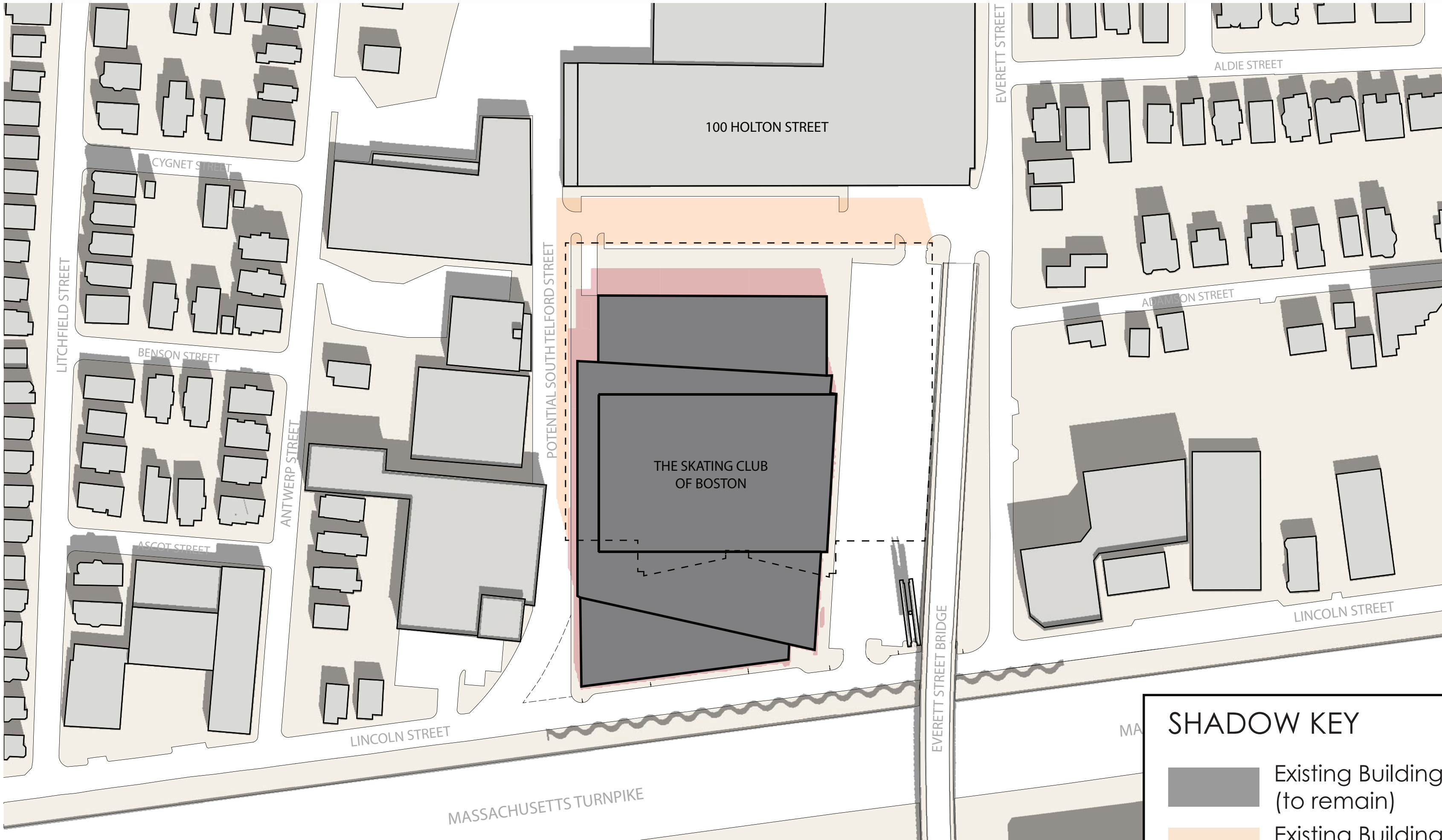
Figure 5-3

Shadow Study

March 21 9am



SHADOW KEY

- Existing Buildings (to remain)
- Existing Building (to be demolished)
- Proposed Building

The Skating Club of Boston

176 Lincoln Street Allston, MA

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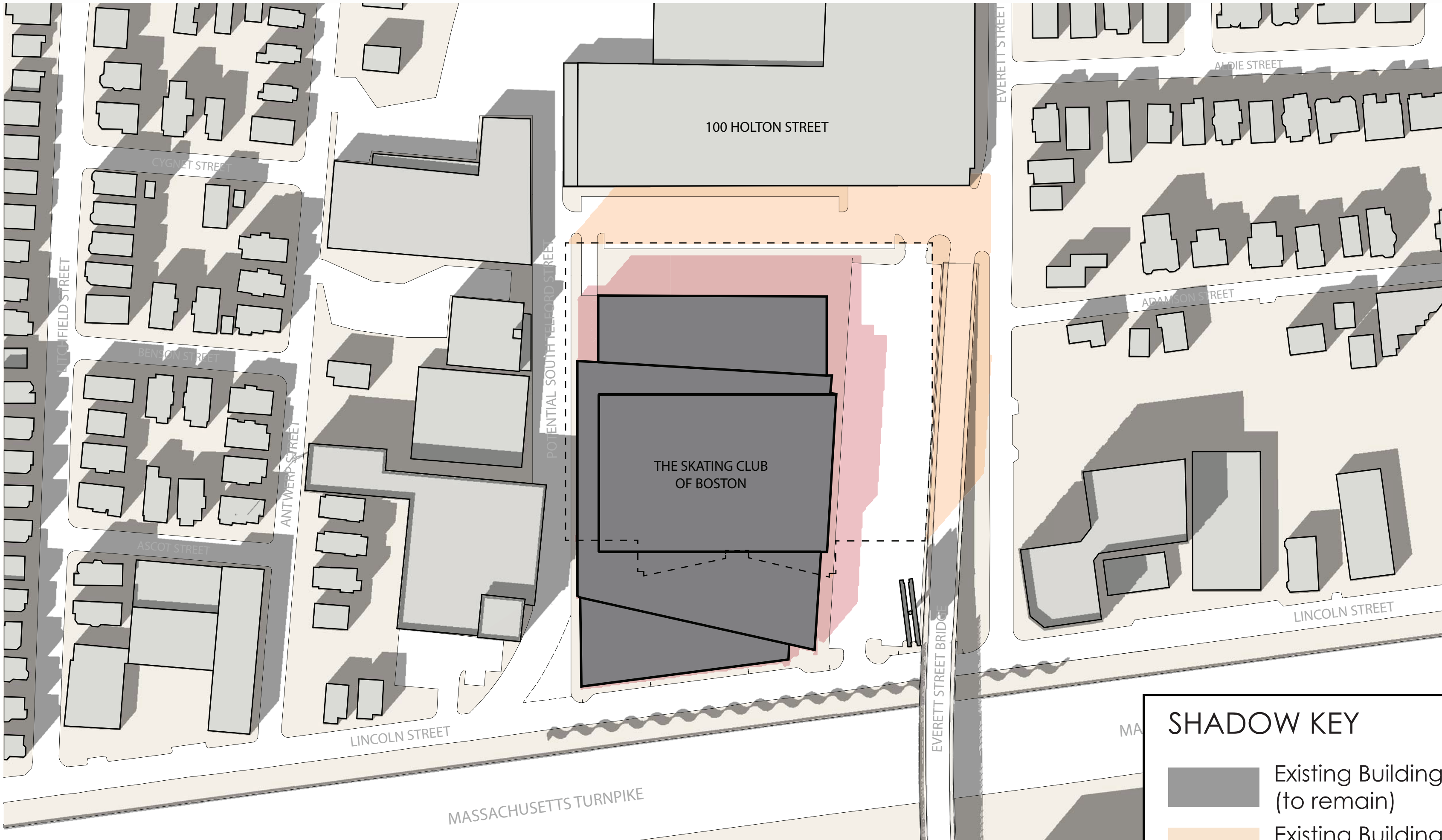
Figure 5-4

Shadow Study

March 21 12pm



SHADOW KEY

- Existing Buildings (to remain)
- Existing Building (to be demolished)
- Proposed Building

The Skating Club of Boston

176 Lincoln Street Allston, MA

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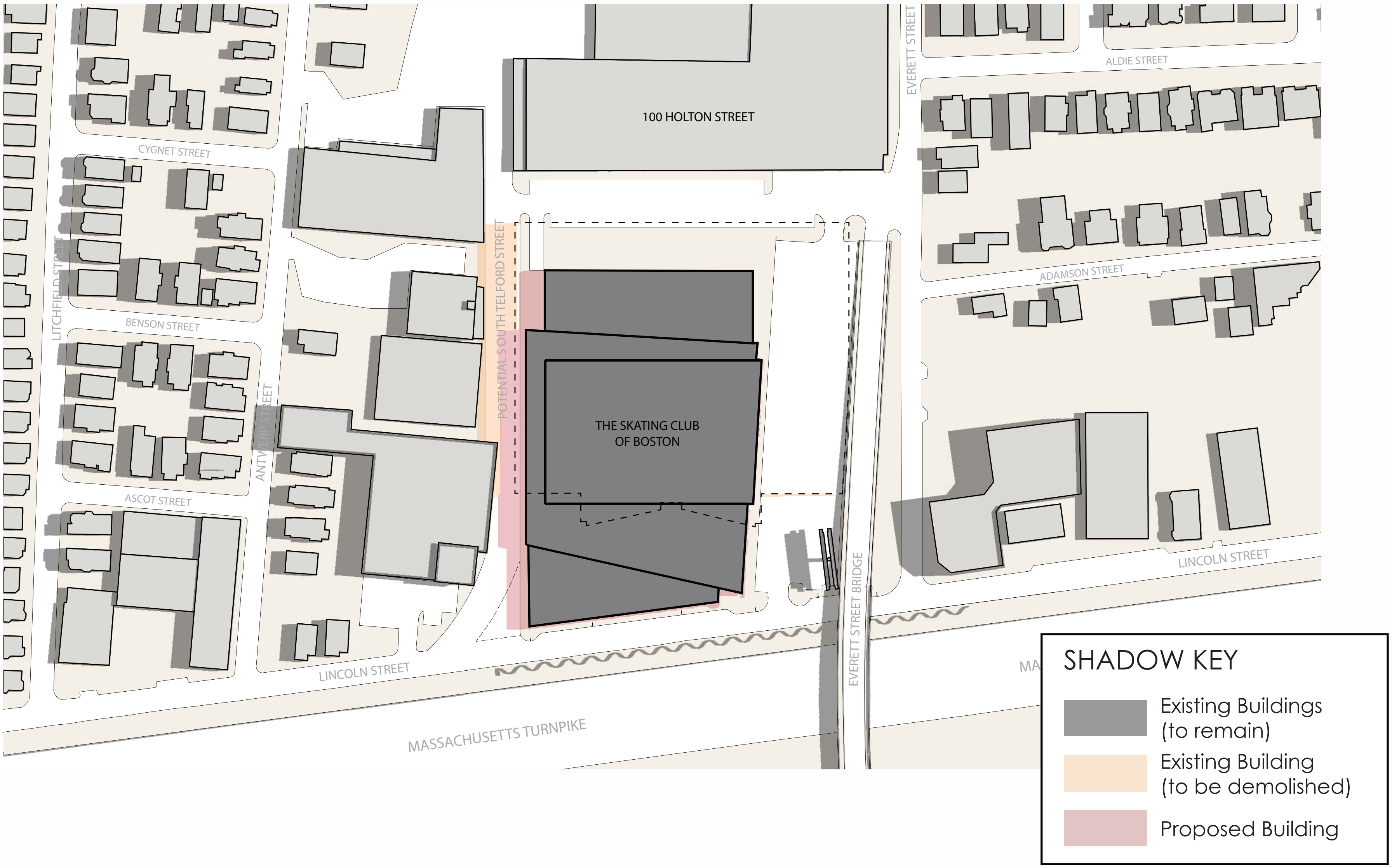
Figure 5-5

Shadow Study

March 21 3pm



The Skating Club of Boston

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Figure 5-6

Shadow Study

June 21 9am

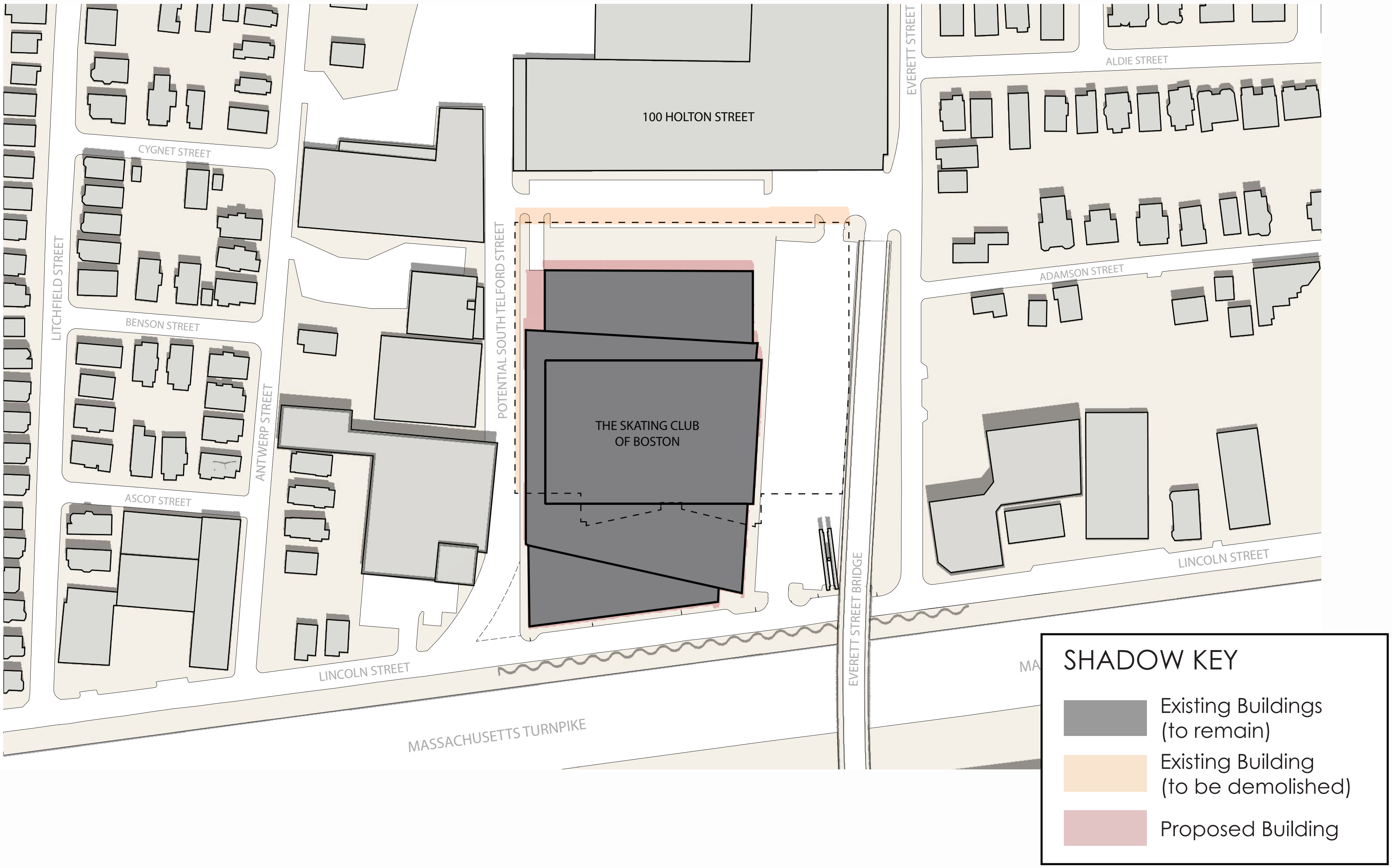

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Figure 5-7

Shadow Study

June 21 12pm

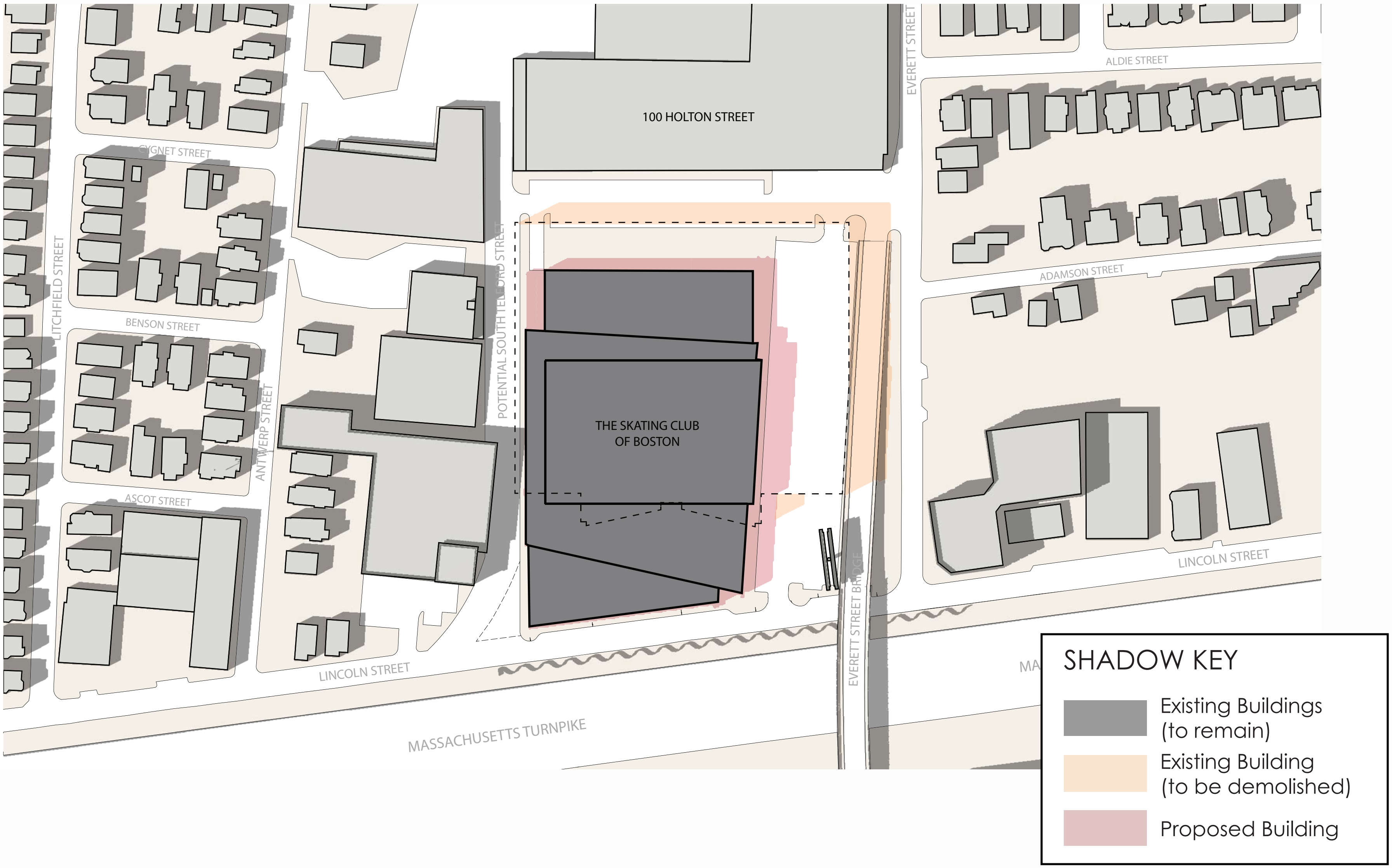

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Figure 5-8

Shadow Study

June 21 3pm

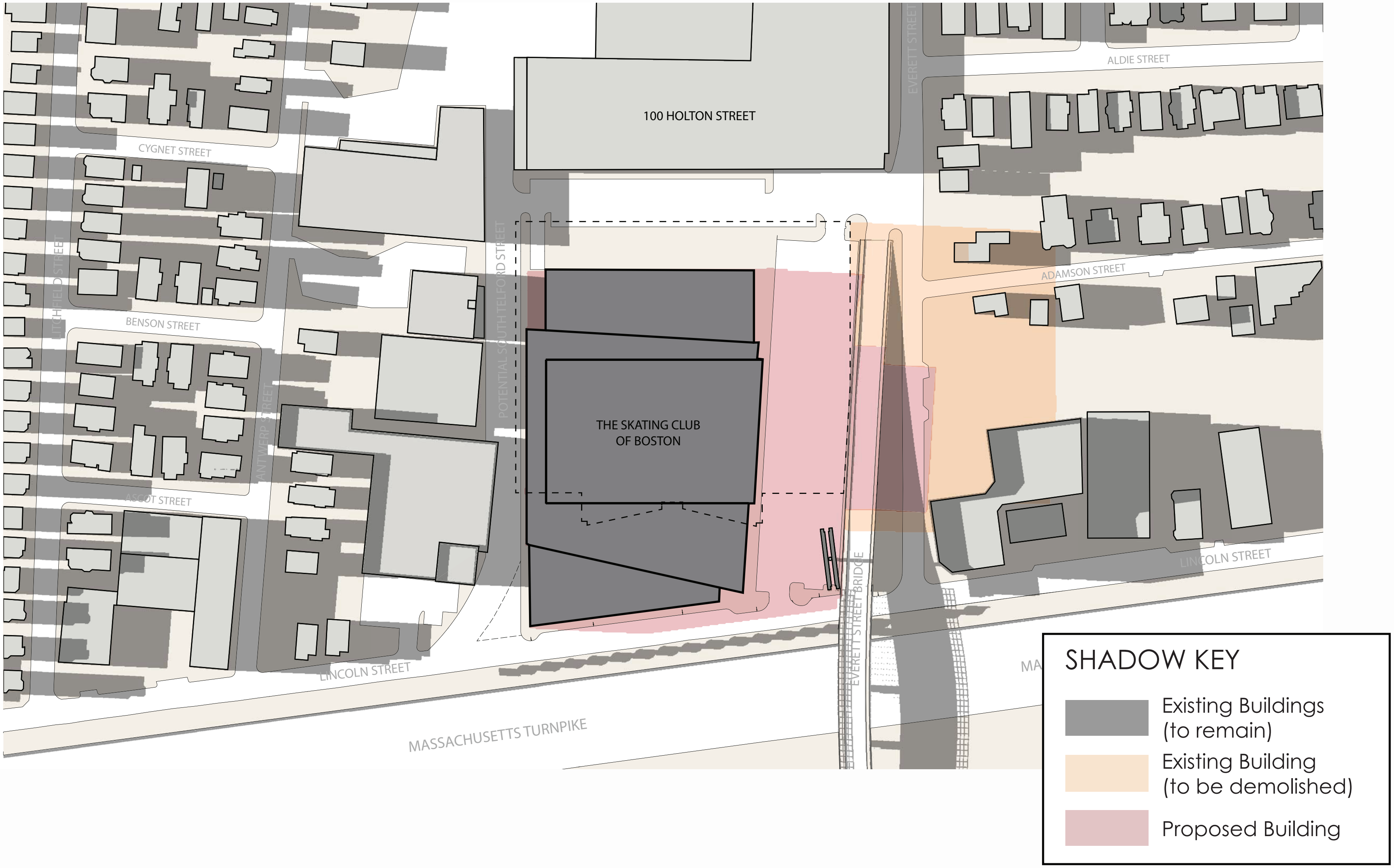

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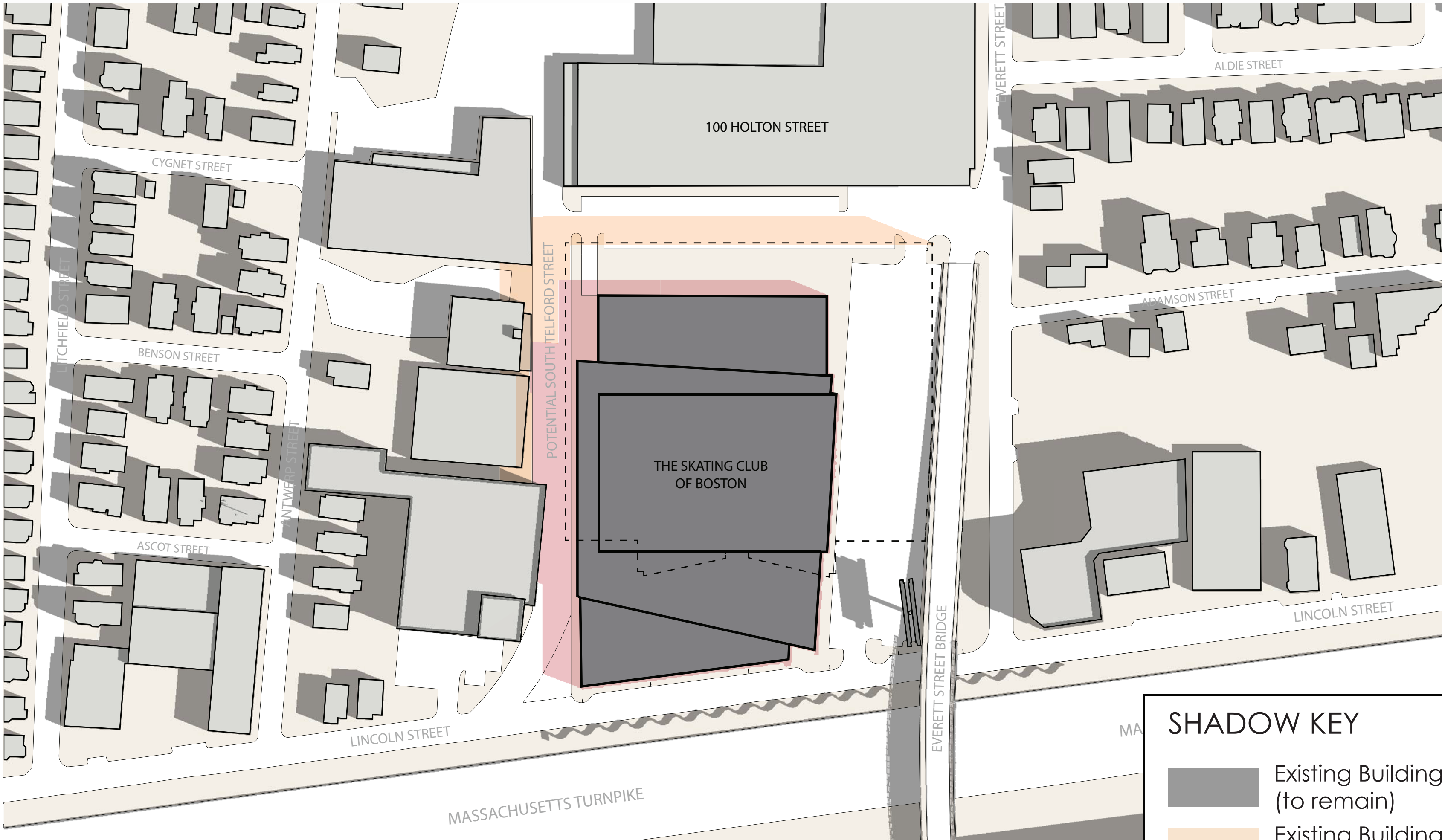
Figure 5-9

Shadow Study

June 21 6pm



SHADOW KEY

Existing Buildings (to remain)

Existing Building (to be demolished)

Proposed Building

The Skating Club of Boston

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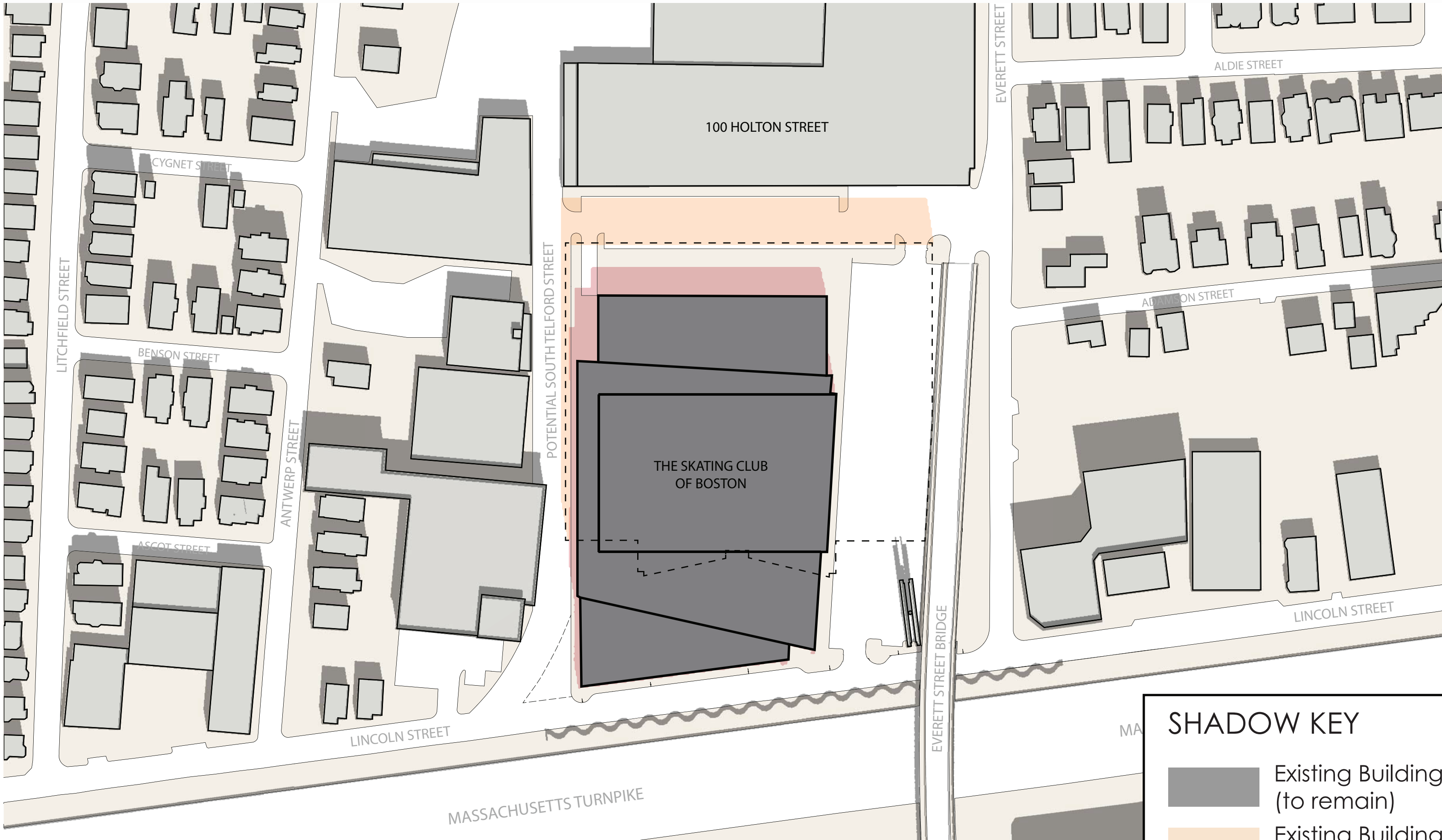
Figure 5-10

Shadow Study

September 21 9am



SHADOW KEY

Existing Buildings (to remain)

Existing Building (to be demolished)

Proposed Building

The Skating Club of Boston

176 Lincoln Street Allston, MA

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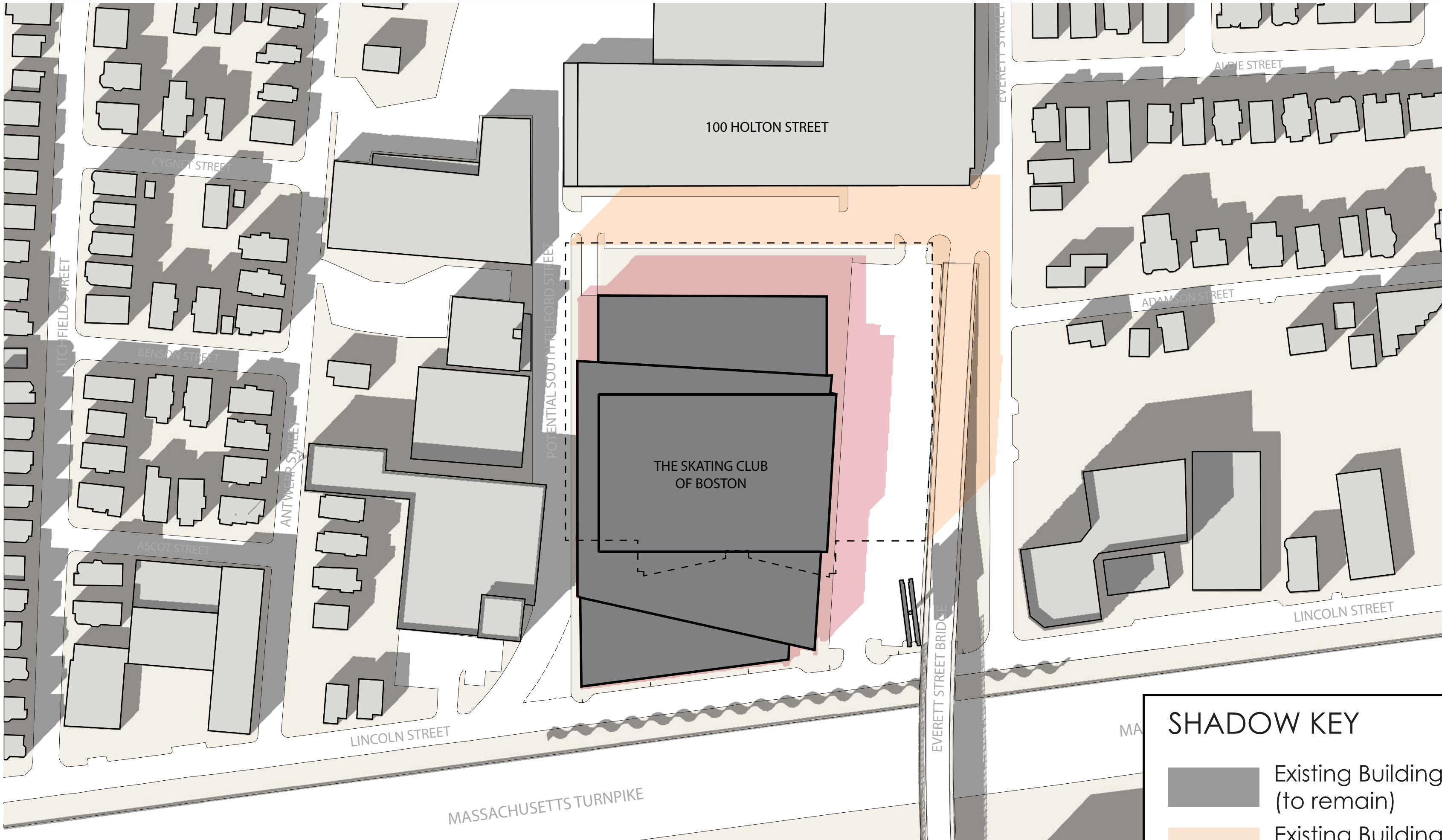
Figure 5-11

Shadow Study

September 21 12pm



SHADOW KEY

Existing Buildings (to remain)

Existing Building (to be demolished)

Proposed Building

The Skating Club of Boston

176 Lincoln Street Allston, MA

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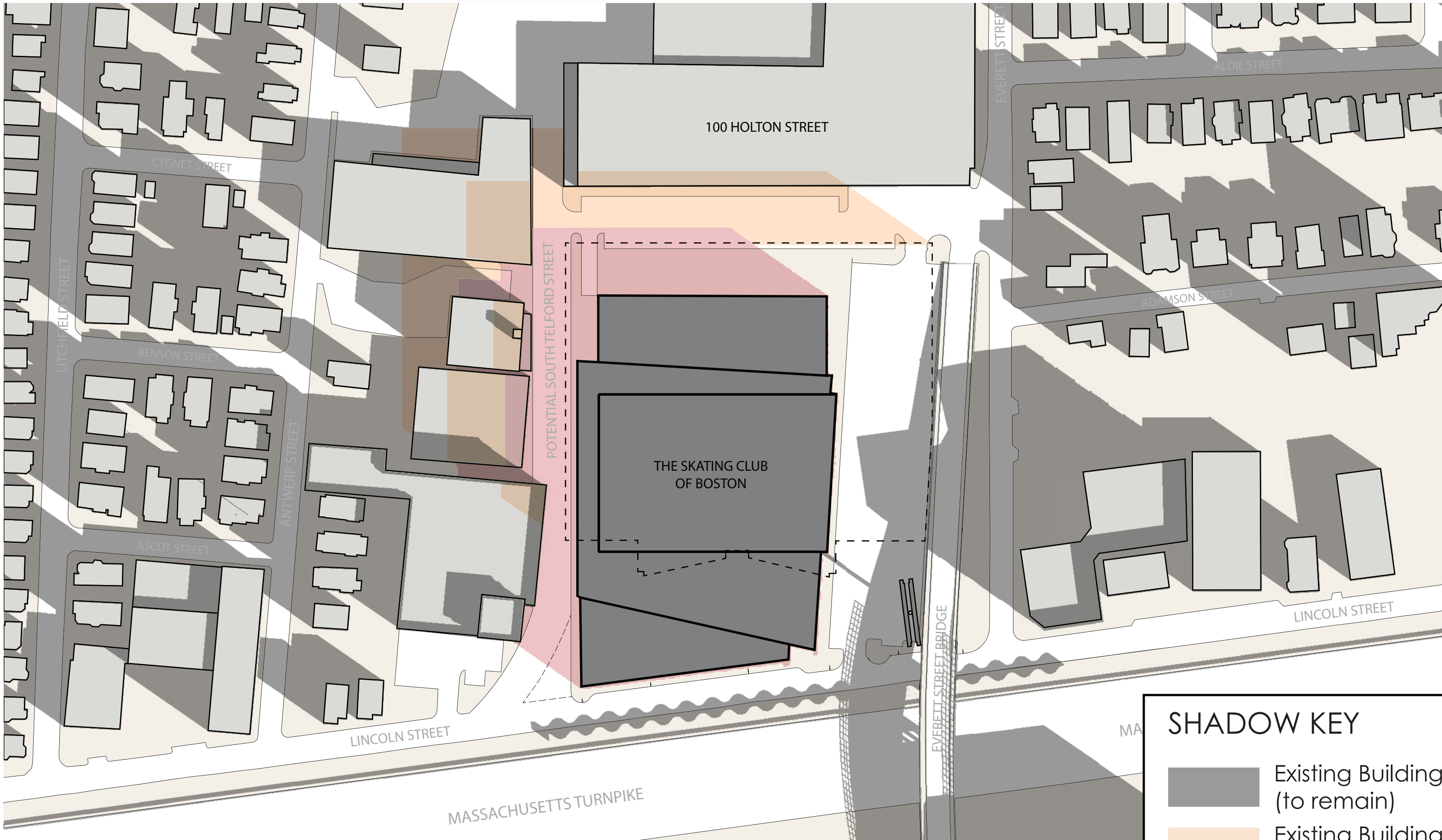
Figure 5-12

Shadow Study

September 21 3pm



SHADOW KEY

- Existing Buildings (to remain)
- Existing Building (to be demolished)
- Proposed Building

The Skating Club of Boston

176 Lincoln Street Allston, MA

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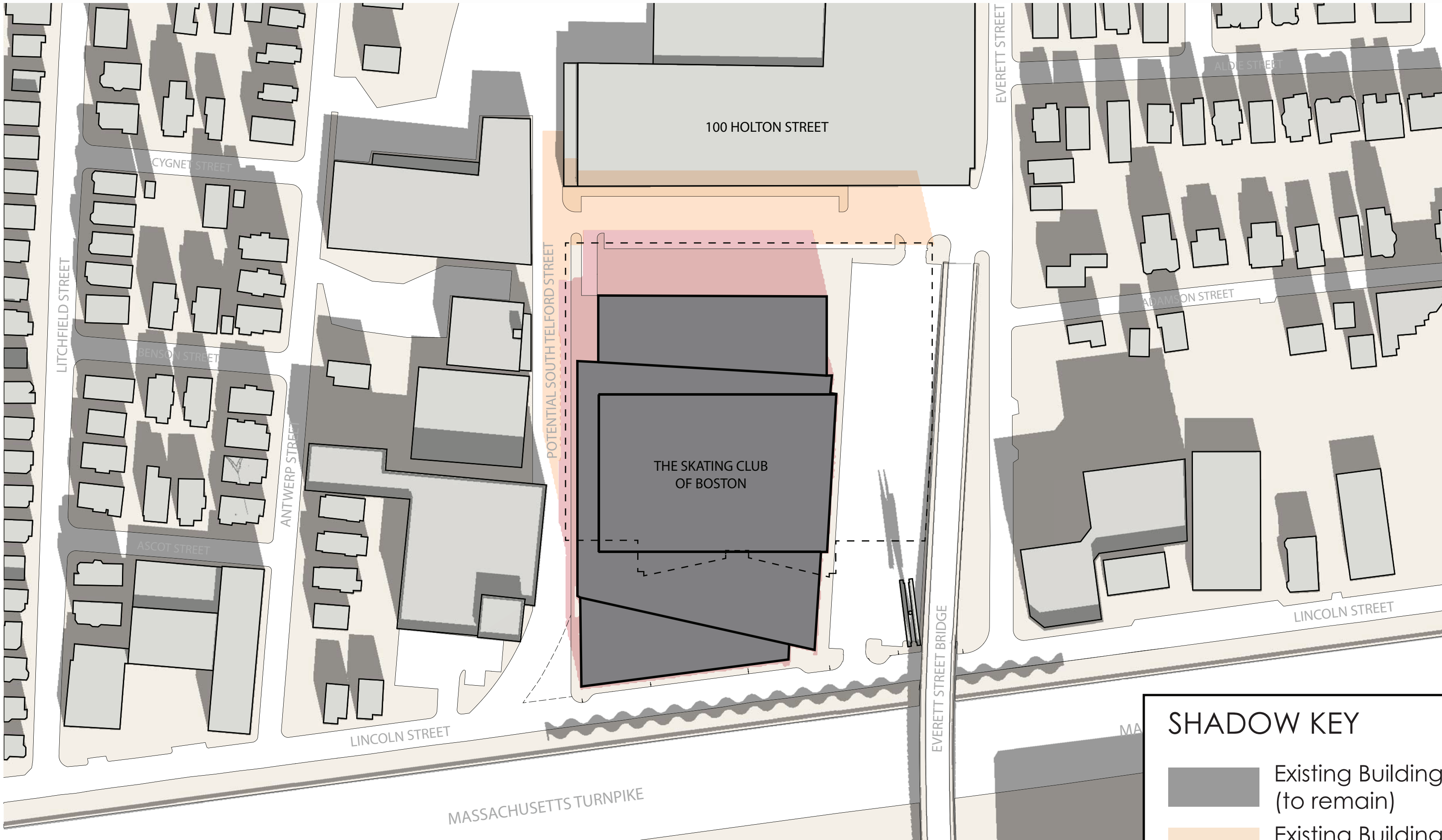
Figure 5-13

Shadow Study

December 21 9am



SHADOW KEY

- Existing Buildings (to remain)
- Existing Building (to be demolished)
- Proposed Building

The Skating Club of Boston

176 Lincoln Street Allston, MA

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Figure 5-14

Shadow Study

December 21 12pm

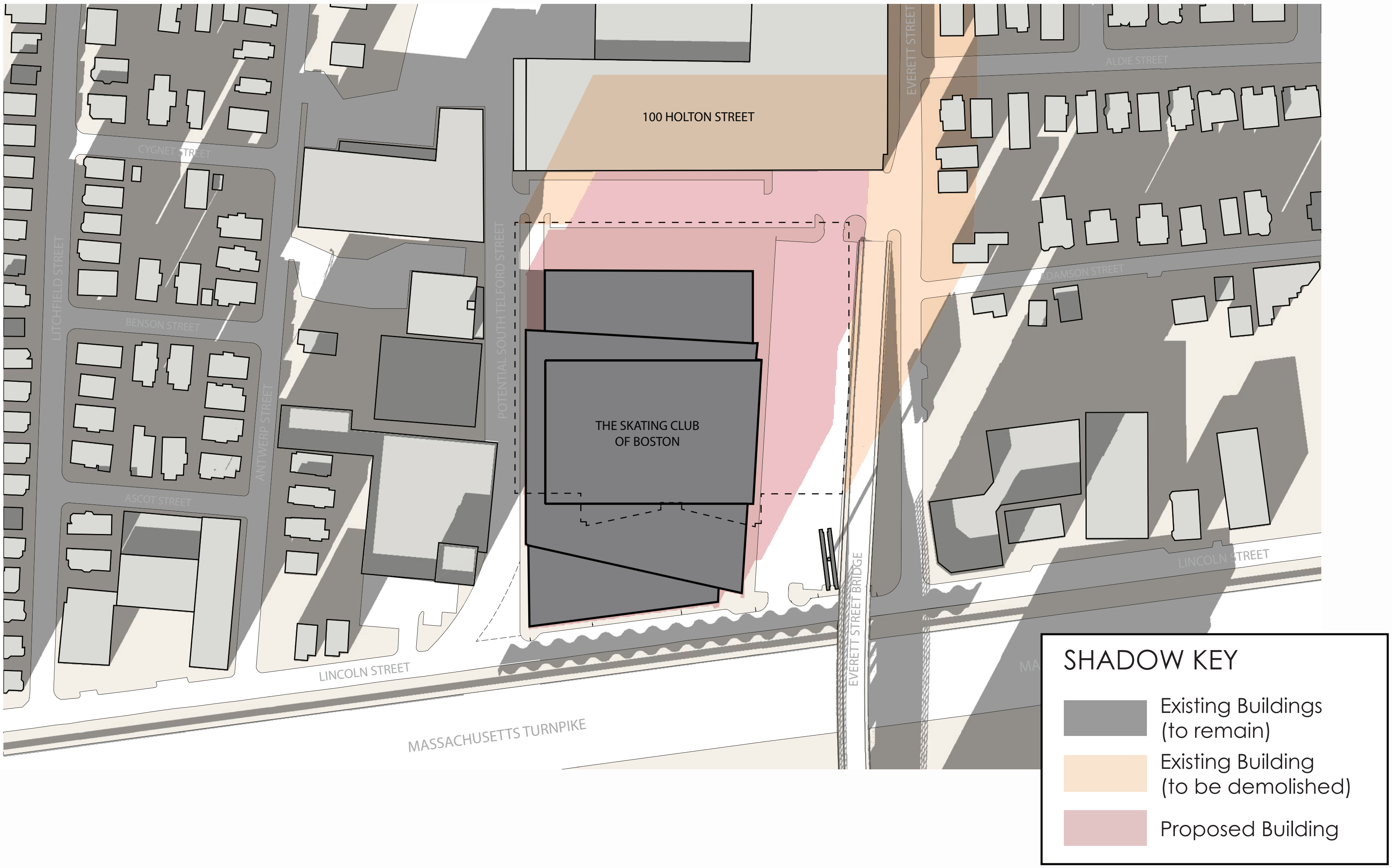

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Figure 5-15

Shadow Study

December 21 3pm

- Most of the Proposed Project's shadow impacts fall within the Project Site area and surrounding roadways.
- There are no net-new shadow impacts at any time of year on any residential structures or lawn areas caused by the Proposed Project.

Overall, the Proposed Project will have no material net-new shadow impact on the surrounding community, and in general shadow impacts will be decreased as a result of the Proposed Project's development.

Daylight Analysis

The following section describes the Proposed Project's anticipated effect on daylight obstruction at the Project Site. The analysis was prepared using the BRA's Daylight Analysis Program and has been completed in accordance with the requirements of Article 80 of the City of Boston Zoning Code. The results of the analysis are presented in **Figure 5-16** through **Figure 5-18.**

Regulatory Context

Article 80, Section B(2)(c), Large Project Review – Environmental Component anticipates the potential need for a proponent to describe the percentage of skyplain obstructed in the no-build and build conditions. While this requirement is typically formalized in the BRA's Scoping Determination, this PNF anticipates the potential for this analysis to be included in the BRA scope and provides the results in this section.

Methodology

The Proposed Project was analyzed utilizing the Boston Redevelopment Authority Daylighting Analysis (BRADA) computer program.[1] Using BRADA, a silhouette view of the building is taken at ground level from the middle of the adjacent city streets or pedestrian ways centered on each of the proposed buildings that abut a public way. The façade of the building facing the viewpoint, including heights, setbacks, corners and other features, is plotted onto a base map using lateral and elevation angles. The two-dimensional base map generated by BRADA represents a figure of the building in the "sky dome" from each respective viewpoint that is studied.

[1] Method developed by Harvey Bryan and Susan Stuebing, computer program developed by Ronald Fergle, Massachusetts Institute of Technology, Cambridge, MA, September 1985.

The BRADA program calculates the percentage of daylight that will be obstructed on a scale of 0 percent to 100 percent. BRADA calculates this obstruction value based on the width of view, the distance between the viewpoint and the building and the massing and setbacks incorporated into the design of the building. The lower the number, the lower the percentage of obstruction of daylight from any given viewpoint.

Potential daylight impacts were analyzed from the two public roadways adjacent to the Site, Everett Street and Lincoln Street, and the private roadway adjacent to the Site, South Teleford Street.

Analysis Summary

The results of the daylight analysis are presented in **Figure 5-16** through **Figure 5-18.** The existing building causes 64.4% daylight obstruction from Everett Street while development of the Proposed Project will result in 12.8% obstruction of daylight along the street. From Lincoln Street, the existing building causes 8.0% daylight obstruction and the Proposed Project is estimated to increase the daylight obstruction to just above fifty percent (57.0%). The existing building causes approximately seventy-five percent obstruction (75.9%) of daylight on the Private Alley. Development of the Proposed Project will result in 64.9% daylight obstruction from along the Private Alley.

Solar Glare

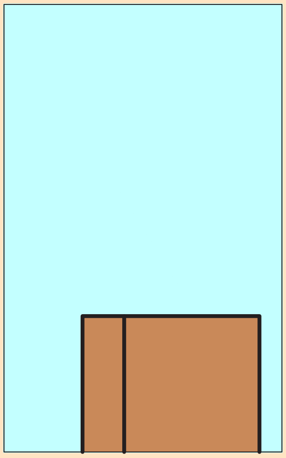
The proposed new building will not produce reflected illumination or sky-reflected glare or direct illumination across any lot line from a visible source of illumination of such intensity to cause visual discomfort to pedestrian traffic on the adjacent property or within the property. It should not produce any visual discomfort problems such as a traffic hazard or detract from the use or enjoyment of adjacent surrounding properties.

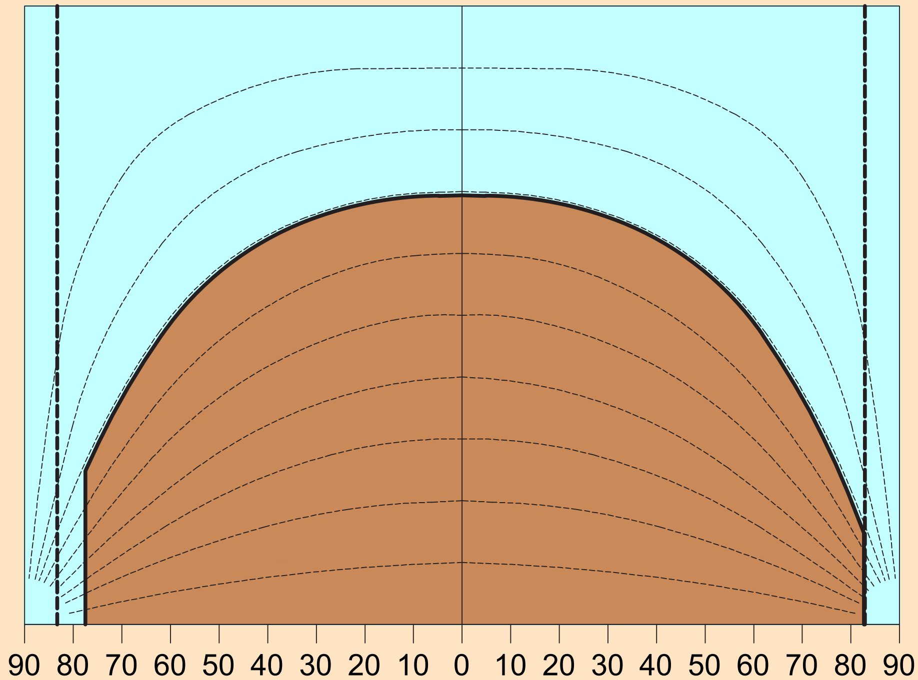
Water Quality and Conservation

Please see Chapter 6, *Infrastructure Systems* for a detailed description of potential water quality and stormwater impacts.

Existing

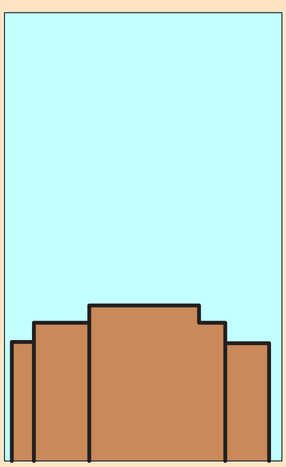
Obstruction of Skyplane = 64.4%

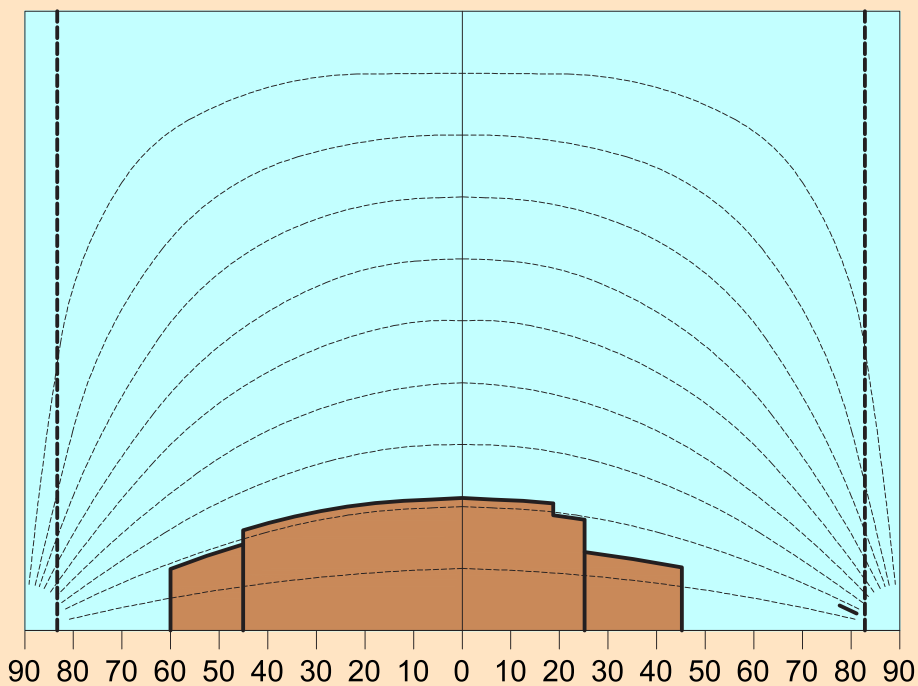




Proposed

Obstruction of Skyplane = 12.8%





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176 Lincoln Street Allston, MA

VHB *Vanasse Hangen Brustlin, Inc.*

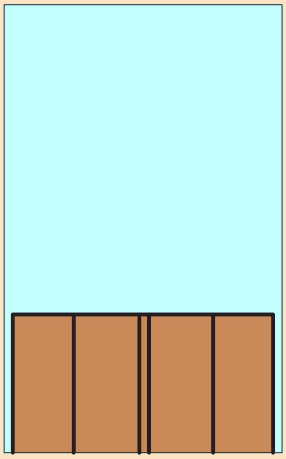
SM

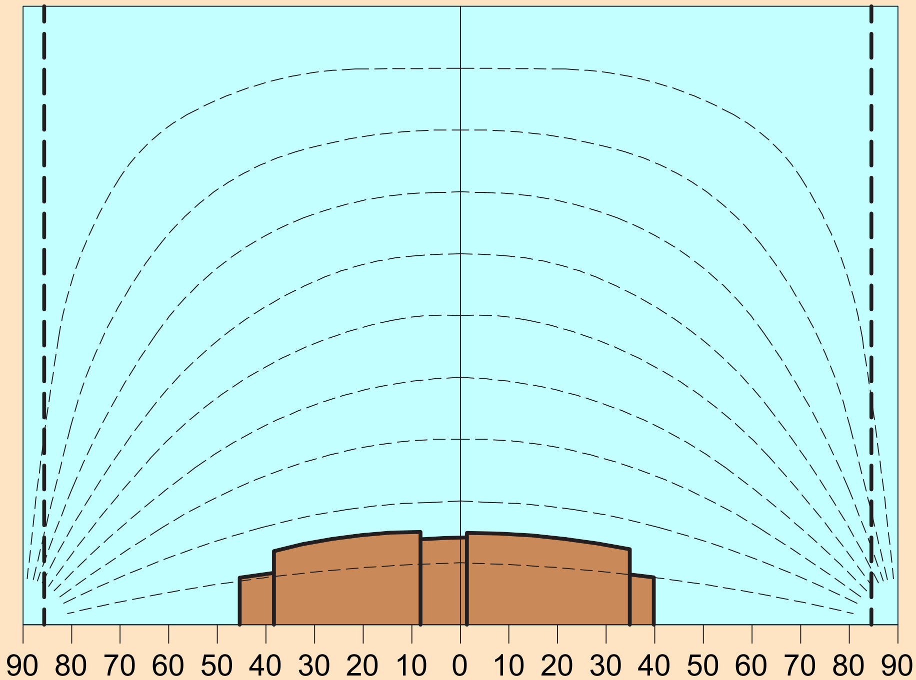
Figure 5-16

Daylight - Everett Street

Existing

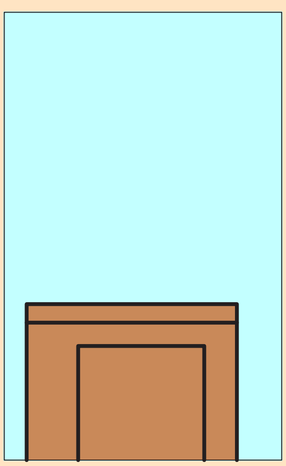
Obstruction of Skyplane = 8.0%





Proposed

Obstruction of Skyplane = 57.0%



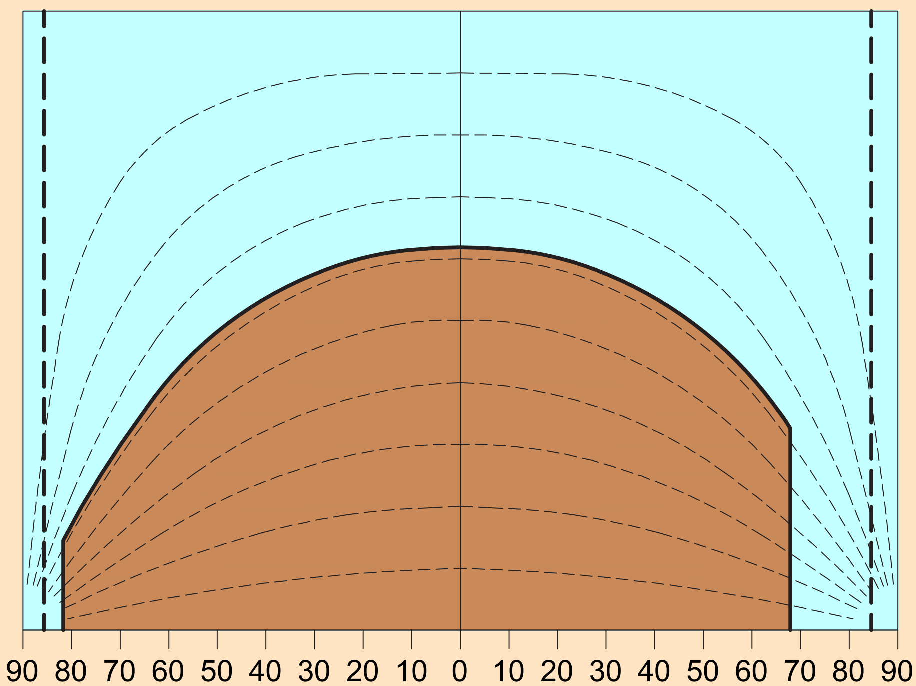


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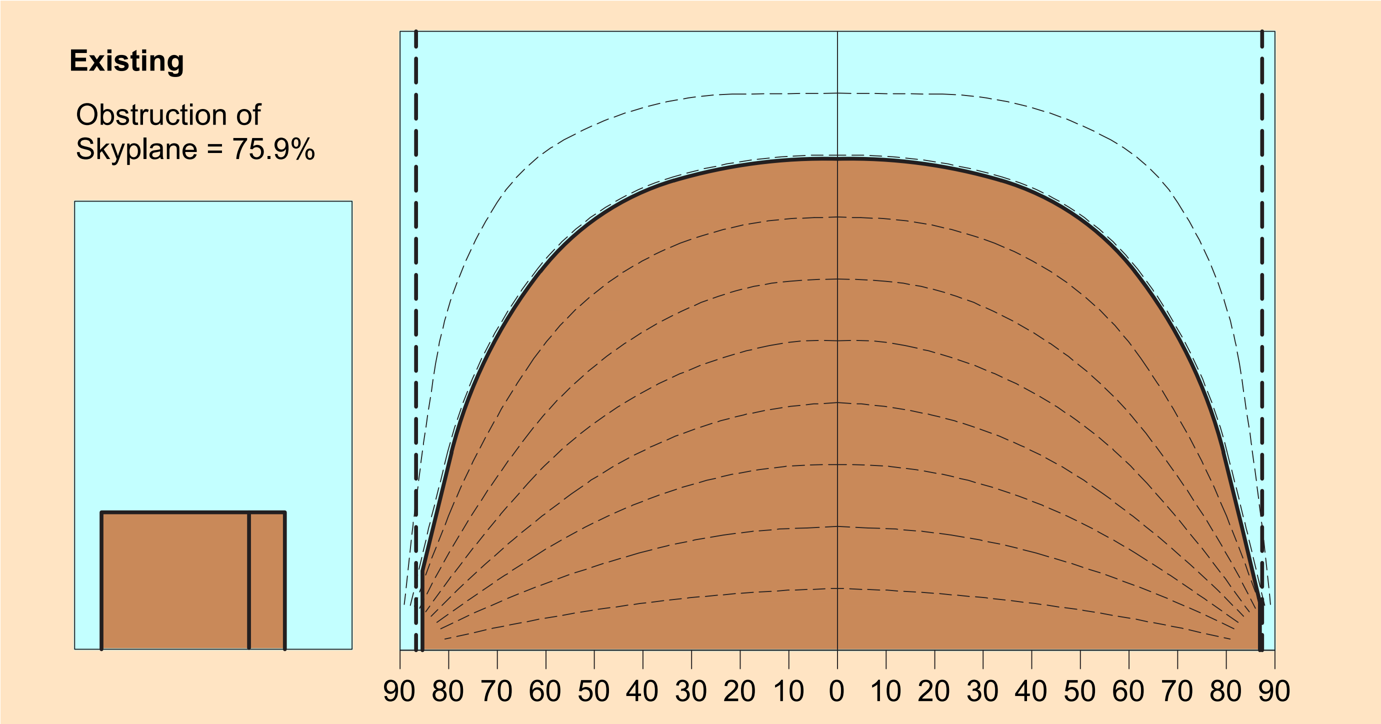
Figure 5-17

Daylight - Lincoln Street



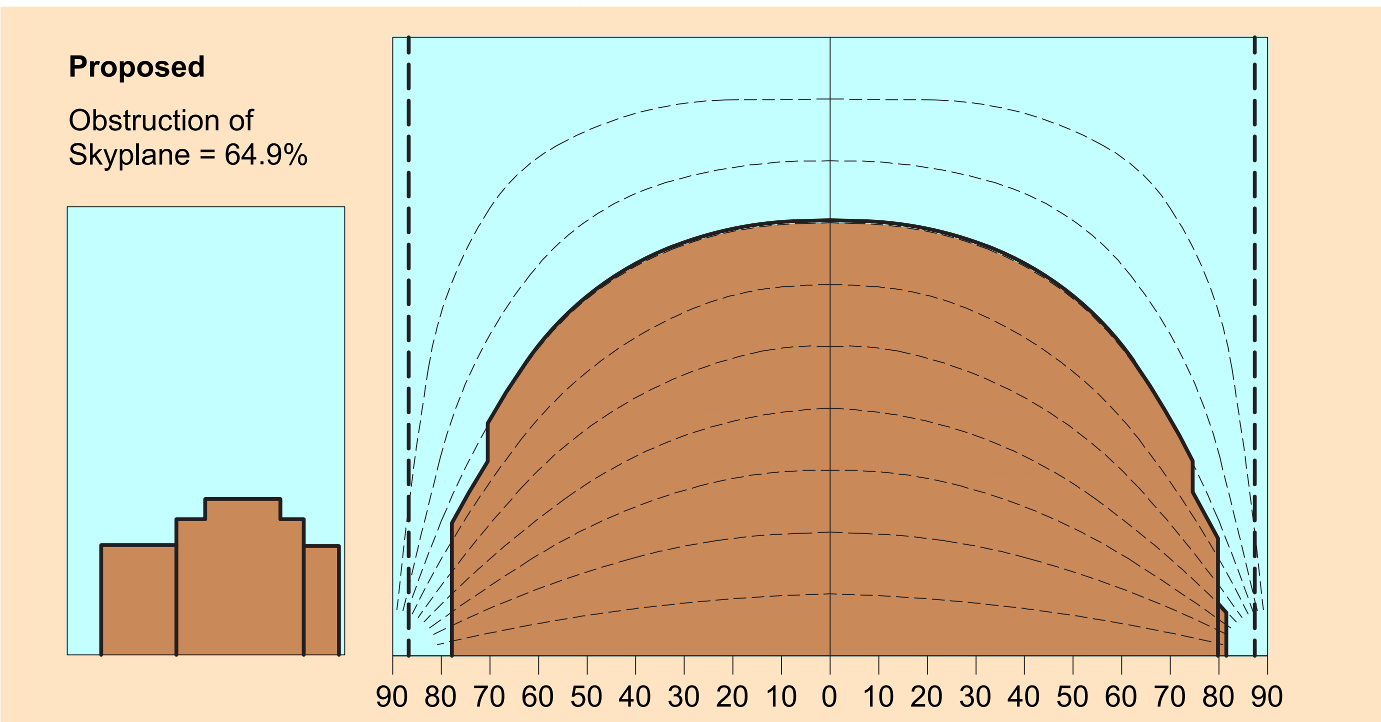


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Figure 5-18

Daylight - South Teleford Street

Wetlands/Flood Hazards

The Federal Emergency Management (FEMA) Floor Insurance Rate Map (FIRM) indicates the FEMA Flood Zone Designations for the Project Site (City of Boston, Community-Panel Number 25025C0057G). This designation is illustrated in **Figure 5-19**. The map shows that the Proposed Project Site is located outside the 0.2 percent annual chance floodplain (commonly referred to as the 500 year flood limit), identifying it as an area of minimal flooding.

Geotechnical and Groundwater Analysis

This section addresses the below-grade construction activities anticipated for the Proposed Project. It discusses existing soil and groundwater conditions, anticipated foundation systems and geotechnical aspects of the construction for the Proposed Projects based on available subsurface information, and a preliminary foundation design study. This section also addresses potential impacts and proposed mitigation measures.

■

Project Site and Subsurface Conditions

The 5.2-acre Project Site, located at 176 Lincoln Street in Allston, Massachusetts, is bordered to the north and west by existing commercial structures, to the south by Lincoln Street and the Mass Pike (I-90), and to the east by the elevated Everett Street. The Project Site is relatively flat with grades ranging from approximately El. 29 to El. 30, Boston City Base (BCB). The elevated portion of Everett Street varies from El. 45 where it crosses over Lincoln Street to El. 30 at the northeast corner of the Site.

An existing 3-story building occupies the northern portion of the Site. The building is unoccupied and is supported on shallow footing foundations.

Site subsurface conditions consist of surficial fill underlain by naturally-deposited soils and bedrock as described below, in order of increasing depth below ground surface:

- **Miscellaneous Fill** - The composition of this stratum is varied, but typically consists of loose to very dense sand and gravel intermixed with silt, cobbles, and other miscellaneous materials. The thickness of the fill is anticipated to range from about 2 to 6 ft.
- **Alluvial Deposits** - The alluvial deposits typically consist of medium dense to very dense, well to poorly graded sand with varying amounts of gravel. The thickness of the alluvial deposits is anticipated to be about 8 to 10 ft.

- **Marine Deposits** - The marine deposits typically consist of medium stiff to very stiff marine clay that gradually softens with depth. The thickness of the marine deposits is anticipated to be on the order of 60 to 90 feet.
- **Bedrock** - The bedrock underlying the overburden soils consists of the Argillite Formation.

Groundwater Conditions

Local groundwater seepage in the area is generally to the north/northwest. Depth to groundwater at the Site is anticipated to range from about 7 to 9 feet below ground surface. Groundwater levels could be influenced by leakage into and out of sewers, storm drains, other below-grade structures, and by environmental factors such as precipitation, season, and temperature.

The Site is not located within the Boston Groundwater Conservation Overlay District and therefore not subject to the requirements of the Boston Zoning Code Article 32.

Proposed Construction

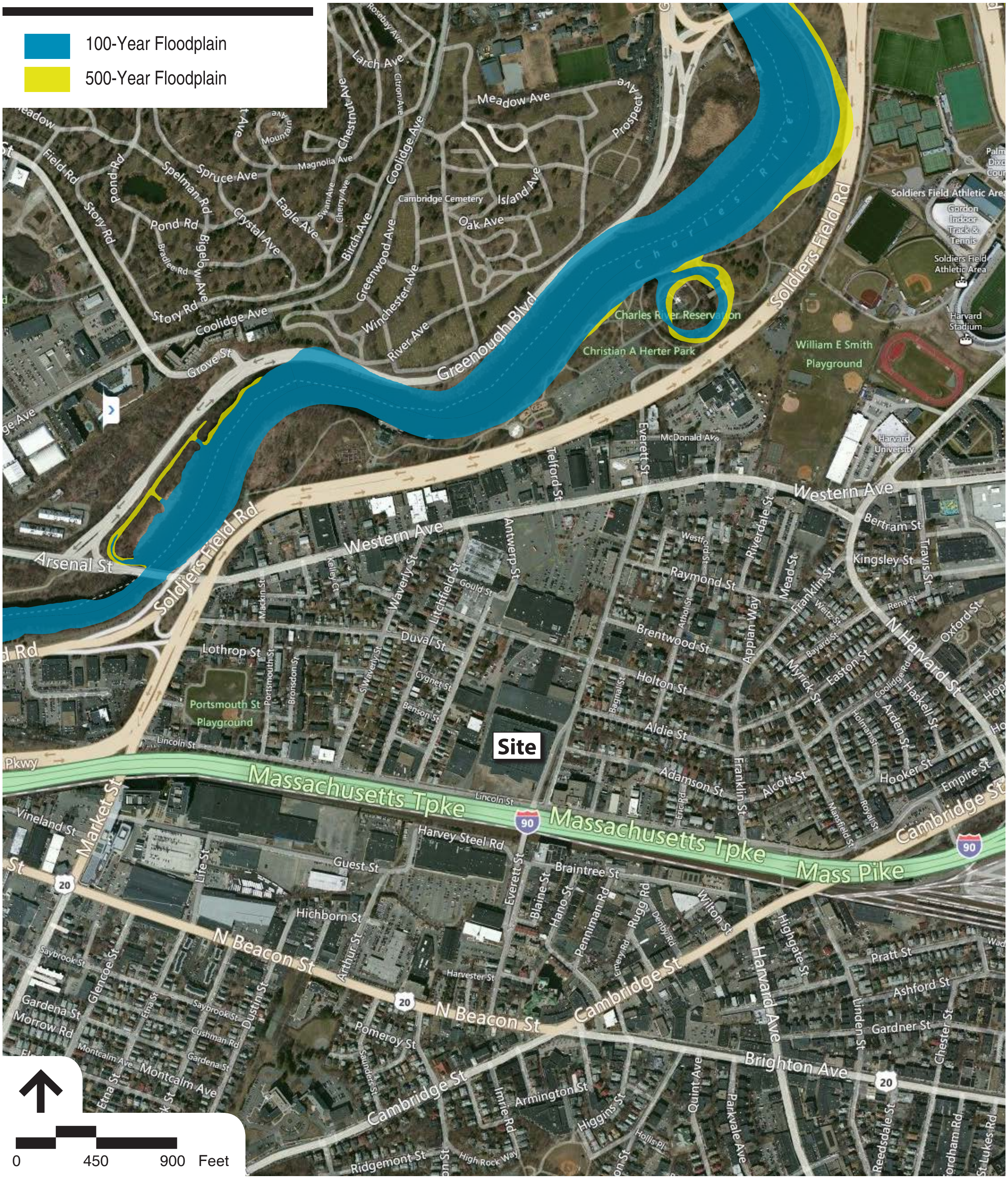
The proposed construction will include demolition of the existing building and construction of a new 190,000 SF, high-bay ice rink facility. The facility will include three rinks of Olympic quality, with stadium seating around the center rink and other associated facilities. No below grade space is planned. The construction will also include utility installations, parking areas, landscaping and other site improvements.

Excavation and Foundation Construction

It is anticipated that the foundation system for the new building will consist of conventional reinforced concrete spread footings. A combination of footing bearing conditions may be implemented depending on local soil conditions:

- Bearing in the fill after the fill is densified using ground improvement;
- Bearing on imported structural fill placed above the natural sand after the existing fill has been removed; or
- Bearing directly in the natural alluvial sand deposits.

It is anticipated that the floor will consist of concrete slabs-on-grade after the existing fill has been removed and replaced or has been densified using ground improvement.



The Skating Club of Boston

176 Lincoln Street Allston, MA

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Figure 5-19

FEMA Map

Excavations for new foundations and other site improvements will be conducted in-the-dry using conventional earth moving equipment. The depth of excavations for new foundations is expected to be on the order of 4 to 6 ft. Most excavations for foundation construction will be open-cut. Some limited lateral excavation support, consisting of low-height wood sheeting or soldier piles and lagging, may be required along portions of the south and west sides of the site where foundation excavations will be located close to the property limits. Localized excavation support, consisting of cantilever wood sheeting or steel trench boxes, will likely also be required for installation of utilities or other site features located near the perimeter of the property or within the adjacent streets.

Groundwater Control During Construction

Given the depth to groundwater at the Site, significant dewatering is not anticipated to be required for installation of new foundations, slabs and other site improvements. Any local dewatering is expected to be minor, and the water is planned to be re-charged on site.

Probable Project Impacts and Mitigation Measures

The existing buildings that neighbor the Project Site are separated by roadways, driveways or parking lots, at distance exceeding 25 feet from the proposed building. The planned excavations are not anticipated to impact any of the neighboring facilities.

Based on historical records and observed site conditions, the elevated portion of Everett Street consists of an elevated embankment with granite block retaining walls. A portion of the exterior wall of the existing building, which abuts the granite block wall, is reported to be structurally independent of the granite block wall. Only the above-grade portion of the existing building wall will be removed during demolition, leaving the adjacent building foundations in place, to avoid impacts to the granite wall. The granite block will be monitored during demolition.

The proposed building is located on the western side of the Project Site, over 75 feet from the Everett Street granite block wall. The shallow excavations for the new foundations and other site features are not anticipated to impact the existing wall.

Excavations up to 8 feet in depth will be required to install foundations, utilities or other site improvements, in the vicinity of the Project Site property lines. Excavations for such improvements near the property lines or within public ways will be made using temporary excavation support consisting of either temporary wood sheeting, soldier piles and lagging or steel trench boxes. Significant off-site impacts of these shallow excavations are not anticipated. Streets and other nearby features will be monitored during the work.

The anticipated limited temporary construction dewatering is not anticipated to impact off-site groundwater levels or adversely impact any facility. Dewatering discharge will be recharged on site if possible, or discharged into local storm drains in accordance with required discharge permits.

Subsurface construction activities are not anticipated to generate large vibrations or noise. No pile driving or other similar activity is planned. Low-level vibrations that would occur during soil compaction or ground improvement are not anticipated to adversely impact any off-site facilities.

Mitigation measures will be implemented to control fugitive dust in accordance with applicable regulations.

Soils exported from the Project Site will be recycled or disposed of in accordance with the Massachusetts Contingency Plan and other applicable regulations.

Solid and Hazardous Materials

Any on-site hazardous materials, including asbestos containing materials encountered during construction will be handled in accordance with federal, state, and local regulations. Regarding solid waste during operations, the building will include recycling receptacles/space at the loading dock for collection. Retail tenants will utilize disposal services that recycle waste off site.

Air Quality

This section presents an overview of the results for the air quality assessment conducted for the Skating Club of Boston (referred to as “Project” in this section) located at 176 Lincoln Street. The purpose of the air quality assessment is to demonstrate that the Project satisfies applicable local, state, and federal air quality requirements. Specifically, the air quality assessment for the Project includes a localized (microscale, or “hot spot”) study that evaluates the Project-related concentrations (from vehicles traveling through congested intersections in the project area) of carbon monoxide (CO) and particulate matter ($PM_{2.5}$ and PM_{10}) at sensitive receptor locations.

Summary of Key Findings

The mobile source air quality analysis demonstrates that the Project's motor vehicle emissions at nearby intersections meet the Massachusetts and National Ambient Air Quality Standards (NAAQS) for CO, PM_{10} and $PM_{2.5}$. The air quality evaluation demonstrates that the Project complies with city, state, and federal air quality requirements. The microscale analysis evaluated impacts from the Project's generated motor vehicle traffic at the most congested intersections in the Study Area. State and federal modeling procedures were used to determine worst-case concentrations. The results demonstrate that all existing and future No-Build and Build CO, PM_{10}, and $PM_{2.5}$ concentrations will be below the NAAQS.

The air quality study demonstrates that the Project conforms to the Clean Air Act Amendments because:

- No new violation of the NAAQS will be created,
- No increase in the frequency or severity of any existing violations will occur, and
- No delay in attainment of any NAAQS will result.

Air Quality Background and Regulatory Context

The 1990 Clean Air Act Amendments (CAAA) and the Massachusetts State Implementation Plan (SIP) require that proposed projects not cause any new violation of the NAAQS for pollutants of concern, or increase the frequency or severity of any existing violations, or delay attainment of any NAAQS. The air quality study includes a hotspot (microscale) evaluation of mobile source pollutants. The microscale analysis evaluated CO, PM_{10}, and $PM_{2.5}$ concentrations from roadways and intersections.

The Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (DEP) have established guidance for modeling and review for air quality analysis prepared pursuant to the Massachusetts Environmental Policy Act (MEPA) process. The City of Boston requires that air quality analyses prepared for PNFs meet the EPA and DEP guidelines.

Pollutants of Concern and Attainment Status

Air pollution is of concern because of its demonstrated effects on human health, in particular the respiratory effects of the pollutants and their potential toxic effects, as described below.

Carbon Monoxide

Carbon monoxide (CO) is a colorless and odorless gas that is a product of incomplete combustion. Carbon monoxide is absorbed by the lungs and reacts with hemoglobin to reduce the oxygen carrying capacity of the blood. At low concentrations, CO has been shown to aggravate the symptoms of cardiovascular disease. It can cause headaches and nausea and, at sustained high concentration levels, can lead to coma and death.

Boston is a CO Maintenance area. A Maintenance area is an area that formerly was non-attainment, but, has demonstrated that the air quality has improved to attainment. After 20 years of clean air quality, Maintenance areas can be re-designated to attainment. Projects located in Maintenance areas, as the Skating Club of Boston Project currently is, are required to evaluate their CO concentrations on the NAAQS.

Particulate Matter

Particulate matter is made up of small, solid particles and liquid droplets. PM_{10} refers to particulate matter with a nominal aerodynamic diameter of 10 micrometers or less, and $PM_{2.5}$ refers to particulate matter with an aerodynamic diameter of 2.5 micrometers or less. Particulates can enter the body through the respiratory system. Particulates over 10 micrometers in size are generally captured in the nose and throat and are readily expelled from the body. Particles smaller than 10 micrometers, and especially particles smaller than 2.5 micrometers, can reach the air ducts (bronchi) and the air sacs (alveoli) in the lungs. Particulates are associated with increased incidence of respiratory diseases, cardiopulmonary disease, and cancer.

Boston is currently in attainment/unclassifiable for PM_{10} and $PM_{2.5}$. An attainment/unclassifiable area is an area that does not yet have sufficient data to determine its attainment status. The EPA and Federal Highway Administration (FHWA) are in the process of developing modeling guidance for attainment/unclassifiable areas. This air quality evaluation included a microscale analysis to demonstrate compliance with the NAAQS.

Ultra-Fine Particulate Matter

Ultra-Fine Particulates (UFP) are particles ($PM_{0.1}$) with diameter of 0.1 micrometers or less. They are a concern because they are able to travel deep into the human respiratory system and potentially serve as a carrier for other compounds. In addition, UFP are also more difficult to measure and calculate impacts than PM_{10} and $PM_{2.5}$. Because UFP particles weigh almost nothing, they can stay airborne for a long time. However, $PM_{0.1}$ is a relatively new pollutant of concern. EPA is currently conducting and reviewing numerous air pollution studies to better understand (i) the types of sources, (ii) emission characteristics, and (iii) human health effects associated with this pollutant.

To date, there is no state or federal NAAQS for UFP particles, nor is there any EPA or DEP recommended modeling procedures for assessing UFP particles. Therefore, this pollutant was not directly assessed in this air quality chapter. The primary source of $PM_{0.1}$ is expected to be mobile sources, such as breaks and exhausts. The Project is expected to have a small impact on particulate matter. Similar trends would be expected for $PM_{0.1}$ as for PM_{10} and $PM_{2.5}$ because $PM_{0.1}$, PM_{10}, and $PM_{2.5}$ have some distinct similarities in their origins (e.g., mobile sources).

The Project will include TDM measures for mobile sources and the latest emission controls on mechanical equipment to help decrease the overall emissions of $PM_{0.1}$, PM_{10}, and $PM_{2.5}$, which will help lower potential health risks.

Air Quality Standards

EPA has set the NAAQS to protect the public health. The NAAQS is presented in **Table 5-1**. The predominant source of air pollution anticipated from the Project is emissions from Project-related motor vehicle traffic. Carbon monoxide, PM_{10}, and $PM_{2.5}$ are directly emitted by motor vehicles. Their concentrations can be calculated and compared to the NAAQS.

Mobile Source Methodology

The microscale ("hot spot") air quality analysis evaluated the emissions of mobile sources from nearby intersections. The following outlines the methodology and analysis assumptions and results for the mobile source analysis for the Project.

The mobile source modeling followed the EPA's modeling guidelines.[2] The traffic data was evaluated and the intersections that are currently the most congested and expected to experience an increase in project-generated traffic were identified. Emission factors were obtained from DEP and were combined with the traffic data in EPA's mobile source model to calculate CO, PM_{10}, and $PM_{2.5}$ worst-case concentrations. The microscale worst-case concentrations from the mobile sources determined the maximum project's CO, PM_{10}, and $PM_{2.5}$ concentrations and were compared to the NAAQS.

2 *Guideline for Modeling Carbon Monoxide From Roadway Intersections*, US Environmental Protection Agency, Office of Air Quality Planning and Standards, Technical Support Division; Research Triangle Park, NC; EPA-454/R-92-006 (Revised); September 1995

The microscale analysis conducted for the Proposed Projects utilized traffic and emissions data for the following existing and future No-Build and Build conditions:

- 2013 Existing Condition: reflects existing traffic volumes in the Proposed Project's study area.
- 2018 No-Build Condition: assuming no changes to the Proposed Project's Site, but with background growth associated with other planned projects and general background regional growth.
- 2018 Build Condition: assuming the same 2018 No-Build background growth, but includes full build of the Proposed Project.

Table 5-1
National Ambient Air Quality Standards

Pollutant	Level	Averaging Time	Primary/Secondary1	Form/Rule
Carbon Monoxide	9 ppm (10 mg/m3)	8-hour1	Primary	Not to be exceeded more than once per year
	35 ppm (40 mg/m3)	1-hour1		
Lead	1.5 ug/m3 (2)	Rolling 3 Month Average	Primary and Secondary	Not to be exceeded
Nitrogen Dioxide	100 ppb	1-hour4	Primary	98th percentile, averaged over 3 years
	53 ppb (3)	Annual	Primary and Secondary	Annual Mean
Ozone	0.075 ppm (4)	8-hour8	Primary and Secondary	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
Particulate Matter (PM2.5)	0.12 ug/m3	Annual	Primary	Annual mean, averaged over 3 years
	15 ug/m3	Annual	Secondary	Annual mean, averaged over 3 years
	35 ug/m3	24-hour	Primary and Secondary	98th percentile, averaged over 3 years
Particulate Matter (PM10)	150 ug/m3	24-hour	Primary and Secondary	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide	75 ppb(5)	1-hour	Primary	3-hour1
	0.5 ppm	3-hour	Secondary	3-hour

1 Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

2 Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

3 The official level of the annual NO2 standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.

4 Final rule signed March 12, 2008. The 1997 ozone standard (0.08 ppm, annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years) and related implementation rules remain in place. In 1997, EPA revoked the 1-hour ozone standard (0.12 ppm, not to be exceeded more than once per year) in all areas, although some areas have continued obligations under that standard ("anti-backsliding"). The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is less than or equal to 1.

5 Final rule signed June 2, 2010. The 1971 annual and 24-hour SO2 standards were revoked in that same rulemaking. However, these standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

The microscale analysis utilized the traffic (volumes and speeds) and emission factor data for the 2013 Existing, 2018 No-Build, and 2018 Build Conditions. These data were incorporated into air quality models to demonstrate that the project will meet the CAAA criteria. The microscale analysis calculated CO, PM_{10}, and $PM_{2.5}$ concentrations at congested intersections near the Project Site under Existing, No-Build, and Build conditions.

Mobile Source Study Area

The objective of the microscale analysis was to evaluate the CO, PM_{10}, and $PM_{2.5}$ concentrations at congested intersections in the study area. The intersections in the study area were ranked based on traffic volumes and level of service. The following intersections, which are presented in **Figure 5-20**, were selected for analysis:

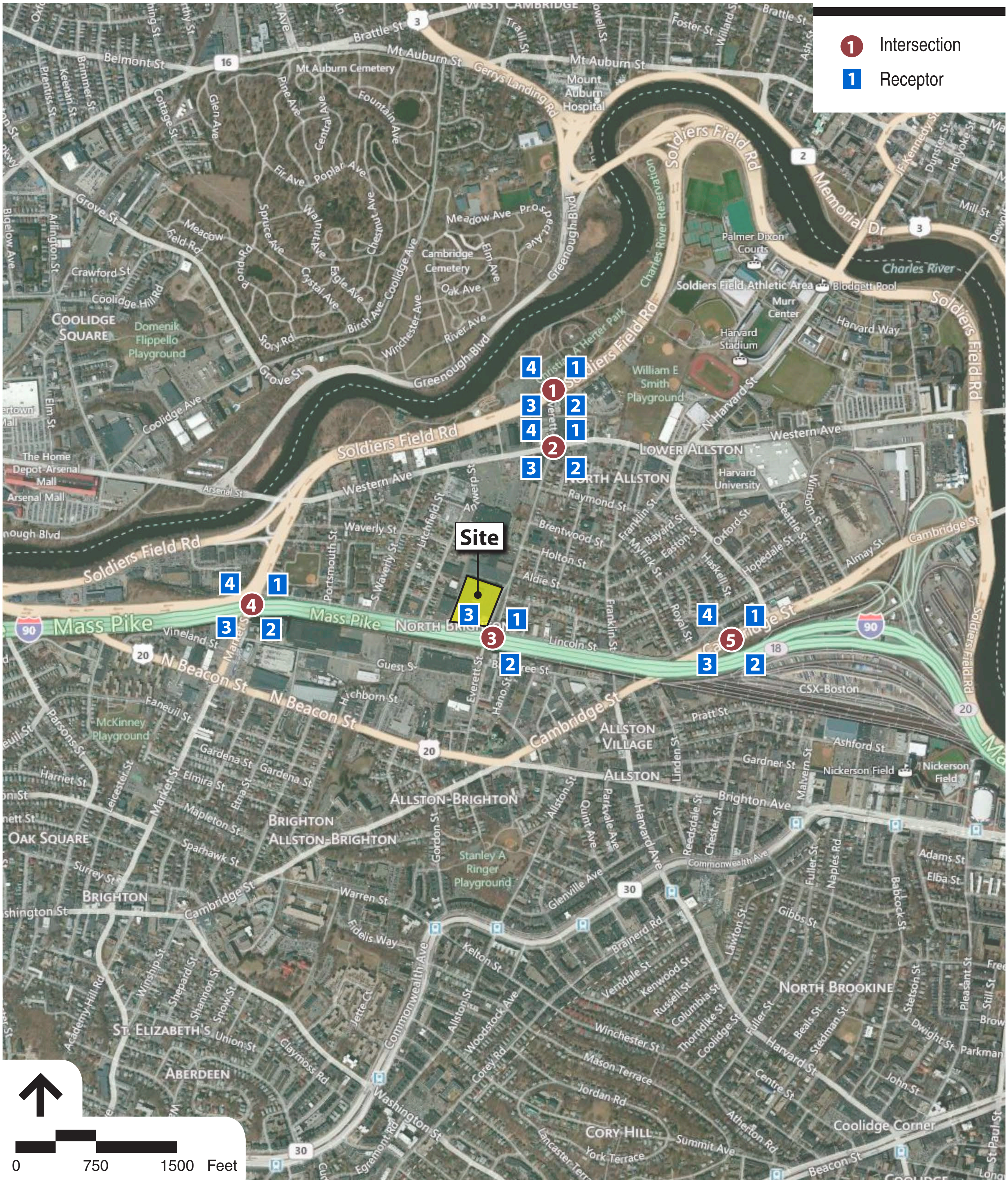
- Soldier's Field Road at Everett Street
- Western Avenue at Everett Street
- Everett Street Extension at North Beacon Street (Route 20)
- Birmingham Parkway at Market Street and Lincoln Street
- Cambridge Street at Lincoln Street

Modeling and Background Concentrations

The microscale analysis calculated maximum 1-hour and 8-hour CO concentrations in the project area during the peak CO season (winter), maximum 24-hour PM_{10} concentrations, and maximum 24-hour and annual $PM_{2.5}$ concentrations for PM summer season. The EPA's computer model CAL3QHC Version 2[3] was used to predict CO, PM_{10}, and $PM_{2.5}$ concentrations for each intersection. Receptor locations were selected near the congested intersections based upon areas where the public has access. The intersection receptors were placed at the edge of the roadway, but not closer than 10 feet (3 meters) from the nearest travel lane, as required by EPA. The results calculated at these receptor locations represent the highest concentrations at each intersection. Receptor locations farther away from the intersections will have lower concentrations because of the CO dispersion characteristics. The receptor locations that are along other roadways in the study area are also expected to have lower CO concentrations than the receptor locations at the intersection. The emission rates for vehicles traveling along these roadways are much lower than the emission rates for vehicles queuing at intersections.

The CO, PM_{10}, and $PM_{2.5}$ concentrations were calculated directly using the EPA computer model. The 1-hour CO concentrations include a 1-hour background

[3] *User's Guide to CAL3QHC Version 2.0: A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections*, US Environmental Protection Agency, Office of Air Quality Planning and Standards, Technical Support Division; Research Triangle Park, NC; EPA-454/R-92-005; November 1992



The Skating Club of Boston

176 Lincoln Street Allston, MA

VHB *Vanasse Hangen Brustlin, Inc.*

Figure 5-20

Microscale Study Area Intersections

concentration of 3.0 ppm. The 8-hour CO concentrations were derived by applying a persistence factor of 0.70 to the 1-hour CO concentrations. Similar to the 1-hour CO emissions, the concentrations are expressed in parts per million (ppm) and include an 8-hour background concentration of 2.1 ppm.

The 24-hour PM_{10} concentrations were derived by applying a persistence factor of 0.40 to the 1-hour PM_{10} concentrations. The persistence factor for PM_{10} was obtained from the DEP's modeling guidelines.[4] The background concentrations[5] assumed for the 24-hour PM_{10} was 39.3 ug/m3.

The 24-hour $PM_{2.5}$ concentrations were derived by applying a persistence factor of 0.40 to the 1-hour $PM_{2.5}$ concentrations. The background concentration assumed for the 24-hour $PM_{2.5}$ was 20.7 ug/m^3. The annual $PM_{2.5}$ concentrations were derived by applying a persistence factor of 0.08 to the 1-hour $PM_{2.5}$ concentrations. The background concentration assumed for the annual $PM_{2.5}$ was 9.2 ug/m^3.

Emission Rates

All the vehicle emission factors used in the microscale analysis were obtained using the EPA's MOBILE 6.2[6] emissions model. MOBILE 6.2 calculates CO, PM_{10}, and $PM_{2.5}$ emission factors from motor vehicles in grams per vehicle-mile. The emission rates calculated in this study were adjusted to reflect Massachusetts-specific conditions, such as the state vehicle registration age distribution, the statewide Inspection and Maintenance (I/M) Program, and the Stage II Vapor Recovery System.[7] Emission factors for the mobile sources were determined using the DEP-recommended temperatures for the winter (CO) season and summer (PM) season.

Traffic Data

The air quality study utilized motor vehicle traffic data specifically developed for each analysis condition. The Build Condition used for the microscale analysis includes the physical and operational mitigation proposed to improve traffic operations. The microscale analysis used evening peak hour traffic conditions during the CO season (winter). Vehicle speeds were developed based upon traffic volumes, observed traffic flow characteristics, and roadway capacity. The traffic data were developed based on the traffic study presented in this PNF.

▼

4 *First Level Screening Guideline for Determining the Air Quality Impact of Stationary Source Air Pollution*; January 1996.

5 2009-2011 *New England Annual Report on Air Quality*, United States Environmental Protection Agency, Region 1, Office of Environmental Measurement and Evaluation North Chelmsford, MA 01863, Ecosystems Assessment Unit.

5 MOBILE 6.2 (Mobile Source Emission Factor Model), The May 19, 2004 official release from US EPA, Office of Mobile Sources, Ann Arbor, MI.

6 *The Stage II Vapor Recovery System* is the process of collecting gasoline vapors form vehicles as they are refueled. This requires the use of a special gasoline nozzle at the fuel pump.

Existing Conditions

The CAAA resulted in states being divided into attainment and non-attainment areas, with classifications based upon the severity of their air quality problems. The Project is located in the Boston Metropolitan area, which has been classified as a "Maintenance" area for CO and an attainment area for PM_{10} and $PM_{2.5}$.

The microscale analysis determined that the 1-hour CO concentrations for the 2013 Existing Condition ranged from a minimum of 3.3 parts per million (ppm) at the intersection of Soldiers Field Road at Everett Street and Jughandle to a maximum of 4.5 ppm at the intersection of Cambridge Street at Lincoln Street . The corresponding maximum 8-hour CO concentrations ranged from a minimum of 2.3 ppm to a maximum of 3.2 ppm. The microscale CO results are presented in **Table 5-2** through **Table 5-3** (presented below). All the 1-hour and 8-hour concentrations are below the CO NAAQS of 35 and 9 ppm, respectively. These values are consistent with the area's designation as a CO Maintenance area.

The microscale analysis determined that the 24-hour PM_{10} concentrations for the 2013 Existing Condition ranged from a minimum of 39.7 micrograms per cubic meter (ug/m^3) at the intersection of Western Avenue at Everett Street to a maximum of 41.3 ug/m^3 at the intersection of Cambridge Street at Lincoln Street . The microscale PM_{10} results are presented in **Table 5-4** (presented below). All concentrations are below the PM_{10} NAAQS of 150 ug/m^3.

The microscale analysis determined that the 24-hour $PM_{2.5}$ concentrations for the 2013 Existing Condition ranged from a minimum of 21.1 ug/m^3 at the intersection of to a maximum of 21.9 ug/m^3. The maximum annual $PM_{2.5}$ concentrations ranged from a minimum of 9.3 ug/m^3 to a maximum of 9.4 ug/m^3. The microscale $PM_{2.5}$ results are presented in **Table 5-5** and **Table 5-6** (presented below). All the 24-hour and annual concentrations are below the $PM_{2.5}$ NAAQS of 35 and 15 ug/m^3, respectively.

Future Build Conditions (Project-Related Impacts)

The following sections present the future Project-related emissions. The microscale ("hot spot") air quality analysis evaluated the Project-related (from traffic) concentrations of CO, PM_{10}, and $PM_{2.5}$from motor vehicle emissions at nearby intersections. This analysis demonstrates that the Project will meet and is well below the NAAQS and Massachusetts standards for CO, PM_{10}, and $PM_{2.5}$.

Carbon Monoxide (CO)

The highest CO concentrations for each intersection are presented in **Table 5-2** and **Table 5-3**. The results show that there are minimal to no increases for 1-hour and 8-hour CO concentrations between the 2018 No-Build and Build conditions due to the minor traffic volume increase and minimal intersection delays experienced at the study intersections. The 1-hour CO concentrations ranged between 3.3 and 4.7 ppm, and the 8-hour CO concentrations ranged between 2.3 and 3.3 ppm for both 2018 No-Build and Build conditions. The results of the microscale analysis demonstrate that the 2018 No-Build and Build CO concentrations (both 1- and 8-hour values) for the proposed project are below the NAAQS.

Table 5-2
Predicted Maximum 1-Hour CO Concentrations: Evening Peak Hour (Parts Per Million) [1, 2]

			1-Hour CO Concentrations (ppm)		
Intersection #[1]	Intersection	Receptor	2013 Existing	2018 No-Build	2018 Build
1	Soldier's Field Road at Everett Street	R1 – Jughandle to Everett Street	4.1	4.1	4.1
		R2 –1200 Soldier Field Road (Office)	4.0	4.0	4.0
		R3 – Harvard Student Telephone Office	4.1	4.1	4.1
		R4 - Open Space/Public Parking Lot	4.1	4.1	4.1
2	Western Avenue at Everett Street	R1 – Stadium Auto Body	3.9	3.9	3.9
		R2 – Century Bank/Ferrante Center	4.0	4.0	4.0
		R3 – PETCO Animal Store	4.1	4.0	4.0
		R4 – City Maintenance Facility	3.9	3.9	3.9
3	Everett Street Extension at North Beacon Street (Route 20)	R1 – Residential	3.9	4.0	4.1
		R2 – KFC	4.0	4.1	4.1
		R3 – Residential	3.9	4.1	4.1
4	Birrmingham Parkway at Market Street at Lincoln Street	R1 – Hogan's Run	4.1	4.0	4.0
		R2 – Galaxy Integrated Technologies	4.0	4.0	4.0
		R3 – Open Space	3.9	3.9	3.9
		R4-- Radio Station	3.8	3.8	3.8
5	Cambridge Street at Lincoln Street	R1 – Foreign Auto Body	4.4	4.4	4.4
		R2 – Open Space/Trailer Parking	4.2	4.2	4.2
		R3 – Open Space	4.5	4.6	4.7
		R4 – Parking Lot	4.2	4.2	4.3

Source: Vanasse Hangen Brustlin, Inc.
1 See Figure 5-20
2 The concentrations are expressed in parts per million (ppm) and include a 1-hour background concentration of 3.0ppm. The 1-hour NAAQS for CO is 35 ppm. The emissions presented represent the highest emissions experienced at each intersection.

Table 5-3
Predicted Maximum 8-Hour CO Concentrations: Evening Peak Hour (Parts Per Million) [1, 2]

Intersection #[1]	Intersection	Receptor	8-Hour CO Concentrations (ppm) 2013 Existing	2018 No-Build	2018 Build
1	Soldier's Field Road at Everett Street	R1 – Jughandle to Everett Street	2.9	2.9	2.9
		R2 –1200 Soldier Field Road (Office)	2.8	2.8	2.8
		R3 – Harvard Student Telephone Office	2.9	2.9	2.9
		R4 - Open Space/Public Parking Lot	2.9	2.9	2.9
2	Western Avenue at Everett Street	R1 – Stadium Auto Body	2.7	2.7	2.7
		R2 – Century Bank/Ferrante Center	2.8	2.8	2.8
		R3 – PETCO Animal Store	2.9	2.8	2.8
		R4 – City Maintenance Facility	2.7	2.7	2.7
3	Everett Street Extension at North Beacon Street (Route 20)	R1 – Residential	2.7	2.8	2.9
		R2 – KFC	2.8	2.9	2.9
		R3 – Residential	2.7	2.9	2.9
4	Birrmingham Parkway at Market Street at Lincoln Street	R1 – Hogan's Run	2.9	2.8	2.8
		R2 – Galaxy Integrated Technologies	2.8	2.8	2.8
		R3 – Open Space	2.7	2.7	2.7
		R4-- Radio Station	2.7	2.7	2.7
5	Cambridge Street at Lincoln Street	R1 – Foreign Auto Body	3.1	3.1	3.1
		R2 – Open Space/Trailer Parking	2.9	2.9	2.9
		R3 – Open Space	3.2	3.2	3.3
		R4 – Parking Lot	2.9	2.9	3.0

Source: Vanasse Hangen Brustlin, Inc.
1 See Figure 5-20
2 The concentrations are expressed in parts per million (ppm). 8-Hour CO background of 2.1 ppm and a persistence factor of 0.70 were used. The 8-hour NAAQS for CO is 9 ppm. The emissions presented represent the highest emissions experienced at each intersection.

Particulate Matter (PM_{10})

The analysis results show that the maximum increase for 24-hour PM_{10} concentrations between the 2018 No-Build and Build conditions is 1.6 ug/m^3. The 24-hour PM_{10} for 2018 No-Build and Build conditions ranged between 39.7 and 41.3 ug/m^3. The results of the microscale analysis demonstrate that the

2018 No-Build and Build PM_{10} concentrations for the Project are below the NAAQS. The highest PM_{10} concentrations for each intersection are presented in **Table 5-4.**

Table 5-4
Predicted Maximum 24-Hour PM_{10} Concentrations: Evening Peak Hour (ug/m^3) [1, 2]

			24-Hour PM_{10} Concentrations (ug/m^3)		
Intersection #[1]	Intersection	Receptor	2013 Existing	2018 No-Build	2018 Build
1	Soldier's Field Road at Everett Street	R1 – Jughandle to Everett Street	40.9	40.9	40.9
		R2 –1200 Soldier Field Road (Office)	40.9	40.9	40.9
		R3 – Harvard Student Telephone Office	40.9	40.9	40.9
		R4 - Open Space/Public Parking Lot	40.9	40.9	40.9
2	Western Avenue at Everett Street	R1 – Stadium Auto Body	40.5	40.5	40.5
		R2 – Century Bank/Ferrante Center	40.5	40.5	40.5
		R3 – PETCO Animal Store	40.5	40.5	40.5
		R4 – City Maintenance Facility	40.5	40.5	40.5
3	Everett Street Extension at North Beacon Street (Route 20)	R1 – Residential	40.5	40.5	40.9
		R2 – KFC	40.5	40.9	40.9
		R3 – Residential	40.5	40.9	40.9
4	Birrmingham Parkway at Market Street at Lincoln Street	R1 – Hogan's Run	40.5	40.5	40.5
		R2 – Galaxy Integrated Technologies	40.5	40.9	40.9
		R3 – Open Space	40.5	40.9	40.9
		R4-- Radio Station	40.5	40.5	40.5
5	Cambridge Street at Lincoln Street	R1 – Foreign Auto Body	41.3	41.3	41.3
		R2 – Open Space/Trailer Parking	40.9	40.9	40.9
		R3 – Open Space	41.3	41.3	41.3
		R4 – Parking Lot	40.9	40.9	40.9

Source: Vanasse Hangen Brustlin, Inc.
1 See Figure 5-20
2 The concentrations are expressed in micrograms per cubic meter (ug/m^3). The background concentrations assumed for the 24-Hour PM_{10} was 39.3ug/m^3 . The NAAQS for PM_{10} is 150 ug/m3. The emissions presented represent the highest emissions experienced at each intersection.

Particulate Matter 2.5 ($PM_{2.5}$)

The results show that there are minimal increases for 24-hour and annual $PM_{2.5}$ concentrations between the 2018 No-Build and Build conditions due to the minor traffic volume increase and minimal intersection delays experienced at the study intersections. The 24-hour and annual $PM_{2.5}$ for 2018 No-Build and Build conditions ranged from 21.1 to 21.5 ug/m^3 and 9.3 to 9.4 ug/m^3 respectively. The results of the microscale analysis demonstrate that the 2018 No-Build and Build $PM_{2.5}$ concentrations for the proposed project are below the NAAQS. The highest $PM_{2.5}$ concentrations for each intersection are presented in **Table 5-5** and **Table 5-6**.

Table 5-5
Predicted Maximum 24-Hour $PM_{2.5}$ Concentrations: Evening Peak Hour (ug/m^3) [1, 2]

Intersection #[1]	Intersection	Receptor	24-Hour $PM_{2.5}$ Concentrations (ug/m^3) 2013 Existing	2018 No-Build	2018 Build
1	Soldier's Field Road at Everett Street	R1 – Jughandle to Everett Street	21.5	21.5	21.5
		R2 –1200 Soldier Field Road (Office)	21.5	21.5	21.5
		R3 – Harvard Student Telephone Office	21.5	21.5	21.5
		R4 - Open Space/Public Parking Lot	21.5	21.5	21.5
2	Western Avenue at Everett Street	R1 – Stadium Auto Body	21.5	21.1	21.1
		R2 – Century Bank/Ferrante Center	21.5	21.5	21.5
		R3 – PETCO Animal Store	21.5	21.5	21.5
		R4 – City Maintenance Facility	21.5	21.1	21.1
3	Everett Street Extension at North Beacon Street (Route 20)	R1 – Residential	21.5	21.5	21.5
		R2 – KFC	21.5	21.5	21.5
		R3 – Residential	21.5	21.5	21.5
4	Birrmingham Parkway at Market Street at Lincoln Street	R1 – Hogan's Run	21.5	21.5	21.5
		R2 – Galaxy Integrated Technologies	21.5	21.5	21.5
		R3 – Open Space	21.5	21.5	21.5
		R4-- Radio Station	21.5	21.1	21.1
5	Cambridge Street at Lincoln Street	R1 – Foreign Auto Body	21.5	21.5	21.5
		R2 – Open Space/Trailer Parking	21.5	21.5	21.5
		R3 – Open Space	21.9	21.5	21.5
		R4 – Parking Lot	21.5	21.5	21.5

Source: Vanasse Hangen Brustlin, Inc.
1 See Figure 5-20
2 The concentrations are expressed in micrograms per cubic meter (ug/m3). The background concentrations assumed for the 24-Hour $PM_{2.5}$ was 20.7 ug/m^3. The NAAQS for $PM_{2.5}$ is 35 ug/m3. The emissions presented represent the highest emissions experienced at each intersection.

Table 5-6
Predicted Maximum Annual $PM_{2.5}$ Concentrations: Morning Peak Hour (ug/m^3) [1, 2]

			Annual $PM_{2.5}$ Concentrations (ug/m^3)		
Intersection #[1]	Intersection	Receptor	2013 Existing	2018 No-Build	2018 Build
1	Soldier's Field Road at Everett Street	R1 – Jughandle to Everett Street	9.4	9.4	9.4
		R2 –1200 Soldier Field Road (Office)	9.4	9.4	9.4
		R3 – Harvard Student Telephone Office	9.4	9.4	9.4
		R4 - Open Space/Public Parking Lot	9.4	9.4	9.4
2	Western Avenue at Everett Street	R1 – Stadium Auto Body	9.4	9.3	9.3
		R2 – Century Bank/Ferrante Center	9.4	9.4	9.4
		R3 – PETCO Animal Store	9.4	9.4	9.4
		R4 – City Maintenance Facility	9.4	9.3	9.3
3	Everett Street Extension at North Beacon Street (Route 20)	R1 – Residential	9.4	9.4	9.4
		R2 – KFC	9.4	9.4	9.4
		R3 – Residential	9.4	9.4	9.4
4	Birmingham Parkway at Market Street at Lincoln Street	R1 – Hogan's Run	9.4	9.4	9.4
		R2 – Galaxy Integrated Technologies	9.4	9.4	9.4
		R3 – Open Space	9.4	9.4	9.4
		R4-- Radio Station	9.4	9.3	9.3
5	Cambridge Street at Lincoln Street	R1 – Foreign Auto Body	9.4	9.4	9.4
		R2 – Open Space/Trailer Parking	9.4	9.4	9.4
		R3 – Open Space	9.4	9.4	9.4
		R4 – Parking Lot	9.4	9.4	9.4

Source: Vanasse Hangen Brustlin, Inc.
1 See Figure 5-20
2 The concentrations are expressed in micrograms per cubic meter (ug/m3). The background concentrations assumed for the annual $PM_{2.5}$ was 9.2 ug/m^3. The NAAQS for $PM_{2.5}$ is 15 ug/m^3. The emissions presented represent the highest emissions experienced at each intersection.

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Stationary Sources

The Project will include stationary sources, such as heating boilers, hot water heaters, and emergency generators. Because the Project is currently under design, the size and number of the stationary sources have not yet been finalized. As these stationary sources move ahead in the design process, the Project will obtain operating permits for appropriate equipment under DEP's regulations (310 CMR 7.02), as may be required. The DEP regulatory process will ensure that these emission sources meet the NAAQS.

Construction Air Quality

Construction and demolition activities associated with development of the Skating Club of Boston will result in a slight, short-term increase in air pollution emissions. The primary source of potential construction emissions is from fugitive dust resulting from construction operations (e.g., clearing, grading). Fugitive dust consists of soil particles that become airborne when disturbed by heavy equipment operations or through wind erosion of exposed soil after groundcover (either lawn or pavement) is removed. To minimize fugitive dust emissions, a water truck will be kept on the construction site during excavation activities. This construction-related air quality impact (i.e., fugitive dust) would be of relatively short duration. Also, during construction, emission controls from construction vehicles and machinery would include proper maintenance and reduced idling on site. Overall, the impacts on ambient air quality from construction activities associated with site-specific development are not expected to be significant.

Overall, air quality in the Skating Club of Boston study area would not be expected to be substantially affected by redevelopment because of emission control procedures and the temporary nature of construction activities. Emissions from the operation of construction machinery (carbon monoxide [CO], nitrogen oxides [NOx], particulate matter [PM], volatile organic compounds [VOCs], and greenhouse gases) are short-term and not generally considered substantial. With the implementation of the various mitigation measures to minimize construction-related air quality impacts, no significant adverse impacts would be expected.

- During construction within the Project Site area, emission controls for construction vehicle emissions would be employed and will include, as appropriate, proper maintenance of all motor vehicles, machinery, and equipment associated with construction activities, such as, the maintenance of manufacture's muffler equipment or other regulatory-required emissions control devices.
- The Project Site area to be developed will implement dust control measures during dry or windy periods. The appropriate methods of dust control would be determined by the surfaces affected (i.e., roadways or disturbed areas) and would include, as necessary, the application of water, the use of stone in construction roads, and vegetative cover.
- Regular sweeping of pavement of adjacent roadway surfaces during construction will be conducted to minimize the potential for vehicular traffic to create airborne dust and particulate matter.

Noise

The purpose of this section is to present the noise assessment associated with the Proposed Project in Boston, Massachusetts. The noise assessment included noise monitoring to determine existing sound levels and calculations of future sound levels associated with potential mechanical equipment. This section provides a background on noise, the regulatory context for assessing noise impacts associated with development projects, including the City of Boston noise standards, and the noise assessment methodology and findings.

Summary of Key Findings

The noise analysis evaluated the sound levels associated with the Proposed Project. A noise assessment of the daytime and nighttime sound levels at existing conditions was compared to the Proposed Project's generated sound levels to determine the sound levels at the built condition. These results were compared to the City of Boston standards for residential and industrial districts. During the nighttime hours, the Proposed Project does not exceed the City's standards for residential, business or industrial districts, 50 dBA, 65 dBA and 70 dBA respectively. During the daytime hours, the Proposed Project does not exceed the City's daytime standards for residential, business or industrial districts, 60 dBA, 65 dBA and 70 dBA respectively.

Noise Background

Noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities, such as sleep, work, or recreation. How people perceive sound depends on several measurable physical characteristics. These factors include:

- *Intensity* - Sound intensity is often equated to loudness.
- *Frequency* - Sounds are comprised of acoustic energy distributed over an array of frequencies. Acoustic frequencies, commonly referred to as tone or pitch, are typically measured in Hertz. Pure tones have all their energy concentrated in a narrow frequency range.

Sound levels are most often measured on a logarithmic scale of decibels (dB). The decibel scale compresses the audible acoustic pressure levels which can vary from the threshold of hearing (0 dB) to the threshold of pain (120 dB). Because sound levels are measured in dB, the addition of two sound levels is not linear. Adding two equal sound levels creates a 3 dB increase in the overall level. Research indicates the following general relationships between sound level and human perception:

- A 3 dB increase is a doubling of acoustic energy and is the threshold of perceptibility to the average person.

- A 10 dB increase is a tenfold increase in acoustic energy but is perceived as a doubling in loudness to the average person.

The human ear does not perceive sound levels from each frequency as equally loud. To compensate for this phenomenon in perception, a frequency filter known as A-weighted [dB(A)] is used to evaluate environmental noise levels. **Table 5-7** presents a list of common outdoor and indoor sound levels.

Table 5-7
Common Outdoor and Indoor Sound Levels

Outdoor Sound Levels	Sound Pressure (μPa)*		Sound Level dB(A)**	Indoor Sound Levels
	6,324,555	-	110	Rock Band at 5 m
Jet Over Flight at 300 m		-	105	
	2,000,000	-	100	Inside New York Subway Train
Gas Lawn Mower at 1 m		-	95	
	632,456	-	90	Food Blender at 1 m
Diesel Truck at 15 m		-	85	
Noisy Urban Area—Daytime	200,000	-	80	Garbage Disposal at 1 m
		-	75	Shouting at 1 m
Gas Lawn Mower at 30 m	63,246	-	70	Vacuum Cleaner at 3 m
Suburban Commercial Area		-	65	Normal Speech at 1 m
	20,000	-	60	
Quiet Urban Area—Daytime		-	55	Quiet Conversation at 1 m
	6,325	-	50	Dishwasher Next Room
Quiet Urban Area—Nighttime		-	45	
	2,000	-	40	Empty Theater or Library
Quiet Suburb—Nighttime		-	35	
	632	-	30	Quiet Bedroom at Night
Quiet Rural Area—Nighttime		-	25	Empty Concert Hall
Rustling Leaves	200	-	20	
		-	15	Broadcast and Recording Studios
	63	-	10	
		-	5	
Reference Pressure Level	20	-	0	Threshold of Hearing

Source: *Highway Noise Fundamentals*. Federal Highway Administration, September 1980.

* μPA – MicroPascals, which describe pressure. The pressure level is what sound level monitors measure.

** dB(A) – A-weighted decibels, which describe pressure logarithmically with respect to 20 μPa (the reference pressure level).

A variety of sound level indicators can be used for environmental noise analysis. These indicators describe the variations in intensity and temporal pattern of the sound levels. The following is a list of sound level descriptors:

- Lmin is the minimum sound level measured during the time period.
- L_{10} is the sound level which is exceeded for 10 percent of the time during the time period. During a 100 minute period, the L_{10} would be the sound level which was exceeded by other sound levels for 10 minutes.
- L_{90} is the sound level which is exceeded for 90 percent of the time during the time period. The L_{90} is generally considered to be the ambient or background sound level.
- Lmax is the maximum sound level measured during the time period.

Typical noise sources associated with development projects include: heating, ventilation, and air conditioning (HVAC) mechanical equipment, vehicular traffic (highways); and a building life safety generator.

Noise Regulatory Context

The City of Boston has developed noise impact criteria that establish noise thresholds deemed to result in adverse impacts. The noise assessment compares existing and future sound levels to the criteria and determine whether or not the Proposed Project will be impacted by the nearby transportation facilities surrounding the Proposed Project Site or generates noise impact at sensitive receptor locations in the vicinity of the Project.

City of Boston Noise Standards

The City of Boston developed noise standards that establish noise thresholds deemed to result in adverse impacts. The noise analysis for the Project Components will use these standards to evaluate whether the proposed development will generate sound levels that result in adverse impacts.

Under Chapter 40, Section 21 of the General Laws of the Commonwealth of Massachusetts and the City of Boston Code, Ordinances, Title 7, Section 50, the Air Pollution Control Commission of the City of Boston has adopted Regulations for the Control of Noise in the City of Boston.[8] These regulations establish maximum allowable sound levels based upon the land use affected by the proposed development. **Table 5-8** summarizes the maximum allowable sound levels that should not be exceeded.

[8] City of Boston Air Pollution Control Commission, *Regulations for the Control of Noise in the City of Boston*. (website: http://www.cityofboston.gov/Images_Documents/noise_reg_tcm3-13127.pdf)

Table 5-8
City of Boston Zoning District Noise Standards, dB(A)

Land Use Zone District	Daytime (7:00 AM – 6:00 PM)	All Other Times (6:00 PM – 7:00 AM)
Residential	60	50
Residential/Industrial	65	55
Business	65	65
Industrial	70	70

Source: Regulations for the Control of Noise in the *City of Boston, Air Pollution Control Commission*.

For a residential zoning district, the maximum noise level affecting residential uses shall not exceed the Residential Noise Standard. The residential land use noise standard is 60 dB(A) for daytime periods (7:00 AM to 6:00 PM) and 50 dB(A) for nighttime conditions (6:00 PM to 7:00 AM).

The City of Boston's regulations on construction sound levels state that operation of any construction devices, excluding impact devices, may not exceed a L_{10} sound level of 75 dB(A) or Lmax sound level of 86 dB(A) at a residential land use during any time period.

Massachusetts DEP

Because the Proposed Project will include one emergency generator for building life safety, an appropriate DEP air permit (Self Certification) will be applied for during the design and construction process. Additionally, the DEP regulations (310 CMR 7.00) include noise requirements for operation of emergency generators, which need to be documented within 60 days of the initial operation. The Proponent will submit the appropriate permit application to DEP, including the noise mitigation measures, such as acoustic enclosures and exhaust silencers, necessary to meet the DEP's noise criteria.

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Noise Assessment Methodology

The noise analysis evaluated the sound level impacts associated with the Proposed Project's operations, such as rooftop mechanical equipment. The noise analysis included measurements of existing ambient background sound levels and an analysis of project generated sound levels. The study area was evaluated and sensitive receptor locations were identified. The noise analysis evaluated sound levels associated with potential rooftop mechanical equipments, such as HVAC units, cooling towers, and the emergency generator.

The sound levels from the Project's buildings' mechanical equipment, building operations, and emergency diesel generator were calculated based upon reference sound level data, the noise paths between the source and the receptor location, and the attenuation of sound levels over distance. Manufacturers' reference data for the Project Site buildings' mechanical equipment were used to calculate Build Condition sound levels at receptor locations.

The noise analysis evaluated both day and nighttime conditions. The nighttime sound levels represent the time when people are most sensitive to unwanted noise. The noise analysis identified the maximum sound levels for the Build Condition, using noise (logarithmic) addition of the appropriate noise sources, taking into account the relative locations of noise sources and receptor locations, their paths, and the attenuation due to distance.

An initial data collection was done on the existing noise levels at two points near the Project Site. These locations are close to the receptor locations and will be used to explain the existing noise conditions within and around the Project Site. An analysis of the activities, including project generated traffic and building mechanical equipment, was conducted and expected noise levels have been projected.

Potential Project Related Noise Impacts

The noise assessment evaluated the potential sound level impacts associated with the Proposed Project's operations, such as building mechanical equipment and service/loading activities for the Existing and Build Conditions. The noise assessment included measurements of existing ambient background sound levels and an evaluation of potential project generated sound levels. The study area was evaluated and sensitive receptor locations were identified. The noise assessment determined the sound level associated with the Proposed Project at the sensitive receptor locations.

- 2500 KWA Transformer
- C9 300 kW Generator
- Rooftop AHU
- Return Fan
- Supply Fan

The noise analysis assumed that all mechanical equipment would be operating at full load during the daytime hours and a lighter load during the nighttime hours. As such, the noise analysis for both the daytime and nighttime hours was conducted.

Applying the properties of sound propagation over hard ground, the noise analysis projected sound levels to sensitive receptor locations. The noise analysis assumed sound level reductions due to distance, building blockages and parapets surrounding the rooftop mechanical equipment. The sensitive receptor locations, described further below, included residential buildings east and west of the Project Site and two storage warehouses west and north of the Project Site.

The noise assessment also evaluated noise associated with the Proposed Project's loading activities. The analysis examined the building design, such as location of the loading area, and management of deliveries at the Project Site. Loading activity will be minimal during regular operations and will not be a significant contributor to the noise pollution associated with the Proposed Project.

Sensitive Receptor Locations

The noise analysis included evaluation of the study area to identify sensitive receptor locations that have outdoor activities and that may potentially be sensitive to noise associated with the Proposed Project. The noise analysis identified six (6) sensitive receptor locations in the vicinity of the Proposed Project. The analysis evaluated the following receptor locations:

R1 – 35-37 Antwerp Street (Residential),

R2 – 1 Adamson Street (Residential),

R3 – 165 Everett Street (Residential),

R4 – 173-175 Everett Street (Residential),

R5 – 37-39 Antwerp Street (Industrial),

R6 – 100 Holton Street (Business)

These receptor locations, selected based on land use considerations, represent the most sensitive locations in the vicinity of the Project Site. **Figure 5-21** depicts the receptor locations used in the noise analysis.

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Existing Noise Conditions

A noise monitoring program was conducted to establish existing sound levels. The existing sound levels were measured using a Type 1 sound analyzer (Larson Davis 831). Measurements were conducted during the weekday late night (11:00 PM to 11:30 PM) periods at sensitive receptor areas on August 21, 2013. The measured sound level data under existing conditions was dominated by noise from highway and local roadways (such as Interstate 90 and Everett Street) and mechanical equipment (i.e., window air conditioning units and rooftop units) from nearby buildings.

The existing measured L_{90} sound levels range from 48 dB(A) to 50 dB(A) during the nighttime period. These sound levels are typical of an urban area. The result of the noise monitoring program indicates that the sound levels in the vicinity of the Proposed Project.

The Skating Club of Boston

176 Lincoln Street Allston, MA

Vanasse Hangen Brustlin, Inc.

Figure 5-21

Monitoring and Sensitive Receptor Locations

are just under the City's nighttime standard of 50 dB(A) for Residential Districts. The existing measured sound level data are presented in **Table 5-9**.

Table 5-9
Measured Existing Nighttime Sound Levels, dB(A)

Monitoring Location*	Boston Noise Criteria	Measured L90 Sound Levels
M1 – Adamson Street at Everett Street	50	48.6
M2 – 31 Antwerp Street	50	49.7

Source: Vanasse Hangen Brustlin, Inc.
Bold values exceed noise criteria.
* Refer to Figure 5-21 for monitoring locations.

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Potential Project-Related Noise Sources

The noise assessment evaluated the potential Proposed Project-related noise sources, including building mechanical equipment, and service and loading activities at the sensitive receptor locations. These potential noise sources are described further below.

Project Mechanical Equipment

The noise analysis assumed that the Proposed Project would have a combination of AHUs, generators, a transformer, and supply and return fans. The sound levels from the mechanical equipment were projected to the sensitive receptor locations. Since the AHUs will be hidden by parapet walls and the transformer and generator will be housed within the building, reduction due to the enclosure was taken into consideration in the calculation. The noise analysis also included the impacts of sound propagation due to building blockages from an existing building to the west of the Project Site. Since the design of the proposed buildings is significantly higher than surrounding buildings in the vicinity of the Proposed Project, reductions due to blockage from the proposed building's rooftop was also considered.

The Proposed Project will include one emergency generator for building life safety. The Proposed Project will apply for the appropriate Massachusetts Department of Environmental Department (DEP) air permits, which include additional noise requirements described in DEP regulations under 310 CMR 7.00. When the details of the emergency generator are developed, the Proponent will submit the appropriate application forms to DEP including the noise mitigation measures necessary to meet the DEP's noise criteria, such as acoustic enclosures and exhaust silencers.

Noise Assessment Findings

The noise analysis calculated the potential sound levels at the sensitive receptor locations during the daytime and nighttime hours. It was assumed that during the day, mechanical equipment would be operating at full load, while during the nighttime hours the equipment would be operating under reduced loads. The Proposed Project's loading activities were assumed to be negligible due to the infrequency of loadings and the management of the loading areas. The noise analysis determined the maximum potential sound levels from the rooftop mechanical equipment that will result in sensitive receptor locations meeting City of Boston's noise standards.

Daytime Analysis Results

The daytime analysis assumed full operation of the building mechanical equipment. The existing sound levels that were taken during nighttime hours were also used for the daytime analysis as it was assumed there is minimal difference in activities between day and night around the Project Site. The daytime sound levels for the Build condition do not exceed the City's daytime standards for residential, 60 dBA, business, 65 dBA and industrial, 70 dBA districts. **Table 5-10** provides a summary of the sound level results at the sensitive receptor locations during the daytime hours.

Table 5-10
Daytime Sensitive Receptor Location Sound Levels, dB(A)

Receptor Location*	Boston Noise Criteria	Existing	Mechanical Equipment	Build	Sound Level Change
R1 – 35-37 Antwerp Street	60	50	42	50	+0
R2 – 1 Adamson Street	60	49	48	51	+2
R3 – 165 Everett Street	60	49	48	51	+2
R4 – 173-175 Everett Street	60	49	46	51	+2
R5 – 37-39 Antwerp Street (Industrial)	70	50	51	53	+3
R6 – 100 Holton Street (Business)	65	49	46	51	+2

Source: Vanasse Hangen Brustlin, Inc.
* See Figure 5-21 for receptor locations.
Bold values exceed daytime noise criteria.

Nighttime Analysis Results

The nighttime analysis assumed the mechanical equipment would be operating under lighter loads since the building does not need to be highly functional. Five receptor locations fall within residential districts with a City standard of 50 dBA during the nighttime hours. The analysis concludes that these sound levels do not exceed the City residential district standard. One location, R5, is zoned for industrial use with a City standard of 70 dBA and the last location, R6, is zoned for business with a City standard of 65 dBA. The industrial and business zoned locations fall well below the City standards for noise levels during the nighttime hours. **Table 5-11** provides a summary of the sound level results at the sensitive receptor locations during the nighttime hours.

Table 5-11
Nighttime Sensitive Receptor Location Sound Levels, dB(A)

Receptor Location*	Boston Noise Criteria	Existing	Mechanical Equipment	Build	Sound Level Change
R1 – 35-37 Antwerp Street	50	50	39	50	+0
R2 – 1 Adamson Street	50	49	45	50	+1
R3 – 165 Everett Street	50	49	45	50	+1
R4 – 173-175 Everett Street	50	49	43	50	+1
R5 – 37-39 Antwerp Street (Industrial)	70	50	48	52	+2
R6 – 100 Holton Street (Business)	65	49	43	50	+1

Source: Vanasse Hangen Brustlin, Inc.
* See Figure 5-21 for receptor locations.

Construction Impacts

This section describes the anticipated methods and impacts of construction related to the Proposed Project. A Construction Management Plan (CMP) will be submitted to the Boston Transportation Department with respect to the Proposed Project. These plans will comply with the City of Boston's Construction Management Program. These CMPs will include detailed information regarding construction activities, materials management, staging areas, parking, truck routes, air quality and noise impacts and mitigation measures, and other subject matter (such as vibration) as it relates to construction. In particular, these CMPs will demonstrate the intent to maintain public safety throughout the construction periods. Techniques such as barricades, defined temporary walkways, signage, and other protective measures will be put in place. The CMP will also highlight truck routes and staging, protection of utilities, and the control of noise and dust.

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Construction Schedules

The following list provides a preliminary assessment of the construction schedule for the Proposed Project:

- Project Review, Approval, and Permitting — Fall 2013 – Spring 2014
- Design Completion — Spring 2014
- Start Site Excavation and Construction — June 2014
- Completion/Occupancy — Fall 2015

It is anticipated that the Project construction will commence by June 2014. The entire construction schedule is anticipated to be approximately 14 months with completion by Fall 2015.

Construction Noise Impacts and Mitigation

The construction activities related to the Proposed Project will generate noise related to demolition activities, excavation, earth movement, and construction vehicles. Although construction sound levels will be temporarily higher than the existing sound levels, no violations of the City of Boston's Noise Ordinance are expected and the Proponent is committed to mitigating construction-related noise impacts. The Proponent is further committed to minimizing and mitigating construction-related noise impacts because of the proximity of the planned construction to neighboring buildings.

Noise Impacts

Moderate increases in noise levels associated with the construction of the Proposed Project may occur during construction since heavy machinery is expected to be used intermittently throughout construction. Some equipment may be heard from off-site locations; however, construction work will comply with the requirements of the City of Boston Noise Ordinance and every commercially reasonable effort will be made to minimize the noise impact of construction activities.

The construction phase that will generate the highest sound levels will be the demolition of the existing buildings, site excavation, and grading. Construction sound levels, based upon construction equipment noise studies prepared by the Environmental Protection Agency, are expected to range from an L_{10} of 65 to 75 dBA with an L_{max} of 85 dBA. The City of Boston Noise Ordinance considers construction sound levels to be an impact to residential land uses if the L_{10} is in excess of 75 dBA or the L_{max} is in excess of 86 dBA. The predicted construction sound levels are below the City of Boston Noise Ordinance requirements for residential areas. A construction management program will be developed with the City of Boston to ensure that the applicable Noise Ordinance requirements are met during the demolition of this building.

City of Boston Requirements

Construction noise associated with the construction of the Proposed Project is not expected to exceed the limits described in **Table 5-12** below. Regulation 3 of the Regulations for the Control of Noise in the City of Boston, "Restrictions of Noise Emitted from Construction Sites," establishes limits for construction noise. The limits are applied at the lot line of the receiving property. In the case where equipment is operated at closer than 50 feet to the applicable lot line, the limits are applied at 50 feet from the equipment. The City of Boston regulations are not applicable to impact devices such as jackhammers, pile drivers, riveters, pavement breakers, etc. In addition, the L_{10} must exceed the ambient L_{10} by at least 5 dBA to be considered a violation of the limits. It is the goal of the Proposed Project to operate within the criteria set by the City of Boston's Noise Ordinance.

Table 5-12
Summary of Construction Site Noise Limits for Boston

Land Use of Affected Property	Noise Level Limit* dBA L_{10} Level	Noise Level Limit* dBA Maximum Level***
Residential or Institutional	75	86
Business or Recreational	80	-
Industrial**	85	-

Source: Regulation 3, City of Boston Air Pollution Control Commission, Regulation for the Control of Noise in the City of Boston, adopted December 17, 1976
* Measured at the lot line of the affected property.
** The industrial noise limit shall apply to public ways.
*** Maximum noise level shall be measured with the sound level meter on "SLOW" response.

Construction Noise Mitigation

Construction period activities may temporarily increase nearby sound levels due to the intermittent use of heavy machinery during construction. These activities include demolition, foundation construction, truck movements, heavy equipment operations, and general construction activities. Regulation 3 of the City of Boston Code, Ordinances, Title 7, Section 50 includes specific construction noise limits by land use. The relevant criterion for the Proposed Project is based on residential or institutional land use. The construction noise at the property line for residential or institutional land use is limited to a maximum level of 86 dBA, with a limit of 75 dBA for construction noise level exceeded 10 percent of the time (L_{10}). In addition, the City of Boston Code, Ordinances, Title 15, Chapter 11, Section 355 (titled "Unreasonable Noise") also applies to construction activities. This ordinance establishes a noise limit of 50 dBA for construction noise measured at residential lot lines between 6:00 PM and 7:00 AM. This ordinance effectively prohibits nighttime construction near residential areas.

The Proponent will require the following construction noise mitigation measures to assist in ensuring the Proposed Project complies with the criteria set by the City of Boston's Noise Ordinance:

- Scheduling of work during daytime hours. Proposed Project construction hours will generally be restricted to be between 7:00 AM and 6:00 PM. Contractors will not be allowed to operate diesel equipment or prepare and move materials before 7:00 AM.
- Selecting the quietest practical items of equipment, e.g., whenever possible, electric instead of diesel powered equipment.

- Scheduling equipment operations to keep average levels low, to synchronize noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels.
- Turning off idle equipment and limiting idling to 5 minutes, per Commonwealth of Massachusetts regulations.
- Protecting sensitive locations by shielding or distancing noisy equipment.
- Maintaining muffler enclosures on continuously operating equipment, such as air compressors and welding generators.

Construction Air Quality

Areas of exposed soils will be vegetated or paved as soon as practicable to minimize the length of exposure time. Exposed areas susceptible to wind will be mulched or seeded as early as feasible in the construction process to further reduce dust emissions. Runoff will be controlled to prevent sediment from entering the storm drain system.

Construction activities may generate dust, which could result in localized increase in airborne particle levels. Fugitive dust emissions from construction activities will depend on such factors as the properties of the emitting surfaces (e.g., moisture content and volume of spills), metrological variables, and construction practices employed. To limit the creation of airborne dust and minimize impacts on the local environment, the contractor will be required to employ dust control measures in accordance with applicable local, state, and federal requirements. Dust control measures which may be implemented by these contractors include:

- Use of standard dust control measures such as watering-down any exposed ground surfaces or spreading hygroscopic salts to control and suppress dust that originates from construction related activities.
- Covering of soil subgrades with crushed stone where heavy equipment will be traveling.
- All trucks leaving the Project Site shall be securely covered.
- The contractor shall clean debris from the construction area and surrounding streets on a routine basis.
- Mechanical sweeping of key access routes by pelican or other similar method will occur as needed.
- Wheel wash locations will be provided as necessary.
- Contaminated soils that are stockpiled on site (if any) will be securely covered with polyethylene sheeting.
- Areas of exposed soils will be vegetated or paved as soon as practicable to minimize the length of exposure time.

- Actual construction practices will be monitored to ensure that unnecessary transfers and mechanical disturbances of loose materials are minimized and to ensure that emissions of dust are limited.
- In addition, all motor vehicles and construction equipment shall comply with all pertinent City, State, and Federal regulations covering exhaust emission control and safety.
- The reduction of emissions of volatile organic compounds (VOCs), carbon monoxide (CO), and particulate matter (PM) from diesel-powered equipment shall be accomplished by installing Retrofit Emission Control Devices.
- The use of low-sulfur diesel fuel.

The acceptable Retrofit Emission Control Devices for the Proposed Project shall consist of oxidation catalysts that (1) are included on the Environmental Protection Agency (EPA) Verified Retrofit Technology List; and (2) are verified by EPA or certified by the manufacturer to provide a minimum emissions reduction of 52 percent of VOCs, 31 percent for CO, and 20 percent for PM. Attainment of the required reduction in PM emissions can also be accomplished by using less polluting Clean Fuels (e.g. PuriNOx).

In addition to installing the required emission control devices, the contractor will also be required to use methods to control nuisance odors associated with diesel emissions from construction equipment including, without limitation, the following:

- Turning off diesel combustion engines on construction equipment not in active use, and on trucks that are idling while waiting for load or unload material for five minutes or more.
- Locating diesel equipment away from the general public and sensitive receptors (e.g., fresh air intakes, air conditioners, and windows).

The Proponent will provide contractors with information promoting Clean Air Construction Initiatives (CACI). This initiative encourages the use of available, state-of-the-art diesel exhaust control technology on diesel-powered construction and industrial vehicles and equipment in an effort to substantially reduce harmful diesel particulate emissions, oxides of nitrogen (NOx), toxic hydrocarbons, odor, and smoke.

Construction Water Quality

Local dewatering may be required to construct utilities and facilitate other deeper excavations (if determined to be applicable). On-site recharge in accordance with the Massachusetts Contingency Plan at 310 CMR 50.0055 will be the primary approach for construction dewatering discharge – if determined to be required. If required, discharge to municipal storm drains under a NPDES Remediation General Permit (RGP) will be implemented in the event that subsurface geology cannot accept dewatering flows. Effluent from dewatering efforts may include groundwater, precipitation, and surface water runoff. If needed, a dewatering effluent treatment system will be designed and operated by the contractor. Discharge water quality sampling and analysis will be conducted to monitor compliance with the NPDES RGP.

■

Disposal and Recycling of Construction Debris

As stated above, asphalt pavement, brick, and concrete (ABC) rubble generated from demolition of site roadways, and buildings will be handled in accordance with applicable DEP solid waste policies. The Proponent will obtain a Beneficial Use Determination (BUD) permit in order to re-use processed ABC rubble that is void of rebar (metal reinforcing) for reuse as compacted aggregate in site filling activities. The Proposed Project's disposal contracts will include specific provisions for the segregation, reprocessing, reuse, and/or recycling of building materials and demolition debris. Those materials that cannot be reused on site will be transported in covered trucks to an approved solid waste facility per applicable DEP solid waste policies.

■

Construction Traffic

As with every construction project, some level of traffic impact can be anticipated as a result of the Proposed Project's construction. The construction trip generation due to workers and trucks is described in more detail below.

Construction Trip Generation and Worker Parking

Personnel will arrive at the Proposed Project job site either by public transportation or by personal vehicles. The Proposed Project's contractors will be required to encourage public transportation to the Project Site. Because the workforce will arrive and depart prior to peak commuter traffic periods, these trips are not expected to have a large impact on the area's transportation system.

Truck Routes and Volumes

Truck traffic will vary throughout the construction period, depending on the activity, the majority of personnel arrivals and material deliveries expected during the morning construction period. It is expected that truck traffic will range on average between 10-15 trucks daily, spread evenly throughout the day. Truck access to the Proposed Project will be fully coordinated with BTD and other construction projects in the vicinity of the Project Site and memorialized in the related CMP.

Police details will be stationed at active Site gates to coordinate traffic flow and assist in supporting a safe and efficient pedestrian environment. Mechanical street sweeping will be performed as required, full time during all heavy trucking periods. In addition, gravel wash off areas will be maintained at all exists to limit mud tracking from the Site.

Rodent Control

The Massachusetts State Sanitary Code, Chapter 11, 105 CMR 510.550 and the state Building Code, Section 108.6, Policy Number 87-5 (City of Boston) states that extermination of rodents shall be required for issuance of permits for demolition, excavation, foundation, and basement rehabilitation. In compliance with the City's requirements, a rodent extermination certificate will be filed with the Proponent's building permit application to the City of Boston and a rodent control program for the Proposed Project will be developed prior to construction.

The rodent control program for the Proposed Project will include inspection and extermination in all areas of the site under development, including the interior of the existing buildings, prior to commencement of work. During construction, regular inspections will be made in order to maintain effective rodent control levels. The Proponent will establish a post-construction pest management program for the project and will develop and maintain an effective rodent control program at that location.

Historic Resources

The Project Site was originally the home of the Carnegie Steel Company warehouse built in 1914. The building was recently reconstructed in 2000 to support the Boston Internet City carrier hotel for fiber optics networks. This more recent use was never put in place due to the decline in need for carrier hotels. The Site was partially reconstructed, but never complete.

■

Boston Landmarks Commission Status

A review of the Landmarks Commission's files indicates that the subject site has not been designated a landmark and is not located within a historic district. This review also revealed that there are no landmarks or historic districts within at least a quarter-mile radius of the Project Site.

State Register of Historic Places

The State Register of Historic Places does not list the Project Site or list any historic places within one-quarter mile of the Project Site.

Sustainable Practices

The Proposed Project will comply with Article 80 of the City of Boston's Zoning Code and will comply with Article 37 of the zoning code which describes requirements for sustainable design practices, as shown in **Figure 5-22**. The Skating Club of Boston is a 100-year-old institution and believes this new building to be its home facility for the next 100 years. Sustainability of their institution is directly related to building a project which is energy efficient, water efficient, promotes reuse, reduction, and recycling of waste and is built with durability with longevity in mind.

While the design team is committed to meeting or exceeding the City's LEED requirements, the design team is also internally committed to AIA 2030. This is a commitment signed by the design firm to design buildings that aggressively improve their energy consumption. AIA 2030's overall goal is to have 100% of all the buildings designed by the signers of the commitment be carbon neutral by the year 2030.

Integrated Design Project Team

The design team will be comprised of multiple LEED Accredited Professionals including Leslie DelleFave and Christopher Angelakis of Architectural Resources Cambridge.

Sustainable Sites

SS Prereq 1: Construction Activity Pollution Prevention

The Skating Club of Boston will implement a plan to reduce pollution by controlling soil erosion, waterway sedimentation, and airborne dust generation. The plan will extend to all aspects of construction activity. The plan will conform to the erosion and sedimentation requirements of the 2003 EPA Construction General Permit.

LEED 2009 for New Construction and Major Renovations

Project Checklist

Skating Club of Boston

Sustainable Sites — Possible Points: 26

Y	?	N			
16	3	7	**Sustainable Sites**	Possible Points:	26
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
5			Credit 2	Development Density and Community Connectivity	5
		1	Credit 3	Brownfield Redevelopment	1
2		4	Credit 4.1	Alternative Transportation—Public Transportation Access	6
1			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
	3		Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
2			Credit 4.4	Alternative Transportation—Parking Capacity	2
		1	Credit 5.1	Site Development—Protect or Restore Habitat	1
		1	Credit 5.2	Site Development—Maximize Open Space	1
1			Credit 6.1	Stormwater Design—Quantity Control	1
1			Credit 6.2	Stormwater Design—Quality Control	1
1			Credit 7.1	Heat Island Effect—Non-roof	1
1			Credit 7.2	Heat Island Effect—Roof	1
1			Credit 8	Light Pollution Reduction	1

Water Efficiency — Possible Points: 10

Y	?	N			
8		2	**Water Efficiency**	Possible Points:	10
Y			Prereq 1	Water Use Reduction—20% Reduction	
4			Credit 1	Water Efficient Landscaping	2 to 4
2			Credit 2	Innovative Wastewater Technologies	2
2		2	Credit 3	Water Use Reduction	2 to 4

Energy and Atmosphere — Possible Points: 35

Y	?	N			
9	10	16	**Energy and Atmosphere**	Possible Points:	35
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
5	5	9	Credit 1	Optimize Energy Performance	1 to 19
	2	5	Credit 2	On-Site Renewable Energy	1 to 7
2			Credit 3	Enhanced Commissioning	2
2			Credit 4	Enhanced Refrigerant Management	2
	3		Credit 5	Measurement and Verification	3
		2	Credit 6	Green Power	2

Materials and Resources — Possible Points: 14

Y	?	N			
5	3	6	**Materials and Resources**	Possible Points:	14
Y			Prereq 1	Storage and Collection of Recyclables	
		3	Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
		1	Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
1	1		Credit 2	Construction Waste Management	1 to 2
		2	Credit 3	Materials Reuse	1 to 2

Materials and Resources, Continued

Y	?	N			
2			Credit 4	Recycled Content	1 to 2
1	1		Credit 5	Regional Materials	1 to 2
	1		Credit 6	Rapidly Renewable Materials	1
1			Credit 7	Certified Wood	1

Indoor Environmental Quality — Possible Points: 15

Y	?	N			
10	3	2	**Indoor Environmental Quality**	Possible Points:	15
Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
1			Credit 1	Outdoor Air Delivery Monitoring	1
		1	Credit 2	Increased Ventilation	1
1			Credit 3.1	Construction IAQ Management Plan—During Construction	1
1			Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
1			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
1			Credit 5	Indoor Chemical and Pollutant Source Control	1
1			Credit 6.1	Controllability of Systems—Lighting	1
1			Credit 6.2	Controllability of Systems—Thermal Comfort	1
	1		Credit 7.1	Thermal Comfort—Design	1
	1		Credit 7.2	Thermal Comfort—Verification	1
	1		Credit 8.1	Daylight and Views—Daylight	1
		1	Credit 8.2	Daylight and Views—Views	1

Innovation and Design Process — Possible Points: 6

Y	?	N			
2			**Innovation and Design Process**	Possible Points:	6
1			Credit 1.1	Innovation in Design: Specific Title	1
1			Credit 1.2	Innovation in Design: Specific Title	1
			Credit 1.3	Innovation in Design: Specific Title	1
			Credit 1.4	Innovation in Design: Specific Title	1
			Credit 1.5	Innovation in Design: Specific Title	1
			Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

Y	?	N			
			Regional Priority Credits	Possible Points:	4
			Credit 1.1	Regional Priority: Specific Credit	1
			Credit 1.2	Regional Priority: Specific Credit	1
			Credit 1.3	Regional Priority: Specific Credit	1
			Credit 1.4	Regional Priority: Specific Credit	1

Total — Possible Points: 110

Y	?	N			
50	19	33	**Total**	Possible Points:	110

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

The Skating Club of Boston

176 Lincoln Street Allston, MA

ARC Architectural Resources Cambridge

Figure 5-22

Project LEED Checklist

SS Credit 1: Site Selection

The Proposed Project will be on previously developed land, reducing environmental impact. The Project Site will be not include any restive land types including prime farmlands, previously undeveloped land limited by FEMA, land identified as a habitat for threatened or endangered species, land on or near wetlands, undeveloped land near water, or land qualified as public parkland.

SS Credit 2: Development Density and Community Connectivity

The Proposed Project will redevelop a previously developed site in a dense urban area with a minimum density of 60,000 square feet per acre net.

SS Credit 4.1: Alternative Transportation – Public Transportation Access

The Proposed Project will reduce pollution and land development impacts from automobile use by locating the Project Site within ¼ mile walking distance of 1 or more stops for 2 or more public, campus, or private bus lines usable by building occupants.

SS Credit 4.2: Alternative Transportation – Bicycle Storage and Changing Rooms

The Proposed Project will take measures to reduce automobile use by providing secure bicycle storage at the building entrance for 5% of building users as well as shower and changing facilities for .5% of full-time equivalent occupants.

SS Credit 4.4: Alternative Transportation – Parking Capacity

The Proposed Project will reduce pollution and land development impacts from automobile use by sizing parking capacity to meet but not exceed minimum local zoning requirements and providing preferred parking for carpools or vanpools for 5% of the total parking spaces.

SS Credit 6.1: Stormwater Design – Quantity Control

The Proposed Project implement a stormwater management plan to prevent the post-development peak discharge rate and quantity from exceeding the pre-developmental peak discharge rate and quantity for the 1-and 2-year 24-hour design storms. This will limit the disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, reducing or eliminating pollution from stormwater runoff and eliminating contaminants.

SS Credit 6.2: Stormwater Design – Quality Control

The Proposed Project will take measures to limit the disruption and pollution of natural water flows by managing stormwater cutoffs. The plan will reduces impervious cover, promote infiltration, and capture and treat the stormwater runoff from 90% of the average annual rainfall using acceptable best management practices.

SS Credit 7.1: Heat Island Effect – Non-roof

The Skating Club of Boston's design team will use hardscape materials with an SRI of at least 29 as well as an open–grid pavement system (at least 50% pervious) for 50% of the site hardscape, in order to reduce heat island to minimize the impacts on microclimates and human and wildlife habitats.

SS Credit 7.2: Heat Island Effect – Roof

In order to reduce heat islands to minimize impacts on microclimates and human and wild life habitats, the Proposed Project will use roofing materials with high albedo for more than 75% of the total roof area.

SS Credit 8: Light Pollution Reduction

The Skating Club of Boston will reduce light trespass from the building and Project Site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction and reduce development impact from lighting on nocturnal environments. Strategies will be applied for both interior and exterior lighting to achieve this goal.

Water Efficiency

WE Prereq 1: Water Use Reduction – 20% Reduction

The Proposed Project will employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building, in order to increase water efficiency and reduce the burden on municipal water supply and wastewater systems.

WE Credit 1: Water Efficient Landscaping

The Proposed Project design team will reduce potable water consumption for irrigation by 50% from a calculated midsummer baseline case, in an effort to limit the use of potable water on or near the Project Site for landscape irrigation. It will also attempt to use planting types that require minimal irrigation.

WE Credit 2: Innovative Wastewater Technologies

The Proposed Project's design team will reduce potable water use for building sewage conveyance by 50% through the use of water-conserving fixtures (e.g. water closets, urinals).

WE Credit 3: Water Use Reduction

The Proposed Project will employ strategies that in aggregate use less water than the water use baseline calculated for the building. The strategies implemented will have a 30% reduction from the baseline.

Energy and Atmosphere

EA Prereq 1: Fundamental Commissioning of Building Energy Systems

The Proposed Project's design team will designate an individual as the commissioning authority to lead, review, and oversee the completion of the commissioning process activities to ensure that the project's energy-related systems are installed, and calibrated to perform according to the Proposed Project's requirements, basis of design, and construction documents.

EA Prereq 2: Minimum Energy Performance

The Proposed Project will reduce environmental and economic impacts associated with excessive energy use by demonstrating a 10% improvement in the building performance rating, compared with the baseline building performance rating.

EA Prereq 3: Fundamental Refrigerant Management

The Proposed Project's design team will not use any chlorofluorocarbon based refrigerants in new base building heating, ventilating, air conditioning, and refrigeration systems in order to reduce stratospheric ozone depletion.

EA Credit 1: Optimize Energy Performance

The Proposed Project's design team will increase levels of energy performance beyond the prerequisite standard in order to reduce environmental and economic impacts associated with excessive energy use. The Proposed Project design team will achieve a minimum of 20% improvement in the proposed building performance rating, compared with the baseline building performance rating, achieving at least 5 points for this credit.

EA Credit 3: Enhanced Commissioning

The Proposed Project's design team will, in addition to the requirements of EA Prerequisite: 1: Fundamental Commissioning of Building Energy Systems and in accordance with the LEED Reference Guide for Green Building Design and Construction, 2009 Edition, implement additional commissioning process activities.

EA Credit 4: Enhanced Refrigerant Management

The Proposed Project's design team will aim to reduce ozone depletion and support early compliance with the Montreal Protocol while minimizing direct contributions to climate change by using refrigerants and heating, ventilation, air conditioning and refrigeration equipment that minimize the emission of compounds that contribute to ozone depletion and climate change.

Materials and Resources

M&R Prereq 1: Storage and Collection of Recyclables

In order to reduce waste, the Proposed Project's design team will provide an easily-accessible dedicated area(s) for the collection and storage of materials for recycling for the building. The materials to be recycled will include, at the very least, paper, corrugated cardboard, glass, plastics, and metals.

M&R Credit 2: Construction Waste Management

The Proposed Project will include a waste management plan to divert construction and demolition debris from disposal in landfills and incarceration facilities by recycling and/or salvaging nonhazardous construction and demolition debris. The plan will redirect recyclable recovered resources back to the manufacturing process and reusable materials to appropriate sites. The plan will recycle and/or salvage a minimum of 50% of debris, earning 1 point for this credit.

M&R Credit 4: Recycled Content

The Proposed Project's design team will use materials with recycled content in order to reduce impacts resulting from extraction and processing of virgin materials. The team will use materials with recycled content such that the sum of postconsumer recycled content plus ½ of the preconsumer content constitutes at least 20%, based on cost, of the total value of the materials in the project. This 20% earns 2 points for this credit.

M&R Credit 5: Regional Materials

The Proposed Project will use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the Project Site for a minimum of 10%, based on cost, of the total materials value. This supports the use of indigenous resources and reduces the environmental impacts resulting from transportation. The Proposed Project earns 1 point for this credit.

M&R Credit 7: Certified Wood

The Skating Club of Boston will support environmental responsible forest management by using a minimum of 50% (based on cost) of wood-based materials and products that are certified in accordance with the forest Stewardship Council's principles and criteria, for wood building components. At a minimum, these components will include structural framing and general dimensional framing, flooring, sub-flooring, wood doors and finishes.

Indoor Environmental Quality

IEQ Prereq 1: Minimum Indoor Air Quality Performance

The Proposed Project's design team will take measures to design ventilated spaces to establish minimum indoor air quality performance to enhance indoor air quality in buildings, thus contributing to the comfort and well-being of the occupants. The team will ensure that the project meet the minimum requirements of Sections 4 through 7 of ASHARE 62.1-2007, Ventilation for Acceptable Indoor Air Quality.

IEQ Prereq 2: Environmental Tobacco Smoke Control

The Proposed Project plans to be a smoke free facility; the SCoB plans to prohibit smoking in the building and within 25 feet of entries, outdoor air intakes, and operable windows.

IEQ Credit 1: Outdoor Air Delivery Monitoring

The Proposed Project's design team will install permanent monitoring systems to ensure that ventilation systems maintain design minimum requirements, to help promote occupant comfort and well-being.

IEQ Credit 3.1: Construction IAQ Management Plan – During Construction

The Proposed Project's design team will develop and implement an indoor air quality management plan for the construction and preoccupancy phases of the building to promote the comfort and well-being on construction workers and building occupants.

IEQ Credit 3.2: Construction Indoor Air Quality Management Plan – Before Occupancy

In order to reduce indoor air quality problems resulting from construction or renovation, the Proposed Project's design team will plan to install new filtration media to perform a building flush-out after construction ends and prior to occupancy.

IEQ Credit 4.1: Low-Emitting Materials – Adhesives and Sealants

In order to reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants, the Proposed Project's design team will ensure that all adhesives and sealants used on the interior of the building will comply with South Coast Air Quality Management District Rule #1168 and that all aerosol adhesives will comply with Green Seal Standard for Commercial Adhesives GS-36 requirements.

IEQ Credit 4.2: Low-Emitting Materials – Paints and Coatings

In order to reduce the quantity of indoor air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of installers and occupants, the Proposed Project's design team will ensure that all paints, coatings, finishes, stains, primers, and shellacs comply with the appropriate standards as applicable to the project.

IEQ Credit 4.3: Low-Emitting Materials – Flooring Systems

The Proposed Project will be designed to reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants by specifying flooring, carpet, and carpet adhesives with low VOC content limits.

IEQ Credit 4.4: Low-Emitting Materials – Composite Wood and Agrifiber Products

The Proposed Project's design team will ensure that composite wood and agrifiber products used on the interior of the building, as well as laminating adhesives used to fabricate on site and shop-applied composite wood and agrifber assemblies do not contain urea-formaldehyde resins. This will reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants.

IEQ Credit 5: Indoor Chemical and Pollutant Source Control

The Proposed Project's design team will design to minimize and control the entry of pollutants into buildings and later cross-contamination of regularly occupied areas by employing permanent entryway systems to capture dirt and particulates entering the building at regularly used exterior entrances; sufficiently exhausting spaces where hazardous gasses or chemicals may be present or used to prevent cross contamination with other spaces; providing containment for appropriate disposal of hazardous liquid wastes in places where water and chemical concentrate mixing occurs; and, in mechanically ventilated buildings, installing new air filtration media in regularly occupied areas prior to occupancy. This will minimize building occupant exposure to potentially hazardous particulates and chemical pollutants.

IEQ Credit 6.1: Controllability of Systems – Lighting

The Proposed Project's design team will design to provide a high level of lighting system control by individual occupants or groups in multi occupant spaces (classrooms, conference areas, etc.) and promote their productivity, comfort and well-being. This will be done by providing individual lighting controls for at least 90% of the building occupants to enable adjustments to suit individual task needs and preferences. Additionally, the design team will provide lighting system controls for all shared multi-occupant space to enable adjustments that meet group needs and preferences.

IEQ Credit 6.2: Controllability of Systems – Thermal Comfort

The Proposed Project's design team will design to provide a high level of thermal comfort system control by individual occupants or groups in muti-occupant spaces to promote their productivity, comfort, and well-being. The team will design to provide individual comfort controls for at least 50% of the building occupants to enable adjustments to meet individual needs and preferences. The team will design also to provide comfort system controls for all shared multi-occupant spaces to enable adjustments that meet group needs and preferences.

IEQ Credit 8.1: Daylight and Views – Daylight

The Skating Club of Boston plans to demonstrate through records of indoor light measurements that a minimum daylight illumination level of 25 fc has been achieved in at least 75% of all regularly occupied areas, with the aim of providing occupants with a connection to the outdoors.

IEQ Credit 8/2: Daylight and Views – Views

The Skating Club of Boston will design the Proposed Project to maximize daylighting and view opportunities to provide building occupants a connection to the outdoors.

The team will focus on maximizing views from the regularly occupied areas of the building.

Innovation and Design Process

ID Credit 1.1: Innovation in Design

The Proposed Project's design team will aim to achieve significant, measurable environmental performance using a strategy not addressed in the LEED 2009 for New Construction and Major Renovations Rating System.

ID Credit 2: LEED Accredited Professional

The Proposed Project's design team will include multiple LEED accredited professionals.

The Skating Club of Boston will aim to meet or exceed all of the credits described above. The design team hopes to achieve the LEED Silver Certification.

6

Infrastructure Systems

Introduction

This chapter of the Expanded PNF outlines the existing utilities surrounding the Proposed Project Site, the proposed connections required to provide service to the new structure, and any impacts on the existing utility systems that may result from the construction of the Proposed Project. The following utility systems are discussed herein:

- Sewer
- Domestic water
- Fire protection
- Drainage
- Natural gas
- Electricity Telecommunications

Regulatory Findings

This chapter, in addition to a description of existing and future infrastructure connections, discusses the regulatory framework of utility connection reviews and standards that will be adhered to in connection with the Project. Utility connections supporting the Proposed Project will be designed and constructed in accordance with City, State, and Federal standards. The following are regulatory agencies that the Proponent will coordinate with throughout the design and construction process:

- The Boston Water and Sewer Commission (BWSC) is responsible for the majority of water, sewer, and stormwater systems. BWSC reviews any modifications of on- and off-site water, sewer, and drainage systems through their site plan review and approvals process. This process includes a comprehensive design review of the proposed service connections, assessment of system demands and capacity and establishment or updating of service accounts.

- The Boston Fire Department (BFD) will review the Project with respect to fire protection measures such as siamese connections and standpipes.
- Design of the site access, hydrant location, and energy systems (electric) will also be coordinated with the respective system owners.
- New utility connections will be authorized by the Boston Public Works Department through the street opening permit process, as required.

Wastewater

Existing Wastewater

The existing site is serviced by a 10-inch polyvinyl chloride sewer line in Lincoln Street, and a 15-inch polyvinyl chloride sewer pipe in the western side of Everett Street which connects into a 28-inch by 42-inch brick sewer in the eastern side of Everett Street.

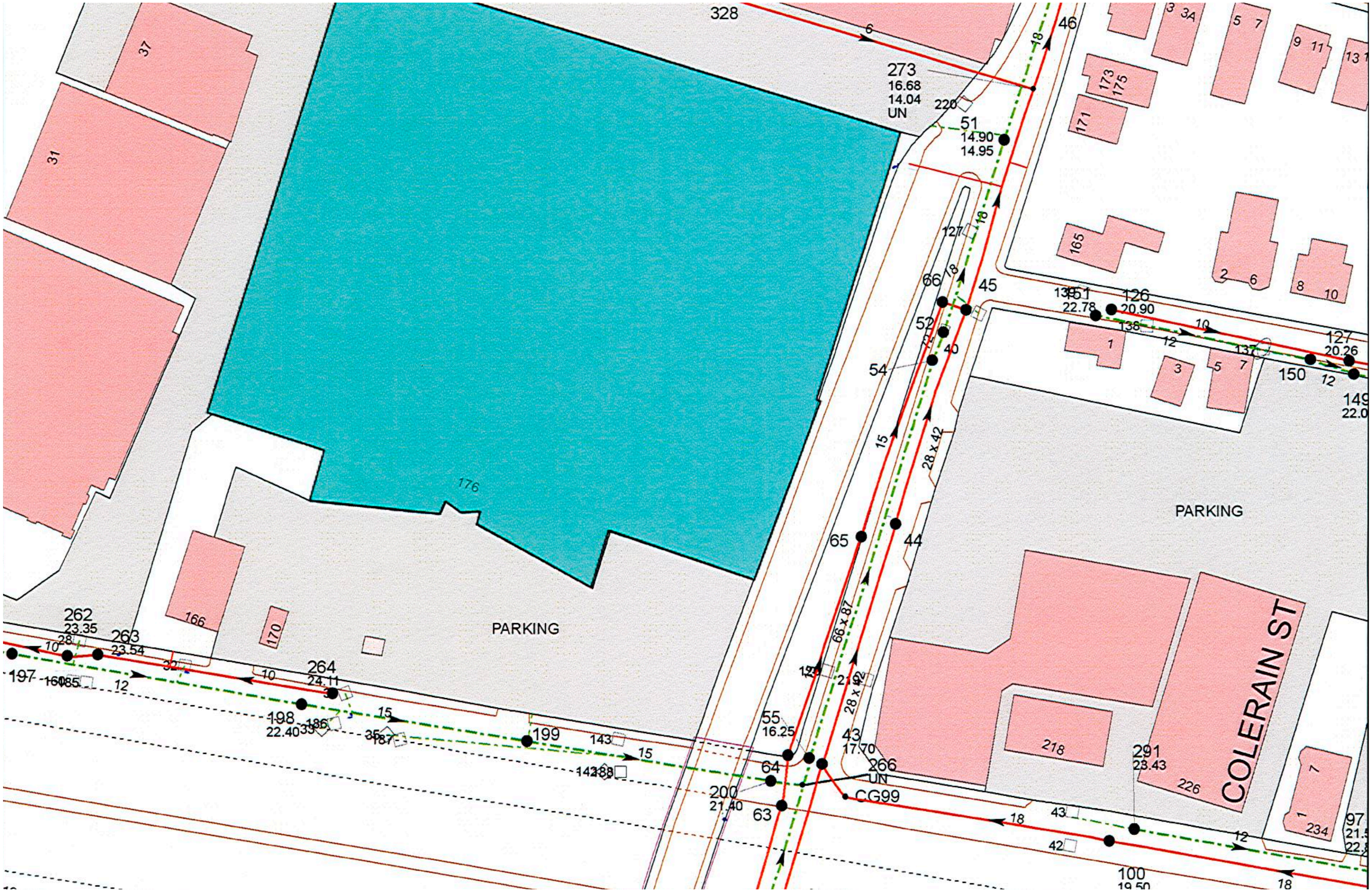
The capacities of the 10-inch sanitary sewer line in Lincoln Street, and the 15-inch sanitary sewer line in the western side of Everett Street are summarized below in **Table 6-1** and **Table 6-2**. Pipe diameter and inverts were obtained from the BWSC wastewater infrastructure system map (**Figure 6-1**). Flow capacities of the existing sanitary sewers were calculated in cubic feet per second (cfs) and million gallons per day (MGD) using Manning's equation.

Table 6-1
Sewer Hydraulic Capacity Analysis- Lincoln Street- 10" PVC Sewer

Manhole (BWSC Number)	Distance (feet)	Invert Elevation (up)	Invert Elevation (down)	Slope (%)	Diameter (inches)	Manning's Number	Flow Capacity (cfs)	Flow Capacity (MGD)
264 to 263	171	24.11	23.58	0.3%	10	0.010	1.29	0.83
262 to 263	18	23.54	23.39	0.8%	10	0.010	2.60	1.68
260 to 262	83	23.35	23.18	0.2%	10	0.010	1.29	0.83

Table 6-2
Sewer Hydraulic Capacity Analysis- Everett Street (West)- 15" PVC Sewer

Manhole (BWSC Number)	Distance (feet)	Invert Elevation (up)	Invert Elevation (down)	Slope (%)	Diameter (inches)	Manning's Number	Flow Capacity (cfs)	Flow Capacity (MGD)
64 to 65	173	19.00	18.40	0.3%	15	0.010	4.95	3.20
65 to 66	173	23.54	23.39	0.7%	15	0.010	7.11	4.60



Source: BWSC 2013

The Skating Club of Boston

176 Lincoln Street Allston, MA

VHB *Vanasse Hangen Brustlin, Inc.*

Figure 6-1

Existing Sewer System

Proposed Connection

The Proposed Project will increase the effluent entering the existing BWSC sewer system. The aggregate sewer burden for the proposed conditions are described below in **Table 6-3**, with breakdowns noted by type of use, size or peak occupancy, and corresponding design amounts for anticipated flows. The existing building has no daily discharge, as the building is not in use. The total daily discharges for the Proposed Project is estimated as 30,519 gallons per day (gpd), which represents a net increase of 30,519 gpd from the existing conditions.

Table 6-3
Proposed Project Wastewater Generation

Use	Size		Rate		Total
Exercise	86	Participants	25	GPD/Participant	2150.0 GPD
Lounge/Café	28	Seats	35	GPD/ Seat	980.0 GPD
Mercantile/Retail	846	S.F.	50	GPD/ 1000 S.F.	42.3 GPD
Office	2,487	S.F.	75	GPD/ 1000 S.F.	186.5 GPD
Function Room	278	Seats	15	GPD/ Seat	4,170.0 GPD
Rinks	3	Rinks	3,000	GPD/Rink	9,000.0 GPD
Bleachers	2,610	Seats	5	GPD/ Seat	13,050.0 GPD
Restaurant	47	Seats	20	GPD/Seat	940.0 GPD
Building Total					30,518.8 GPD

BWSC will require a site plan application for existing and proposed utilities for the proposed Site redevelopment. Any existing sanitary sewer services proposed to be maintained will need to be video-inspected to ensure that it is structurally sound and functioning properly prior to BWSC approving a new Site Plan application. The cafeteria kitchen waste will be pretreated with a grease trap prior to discharging to the BWSC sewer mains. Any new sewer connections for the Skating Club of Boston will connect either to the existing 10-inch sewer mains in Lincoln Street or the existing 15-inch sewer main in Everett Street. All proposed locations will require coordination with the BWSC.

■

Domestic Water and Fire Protection

Existing Water Supply System

There are five water systems within the City, and these provide service to portions of the City based on ground surface elevation. The five systems are southern low (SL, commonly known as low service), southern high (SH, commonly known as high service), southern extra high, northern low (NL), and northern high (NH).

BWSC owns and operates an 8-inch NL cast iron water main within Lincoln Street and a 12-inch ductile iron cement lined pipe water main in Everett Street. According to the BWSC records (See **Figure 6-2**), the following is a general description of the water system for the Project Site:

- The 8-inch water main in Lincoln Street was cleaned and cement-lined in 1991. The 12-inch water main was cleaned and cement-lined in 1996.
- The site is serviced by four fire hydrants. Two fire hydrants are located on Lincoln Street, and two fire hydrants are located on the eastern side of Everett Street.

A hydrant flow test was performed on hydrant H100, which is serviced by the 12-inch water main within Everett Street, on September 25, 2012. The results are in **Table 6-4** below.

Table 6-4
Hydrant Flow Test Results for H100- 12-inch Water Main

Static Pressure	Residual Pressure	Total Flow	Flow @ 20 psi	Flow @ 10 psi
66 psi	58 psi	2,004 gpm	5,154 gpm	5,731 gpm

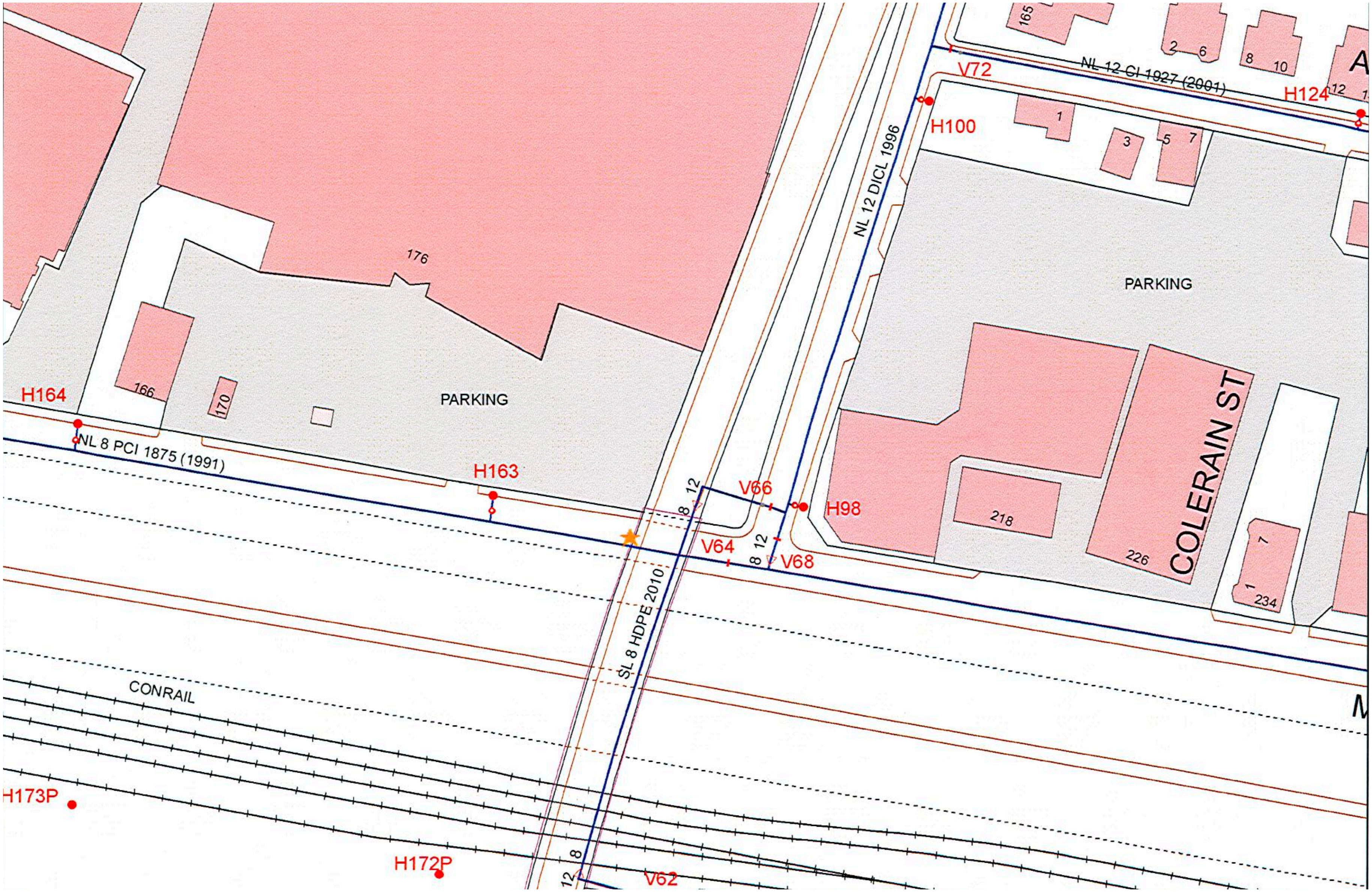
Additional hydrant flow tests may be performed as the design of the project progresses.

Proposed Connection

Water consumption on the Project Site is expected to be 33,571 gallons per day (gpd), based on estimated sewer generation. To achieve the estimation of water demand, a factor of 1.1 (conservative) is applied to the average daily wastewater flows to estimate average water use on a daily basis. The existing building has no water consumption, because the existing building is not in use. The Proposed Project expects to increase the overall water consumption by 33,571 gpd.

The proposed domestic water and fire services will be required to connect to either the existing 8-inch water main in Lincoln Street or the existing 12-inch water main in Everett Street. The location of any necessary connections will be determined in consultation with BWSC. The plumbing engineer will determine the domestic water and fire service pipe sizes during the design process of the Project.

BWSC will require a site plan application for all existing and proposed utilities for the proposed Site redevelopment. The plumbing engineer will need to provide water meter sizing calculations and back flow preventer data sheets for the proposed redevelopment for site plan approval by BWSC.



Source: BWSC 2013

The Skating Club of Boston

176 Lincoln Street Allston, MA

VHB Vanasse Hangen Brustlin, Inc.

Figure 6-2

Existing Water System

Stormwater Management

Existing Conditions

BWSC owns a 15-inch drain line in Lincoln Street and a 66-inch by 87-inch reinforced concrete surface drain in Everett Street. The existing Site drainage system consists of two catch basins in series which discharge to the existing 15-inch drain in Lincoln Street. The existing building roof runoff discharges to the 66-inch by 87-inch pipe in Everett Street. The capacities of the 15-inch drain line in Lincoln Street and the 66-inch by 87-inch drainage line in Everett Street are summarized below in **Table 6-5** and **Table 6-6**. Pipe diameter and inverts were obtained from the BWSC wastewater infrastructure system map (**Figure 6-3**).

Flow capacity of existing storm drains were calculated in cubic feet per second (cfs) using Manning's Equation.

Table 6-5
Storm Drain Hydraulic Capacity Analysis Table- Lincoln Street- 15" Drain

Manhole (BWSC Number)	Distance (feet)	Invert Elevation (up)	Invert Elevation (down)	Slope (%)	Diameter (inches)	Manning's Number	Flow Capacity (cfs)	Flow Capacity (MGD)
196 to 197	82	23.97	23.31	0.8%	12	0.012	3.46	2.24
197 to 198	183	23.54	23.39	0.8%	12	0.012	3.45	2.23
198 to 199	159	22.40	21.90	0.3%	15	0.012	3.92	2.54
199 to 200	174	21.80	20.90	0.5%	15	0.012	5.03	3.25

Table 6-6
Storm Drain Hydraulic Capacity Analysis Table- Everett Street- 66" x 87" RCP

Manhole (BWSC Number)	Distance (feet)	Invert Elevation (up)	Invert Elevation (down)	Slope (%)	Diameter (inches)	Manning's Number	Flow Capacity (cfs)	Flow Capacity (MGD)
55 to 54	304	16.10	15.60	0.2%	39	0.012	280.33	181.18
54 to 52	15	15.60	15.30	2.0%	39	0.012	977.54	631.80
52 to 51	125	15.30	14.70	0.5%	39	0.012	478.90	309.52

Proposed Conditions

All improvements will be reviewed as part of the Boston Water and Sewer Commission's (BWSC) site plan review process. This process includes a comprehensive design review of the proposed service connections, assessment of project demands and system capacity, and establishment of service accounts.

The Project Site is tributary to the Charles River. As a result, BWSC will require that the new stormwater management system include phosphorus mitigation. The Proposed Project is not located within the City of Boston Groundwater Conservation Overland District (GCOD) so the design will not be required to comply with article 32 of the Boston Zoning Guide. The proposed stormwater management system will collect all Project Site runoff and recharge 1-inch over the project's impervious area.

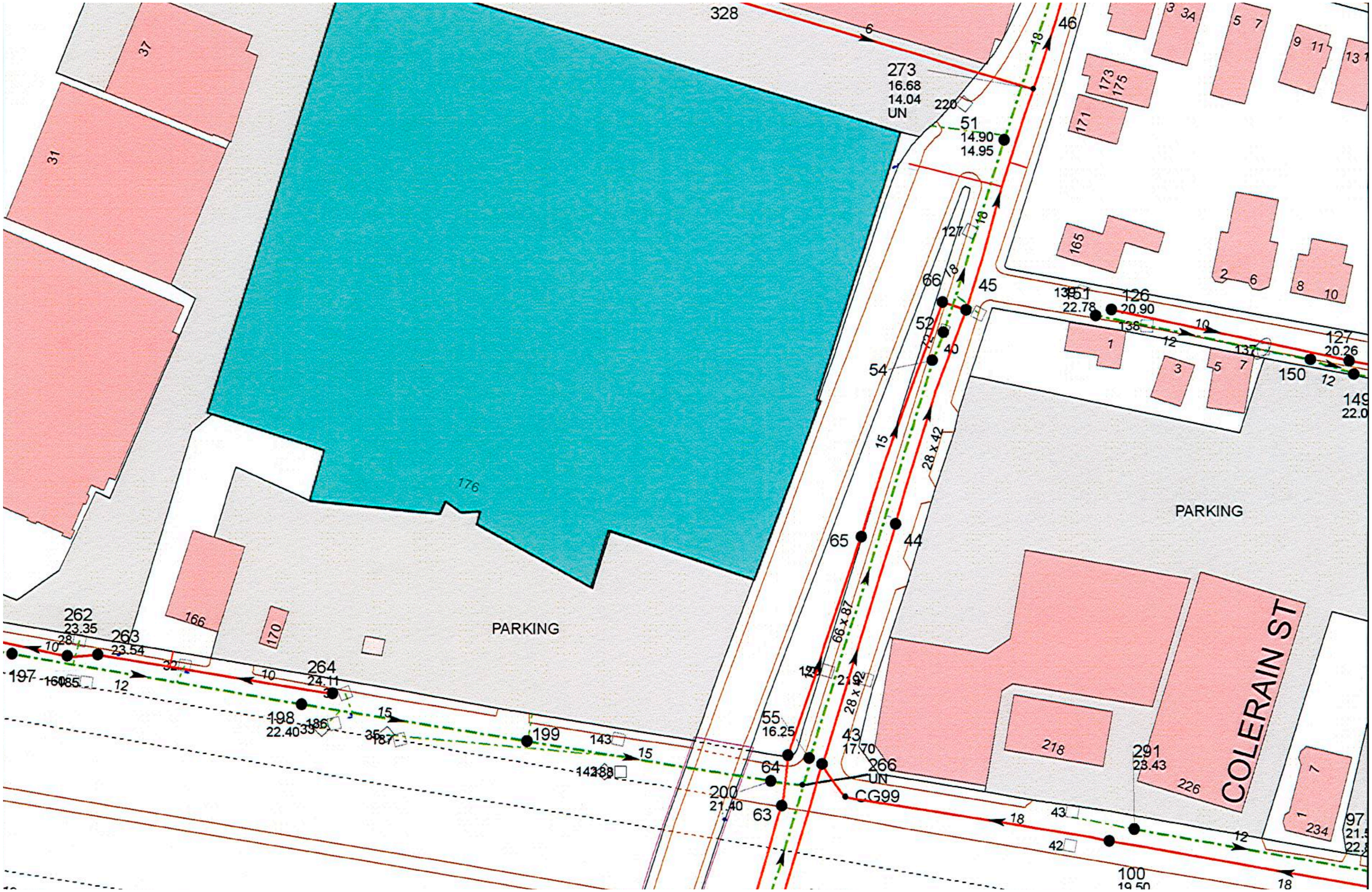
Site runoff will be collected by a closed drainage system and treated before overflowing to the BWSC storm drainage system. Stormwater runoff will be collected by a series of catch basins in the proposed parking lots which will then flow to a proposed recharge system. Roof runoff will also flow to a proposed recharge system. The recharge system will overflow to the 66-inch by 87-inch BWSC drain line in Everett Street, and/or the 15-inch drain line in Lincoln Street.

The stormwater management system will decrease or maintain the flow and volume of stormwater runoff from the Project Site. Stormwater runoff will not be directed towards any abutters.

■

DEP Stormwater Management Policy Standards

In March 1997, DEP adopted a new Stormwater Management Policy to address non-point source pollution. In 1997, DEP published the Massachusetts Stormwater Handbook as guidance on the Stormwater Policy, which was revised in February 2008. The Policy prescribes specific stormwater management standards for development projects, including urban pollutant removal criteria for projects that may impact environmental resource areas. Compliance is achieved through the implementation of Best Management Practices (BMPs) in the stormwater management design. The Policy is administered locally pursuant to MGL Ch. 131, s. 40. A brief explanation of each Policy Standard and the system is provided below.



Source: BWSC 2013

The Skating Club of Boston

176 Lincoln Street Allston, MA

VHB Vanasse Hangen Brustlin, Inc.

Figure 6-3

Existing Storm Drain System

Standard 1

No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

Compliance

The proposed design will comply with this Standard. The Project Site is not located near any wetlands or water bodies. Therefore, no new untreated stormwater will be directly discharged to, nor will erosion be caused to wetlands or waters of the Commonwealth as a result of stormwater discharges related to the Proposed Project.

Standard 2

Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.

Compliance

The proposed design will comply with this Standard. The existing discharge rate will be met or decreased as a result of the improvements associated with the Proposed Project.

Standard 3

Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. The standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.

Compliance

The Proposed Project will comply with this standard to the maximum extent practicable.

Standard 4

Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This standard is met when: (a)

Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained; (b) Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and (c) Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.

Compliance

The proposed design will comply with this standard. Within the Proposed Project's limit of work, there will be mostly roof, landscape, parking and pedestrian areas. Any paved areas that would contribute unwanted sediments or pollutants to the existing storm drain systems will be collected by deep sump, hooded catch basins and treated before discharging into the BWSC system.

Standard 5

For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the Proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c.21 §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

Compliance

The proposed design will comply with this standard. The Proposed Project is not associated with Higher Potential Pollutant Loads (per the Policy, Volume I, page 1-6). The Project complies with this standard.

Standard 6

Stormwater discharges within Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters shall be removed and set back from the receiving water or wetland and *receive the highest and best practical method of treatment. A "storm water discharge" as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.*

Compliance

The Proposed design will comply with this Standard. The Proposed Project will not discharge untreated stormwater to a sensitive area or any other area.

Standard 7

A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent possible. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

Compliance

The Proposed Project is a redevelopment, however the listed standards will be fully met.

Standard 8

Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities.

Compliance

The Proposed Project will comply with this standard. Sedimentation and erosion controls will be incorporated as part of the design of these projects and employed during construction.

Standard 9

A Long-Term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that stormwater management systems function as designed.

Compliance

The Proposed Project will comply with this standard. An O&M Plan including long-term BMP operation requirements will be prepared for the Proposed Project and will assume proper maintenance and functioning of the stormwater management system.

Standard 10

All illicit discharges to the stormwater management system are prohibited.

Compliance

The Proposed Project will comply with this standard. There will be no illicit connections associated with the Proposed Project.

Anticipated Energy Needs

Natural Gas

The existing site is serviced by a 6-inch gas line in Lincoln Street, an 8-inch gas line in Lincoln Street, and an 8-inch gas line in Everett Street. A new natural gas service will be extended below grade from the gas main located in Lincoln Street to an exterior meter located adjacent to the west side of the building. Natural gas will be utilized for building heating, domestic hot water production and dehumidification. The approximate natural gas demand will be 11,000 MBH. All proposed connections to the gas lines will be coordinated with the utility provider.

Electricity

The existing site is serviced by underground electric lines in Lincoln Street and overhead wires and utility poles in Everett Street. The existing empty primary duct bank from Lincoln Street to the existing building will be intercepted and rerouted to a new pad-mounted distribution transformer. The estimated size of the transformer is 2,500 kVA. The estimated electrical service size/type for the new building is 4,000 amps at 480Y/277 volt, three-phase, four-wire. All proposed connections will be coordinated with the utility provider.

Telecommunications

The existing site is serviced by a fiber optic telecommunications duct bank in Lincoln Street. The existing empty duct bank from Lincoln Street will be intercepted and extended to the new first floor main telecom room. Telephone and CATV services will be extended from the nearest utility manhole and installed in the duct bank and will terminate in the main telecom room. All proposed connections will be coordinated with the utility provider.

7

Project Certification

This Expanded PNF has been submitted to the BRA, as required by Article 80 of the Zoning Code, on the 13th day of November, 2013.

Proponent	Preparer
The Skating Club of Boston	Vanasse Hangen Brustlin, Inc.
1240 Soldiers Field Road	
Boston, MA 02135	
Joseph Blount	Sean M. Manning, PE, PTOE
President	Senior Project Manager

Skating Club of Boston Project
Appendix Material

Appendix A
Skating in the Schools

- **Program Description**
- **July 2013 Magazine Article**
    - ***Education Sensation*** *Skating In The Schools Program Taking Off In Boston*

Program Description

Skating in the Schools
Community Initiative

Skating in the Schools is an innovative collaboration integrating the Boston Public Schools, The Skating Club of Boston and U.S. Figure Skating. The program is managed by the Club's Skating Academy as part of its management of the Boston Common Frog Pond in a public/private partnership with the Boston Parks Department. The program is underwritten with proceeds from management operations of the Frog Pond, with additional funding from the Friends of the Public Garden and the Procter and Gamble Foundation. The program is designed to connect the students' experience of learning how to ice skate to concepts of physical science, technology, engineering, sports science, and health and wellness.

Positive Outcomes
This unique program provides students with new experiences and learning opportunities in a safe, structured environment to help them achieve success in school and in life. Designed as an enrichment program to be included during extended learning hours, positive outcomes include, improved grades, study habits and school attendance; improved social skills and interpersonal behavior; and reduced misconduct and risky behavior.

In addition, the introduction of skating as a fun and safe physical activity promotes physical fitness and a healthy lifestyle for children at a formative time in their lives. *Skating in the Schools* seeks to positively support the physical, mental and emotional growth of children at this critical stage in their development, both for their own personal enrichment and that of their peer groups and the communities in which they live.

On-Ice Recreational Experience
For all participating schools, *Skating in the Schools* provides skating instruction, skates or skate rentals, transportation to and from the rink, a healthy snack and a season pass for public skating for up to 30 students [each school]. The program also provides each student with a one-year membership in the U.S. Figure Skating Basic Skills Program, and a season pass to the Frog Pond ice rink on the Boston Common. Students are nominated to participate by their schoolteachers, and according to established criteria. The Club's long-term goal is to establish a citywide program that provides a unique comprehensive learning experience comprised of the above on- ice recreation program and an in-class academic component.

In-Class Curriculum Component

To that end, during the 2012-2013 season *Skating in the Schools* instituted a 20-week/two academic-term course offering for 7th and 8th grade students of the Washington Irving Middle School. This included the one-hour weekly on-ice class experience, and also a weekly academic block-hour of classroom instruction for 20 students. The academic portion of the program included a course curriculum designed by an experienced licensed teacher, in cooperation with school administrators and science teachers, to meet the supplemental needs of the school. A licensed teacher administered planned lessons, including classroom activities and labs, on a weekly basis throughout the course. In addition, several education-and-science related field trips that are not on the ice are also being included.

Academic Achievement

Positive academic achievement is directly related to student behavior and attendance rates. *Skating in the Schools* hopes to achieve a direct correlation between those who participate in the program and a decrease in student misconduct in school, and also an increase in overall attendance rates. Moreover, the *Skating in the Schools* Washington Irving School program seeks to increase overall student academic achievement across all subject areas. More specifically, as the academic portion of the program focuses on newly designed "Next Generation Science Standards," the program seeks to significantly increase all participating students' grades in the subject area of Science. The Club's program will provide supplemental support in the areas of science, engineering, and technology to ensure students remain updated on these new learning standards.

Club Skaters

Many skaters from The Skating Club of Boston volunteer to participate in school presentations for *Skating in the Schools*, as mentors for skating school students, in public exhibitions at the Frog Pond, and in other special performances that benefit the program. The Club's Junior Activities Committee also organizes a skate donation program for Club skaters to donate skates they are no longer using for students in the program to use and enjoy. This is an opportunity for Club skaters to enrich their own experience as young adults and future leaders by learning the value and satisfaction of sharing their experiences and in giving back to the community.

July 2013 Magazine Article

Education Sensation

EDUCATION SENSATION

SKATING IN THE SCHOOLS PROGRAM TAKING OFF IN BOSTON

by KAMA KORVELA

In the 2005 film *Ice Princess*, the main character, Casey Carlyle, applies the knowledge she learned in her high school physics class to improve her figure skating skills. Like Casey, The Skating Club of Boston is combining athletics and academics to show students just how educational skating can be.

The club created Skating in the Schools, a program that gives middle school children from various Boston-area schools the chance to learn how to figure skate, and teaches them about classroom subjects such as physics, chemistry and engineering. It is designed to be a learning enrichment program and is held during the schools' extended learning hours time.

"By combining the on-ice program with an in-class curriculum, Skating in the Schools introduces a different approach to learning that connects the students' success and learned confidence on the ice with greater success and learned confidence in the classroom," Doug Zeghibe, executive director of The Skating Club of Boston, said.

The club works with the Boston Public Schools system, the Boston Parks & Recreation Department and U.S. Figure Skating to manage the program. In addition, the Friends of the Public Garden, a nonprofit organization in Boston, assists with funding for Skating in the Schools. The students skate at the Boston Common Frog Pond ice rink.

Students are nominated by their teachers to be a part of the program. In addition to skating lessons, participants also receive free skate rentals, transportation to and from the rink, healthy snacks, a season pass to the Frog Pond and a one-year membership in the U.S. Figure Skating Basic Skills Program.

Fred Palascak, a former U.S. pairs skater who participated in the reality TV show "Skating with the Stars," is the program's lead instructor.

"We are introducing the sport of ice skating to a population of youth within the city of Boston that may not otherwise be exposed to it," Palascak said.

While Skating in the Schools began in 2011, Palascak became involved in the program in 2012. As a high school math teacher in Milton, Mass., he sees the need firsthand for this type of community involvement.

"There was an article in the *Boston Herald* in September 2012 that showed how Boston public school students lagged behind other kids in many school subjects, especially when it comes to science skills," Palascak said. "Skating in the Schools creates an experience for students to make real-world connections to the science they learn in the classroom."

The children who participate in the program are not the traditional students one might expect to be interested in the sport, Zeghibe said.

"These kids are older than the typical kids in a U.S. Figure Skating learn-to-skate program," he said. "They also generally have fewer resources available to them to get to an ice rink, buy or rent skates, ice time or coaching."

One of the program's most memorable par-

A volunteer laces up the skates of a middle school student as part of the Skating in the Schools program.

Palascak gives some hands-on instruction to a beginning skater.

The program's lead instructor, Fred Palascak, gives his students a warm-up routine.

ticipants is Selena, a special needs student who has some physical limitations.

"The first day on the ice, Selena would not let go of the boards and said she would never be able to skate," Palascak said. "She would often be physically shaking because she was so scared, and often complained she would never be as good of a skater as the other kids. After about 10 skating classes, and with much encouragement from myself and our other skating coach (Kiva Leibowitz), Selena was able to skate on her own, with a huge smile on her face.

"What is unique about Selena's story is that she would never have even considered trying to learn to ice skate if it was not for our program."

Though Skating in the Schools currently works with two middle schools in the Boston area, plans are to expand.

"Our goal is to slowly but surely keep adding schools to the program," Zeghibe said. "Spending closely supervised, quality time with the students both in the classroom and on the ice is what the program is all about."

Cheri Rigby, who serves as the director for The Skating Club of Boston Skating Academy and director of programs at the Boston Common Frog Pond, believes that not only do the students who participate learn about academics and athletics but other important life skills as well.

"One of the most valuable lessons that our students are learning in Skating in the Schools is to persevere," she said. "Skating is not a skill you pick up quickly. There is no instant gratification in learning to skate. Repeatedly explaining this to our students and helping them to stick with it despite a lot of self-doubt and frustration was a rewarding experience for me personally and I hope it will end up being a lesson these kids will carry with them throughout their lives."

Appendix B
Transportation

- **Observed Traffic Volume Data**
  - Turning Movement Counts (TMCs)
  - Automatic Traffic Recorder (ATR)

- **Synchro Level of Service (LOS)**
  - 2013 Existing Conditions
  - 2018 No Build Conditions
  - 2018 Build Conditions

- **Ice Traffic Projections**

- **Trip Generation**
  - Empirical
  - ITE
  - MEPA

- **Trip Distribution**

- **Crash/Accident Analysis**
  - Vehicular Crash Summary (2008-2010)

Observed Traffic Volume Data

Turning Movement Counts (TMCs)
Automatic Traffic Recorder (ATR)

PRECISION
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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
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Email: datarequests@pdillc.com

N/S: Jug Handle/ Everett Street
E/W: Soldiers Field Road
City, State: Brighton, MA
Client: VHB/ L. Orlando

File Name : 112704 A
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars - Heavy Vehicles

	Jug Handle From North			Soldiers Field Road From East			Everett Street From South			Soldiers Field Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	21	3	0	144	0	28	0	1	11	269	0	477
07:15 AM	0	23	6	0	155	0	24	0	4	10	325	0	547
07:30 AM	0	24	1	0	210	0	38	0	4	8	380	0	665
07:45 AM	1	37	7	0	207	0	34	0	3	16	433	0	738
Total	1	105	17	0	716	0	124	0	12	45	1407	0	2427
08:00 AM	1	53	6	0	219	0	40	0	11	21	406	0	757
08:15 AM	0	26	3	0	241	0	47	0	11	14	427	0	769
08:30 AM	0	37	1	0	220	0	52	0	12	23	432	0	777
08:45 AM	0	31	2	0	188	0	37	0	7	15	408	0	688
Total	1	147	12	0	868	0	176	0	41	73	1673	0	2991
Grand Total	2	252	29	0	1584	0	300	0	53	118	3080	0	5418
Apprch %	0.7	89	10.2	0	100	0	85	0	15	3.7	96.3	0	
Total %	0	4.7	0.5	0	29.2	0	5.5	0	1	2.2	56.8	0	
Cars	2	252	22	0	1581	0	299	0	53	117	3071	0	5397
% Cars	100	100	75.9	0	99.8	0	99.7	0	100	99.2	99.7	0	99.6
Heavy Vehicles	0	0	7	0	3	0	1	0	0	1	9	0	21
% Heavy Vehicles	0	0	24.1	0	0.2	0	0.3	0	0	0.8	0.3	0	0.4

	Jug Handle From North				Soldiers Field Road From East				Everett Street From South				Soldiers Field Road 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 07:45 AM																	
07:45 AM	**1**	37	**7**	45	0	207	0	207	34	0	3	37	16	**433**	0	449	738
08:00 AM	1	**53**	6	**60**	0	219	0	219	40	0	11	51	21	406	0	427	757
08:15 AM	0	26	3	29	0	**241**	0	**241**	47	0	11	58	14	427	0	441	769
08:30 AM	0	37	1	38	0	220	0	220	**52**	0	**12**	**64**	**23**	432	0	**455**	**777**
Total Volume	2	153	17	172	0	887	0	887	173	0	37	210	74	1698	0	1772	3041
% App. Total	1.2	89	9.9		0	100	0		82.4	0	17.6		4.2	95.8	0		
PHF	.500	.722	.607	.717	.000	.920	.000	.920	.832	.000	.771	.820	.804	.980	.000	.974	.978
Cars	2	153	12	167	0	886	0	886	173	0	37	210	74	1689	0	1763	3026
% Cars	100	100	70.6	97.1	0	99.9	0	99.9	100	0	100	100	100	99.5	0	99.5	99.5
Heavy Vehicles	0	0	5	5	0	1	0	1	0	0	0	0	0	9	0	9	15
% Heavy Vehicles	0	0	29.4	2.9	0	0.1	0	0.1	0	0	0	0	0	0.5	0	0.5	0.5

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Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	21	3	0	143	0	28	0	1	10	269	0	475
07:15 AM	0	23	5	0	155	0	24	0	4	10	325	0	546
07:30 AM	0	24	0	0	209	0	37	0	4	8	380	0	662
07:45 AM	1	37	6	0	207	0	34	0	3	16	429	0	733
Total	1	105	14	0	714	0	123	0	12	44	1403	0	2416
08:00 AM	1	53	4	0	219	0	40	0	11	21	405	0	754
08:15 AM	0	26	2	0	240	0	47	0	11	14	423	0	763
08:30 AM	0	37	0	0	220	0	52	0	12	23	432	0	776
08:45 AM	0	31	2	0	188	0	37	0	7	15	408	0	688
Total	1	147	8	0	867	0	176	0	41	73	1668	0	2981
Grand Total	2	252	22	0	1581	0	299	0	53	117	3071	0	5397
Apprch %	0.7	91.3	8	0	100	0	84.9	0	15.1	3.7	96.3	0	
Total %	0	4.7	0.4	0	29.3	0	5.5	0	1	2.2	56.9	0	

	Jug Handle From North				Soldiers Field Road From East				Everett Street From South				Soldiers Field Road 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
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Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**1**	37	**6**	44	0	207	0	207	34	0	3	37	16	429	0	445	733
08:00 AM	1	**53**	4	**58**	0	219	0	219	40	0	11	51	21	405	0	426	754
08:15 AM	0	26	2	28	0	**240**	0	**240**	47	0	11	58	14	423	0	437	763
08:30 AM	0	37	0	37	0	220	0	220	**52**	0	**12**	**64**	**23**	**432**	0	**455**	**776**
Total Volume	2	153	12	167	0	886	0	886	173	0	37	210	74	1689	0	1763	3026
% App. Total	1.2	91.6	7.2		0	100	0		82.4	0	17.6		4.2	95.8	0		
PHF	.500	.722	.500	.720	.000	.923	.000	.923	.832	.000	.771	.820	.804	.977	.000	.969	.975

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File Name : 112704 A
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Heavy Vehicles

	Jug Handle From North			Soldiers Field Road From East			Everett Street From South			Soldiers Field Road 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	1	0	0	0	0	1	0	0	2
07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	1	0	1	0	1	0	0	0	0	0	3
07:45 AM	0	0	1	0	0	0	0	0	0	0	4	0	5
Total	0	0	3	0	2	0	1	0	0	1	4	0	11
08:00 AM	0	0	2	0	0	0	0	0	0	0	1	0	3
08:15 AM	0	0	1	0	1	0	0	0	0	0	4	0	6
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	4	0	1	0	0	0	0	0	5	0	10
Grand Total	0	0	7	0	3	0	1	0	0	1	9	0	21
Apprch %	0	0	100	0	100	0	100	0	0	10	90	0	
Total %	0	0	33.3	0	14.3	0	4.8	0	0	4.8	42.9	0	

	Jug Handle From North				Soldiers Field Road From East				Everett Street From South				Soldiers Field Road 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 07:30 AM																	
07:30 AM	0	0	1	1	0	**1**	0	**1**	**1**	0	0	**1**	0	0	0	0	3
07:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	**4**	0	**4**	5
08:00 AM	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	1	0	1	3
08:15 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	4	0	4	**6**
Total Volume	0	0	5	5	0	2	0	2	1	0	0	1	0	9	0	9	17
% App. Total	0	0	100		0	100	0		100	0	0		0	100	0		
PHF	.000	.000	.625	.625	.000	.500	.000	.500	.250	.000	.000	.250	.000	.563	.000	.563	.708

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N/S: Jug Handle/ Everett Street
E/W: Soldiers Field Road
City, State: Brighton, MA
Client: VHB/ L. Orlando

File Name : 112704 A
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Peds and Bicycles

	Jug Handle From North				Soldiers Field Road From East				Everett Street From South				Soldiers Field 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	0	0	1	0	0	0	1	0	0	0	0	0	2	4
07:15 AM	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	6	9
07:30 AM	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	2	5
07:45 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Total	0	3	1	0	0	4	0	0	0	1	0	2	0	0	0	10	21
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	5	7
Grand Total	0	4	1	0	0	4	0	0	0	1	0	2	0	1	0	15	28
Apprch %	0	80	20	0	0	100	0	0	0	33.3	0	66.7	0	6.2	0	93.8	
Total %	0	14.3	3.6	0	0	14.3	0	0	0	3.6	0	7.1	0	3.6	0	53.6	

	Jug Handle From North					Soldiers Field Road From East					Everett Street From South					Soldiers Field 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 07:00 AM																					
07:00 AM	0	0	0	0	0	0	**1**	0	0	**1**	0	**1**	0	0	**1**	0	0	0	2	2	4
07:15 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	**1**	1	0	0	0	**6**	**6**	**9**
07:30 AM	0	0	**1**	0	1	0	1	0	0	1	0	0	0	1	1	0	0	0	2	2	5
07:45 AM	0	**2**	0	0	**2**	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	3	1	0	4	0	4	0	0	4	0	1	0	2	3	0	0	0	10	10	21
% App. Total	0	75	25	0		0	100	0	0		0	33.3	0	66.7		0	0	0	100		
PHF	.000	.375	.250	.000	.500	.000	1.000														

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File Name : 112704 A
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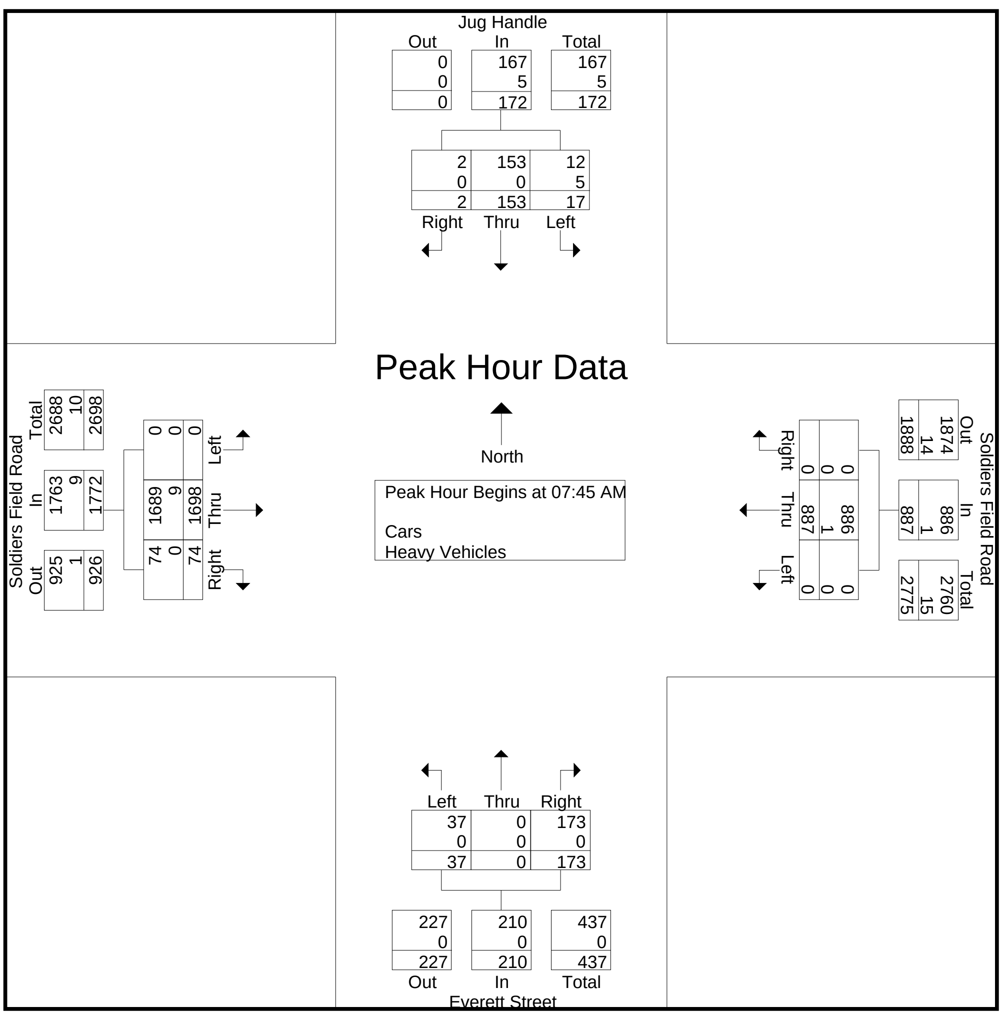
	Jug Handle From North				Soldiers Field Road From East				Everett Street From South				Soldiers Field Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**1**	37	**7**	45	0	207	0	207	34	0	3	37	16	**433**	0	449	738
08:00 AM	1	**53**	6	**60**	0	219	0	219	40	0	11	51	21	406	0	427	757
08:15 AM	0	26	3	29	0	**241**	0	**241**	47	0	11	58	14	427	0	441	769
08:30 AM	0	37	1	38	0	220	0	220	**52**	0	**12**	**64**	**23**	432	0	**455**	**777**
Total Volume	2	153	17	172	0	887	0	887	173	0	37	210	74	1698	0	1772	3041
% App. Total	1.2	89	9.9		0	100	0		82.4	0	17.6		4.2	95.8	0		
PHF	.500	.722	.607	.717	.000	.920	.000	.920	.832	.000	.771	.820	.804	.980	.000	.974	.978
Cars	2	153	12	167	0	886	0	886	173	0	37	210	74	1689	0	1763	3026
% Cars	100	100	70.6	97.1	0	99.9	0	99.9	100	0	100	100	100	99.5	0	99.5	99.5
Heavy Vehicles	0	0	5	5	0	1	0	1	0	0	0	0	0	9	0	9	15
% Heavy Vehicles	0	0	29.4	2.9	0	0.1	0	0.1	0	0	0	0	0	0.5	0	0.5	0.5



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N/S: Jug Handle/ Everett Street
E/W: Soldiers Field Road
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 AA
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars - Heavy Vehicles

	Jug Handle From North			Soldiers Field Road From East				Everett Street From South			Soldiers Field Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	33	7	0	277	0	0	33	0	14	18	266	0	649
04:15 PM	0	38	7	0	321	0	0	35	0	12	24	260	0	697
04:30 PM	1	39	7	0	301	0	0	31	0	15	16	261	0	671
04:45 PM	2	52	9	0	328	0	0	35	0	12	12	254	0	704
Total	4	162	30	0	1227	0	0	134	0	53	70	1041	0	2721
05:00 PM	2	34	4	0	357	0	0	51	0	14	9	301	0	772
05:15 PM	0	50	8	0	376	0	0	40	0	20	14	311	0	819
05:30 PM	1	47	5	1	406	0	0	31	0	20	8	313	0	832
05:45 PM	0	44	5	0	368	0	1	43	0	24	9	290	0	784
Total	3	175	22	1	1507	0	1	165	0	78	40	1215	0	3207
Grand Total	7	337	52	1	2734	0	1	299	0	131	110	2256	0	5928
Apprch %	1.8	85.1	13.1	0	99.9	0	0	69.5	0	30.5	4.6	95.4	0	
Total %	0.1	5.7	0.9	0	46.1	0	0	5	0	2.2	1.9	38.1	0	
Cars	7	336	48	1	2729	0	1	298	0	130	108	2254	0	5912
% Cars	100	99.7	92.3	100	99.8	0	100	99.7	0	99.2	98.2	99.9	0	99.7
Heavy Vehicles	0	1	4	0	5	0	0	1	0	1	2	2	0	16
% Heavy Vehicles	0	0.3	7.7	0	0.2	0	0	0.3	0	0.8	1.8	0.1	0	0.3

	Jug Handle From North				Soldiers Field Road From East					Everett Street From South				Soldiers Field Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	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	**2**	34	4	40	0	357	0	0	357	**51**	0	14	65	9	301	0	310	772
05:15 PM	0	**50**	**8**	**58**	0	376	0	0	376	40	0	20	60	**14**	311	0	**325**	819
05:30 PM	1	47	5	53	**1**	**406**	0	0	**407**	31	0	20	51	8	**313**	0	321	**832**
05:45 PM	0	44	5	49	0	368	0	**1**	369	43	0	**24**	**67**	9	290	0	299	784
Total Volume	3	175	22	200	1	1507	0	1	1509	165	0	78	243	40	1215	0	1255	3207
% App. Total	1.5	87.5	11		0.1	99.9	0	0.1		67.9	0	32.1		3.2	96.8	0		
PHF	.375	.875	.688	.862	.250	.928	.000	.250	.927	.809	.000	.813	.907	.714	.970	.000	.965	.964
Cars	3	175	21	199	1	1504	0	1	1506	165	0	78	243	40	1213	0	1253	3201
% Cars	100	100	95.5	99.5	100	99.8	0	100	99.8	100	0	100	100	100	99.8	0	99.8	99.8
Heavy Vehicles	0	0	1	1	0	3	0	0	3	0	0	0	0	0	2	0	2	6
% Heavy Vehicles	0	0	4.5	0.5	0	0.2	0	0	0.2	0	0	0	0	0	0.2	0	0.2	0.2

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E/W: Soldiers Field Road
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 AA
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars

	Jug Handle From North			Soldiers Field Road From East				Everett Street From South			Soldiers Field Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	32	6	0	276	0	0	33	0	14	17	266	0	645
04:15 PM	0	38	7	0	321	0	0	34	0	11	23	260	0	694
04:30 PM	1	39	6	0	301	0	0	31	0	15	16	261	0	670
04:45 PM	2	52	8	0	327	0	0	35	0	12	12	254	0	702
Total	4	161	27	0	1225	0	0	133	0	52	68	1041	0	2711
05:00 PM	2	34	3	0	357	0	0	51	0	14	9	300	0	770
05:15 PM	0	50	8	0	374	0	0	40	0	20	14	310	0	816
05:30 PM	1	47	5	1	406	0	0	31	0	20	8	313	0	832
05:45 PM	0	44	5	0	367	0	1	43	0	24	9	290	0	783
Total	3	175	21	1	1504	0	1	165	0	78	40	1213	0	3201
Grand Total	7	336	48	1	2729	0	1	298	0	130	108	2254	0	5912
Apprch %	1.8	85.9	12.3	0	99.9	0	0	69.6	0	30.4	4.6	95.4	0	
Total %	0.1	5.7	0.8	0	46.2	0	0	5	0	2.2	1.8	38.1	0	

	Jug Handle From North				Soldiers Field Road From East					Everett Street From South				Soldiers Field Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	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	**2**	34	3	39	0	357	0	0	357	**51**	0	14	65	9	300	0	309	770
05:15 PM	0	**50**	**8**	**58**	0	374	0	0	374	40	0	20	60	**14**	310	0	**324**	816
05:30 PM	1	47	5	53	**1**	**406**	0	0	**407**	31	0	20	51	8	**313**	0	321	**832**
05:45 PM	0	44	5	49	0	367	0	**1**	368	43	0	**24**	**67**	9	290	0	299	783
Total Volume	3	175	21	199	1	1504	0	1	1506	165	0	78	243	40	1213	0	1253	3201
% App. Total	1.5	87.9	10.6		0.1	99.9	0	0.1		67.9	0	32.1		3.2	96.8	0		
PHF	.375	.875	.656	.858	.250	.926	.000	.250	.925	.809	.000	.813	.907	.714	.969	.000	.967	.962

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File Name : 112704 AA
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Groups Printed- Heavy Vehicles

	Jug Handle From North			Soldiers Field Road From East				Everett Street From South			Soldiers Field Road From West			
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	1	0	1	0	0	0	0	0	1	0	0	4
04:15 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	3
04:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	2
Total	0	1	3	0	2	0	0	1	0	1	2	0	0	10
05:00 PM	0	0	1	0	0	0	0	0	0	0	0	1	0	2
05:15 PM	0	0	0	0	2	0	0	0	0	0	0	1	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	3	0	0	0	0	0	0	2	0	6
Grand Total	0	1	4	0	5	0	0	1	0	1	2	2	0	16
Apprch %	0	20	80	0	100	0	0	50	0	50	50	50	0	
Total %	0	6.2	25	0	31.2	0	0	6.2	0	6.2	12.5	12.5	0	

	Jug Handle From North				Soldiers Field Road From East					Everett Street From South				Soldiers Field Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	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	**1**	**1**	**2**	0	**1**	0	0	**1**	0	0	0	0	**1**	0	0	**1**	**4**
04:15 PM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	**2**	1	0	0	1	3
04:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	2
Total Volume	0	1	3	4	0	2	0	0	2	1	0	1	2	2	0	0	2	10
% App. Total	0	25	75		0	100	0	0		50	0	50		100	0	0		
PHF	.000	.250	.750	.500	.000	.500	.000	.000	.500	.250	.000	.250	.250	.500	.000	.000	.500	.625

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E/W: Soldiers Field Road
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 AA
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Peds and Bicycles

	Jug Handle From North				Soldiers Field Road From East				Everett Street From South				Soldiers Field 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	1	0	0	0	0	0	1	1	0	0	0	0	1	4
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:30 PM	0	1	0	0	0	0	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	1	1
Total	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	3	7
05:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	5
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	4
Total	0	1	0	0	0	1	0	0	0	2	0	0	1	0	0	6	11
Grand Total	0	2	0	1	0	1	0	0	0	3	1	0	1	0	0	9	18
Apprch %	0	66.7	0	33.3	0	100	0	0	0	75	25	0	10	0	0	90	
Total %	0	11.1	0	5.6	0	5.6	0	0	0	16.7	5.6	0	5.6	0	0	50	

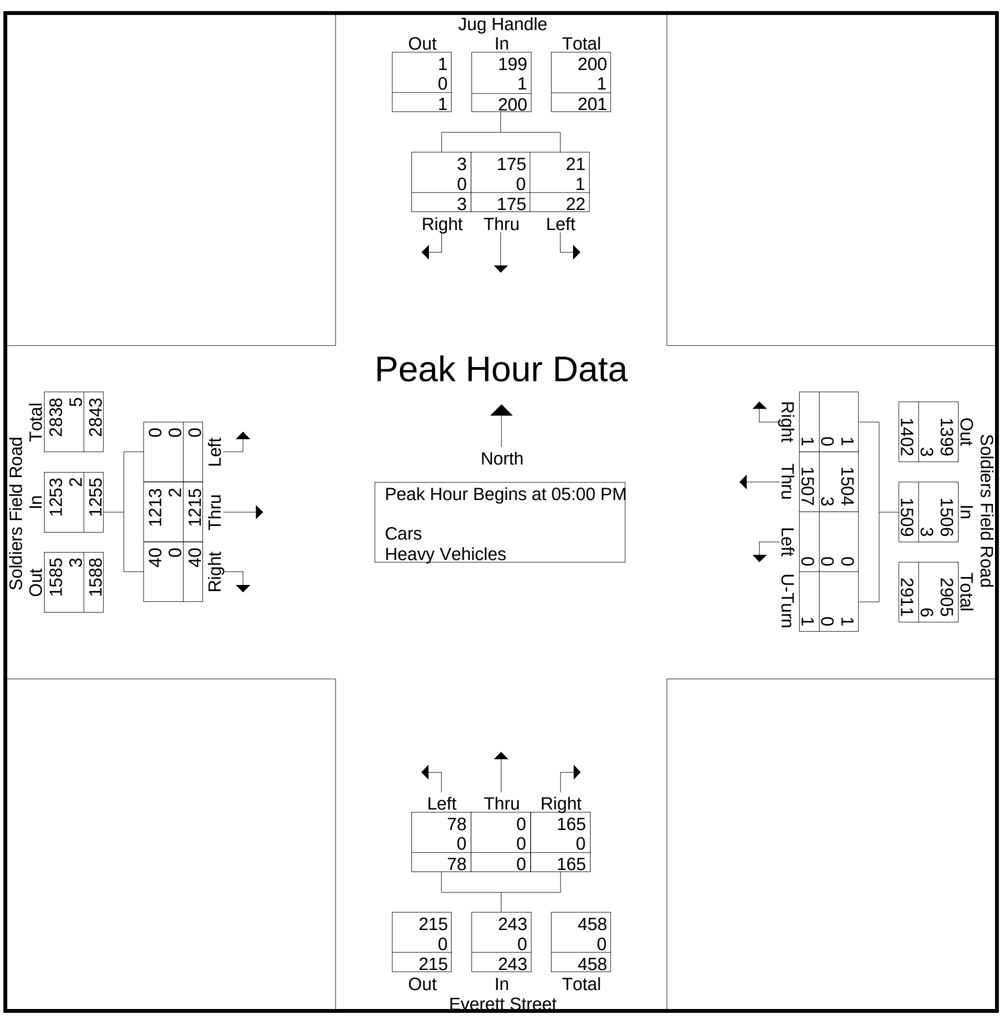
	Jug Handle From North					Soldiers Field Road From East					Everett Street From South					Soldiers Field Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	0	0	**3**	**3**	**5**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:30 PM	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	**1**	0	0	2	3	4
Total Volume	0	1	0	0	1	0	1	0	0	1	0	2	0	0	2	1	0	0	6	7	11
% App. Total	0	100	0	0		0	100	0	0		0	100	0	0		14.3	0	0	85.7		
PHF	.000	.250	.000	.000	.250	.000	.250	.000	.000	.250	.000	.250	.000	.000	.250	.250	.000	.000	.500	.583	.550

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: Jug Handle/ Everett Street
E/W: Soldiers Field Road
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 AA
Site Code : TBA
Start Date : 11/15/2011

	Jug Handle From North				Soldiers Field Road From East					Everett Street From South				Soldiers Field Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	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	**2**	34	4	40	0	357	0	0	357	**51**	0	14	65	9	301	0	310	772
05:15 PM	0	**50**	**8**	**58**	0	376	0	0	376	40	0	20	60	**14**	311	0	**325**	819
05:30 PM	1	47	5	53	**1**	**406**	0	0	**407**	31	0	20	51	8	**313**	0	321	**832**
05:45 PM	0	44	5	49	0	368	0	**1**	369	43	0	**24**	**67**	9	290	0	299	784
Total Volume	3	175	22	200	1	1507	0	1	1509	165	0	78	243	40	1215	0	1255	3207
% App. Total	1.5	87.5	11		0.1	99.9	0	0.1		67.9	0	32.1		3.2	96.8	0		
PHF	.375	.875	.688	.862	.250	.928	.000	.250	.927	.809	.000	.813	.907	.714	.970	.000	.965	.964
Cars	3	175	21	199	1	1504	0	1	1506	165	0	78	243	40	1213	0	1253	3201
% Cars	100	100	95.5	99.5	100	99.8	0	100	99.8	100	0	100	100	100	99.8	0	99.8	99.8
Heavy Vehicles	0	0	1	1	0	3	0	0	3	0	0	0	0	0	2	0	2	6
% Heavy Vehicles	0	0	4.5	0.5	0	0.2	0	0	0.2	0	0	0	0	0	0.2	0	0.2	0.2



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N/S: Everett Street
E/W: Western Avenue
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 B
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Everett Street From North			Western Avenue From East			Everett Street From South			Western Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	8	12	8	11	92	12	11	17	6	19	91	5	292
07:15 AM	6	16	5	7	71	20	11	26	3	32	135	2	334
07:30 AM	3	19	6	7	114	18	11	38	14	31	114	2	377
07:45 AM	6	28	7	7	96	19	19	40	14	30	152	10	428
Total	23	75	26	32	373	69	52	121	37	112	492	19	1431
08:00 AM	6	31	22	11	111	30	20	35	22	45	144	2	479
08:15 AM	4	24	5	19	102	34	32	56	31	35	116	2	460
08:30 AM	7	36	14	14	111	24	24	46	16	31	160	2	485
08:45 AM	2	25	15	12	111	20	16	36	17	28	137	4	423
Total	19	116	56	56	435	108	92	173	86	139	557	10	1847
Grand Total	42	191	82	88	808	177	144	294	123	251	1049	29	3278
Apprch %	13.3	60.6	26	8.2	75.3	16.5	25.7	52.4	21.9	18.9	78.9	2.2	
Total %	1.3	5.8	2.5	2.7	24.6	5.4	4.4	9	3.8	7.7	32	0.9	
Cars	39	189	81	86	720	171	129	292	116	237	941	29	3030
% Cars	92.9	99	98.8	97.7	89.1	96.6	89.6	99.3	94.3	94.4	89.7	100	92.4
Heavy Vehicles	3	2	1	2	88	6	15	2	7	14	108	0	248
% Heavy Vehicles	7.1	1	1.2	2.3	10.9	3.4	10.4	0.7	5.7	5.6	10.3	0	7.6

	Everett Street From North				Western Avenue From East				Everett Street From South				Western Avenue 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 07:45 AM																	
07:45 AM	6	28	7	41	7	96	19	122	19	40	14	73	30	152	**10**	192	428
08:00 AM	6	31	**22**	**59**	11	**111**	30	152	20	35	22	77	**45**	144	2	191	479
08:15 AM	4	24	5	33	**19**	102	**34**	**155**	**32**	**56**	**31**	**119**	35	116	2	153	460
08:30 AM	**7**	**36**	14	57	14	111	24	149	24	46	16	86	31	**160**	2	**193**	**485**
Total Volume	23	119	48	190	51	420	107	578	95	177	83	355	141	572	16	729	1852
% App. Total	12.1	62.6	25.3		8.8	72.7	18.5		26.8	49.9	23.4		19.3	78.5	2.2		
PHF	.821	.826	.545	.805	.671	.946	.787	.932	.742	.790	.669	.746	.783	.894	.400	.944	.955
Cars	21	117	48	186	51	372	104	527	85	175	78	338	137	523	16	676	1727
% Cars	91.3	98.3	100	97.9	100	88.6	97.2	91.2	89.5	98.9	94.0	95.2	97.2	91.4	100	92.7	93.3
Heavy Vehicles	2	2	0	4	0	48	3	51	10	2	5	17	4	49	0	53	125
% Heavy Vehicles	8.7	1.7	0	2.1	0	11.4	2.8	8.8	10.5	1.1	6.0	4.8	2.8	8.6	0	7.3	6.7

PRECISION
D A T A
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N/S: Everett Street
E/W: Western Avenue
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 B
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars

	Everett Street From North			Western Avenue From East			Everett Street From South			Western Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	8	12	8	10	81	12	9	17	5	18	76	5	261
07:15 AM	5	16	4	6	70	19	10	26	3	31	115	2	307
07:30 AM	3	19	6	7	98	18	11	38	14	26	108	2	350
07:45 AM	4	28	7	7	85	17	18	39	13	29	141	10	398
Total	20	75	25	30	334	66	48	120	35	104	440	19	1316
08:00 AM	6	31	22	11	101	30	19	35	20	45	129	2	451
08:15 AM	4	22	5	19	90	34	25	55	30	33	106	2	425
08:30 AM	7	36	14	14	96	23	23	46	15	30	147	2	453
08:45 AM	2	25	15	12	99	18	14	36	16	25	119	4	385
Total	19	114	56	56	386	105	81	172	81	133	501	10	1714
Grand Total	39	189	81	86	720	171	129	292	116	237	941	29	3030
Apprch %	12.6	61.2	26.2	8.8	73.7	17.5	24	54.4	21.6	19.6	78	2.4	
Total %	1.3	6.2	2.7	2.8	23.8	5.6	4.3	9.6	3.8	7.8	31.1	1	

	Everett Street From North				Western Avenue From East				Everett Street From South				Western Avenue 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 07:45 AM																	
07:45 AM	4	28	7	39	7	85	17	109	18	39	13	70	29	141	**10**	**180**	398
08:00 AM	6	31	**22**	**59**	11	**101**	30	142	19	35	20	74	**45**	129	2	176	451
08:15 AM	4	22	5	31	**19**	90	**34**	**143**	**25**	**55**	**30**	**110**	33	106	2	141	425
08:30 AM	**7**	**36**	14	57	14	96	23	133	23	46	15	84	30	**147**	2	179	**453**
Total Volume	21	117	48	186	51	372	104	527	85	175	78	338	137	523	16	676	1727
% App. Total	11.3	62.9	25.8		9.7	70.6	19.7		25.1	51.8	23.1		20.3	77.4	2.4		
PHF	.750	.813	.545	.788	.671	.921	.765	.921	.850	.795	.650	.768	.761	.889	.400	.939	.953

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N/S: Everett Street
E/W: Western Avenue
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 B
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Heavy Vehicles

	Everett Street From North			Western Avenue From East			Everett Street From South			Western Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	1	11	0	2	0	1	1	15	0	31
07:15 AM	1	0	1	1	1	1	1	0	0	1	20	0	27
07:30 AM	0	0	0	0	16	0	0	0	0	5	6	0	27
07:45 AM	2	0	0	0	11	2	1	1	1	1	11	0	30
Total	3	0	1	2	39	3	4	1	2	8	52	0	115
08:00 AM	0	0	0	0	10	0	1	0	2	0	15	0	28
08:15 AM	0	2	0	0	12	0	7	1	1	2	10	0	35
08:30 AM	0	0	0	0	15	1	1	0	1	1	13	0	32
08:45 AM	0	0	0	0	12	2	2	0	1	3	18	0	38
Total	0	2	0	0	49	3	11	1	5	6	56	0	133
Grand Total	3	2	1	2	88	6	15	2	7	14	108	0	248
Apprch %	50	33.3	16.7	2.1	91.7	6.2	62.5	8.3	29.2	11.5	88.5	0	
Total %	1.2	0.8	0.4	0.8	35.5	2.4	6	0.8	2.8	5.6	43.5	0	

	Everett Street From North				Western Avenue From East				Everett Street From South				Western Avenue 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	0	0	0	0	0	10	0	10	1	0	**2**	3	0	15	0	15	28
08:15 AM	0	**2**	0	**2**	0	12	0	12	**7**	**1**	1	**9**	2	10	0	12	35
08:30 AM	0	0	0	0	0	**15**	1	**16**	1	0	1	2	1	13	0	14	32
08:45 AM	0	0	0	0	0	12	**2**	14	2	0	1	3	**3**	**18**	0	**21**	**38**
Total Volume	0	2	0	2	0	49	3	52	11	1	5	17	6	56	0	62	133
% App. Total	0	100	0		0	94.2	5.8		64.7	5.9	29.4		9.7	90.3	0		
PHF	.000	.250	.000	.250	.000	.817	.375	.813	.393	.250	.625	.472	.500	.778	.000	.738	.875

PRECISION
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N/S: Everett Street
E/W: Western Avenue
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 B
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Peds and Bicycles

	Everett Street From North				Western Avenue From East				Everett Street From South				Western Avenue 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	7	0	2	0	3	0	0	0	0	0	4	0	3	19
07:15 AM	0	0	0	5	0	1	1	0	0	0	1	5	0	3	0	1	17
07:30 AM	0	0	0	4	0	2	0	1	0	0	0	2	0	7	0	2	18
07:45 AM	0	1	0	5	0	2	1	1	0	0	0	6	0	3	0	2	21
Total	0	1	0	21	0	7	2	5	0	0	1	13	0	17	0	8	75
08:00 AM	0	0	1	10	0	0	0	1	0	0	0	2	0	2	0	6	22
08:15 AM	0	0	0	3	0	0	0	1	0	0	2	3	1	4	0	4	18
08:30 AM	0	1	0	6	0	3	0	7	1	0	1	2	0	5	0	4	30
08:45 AM	0	0	0	5	0	3	1	3	3	0	0	0	0	11	0	4	30
Total	0	1	1	24	0	6	1	12	4	0	3	7	1	22	0	18	100
Grand Total	0	2	1	45	0	13	3	17	4	0	4	20	1	39	0	26	175
Apprch %	0	4.2	2.1	93.8	0	39.4	9.1	51.5	14.3	0	14.3	71.4	1.5	59.1	0	39.4	
Total %	0	1.1	0.6	25.7	0	7.4	1.7	9.7	2.3	0	2.3	11.4	0.6	22.3	0	14.9	

	Everett Street From North					Western Avenue From East					Everett Street From South					Western Avenue 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	**1**	**10**	**11**	0	0	0	1	1	0	0	0	2	2	0	2	0	**6**	8	22
08:15 AM	0	0	0	3	3	0	0	0	1	1	0	0	**2**	**3**	**5**	**1**	4	0	4	9	18
08:30 AM	0	**1**	0	6	7	0	**3**	0	**7**	**10**	1	0	1	2	4	0	5	0	4	9	**30**
08:45 AM	0	0	0	5	5	0	3	**1**	3	7	**3**	0	0	0	3	0	**11**	0	4	**15**	30
Total Volume	0	1	1	24	26	0	6	1	12	19	4	0	3	7	14	1	22	0	18	41	100
% App. Total	0	3.8	3.8	92.3		0	31.6	5.3	63.2		28.6	0	21.4	50		2.4	53.7	0	43.9		
PHF	.000	.250	.250	.600	.591	.000	.500	.250	.429	.475	.333	.000	.375	.583	.700	.250	.500	.000	.750	.683	.833

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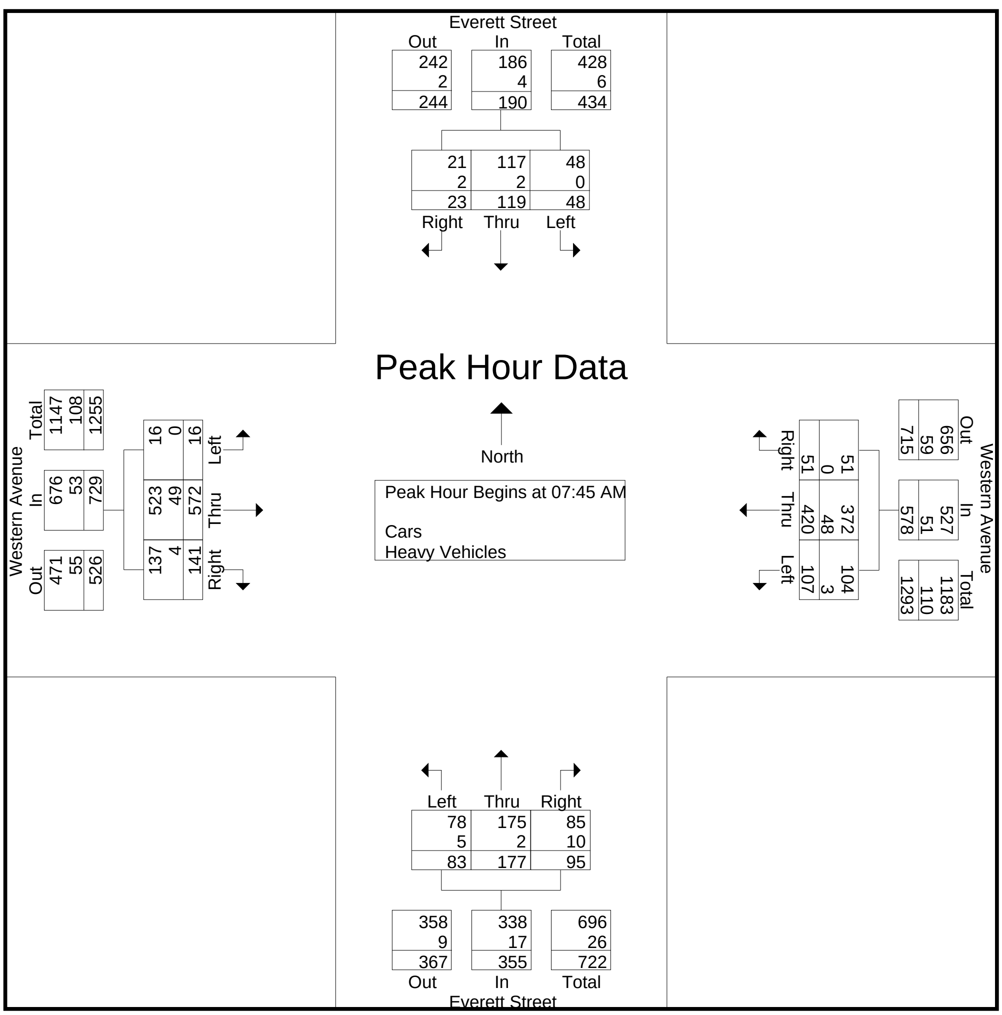
Client: VHB/ E. Orlando

File Name : 112704 B
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

	Everett Street From North				Western Avenue From East				Everett Street From South				Western Avenue 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 07:45 AM																	
07:45 AM	6	28	7	41	7	96	19	122	19	40	14	73	30	152	**10**	192	428
08:00 AM	6	31	**22**	**59**	11	**111**	30	152	20	35	22	77	**45**	144	2	191	479
08:15 AM	4	24	5	33	**19**	102	**34**	**155**	**32**	**56**	**31**	**119**	35	116	2	153	460
08:30 AM	**7**	**36**	14	57	14	111	24	149	24	46	16	86	31	**160**	2	**193**	**485**
Total Volume	23	119	48	190	51	420	107	578	95	177	83	355	141	572	16	729	1852
% App. Total	12.1	62.6	25.3		8.8	72.7	18.5		26.8	49.9	23.4		19.3	78.5	2.2		
PHF	.821	.826	.545	.805	.671	.946	.787	.932	.742	.790	.669	.746	.783	.894	.400	.944	.955
Cars	21	117	48	186	51	372	104	527	85	175	78	338	137	523	16	676	1727
% Cars	91.3	98.3	100	97.9	100	88.6	97.2	91.2	89.5	98.9	94.0	95.2	97.2	91.4	100	92.7	93.3
Heavy Vehicles	2	2	0	4	0	48	3	51	10	2	5	17	4	49	0	53	125
% Heavy Vehicles	8.7	1.7	0	2.1	0	11.4	2.8	8.8	10.5	1.1	6.0	4.8	2.8	8.6	0	7.3	6.7



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E/W: Western Avenue
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 BB
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars - Heavy Vehicles

	Everett Street From North			Western Avenue From East			Everett Street From South			Western Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	8	26	15	16	116	38	18	31	21	24	124	2	439
04:15 PM	10	35	13	9	110	33	28	27	24	41	143	0	473
04:30 PM	5	38	17	13	114	24	13	26	24	30	127	2	433
04:45 PM	13	46	7	9	124	34	20	34	18	26	140	2	473
Total	36	145	52	47	464	129	79	118	87	121	534	6	1818
05:00 PM	11	36	8	16	125	33	23	40	26	44	123	3	488
05:15 PM	9	46	9	19	140	29	27	27	19	46	123	7	501
05:30 PM	9	50	7	15	137	37	16	26	28	38	133	0	496
05:45 PM	8	41	4	15	135	29	17	33	19	43	126	2	472
Total	37	173	28	65	537	128	83	126	92	171	505	12	1957
Grand Total	73	318	80	112	1001	257	162	244	179	292	1039	18	3775
Apprch %	15.5	67.5	17	8.2	73.1	18.8	27.7	41.7	30.6	21.6	77	1.3	
Total %	1.9	8.4	2.1	3	26.5	6.8	4.3	6.5	4.7	7.7	27.5	0.5	
Cars	72	317	79	111	958	254	161	243	169	284	987	18	3653
% Cars	98.6	99.7	98.8	99.1	95.7	98.8	99.4	99.6	94.4	97.3	95	100	96.8
Heavy Vehicles	1	1	1	1	43	3	1	1	10	8	52	0	122
% Heavy Vehicles	1.4	0.3	1.2	0.9	4.3	1.2	0.6	0.4	5.6	2.7	5	0	3.2

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

	Everett Street From North				Western Avenue From East				Everett Street From South				Western Avenue 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
04:45 PM	**13**	46	7	**66**	9	124	34	167	20	34	18	72	26	**140**	2	168	473
05:00 PM	11	36	8	55	16	125	33	174	23	**40**	26	**89**	44	123	3	170	488
05:15 PM	9	46	**9**	64	**19**	**140**	29	188	**27**	27	19	73	**46**	123	**7**	**176**	**501**
05:30 PM	9	**50**	7	66	15	137	**37**	**189**	16	26	**28**	70	38	133	0	171	496
Total Volume	42	178	31	251	59	526	133	718	86	127	91	304	154	519	12	685	1958
% App. Total	16.7	70.9	12.4		8.2	73.3	18.5		28.3	41.8	29.9		22.5	75.8	1.8		
PHF	.808	.890	.861	.951	.776	.939	.899	.950	.796	.794	.813	.854	.837	.927	.429	.973	.977
Cars	42	178	31	251	59	506	133	698	85	126	84	295	151	495	12	658	1902
% Cars	100	100	100	100	100	96.2	100	97.2	98.8	99.2	92.3	97.0	98.1	95.4	100	96.1	97.1
Heavy Vehicles	0	0	0	0	0	20	0	20	1	1	7	9	3	24	0	27	56
% Heavy Vehicles	0	0	0	0	0	3.8	0	2.8	1.2	0.8	7.7	3.0	1.9	4.6	0	3.9	2.9

PRECISION
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N/S: Everett Street
E/W: Western Avenue
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 BB
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars

	Everett Street From North			Western Avenue From East			Everett Street From South			Western Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	7	26	15	16	111	36	18	31	21	21	113	2	417
04:15 PM	10	35	12	8	103	33	28	27	22	41	134	0	453
04:30 PM	5	37	17	13	107	23	13	26	23	28	124	2	418
04:45 PM	13	46	7	9	121	34	20	34	18	24	133	2	461
Total	35	144	51	46	442	126	79	118	84	114	504	6	1749
05:00 PM	11	36	8	16	120	33	23	40	23	43	119	3	475
05:15 PM	9	46	9	19	132	29	27	27	16	46	117	7	484
05:30 PM	9	50	7	15	133	37	15	25	27	38	126	0	482
05:45 PM	8	41	4	15	131	29	17	33	19	43	121	2	463
Total	37	173	28	65	516	128	82	125	85	170	483	12	1904
Grand Total	72	317	79	111	958	254	161	243	169	284	987	18	3653
Apprch %	15.4	67.7	16.9	8.4	72.4	19.2	28.1	42.4	29.5	22	76.6	1.4	
Total %	2	8.7	2.2	3	26.2	7	4.4	6.7	4.6	7.8	27	0.5	

	Everett Street From North				Western Avenue From East				Everett Street From South				Western Avenue 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	**11**	36	8	55	16	120	33	169	23	**40**	23	**86**	43	119	3	165	475
05:15 PM	9	46	**9**	64	**19**	132	29	180	**27**	27	16	70	**46**	117	**7**	**170**	**484**
05:30 PM	9	**50**	7	**66**	15	**133**	**37**	**185**	15	25	**27**	67	38	**126**	0	164	482
05:45 PM	8	41	4	53	15	131	29	175	17	33	19	69	43	121	2	166	463
Total Volume	37	173	28	238	65	516	128	709	82	125	85	292	170	483	12	665	1904
% App. Total	15.5	72.7	11.8		9.2	72.8	18.1		28.1	42.8	29.1		25.6	72.6	1.8		
PHF	.841	.865	.778	.902	.855	.970	.865	.958	.759	.781	.787	.849	.924	.958	.429	.978	.983

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Start Date : 11/15/2011
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Groups Printed- Heavy Vehicles

	Everett Street From North			Western Avenue From East			Everett Street From South			Western Avenue From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	0	0	0	5	2	0	0	0	3	11	0	22
04:15 PM	0	0	1	1	7	0	0	0	2	0	9	0	20
04:30 PM	0	1	0	0	7	1	0	0	1	2	3	0	15
04:45 PM	0	0	0	0	3	0	0	0	0	2	7	0	12
Total	1	1	1	1	22	3	0	0	3	7	30	0	69
05:00 PM	0	0	0	0	5	0	0	0	3	1	4	0	13
05:15 PM	0	0	0	0	8	0	0	0	3	0	6	0	17
05:30 PM	0	0	0	0	4	0	1	1	1	0	7	0	14
05:45 PM	0	0	0	0	4	0	0	0	0	0	5	0	9
Total	0	0	0	0	21	0	1	1	7	1	22	0	53
Grand Total	1	1	1	1	43	3	1	1	10	8	52	0	122
Apprch %	33.3	33.3	33.3	2.1	91.5	6.4	8.3	8.3	83.3	13.3	86.7	0	
Total %	0.8	0.8	0.8	0.8	35.2	2.5	0.8	0.8	8.2	6.6	42.6	0	

	Everett Street From North				Western Avenue From East				Everett Street From South				Western Avenue 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	**1**	0	0	**1**	0	5	**2**	7	0	0	0	0	**3**	**11**	0	**14**	**22**
04:15 PM	0	0	**1**	1	**1**	**7**	0	**8**	0	0	**2**	**2**	0	9	0	9	20
04:30 PM	0	**1**	0	1	0	7	1	8	0	0	1	1	2	3	0	5	15
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	2	7	0	9	12
Total Volume	1	1	1	3	1	22	3	26	0	0	3	3	7	30	0	37	69
% App. Total	33.3	33.3	33.3		3.8	84.6	11.5		0	0	100		18.9	81.1	0		
PHF	.250	.250	.250	.750	.250	.786	.375	.813	.000	.000	.375	.375	.583	.682	.000	.661	.784

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File Name : 112704 BB
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Peds and Bicycles

	Everett Street From North				Western Avenue From East				Everett Street From South				Western Avenue 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	10	0	0	2	0	3	0	0	3	0	1	0	3	22
04:15 PM	0	0	0	5	0	0	2	2	0	0	0	6	0	3	0	3	21
04:30 PM	0	0	0	11	0	1	0	0	0	0	0	2	1	1	0	5	21
04:45 PM	1	0	0	5	0	0	0	1	2	0	0	13	1	3	0	1	27
Total	1	0	0	31	0	1	4	3	5	0	0	24	2	8	0	12	91
05:00 PM	0	0	0	9	0	1	0	5	0	2	0	1	0	5	0	2	25
05:15 PM	0	1	0	11	0	2	0	2	1	0	0	10	0	7	0	10	44
05:30 PM	0	1	0	4	0	0	0	2	0	0	0	3	1	4	0	3	18
05:45 PM	0	2	1	9	0	0	0	4	0	0	0	4	0	3	0	5	28
Total	0	4	1	33	0	3	0	13	1	2	0	18	1	19	0	20	115
Grand Total	1	4	1	64	0	4	4	16	6	2	0	42	3	27	0	32	206
Apprch %	1.4	5.7	1.4	91.4	0	16.7	16.7	66.7	12	4	0	84	4.8	43.5	0	51.6	
Total %	0.5	1.9	0.5	31.1	0	1.9	1.9	7.8	2.9	1	0	20.4	1.5	13.1	0	15.5	

	Everett Street From North					Western Avenue From East					Everett Street From South					Western Avenue 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 04:30 PM																					
04:30 PM	0	0	0	**11**	11	0	1	0	0	1	0	0	0	2	2	**1**	1	0	5	7	21
04:45 PM	**1**	0	0	5	6	0	0	0	1	1	**2**	0	0	**13**	**15**	1	3	0	1	5	27
05:00 PM	0	0	0	9	9	0	1	0	**5**	**6**	0	**2**	0	1	3	0	5	0	2	7	25
05:15 PM	0	**1**	0	11	**12**	0	**2**	0	2	4	1	0	0	10	11	0	**7**	0	**10**	**17**	**44**
Total Volume	1	1	0	36	38	0	4	0	8	12	3	2	0	26	31	2	16	0	18	36	117
% App. Total	2.6	2.6	0	94.7		0	33.3	0	66.7		9.7	6.5	0	83.9		5.6	44.4	0	50		
PHF	.250	.250	.000	.818	.792	.000	.500	.000	.400	.500	.375	.250	.000	.500	.517	.500	.571	.000	.450	.529	.665

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City, State: Brighton, MA
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File Name : 112704 BB
Site Code : TBA
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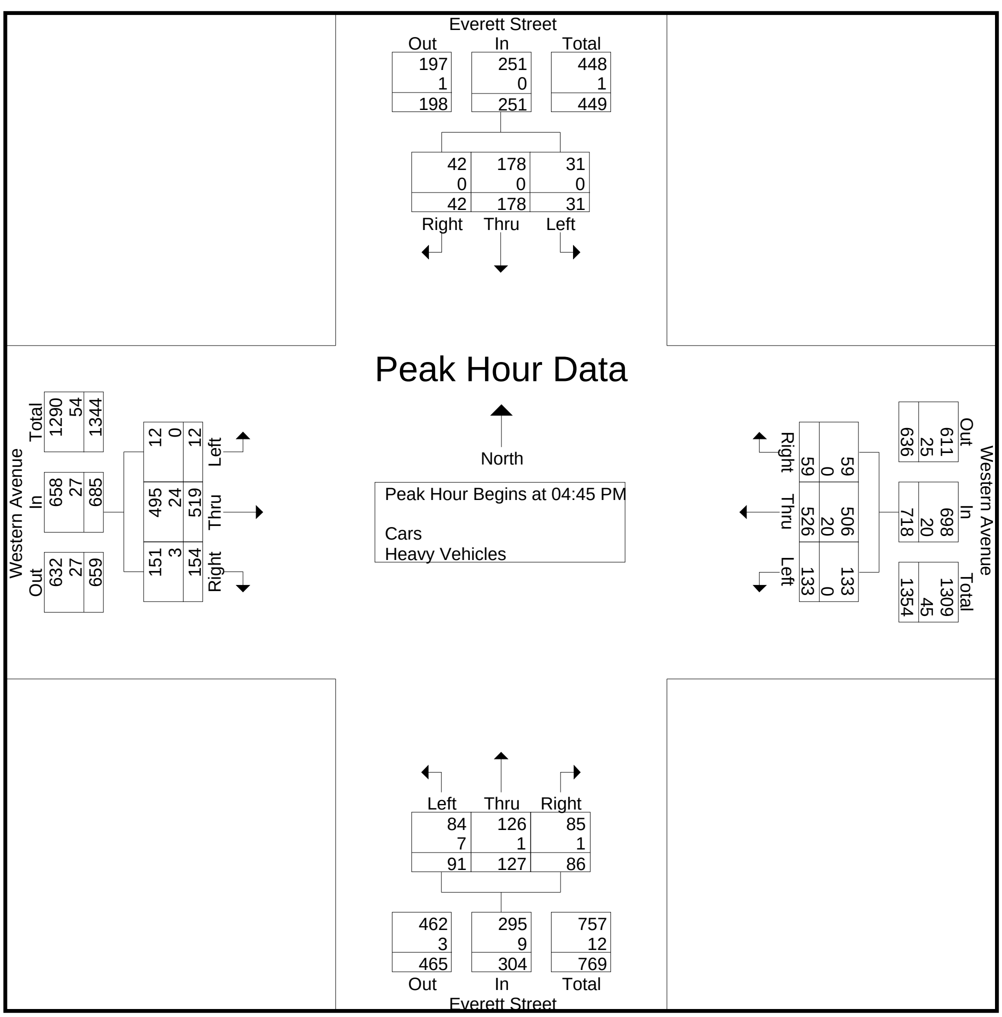
Page No : 1

	Everett Street From North				Western Avenue From East				Everett Street From South				Western Avenue 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 04:45 PM																	
04:45 PM	**13**	46	7	**66**	9	124	34	167	20	34	18	72	26	**140**	2	168	473
05:00 PM	11	36	8	55	16	125	33	174	23	**40**	26	**89**	44	123	3	170	488
05:15 PM	9	46	**9**	64	**19**	**140**	29	188	**27**	27	19	73	**46**	123	**7**	**176**	**501**
05:30 PM	9	**50**	7	66	15	137	**37**	**189**	16	26	**28**	70	38	133	0	171	496
Total Volume	42	178	31	251	59	526	133	718	86	127	91	304	154	519	12	685	1958
% App. Total	16.7	70.9	12.4		8.2	73.3	18.5		28.3	41.8	29.9		22.5	75.8	1.8		
PHF	.808	.890	.861	.951	.776	.939	.899	.950	.796	.794	.813	.854	.837	.927	.429	.973	.977
Cars	42	178	31	251	59	506	133	698	85	126	84	295	151	495	12	658	1902
% Cars	100	100	100	100	100	96.2	100	97.2	98.8	99.2	92.3	97.0	98.1	95.4	100	96.1	97.1
Heavy Vehicles	0	0	0	0	0	20	0	20	1	1	7	9	3	24	0	27	56
% Heavy Vehicles	0	0	0	0	0	3.8	0	2.8	1.2	0.8	7.7	3.0	1.9	4.6	0	3.9	2.9



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N/S: Everett Street
E/W: Holton Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 C
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Everett Street From North			Holton Street From East			Everett Street From South			Holton Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	47	1	3	3	5	2	34	1	0	0	0	97
07:15 AM	5	53	3	6	4	6	1	44	0	0	0	0	122
07:30 AM	5	61	1	3	2	3	1	62	3	0	0	0	141
07:45 AM	4	73	2	4	0	5	4	75	0	0	0	0	167
Total	15	234	7	16	9	19	8	215	4	0	0	0	527
08:00 AM	5	78	5	8	3	7	2	84	3	0	0	1	196
08:15 AM	3	65	2	10	1	6	5	110	1	0	0	0	203
08:30 AM	6	95	2	8	3	13	3	70	2	0	0	0	202
08:45 AM	4	73	1	3	4	3	5	64	0	0	0	0	157
Total	18	311	10	29	11	29	15	328	6	0	0	1	758
Grand Total	33	545	17	45	20	48	23	543	10	0	0	1	1285
Apprch %	5.5	91.6	2.9	39.8	17.7	42.5	4	94.3	1.7	0	0	100	
Total %	2.6	42.4	1.3	3.5	1.6	3.7	1.8	42.3	0.8	0	0	0.1	
Cars	28	524	17	44	18	47	21	523	5	0	0	0	1227
% Cars	84.8	96.1	100	97.8	90	97.9	91.3	96.3	50	0	0	0	95.5
Heavy Vehicles	5	21	0	1	2	1	2	20	5	0	0	1	58
% Heavy Vehicles	15.2	3.9	0	2.2	10	2.1	8.7	3.7	50	0	0	100	4.5

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

	Everett Street From North				Holton Street From East				Everett Street From South				Holton 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
07:45 AM	4	73	2	79	4	0	5	9	4	75	0	79	0	0	0	0	167
08:00 AM	5	78	**5**	88	8	**3**	7	18	2	84	**3**	89	0	0	**1**	**1**	196
08:15 AM	3	65	2	70	**10**	1	6	17	**5**	**110**	1	**116**	0	0	0	0	**203**
08:30 AM	**6**	**95**	2	**103**	8	3	**13**	**24**	3	70	2	75	0	0	0	0	202
Total Volume	18	311	11	340	30	7	31	68	14	339	6	359	0	0	1	1	768
% App. Total	5.3	91.5	3.2		44.1	10.3	45.6		3.9	94.4	1.7		0	0	100		
PHF	.750	.818	.550	.825	.750	.583	.596	.708	.700	.770	.500	.774	.000	.000	.250	.250	.946
Cars	16	298	11	325	29	7	31	67	13	327	2	342	0	0	0	0	734
% Cars	88.9	95.8	100	95.6	96.7	100	100	98.5	92.9	96.5	33.3	95.3	0	0	0	0	95.6
Heavy Vehicles	2	13	0	15	1	0	0	1	1	12	4	17	0	0	1	1	34
% Heavy Vehicles	11.1	4.2	0	4.4	3.3	0	0	1.5	7.1	3.5	66.7	4.7	0	0	100	100	4.4

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File Name : 112704 C
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars

	Everett Street From North			Holton Street From East			Everett Street From South			Holton Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	46	1	3	3	5	2	32	1	0	0	0	94
07:15 AM	5	52	3	6	2	6	1	42	0	0	0	0	117
07:30 AM	3	58	1	3	2	3	0	60	2	0	0	0	132
07:45 AM	2	73	2	4	0	5	4	73	0	0	0	0	163
Total	11	229	7	16	7	19	7	207	3	0	0	0	506
08:00 AM	5	77	5	7	3	7	2	80	0	0	0	0	186
08:15 AM	3	58	2	10	1	6	4	106	1	0	0	0	191
08:30 AM	6	90	2	8	3	13	3	68	1	0	0	0	194
08:45 AM	3	70	1	3	4	2	5	62	0	0	0	0	150
Total	17	295	10	28	11	28	14	316	2	0	0	0	721
Grand Total	28	524	17	44	18	47	21	523	5	0	0	0	1227
Apprch %	4.9	92.1	3	40.4	16.5	43.1	3.8	95.3	0.9	0	0	0	
Total %	2.3	42.7	1.4	3.6	1.5	3.8	1.7	42.6	0.4	0	0	0	

	Everett Street From North				Holton Street From East				Everett Street From South				Holton 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 07:45 AM																	
07:45 AM	2	73	2	77	4	0	5	9	**4**	73	0	77	0	0	0	0	163
08:00 AM	5	77	**5**	87	7	**3**	7	17	2	80	0	82	0	0	0	0	186
08:15 AM	3	58	2	63	**10**	1	6	17	4	**106**	**1**	**111**	0	0	0	0	191
08:30 AM	**6**	**90**	2	**98**	8	3	**13**	**24**	3	68	1	72	0	0	0	0	**194**
Total Volume	16	298	11	325	29	7	31	67	13	327	2	342	0	0	0	0	734
% App. Total	4.9	91.7	3.4		43.3	10.4	46.3		3.8	95.6	0.6		0	0	0		
PHF	.667	.828	.550	.829	.725	.583	.596	.698	.813	.771	.500	.770	.000	.000	.000	.000	.946

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File Name : 112704 C
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Heavy Vehicles

	Everett Street From North			Holton Street From East			Everett Street From South			Holton Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	1	0	0	0	0	0	2	0	0	0	0	3
07:15 AM	0	1	0	0	2	0	0	2	0	0	0	0	5
07:30 AM	2	3	0	0	0	0	1	2	1	0	0	0	9
07:45 AM	2	0	0	0	0	0	0	2	0	0	0	0	4
Total	4	5	0	0	2	0	1	8	1	0	0	0	21
08:00 AM	0	1	0	1	0	0	0	4	3	0	0	1	10
08:15 AM	0	7	0	0	0	0	1	4	0	0	0	0	12
08:30 AM	0	5	0	0	0	0	0	2	1	0	0	0	8
08:45 AM	1	3	0	0	0	1	0	2	0	0	0	0	7
Total	1	16	0	1	0	1	1	12	4	0	0	1	37
Grand Total	5	21	0	1	2	1	2	20	5	0	0	1	58
Apprch %	19.2	80.8	0	25	50	25	7.4	74.1	18.5	0	0	100	
Total %	8.6	36.2	0	1.7	3.4	1.7	3.4	34.5	8.6	0	0	1.7	

	Everett Street From North				Holton Street From East				Everett Street From South				Holton 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	0	1	0	1	**1**	0	0	**1**	0	**4**	**3**	**7**	0	0	**1**	**1**	10
08:15 AM	0	**7**	0	**7**	0	0	0	0	**1**	4	0	5	0	0	0	0	**12**
08:30 AM	0	5	0	5	0	0	0	0	0	2	1	3	0	0	0	0	8
08:45 AM	**1**	3	0	4	0	0	**1**	1	0	2	0	2	0	0	0	0	7
Total Volume	1	16	0	17	1	0	1	2	1	12	4	17	0	0	1	1	37
% App. Total	5.9	94.1	0		50	0	50		5.9	70.6	23.5		0	0	100		
PHF	.250	.571	.000	.607	.250	.000	.250	.500	.250	.750	.333	.607	.000	.000	.250	.250	.771

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E/W: Holton Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 C
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Peds and Bicycles

	Everett Street From North				Holton Street From East				Everett Street From South				Holton 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	0	0	0	0	0	0	1	1	3	0	0	0	1	6
07:15 AM	0	1	0	4	0	0	0	2	1	0	0	1	1	0	0	0	10
07:30 AM	0	0	0	2	0	0	0	4	1	0	0	0	0	0	0	5	12
07:45 AM	0	1	0	4	0	0	1	0	0	0	0	3	0	2	0	2	13
Total	0	2	0	10	0	0	1	6	2	1	1	7	1	2	0	8	41
08:00 AM	0	2	0	4	0	0	0	0	0	1	0	2	0	1	0	3	13
08:15 AM	0	1	0	2	0	0	0	1	0	2	0	1	0	0	0	4	11
08:30 AM	0	2	0	1	0	0	0	2	0	2	0	0	1	0	1	3	12
08:45 AM	0	2	0	0	1	0	1	1	1	3	1	0	0	0	1	2	13
Total	0	7	0	7	1	0	1	4	1	8	1	3	1	1	2	12	49
Grand Total	0	9	0	17	1	0	2	10	3	9	2	10	2	3	2	20	90
Apprch %	0	34.6	0	65.4	7.7	0	15.4	76.9	12.5	37.5	8.3	41.7	7.4	11.1	7.4	74.1	
Total %	0	10	0	18.9	1.1	0	2.2	11.1	3.3	10	2.2	11.1	2.2	3.3	2.2	22.2	

	Everett Street From North					Holton Street From East					Everett Street From South					Holton 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 07:30 AM																					
07:30 AM	0	0	0	2	2	0	0	0	**4**	**4**	**1**	0	0	0	1	0	0	0	**5**	**5**	12
07:45 AM	0	1	0	**4**	5	0	0	**1**	0	1	0	0	0	**3**	**3**	0	**2**	0	2	4	**13**
08:00 AM	0	**2**	0	4	**6**	0	0	0	0	0	0	1	0	2	3	0	1	0	3	4	13
08:15 AM	0	1	0	2	3	0	0	0	1	1	0	**2**	0	1	3	0	0	0	4	4	11
Total Volume	0	4	0	12	16	0	0	1	5	6	1	3	0	6	10	0	3	0	14	17	49
% App. Total	0	25	0	75		0	0	16.7	83.3		10	30	0	60		0	17.6	0	82.4		
PHF	.000	.500	.000	.750	.667	.000	.000	.250	.313	.375	.250	.375	.000	.500	.833	.000	.375	.000	.700	.850	.942

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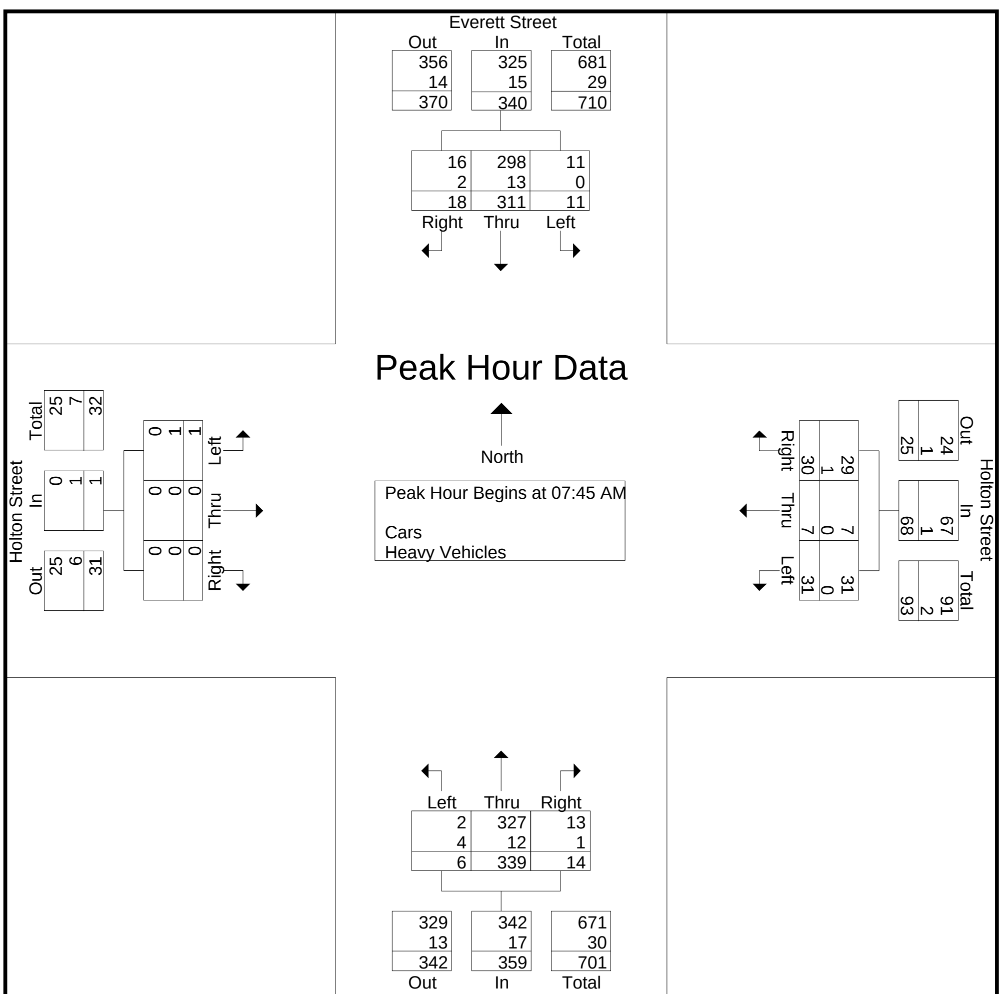
	Everett Street From North				Holton Street From East				Everett Street From South				Holton Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	4	73	2	79	4	0	5	9	4	75	0	79	0	0	0	0	167
08:00 AM	5	78	**5**	88	8	**3**	7	18	2	84	**3**	89	0	0	**1**	**1**	196
08:15 AM	3	65	2	70	**10**	1	6	17	**5**	**110**	1	**116**	0	0	0	0	**203**
08:30 AM	**6**	**95**	2	**103**	8	3	**13**	**24**	3	70	2	75	0	0	0	0	202
Total Volume	18	311	11	340	30	7	31	68	14	339	6	359	0	0	1	1	768
% App. Total	5.3	91.5	3.2		44.1	10.3	45.6		3.9	94.4	1.7		0	0	100		
PHF	.750	.818	.550	.825	.750	.583	.596	.708	.700	.770	.500	.774	.000	.000	.250	.250	.946
Cars	16	298	11	325	29	7	31	67	13	327	2	342	0	0	0	0	734
% Cars	88.9	95.8	100	95.6	96.7	100	100	98.5	92.9	96.5	33.3	95.3	0	0	0	0	95.6
Heavy Vehicles	2	13	0	15	1	0	0	1	1	12	4	17	0	0	1	1	34
% Heavy Vehicles	11.1	4.2	0	4.4	3.3	0	0	1.5	7.1	3.5	66.7	4.7	0	0	100	100	4.4



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File Name : 112704 CC
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Everett Street From North			Holton Street From East			Everett Street From South			Holton Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	6	90	1	2	3	3	6	78	6	0	1	0	196
04:15 PM	2	91	3	3	1	5	4	77	5	0	0	0	191
04:30 PM	9	98	4	2	3	2	3	67	4	0	0	0	192
04:45 PM	10	91	3	4	6	8	2	66	13	1	0	0	204
Total	27	370	11	11	13	18	15	288	28	1	1	0	783
05:00 PM	8	88	5	4	2	1	4	80	5	2	0	0	199
05:15 PM	7	99	8	4	4	5	3	89	2	1	0	0	222
05:30 PM	10	102	4	6	4	6	4	74	3	1	1	1	216
05:45 PM	10	106	3	5	3	4	5	74	9	0	0	0	219
Total	35	395	20	19	13	16	16	317	19	4	1	1	856
Grand Total	62	765	31	30	26	34	31	605	47	5	2	1	1639
Apprch %	7.2	89.2	3.6	33.3	28.9	37.8	4.5	88.6	6.9	62.5	25	12.5	
Total %	3.8	46.7	1.9	1.8	1.6	2.1	1.9	36.9	2.9	0.3	0.1	0.1	
Cars	62	751	31	29	26	34	31	593	46	5	2	1	1611
% Cars	100	98.2	100	96.7	100	100	100	98	97.9	100	100	100	98.3
Heavy Vehicles	0	14	0	1	0	0	0	12	1	0	0	0	28
% Heavy Vehicles	0	1.8	0	3.3	0	0	0	2	2.1	0	0	0	1.7

	Everett Street From North				Holton Street From East				Everett Street From South				Holton 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	8	88	5	101	4	2	1	7	4	80	5	89	**2**	0	0	2	199
05:15 PM	7	99	**8**	114	4	**4**	5	13	3	**89**	2	**94**	1	0	0	1	**222**
05:30 PM	**10**	102	4	116	**6**	4	**6**	**16**	4	74	3	81	1	**1**	**1**	**3**	216
05:45 PM	10	**106**	3	**119**	5	3	4	12	**5**	74	**9**	88	0	0	0	0	219
Total Volume	35	395	20	450	19	13	16	48	16	317	19	352	4	1	1	6	856
% App. Total	7.8	87.8	4.4		39.6	27.1	33.3		4.5	90.1	5.4		66.7	16.7	16.7		
PHF	.875	.932	.625	.945	.792	.813	.667	.750	.800	.890	.528	.936	.500	.250	.250	.500	.964
Cars	35	392	20	447	18	13	16	47	16	309	19	344	4	1	1	6	844
% Cars	100	99.2	100	99.3	94.7	100	100	97.9	100	97.5	100	97.7	100	100	100	100	98.6
Heavy Vehicles	0	3	0	3	1	0	0	1	0	8	0	8	0	0	0	0	12
% Heavy Vehicles	0	0.8	0	0.7	5.3	0	0	2.1	0	2.5	0	2.3	0	0	0	0	1.4

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City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 CC
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars

	Everett Street From North			Holton Street From East			Everett Street From South			Holton Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	6	86	1	2	3	3	6	78	6	0	1	0	192
04:15 PM	2	90	3	3	1	5	4	74	4	0	0	0	186
04:30 PM	9	94	4	2	3	2	3	66	4	0	0	0	187
04:45 PM	10	89	3	4	6	8	2	66	13	1	0	0	202
Total	27	359	11	11	13	18	15	284	27	1	1	0	767
05:00 PM	8	86	5	4	2	1	4	78	5	2	0	0	195
05:15 PM	7	98	8	3	4	5	3	87	2	1	0	0	218
05:30 PM	10	102	4	6	4	6	4	70	3	1	1	1	212
05:45 PM	10	106	3	5	3	4	5	74	9	0	0	0	219
Total	35	392	20	18	13	16	16	309	19	4	1	1	844
Grand Total	62	751	31	29	26	34	31	593	46	5	2	1	1611
Apprch %	7.3	89	3.7	32.6	29.2	38.2	4.6	88.5	6.9	62.5	25	12.5	
Total %	3.8	46.6	1.9	1.8	1.6	2.1	1.9	36.8	2.9	0.3	0.1	0.1	

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

	Everett Street From North				Holton Street From East				Everett Street From South				Holton 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
05:00 PM	8	86	5	99	4	2	1	7	4	78	5	87	**2**	0	0	2	195
05:15 PM	7	98	**8**	113	3	**4**	5	12	3	**87**	2	**92**	1	0	0	1	218
05:30 PM	**10**	102	4	116	**6**	4	**6**	**16**	4	70	3	77	1	**1**	**1**	**3**	212
05:45 PM	10	**106**	3	**119**	5	3	4	12	**5**	74	**9**	88	0	0	0	0	**219**
Total Volume	35	392	20	447	18	13	16	47	16	309	19	344	4	1	1	6	844
% App. Total	7.8	87.7	4.5		38.3	27.7	34		4.7	89.8	5.5		66.7	16.7	16.7		
PHF	.875	.925	.625	.939	.750	.813	.667	.734	.800	.888	.528	.935	.500	.250	.250	.500	.963

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File Name : 112704 CC
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Heavy Vehicles

	Everett Street From North			Holton Street From East			Everett Street From South			Holton Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	4
04:15 PM	0	1	0	0	0	0	0	3	1	0	0	0	5
04:30 PM	0	4	0	0	0	0	0	1	0	0	0	0	5
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	11	0	0	0	0	0	4	1	0	0	0	16
05:00 PM	0	2	0	0	0	0	0	2	0	0	0	0	4
05:15 PM	0	1	0	1	0	0	0	2	0	0	0	0	4
05:30 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	1	0	0	0	8	0	0	0	0	12
Grand Total	0	14	0	1	0	0	0	12	1	0	0	0	28
Apprch %	0	100	0	100	0	0	0	92.3	7.7	0	0	0	
Total %	0	50	0	3.6	0	0	0	42.9	3.6	0	0	0	

	Everett Street From North				Holton Street From East				Everett Street From South				Holton 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	**4**	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	4
04:15 PM	0	1	0	1	0	0	0	0	0	**3**	**1**	**4**	0	0	0	0	**5**
04:30 PM	0	4	0	4	0	0	0	0	0	1	0	1	0	0	0	0	5
04:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	11	0	11	0	0	0	0	0	4	1	5	0	0	0	0	16
% App. Total	0	100	0		0	0	0		0	80	20		0	0	0		
PHF	.000	.688	.000	.688	.000	.000	.000	.000	.000	.333	.250	.313	.000	.000	.000	.000	.800

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Groups Printed- Peds and Bicycles

	Everett Street From North				Holton Street From East				Everett Street From South				Holton 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	0	0	0	0	2	1	3	0	0	0	0	0	1	7
04:15 PM	0	2	0	5	0	1	0	2	0	0	1	1	0	1	0	10	23
04:30 PM	0	3	0	1	0	1	0	2	0	1	0	2	0	0	0	5	15
04:45 PM	0	1	0	2	0	0	0	6	0	3	1	1	0	1	0	1	16
Total	0	6	0	8	0	2	0	12	1	7	2	4	0	2	0	17	61
05:00 PM	0	1	0	4	0	0	0	4	1	2	1	1	1	2	1	4	22
05:15 PM	0	2	0	4	0	2	1	3	0	2	1	0	1	0	0	6	22
05:30 PM	0	0	0	1	0	1	0	2	1	2	0	2	0	2	0	8	19
05:45 PM	0	4	0	5	0	1	0	4	1	0	2	1	0	0	0	4	22
Total	0	7	0	14	0	4	1	13	3	6	4	4	2	4	1	22	85
Grand Total	0	13	0	22	0	6	1	25	4	13	6	8	2	6	1	39	146
Apprch %	0	37.1	0	62.9	0	18.8	3.1	78.1	12.9	41.9	19.4	25.8	4.2	12.5	2.1	81.2	
Total %	0	8.9	0	15.1	0	4.1	0.7	17.1	2.7	8.9	4.1	5.5	1.4	4.1	0.7	26.7	

	Everett Street From North					Holton Street From East					Everett Street From South					Holton 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	1	0	4	5	0	0	0	**4**	4	**1**	**2**	1	1	**5**	**1**	**2**	**1**	4	8	**22**
05:15 PM	0	2	0	4	6	0	**2**	**1**	3	**6**	0	2	1	0	3	1	0	0	6	7	22
05:30 PM	0	0	0	1	1	0	1	0	2	3	1	2	0	**2**	5	0	2	0	**8**	**10**	19
05:45 PM	0	**4**	0	**5**	**9**	0	1	0	4	5	1	0	**2**	1	4	0	0	0	4	4	22
Total Volume	0	7	0	14	21	0	4	1	13	18	3	6	4	4	17	2	4	1	22	29	85
% App. Total	0	33.3	0	66.7		0	22.2	5.6	72.2		17.6	35.3	23.5	23.5		6.9	13.8	3.4	75.9		
PHF	.000	.438	.000	.700	.583	.000	.500	.250	.813	.750	.750	.750	.500	.500	.850	.500	.500	.250	.688	.725	.966

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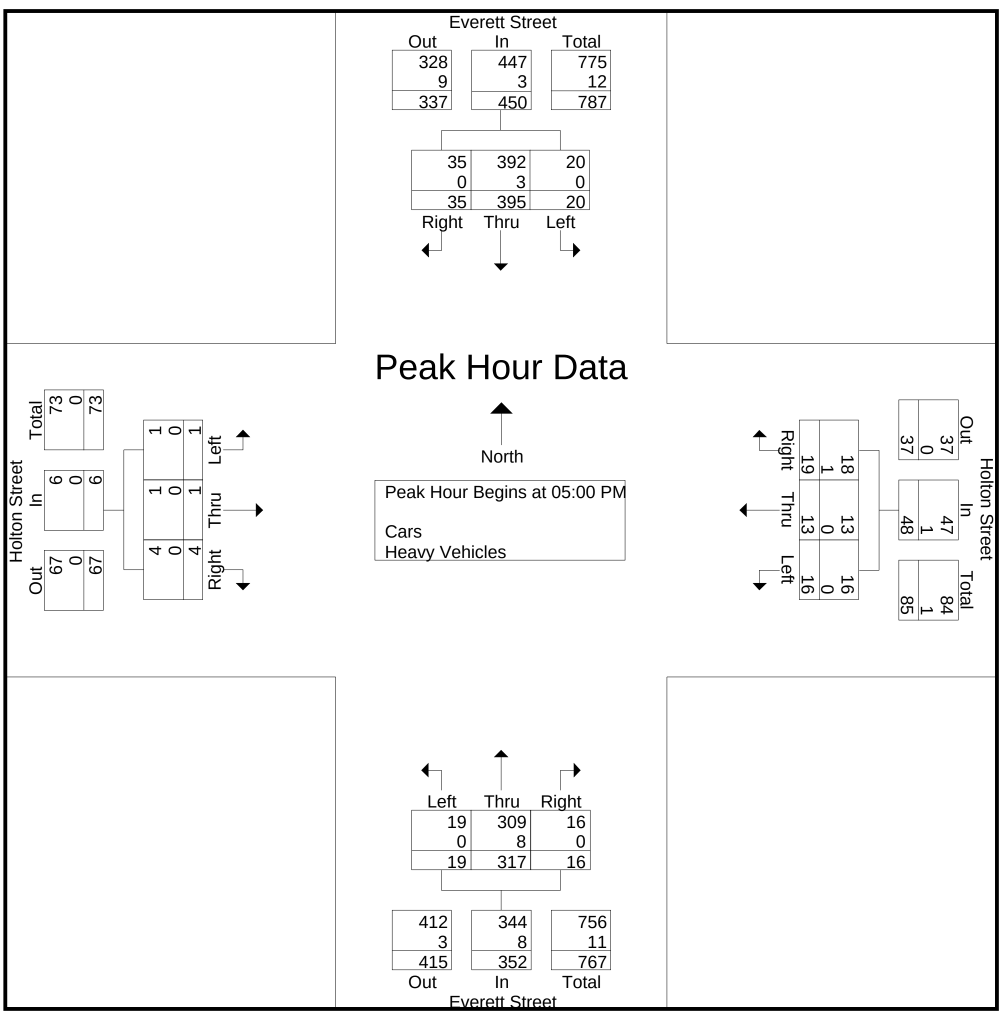
	Everett Street From North				Holton Street From East				Everett Street From South				Holton Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	8	88	5	101	4	2	1	7	4	80	5	89	**2**	0	0	2	199
05:15 PM	7	99	**8**	114	4	**4**	5	13	3	**89**	2	**94**	1	0	0	1	**222**
05:30 PM	**10**	102	4	116	**6**	4	**6**	**16**	4	74	3	81	1	**1**	**1**	**3**	216
05:45 PM	10	**106**	3	**119**	5	3	4	12	**5**	74	**9**	88	0	0	0	0	219
Total Volume	35	395	20	450	19	13	16	48	16	317	19	352	4	1	1	6	856
% App. Total	7.8	87.8	4.4		39.6	27.1	33.3		4.5	90.1	5.4		66.7	16.7	16.7		
PHF	.875	.932	.625	.945	.792	.813	.667	.750	.800	.890	.528	.936	.500	.250	.250	.500	.964
Cars	35	392	20	447	18	13	16	47	16	309	19	344	4	1	1	6	844
% Cars	100	99.2	100	99.3	94.7	100	100	97.9	100	97.5	100	97.7	100	100	100	100	98.6
Heavy Vehicles	0	3	0	3	1	0	0	1	0	8	0	8	0	0	0	0	12
% Heavy Vehicles	0	0.8	0	0.7	5.3	0	0	2.1	0	2.5	0	2.3	0	0	0	0	1.4



PRECISION DATA INDUSTRIES, LLC

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N/S: Everett Street
E/W: Everett Street Ext. / Reaer Site Dr
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 D
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars - Heavy Vehicles

	Everett Street From North			Everett Street Extension From East			Everett Street From South			Rear Site Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	46	7	7	0	6	2	29	0	0	0	0	97
07:15 AM	0	58	12	5	0	8	9	37	0	0	0	0	129
07:30 AM	0	59	18	5	0	11	4	59	2	0	0	0	158
07:45 AM	0	77	13	8	0	10	3	66	0	1	1	0	179
Total	0	240	50	25	0	35	18	191	2	1	1	0	563
08:00 AM	0	80	18	14	0	4	7	74	0	0	0	0	197
08:15 AM	0	66	14	12	0	3	7	102	1	1	0	0	206
08:30 AM	1	104	20	8	0	7	7	63	0	1	1	0	212
08:45 AM	1	67	21	8	0	6	10	58	0	1	0	0	172
Total	2	317	73	42	0	20	31	297	1	3	1	0	787
Grand Total	2	557	123	67	0	55	49	488	3	4	2	0	1350
Apprch %	0.3	81.7	18	54.9	0	45.1	9.1	90.4	0.6	66.7	33.3	0	
Total %	0.1	41.3	9.1	5	0	4.1	3.6	36.1	0.2	0.3	0.1	0	
Cars	2	541	119	63	0	53	47	472	3	1	0	0	1301
% Cars	100	97.1	96.7	94	0	96.4	95.9	96.7	100	25	0	0	96.4
Heavy Vehicles	0	16	4	4	0	2	2	16	0	3	2	0	49
% Heavy Vehicles	0	2.9	3.3	6	0	3.6	4.1	3.3	0	75	100	0	3.6

	Everett Street From North				Everett Street Extension From East				Everett Street From South				Rear Site Drive 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 07:45 AM																	
07:45 AM	0	77	13	90	8	0	**10**	**18**	3	66	0	69	**1**	**1**	0	**2**	179
08:00 AM	0	80	18	98	**14**	0	4	18	**7**	74	0	81	0	0	0	0	197
08:15 AM	0	66	14	80	12	0	3	15	7	**102**	**1**	**110**	1	0	0	1	206
08:30 AM	**1**	**104**	**20**	**125**	8	0	7	15	7	63	0	70	1	1	0	2	**212**
Total Volume	1	327	65	393	42	0	24	66	24	305	1	330	3	2	0	5	794
% App. Total	0.3	83.2	16.5		63.6	0	36.4		7.3	92.4	0.3		60	40	0		
PHF	.250	.786	.813	.786	.750	.000	.600	.917	.857	.748	.250	.750	.750	.500	.000	.625	.936
Cars	1	318	63	382	40	0	23	63	23	293	1	317	1	0	0	1	763
% Cars	100	97.2	96.9	97.2	95.2	0	95.8	95.5	95.8	96.1	100	96.1	33.3	0	0	20.0	96.1
Heavy Vehicles	0	9	2	11	2	0	1	3	1	12	0	13	2	2	0	4	31
% Heavy Vehicles	0	2.8	3.1	2.8	4.8	0	4.2	4.5	4.2	3.9	0	3.9	66.7	100	0	80.0	3.9

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City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 D
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars

	Everett Street From North			Everett Street Extension From East			Everett Street From South			Rear Site Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	45	7	6	0	6	2	28	0	0	0	0	94
07:15 AM	0	57	12	5	0	7	8	36	0	0	0	0	125
07:30 AM	0	57	16	5	0	11	4	57	2	0	0	0	152
07:45 AM	0	77	13	8	0	10	3	64	0	0	0	0	175
Total	0	236	48	24	0	34	17	185	2	0	0	0	546
08:00 AM	0	79	18	13	0	3	6	69	0	0	0	0	188
08:15 AM	0	63	13	11	0	3	7	99	1	1	0	0	198
08:30 AM	1	99	19	8	0	7	7	61	0	0	0	0	202
08:45 AM	1	64	21	7	0	6	10	58	0	0	0	0	167
Total	2	305	71	39	0	19	30	287	1	1	0	0	755
Grand Total	2	541	119	63	0	53	47	472	3	1	0	0	1301
Apprch %	0.3	81.7	18	54.3	0	45.7	9	90.4	0.6	100	0	0	
Total %	0.2	41.6	9.1	4.8	0	4.1	3.6	36.3	0.2	0.1	0	0	

	Everett Street From North				Everett Street Extension From East				Everett Street From South				Rear Site Drive 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 07:45 AM																	
07:45 AM	0	77	13	90	8	0	**10**	**18**	3	64	0	67	0	0	0	0	175
08:00 AM	0	79	18	97	**13**	0	3	16	6	69	0	75	0	0	0	0	188
08:15 AM	0	63	13	76	11	0	3	14	**7**	**99**	**1**	**107**	**1**	0	0	**1**	198
08:30 AM	**1**	**99**	**19**	**119**	8	0	7	15	7	61	0	68	0	0	0	0	**202**
Total Volume	1	318	63	382	40	0	23	63	23	293	1	317	1	0	0	1	763
% App. Total	0.3	83.2	16.5		63.5	0	36.5		7.3	92.4	0.3		100	0	0		
PHF	.250	.803	.829	.803	.769	.000	.575	.875	.821	.740	.250	.741	.250	.000	.000	.250	.944

PRECISION
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City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 D
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Heavy Vehicles

	Everett Street From North			Everett Street Extension From East			Everett Street From South			Rear Site Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	1	0	1	0	0	0	1	0	0	0	0	3
07:15 AM	0	1	0	0	0	1	1	1	0	0	0	0	4
07:30 AM	0	2	2	0	0	0	0	2	0	0	0	0	6
07:45 AM	0	0	0	0	0	0	0	2	0	1	1	0	4
Total	0	4	2	1	0	1	1	6	0	1	1	0	17
08:00 AM	0	1	0	1	0	1	1	5	0	0	0	0	9
08:15 AM	0	3	1	1	0	0	0	3	0	0	0	0	8
08:30 AM	0	5	1	0	0	0	0	2	0	1	1	0	10
08:45 AM	0	3	0	1	0	0	0	0	0	1	0	0	5
Total	0	12	2	3	0	1	1	10	0	2	1	0	32
Grand Total	0	16	4	4	0	2	2	16	0	3	2	0	49
Apprch %	0	80	20	66.7	0	33.3	11.1	88.9	0	60	40	0	
Total %	0	32.7	8.2	8.2	0	4.1	4.1	32.7	0	6.1	4.1	0	

	Everett Street From North				Everett Street Extension From East				Everett Street From South				Rear Site Drive 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	0	1	0	1	**1**	0	**1**	**2**	**1**	**5**	0	**6**	0	0	0	0	9
08:15 AM	0	3	**1**	4	1	0	0	1	0	3	0	3	0	0	0	0	8
08:30 AM	0	**5**	1	**6**	0	0	0	0	0	2	0	2	**1**	**1**	0	**2**	**10**
08:45 AM	0	3	0	3	1	0	0	1	0	0	0	0	1	0	0	1	5
Total Volume	0	12	2	14	3	0	1	4	1	10	0	11	2	1	0	3	32
% App. Total	0	85.7	14.3		75	0	25		9.1	90.9	0		66.7	33.3	0		
PHF	.000	.600	.500	.583	.750	.000	.250	.500	.250	.500	.000	.458	.500	.250	.000	.375	.800

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City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 D
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Peds and Bicycles

	Everett Street From North				Everett Street Extension From East				Everett Street From South				Rear Site Drive 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	3	0	1	0	2	0	0	0	2	9
07:15 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	5	8
07:30 AM	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	3	6
07:45 AM	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	2	6
Total	0	4	1	3	0	0	0	5	0	1	0	3	0	0	0	12	29
08:00 AM	0	1	0	0	0	0	0	2	0	1	0	0	0	0	0	6	10
08:15 AM	0	1	1	1	0	0	1	2	0	1	0	0	0	0	0	6	13
08:30 AM	0	2	1	0	1	0	0	2	0	1	0	1	0	0	0	8	16
08:45 AM	0	6	0	1	0	0	0	0	0	6	0	0	0	0	0	5	18
Total	0	10	2	2	1	0	1	6	0	9	0	1	0	0	0	25	57
Grand Total	0	14	3	5	1	0	1	11	0	10	0	4	0	0	0	37	86
Apprch %	0	63.6	13.6	22.7	7.7	0	7.7	84.6	0	71.4	0	28.6	0	0	0	100	
Total %	0	16.3	3.5	5.8	1.2	0	1.2	12.8	0	11.6	0	4.7	0	0	0	43	

	Everett Street From North					Everett Street Extension From East					Everett Street From South					Rear Site Drive 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	1	0	0	1	0	0	0	**2**	2	0	1	0	0	1	0	0	0	6	6	10
08:15 AM	0	1	**1**	**1**	3	0	0	**1**	2	**3**	0	1	0	0	1	0	0	0	6	6	13
08:30 AM	0	2	1	0	3	**1**	0	0	2	3	0	1	0	**1**	2	0	0	0	**8**	**8**	16
08:45 AM	0	**6**	0	1	**7**	0	0	0	0	0	0	**6**	0	0	**6**	0	0	0	5	5	**18**
Total Volume	0	10	2	2	14	1	0	1	6	8	0	9	0	1	10	0	0	0	25	25	57
% App. Total	0	71.4	14.3	14.3		12.5	0	12.5	75		0	90	0	10		0	0	0	100		
PHF	.000	.417	.500	.500	.500	.250	.000	.250	.750	.667	.000	.375	.000	.250	.417	.000	.000	.000	.781	.781	.792

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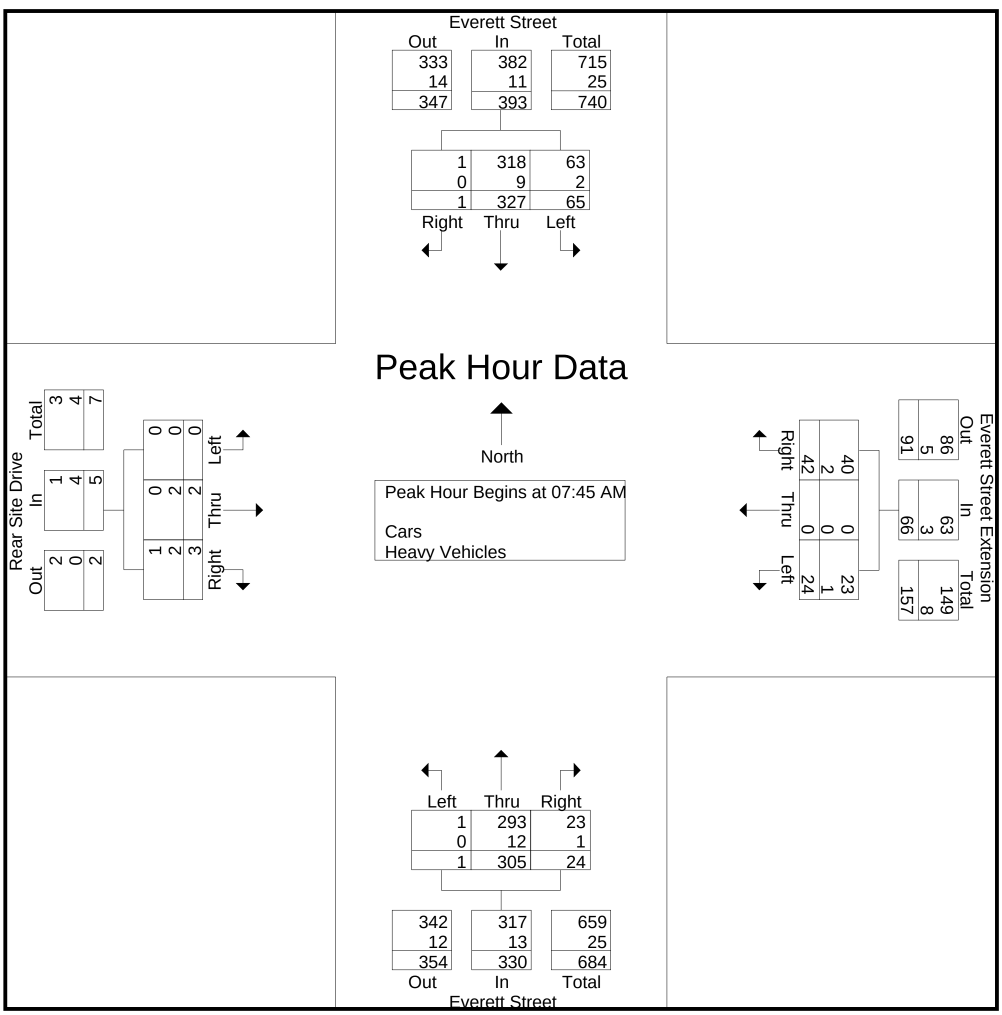
File Name : 112704 D
Site Code : TBA
Start Date : 11/15/2011

	Everett Street From North				Everett Street Extension From East				Everett Street From South				Rear Site Drive 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 07:45 AM																	
07:45 AM	0	77	13	90	8	0	**10**	**18**	3	66	0	69	**1**	**1**	0	**2**	179
08:00 AM	0	80	18	98	**14**	0	4	18	**7**	74	0	81	0	0	0	0	197
08:15 AM	0	66	14	80	12	0	3	15	7	**102**	**1**	**110**	1	0	0	1	206
08:30 AM	**1**	**104**	**20**	**125**	8	0	7	15	7	63	0	70	1	1	0	2	**212**
Total Volume	1	327	65	393	42	0	24	66	24	305	1	330	3	2	0	5	794
% App. Total	0.3	83.2	16.5		63.6	0	36.4		7.3	92.4	0.3		60	40	0		
PHF	.250	.786	.813	.786	.750	.000	.600	.917	.857	.748	.250	.750	.750	.500	.000	.625	.936
Cars	1	318	63	382	40	0	23	63	23	293	1	317	1	0	0	1	763
% Cars	100	97.2	96.9	97.2	95.2	0	95.8	95.5	95.8	96.1	100	96.1	33.3	0	0	20.0	96.1
Heavy Vehicles	0	9	2	11	2	0	1	3	1	12	0	13	2	2	0	4	31
% Heavy Vehicles	0	2.8	3.1	2.8	4.8	0	4.2	4.5	4.2	3.9	0	3.9	66.7	100	0	80.0	3.9



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N/S: Everett Street
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City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 DD
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars - Heavy Vehicles

	Everett Street From North			Everett Street Extension From East			Everett Street From South			Rear Site Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	81	20	12	0	4	9	68	0	0	2	3	199
04:15 PM	1	93	14	13	2	11	12	67	1	0	0	0	214
04:30 PM	0	95	16	11	0	9	18	59	1	2	0	2	213
04:45 PM	0	91	16	16	0	10	8	61	2	3	2	2	211
Total	1	360	66	52	2	34	47	255	4	5	4	7	837
05:00 PM	0	77	20	16	0	16	8	62	1	2	0	6	208
05:15 PM	0	100	12	21	0	14	10	75	1	3	0	0	236
05:30 PM	0	95	16	18	2	15	11	58	1	2	1	0	219
05:45 PM	1	102	13	22	0	10	8	63	0	1	0	1	221
Total	1	374	61	77	2	55	37	258	3	8	1	7	884
Grand Total	2	734	127	129	4	89	84	513	7	13	5	14	1721
Apprch %	0.2	85.1	14.7	58.1	1.8	40.1	13.9	84.9	1.2	40.6	15.6	43.8	
Total %	0.1	42.6	7.4	7.5	0.2	5.2	4.9	29.8	0.4	0.8	0.3	0.8	
Cars	2	729	122	125	3	88	83	508	7	11	5	14	1697
% Cars	100	99.3	96.1	96.9	75	98.9	98.8	99	100	84.6	100	100	98.6
Heavy Vehicles	0	5	5	4	1	1	1	5	0	2	0	0	24
% Heavy Vehicles	0	0.7	3.9	3.1	25	1.1	1.2	1	0	15.4	0	0	1.4

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

	Everett Street From North				Everett Street Extension From East				Everett Street From South				Rear Site Drive 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
05:00 PM	0	77	**20**	97	16	0	**16**	32	8	62	**1**	71	2	0	**6**	**8**	208
05:15 PM	0	100	12	112	21	0	14	**35**	10	**75**	1	**86**	**3**	0	0	3	**236**
05:30 PM	0	95	16	111	18	**2**	15	35	**11**	58	1	70	2	**1**	0	3	219
05:45 PM	**1**	**102**	13	**116**	**22**	0	10	32	8	63	0	71	1	0	1	2	221
Total Volume	1	374	61	436	77	2	55	134	37	258	3	298	8	1	7	16	884
% App. Total	0.2	85.8	14		57.5	1.5	41		12.4	86.6	1		50	6.2	43.8		
PHF	.250	.917	.763	.940	.875	.250	.859	.957	.841	.860	.750	.866	.667	.250	.292	.500	.936
Cars	1	373	58	432	75	2	54	131	37	255	3	295	7	1	7	15	873
% Cars	100	99.7	95.1	99.1	97.4	100	98.2	97.8	100	98.8	100	99.0	87.5	100	100	93.8	98.8
Heavy Vehicles	0	1	3	4	2	0	1	3	0	3	0	3	1	0	0	1	11
% Heavy Vehicles	0	0.3	4.9	0.9	2.6	0	1.8	2.2	0	1.2	0	1.0	12.5	0	0	6.3	1.2

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Client: VHB/ E. Orlando

File Name : 112704 DD
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars

	Everett Street From North			Everett Street Extension From East			Everett Street From South			Rear Site Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	80	19	12	0	4	9	68	0	0	2	3	197
04:15 PM	1	93	14	12	1	11	11	65	1	0	0	0	209
04:30 PM	0	92	16	11	0	9	18	59	1	1	0	2	209
04:45 PM	0	91	15	15	0	10	8	61	2	3	2	2	209
Total	1	356	64	50	1	34	46	253	4	4	4	7	824
05:00 PM	0	77	18	15	0	15	8	62	1	2	0	6	204
05:15 PM	0	99	11	21	0	14	10	75	1	3	0	0	234
05:30 PM	0	95	16	17	2	15	11	55	1	2	1	0	215
05:45 PM	1	102	13	22	0	10	8	63	0	0	0	1	220
Total	1	373	58	75	2	54	37	255	3	7	1	7	873
Grand Total	2	729	122	125	3	88	83	508	7	11	5	14	1697
Apprch %	0.2	85.5	14.3	57.9	1.4	40.7	13.9	84.9	1.2	36.7	16.7	46.7	
Total %	0.1	43	7.2	7.4	0.2	5.2	4.9	29.9	0.4	0.6	0.3	0.8	

	Everett Street From North				Everett Street Extension From East				Everett Street From South				Rear Site Drive 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	0	77	**18**	95	15	0	**15**	30	8	62	**1**	71	2	0	**6**	**8**	204
05:15 PM	0	99	11	110	21	0	14	**35**	10	**75**	1	**86**	**3**	0	0	3	**234**
05:30 PM	0	95	16	111	17	**2**	15	34	**11**	55	1	67	2	**1**	0	3	215
05:45 PM	**1**	**102**	13	**116**	**22**	0	10	32	8	63	0	71	0	0	1	1	220
Total Volume	1	373	58	432	75	2	54	131	37	255	3	295	7	1	7	15	873
% App. Total	0.2	86.3	13.4		57.3	1.5	41.2		12.5	86.4	1		46.7	6.7	46.7		
PHF	.250	.914	.806	.931	.852	.250	.900	.936	.841	.850	.750	.858	.583	.250	.292	.469	.933

PRECISION DATA INDUSTRIES, LLC
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N/S: Everett Street
E/W: Everett Street Ext./ Rear Site Drl
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 DD
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Heavy Vehicles

	Everett Street From North			Everett Street Extension From East			Everett Street From South			Rear Site Drive From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	1	1	0	1	2	0	0	0	0	5
04:30 PM	0	3	0	0	0	0	0	0	0	1	0	0	4
04:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	2
Total	0	4	2	2	1	0	1	2	0	1	0	0	13
05:00 PM	0	0	2	1	0	1	0	0	0	0	0	0	4
05:15 PM	0	1	1	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	1	0	0	0	3	0	0	0	0	4
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	1	3	2	0	1	0	3	0	1	0	0	11
Grand Total	0	5	5	4	1	1	1	5	0	2	0	0	24
Apprch %	0	50	50	66.7	16.7	16.7	16.7	83.3	0	100	0	0	
Total %	0	20.8	20.8	16.7	4.2	4.2	4.2	20.8	0	8.3	0	0	

	Everett Street From North				Everett Street Extension From East				Everett Street From South				Rear Site Drive 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 04:15 PM																	
04:15 PM	0	0	0	0	**1**	**1**	0	**2**	**1**	**2**	0	**3**	0	0	0	0	**5**
04:30 PM	0	**3**	0	**3**	0	0	0	0	0	0	0	0	**1**	0	0	**1**	4
04:45 PM	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	**2**	2	1	0	**1**	2	0	0	0	0	0	0	0	0	4
Total Volume	0	3	3	6	3	1	1	5	1	2	0	3	1	0	0	1	15
% App. Total	0	50	50		60	20	20		33.3	66.7	0		100	0	0		
PHF	.000	.250	.375	.500	.750	.250	.250	.625	.250	.250	.000	.250	.250	.000	.000	.250	.750

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File Name : 112704 DD
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Peds and Bicycles

	Everett Street From North				Everett Street Extension From East				Everett Street From South				Rear Site Drive 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	2	0	0	2	0	0	2	0	3	0	3	0	0	0	5	17
04:15 PM	0	1	0	1	0	0	0	1	1	2	0	2	0	0	0	6	14
04:30 PM	0	4	0	0	0	0	0	0	0	2	0	3	1	0	0	7	17
04:45 PM	0	1	0	0	1	0	0	3	0	3	0	0	0	0	0	3	11
Total	0	8	0	1	3	0	0	6	1	10	0	8	1	0	0	21	59
05:00 PM	0	1	0	0	1	0	0	2	0	2	0	1	0	0	0	8	15
05:15 PM	0	2	1	0	1	0	0	7	0	1	0	1	1	0	0	8	22
05:30 PM	0	0	1	0	0	0	0	0	1	2	1	2	0	0	0	4	11
05:45 PM	0	3	1	0	1	0	0	4	0	2	0	2	0	0	0	8	21
Total	0	6	3	0	3	0	0	13	1	7	1	6	1	0	0	28	69
Grand Total	0	14	3	1	6	0	0	19	2	17	1	14	2	0	0	49	128
Apprch %	0	77.8	16.7	5.6	24	0	0	76	5.9	50	2.9	41.2	3.9	0	0	96.1	
Total %	0	10.9	2.3	0.8	4.7	0	0	14.8	1.6	13.3	0.8	10.9	1.6	0	0	38.3	

	Everett Street From North					Everett Street Extension From East					Everett Street From South					Rear Site Drive 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	0	1	**1**	0	0	2	3	0	**2**	0	1	3	0	0	0	**8**	8	15
05:15 PM	0	2	**1**	0	3	1	0	0	**7**	**8**	0	1	0	1	2	**1**	0	0	8	**9**	**22**
05:30 PM	0	0	1	0	1	0	0	0	0	0	**1**	2	**1**	**2**	**6**	0	0	0	4	4	11
05:45 PM	0	**3**	1	0	**4**	1	0	0	4	5	0	2	0	2	4	0	0	0	8	8	21
Total Volume	0	6	3	0	9	3	0	0	13	16	1	7	1	6	15	1	0	0	28	29	69
% App. Total	0	66.7	33.3	0		18.8	0	0	81.2		6.7	46.7	6.7	40		3.4	0	0	96.6		
PHF	.000	.500	.750	.000	.563	.750	.000	.000	.464	.500	.250	.875	.250	.750	.625	.250	.000	.000	.875	.806	.784

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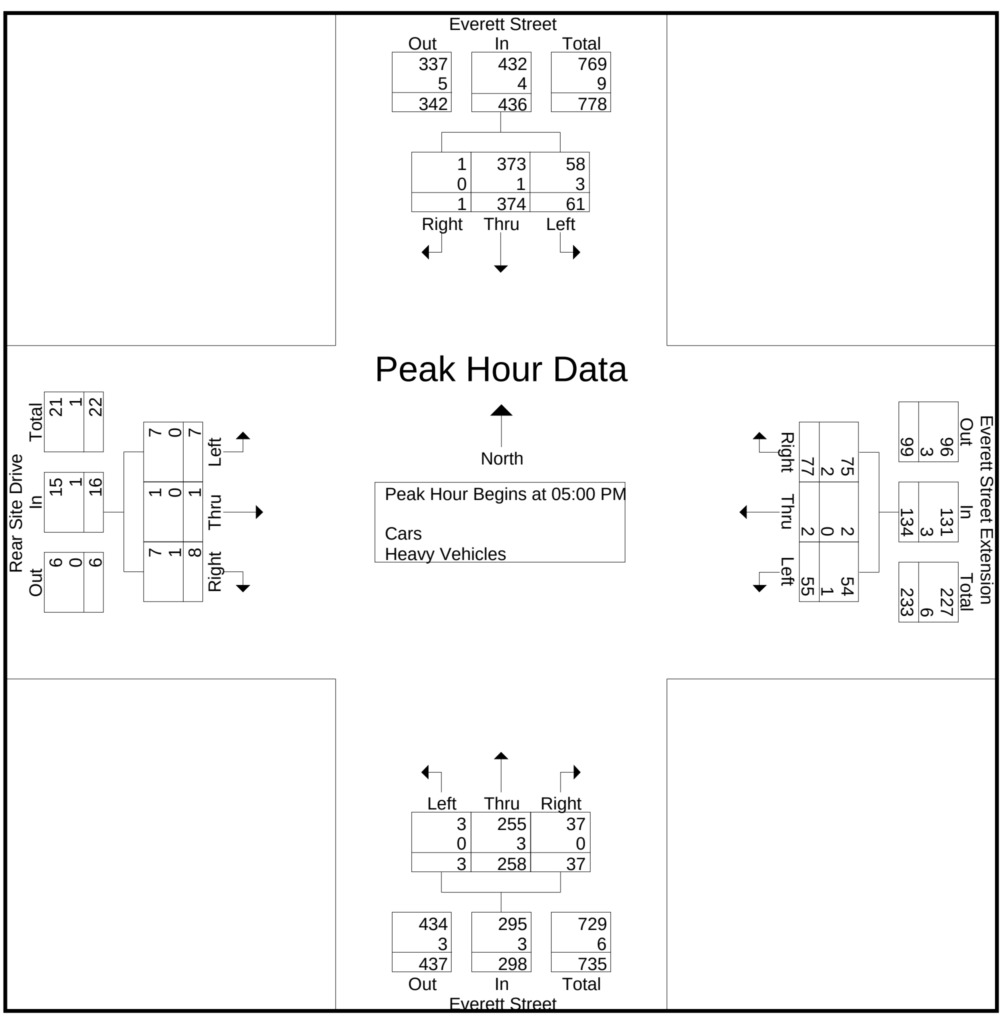
N/S: Everett Street
E/W: Everett Street Ext./ Rear Site Drl
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 DD
Site Code : TBA
Start Date : 11/15/2011

	Everett Street From North				Everett Street Extension From East				Everett Street From South				Rear Site Drive 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	0	77	**20**	97	16	0	**16**	32	8	62	**1**	71	2	0	**6**	**8**	208
05:15 PM	0	100	12	112	21	0	14	**35**	10	**75**	1	**86**	**3**	0	0	3	**236**
05:30 PM	0	95	16	111	18	**2**	15	35	**11**	58	1	70	2	**1**	0	3	219
05:45 PM	**1**	**102**	13	**116**	**22**	0	10	32	8	63	0	71	1	0	1	2	221
Total Volume	1	374	61	436	77	2	55	134	37	258	3	298	8	1	7	16	884
% App. Total	0.2	85.8	14		57.5	1.5	41		12.4	86.6	1		50	6.2	43.8		
PHF	.250	.917	.763	.940	.875	.250	.859	.957	.841	.860	.750	.866	.667	.250	.292	.500	.936
Cars	1	373	58	432	75	2	54	131	37	255	3	295	7	1	7	15	873
% Cars	100	99.7	95.1	99.1	97.4	100	98.2	97.8	100	98.8	100	99.0	87.5	100	100	93.8	98.8
Heavy Vehicles	0	1	3	4	2	0	1	3	0	3	0	3	1	0	0	1	11
% Heavy Vehicles	0	0.3	4.9	0.9	2.6	0	1.8	2.2	0	1.2	0	1.0	12.5	0	0	6.3	1.2



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N/S: Everett Street/ KFC Driveways
E/W: North Beacon Street (Route 20)
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 E
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Everett Street From North			North Beacon Street (Route 20) From East			KFC Driveways From South			North Beacon Street (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	18	0	24	12	91	0	0	0	0	0	121	18	284
07:15 AM	18	0	33	23	78	0	0	0	0	1	119	30	302
07:30 AM	20	0	27	27	75	1	1	0	0	0	126	31	308
07:45 AM	21	1	43	29	94	0	0	0	0	0	115	44	347
Total	77	1	127	91	338	1	1	0	0	1	481	123	1241
08:00 AM	23	1	32	38	103	1	1	0	0	0	129	48	376
08:15 AM	18	0	27	48	92	0	1	0	1	1	130	56	374
08:30 AM	28	0	43	29	86	2	1	0	0	0	130	39	358
08:45 AM	23	0	32	28	97	0	0	0	0	0	135	48	363
Total	92	1	134	143	378	3	3	0	1	1	524	191	1471
Grand Total	169	2	261	234	716	4	4	0	1	2	1005	314	2712
Apprch %	39.1	0.5	60.4	24.5	75.1	0.4	80	0	20	0.2	76.1	23.8	
Total %	6.2	0.1	9.6	8.6	26.4	0.1	0.1	0	0	0.1	37.1	11.6	
Cars	164	2	252	227	655	4	4	0	1	2	939	304	2554
% Cars	97	100	96.6	97	91.5	100	100	0	100	100	93.4	96.8	94.2
Heavy Vehicles	5	0	9	7	61	0	0	0	0	0	66	10	158
% Heavy Vehicles	3	0	3.4	3	8.5	0	0	0	0	0	6.6	3.2	5.8

	Everett Street From North				North Beacon Street (Route 20) From East				KFC Driveways From South				North Beacon Street (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 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	23	**1**	32	56	38	**103**	1	**142**	**1**	0	0	1	0	129	48	177	**376**
08:15 AM	18	0	27	45	**48**	92	0	140	1	0	**1**	**2**	**1**	130	**56**	**187**	374
08:30 AM	**28**	0	**43**	**71**	29	86	**2**	117	1	0	0	1	0	130	39	169	358
08:45 AM	23	0	32	55	28	97	0	125	0	0	0	0	0	**135**	48	183	363
Total Volume	92	1	134	227	143	378	3	524	3	0	1	4	1	524	191	716	1471
% App. Total	40.5	0.4	59		27.3	72.1	0.6		75	0	25		0.1	73.2	26.7		
PHF	.821	.250	.779	.799	.745	.917	.375	.923	.750	.000	.250	.500	.250	.970	.853	.957	.978
Cars	88	1	128	217	137	357	3	497	3	0	1	4	1	486	184	671	1389
% Cars	95.7	100	95.5	95.6	95.8	94.4	100	94.8	100	0	100	100	100	92.7	96.3	93.7	94.4
Heavy Vehicles	4	0	6	10	6	21	0	27	0	0	0	0	0	38	7	45	82
% Heavy Vehicles	4.3	0	4.5	4.4	4.2	5.6	0	5.2	0	0	0	0	0	7.3	3.7	6.3	5.6

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N/S: Everett Street/ KFC Driveways
E/W: North Beacon Street (Route 20)
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 E
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars

	Everett Street From North			North Beacon Street (Route 20) From East			KFC Driveways From South			North Beacon Street (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	18	0	23	12	81	0	0	0	0	0	109	17	260
07:15 AM	18	0	33	23	61	0	0	0	0	1	113	30	279
07:30 AM	19	0	26	27	71	1	1	0	0	0	119	30	294
07:45 AM	21	1	42	28	85	0	0	0	0	0	112	43	332
Total	76	1	124	90	298	1	1	0	0	1	453	120	1165
08:00 AM	22	1	31	34	96	1	1	0	0	0	121	45	352
08:15 AM	17	0	26	46	86	0	1	0	1	1	120	54	352
08:30 AM	27	0	41	29	85	2	1	0	0	0	118	37	340
08:45 AM	22	0	30	28	90	0	0	0	0	0	127	48	345
Total	88	1	128	137	357	3	3	0	1	1	486	184	1389
Grand Total	164	2	252	227	655	4	4	0	1	2	939	304	2554
Apprch %	39.2	0.5	60.3	25.6	73.9	0.5	80	0	20	0.2	75.4	24.4	
Total %	6.4	0.1	9.9	8.9	25.6	0.2	0.2	0	0	0.1	36.8	11.9	

	Everett Street From North				North Beacon Street (Route 20) From East				KFC Driveways From South				North Beacon Street (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 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	22	**1**	31	54	34	**96**	1	131	**1**	0	0	1	0	121	45	166	**352**
08:15 AM	17	0	26	43	**46**	86	0	**132**	1	0	**1**	**2**	**1**	120	**54**	**175**	352
08:30 AM	**27**	0	**41**	**68**	29	85	**2**	116	1	0	0	1	0	118	37	155	340
08:45 AM	22	0	30	52	28	90	0	118	0	0	0	0	0	**127**	48	175	345
Total Volume	88	1	128	217	137	357	3	497	3	0	1	4	1	486	184	671	1389
% App. Total	40.6	0.5	59		27.6	71.8	0.6		75	0	25		0.1	72.4	27.4		
PHF	.815	.250	.780	.798	.745	.930	.375	.941	.750	.000	.250	.500	.250	.957	.852	.959	.987

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Client: VHB/ E. Orlando

File Name : 112704 E
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Heavy Vehicles

	Everett Street From North			North Beacon Street (Route 20) From East			KFC Driveways From South			North Beacon Street (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	1	0	10	0	0	0	0	0	12	1	24
07:15 AM	0	0	0	0	17	0	0	0	0	0	6	0	23
07:30 AM	1	0	1	0	4	0	0	0	0	0	7	1	14
07:45 AM	0	0	1	1	9	0	0	0	0	0	3	1	15
Total	1	0	3	1	40	0	0	0	0	0	28	3	76
08:00 AM	1	0	1	4	7	0	0	0	0	0	8	3	24
08:15 AM	1	0	1	2	6	0	0	0	0	0	10	2	22
08:30 AM	1	0	2	0	1	0	0	0	0	0	12	2	18
08:45 AM	1	0	2	0	7	0	0	0	0	0	8	0	18
Total	4	0	6	6	21	0	0	0	0	0	38	7	82
Grand Total	5	0	9	7	61	0	0	0	0	0	66	10	158
Apprch %	35.7	0	64.3	10.3	89.7	0	0	0	0	0	86.8	13.2	
Total %	3.2	0	5.7	4.4	38.6	0	0	0	0	0	41.8	6.3	

	Everett Street From North				North Beacon Street (Route 20) From East				KFC Driveways From South				North Beacon Street (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 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**1**	0	1	2	**4**	**7**	0	**11**	0	0	0	0	0	8	**3**	11	**24**
08:15 AM	1	0	1	2	2	6	0	8	0	0	0	0	0	10	2	12	22
08:30 AM	1	0	**2**	**3**	0	1	0	1	0	0	0	0	0	**12**	2	**14**	18
08:45 AM	1	0	2	3	0	7	0	7	0	0	0	0	0	8	0	8	18
Total Volume	4	0	6	10	6	21	0	27	0	0	0	0	0	38	7	45	82
% App. Total	40	0	60		22.2	77.8	0		0	0	0		0	84.4	15.6		
PHF	1.000	.000	.750	.833	.375	.750	.000	.614	.000	.000	.000	.000	.000	.792	.583	.804	.854

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File Name : 112704 E
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Page No : 1

Groups Printed- Peds and Bicycles

	Everett Street From North				North Beacon Street (Route 20) From East				KFC Driveways From South				North Beacon Street (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	4	0	0	0	7	0	0	0	17	0	0	0	5	33
07:15 AM	1	0	0	3	0	0	0	8	0	0	0	15	0	3	0	6	36
07:30 AM	0	0	0	4	1	2	0	11	0	0	0	11	0	7	0	5	41
07:45 AM	1	0	0	4	0	3	0	4	0	0	0	9	0	2	0	6	29
Total	2	0	0	15	1	5	0	30	0	0	0	52	0	12	0	22	139
08:00 AM	0	0	2	4	0	0	0	7	0	0	0	13	0	2	1	5	34
08:15 AM	0	0	2	2	0	2	0	3	0	0	0	10	0	4	1	5	29
08:30 AM	1	0	0	13	0	0	0	6	0	0	0	14	0	2	1	3	40
08:45 AM	1	0	1	8	1	4	0	7	0	0	0	12	0	9	0	4	47
Total	2	0	5	27	1	6	0	23	0	0	0	49	0	17	3	17	150
Grand Total	4	0	5	42	2	11	0	53	0	0	0	101	0	29	3	39	289
Apprch %	7.8	0	9.8	82.4	3	16.7	0	80.3	0	0	0	100	0	40.8	4.2	54.9	
Total %	1.4	0	1.7	14.5	0.7	3.8	0	18.3	0	0	0	34.9	0	10	1	13.5	

	Everett Street From North					North Beacon Street (Route 20) From East					KFC Driveways From South					North Beacon Street (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 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	**2**	4	6	0	0	0	**7**	7	0	0	0	13	13	0	2	**1**	**5**	8	34
08:15 AM	0	0	2	2	4	0	2	0	3	5	0	0	0	10	10	0	4	1	5	10	29
08:30 AM	**1**	0	0	**13**	**14**	0	0	0	6	6	0	0	0	**14**	**14**	0	2	1	3	6	40
08:45 AM	1	0	1	8	10	**1**	**4**	0	7	**12**	0	0	0	12	12	0	**9**	0	4	**13**	**47**
Total Volume	2	0	5	27	34	1	6	0	23	30	0	0	0	49	49	0	17	3	17	37	150
% App. Total	5.9	0	14.7	79.4		3.3	20	0	76.7		0	0	0	100		0	45.9	8.1	45.9		
PHF	.500	.000	.625	.519	.607	.250	.375	.000	.821	.625	.000	.000	.000	.875	.875	.000	.472	.750	.850	.712	.798

PRECISION DATA INDUSTRIES, LLC
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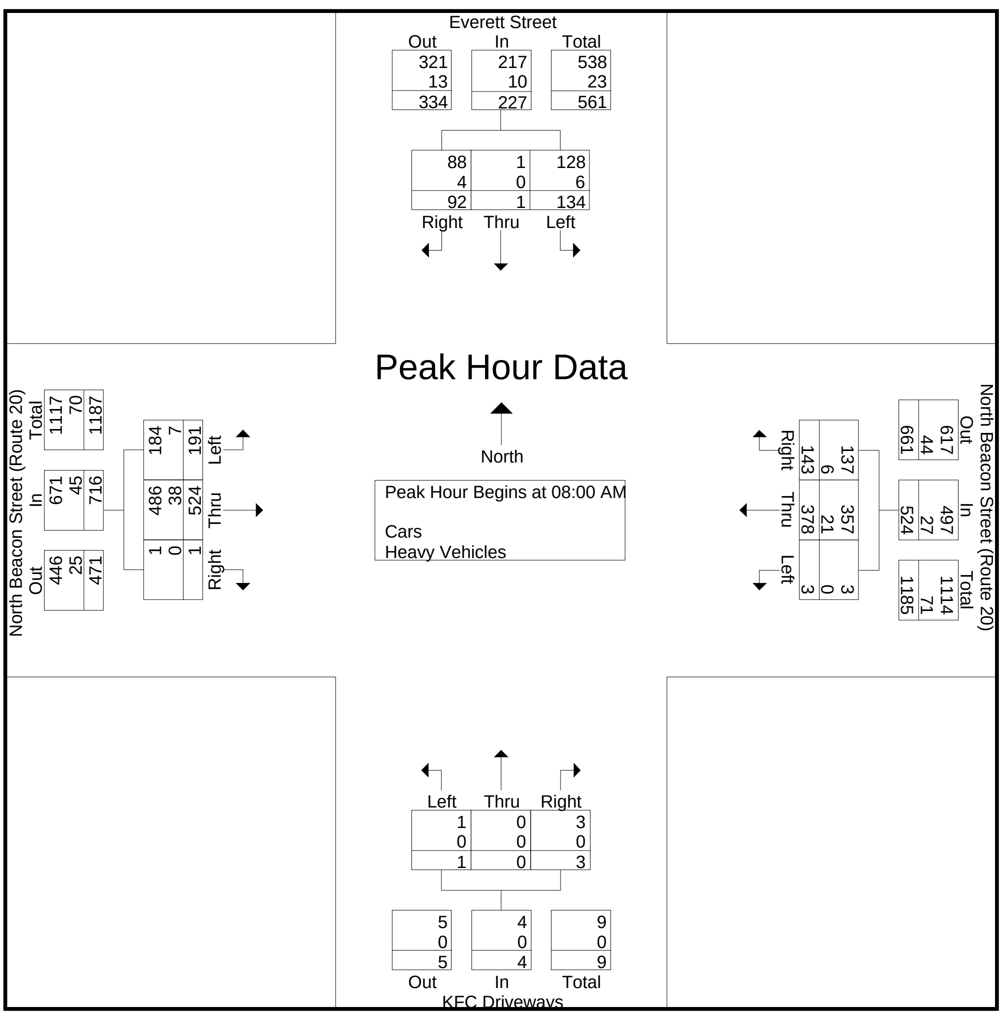
N/S: Everett Street/ KFC Driveways
E/W: North Beacon Street (Route 20)
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 E
Site Code : TBA
Start Date : 11/15/2011

	Everett Street From North				North Beacon Street (Route 20) From East				KFC Driveways From South				North Beacon Street (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 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	23	**1**	32	56	38	**103**	1	**142**	**1**	0	0	1	0	129	48	177	**376**
08:15 AM	18	0	27	45	**48**	92	0	140	1	0	**1**	**2**	**1**	130	**56**	**187**	374
08:30 AM	**28**	0	**43**	**71**	29	86	**2**	117	1	0	0	1	0	130	39	169	358
08:45 AM	23	0	32	55	28	97	0	125	0	0	0	0	0	**135**	48	183	363
Total Volume	92	1	134	227	143	378	3	524	3	0	1	4	1	524	191	716	1471
% App. Total	40.5	0.4	59		27.3	72.1	0.6		75	0	25		0.1	73.2	26.7		
PHF	.821	.250	.779	.799	.745	.917	.375	.923	.750	.000	.250	.500	.250	.970	.853	.957	.978
Cars	88	1	128	217	137	357	3	497	3	0	1	4	1	486	184	671	1389
% Cars	95.7	100	95.5	95.6	95.8	94.4	100	94.8	100	0	100	100	100	92.7	96.3	93.7	94.4
Heavy Vehicles	4	0	6	10	6	21	0	27	0	0	0	0	0	38	7	45	82
% Heavy Vehicles	4.3	0	4.5	4.4	4.2	5.6	0	5.2	0	0	0	0	0	7.3	3.7	6.3	5.6



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N/S: Everett Street/ KFC Driveways
E/W: North Beacon Street (Route 20)
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 EE
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars - Heavy Vehicles

	Everett Street From North			North Beacon Street (Route 20) From East			KFC Driveways From South			North Beacon Street (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	22	1	37	36	103	1	3	1	1	2	129	33	369
04:15 PM	27	1	41	39	98	2	2	0	2	4	107	37	360
04:30 PM	34	2	46	35	92	2	3	0	1	1	108	37	361
04:45 PM	40	2	55	26	88	2	3	1	5	2	102	39	365
Total	123	6	179	136	381	7	11	2	9	9	446	146	1455
05:00 PM	25	1	54	26	117	0	3	0	3	4	145	38	416
05:15 PM	29	1	64	26	100	1	5	0	0	1	126	42	395
05:30 PM	42	0	58	29	135	2	3	0	0	1	126	32	428
05:45 PM	33	1	60	27	103	4	4	0	1	3	141	31	408
Total	129	3	236	108	455	7	15	0	4	9	538	143	1647
Grand Total	252	9	415	244	836	14	26	2	13	18	984	289	3102
Apprch %	37.3	1.3	61.4	22.3	76.4	1.3	63.4	4.9	31.7	1.4	76.2	22.4	
Total %	8.1	0.3	13.4	7.9	27	0.5	0.8	0.1	0.4	0.6	31.7	9.3	
Cars	251	9	409	239	800	14	26	2	13	18	954	288	3023
% Cars	99.6	100	98.6	98	95.7	100	100	100	100	100	97	99.7	97.5
Heavy Vehicles	1	0	6	5	36	0	0	0	0	0	30	1	79
% Heavy Vehicles	0.4	0	1.4	2	4.3	0	0	0	0	0	3	0.3	2.5

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

	Everett Street From North				North Beacon Street (Route 20) From East				KFC Driveways From South				North Beacon Street (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
05:00 PM	25	**1**	54	80	26	117	0	143	3	0	**3**	**6**	**4**	**145**	38	**187**	416
05:15 PM	29	1	**64**	94	26	100	1	127	**5**	0	0	5	1	126	**42**	169	395
05:30 PM	**42**	0	58	**100**	**29**	**135**	2	**166**	3	0	0	3	1	126	32	159	**428**
05:45 PM	33	1	60	94	27	103	**4**	134	4	0	1	5	3	141	31	175	408
Total Volume	129	3	236	368	108	455	7	570	15	0	4	19	9	538	143	690	1647
% App. Total	35.1	0.8	64.1		18.9	79.8	1.2		78.9	0	21.1		1.3	78	20.7		
PHF	.768	.750	.922	.920	.931	.843	.438	.858	.750	.000	.333	.792	.563	.928	.851	.922	.962
Cars	129	3	235	367	106	438	7	551	15	0	4	19	9	526	143	678	1615
% Cars	100	100	99.6	99.7	98.1	96.3	100	96.7	100	0	100	100	100	97.8	100	98.3	98.1
Heavy Vehicles	0	0	1	1	2	17	0	19	0	0	0	0	0	12	0	12	32
% Heavy Vehicles	0	0	0.4	0.3	1.9	3.7	0	3.3	0	0	0	0	0	2.2	0	1.7	1.9

PRECISION
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N/S: Everett Street/ KFC Driveways
E/W: North Beacon Street (Route 20)
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 EE
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars

	Everett Street From North			North Beacon Street (Route 20) From East			KFC Driveways From South			North Beacon Street (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	21	1	36	35	100	1	3	1	1	2	125	33	359
04:15 PM	27	1	40	38	95	2	2	0	2	4	102	36	349
04:30 PM	34	2	44	34	86	2	3	0	1	1	105	37	349
04:45 PM	40	2	54	26	81	2	3	1	5	2	96	39	351
Total	122	6	174	133	362	7	11	2	9	9	428	145	1408
05:00 PM	25	1	54	26	113	0	3	0	3	4	143	38	410
05:15 PM	29	1	64	26	97	1	5	0	0	1	119	42	385
05:30 PM	42	0	57	27	128	2	3	0	0	1	124	32	416
05:45 PM	33	1	60	27	100	4	4	0	1	3	140	31	404
Total	129	3	235	106	438	7	15	0	4	9	526	143	1615
Grand Total	251	9	409	239	800	14	26	2	13	18	954	288	3023
Apprch %	37.5	1.3	61.1	22.7	76	1.3	63.4	4.9	31.7	1.4	75.7	22.9	
Total %	8.3	0.3	13.5	7.9	26.5	0.5	0.9	0.1	0.4	0.6	31.6	9.5	

	Everett Street From North				North Beacon Street (Route 20) From East				KFC Driveways From South				North Beacon Street (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 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	25	**1**	54	80	26	113	0	139	3	0	**3**	**6**	**4**	**143**	38	**185**	410
05:15 PM	29	1	**64**	94	26	97	1	124	**5**	0	0	5	1	119	**42**	162	385
05:30 PM	**42**	0	57	**99**	**27**	**128**	2	**157**	3	0	0	3	1	124	32	157	**416**
05:45 PM	33	1	60	94	27	100	**4**	131	4	0	1	5	3	140	31	174	404
Total Volume	129	3	235	367	106	438	7	551	15	0	4	19	9	526	143	678	1615
% App. Total	35.1	0.8	64		19.2	79.5	1.3		78.9	0	21.1		1.3	77.6	21.1		
PHF	.768	.750	.918	.927	.981	.855	.438	.877	.750	.000	.333	.792	.563	.920	.851	.916	.971

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N/S: Everett Street/ KFC Driveways
E/W: North Beacon Street (Route 20)
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 EE
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Heavy Vehicles

	Everett Street From North			North Beacon Street (Route 20) From East			KFC Driveways From South			North Beacon Street (Route 20) From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	1	0	1	1	3	0	0	0	0	0	4	0	10
04:15 PM	0	0	1	1	3	0	0	0	0	0	5	1	11
04:30 PM	0	0	2	1	6	0	0	0	0	0	3	0	12
04:45 PM	0	0	1	0	7	0	0	0	0	0	6	0	14
Total	1	0	5	3	19	0	0	0	0	0	18	1	47
05:00 PM	0	0	0	0	4	0	0	0	0	0	2	0	6
05:15 PM	0	0	0	0	3	0	0	0	0	0	7	0	10
05:30 PM	0	0	1	2	7	0	0	0	0	0	2	0	12
05:45 PM	0	0	0	0	3	0	0	0	0	0	1	0	4
Total	0	0	1	2	17	0	0	0	0	0	12	0	32
Grand Total	1	0	6	5	36	0	0	0	0	0	30	1	79
Apprch %	14.3	0	85.7	12.2	87.8	0	0	0	0	0	96.8	3.2	
Total %	1.3	0	7.6	6.3	45.6	0	0	0	0	0	38	1.3	

	Everett Street From North				North Beacon Street (Route 20) From East				KFC Driveways From South				North Beacon Street (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 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	0	1	**2**	**1**	3	0	4	0	0	0	0	0	4	0	4	10
04:15 PM	0	0	1	1	1	3	0	4	0	0	0	0	0	5	**1**	**6**	11
04:30 PM	0	0	**2**	2	1	6	0	**7**	0	0	0	0	0	3	0	3	12
04:45 PM	0	0	1	1	0	**7**	0	7	0	0	0	0	0	**6**	0	6	**14**
Total Volume	1	0	5	6	3	19	0	22	0	0	0	0	0	18	1	19	47
% App. Total	16.7	0	83.3		13.6	86.4	0		0	0	0		0	94.7	5.3		
PHF	.250	.000	.625	.750	.750	.679	.000	.786	.000	.000	.000	.000	.000	.750	.250	.792	.839

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N/S: Everett Street/ KFC Driveways
E/W: North Beacon Street (Route 20)
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 EE
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Peds and Bicycles

	Everett Street From North				North Beacon Street (Route 20) From East				KFC Driveways From South				North Beacon Street (Route 20) 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	14	1	3	0	7	0	0	0	33	0	1	0	8	67
04:15 PM	0	0	0	10	0	3	0	4	0	0	0	17	0	3	0	15	52
04:30 PM	0	0	1	8	0	1	0	5	0	0	0	18	0	6	0	8	47
04:45 PM	0	0	2	1	0	0	0	3	1	0	0	9	0	2	0	5	23
Total	0	0	3	33	1	7	0	19	1	0	0	77	0	12	0	36	189
05:00 PM	0	0	0	6	0	1	0	5	0	0	0	12	0	1	0	11	36
05:15 PM	0	0	0	8	0	0	0	3	0	0	0	6	0	0	0	10	27
05:30 PM	0	0	0	3	0	2	0	7	0	0	0	8	0	0	0	3	23
05:45 PM	0	0	0	4	2	0	0	2	0	0	0	3	0	2	0	4	17
Total	0	0	0	21	2	3	0	17	0	0	0	29	0	3	0	28	103
Grand Total	0	0	3	54	3	10	0	36	1	0	0	106	0	15	0	64	292
Apprch %	0	0	5.3	94.7	6.1	20.4	0	73.5	0.9	0	0	99.1	0	19	0	81	
Total %	0	0	1	18.5	1	3.4	0	12.3	0.3	0	0	36.3	0	5.1	0	21.9	

	Everett Street From North					North Beacon Street (Route 20) From East					KFC Driveways From South					North Beacon Street (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 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	**14**	**14**	**1**	**3**	0	**7**	**11**	0	0	0	**33**	**33**	0	1	0	8	9	**67**
04:15 PM	0	0	0	10	10	0	3	0	4	7	0	0	0	17	17	0	3	0	**15**	**18**	52
04:30 PM	0	0	1	8	9	0	1	0	5	6	0	0	0	18	18	0	**6**	0	8	14	47
04:45 PM	0	0	**2**	1	3	0	0	0	3	3	**1**	0	0	9	10	0	2	0	5	7	23
Total Volume	0	0	3	33	36	1	7	0	19	27	1	0	0	77	78	0	12	0	36	48	189
% App. Total	0	0	8.3	91.7		3.7	25.9	0	70.4		1.3	0	0	98.7		0	25	0	75		
PHF	.000	.000	.375	.589	.643	.250	.583	.000	.679	.614	.250	.000	.000	.583	.591	.000	.500	.000	.600	.667	.705

N/S: Everett Street/ KFC Driveways
E/W: North Beacon Street (Route 20)
City, State: Brighton, MA
Client: VHB/ E. Orlando

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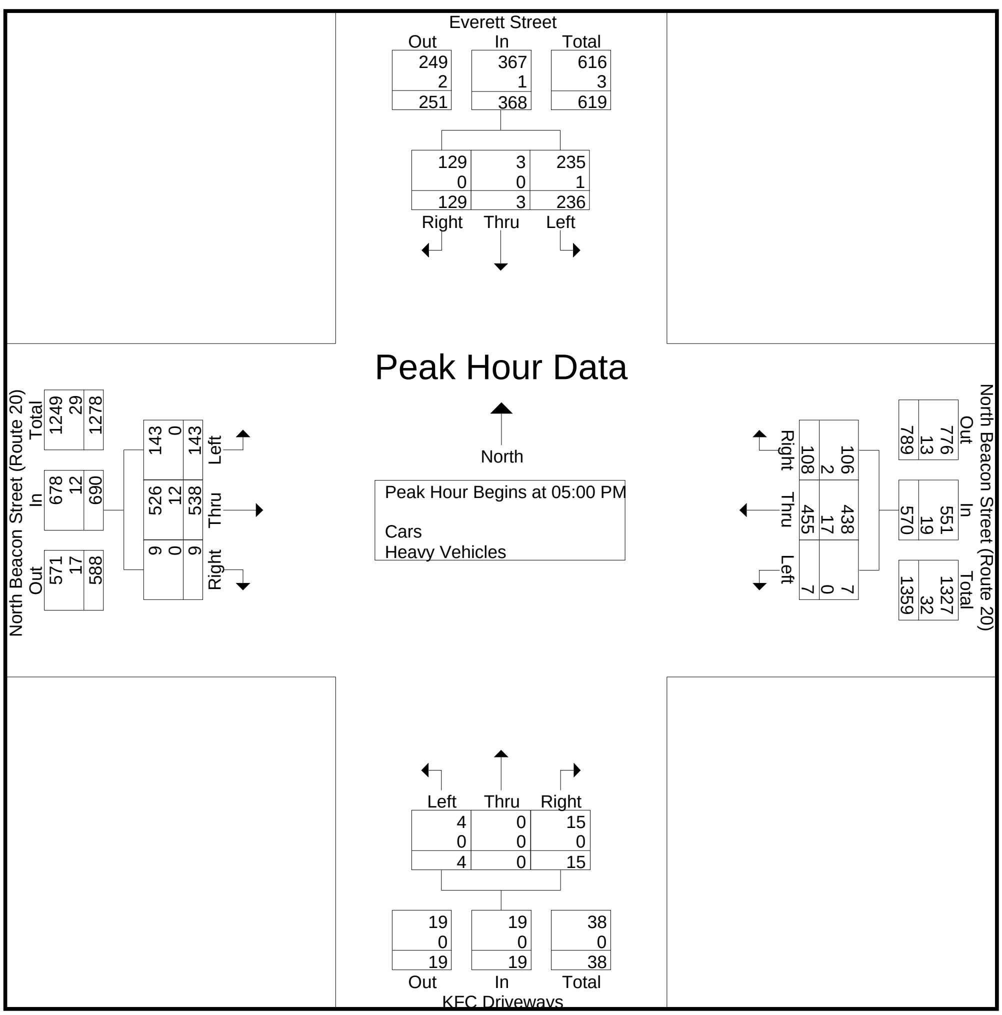
File Name : 112704 EE
Site Code : TBA
Start Date : 11/15/2011

	Everett Street From North				North Beacon Street (Route 20) From East				KFC Driveways From South				North Beacon Street (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 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	25	**1**	54	80	26	117	0	143	3	0	**3**	**6**	**4**	**145**	38	**187**	416
05:15 PM	29	1	**64**	94	26	100	1	127	**5**	0	0	5	1	126	**42**	169	395
05:30 PM	**42**	0	58	**100**	**29**	**135**	2	**166**	3	0	0	3	1	126	32	159	**428**
05:45 PM	33	1	60	94	27	103	**4**	134	4	0	1	5	3	141	31	175	408
Total Volume	129	3	236	368	108	455	7	570	15	0	4	19	9	538	143	690	1647
% App. Total	35.1	0.8	64.1		18.9	79.8	1.2		78.9	0	21.1		1.3	78	20.7		
PHF	.768	.750	.922	.920	.931	.843	.438	.858	.750	.000	.333	.792	.563	.928	.851	.922	.962
Cars	129	3	235	367	106	438	7	551	15	0	4	19	9	526	143	678	1615
% Cars	100	100	99.6	99.7	98.1	96.3	100	96.7	100	0	100	100	100	97.8	100	98.3	98.1
Heavy Vehicles	0	0	1	1	2	17	0	19	0	0	0	0	0	12	0	12	32
% Heavy Vehicles	0	0	0.4	0.3	1.9	3.7	0	3.3	0	0	0	0	0	2.2	0	1.7	1.9



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N/S: Birmingham Parkway/ Market Street
E/W: Lincoln Street/ Birmingham Parkway
City, State: Brighton,MA
Client: VHB/ E. Orlando

File Name : 112704 F
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Birmingham Parkway From North				Lincoln Street From East			Market Street From South				Birmingham Parkway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	16	114	0	1	12	28	20	0	129	5	0	19	0	34	0	378
07:15 AM	17	139	0	3	8	28	27	0	168	13	0	7	0	35	0	445
07:30 AM	34	164	0	0	11	39	31	0	185	9	0	5	0	56	0	534
07:45 AM	24	159	0	1	11	48	29	0	163	6	0	11	0	78	0	530
Total	91	576	0	5	42	143	107	0	645	33	0	42	0	203	0	1887
08:00 AM	21	167	0	0	6	28	28	0	198	10	0	17	0	76	1	552
08:15 AM	20	191	0	7	15	54	24	0	173	7	0	21	0	78	0	590
08:30 AM	29	185	0	3	10	38	28	0	183	13	0	13	0	92	0	594
08:45 AM	23	193	0	6	13	31	21	0	174	7	0	20	0	78	0	566
Total	93	736	0	16	44	151	101	0	728	37	0	71	0	324	1	2302
Grand Total	184	1312	0	21	86	294	208	0	1373	70	0	113	0	527	1	4189
Apprch %	12.1	86.5	0	1.4	14.6	50	35.4	0	95.1	4.9	0	17.6	0	82.2	0.2	
Total %	4.4	31.3	0	0.5	2.1	7	5	0	32.8	1.7	0	2.7	0	12.6	0	
Cars	172	1250	0	21	81	289	191	0	1324	67	0	111	0	506	1	4013
% Cars	93.5	95.3	0	100	94.2	98.3	91.8	0	96.4	95.7	0	98.2	0	96	100	95.8
Heavy Vehicles	12	62	0	0	5	5	17	0	49	3	0	2	0	21	0	176
% Heavy Vehicles	6.5	4.7	0	0	5.8	1.7	8.2	0	3.6	4.3	0	1.8	0	4	0	4.2

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

	Birmingham Parkway From North					Lincoln Street From East				Market Street From South					Birmingham Parkway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
08:00 AM	21	167	0	0	188	6	28	**28**	62	0	**198**	10	0	**208**	17	0	76	**1**	94	552
08:15 AM	20	191	0	**7**	218	**15**	**54**	24	**93**	0	173	7	0	180	**21**	0	78	0	99	590
08:30 AM	**29**	185	0	3	217	10	38	28	76	0	183	**13**	0	196	13	0	**92**	0	**105**	**594**
08:45 AM	23	**193**	0	6	**222**	13	31	21	65	0	174	7	0	181	20	0	78	0	98	566
Total Volume	93	736	0	16	845	44	151	101	296	0	728	37	0	765	71	0	324	1	396	2302
% App. Total	11	87.1	0	1.9		14.9	51	34.1		0	95.2	4.8	0		17.9	0	81.8	0.3		
PHF	.802	.953	.000	.571	.952	.733	.699	.902	.796	.000	.919	.712	.000	.919	.845	.000	.880	.250	.943	.969
Cars	88	707	0	16	811	40	151	92	283	0	697	35	0	732	70	0	313	1	384	2210
% Cars	94.6	96.1	0	100	96.0	90.9	100	91.1	95.6	0	95.7	94.6	0	95.7	98.6	0	96.6	100	97.0	96.0
Heavy Vehicles	5	29	0	0	34	4	0	9	13	0	31	2	0	33	1	0	11	0	12	92
% Heavy Vehicles	5.4	3.9	0	0	4.0	9.1	0	8.9	4.4	0	4.3	5.4	0	4.3	1.4	0	3.4	0	3.0	4.0

N/S: Birmingham Parkway/ Market Street
E/W: Lincoln Street/ Birmingham Parkway
City, State: Brighton,MA
Client: VHB/ E. Orlando

PRECISION
D A T A
INDUSTRIES, LLC
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File Name : 112704 F
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars

	Birmingham Parkway From North				Lincoln Street From East			Market Street From South				Birmingham Parkway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	16	106	0	1	12	27	18	0	125	5	0	18	0	32	0	360
07:15 AM	16	130	0	3	8	27	25	0	164	12	0	7	0	35	0	427
07:30 AM	28	157	0	0	10	36	29	0	183	9	0	5	0	52	0	509
07:45 AM	24	150	0	1	11	48	27	0	155	6	0	11	0	74	0	507
Total	84	543	0	5	41	138	99	0	627	32	0	41	0	193	0	1803
08:00 AM	21	162	0	0	6	28	25	0	191	10	0	17	0	75	1	536
08:15 AM	19	180	0	7	15	54	21	0	168	6	0	21	0	74	0	565
08:30 AM	25	180	0	3	9	38	27	0	178	12	0	13	0	87	0	572
08:45 AM	23	185	0	6	10	31	19	0	160	7	0	19	0	77	0	537
Total	88	707	0	16	40	151	92	0	697	35	0	70	0	313	1	2210
Grand Total	172	1250	0	21	81	289	191	0	1324	67	0	111	0	506	1	4013
Apprch %	11.9	86.6	0	1.5	14.4	51.5	34	0	95.2	4.8	0	18	0	81.9	0.2	
Total %	4.3	31.1	0	0.5	2	7.2	4.8	0	33	1.7	0	2.8	0	12.6	0	

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

	Birmingham Parkway From North					Lincoln Street From East				Market Street From South					Birmingham Parkway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
08:00 AM	21	162	0	0	183	6	28	25	59	0	**191**	10	0	**201**	17	0	75	**1**	93	536
08:15 AM	19	180	0	**7**	206	**15**	**54**	21	**90**	0	168	6	0	174	**21**	0	74	0	95	565
08:30 AM	**25**	180	0	3	208	9	38	**27**	74	0	178	**12**	0	190	13	0	**87**	0	**100**	**572**
08:45 AM	23	**185**	0	6	**214**	10	31	19	60	0	160	7	0	167	19	0	77	0	96	537
Total Volume	88	707	0	16	811	40	151	92	283	0	697	35	0	732	70	0	313	1	384	2210
% App. Total	10.9	87.2	0	2		14.1	53.4	32.5		0	95.2	4.8	0		18.2	0	81.5	0.3		
PHF	.880	.955	.000	.571	.947	.667	.699	.852	.786	.000	.912	.729	.000	.910	.833	.000	.899	.250	.960	.966

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N/S: Birmingham Parkway/ Market Street
E/W: Lincoln Street/ Birmingham Parkway
City, State: Brighton,MA
Client: VHB/ E. Orlando

File Name : 112704 F
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Heavy Vehicles

	Birmingham Parkway From North				Lincoln Street From East			Market Street From South				Birmingham Parkway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	8	0	0	0	1	2	0	4	0	0	1	0	2	0	18
07:15 AM	1	9	0	0	0	1	2	0	4	1	0	0	0	0	0	18
07:30 AM	6	7	0	0	1	3	2	0	2	0	0	0	0	4	0	25
07:45 AM	0	9	0	0	0	0	2	0	8	0	0	0	0	4	0	23
Total	7	33	0	0	1	5	8	0	18	1	0	1	0	10	0	84
08:00 AM	0	5	0	0	0	0	3	0	7	0	0	0	0	1	0	16
08:15 AM	1	11	0	0	0	0	3	0	5	1	0	0	0	4	0	25
08:30 AM	4	5	0	0	1	0	1	0	5	1	0	0	0	5	0	22
08:45 AM	0	8	0	0	3	0	2	0	14	0	0	1	0	1	0	29
Total	5	29	0	0	4	0	9	0	31	2	0	1	0	11	0	92
Grand Total	12	62	0	0	5	5	17	0	49	3	0	2	0	21	0	176
Apprch %	16.2	83.8	0	0	18.5	18.5	63	0	94.2	5.8	0	8.7	0	91.3	0	
Total %	6.8	35.2	0	0	2.8	2.8	9.7	0	27.8	1.7	0	1.1	0	11.9	0	

	Birmingham Parkway From North					Lincoln Street From East				Market Street From South					Birmingham Parkway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	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	5	0	0	5	0	0	**3**	3	0	7	0	0	7	0	0	1	0	1	16
08:15 AM	1	**11**	0	0	**12**	0	0	3	3	0	5	**1**	0	6	0	0	4	0	4	25
08:30 AM	**4**	5	0	0	9	1	0	1	2	0	5	1	0	6	0	0	**5**	0	**5**	22
08:45 AM	0	8	0	0	8	**3**	0	2	**5**	0	**14**	0	0	**14**	**1**	0	1	0	2	**29**
Total Volume	5	29	0	0	34	4	0	9	13	0	31	2	0	33	1	0	11	0	12	92
% App. Total	14.7	85.3	0	0		30.8	0	69.2		0	93.9	6.1	0		8.3	0	91.7	0		
PHF	.313	.659	.000	.000	.708	.333	.000	.750	.650	.000	.554	.500	.000	.589	.250	.000	.550	.000	.600	.793

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City, State: Brighton,MA
Client: VHB/ E. Orlando

File Name : 112704 F
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Peds and Bicycles

	Birmingham Parkway From North				Lincoln Street From East				Market Street From South				Birmingham Parkway 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	1	2	0	1	0	0	0	5	0	0	0	0	0	0	0	0	9
07:15 AM	0	1	0	0	0	0	0	4	0	2	0	0	0	0	0	0	7
07:30 AM	0	0	0	0	0	0	0	8	0	3	0	0	0	0	0	1	12
07:45 AM	0	0	0	0	0	0	0	6	0	2	0	0	0	0	2	1	11
Total	1	3	0	1	0	0	0	23	0	7	0	0	0	0	2	2	39
08:00 AM	0	0	0	0	0	0	0	11	0	3	0	0	0	0	1	0	15
08:15 AM	0	2	0	0	0	0	0	9	0	3	0	0	0	0	0	2	16
08:30 AM	0	2	0	0	0	1	1	7	0	6	0	0	0	0	1	1	19
08:45 AM	0	5	0	0	0	0	1	10	0	2	0	1	0	0	0	1	20
Total	0	9	0	0	0	1	2	37	0	14	0	1	0	0	2	4	70
Grand Total	1	12	0	1	0	1	2	60	0	21	0	1	0	0	4	6	109
Apprch %	7.1	85.7	0	7.1	0	1.6	3.2	95.2	0	95.5	0	4.5	0	0	40	60	
Total %	0.9	11	0	0.9	0	0.9	1.8	55	0	19.3	0	0.9	0	0	3.7	5.5	

	Birmingham Parkway From North					Lincoln Street From East					Market Street From South					Birmingham Parkway 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	0	0	0	0	0	**11**	**11**	0	3	0	0	3	0	0	**1**	0	1	15
08:15 AM	0	2	0	0	2	0	0	0	9	9	0	3	0	0	3	0	0	0	**2**	**2**	16
08:30 AM	0	2	0	0	2	0	**1**	**1**	7	9	0	**6**	0	0	**6**	0	0	1	1	2	19
08:45 AM	0	**5**	0	0	**5**	0	0	1	10	11	0	2	0	**1**	3	0	0	0	1	1	**20**
Total Volume	0	9	0	0	9	0	1	2	37	40	0	14	0	1	15	0	0	2	4	6	70
% App. Total	0	100	0	0		0	2.5	5	92.5		0	93.3	0	6.7		0	0	33.3	66.7		
PHF	.000	.450	.000	.000	.450	.000	.250	.500	.841	.909	.000	.583	.000	.250	.625	.000	.000	.500	.500	.750	.875

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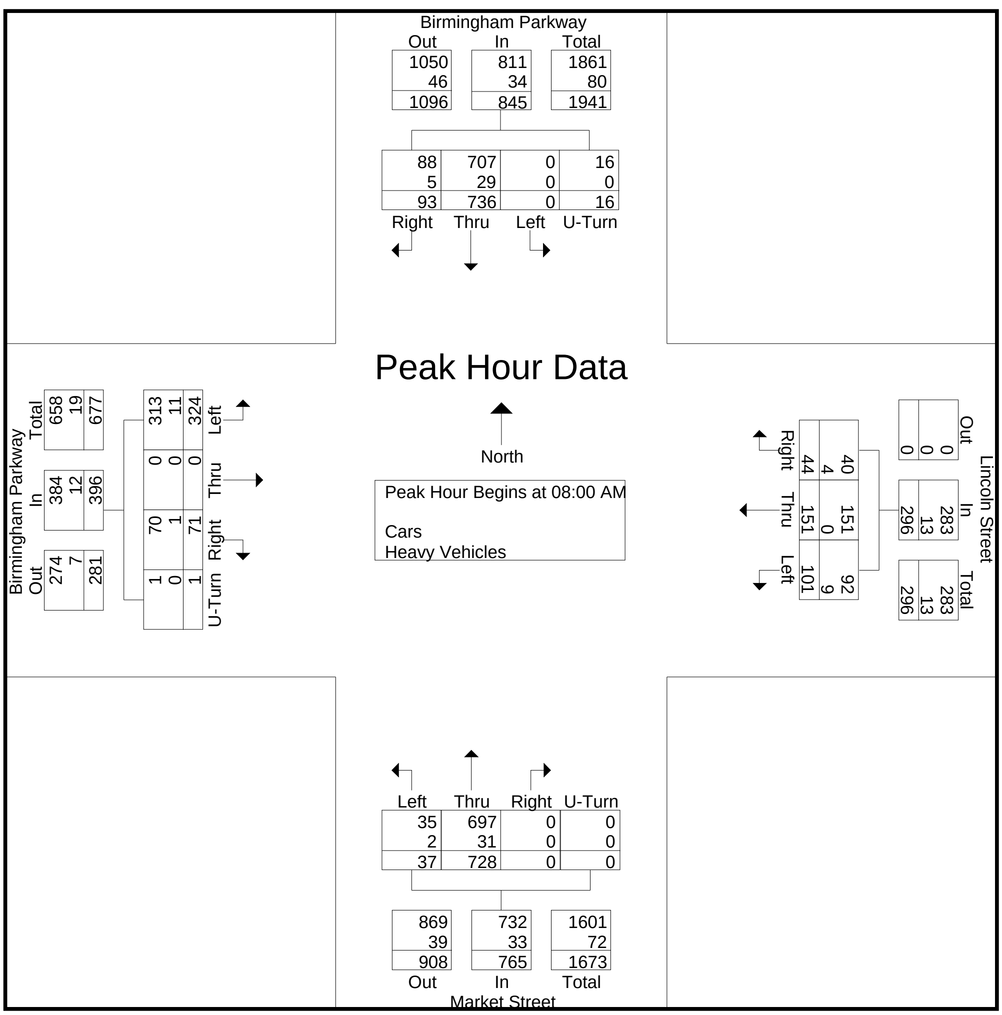
	Birmingham Parkway From North					Lincoln Street From East				Market Street From South					Birmingham Parkway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 08:00 AM																				
08:00 AM	21	167	0	0	188	6	28	**28**	62	0	**198**	10	0	**208**	17	0	76	**1**	94	552
08:15 AM	20	191	0	**7**	218	**15**	**54**	24	**93**	0	173	7	0	180	**21**	0	78	0	99	590
08:30 AM	**29**	185	0	3	217	10	38	28	76	0	183	**13**	0	196	13	0	**92**	0	**105**	**594**
08:45 AM	23	**193**	0	6	**222**	13	31	21	65	0	174	7	0	181	20	0	78	0	98	566
Total Volume	93	736	0	16	845	44	151	101	296	0	728	37	0	765	71	0	324	1	396	2302
% App. Total	11	87.1	0	1.9		14.9	51	34.1		0	95.2	4.8	0		17.9	0	81.8	0.3		
PHF	.802	.953	.000	.571	.952	.733	.699	.902	.796	.000	.919	.712	.000	.919	.845	.000	.880	.250	.943	.969
Cars	88	707	0	16	811	40	151	92	283	0	697	35	0	732	70	0	313	1	384	2210
% Cars	94.6	96.1	0	100	96.0	90.9	100	91.1	95.6	0	95.7	94.6	0	95.7	98.6	0	96.6	100	97.0	96.0
Heavy Vehicles	5	29	0	0	34	4	0	9	13	0	31	2	0	33	1	0	11	0	12	92
% Heavy Vehicles	5.4	3.9	0	0	4.0	9.1	0	8.9	4.4	0	4.3	5.4	0	4.3	1.4	0	3.4	0	3.0	4.0



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City, State: Brighton,MA
Client: VHB/ E. Orlando

File Name : 112704 FF
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Cars - Heavy Vehicles

	Birmingham Parkway From North				Lincoln Street From East			Market Street From South				Birmingham Parkway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	29	186	0	3	12	42	23	0	215	21	0	13	0	47	0	591
04:15 PM	47	212	0	0	12	30	19	0	221	11	0	12	0	52	0	616
04:30 PM	39	207	0	0	14	33	28	0	192	26	0	10	0	34	0	583
04:45 PM	34	208	0	0	16	39	25	0	191	20	0	6	0	44	1	584
Total	149	813	0	3	54	144	95	0	819	78	0	41	0	177	1	2374
05:00 PM	43	199	0	4	13	45	31	0	259	28	0	11	0	50	0	683
05:15 PM	54	201	0	0	10	45	26	0	241	27	0	12	0	51	0	667
05:30 PM	37	231	0	0	11	61	29	0	235	26	0	10	0	30	0	670
05:45 PM	46	222	0	0	11	34	23	0	207	16	0	10	0	42	0	611
Total	180	853	0	4	45	185	109	0	942	97	0	43	0	173	0	2631
Grand Total	329	1666	0	7	99	329	204	0	1761	175	0	84	0	350	1	5005
Apprch %	16.4	83.2	0	0.3	15.7	52.1	32.3	0	91	9	0	19.3	0	80.5	0.2	
Total %	6.6	33.3	0	0.1	2	6.6	4.1	0	35.2	3.5	0	1.7	0	7	0	
Cars	325	1635	0	7	97	328	196	0	1729	174	0	82	0	341	0	4914
% Cars	98.8	98.1	0	100	98	99.7	96.1	0	98.2	99.4	0	97.6	0	97.4	0	98.2
Heavy Vehicles	4	31	0	0	2	1	8	0	32	1	0	2	0	9	1	91
% Heavy Vehicles	1.2	1.9	0	0	2	0.3	3.9	0	1.8	0.6	0	2.4	0	2.6	100	1.8

	Birmingham Parkway From North					Lincoln Street From East				Market Street From South					Birmingham Parkway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	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	43	199	0	**4**	246	**13**	45	**31**	89	0	**259**	**28**	0	**287**	11	0	50	0	61	**683**
05:15 PM	**54**	201	0	0	255	10	45	26	81	0	241	27	0	268	**12**	0	**51**	0	**63**	667
05:30 PM	37	**231**	0	0	**268**	11	**61**	29	**101**	0	235	26	0	261	10	0	30	0	40	670
05:45 PM	46	222	0	0	268	11	34	23	68	0	207	16	0	223	10	0	42	0	52	611
Total Volume	180	853	0	4	1037	45	185	109	339	0	942	97	0	1039	43	0	173	0	216	2631
% App. Total	17.4	82.3	0	0.4		13.3	54.6	32.2		0	90.7	9.3	0		19.9	0	80.1	0		
PHF	.833	.923	.000	.250	.967	.865	.758	.879	.839	.000	.909	.866	.000	.905	.896	.000	.848	.000	.857	.963
Cars	179	842	0	4	1025	45	184	106	335	0	925	97	0	1022	43	0	172	0	215	2597
% Cars	99.4	98.7	0	100	98.8	100	99.5	97.2	98.8	0	98.2	100	0	98.4	100	0	99.4	0	99.5	98.7
Heavy Vehicles	1	11	0	0	12	0	1	3	4	0	17	0	0	17	0	0	1	0	1	34
% Heavy Vehicles	0.6	1.3	0	0	1.2	0	0.5	2.8	1.2	0	1.8	0	0	1.6	0	0	0.6	0	0.5	1.3

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Page No : 1

Groups Printed- Cars

	Birmingham Parkway From North				Lincoln Street From East			Market Street From South				Birmingham Parkway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	28	182	0	3	10	42	22	0	210	21	0	13	0	44	0	575
04:15 PM	46	207	0	0	12	30	17	0	219	11	0	11	0	49	0	602
04:30 PM	38	201	0	0	14	33	26	0	190	25	0	9	0	33	0	569
04:45 PM	34	203	0	0	16	39	25	0	185	20	0	6	0	43	0	571
Total	146	793	0	3	52	144	90	0	804	77	0	39	0	169	0	2317
05:00 PM	43	196	0	4	13	45	31	0	255	28	0	11	0	49	0	675
05:15 PM	54	198	0	0	10	45	24	0	236	27	0	12	0	51	0	657
05:30 PM	37	229	0	0	11	61	28	0	230	26	0	10	0	30	0	662
05:45 PM	45	219	0	0	11	33	23	0	204	16	0	10	0	42	0	603
Total	179	842	0	4	45	184	106	0	925	97	0	43	0	172	0	2597
Grand Total	325	1635	0	7	97	328	196	0	1729	174	0	82	0	341	0	4914
Apprch %	16.5	83.1	0	0.4	15.6	52.8	31.6	0	90.9	9.1	0	19.4	0	80.6	0	
Total %	6.6	33.3	0	0.1	2	6.7	4	0	35.2	3.5	0	1.7	0	6.9	0	

	Birmingham Parkway From North					Lincoln Street From East				Market Street From South					Birmingham Parkway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	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	43	196	0	**4**	243	**13**	45	**31**	89	0	**255**	**28**	0	**283**	11	0	49	0	60	**675**
05:15 PM	**54**	198	0	0	252	10	45	24	79	0	236	27	0	263	**12**	0	**51**	0	**63**	657
05:30 PM	37	**229**	0	0	**266**	11	**61**	28	**100**	0	230	26	0	256	10	0	30	0	40	662
05:45 PM	45	219	0	0	264	11	33	23	67	0	204	16	0	220	10	0	42	0	52	603
Total Volume	179	842	0	4	1025	45	184	106	335	0	925	97	0	1022	43	0	172	0	215	2597
% App. Total	17.5	82.1	0	0.4		13.4	54.9	31.6		0	90.5	9.5	0		20	0	80	0		
PHF	.829	.919	.000	.250	.963	.865	.754	.855	.838	.000	.907	.866	.000	.903	.896	.000	.843	.000	.853	.962

PRECISION
DATA
INDUSTRIES, LLC
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N/S: Birmingham Parkway/ Market Street
E/W: Lincoln Street/ Birmingham Parkway
City, State: Brighton,MA
Client: VHB/ E. Orlando

File Name : 112704 FF
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Heavy Vehicles

	Birmingham Parkway From North				Lincoln Street From East			Market Street From South				Birmingham Parkway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	1	4	0	0	2	0	1	0	5	0	0	0	0	3	0	16
04:15 PM	1	5	0	0	0	0	2	0	2	0	0	1	0	3	0	14
04:30 PM	1	6	0	0	0	0	2	0	2	1	0	1	0	1	0	14
04:45 PM	0	5	0	0	0	0	0	0	6	0	0	0	0	1	1	13
Total	3	20	0	0	2	0	5	0	15	1	0	2	0	8	1	57
05:00 PM	0	3	0	0	0	0	0	0	4	0	0	0	0	1	0	8
05:15 PM	0	3	0	0	0	0	2	0	5	0	0	0	0	0	0	10
05:30 PM	0	2	0	0	0	0	1	0	5	0	0	0	0	0	0	8
05:45 PM	1	3	0	0	0	1	0	0	3	0	0	0	0	0	0	8
Total	1	11	0	0	0	1	3	0	17	0	0	0	0	1	0	34
Grand Total	4	31	0	0	2	1	8	0	32	1	0	2	0	9	1	91
Apprch %	11.4	88.6	0	0	18.2	9.1	72.7	0	97	3	0	16.7	0	75	8.3	
Total %	4.4	34.1	0	0	2.2	1.1	8.8	0	35.2	1.1	0	2.2	0	9.9	1.1	

	Birmingham Parkway From North					Lincoln Street From East				Market Street From South					Birmingham Parkway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	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	**1**	4	0	0	5	**2**	0	1	**3**	0	5	0	0	5	0	0	**3**	0	3	**16**
04:15 PM	1	5	0	0	6	0	0	**2**	2	0	2	0	0	2	**1**	0	3	0	**4**	14
04:30 PM	1	**6**	0	0	**7**	0	0	2	2	0	2	**1**	0	3	1	0	1	0	2	14
04:45 PM	0	5	0	0	5	0	0	0	0	0	**6**	0	0	**6**	0	0	1	**1**	2	13
Total Volume	3	20	0	0	23	2	0	5	7	0	15	1	0	16	2	0	8	1	11	57
% App. Total	13	87	0	0		28.6	0	71.4		0	93.8	6.2	0		18.2	0	72.7	9.1		
PHF	.750	.833	.000	.000	.821	.250	.000	.625	.583	.000	.625	.250	.000	.667	.500	.000	.667	.250	.688	.891

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E/W: Lincoln Street/ Birmingham Parkway
City, State: Brighton,MA
Client: VHB/ E. Orlando

File Name : 112704 FF
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Peds and Bicycles

	Birmingham Parkway From North				Lincoln Street From East				Market Street From South				Birmingham Parkway 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	0	0	0	0	11	0	2	0	0	0	0	0	0	13
04:15 PM	0	0	0	0	0	0	0	4	0	3	0	0	0	0	0	1	8
04:30 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	1	5
04:45 PM	0	0	0	0	0	0	0	10	0	3	0	0	0	0	0	0	13
Total	0	0	0	0	0	0	0	27	0	10	0	0	0	0	0	2	39
05:00 PM	0	0	0	0	0	0	0	5	0	4	0	1	0	0	0	1	11
05:15 PM	0	1	0	0	0	2	2	10	0	1	0	0	0	0	0	1	17
05:30 PM	0	0	0	0	0	1	0	5	0	5	1	0	0	0	0	0	12
05:45 PM	0	0	0	0	0	3	1	2	0	0	0	1	0	0	0	0	7
Total	0	1	0	0	0	6	3	22	0	10	1	2	0	0	0	2	47
Grand Total	0	1	0	0	0	6	3	49	0	20	1	2	0	0	0	4	86
Apprch %	0	100	0	0	0	10.3	5.2	84.5	0	87	4.3	8.7	0	0	0	100	
Total %	0	1.2	0	0	0	7	3.5	57	0	23.3	1.2	2.3	0	0	0	4.7	

	Birmingham Parkway From North					Lincoln Street From East					Market Street From South					Birmingham Parkway 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	0	0	0	0	0	**10**	10	0	3	0	0	3	0	0	0	0	0	13
05:00 PM	0	0	0	0	0	0	0	0	5	5	0	4	0	**1**	5	0	0	0	**1**	**1**	11
05:15 PM	0	**1**	0	0	**1**	0	**2**	**2**	10	**14**	0	1	0	0	1	0	0	0	1	1	**17**
05:30 PM	0	0	0	0	0	0	1	0	5	6	0	**5**	**1**	0	**6**	0	0	0	0	0	12
Total Volume	0	1	0	0	1	0	3	2	30	35	0	13	1	1	15	0	0	0	2	2	53
% App. Total	0	100	0	0		0	8.6	5.7	85.7		0	86.7	6.7	6.7		0	0	0	100		
PHF	.000	.250	.000	.000	.250	.000	.375	.250	.750	.625	.000	.650	.250	.250	.625	.000	.000	.000	.500	.500	.779

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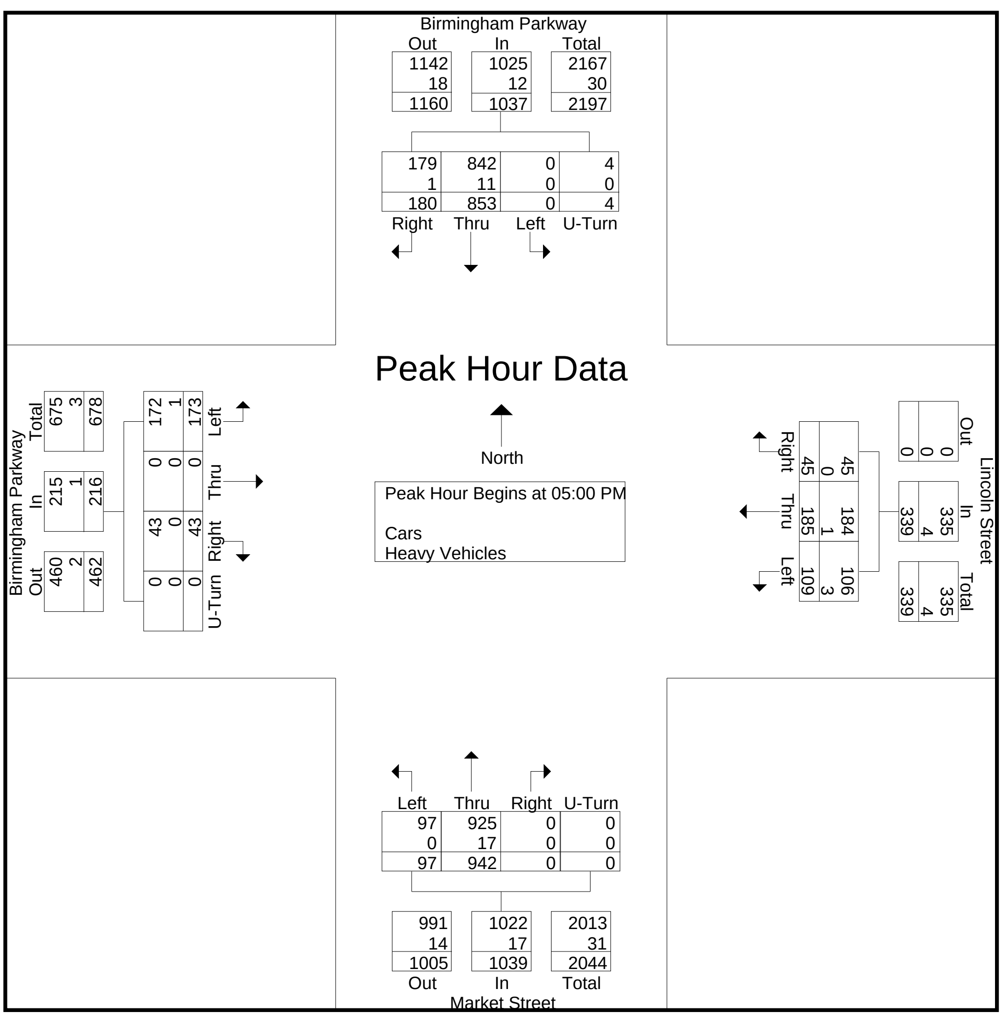
Page No : 1

	Birmingham Parkway From North					Lincoln Street From East				Market Street From South					Birmingham Parkway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	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	43	199	0	**4**	246	**13**	45	**31**	89	0	**259**	**28**	0	**287**	11	0	50	0	61	**683**
05:15 PM	**54**	201	0	0	255	10	45	26	81	0	241	27	0	268	**12**	0	**51**	0	**63**	667
05:30 PM	37	**231**	0	0	**268**	11	**61**	29	**101**	0	235	26	0	261	10	0	30	0	40	670
05:45 PM	46	222	0	0	268	11	34	23	68	0	207	16	0	223	10	0	42	0	52	611
Total Volume	180	853	0	4	1037	45	185	109	339	0	942	97	0	1039	43	0	173	0	216	2631
% App. Total	17.4	82.3	0	0.4		13.3	54.6	32.2		0	90.7	9.3	0		19.9	0	80.1	0		
PHF	.833	.923	.000	.250	.967	.865	.758	.879	.839	.000	.909	.866	.000	.905	.896	.000	.848	.000	.857	.963
Cars	179	842	0	4	1025	45	184	106	335	0	925	97	0	1022	43	0	172	0	215	2597
% Cars	99.4	98.7	0	100	98.8	100	99.5	97.2	98.8	0	98.2	100	0	98.4	100	0	99.4	0	99.5	98.7
Heavy Vehicles	1	11	0	0	12	0	1	3	4	0	17	0	0	17	0	0	1	0	1	34
% Heavy Vehicles	0.6	1.3	0	0	1.2	0	0.5	2.8	1.2	0	1.8	0	0	1.6	0	0	0.6	0	0.5	1.3



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N: Site Drive
E/W: Lincoln Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 G
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Site Drive From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	1	0	3	53	21	0	78
07:15 AM	0	0	1	43	25	0	69
07:30 AM	0	0	1	54	34	0	89
07:45 AM	0	0	1	54	39	3	97
Total	1	0	6	204	119	3	333
08:00 AM	1	0	1	38	33	2	75
08:15 AM	1	0	2	64	34	2	103
08:30 AM	0	0	0	54	34	0	88
08:45 AM	1	0	0	54	32	1	88
Total	3	0	3	210	133	5	354
Grand Total	4	0	9	414	252	8	687
Apprch %	100	0	2.1	97.9	96.9	3.1	
Total %	0.6	0	1.3	60.3	36.7	1.2	
Cars	2	0	6	388	246	7	649
% Cars	50	0	66.7	93.7	97.6	87.5	94.5
Heavy Vehicles	2	0	3	26	6	1	38
% Heavy Vehicles	50	0	33.3	6.3	2.4	12.5	5.5

	Site Drive From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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 07:30 AM										
07:30 AM	0	0	0	1	54	55	34	0	34	89
07:45 AM	0	0	0	1	54	55	**39**	**3**	**42**	97
08:00 AM	**1**	0	**1**	1	38	39	33	2	35	75
08:15 AM	1	0	1	**2**	**64**	**66**	34	2	36	**103**
Total Volume	2	0	2	5	210	215	140	7	147	364
% App. Total	100	0		2.3	97.7		95.2	4.8		
PHF	.500	.000	.500	.625	.820	.814	.897	.583	.875	.883
Cars	0	0	0	2	200	202	137	6	143	345
% Cars	0	0	0	40.0	95.2	94.0	97.9	85.7	97.3	94.8
Heavy Vehicles	2	0	2	3	10	13	3	1	4	19
% Heavy Vehicles	100	0	100	60.0	4.8	6.0	2.1	14.3	2.7	5.2

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N: Site Drive
E/W: Lincoln Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 G
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars

	Site Drive From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	1	0	3	51	21	0	76
07:15 AM	0	0	1	40	23	0	64
07:30 AM	0	0	0	49	34	0	83
07:45 AM	0	0	1	50	38	2	91
Total	1	0	5	190	116	2	314
08:00 AM	0	0	0	38	32	2	72
08:15 AM	0	0	1	63	33	2	99
08:30 AM	0	0	0	48	34	0	82
08:45 AM	1	0	0	49	31	1	82
Total	1	0	1	198	130	5	335
Grand Total	2	0	6	388	246	7	649
Apprch %	100	0	1.5	98.5	97.2	2.8	
Total %	0.3	0	0.9	59.8	37.9	1.1	

	Site Drive From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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 07:30 AM										
07:30 AM	0	0	0	0	49	49	34	0	34	83
07:45 AM	0	0	0	**1**	50	51	**38**	**2**	**40**	91
08:00 AM	0	0	0	0	38	38	32	2	34	72
08:15 AM	0	0	0	1	**63**	**64**	33	2	35	**99**
Total Volume	0	0	0	2	200	202	137	6	143	345
% App. Total	0	0		1	99		95.8	4.2		
PHF	.000	.000	.000	.500	.794	.789	.901	.750	.894	.871

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File Name : 112704 G
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Groups Printed- Heavy Vehicles

	Site Drive From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	0	0	0	2	0	0	2
07:15 AM	0	0	0	3	2	0	5
07:30 AM	0	0	1	5	0	0	6
07:45 AM	0	0	0	4	1	1	6
Total	0	0	1	14	3	1	19
08:00 AM	1	0	1	0	1	0	3
08:15 AM	1	0	1	1	1	0	4
08:30 AM	0	0	0	6	0	0	6
08:45 AM	0	0	0	5	1	0	6
Total	2	0	2	12	3	0	19
Grand Total	2	0	3	26	6	1	38
Apprch %	100	0	10.3	89.7	85.7	14.3	
Total %	5.3	0	7.9	68.4	15.8	2.6	

	Site Drive From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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 07:15 AM										
07:15 AM	0	0	0	0	3	3	**2**	0	**2**	5
07:30 AM	0	0	0	**1**	**5**	**6**	0	0	0	**6**
07:45 AM	0	0	0	0	4	4	1	**1**	2	6
08:00 AM	**1**	0	**1**	1	0	1	1	0	1	3
Total Volume	1	0	1	2	12	14	4	1	5	20
% App. Total	100	0		14.3	85.7		80	20		
PHF	.250	.000	.250	.500	.600	.583	.500	.250	.625	.833

PRECISION
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File Name : 112704 G
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Peds and Bicycles

	Site Drive From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
07:00 AM	0	0	5	0	0	0	1	0	0	6
07:15 AM	0	0	2	0	0	0	1	0	0	3
07:30 AM	0	0	7	0	1	0	1	0	0	9
07:45 AM	0	0	5	0	1	0	0	0	0	6
Total	0	0	19	0	2	0	3	0	0	24
08:00 AM	0	0	1	0	0	0	2	0	0	3
08:15 AM	0	0	3	0	0	0	1	0	0	4
08:30 AM	0	1	2	0	2	0	3	0	0	8
08:45 AM	0	0	4	0	0	0	1	0	0	5
Total	0	1	10	0	2	0	7	0	0	20
Grand Total	0	1	29	0	4	0	10	0	0	44
Apprch %	0	3.3	96.7	0	100	0	100	0	0	
Total %	0	2.3	65.9	0	9.1	0	22.7	0	0	

	Site Drive From North				Lincoln Street From East				Lincoln Street 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 07:00 AM													
07:00 AM	0	0	5	5	0	0	0	0	**1**	0	0	**1**	6
07:15 AM	0	0	2	2	0	0	0	0	1	0	0	1	3
07:30 AM	0	0	**7**	**7**	0	**1**	0	**1**	1	0	0	1	**9**
07:45 AM	0	0	5	5	0	1	0	1	0	0	0	0	6
Total Volume	0	0	19	19	0	2	0	2	3	0	0	3	24
% App. Total	0	0	100		0	100	0		100	0	0		
PHF	.000	.000	.679	.679	.000	.500	.000	.500	.750	.000	.000	.750	.667

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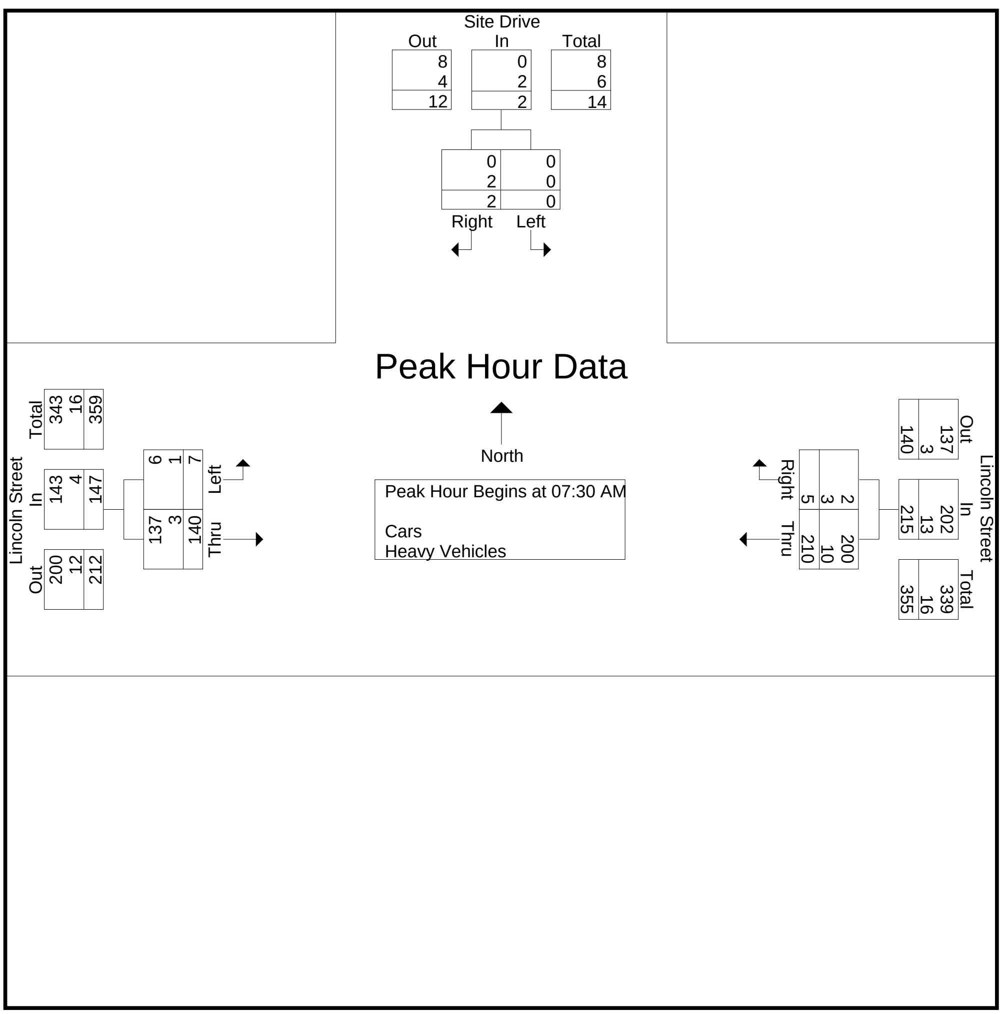
	Site Drive From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	1	54	55	34	0	34	89
07:45 AM	0	0	0	1	54	55	**39**	**3**	**42**	97
08:00 AM	**1**	0	**1**	1	38	39	33	2	35	75
08:15 AM	1	0	1	**2**	**64**	**66**	34	2	36	**103**
Total Volume	2	0	2	5	210	215	140	7	147	364
% App. Total	100	0		2.3	97.7		95.2	4.8		
PHF	.500	.000	.500	.625	.820	.814	.897	.583	.875	.883
Cars	0	0	0	2	200	202	137	6	143	345
% Cars	0	0	0	40.0	95.2	94.0	97.9	85.7	97.3	94.8
Heavy Vehicles	2	0	2	3	10	13	3	1	4	19
% Heavy Vehicles	100	0	100	60.0	4.8	6.0	2.1	14.3	2.7	5.2



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N: Site Driveway
E/W: Lincoln Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 GG
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Site Driveway From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	0	0	1	65	28	3	97
04:15 PM	1	0	2	54	30	1	88
04:30 PM	4	0	1	63	33	0	101
04:45 PM	1	8	0	69	22	0	100
Total	6	8	4	251	113	4	386
05:00 PM	4	4	0	78	38	2	126
05:15 PM	2	2	0	60	37	3	104
05:30 PM	0	2	3	84	25	0	114
05:45 PM	1	2	0	75	27	1	106
Total	7	10	3	297	127	6	450
Grand Total	13	18	7	548	240	10	836
Apprch %	41.9	58.1	1.3	98.7	96	4	
Total %	1.6	2.2	0.8	65.6	28.7	1.2	
Cars	12	17	5	539	231	9	813
% Cars	92.3	94.4	71.4	98.4	96.2	90	97.2
Heavy Vehicles	1	1	2	9	9	1	23
% Heavy Vehicles	7.7	5.6	28.6	1.6	3.8	10	2.8

	Site Driveway From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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	**4**	**4**	**8**	0	78	78	**38**	2	**40**	**126**
05:15 PM	2	2	4	0	60	60	37	**3**	40	104
05:30 PM	0	2	2	**3**	**84**	**87**	25	0	25	114
05:45 PM	1	2	3	0	75	75	27	1	28	106
Total Volume	7	10	17	3	297	300	127	6	133	450
% App. Total	41.2	58.8		1	99		95.5	4.5		
PHF	.438	.625	.531	.250	.884	.862	.836	.500	.831	.893
Cars	6	9	15	2	292	294	124	6	130	439
% Cars	85.7	90.0	88.2	66.7	98.3	98.0	97.6	100	97.7	97.6
Heavy Vehicles	1	1	2	1	5	6	3	0	3	11
% Heavy Vehicles	14.3	10.0	11.8	33.3	1.7	2.0	2.4	0	2.3	2.4

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City, State: Brighton, MA
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File Name : 112704 GG
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars

	Site Driveway From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	0	0	0	64	28	2	94
04:15 PM	1	0	2	53	28	1	85
04:30 PM	4	0	1	62	30	0	97
04:45 PM	1	8	0	68	21	0	98
Total	6	8	3	247	107	3	374
05:00 PM	3	4	0	76	37	2	122
05:15 PM	2	2	0	59	35	3	101
05:30 PM	0	1	2	83	25	0	111
05:45 PM	1	2	0	74	27	1	105
Total	6	9	2	292	124	6	439
Grand Total	12	17	5	539	231	9	813
Apprch %	41.4	58.6	0.9	99.1	96.2	3.8	
Total %	1.5	2.1	0.6	66.3	28.4	1.1	

	Site Driveway From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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	**3**	**4**	**7**	0	76	76	**37**	2	**39**	**122**
05:15 PM	2	2	4	0	59	59	35	**3**	38	101
05:30 PM	0	1	1	**2**	**83**	**85**	25	0	25	111
05:45 PM	1	2	3	0	74	74	27	1	28	105
Total Volume	6	9	15	2	292	294	124	6	130	439
% App. Total	40	60		0.7	99.3		95.4	4.6		
PHF	.500	.563	.536	.250	.880	.865	.838	.500	.833	.900

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City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 GG
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Heavy Vehicles

	Site Driveway From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	0	0	1	1	0	1	3
04:15 PM	0	0	0	1	2	0	3
04:30 PM	0	0	0	1	3	0	4
04:45 PM	0	0	0	1	1	0	2
Total	0	0	1	4	6	1	12
05:00 PM	1	0	0	2	1	0	4
05:15 PM	0	0	0	1	2	0	3
05:30 PM	0	1	1	1	0	0	3
05:45 PM	0	0	0	1	0	0	1
Total	1	1	1	5	3	0	11
Grand Total	1	1	2	9	9	1	23
Apprch %	50	50	18.2	81.8	90	10	
Total %	4.3	4.3	8.7	39.1	39.1	4.3	

	Site Driveway From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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 04:15 PM										
04:15 PM	0	0	0	0	1	1	2	0	2	3
04:30 PM	0	0	0	0	1	1	**3**	0	**3**	**4**
04:45 PM	0	0	0	0	1	1	1	0	1	2
05:00 PM	**1**	0	**1**	0	**2**	**2**	1	0	1	4
Total Volume	1	0	1	0	5	5	7	0	7	13
% App. Total	100	0		0	100		100	0		
PHF	.250	.000	.250	.000	.625	.625	.583	.000	.583	.813

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File Name : 112704 GG
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Peds and Bicycles

	Site Driveway From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
04:00 PM	0	0	4	0	1	0	1	0	0	6
04:15 PM	0	0	10	0	3	0	1	0	0	14
04:30 PM	0	0	7	0	0	0	4	0	0	11
04:45 PM	0	0	7	0	0	0	2	0	0	9
Total	0	0	28	0	4	0	8	0	0	40
05:00 PM	0	1	4	0	1	0	1	0	0	7
05:15 PM	0	1	1	0	2	0	0	1	0	5
05:30 PM	1	0	6	0	1	0	0	0	0	8
05:45 PM	0	0	2	0	3	0	0	0	0	5
Total	1	2	13	0	7	0	1	1	0	25
Grand Total	1	2	41	0	11	0	9	1	0	65
Apprch %	2.3	4.5	93.2	0	100	0	90	10	0	
Total %	1.5	3.1	63.1	0	16.9	0	13.8	1.5	0	

	Site Driveway From North				Lincoln Street From East				Lincoln Street 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 04:15 PM													
04:15 PM	0	0	**10**	**10**	0	**3**	0	**3**	1	0	0	1	**14**
04:30 PM	0	0	7	7	0	0	0	0	**4**	0	0	**4**	11
04:45 PM	0	0	7	7	0	0	0	0	2	0	0	2	9
05:00 PM	0	**1**	4	5	0	1	0	1	1	0	0	1	7
Total Volume	0	1	28	29	0	4	0	4	8	0	0	8	41
% App. Total	0	3.4	96.6		0	100	0		100	0	0		
PHF	.000	.250	.700	.725	.000	.333	.000	.333	.500	.000	.000	.500	.732

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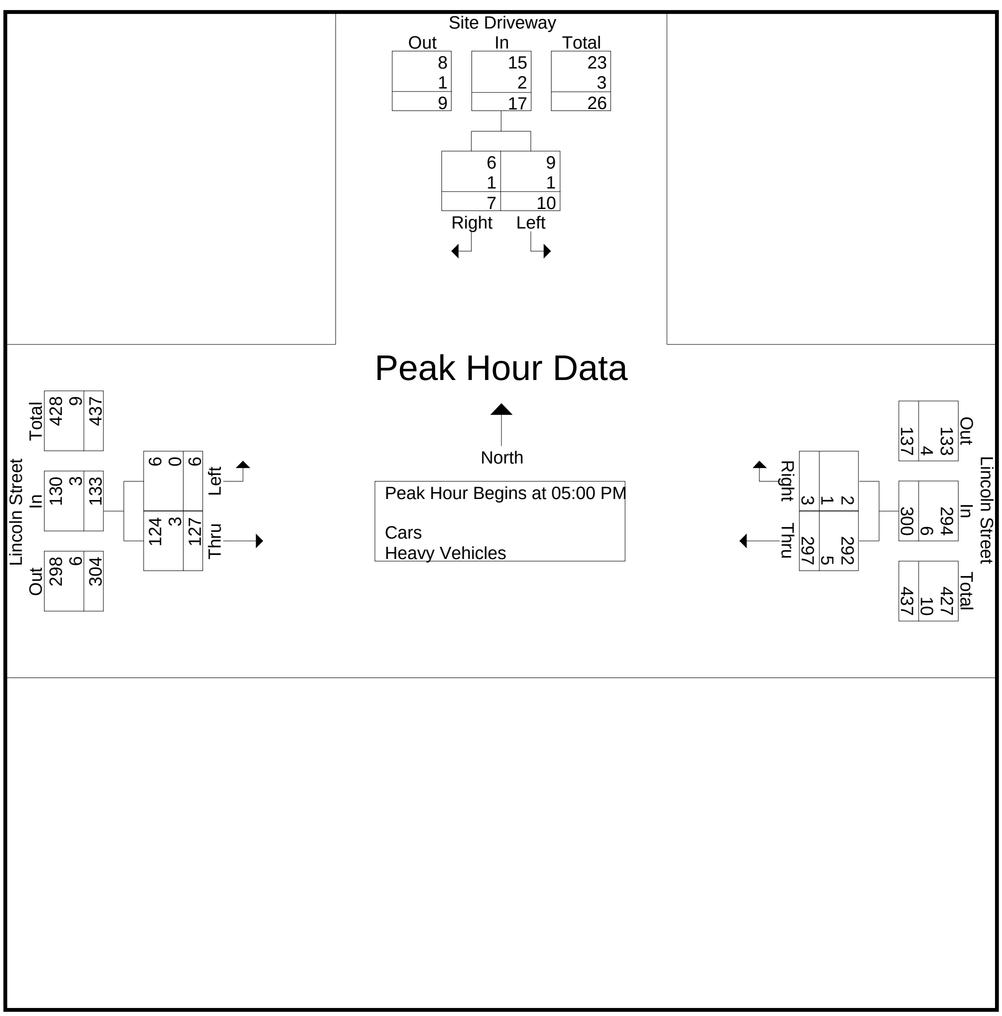
	Site Driveway From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	**4**	**4**	**8**	0	78	78	**38**	2	**40**	**126**
05:15 PM	2	2	4	0	60	60	37	**3**	40	104
05:30 PM	0	2	2	**3**	**84**	**87**	25	0	25	114
05:45 PM	1	2	3	0	75	75	27	1	28	106
Total Volume	7	10	17	3	297	300	127	6	133	450
% App. Total	41.2	58.8		1	99		95.5	4.5		
PHF	.438	.625	.531	.250	.884	.862	.836	.500	.831	.893
Cars	6	9	15	2	292	294	124	6	130	439
% Cars	85.7	90.0	88.2	66.7	98.3	98.0	97.6	100	97.7	97.6
Heavy Vehicles	1	1	2	1	5	6	3	0	3	11
% Heavy Vehicles	14.3	10.0	11.8	33.3	1.7	2.0	2.4	0	2.3	2.4



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File Name : 112704 H
Site Code : TBA
Start Date : 11/15/2011
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Groups Printed- Cars - Heavy Vehicles

	Everett Street Extension From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	6	3	10	53	15	5	92
07:15 AM	6	8	4	37	17	7	79
07:30 AM	10	10	8	44	21	12	105
07:45 AM	6	7	8	48	25	15	109
Total	28	28	30	182	78	39	385
08:00 AM	9	13	16	32	29	5	104
08:15 AM	6	9	16	60	27	6	124
08:30 AM	13	6	8	45	25	9	106
08:45 AM	7	10	16	48	24	9	114
Total	35	38	56	185	105	29	448
Grand Total	63	66	86	367	183	68	833
Apprch %	48.8	51.2	19	81	72.9	27.1	
Total %	7.6	7.9	10.3	44.1	22	8.2	
Cars	59	65	77	341	178	67	787
% Cars	93.7	98.5	89.5	92.9	97.3	98.5	94.5
Heavy Vehicles	4	1	9	26	5	1	46
% Heavy Vehicles	6.3	1.5	10.5	7.1	2.7	1.5	5.5

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

	Everett Street Extension From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
08:00 AM	9	**13**	**22**	**16**	32	48	**29**	5	**34**	104
08:15 AM	6	9	15	16	**60**	**76**	27	6	33	**124**
08:30 AM	**13**	6	19	8	45	53	25	**9**	34	106
08:45 AM	7	10	17	16	48	64	24	9	33	114
Total Volume	35	38	73	56	185	241	105	29	134	448
% App. Total	47.9	52.1		23.2	76.8		78.4	21.6		
PHF	.673	.731	.830	.875	.771	.793	.905	.806	.985	.903
Cars	34	37	71	49	171	220	102	29	131	422
% Cars	97.1	97.4	97.3	87.5	92.4	91.3	97.1	100	97.8	94.2
Heavy Vehicles	1	1	2	7	14	21	3	0	3	26
% Heavy Vehicles	2.9	2.6	2.7	12.5	7.6	8.7	2.9	0	2.2	5.8

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File Name : 112704 H
Site Code : TBA
Start Date : 11/15/2011
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Groups Printed- Cars

	Everett Street Extension From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	6	3	9	51	15	5	89
07:15 AM	6	8	4	34	16	6	74
07:30 AM	8	10	7	40	21	12	98
07:45 AM	5	7	8	45	24	15	104
Total	25	28	28	170	76	38	365
08:00 AM	9	13	14	30	28	5	99
08:15 AM	6	9	15	58	26	6	120
08:30 AM	12	6	7	40	25	9	99
08:45 AM	7	9	13	43	23	9	104
Total	34	37	49	171	102	29	422
Grand Total	59	65	77	341	178	67	787
Apprch %	47.6	52.4	18.4	81.6	72.7	27.3	
Total %	7.5	8.3	9.8	43.3	22.6	8.5	

	Everett Street Extension From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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 07:45 AM										
07:45 AM	5	7	12	8	45	53	24	**15**	**39**	104
08:00 AM	9	**13**	**22**	14	30	44	**28**	5	33	99
08:15 AM	6	9	15	**15**	**58**	**73**	26	6	32	**120**
08:30 AM	**12**	6	18	7	40	47	25	9	34	99
Total Volume	32	35	67	44	173	217	103	35	138	422
% App. Total	47.8	52.2		20.3	79.7		74.6	25.4		
PHF	.667	.673	.761	.733	.746	.743	.920	.583	.885	.879

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File Name : 112704 H
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Groups Printed- Heavy Vehicles

	Everett Street Extension From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	0	0	1	2	0	0	3
07:15 AM	0	0	0	3	1	1	5
07:30 AM	2	0	1	4	0	0	7
07:45 AM	1	0	0	3	1	0	5
Total	3	0	2	12	2	1	20
08:00 AM	0	0	2	2	1	0	5
08:15 AM	0	0	1	2	1	0	4
08:30 AM	1	0	1	5	0	0	7
08:45 AM	0	1	3	5	1	0	10
Total	1	1	7	14	3	0	26
Grand Total	4	1	9	26	5	1	46
Apprch %	80	20	25.7	74.3	83.3	16.7	
Total %	8.7	2.2	19.6	56.5	10.9	2.2	

	Everett Street Extension From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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	0	0	0	2	2	4	**1**	0	**1**	5
08:15 AM	0	0	0	1	2	3	1	0	1	4
08:30 AM	**1**	0	**1**	1	**5**	6	0	0	0	7
08:45 AM	0	**1**	1	**3**	5	**8**	1	0	1	**10**
Total Volume	1	1	2	7	14	21	3	0	3	26
% App. Total	50	50		33.3	66.7		100	0		
PHF	.250	.250	.500	.583	.700	.656	.750	.000	.750	.650

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Groups Printed- Peds and Bicycles

	Everett Street Extension From North				Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	Peds using Stairs	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
07:00 AM	0	0	1	1	0	0	0	1	0	0	3
07:15 AM	0	0	9	3	0	0	0	1	0	0	13
07:30 AM	0	0	5	1	0	1	0	1	0	0	8
07:45 AM	0	0	7	2	0	1	0	0	0	0	10
Total	0	0	22	7	0	2	0	3	0	0	34
08:00 AM	0	0	4	3	0	0	0	1	1	0	9
08:15 AM	0	0	2	1	0	0	0	0	1	0	4
08:30 AM	0	0	7	5	0	2	0	1	1	0	16
08:45 AM	0	0	10	5	0	0	0	1	0	0	16
Total	0	0	23	14	0	2	0	3	3	0	45
Grand Total	0	0	45	21	0	4	0	6	3	0	79
Apprch %	0	0	68.2	31.8	0	100	0	66.7	33.3	0	
Total %	0	0	57	26.6	0	5.1	0	7.6	3.8	0	

	Everett Street Extension From North					Lincoln Street From East				Lincoln Street From West				
Start Time	Right	Left	Peds using Stairs	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 08:00 AM														
08:00 AM	0	0	4	3	7	0	0	0	0	**1**	**1**	0	**2**	9
08:15 AM	0	0	2	1	3	0	0	0	0	0	1	0	1	4
08:30 AM	0	0	7	**5**	12	0	**2**	0	**2**	1	1	0	2	**16**
08:45 AM	0	0	**10**	5	**15**	0	0	0	0	1	0	0	1	16
Total Volume	0	0	23	14	37	0	2	0	2	3	3	0	6	45
% App. Total	0	0	62.2	37.8		0	100	0		50	50	0		
PHF	.000	.000	.575	.700	.617	.000	.250	.000	.250	.750	.750	.000	.750	.703

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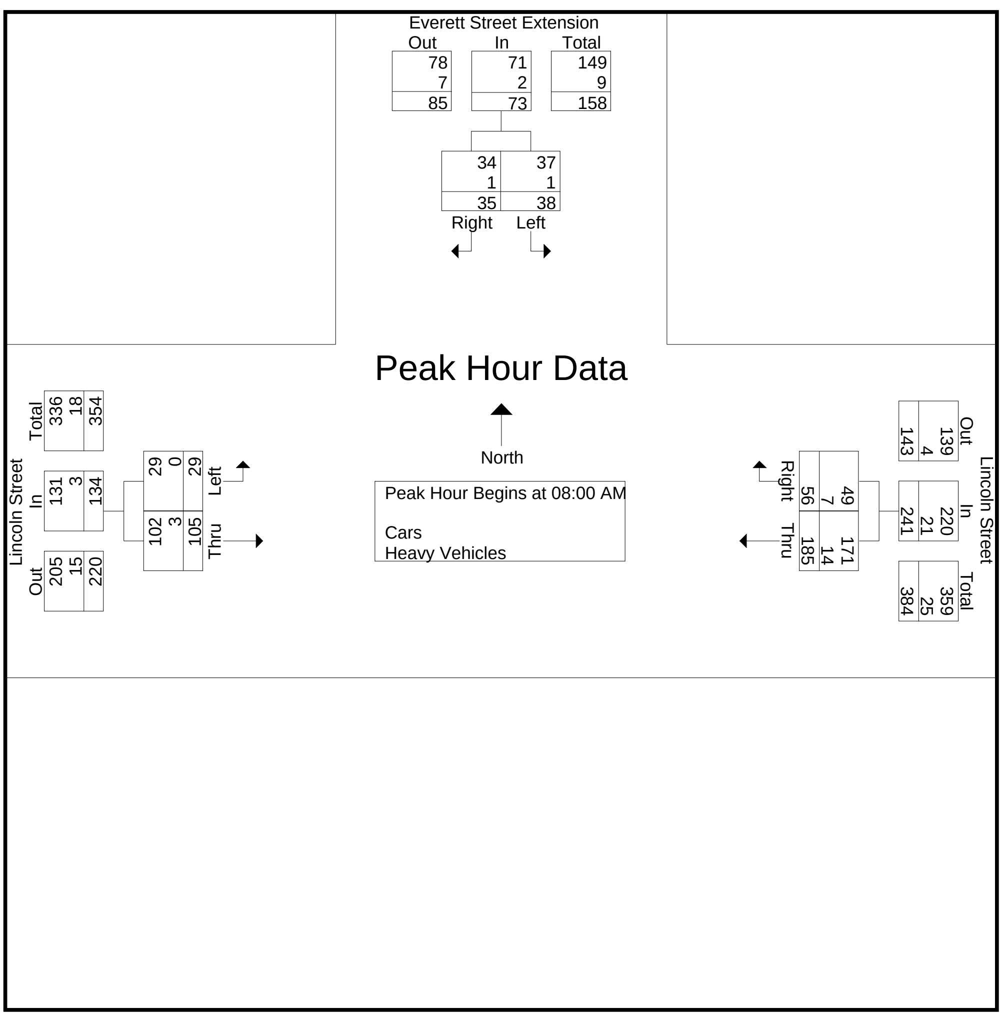
	Everett Street Extension From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	9	**13**	**22**	**16**	32	48	**29**	5	**34**	104
08:15 AM	6	9	15	16	**60**	**76**	27	6	33	**124**
08:30 AM	**13**	6	19	8	45	53	25	**9**	34	106
08:45 AM	7	10	17	16	48	64	24	9	33	114
Total Volume	35	38	73	56	185	241	105	29	134	448
% App. Total	47.9	52.1		23.2	76.8		78.4	21.6		
PHF	.673	.731	.830	.875	.771	.793	.905	.806	.985	.903
Cars	34	37	71	49	171	220	102	29	131	422
% Cars	97.1	97.4	97.3	87.5	92.4	91.3	97.1	100	97.8	94.2
Heavy Vehicles	1	1	2	7	14	21	3	0	3	26
% Heavy Vehicles	2.9	2.6	2.7	12.5	7.6	8.7	2.9	0	2.2	5.8



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N: Everett Street Extension
E/W: Lincoln Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 HH
Site Code : TBA
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Groups Printed- Cars - Heavy Vehicles

	Everett Street Extension From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	16	3	5	52	20	7	103
04:15 PM	6	11	12	47	21	10	107
04:30 PM	15	9	11	54	22	12	123
04:45 PM	6	15	11	61	20	8	121
Total	43	38	39	214	83	37	454
05:00 PM	11	12	13	66	30	8	140
05:15 PM	7	7	20	59	38	4	135
05:30 PM	10	6	20	75	16	10	137
05:45 PM	8	3	12	63	18	8	112
Total	36	28	65	263	102	30	524
Grand Total	79	66	104	477	185	67	978
Apprch %	54.5	45.5	17.9	82.1	73.4	26.6	
Total %	8.1	6.7	10.6	48.8	18.9	6.9	
Cars	76	65	99	469	175	66	950
% Cars	96.2	98.5	95.2	98.3	94.6	98.5	97.1
Heavy Vehicles	3	1	5	8	10	1	28
% Heavy Vehicles	3.8	1.5	4.8	1.7	5.4	1.5	2.9

	Everett Street Extension From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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 04:45 PM										
04:45 PM	6	**15**	21	11	61	72	20	8	28	121
05:00 PM	**11**	12	**23**	13	66	79	30	8	38	**140**
05:15 PM	7	7	14	**20**	59	79	**38**	4	**42**	135
05:30 PM	10	6	16	20	**75**	**95**	16	**10**	26	137
Total Volume	34	40	74	64	261	325	104	30	134	533
% App. Total	45.9	54.1		19.7	80.3		77.6	22.4		
PHF	.773	.667	.804	.800	.870	.855	.684	.750	.798	.952
Cars	33	39	72	61	256	317	100	29	129	518
% Cars	97.1	97.5	97.3	95.3	98.1	97.5	96.2	96.7	96.3	97.2
Heavy Vehicles	1	1	2	3	5	8	4	1	5	15
% Heavy Vehicles	2.9	2.5	2.7	4.7	1.9	2.5	3.8	3.3	3.7	2.8

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File Name : 112704 HH
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Groups Printed- Cars

	Everett Street Extension From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	15	3	5	51	20	7	101
04:15 PM	5	11	10	47	19	10	102
04:30 PM	15	9	11	53	18	12	118
04:45 PM	6	14	11	60	19	8	118
Total	41	37	37	211	76	37	439
05:00 PM	11	12	11	63	30	7	134
05:15 PM	6	7	20	59	36	4	132
05:30 PM	10	6	19	74	15	10	134
05:45 PM	8	3	12	62	18	8	111
Total	35	28	62	258	99	29	511
Grand Total	76	65	99	469	175	66	950
Apprch %	53.9	46.1	17.4	82.6	72.6	27.4	
Total %	8	6.8	10.4	49.4	18.4	6.9	

	Everett Street Extension From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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 04:45 PM										
04:45 PM	6	**14**	20	11	60	71	19	8	27	118
05:00 PM	**11**	12	**23**	11	63	74	30	7	37	**134**
05:15 PM	6	7	13	**20**	59	79	**36**	4	**40**	132
05:30 PM	10	6	16	19	**74**	**93**	15	**10**	25	134
Total Volume	33	39	72	61	256	317	100	29	129	518
% App. Total	45.8	54.2		19.2	80.8		77.5	22.5		
PHF	.750	.696	.783	.763	.865	.852	.694	.725	.806	.966

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Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Heavy Vehicles

	Everett Street Extension From North		Lincoln Street From East		Lincoln Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	1	0	0	1	0	0	2
04:15 PM	1	0	2	0	2	0	5
04:30 PM	0	0	0	1	4	0	5
04:45 PM	0	1	0	1	1	0	3
Total	2	1	2	3	7	0	15
05:00 PM	0	0	2	3	0	1	6
05:15 PM	1	0	0	0	2	0	3
05:30 PM	0	0	1	1	1	0	3
05:45 PM	0	0	0	1	0	0	1
Total	1	0	3	5	3	1	13
Grand Total	3	1	5	8	10	1	28
Apprch %	75	25	38.5	61.5	90.9	9.1	
Total %	10.7	3.6	17.9	28.6	35.7	3.6	

	Everett Street Extension From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	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 04:15 PM										
04:15 PM	**1**	0	**1**	**2**	0	2	2	0	2	5
04:30 PM	0	0	0	0	1	1	**4**	0	**4**	5
04:45 PM	0	**1**	1	0	1	1	1	0	1	3
05:00 PM	0	0	0	2	**3**	**5**	0	**1**	1	**6**
Total Volume	1	1	2	4	5	9	7	1	8	19
% App. Total	50	50		44.4	55.6		87.5	12.5		
PHF	.250	.250	.500	.500	.417	.450	.438	.250	.500	.792

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File Name : 112704 HH
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Peds and Bicycles

	Everett Street Extension From North				Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	Peds using Stairs	Peds	Right	Thru	Peds	Thru	Left	Peds	Int. Total
04:00 PM	0	0	2	7	0	1	0	1	0	0	11
04:15 PM	1	0	8	6	0	1	0	1	0	0	17
04:30 PM	0	0	8	4	0	0	0	2	1	0	15
04:45 PM	0	0	6	2	0	0	0	1	0	0	9
Total	1	0	24	19	0	2	0	5	1	0	52
05:00 PM	0	0	2	0	0	0	0	1	0	0	3
05:15 PM	0	0	1	1	0	1	1	2	0	0	6
05:30 PM	0	0	4	2	0	1	0	0	0	0	7
05:45 PM	0	0	2	1	0	3	0	0	0	0	6
Total	0	0	9	4	0	5	1	3	0	0	22
Grand Total	1	0	33	23	0	7	1	8	1	0	74
Apprch %	1.8	0	57.9	40.4	0	87.5	12.5	88.9	11.1	0	
Total %	1.4	0	44.6	31.1	0	9.5	1.4	10.8	1.4	0	

	Everett Street Extension From North					Lincoln Street From East				Lincoln Street From West				
Start Time	Right	Left	Peds using Stairs	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 04:00 PM

Start Time	Right	Left	Peds using Stairs	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	0	2	**7**	9	0	**1**	0	**1**	1	0	0	1	11
04:15 PM	**1**	0	**8**	6	**15**	0	1	0	1	1	0	0	1	**17**
04:30 PM	0	0	8	4	12	0	0	0	0	**2**	**1**	0	**3**	15
04:45 PM	0	0	6	2	8	0	0	0	0	1	0	0	1	9
Total Volume	1	0	24	19	44	0	2	0	2	5	1	0	6	52
% App. Total	2.3	0	54.5	43.2		0	100	0		83.3	16.7	0		
PHF	.250	.000	.750	.679	.733	.000	.500	.000	.500	.625	.250	.000	.500	.765

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File Name : 112704 HH
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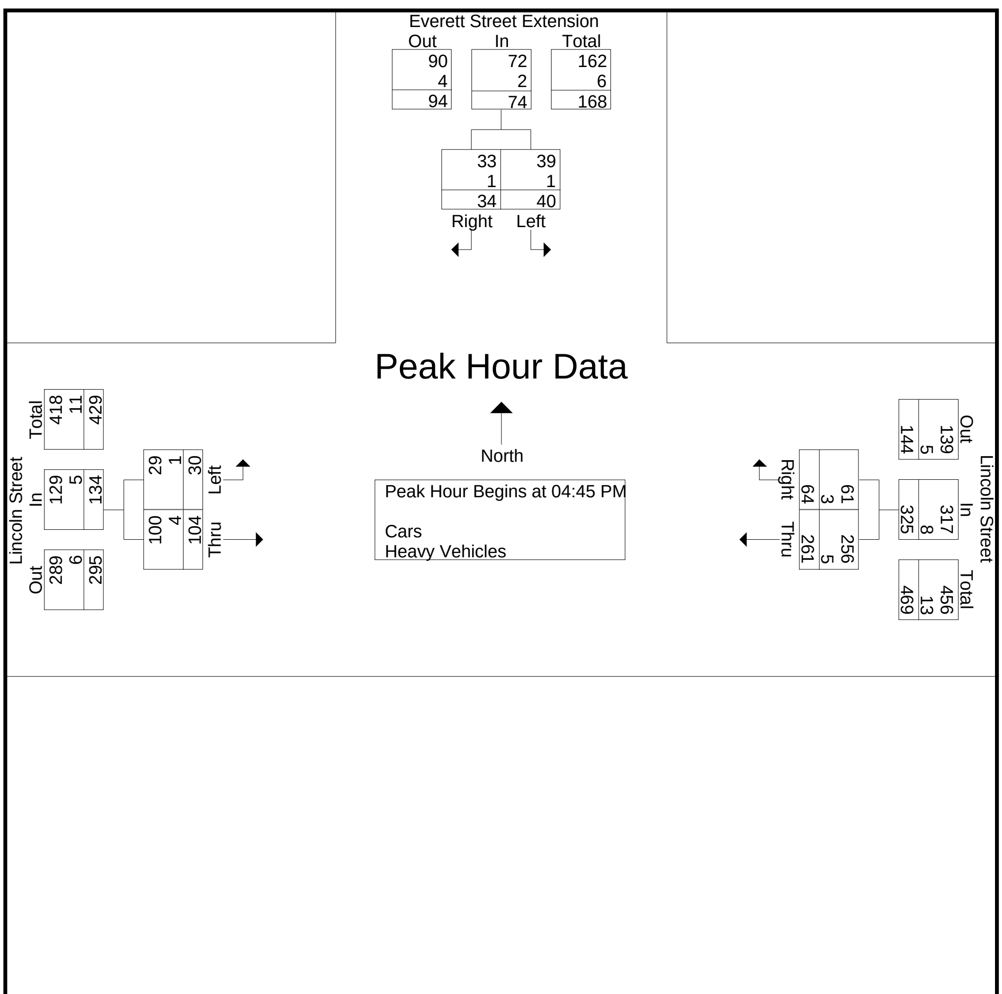
	Everett Street Extension From North			Lincoln Street From East			Lincoln Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	6	**15**	21	11	61	72	20	8	28	121
05:00 PM	**11**	12	**23**	13	66	79	30	8	38	**140**
05:15 PM	7	7	14	**20**	59	79	**38**	4	**42**	135
05:30 PM	10	6	16	20	**75**	**95**	16	**10**	26	137
Total Volume	34	40	74	64	261	325	104	30	134	533
% App. Total	45.9	54.1		19.7	80.3		77.6	22.4		
PHF	.773	.667	.804	.800	.870	.855	.684	.750	.798	.952
Cars	33	39	72	61	256	317	100	29	129	518
% Cars	97.1	97.5	97.3	95.3	98.1	97.5	96.2	96.7	96.3	97.2
Heavy Vehicles	1	1	2	3	5	8	4	1	5	15
% Heavy Vehicles	2.9	2.5	2.7	4.7	1.9	2.5	3.8	3.3	3.7	2.8



N/S: Lincoln Street/ Train Cargo Access
E/W: Cambridge Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

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File Name : 112704 I
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Lincoln Street From North			Cambridge Street From East				Train Cargo Access From South			Cambridge Street 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	17	0	15	23	222	4	2	4	1	0	0	281	10	1	580
07:15 AM	11	0	32	16	222	7	0	1	0	0	1	335	12	0	637
07:30 AM	19	0	31	22	241	0	0	5	0	0	0	400	10	2	730
07:45 AM	19	0	31	17	248	3	0	0	0	1	0	413	15	4	751
Total	66	0	109	78	933	14	2	10	1	1	1	1429	47	7	2698
08:00 AM	13	0	34	24	267	2	1	4	0	2	1	392	15	3	758
08:15 AM	20	0	30	29	276	2	0	1	0	0	1	416	18	2	795
08:30 AM	22	0	32	20	261	2	1	3	0	0	0	412	21	3	777
08:45 AM	15	0	30	30	248	2	0	3	0	0	1	331	10	2	672
Total	70	0	126	103	1052	8	2	11	0	2	3	1551	64	10	3002
Grand Total	136	0	235	181	1985	22	4	21	1	3	4	2980	111	17	5700
Apprch %	36.7	0	63.3	8.3	90.6	1	0.2	84	4	12	0.1	95.8	3.6	0.5	
Total %	2.4	0	4.1	3.2	34.8	0.4	0.1	0.4	0	0.1	0.1	52.3	1.9	0.3	
Cars	128	0	230	166	1801	3	4	4	1	2	3	2836	104	12	5294
% Cars	94.1	0	97.9	91.7	90.7	13.6	100	19	100	66.7	75	95.2	93.7	70.6	92.9
Heavy Vehicles	8	0	5	15	184	19	0	17	0	1	1	144	7	5	406
% Heavy Vehicles	5.9	0	2.1	8.3	9.3	86.4	0	81	0	33.3	25	4.8	6.3	29.4	7.1

	Lincoln Street From North				Cambridge Street From East					Train Cargo Access From South				Cambridge Street 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 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:45 AM																			
07:45 AM	19	0	31	50	17	248	**3**	0	268	0	0	1	1	0	413	15	**4**	432	751
08:00 AM	13	0	**34**	47	24	267	2	**1**	294	**4**	0	**2**	**6**	**1**	392	15	3	411	758
08:15 AM	20	0	30	50	**29**	**276**	2	0	**307**	1	0	0	1	1	**416**	18	2	**437**	**795**
08:30 AM	**22**	0	32	**54**	20	261	2	1	284	3	0	0	3	0	412	**21**	3	436	777
Total Volume	74	0	127	201	90	1052	9	2	1153	8	0	3	11	2	1633	69	12	1716	3081
% App. Total	36.8	0	63.2		7.8	91.2	0.8	0.2		72.7	0	27.3		0.1	95.2	4	0.7		
PHF	.841	.000	.934	.931	.776	.953	.750	.500	.939	.500	.000	.375	.458	.500	.981	.821	.750	.982	.969
Cars	70	0	124	194	83	973	0	2	1058	0	0	2	2	1	1553	64	9	1627	2881
% Cars	94.6	0	97.6	96.5	92.2	92.5	0	100	91.8	0	0	66.7	18.2	50.0	95.1	92.8	75.0	94.8	93.5
Heavy Vehicles	4	0	3	7	7	79	9	0	95	8	0	1	9	1	80	5	3	89	200
% Heavy Vehicles	5.4	0	2.4	3.5	7.8	7.5	100	0	8.2	100	0	33.3	81.8	50.0	4.9	7.2	25.0	5.2	6.5

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Groups Printed- Cars

	Lincoln Street From North			Cambridge Street From East				Train Cargo Access From South			Cambridge Street 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	14	0	14	23	184	0	2	1	1	0	0	273	10	0	522
07:15 AM	10	0	32	16	188	3	0	0	0	0	1	324	11	0	585
07:30 AM	19	0	31	19	222	0	0	3	0	0	0	378	10	2	684
07:45 AM	17	0	30	17	229	0	0	0	0	1	0	391	14	2	701
Total	60	0	107	75	823	3	2	4	1	1	1	1366	45	4	2492
08:00 AM	12	0	34	23	238	0	1	0	0	1	1	367	15	2	694
08:15 AM	19	0	28	27	260	0	0	0	0	0	0	405	16	2	757
08:30 AM	22	0	32	16	246	0	1	0	0	0	0	390	19	3	729
08:45 AM	15	0	29	25	234	0	0	0	0	0	1	308	9	1	622
Total	68	0	123	91	978	0	2	0	0	1	2	1470	59	8	2802
Grand Total	128	0	230	166	1801	3	4	4	1	2	3	2836	104	12	5294
Apprch %	35.8	0	64.2	8.4	91.2	0.2	0.2	57.1	14.3	28.6	0.1	96	3.5	0.4	
Total %	2.4	0	4.3	3.1	34	0.1	0.1	0.1	0	0	0.1	53.6	2	0.2	

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

	Lincoln Street From North				Cambridge Street From East					Train Cargo Access From South				Cambridge Street 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
07:45 AM	17	0	30	47	17	229	0	0	246	0	0	**1**	**1**	0	391	14	2	407	701
08:00 AM	12	0	**34**	46	23	238	0	**1**	262	0	0	1	1	**1**	367	15	2	385	694
08:15 AM	19	0	28	47	**27**	**260**	0	0	**287**	0	0	0	0	0	**405**	16	2	**423**	**757**
08:30 AM	**22**	0	32	**54**	16	246	0	1	263	0	0	0	0	0	390	**19**	**3**	412	729
Total Volume	70	0	124	194	83	973	0	2	1058	0	0	2	2	1	1553	64	9	1627	2881
% App. Total	36.1	0	63.9		7.8	92	0	0.2		0	0	100		0.1	95.5	3.9	0.6		
PHF	.795	.000	.912	.898	.769	.936	.000	.500	.922	.000	.000	.500	.500	.250	.959	.842	.750	.962	.951

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Groups Printed- Heavy Vehicles

	Lincoln Street From North			Cambridge Street From East				Train Cargo Access From South			Cambridge Street 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	0	1	0	38	4	0	3	0	0	0	8	0	1	58
07:15 AM	1	0	0	0	34	4	0	1	0	0	0	11	1	0	52
07:30 AM	0	0	0	3	19	0	0	2	0	0	0	22	0	0	46
07:45 AM	2	0	1	0	19	3	0	0	0	0	0	22	1	2	50
Total	6	0	2	3	110	11	0	6	0	0	0	63	2	3	206
08:00 AM	1	0	0	1	29	2	0	4	0	1	0	25	0	1	64
08:15 AM	1	0	2	2	16	2	0	1	0	0	1	11	2	0	38
08:30 AM	0	0	0	4	15	2	0	3	0	0	0	22	2	0	48
08:45 AM	0	0	1	5	14	2	0	3	0	0	0	23	1	1	50
Total	2	0	3	12	74	8	0	11	0	1	1	81	5	2	200
Grand Total	8	0	5	15	184	19	0	17	0	1	1	144	7	5	406
Apprch %	61.5	0	38.5	6.9	84.4	8.7	0	94.4	0	5.6	0.6	91.7	4.5	3.2	
Total %	2	0	1.2	3.7	45.3	4.7	0	4.2	0	0.2	0.2	35.5	1.7	1.2	

	Lincoln Street From North				Cambridge Street From East					Train Cargo Access From South				Cambridge Street 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 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:15 AM																			
07:15 AM	1	0	0	1	0	**34**	**4**	0	**38**	1	0	0	1	0	11	**1**	0	12	52
07:30 AM	0	0	0	0	**3**	19	0	0	22	2	0	0	2	0	22	0	0	22	46
07:45 AM	**2**	0	**1**	**3**	0	19	3	0	22	0	0	0	0	0	22	1	**2**	25	50
08:00 AM	1	0	0	1	1	29	2	0	32	**4**	0	**1**	**5**	0	**25**	0	1	**26**	**64**
Total Volume	4	0	1	5	4	101	9	0	114	7	0	1	8	0	80	2	3	85	212
% App. Total	80	0	20		3.5	88.6	7.9	0		87.5	0	12.5		0	94.1	2.4	3.5		
PHF	.500	.000	.250	.417	.333	.743	.563	.000	.750	.438	.000	.250	.400	.000	.800	.500	.375	.817	.828

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N/S: Lincoln Street/ Train Cargo Access
E/W: Cambridge Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 I
Site Code : TBA
Start Date : 11/15/2011

Groups Printed- Peds and Bicycles

	Lincoln Street From North				Cambridge Street From East				Train Cargo Access From South				Cambridge 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	4	0	1	0	0	0	0	0	0	0	1	0	0	6
07:30 AM	0	0	0	3	0	1	0	0	0	0	0	0	0	2	0	0	6
07:45 AM	0	0	0	9	0	2	0	0	0	0	0	4	0	2	0	0	17
Total	0	0	0	16	0	4	0	0	0	0	0	4	0	5	0	0	29
08:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	7	0	0	9
08:15 AM	0	0	0	6	0	0	0	0	0	0	0	3	0	3	0	0	12
08:30 AM	0	0	1	5	0	0	0	0	0	0	0	5	0	5	0	1	17
08:45 AM	0	0	0	10	0	1	0	2	0	0	0	2	0	3	0	0	18
Total	0	0	1	23	0	1	0	2	0	0	0	10	0	18	0	1	56
Grand Total	0	0	1	39	0	5	0	2	0	0	0	14	0	23	0	1	85
Apprch %	0	0	2.5	97.5	0	71.4	0	28.6	0	0	0	100	0	95.8	0	4.2	
Total %	0	0	1.2	45.9	0	5.9	0	2.4	0	0	0	16.5	0	27.1	0	1.2	

	Lincoln Street From North					Cambridge Street From East					Train Cargo Access From South					Cambridge 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	2	2	0	0	0	0	0	0	0	0	0	0	0	**7**	0	0	**7**	9
08:15 AM	0	0	0	6	6	0	0	0	0	0	0	0	0	3	3	0	3	0	0	3	12
08:30 AM	0	0	**1**	5	6	0	0	0	0	0	0	0	0	**5**	**5**	0	5	0	**1**	6	17
08:45 AM	0	0	0	**10**	**10**	0	**1**	0	**2**	**3**	0	0	0	2	2	0	3	0	0	3	**18**
Total Volume	0	0	1	23	24	0	1	0	2	3	0	0	0	10	10	0	18	0	1	19	56
% App. Total	0	0	4.2	95.8		0	33.3	0	66.7		0	0	0	100		0	94.7	0	5.3		
PHF	.000	.000	.250	.575	.600	.000	.250	.000	.250	.250	.000	.000	.000	.500	.500	.000	.643	.000	.250	.679	.778

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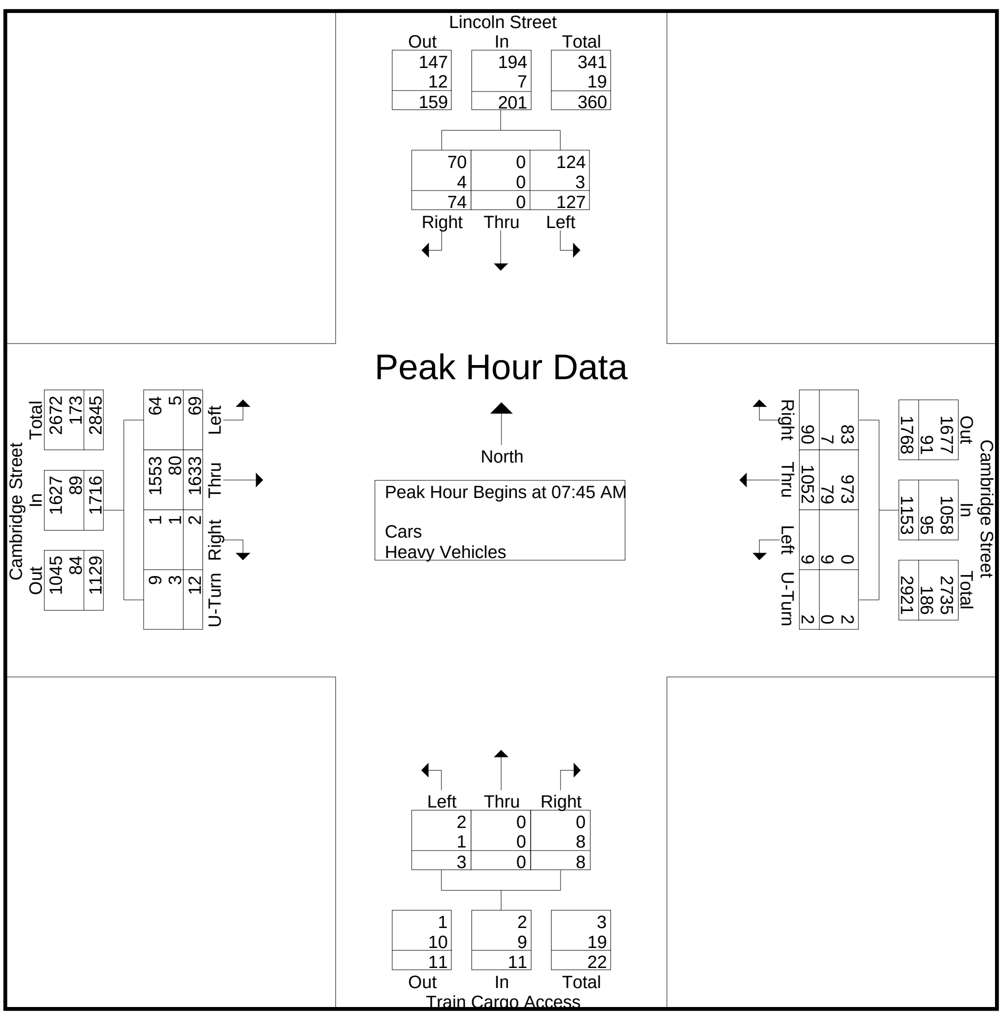
E/W: Cambridge Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 I
Site Code : TBA
Start Date : 11/15/2011

	Lincoln Street From North				Cambridge Street From East					Train Cargo Access From South				Cambridge Street 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 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:45 AM																			
07:45 AM	19	0	31	50	17	248	**3**	0	268	0	0	1	1	0	413	15	**4**	432	751
08:00 AM	13	0	**34**	47	24	267	2	**1**	294	**4**	0	**2**	**6**	**1**	392	15	3	411	758
08:15 AM	20	0	30	50	**29**	**276**	2	0	**307**	1	0	0	1	1	**416**	18	2	**437**	**795**
08:30 AM	**22**	0	32	**54**	20	261	2	1	284	3	0	0	3	0	412	**21**	3	436	777
Total Volume	74	0	127	201	90	1052	9	2	1153	8	0	3	11	2	1633	69	12	1716	3081
% App. Total	36.8	0	63.2		7.8	91.2	0.8	0.2		72.7	0	27.3		0.1	95.2	4	0.7		
PHF	.841	.000	.934	.931	.776	.953	.750	.500	.939	.500	.000	.375	.458	.500	.981	.821	.750	.982	.969
Cars	70	0	124	194	83	973	0	2	1058	0	0	2	2	1	1553	64	9	1627	2881
% Cars	94.6	0	97.6	96.5	92.2	92.5	0	100	91.8	0	0	66.7	18.2	50.0	95.1	92.8	75.0	94.8	93.5
Heavy Vehicles	4	0	3	7	7	79	9	0	95	8	0	1	9	1	80	5	3	89	200
% Heavy Vehicles	5.4	0	2.4	3.5	7.8	7.5	100	0	8.2	100	0	33.3	81.8	50.0	4.9	7.2	25.0	5.2	6.5



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E/W: Cambridge Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 II
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Lincoln Street From North			Cambridge Street From East				Train Cargo Access From South			Cambridge Street From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	24	0	29	26	233	2	2	2	0	1	1	338	28	4	690
04:15 PM	18	0	32	24	266	1	2	4	0	1	0	365	28	1	742
04:30 PM	11	0	34	26	269	0	1	1	0	0	0	367	21	2	732
04:45 PM	14	0	41	31	296	2	3	2	0	0	0	348	25	0	762
Total	67	0	136	107	1064	5	8	9	0	2	1	1418	102	7	2926
05:00 PM	18	0	47	35	268	0	0	1	0	0	0	366	31	6	772
05:15 PM	14	0	42	36	350	2	0	0	0	0	0	397	20	4	865
05:30 PM	14	0	31	38	326	0	0	2	0	0	0	375	32	2	820
05:45 PM	17	0	30	35	338	0	0	0	0	0	0	349	39	6	814
Total	63	0	150	144	1282	2	0	3	0	0	0	1487	122	18	3271
Grand Total	130	0	286	251	2346	7	8	12	0	2	1	2905	224	25	6197
Apprch %	31.2	0	68.8	9.6	89.8	0.3	0.3	85.7	0	14.3	0	92.1	7.1	0.8	
Total %	2.1	0	4.6	4.1	37.9	0.1	0.1	0.2	0	0	0	46.9	3.6	0.4	
Cars	127	0	277	246	2276	1	8	5	0	2	1	2824	217	25	6009
% Cars	97.7	0	96.9	98	97	14.3	100	41.7	0	100	100	97.2	96.9	100	97
Heavy Vehicles	3	0	9	5	70	6	0	7	0	0	0	81	7	0	188
% Heavy Vehicles	2.3	0	3.1	2	3	85.7	0	58.3	0	0	0	2.8	3.1	0	3

	Lincoln Street From North				Cambridge Street From East					Train Cargo Access From South				Cambridge Street 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 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	**18**	0	**47**	**65**	35	268	0	0	303	1	0	0	1	0	366	31	**6**	403	772
05:15 PM	14	0	42	56	36	**350**	**2**	0	**388**	0	0	0	0	0	**397**	20	4	**421**	**865**
05:30 PM	14	0	31	45	**38**	326	0	0	364	**2**	0	0	**2**	0	375	32	2	409	820
05:45 PM	17	0	30	47	35	338	0	0	373	0	0	0	0	0	349	**39**	6	394	814
Total Volume	63	0	150	213	144	1282	2	0	1428	3	0	0	3	0	1487	122	18	1627	3271
% App. Total	29.6	0	70.4		10.1	89.8	0.1	0		100	0	0		0	91.4	7.5	1.1		
PHF	.875	.000	.798	.819	.947	.916	.250	.000	.920	.375	.000	.000	.375	.000	.936	.782	.750	.966	.945
Cars	62	0	149	211	142	1254	1	0	1397	2	0	0	2	0	1445	118	18	1581	3191
% Cars	98.4	0	99.3	99.1	98.6	97.8	50.0	0	97.8	66.7	0	0	66.7	0	97.2	96.7	100	97.2	97.6
Heavy Vehicles	1	0	1	2	2	28	1	0	31	1	0	0	1	0	42	4	0	46	80
% Heavy Vehicles	1.6	0	0.7	0.9	1.4	2.2	50.0	0	2.2	33.3	0	0	33.3	0	2.8	3.3	0	2.8	2.4

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E/W: Cambridge Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 II
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

Groups Printed- Cars

	Lincoln Street From North			Cambridge Street From East				Train Cargo Access From South			Cambridge Street From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	24	0	26	25	224	0	2	1	0	1	1	321	26	4	655
04:15 PM	16	0	29	23	253	0	2	2	0	1	0	358	27	1	712
04:30 PM	11	0	32	26	253	0	1	0	0	0	0	358	21	2	704
04:45 PM	14	0	41	30	292	0	3	0	0	0	0	342	25	0	747
Total	65	0	128	104	1022	0	8	3	0	2	1	1379	99	7	2818
05:00 PM	17	0	47	35	263	0	0	1	0	0	0	357	30	6	756
05:15 PM	14	0	41	36	341	1	0	0	0	0	0	386	20	4	843
05:30 PM	14	0	31	38	320	0	0	1	0	0	0	361	29	2	796
05:45 PM	17	0	30	33	330	0	0	0	0	0	0	341	39	6	796
Total	62	0	149	142	1254	1	0	2	0	0	0	1445	118	18	3191
Grand Total	127	0	277	246	2276	1	8	5	0	2	1	2824	217	25	6009
Apprch %	31.4	0	68.6	9.7	89.9	0	0.3	71.4	0	28.6	0	92.1	7.1	0.8	
Total %	2.1	0	4.6	4.1	37.9	0	0.1	0.1	0	0	0	47	3.6	0.4	

	Lincoln Street From North				Cambridge Street From East					Train Cargo Access From South				Cambridge Street 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 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	**17**	0	**47**	**64**	35	263	0	0	298	**1**	0	0	**1**	0	357	30	**6**	393	756
05:15 PM	14	0	41	55	36	**341**	**1**	0	**378**	0	0	0	0	0	**386**	20	4	**410**	**843**
05:30 PM	14	0	31	45	**38**	320	0	0	358	1	0	0	1	0	361	29	2	392	796
05:45 PM	17	0	30	47	33	330	0	0	363	0	0	0	0	0	341	**39**	6	386	796
Total Volume	62	0	149	211	142	1254	1	0	1397	2	0	0	2	0	1445	118	18	1581	3191
% App. Total	29.4	0	70.6		10.2	89.8	0.1	0		100	0	0		0	91.4	7.5	1.1		
PHF	.912	.000	.793	.824	.934	.919	.250	.000	.924	.500	.000	.000	.500	.000	.936	.756	.750	.964	.946

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File Name : 112704 II
Site Code : TBA
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Page No : 1

Groups Printed- Heavy Vehicles

	Lincoln Street From North			Cambridge Street From East				Train Cargo Access From South			Cambridge Street From West				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	3	1	9	2	0	1	0	0	0	17	2	0	35
04:15 PM	2	0	3	1	13	1	0	2	0	0	0	7	1	0	30
04:30 PM	0	0	2	0	16	0	0	1	0	0	0	9	0	0	28
04:45 PM	0	0	0	1	4	2	0	2	0	0	0	6	0	0	15
Total	2	0	8	3	42	5	0	6	0	0	0	39	3	0	108
05:00 PM	1	0	0	0	5	0	0	0	0	0	0	9	1	0	16
05:15 PM	0	0	1	0	9	1	0	0	0	0	0	11	0	0	22
05:30 PM	0	0	0	0	6	0	0	1	0	0	0	14	3	0	24
05:45 PM	0	0	0	2	8	0	0	0	0	0	0	8	0	0	18
Total	1	0	1	2	28	1	0	1	0	0	0	42	4	0	80
Grand Total	3	0	9	5	70	6	0	7	0	0	0	81	7	0	188
Apprch %	25	0	75	6.2	86.4	7.4	0	100	0	0	0	92	8	0	
Total %	1.6	0	4.8	2.7	37.2	3.2	0	3.7	0	0	0	43.1	3.7	0	

	Lincoln Street From North				Cambridge Street From East					Train Cargo Access From South				Cambridge Street 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 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**	3	**1**	9	**2**	0	12	1	0	0	1	0	**17**	**2**	0	**19**	**35**
04:15 PM	**2**	0	3	**5**	1	13	1	0	15	**2**	0	0	**2**	0	7	1	0	8	30
04:30 PM	0	0	2	2	0	**16**	0	0	**16**	1	0	0	1	0	9	0	0	9	28
04:45 PM	0	0	0	0	1	4	2	0	7	2	0	0	2	0	6	0	0	6	15
Total Volume	2	0	8	10	3	42	5	0	50	6	0	0	6	0	39	3	0	42	108
% App. Total	20	0	80		6	84	10	0		100	0	0		0	92.9	7.1	0		
PHF	.250	.000	.667	.500	.750	.656	.625	.000	.781	.750	.000	.000	.750	.000	.574	.375	.000	.553	.771

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Groups Printed- Peds and Bicycles

	Lincoln Street From North				Cambridge Street From East				Train Cargo Access From South				Cambridge 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	1	0	1	6	0	3	0	3	0	0	0	5	0	2	0	0	21
04:15 PM	0	0	0	9	0	3	0	0	0	0	0	1	0	7	0	0	20
04:30 PM	1	0	0	6	0	5	0	0	0	0	0	4	0	1	0	0	17
04:45 PM	0	0	0	8	0	2	0	0	0	0	0	2	0	1	0	0	13
Total	2	0	1	29	0	13	0	3	0	0	0	12	0	11	0	0	71
05:00 PM	0	0	1	10	1	3	0	0	0	0	0	2	0	0	0	0	17
05:15 PM	0	0	0	9	0	6	0	0	0	0	0	2	0	0	1	0	18
05:30 PM	1	0	0	6	0	4	0	1	0	0	0	2	0	1	1	0	16
05:45 PM	1	0	0	8	0	0	0	0	0	0	0	2	0	1	0	0	12
Total	2	0	1	33	1	13	0	1	0	0	0	8	0	2	2	0	63
Grand Total	4	0	2	62	1	26	0	4	0	0	0	20	0	13	2	0	134
Apprch %	5.9	0	2.9	91.2	3.2	83.9	0	12.9	0	0	0	100	0	86.7	13.3	0	
Total %	3	0	1.5	46.3	0.7	19.4	0	3	0	0	0	14.9	0	9.7	1.5	0	

	Lincoln Street From North					Cambridge Street From East					Train Cargo Access From South					Cambridge 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 04:00 PM																					
04:00 PM	**1**	0	**1**	6	8	0	3	0	**3**	**6**	0	0	0	**5**	**5**	0	2	0	0	2	**21**
04:15 PM	0	0	0	**9**	**9**	0	3	0	0	3	0	0	0	1	1	0	**7**	0	0	**7**	20
04:30 PM	1	0	0	6	7	0	**5**	0	0	5	0	0	0	4	4	0	1	0	0	1	17
04:45 PM	0	0	0	8	8	0	2	0	0	2	0	0	0	2	2	0	1	0	0	1	13
Total Volume	2	0	1	29	32	0	13	0	3	16	0	0	0	12	12	0	11	0	0	11	71
% App. Total	6.2	0	3.1	90.6		0	81.2	0	18.8		0	0	0	100		0	100	0	0		
PHF	.500	.000	.250	.806	.889	.000	.650	.000	.250	.667	.000	.000	.000	.600	.600	.000	.393	.000	.000	.393	.845

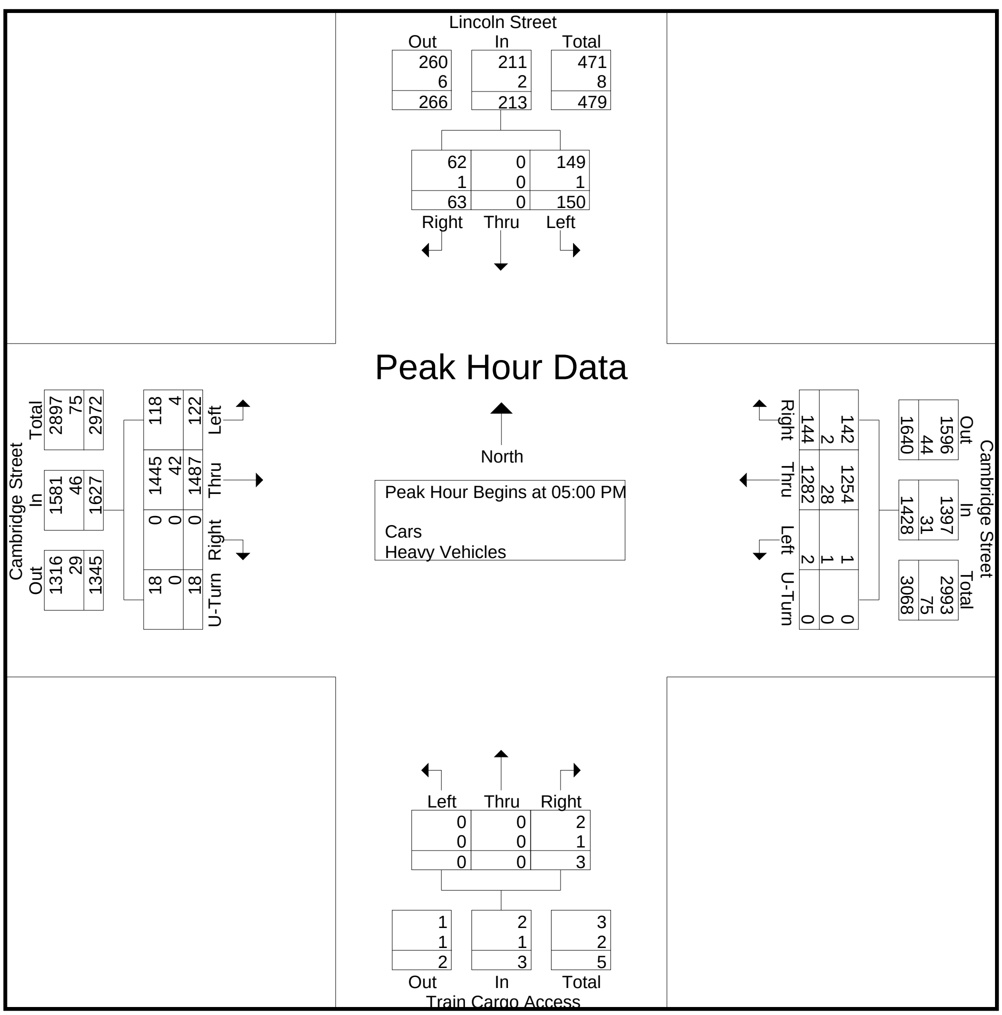
PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: Lincoln Street/ Train Cargo Access
E/W: Cambridge Street
City, State: Brighton, MA
Client: VHB/ E. Orlando

File Name : 112704 II
Site Code : TBA
Start Date : 11/15/2011
Page No : 1

	Lincoln Street From North				Cambridge Street From East					Train Cargo Access From South				Cambridge Street 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 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	**18**	0	**47**	**65**	35	268	0	0	303	1	0	0	1	0	366	31	**6**	403	772
05:15 PM	14	0	42	56	36	**350**	**2**	0	**388**	0	0	0	0	0	**397**	20	4	**421**	**865**
05:30 PM	14	0	31	45	**38**	326	0	0	364	**2**	0	0	**2**	0	375	32	2	409	820
05:45 PM	17	0	30	47	35	338	0	0	373	0	0	0	0	0	349	**39**	6	394	814
Total Volume	63	0	150	213	144	1282	2	0	1428	3	0	0	3	0	1487	122	18	1627	3271
% App. Total	29.6	0	70.4		10.1	89.8	0.1	0		100	0	0		0	91.4	7.5	1.1		
PHF	.875	.000	.798	.819	.947	.916	.250	.000	.920	.375	.000	.000	.375	.000	.936	.782	.750	.966	.945
Cars	62	0	149	211	142	1254	1	0	1397	2	0	0	2	0	1445	118	18	1581	3191
% Cars	98.4	0	99.3	99.1	98.6	97.8	50.0	0	97.8	66.7	0	0	66.7	0	97.2	96.7	100	97.2	97.6
Heavy Vehicles	1	0	1	2	2	28	1	0	31	1	0	0	1	0	42	4	0	46	80
% Heavy Vehicles	1.6	0	0.7	0.9	1.4	2.2	50.0	0	2.2	33.3	0	0	33.3	0	2.8	3.3	0	2.8	2.4



Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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112704 A Volume
Site Code: TBA

Start	NB				SB				Combined				15-Nov-11
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	7		41		12		69		19		110		
12:15	5		43		8		80		13		123		
12:30	6		46		5		81		11		127		
12:45	10	28	58	188	6	31	68	298	16	59	126	486	
01:00	5		53		8		74		13		127		
01:15	8		53		7		70		15		123		
01:30	2		52		3		88		5		140		
01:45	1	16	65	223	5	23	80	312	6	39	145	535	
02:00	2		69		9		75		11		144		
02:15	7		59		3		67		10		126		
02:30	1		63		2		80		3		143		
02:45	2	12	72	263	2	16	103	325	4	28	175	588	
03:00	1		62		2		77		3		139		
03:15	0		58		2		77		2		135		
03:30	3		62		3		94		6		156		
03:45	2	6	67	249	2	9	89	337	4	15	156	586	
04:00	4		81		6		85		10		166		
04:15	4		80		4		104		8		184		
04:30	2		70		0		103		2		173		
04:45	5	15	72	303	5	15	101	393	10	30	173	696	
05:00	6		70		5		89		11		159		
05:15	5		85		6		111		11		196		
05:30	6		70		13		108		19		178		
05:45	12	29	70	295	20	44	109	417	32	73	179	712	
06:00	11		66		7		97		18		163		
06:15	11		56		28		105		39		161		
06:30	23		50		34		90		57		140		
06:45	38	83	46	218	64	133	87	379	102	216	133	597	
07:00	33		35		53		70		86		105		
07:15	43		47		65		60		108		107		
07:30	65		42		70		51		135		93		
07:45	69	210	42	166	86	274	54	235	155	484	96	401	
08:00	82		42		82		64		164		106		
08:15	108		29		69		52		177		81		
08:30	72		32		108		42		180		74		
08:45	72	334	33	136	72	331	49	207	144	665	82	343	
09:00	63		29		82		54		145		83		
09:15	49		29		72		41		121		70		
09:30	42		23		69		43		111		66		
09:45	49	203	30	111	58	281	38	176	107	484	68	287	
10:00	53		23		57		32		110		55		
10:15	35		25		63		26		98		51		
10:30	57		21		54		26		111		47		
10:45	45	190	21	90	56	230	30	114	101	420	51	204	
11:00	49		13		66		20		115		33		
11:15	41		20		69		18		110		38		
11:30	48		15		56		11		104		26		
11:45	41	179	11	59	57	248	10	59	98	427	21	118	
Total	1305		2301		1635		3252		2940		5553		
Percent	44.4%		41.4%		55.6%		58.6%						
Day Total		3606				4887				8493			
Peak	08:00		04:00		07:45		05:15		07:45		05:15		
Vol.	334		303		345		425		676		716		
P.H.F.	0.773		0.935		0.799		0.957		0.939		0.913		

PRECISION
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Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 A Volume
Site Code: TBA

Start	NB				SB				Combined				16-Nov-11
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	11		58		9		68		20		126		
12:15	14		31		11		77		25		108		
12:30	8		47		4		88		12		135		
12:45	7	40	55	191	9	33	60	293	16	73	115	484	
01:00	6		42		7		82		13		124		
01:15	4		39		4		72		8		111		
01:30	9		50		6		66		15		116		
01:45	3	22	58	189	8	25	74	294	11	47	132	483	
02:00	6		63		4		71		10		134		
02:15	2		56		6		85		8		141		
02:30	3		70		0		77		3		147		
02:45	8	19	44	233	4	14	105	338	12	33	149	571	
03:00	3		60		2		63		5		123		
03:15	1		68		2		76		3		144		
03:30	3		67		4		94		7		161		
03:45	3	10	68	263	3	11	94	327	6	21	162	590	
04:00	1		64		3		86		4		150		
04:15	3		58		5		74		8		132		
04:30	4		62		1		90		5		152		
04:45	7	15	51	235	0	9	97	347	7	24	148	582	
05:00	3		74		4		120		7		194		
05:15	5		67		6		125		11		192		
05:30	7		71		11		93		18		164		
05:45	4	19	57	269	14	35	119	457	18	54	176	726	
06:00	13		67		13		98		26		165		
06:15	20		45		30		96		50		141		
06:30	28		48		33		109		61		157		
06:45	33	94	45	205	49	125	84	387	82	219	129	592	
07:00	33		51		51		62		84		113		
07:15	57		52		60		56		117		108		
07:30	56		29		65		70		121		99		
07:45	85	231	34	166	86	262	60	248	171	493	94	414	
08:00	85		36		65		59		150		95		
08:15	88		31		72		47		160		78		
08:30	67		30		75		39		142		69		
08:45	60	300	23	120	90	302	34	179	150	602	57	299	
09:00	55		24		60		28		115		52		
09:15	57		39		66		33		123		72		
09:30	49		37		64		38		113		75		
09:45	46	207	33	133	66	256	34	133	112	463	67	266	
10:00	37		30		69		42		106		72		
10:15	32		21		48		29		80		50		
10:30	43		18		49		18		92		36		
10:45	49	161	16	85	55	221	23	112	104	382	39	197	
11:00	44		15		74		16		118		31		
11:15	50		15		67		17		117		32		
11:30	58		11		70		10		128		21		
11:45	42	194	9	50	78	289	8	51	120	483	17	101	
Total	1312		2139		1582		3166		2894		5305		
Percent	45.3%		40.3%		54.7%		59.7%						
Day Total		3451				4748				8199			
Peak	07:45		05:00		08:00		05:00		07:45		05:00		
Vol.	325		269		302		457		623		726		
P.H.F.	0.923		0.909		0.839		0.914		0.911		0.936		

PRECISION
D A T A
INDUSTRIES, LLC
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Email: datarequests@pdillc.com

Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 A Volume
Site Code: TBA

Start	NB				SB				Combined				17-Nov-11
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Thu
12:00	15		54		13		80		28		134		
12:15	10		59		17		76		27		135		
12:30	10		66		11		83		21		149		
12:45	8	43	68	247	5	46	62	301	13	89	130	548	
01:00	6		63		6		84		12		147		
01:15	3		55		7		72		10		127		
01:30	3		58		4		82		7		140		
01:45	3	15	76	252	3	20	92	330	6	35	168	582	
02:00	1		64		3		84		4		148		
02:15	1		59		4		69		5		128		
02:30	6		63		2		87		8		150		
02:45	5	13	69	255	2	11	76	316	7	24	145	571	
03:00	5		53		0		95		5		148		
03:15	5		50		1		73		6		123		
03:30	1		54		7		101		8		155		
03:45	1	12	67	224	1	9	83	352	2	21	150	576	
04:00	4		73		5		96		9		169		
04:15	2		53		5		109		7		162		
04:30	2		66		3		87		5		153		
04:45	11	19	62	254	2	15	98	390	13	34	160	644	
05:00	5		81		1		105		6		186		
05:15	7		68		12		108		19		176		
05:30	4		66		9		90		13		156		
05:45	7	23	54	269	17	39	120	423	24	62	174	692	
06:00	16		57		14		121		30		178		
06:15	18		51		29		110		47		161		
06:30	22		49		44		98		66		147		
06:45	37	93	48	205	58	145	76	405	95	238	124	610	
07:00	37		44		56		80		93		124		
07:15	57		51		67		83		124		134		
07:30	67		36		65		62		132		98		
07:45	67	228	47	178	93	281	51	276	160	509	98	454	
08:00	73		42		72		62		145		104		
08:15	98		33		71		46		169		79		
08:30	90		32		83		61		173		93		
08:45	58	319	19	126	71	297	34	203	129	616	53	329	
09:00	51		43		71		47		122		90		
09:15	62		35		77		48		139		83		
09:30	48		30		57		37		105		67		
09:45	42	203	23	131	60	265	40	172	102	468	63	303	
10:00	51		32		65		32		116		64		
10:15	42		26		48		41		90		67		
10:30	55		17		64		24		119		41		
10:45	46	194	19	94	56	233	24	121	102	427	43	215	
11:00	40		19		59		25		99		44		
11:15	40		12		70		17		110		29		
11:30	36		9		64		20		100		29		
11:45	46	162	12	52	85	278	16	78	131	440	28	130	
Total	1324		2287		1639		3367		2963		5654		
Percent	44.7%		40.4%		55.3%		59.6%						
Day Total		3611				5006				8617			
Peak	07:45		04:30		07:45		05:45		07:45		05:00		
Vol.	328		277		319		449		647		692		
P.H.F.	0.837		0.855		0.858		0.928		0.935		0.930		

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Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 A CLASS
Site Code: TBA

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/15/1														
1	0	25	3	0	0	0	0	0	0	0	0	0	0	28
01:00	2	11	2	0	1	0	0	0	0	0	0	0	0	16
02:00	0	9	0	0	3	0	0	0	0	0	0	0	0	12
03:00	0	5	0	0	0	1	0	0	0	0	0	0	0	6
04:00	0	13	2	0	0	0	0	0	0	0	0	0	0	15
05:00	1	21	3	0	2	1	0	1	0	0	0	0	0	29
06:00	2	54	20	1	4	1	0	1	0	0	0	0	0	83
07:00	1	184	17	0	7	0	0	0	1	0	0	0	0	210
08:00	8	294	25	3	3	1	0	0	0	0	0	0	0	334
09:00	11	168	15	2	6	0	0	1	0	0	0	0	0	203
10:00	1	163	19	1	6	0	0	0	0	0	0	0	0	190
11:00	4	139	30	1	4	1	0	0	0	0	0	0	0	179
12 PM	6	149	26	0	5	2	0	0	0	0	0	0	0	188
13:00	4	196	20	0	2	1	0	0	0	0	0	0	0	223
14:00	3	224	26	3	5	0	0	1	1	0	0	0	0	263
15:00	4	213	29	0	3	0	0	0	0	0	0	0	0	249
16:00	9	254	36	0	2	0	0	1	0	0	0	1	0	303
17:00	7	262	23	0	3	0	0	0	0	0	0	0	0	295
18:00	3	205	9	0	1	0	0	0	0	0	0	0	0	218
19:00	6	149	10	0	1	0	0	0	0	0	0	0	0	166
20:00	4	124	6	0	2	0	0	0	0	0	0	0	0	136
21:00	7	99	5	0	0	0	0	0	0	0	0	0	0	111
22:00	1	87	1	0	1	0	0	0	0	0	0	0	0	90
23:00	1	53	5	0	0	0	0	0	0	0	0	0	0	59
Percent	2.4%	86.0%	9.2%	0.3%	1.7%	0.2%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	11:00	08:00	07:00	03:00		05:00	07:00					08:00
Vol.	11	294	30	3	7	1		1	1					334
PM Peak	16:00	17:00	16:00	14:00	12:00	12:00		14:00	14:00			16:00		16:00
Vol.	9	262	36	3	5	2		1	1			1		303

PRECISION
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Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 A CLASS
Site Code: TBA

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/16/1														
1	3	31	3	0	3	0	0	0	0	0	0	0	0	40
01:00	1	18	2	0	1	0	0	0	0	0	0	0	0	22
02:00	2	14	1	0	1	0	0	0	1	0	0	0	0	19
03:00	0	10	0	0	0	0	0	0	0	0	0	0	0	10
04:00	0	11	3	0	1	0	0	0	0	0	0	0	0	15
05:00	0	16	1	0	2	0	0	0	0	0	0	0	0	19
06:00	2	69	17	1	5	0	0	0	0	0	0	0	0	94
07:00	4	203	17	0	6	0	0	1	0	0	0	0	0	231
08:00	11	260	20	4	4	0	0	0	0	0	1	0	0	300
09:00	5	179	16	1	4	0	0	2	0	0	0	0	0	207
10:00	1	134	20	0	5	0	0	1	0	0	0	0	0	161
11:00	3	148	32	1	7	0	1	1	0	1	0	0	0	194
12 PM	3	167	19	0	1	1	0	0	0	0	0	0	0	191
13:00	5	163	17	0	4	0	0	0	0	0	0	0	0	189
14:00	4	192	27	2	5	1	0	0	2	0	0	0	0	233
15:00	2	226	31	1	3	0	0	0	0	0	0	0	0	263
16:00	1	210	17	0	7	0	0	0	0	0	0	0	0	235
17:00	7	241	15	1	4	0	0	1	0	0	0	0	0	269
18:00	2	188	14	0	1	0	0	0	0	0	0	0	0	205
19:00	1	152	11	0	2	0	0	0	0	0	0	0	0	166
20:00	2	113	4	0	1	0	0	0	0	0	0	0	0	120
21:00	1	128	4	0	0	0	0	0	0	0	0	0	0	133
22:00	2	73	8	0	2	0	0	0	0	0	0	0	0	85
23:00	1	47	1	0	1	0	0	0	0	0	0	0	0	50
Percent	1.8%	86.7%	8.7%	0.3%	2.0%	0.1%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	11:00	08:00	11:00		11:00	09:00	02:00	11:00	08:00			08:00
Vol.	11	260	32	4	7		1	2	1	1	1			300
PM Peak	17:00	17:00	15:00	14:00	16:00	12:00		17:00	14:00					17:00
Vol.	7	241	31	2	7	1		1	2					269

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

Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 A CLASS
Site Code: TBA

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/17/1 1	2	38	3	0	0	0	0	0	0	0	0	0	0	43
01:00	1	13	1	0	0	0	0	0	0	0	0	0	0	15
02:00	0	10	1	0	2	0	0	0	0	0	0	0	0	13
03:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
04:00	0	14	4	0	1	0	0	0	0	0	0	0	0	19
05:00	0	16	3	1	2	0	0	1	0	0	0	0	0	23
06:00	0	73	14	1	4	1	0	0	0	0	0	0	0	93
07:00	3	201	17	0	5	1	0	0	0	1	0	0	0	228
08:00	6	279	21	2	4	4	0	3	0	0	0	0	0	319
09:00	8	165	18	1	5	2	0	4	0	0	0	0	0	203
10:00	1	161	17	3	11	0	0	1	0	0	0	0	0	194
11:00	5	134	16	0	6	1	0	0	0	0	0	0	0	162
12 PM	5	210	22	1	7	1	0	0	1	0	0	0	0	247
13:00	2	218	24	0	8	0	0	0	0	0	0	0	0	252
14:00	1	228	23	2	1	0	0	0	0	0	0	0	0	255
15:00	4	188	27	0	3	1	0	1	0	0	0	0	0	224
16:00	1	226	23	2	2	0	0	0	0	0	0	0	0	254
17:00	5	248	16	0	0	0	0	0	0	0	0	0	0	269
18:00	6	173	21	1	4	0	0	0	0	0	0	0	0	205
19:00	5	144	20	1	5	0	0	3	0	0	0	0	0	178
20:00	1	107	16	0	2	0	0	0	0	0	0	0	0	126
21:00	0	120	11	0	0	0	0	0	0	0	0	0	0	131
22:00	4	73	15	0	2	0	0	0	0	0	0	0	0	94
23:00	0	44	8	0	0	0	0	0	0	0	0	0	0	52
Percent	1.7%	85.7%	9.4%	0.4%	2.0%	0.3%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	08:00	10:00	10:00	08:00		09:00		07:00				08:00
Vol.	8	279	21	3	11	4		4		1				319
PM Peak	18:00	17:00	15:00	14:00	13:00	12:00		19:00	12:00					17:00
Vol.	6	248	27	2	8	1		3	1					269

Everett Street (Bridge)
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112704 A CLASS
Site Code: TBA

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/15/1 1	1	24	5	0	1	0	0	0	0	0	0	0	0	31
01:00	0	22	1	0	0	0	0	0	0	0	0	0	0	23
02:00	0	13	0	0	3	0	0	0	0	0	0	0	0	16
03:00	0	4	2	0	1	2	0	0	0	0	0	0	0	9
04:00	0	10	3	1	1	0	0	0	0	0	0	0	0	15
05:00	0	28	10	1	4	0	0	0	1	0	0	0	0	44
06:00	0	102	23	1	6	1	0	0	0	0	0	0	0	133
07:00	1	212	49	0	10	1	0	1	0	0	0	0	0	274
08:00	3	247	64	4	13	0	0	0	0	0	0	0	0	331
09:00	1	216	47	1	14	1	0	1	0	0	0	0	0	281
10:00	0	170	46	1	11	1	0	1	0	0	0	0	0	230
11:00	0	190	47	4	6	0	0	1	0	0	0	0	0	248
12 PM	0	241	48	0	7	1	0	1	0	0	0	0	0	298
13:00	1	225	72	0	13	1	0	0	0	0	0	0	0	312
14:00	1	254	57	4	9	0	0	0	0	0	0	0	0	325
15:00	0	278	46	1	8	0	0	4	0	0	0	0	0	337
16:00	3	296	80	1	10	0	0	2	0	1	0	0	0	393
17:00	3	361	45	0	5	1	0	1	0	0	1	0	0	417
18:00	1	333	41	0	4	0	0	0	0	0	0	0	0	379
19:00	1	199	29	1	5	0	0	0	0	0	0	0	0	235
20:00	1	176	29	0	1	0	0	0	0	0	0	0	0	207
21:00	0	160	13	0	3	0	0	0	0	0	0	0	0	176
22:00	4	97	12	0	1	0	0	0	0	0	0	0	0	114
23:00	1	51	5	0	2	0	0	0	0	0	0	0	0	59
Percent	0.5%	80.0%	15.8%	0.4%	2.8%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	08:00	08:00	09:00	03:00		07:00	05:00					08:00
Vol.	3	247	64	4	14	2		1	1					331
PM Peak	22:00	17:00	16:00	14:00	13:00	12:00		15:00		16:00	17:00			17:00
Vol.	4	361	80	4	13	1		4		1	1			417

PRECISION
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Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 A CLASS
Site Code: TBA

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/16/1														
1	0	27	3	0	1	0	0	2	0	0	0	0	0	33
01:00	0	24	0	0	1	0	0	0	0	0	0	0	0	25
02:00	0	13	0	0	0	1	0	0	0	0	0	0	0	14
03:00	0	6	3	0	2	0	0	0	0	0	0	0	0	11
04:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
05:00	0	28	5	0	1	1	0	0	0	0	0	0	0	35
06:00	0	93	26	0	5	1	0	0	0	0	0	0	0	125
07:00	1	199	47	0	15	0	0	0	0	0	0	0	0	262
08:00	3	226	60	2	9	1	0	1	0	0	0	0	0	302
09:00	3	196	43	1	12	0	0	1	0	0	0	0	0	256
10:00	1	170	36	2	12	0	0	0	0	0	0	0	0	221
11:00	0	228	50	3	5	0	1	2	0	0	0	0	0	289
12 PM	0	225	55	0	12	0	0	1	0	0	0	0	0	293
13:00	1	213	61	1	16	1	0	1	0	0	0	0	0	294
14:00	1	265	58	3	10	0	0	1	0	0	0	0	0	338
15:00	0	254	66	0	7	0	0	0	0	0	0	0	0	327
16:00	0	286	49	1	11	0	0	0	0	0	0	0	0	347
17:00	1	394	56	0	4	0	0	2	0	0	0	0	0	457
18:00	0	348	35	0	4	0	0	0	0	0	0	0	0	387
19:00	0	223	20	0	5	0	0	0	0	0	0	0	0	248
20:00	0	156	19	0	2	0	0	2	0	0	0	0	0	179
21:00	0	123	10	0	0	0	0	0	0	0	0	0	0	133
22:00	0	100	8	0	3	1	0	0	0	0	0	0	0	112
23:00	0	43	8	0	0	0	0	0	0	0	0	0	0	51
Percent	0.2%	81.0%	15.2%	0.3%	2.9%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	08:00	11:00	07:00	02:00	11:00	00:00						08:00
Vol.	3	228	60	3	15	1	1	2						302
PM Peak	13:00	17:00	15:00	14:00	13:00	13:00		17:00						17:00
Vol.	1	394	66	3	16	1		2						457

PRECISION
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Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
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112704 A CLASS
Site Code: TBA

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/17/1														
1	1	42	2	0	1	0	0	0	0	0	0	0	0	46
01:00	0	17	1	0	2	0	0	0	0	0	0	0	0	20
02:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
03:00	0	7	1	0	1	0	0	0	0	0	0	0	0	9
04:00	0	11	4	0	0	0	0	0	0	0	0	0	0	15
05:00	0	23	10	1	5	0	0	0	0	0	0	0	0	39
06:00	1	103	34	1	5	1	0	0	0	0	0	0	0	145
07:00	0	207	48	0	23	0	0	2	1	0	0	0	0	281
08:00	2	216	54	3	16	3	0	2	0	1	0	0	0	297
09:00	2	179	55	1	28	0	0	0	0	0	0	0	0	265
10:00	0	169	44	2	17	0	0	1	0	0	0	0	0	233
11:00	1	208	54	4	11	0	0	0	0	0	0	0	0	278
12 PM	1	230	55	2	10	0	0	3	0	0	0	0	0	301
13:00	1	250	60	1	17	0	0	1	0	0	0	0	0	330
14:00	2	252	51	3	8	0	0	0	0	0	0	0	0	316
15:00	1	312	35	0	4	0	0	0	0	0	0	0	0	352
16:00	2	336	45	1	6	0	0	0	0	0	0	0	0	390
17:00	1	393	23	4	1	0	0	1	0	0	0	0	0	423
18:00	1	339	60	1	4	0	0	0	0	0	0	0	0	405
19:00	0	238	32	0	6	0	0	0	0	0	0	0	0	276
20:00	0	162	33	1	6	0	0	1	0	0	0	0	0	203
21:00	0	145	23	0	3	0	0	1	0	0	0	0	0	172
22:00	0	101	16	0	4	0	0	0	0	0	0	0	0	121
23:00	1	68	8	0	1	0	0	0	0	0	0	0	0	78
Percent	0.3%	80.3%	14.9%	0.5%	3.6%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	09:00	11:00	09:00	08:00		07:00	07:00	08:00				08:00
Vol.	2	216	55	4	28	3		2	1	1				297
PM Peak	14:00	17:00	13:00	17:00	13:00			12:00						17:00
Vol.	2	393	60	4	17			3						423

PRECISION
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Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 A Speed
Site Code: TBA

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/15/1																
1	0	0	1	4	17	6	0	0	0	0	0	0	0	28	35	32
01:00	0	1	1	0	8	6	0	0	0	0	0	0	0	16	37	32
02:00	0	0	0	6	3	2	1	0	0	0	0	0	0	12	32	31
03:00	0	0	0	1	2	1	1	0	0	0	0	0	**1**	6	*	34
04:00	0	0	0	2	2	7	4	0	0	0	0	0	0	15	41	36
05:00	0	1	1	7	15	3	1	0	**1**	0	0	0	0	29	34	31
06:00	0	1	7	15	33	23	2	**1**	1	0	0	0	0	83	36	32
07:00	0	3	4	68	106	24	3	1	1	0	0	0	0	210	34	31
08:00	**1**	**4**	**18**	**91**	**167**	**48**	**5**	0	0	0	0	0	0	**334**	34	31
09:00	1	3	14	43	98	40	4	0	0	0	0	0	0	203	35	31
10:00	0	3	6	56	86	36	3	0	0	0	0	0	0	190	35	31
11:00	0	2	7	51	88	27	4	0	0	0	0	0	0	179	35	31
12 PM	1	**8**	7	52	84	29	**6**	**1**	0	0	0	0	0	188	35	30
13:00	**2**	6	14	74	105	22	0	0	0	0	0	0	0	223	33	29
14:00	0	3	15	104	104	31	5	0	0	0	0	0	**1**	263	34	30
15:00	0	3	7	99	110	26	3	1	0	0	0	0	0	249	34	30
16:00	0	5	**24**	114	**134**	25	1	0	0	0	0	0	0	**303**	33	29
17:00	0	4	11	**126**	133	19	2	0	0	0	0	0	0	295	33	30
18:00	0	1	10	65	103	**36**	2	1	0	0	0	0	0	218	34	31
19:00	0	1	12	59	77	16	1	0	0	0	0	0	0	166	33	30
20:00	0	2	3	46	70	12	2	1	0	0	0	0	0	136	34	30
21:00	0	7	2	30	53	14	5	0	0	0	0	0	0	111	35	30
22:00	0	2	0	21	49	15	3	0	0	0	0	0	0	90	35	31
23:00	0	2	2	15	27	11	2	0	0	0	0	0	0	59	35	31
%	0.1%	1.7%	4.6%	31.9%	46.4%	13.3%	1.7%	0.2%	0.1%	0.0%	0.0%	0.0%	0.1%			
AM Peak	08:00	08:00	08:00	08:00	08:00	08:00	08:00	06:00	05:00				03:00	08:00		
Vol.	1	4	18	91	167	48	5	1	1				1	334		
PM Peak	13:00	12:00	16:00	17:00	16:00	18:00	12:00	12:00					14:00	16:00		
Vol.	2	8	24	126	134	36	6	1					1	303		

Pecent	15th Percentile :	25 MPH
	50th Percentile :	30 MPH
	85th Percentile :	34 MPH
	95th Percentile :	37 MPH

Stats	10 MPH Pace Speed :	26-35 MPH
	Number in Pace :	2577
	Percent in Pace :	71.5%
	Number of Vehicles > 35 MPH :	495
	Percent of Vehicles > 35 MPH :	13.7%
	Mean Speed(Average) :	30 MPH

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112704 A Speed
Site Code: TBA

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/16/1																
1	0	2	2	12	15	9	0	0	0	0	0	0	0	40	35	30
01:00	0	2	2	9	6	3	0	0	0	0	0	0	0	22	34	28
02:00	0	2	2	4	8	3	0	0	0	0	0	0	0	19	34	28
03:00	0	0	0	3	5	2	0	0	0	0	0	0	0	10	34	32
04:00	0	0	1	2	6	2	4	0	0	0	0	0	0	15	40	34
05:00	0	0	0	3	9	6	1	0	0	0	0	0	0	19	37	33
06:00	0	1	1	19	36	33	4	0	0	0	0	0	0	94	37	33
07:00	0	2	7	55	112	**47**	**8**	0	0	0	0	0	0	231	36	32
08:00	0	**7**	**15**	**81**	**142**	45	8	**2**	0	0	0	0	0	**300**	35	31
09:00	0	2	6	48	114	33	3	1	0	0	0	0	0	207	35	31
10:00	0	0	5	39	84	28	4	1	0	0	0	0	0	161	35	32
11:00	0	2	10	52	99	24	7	0	0	0	0	0	0	194	35	31
12 PM	0	1	5	57	93	**31**	**3**	**1**	0	0	0	0	0	191	35	31
13:00	0	1	10	66	95	14	2	1	0	0	0	0	0	189	33	30
14:00	0	**4**	**30**	78	102	18	1	0	0	0	0	0	0	233	33	29
15:00	**2**	1	17	111	**105**	25	1	1	0	0	0	0	0	263	33	29
16:00	0	1	18	111	97	8	0	0	0	0	0	0	0	235	32	29
17:00	0	4	21	**145**	86	12	1	0	0	0	0	0	0	**269**	32	28
18:00	0	2	20	105	64	12	2	0	0	0	0	0	0	205	32	29
19:00	0	2	8	75	67	12	2	0	0	0	0	0	0	166	33	29
20:00	0	1	2	45	60	10	2	0	0	0	0	0	0	120	33	30
21:00	0	0	8	49	57	17	2	0	0	0	0	0	0	133	34	30
22:00	0	2	2	25	43	12	1	0	0	0	0	0	0	85	34	31
23:00	0	1	3	14	20	9	2	1	0	0	0	0	0	50	35	31
%	0.1%	1.2%	5.7%	35.0%	44.2%	12.0%	1.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		08:00	08:00	08:00	08:00	07:00	07:00	08:00						08:00		
Vol.		7	15	81	142	47	8	2						300		
PM Peak	15:00	14:00	14:00	17:00	15:00	12:00	12:00	12:00						17:00		
Vol.	2	4	30	145	105	31	3	1						269		

Pecent	15th Percentile :	24 MPH
	50th Percentile :	29 MPH
	85th Percentile :	34 MPH
	95th Percentile :	37 MPH
Stats	10 MPH Pace Speed :	26-35 MPH
	Number in Pace :	2474
	Percent in Pace :	71.7%
	Number of Vehicles > 35 MPH :	440
	Percent of Vehicles > 35 MPH :	12.7%
	Mean Speed(Average) :	30 MPH

PRECISION
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112704 A Speed
Site Code: TBA

NB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/17/1 1	**1**	1	1	7	26	7	0	0	0	0	0	0	0	43	35	30
01:00	0	1	1	2	6	3	2	0	0	0	0	0	0	15	37	31
02:00	0	0	1	5	5	2	0	0	0	0	0	0	0	13	34	30
03:00	0	0	0	5	3	4	0	0	0	0	0	0	0	12	35	32
04:00	0	0	0	5	5	8	0	**1**	0	0	0	0	0	19	37	34
05:00	0	0	0	5	12	5	1	0	0	0	0	0	0	23	36	32
06:00	0	0	2	23	41	24	3	0	0	0	0	0	0	93	36	32
07:00	0	2	11	55	115	**41**	4	0	0	0	0	0	0	228	35	31
08:00	1	**6**	16	**100**	**149**	40	**7**	0	0	0	0	0	0	**319**	34	30
09:00	0	4	**18**	53	86	39	3	0	0	0	0	0	0	203	35	30
10:00	0	4	9	59	91	29	2	0	0	0	0	0	0	194	34	30
11:00	0	4	7	60	72	19	0	0	0	0	0	0	0	162	34	30
12 PM	0	2	18	89	96	**37**	**5**	0	0	0	0	0	0	247	35	30
13:00	0	3	16	99	**109**	23	2	0	0	0	0	0	0	252	33	30
14:00	0	3	31	100	106	13	2	0	0	0	0	0	0	255	33	29
15:00	0	**4**	11	89	95	21	4	0	0	0	0	0	0	224	33	30
16:00	0	1	**37**	126	73	16	1	0	0	0	0	0	0	254	32	28
17:00	0	4	16	**161**	80	8	0	0	0	0	0	0	0	**269**	31	28
18:00	0	1	11	45	108	36	4	0	0	0	0	0	0	205	35	31
19:00	0	4	4	37	96	34	2	1	0	0	0	0	0	178	35	31
20:00	0	3	4	14	78	22	5	0	0	0	0	0	0	126	35	32
21:00	0	0	3	24	66	31	5	**2**	0	0	0	0	0	131	36	33
22:00	0	2	2	14	37	37	2	0	0	0	0	0	0	94	37	33
23:00	0	0	1	5	28	15	2	1	0	0	0	0	0	52	36	33
%	0.1%	1.4%	6.1%	32.7%	43.8%	14.2%	1.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	00:00	08:00	09:00	08:00	08:00	07:00	08:00	04:00						08:00		
Vol.	1	6	18	100	149	41	7	1						319		
PM Peak		15:00	16:00	17:00	13:00	12:00	12:00	21:00						17:00		
Vol.		4	37	161	109	37	5	2						269		

Pecent	15th Percentile :	24 MPH
	50th Percentile :	30 MPH
	85th Percentile :	34 MPH
	95th Percentile :	37 MPH
Stats	10 MPH Pace Speed :	26-35 MPH
	Number in Pace :	2532
	Percent in Pace :	70.1%
	Number of Vehicles > 35 MPH :	511
	Percent of Vehicles > 35 MPH :	14.2%
	Mean Speed(Average) :	30 MPH

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

Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 A Speed
Site Code: TBA

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/15/1																
1	0	**1**	0	0	15	14	1	0	0	0	0	0	0	31	37	34
01:00	0	0	1	3	8	7	2	2	0	0	0	0	0	23	38	35
02:00	0	0	1	2	8	2	3	0	0	0	0	0	0	16	40	33
03:00	0	0	2	1	3	2	1	0	0	0	0	0	0	9	33	31
04:00	0	0	0	1	6	4	4	0	0	0	0	0	0	15	40	36
05:00	0	0	3	7	19	9	5	1	0	0	0	0	0	44	38	33
06:00	0	0	2	25	51	41	11	2	**1**	0	0	0	0	133	38	34
07:00	0	0	8	65	103	**82**	14	1	0	**1**	0	0	0	274	37	33
08:00	0	0	**20**	**71**	**147**	79	10	**4**	0	0	0	0	0	**331**	36	32
09:00	0	0	13	47	125	74	**18**	4	0	0	0	0	0	281	37	33
10:00	0	0	10	46	87	67	15	4	0	0	**1**	0	0	230	37	33
11:00	0	0	6	57	108	68	9	0	0	0	0	0	0	248	36	32
12 PM	0	1	3	56	147	74	12	**5**	0	0	0	0	0	298	37	33
13:00	0	0	10	71	139	73	15	3	**1**	0	0	0	0	312	37	32
14:00	0	0	9	99	152	50	11	3	1	0	0	0	0	325	35	32
15:00	0	**3**	12	83	149	73	16	1	0	0	0	0	0	337	36	32
16:00	0	0	18	**115**	165	71	**21**	2	1	0	0	0	0	393	36	32
17:00	0	2	**22**	110	**192**	**76**	14	1	0	0	0	0	0	**417**	35	31
18:00	0	1	18	104	182	60	12	2	0	0	0	0	0	379	35	31
19:00	0	0	5	45	110	52	19	4	0	0	0	0	0	235	37	33
20:00	0	0	3	35	90	64	13	2	0	0	0	0	0	207	37	33
21:00	0	0	7	48	74	39	5	3	0	0	0	0	0	176	36	32
22:00	0	0	2	11	41	45	12	3	0	0	0	0	0	114	39	35
23:00	0	0	3	7	26	16	4	3	0	0	0	0	0	59	39	34
%	0.0%	0.2%	3.6%	22.7%	43.9%	23.4%	5.1%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak		00:00	08:00	08:00	08:00	07:00	09:00	08:00	06:00	07:00	10:00			08:00		
Vol.		1	20	71	147	82	18	4	1	1	1			331		
PM Peak		15:00	17:00	16:00	17:00	17:00	16:00	12:00	13:00					17:00		
Vol.		3	22	115	192	76	21	5	1					417		

Pecent	15th Percentile :	26 MPH
	50th Percentile :	31 MPH
	85th Percentile :	37 MPH
	95th Percentile :	40 MPH
Stats	10 MPH Pace Speed :	28-37 MPH
	Number in Pace :	3273
	Percent in Pace :	67.0%
	Number of Vehicles > 35 MPH :	1256
	Percent of Vehicles > 35 MPH :	25.7%
	Mean Speed(Average) :	32 MPH

PRECISION DATA INDUSTRIES, LLC
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Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 A Speed
Site Code: TBA

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/16/1																
1	1	0	0	3	14	11	2	1	0	**1**	0	0	0	33	37	34
01:00	0	0	0	5	8	8	4	0	0	0	0	0	0	25	39	34
02:00	0	0	1	0	5	6	1	1	0	0	0	0	0	14	38	35
03:00	0	0	1	1	5	3	1	0	0	0	0	0	0	11	36	33
04:00	0	0	0	3	3	2	1	0	0	0	0	0	0	9	32	33
05:00	0	0	0	5	10	16	2	2	0	0	0	0	0	35	38	35
06:00	3	0	3	17	41	39	19	**3**	0	0	0	0	0	125	39	34
07:00	0	1	6	49	123	67	14	2	0	0	0	0	0	262	37	33
08:00	0	0	6	**65**	**142**	73	15	1	0	0	0	0	0	**302**	36	32
09:00	0	2	9	48	108	**79**	10	0	0	0	0	0	0	256	37	32
10:00	0	0	7	56	98	46	12	2	0	0	0	0	0	221	36	32
11:00	**6**	**3**	**13**	63	126	56	**20**	2	0	0	0	0	0	289	36	31
12 PM	0	0	4	68	135	69	14	3	0	0	0	0	0	293	36	33
13:00	0	0	9	82	137	46	**16**	4	0	0	0	0	0	294	36	32
14:00	0	3	**23**	107	157	41	6	1	0	0	0	0	0	338	34	30
15:00	0	0	8	102	154	51	7	**5**	0	0	0	0	0	327	35	31
16:00	0	**4**	14	104	169	45	9	2	0	0	0	0	0	347	34	31
17:00	0	3	14	**153**	**233**	45	8	1	0	0	0	0	0	**457**	34	31
18:00	**1**	0	13	91	197	**75**	9	0	**1**	0	0	0	0	387	35	32
19:00	0	4	4	41	123	64	11	0	1	0	0	0	0	248	36	32
20:00	0	0	6	29	89	43	8	4	0	0	0	0	0	179	37	33
21:00	0	1	8	30	58	26	9	0	0	**1**	0	0	0	133	36	32
22:00	0	0	1	23	56	24	7	0	0	0	**1**	0	0	112	36	33
23:00	0	3	1	5	17	17	5	2	0	1	0	0	0	51	39	34
%	0.2%	0.5%	3.2%	24.2%	46.5%	20.1%	4.4%	0.8%	0.0%	0.1%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	08:00	08:00	09:00	11:00	06:00		00:00				08:00		
Vol.	6	3	13	65	142	79	20	3		1				302		
PM Peak	18:00	16:00	14:00	17:00	17:00	18:00	13:00	15:00	18:00	21:00	22:00			17:00		
Vol.	1	4	23	153	233	75	16	5	1	1	1			457		

Pecent

Pecent	15th Percentile :	26 MPH
	50th Percentile :	31 MPH
	85th Percentile :	36 MPH
	95th Percentile :	39 MPH

Stats	10 MPH Pace Speed :	27-36 MPH
	Number in Pace :	3265
	Percent in Pace :	68.8%
	Number of Vehicles > 35 MPH :	1059
	Percent of Vehicles > 35 MPH :	22.3%
	Mean Speed(Average) :	32 MPH

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

Everett Street (Bridge)
north of Lincoln Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 A Speed
Site Code: TBA

SB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/17/1																
1	0	**1**	1	7	19	11	7	0	0	0	0	0	0	46	39	33
01:00	0	0	2	2	3	10	2	1	0	0	0	0	0	20	38	35
02:00	0	0	0	2	6	1	1	0	**1**	0	0	0	0	11	33	34
03:00	0	0	1	2	2	3	0	1	0	0	0	0	0	9	36	33
04:00	0	0	0	0	6	6	1	1	1	0	0	0	0	15	38	37
05:00	0	0	1	4	17	14	2	1	0	0	0	0	0	39	37	34
06:00	0	0	3	27	59	40	13	2	1	0	0	0	0	145	38	33
07:00	**1**	0	**12**	55	116	**82**	11	**4**	0	0	0	0	0	281	37	33
08:00	0	1	9	62	**129**	78	17	1	0	0	0	0	0	**297**	37	33
09:00	0	0	6	50	126	63	**19**	1	0	0	0	0	0	265	37	33
10:00	0	0	8	40	110	67	7	1	0	0	0	0	0	233	36	33
11:00	0	0	11	**74**	124	55	12	2	0	0	0	0	0	278	36	32
12 PM	0	2	6	70	144	68	11	0	0	0	0	0	0	301	36	32
13:00	1	**3**	9	83	147	68	17	1	0	**1**	0	0	0	330	36	32
14:00	0	0	18	135	109	46	6	2	0	0	0	0	0	316	34	30
15:00	0	0	26	126	157	37	5	1	0	0	0	0	0	352	34	30
16:00	**11**	2	**36**	152	148	37	4	0	0	0	0	0	0	390	33	29
17:00	0	2	27	**161**	182	44	7	0	0	0	0	0	0	**423**	34	30
18:00	0	1	18	100	**186**	**85**	13	2	0	0	0	0	0	405	36	32
19:00	0	1	6	57	119	80	8	**5**	0	0	0	0	0	276	37	33
20:00	0	0	2	38	88	49	**21**	5	0	0	0	0	0	203	38	34
21:00	0	2	3	38	67	41	20	0	**1**	0	0	0	0	172	38	33
22:00	0	1	4	13	52	36	12	2	0	0	**1**	0	0	121	38	34
23:00	0	0	1	7	27	35	6	2	0	0	0	0	0	78	38	35
%	0.3%	0.3%	4.2%	26.1%	42.8%	21.1%	4.4%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	00:00	07:00	11:00	08:00	07:00	09:00	07:00	02:00					08:00		
Vol.	1	1	12	74	129	82	19	4	1					297		
PM Peak	16:00	13:00	16:00	17:00	18:00	18:00	20:00	19:00	21:00	13:00	22:00			17:00		
Vol.	11	3	36	161	186	85	21	5	1	1	1			423		

Pecent	15th Percentile :	25 MPH
	50th Percentile :	31 MPH
	85th Percentile :	36 MPH
	95th Percentile :	39 MPH
Stats	10 MPH Pace Speed :	27-36 MPH
	Number in Pace :	3337
	Percent in Pace :	66.7%
	Number of Vehicles > 35 MPH :	1147
	Percent of Vehicles > 35 MPH :	22.9%
	Mean Speed(Average) :	32 MPH

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

Lincoln Street
west of Everet Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 B Volume
Site Code: TBA

Start	WB				EB				Combined				15-Nov-11
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Tue
12:00	5		43		1		26		6		69		
12:15	3		42		1		23		4		65		
12:30	7		45		1		22		8		67		
12:45	7	22	42	172	3	6	25	96	10	28	67	268	
01:00	4		46		1		26		5		72		
01:15	8		55		5		27		13		82		
01:30	5		50		2		26		7		76		
01:45	4	21	52	203	1	9	20	99	5	30	72	302	
02:00	3		35		1		19		4		54		
02:15	3		49		0		26		3		75		
02:30	2		44		1		29		3		73		
02:45	2	10	41	169	1	3	21	95	3	13	62	264	
03:00	1		52		2		21		3		73		
03:15	1		54		2		26		3		80		
03:30	1		59		0		37		1		96		
03:45	1	4	54	219	0	4	29	113	1	8	83	332	
04:00	1		67		0		28		1		95		
04:15	3		56		3		32		6		88		
04:30	4		69		5		31		9		100		
04:45	2	10	68	260	1	9	29	120	3	19	97	380	
05:00	5		82		0		38		5		120		
05:15	7		63		2		41		9		104		
05:30	9		84		4		30		13		114		
05:45	12	33	75	304	6	12	28	137	18	45	103	441	
06:00	14		74		9		21		23		95		
06:15	24		66		14		31		38		97		
06:30	39		42		18		21		57		63		
06:45	50	127	53	235	28	69	28	101	78	196	81	336	
07:00	57		41		22		26		79		67		
07:15	41		33		27		10		68		43		
07:30	60		48		32		13		92		61		
07:45	54	212	25	147	39	120	14	63	93	332	39	210	
08:00	45		33		33		16		78		49		
08:15	65		26		38		15		103		41		
08:30	61		39		29		11		90		50		
08:45	59	230	26	124	32	132	15	57	91	362	41	181	
09:00	44		23		34		12		78		35		
09:15	44		32		18		9		62		41		
09:30	49		25		24		5		73		30		
09:45	35	172	25	105	17	93	10	36	52	265	35	141	
10:00	36		28		25		5		61		33		
10:15	39		15		20		6		59		21		
10:30	28		19		27		8		55		27		
10:45	41	144	16	78	28	100	12	31	69	244	28	109	
11:00	39		13		28		7		67		20		
11:15	36		21		24		2		60		23		
11:30	42		16		30		2		72		18		
11:45	36	153	8	58	24	106	2	13	60	259	10	71	
Total	1138		2074		663		961		1801		3035		
Percent	63.2%		68.3%		36.8%		31.7%						
Day Total		3212				1624				4836			
Peak	08:00		05:00		07:30		04:30		07:30		05:00		
Vol.	230		304		142		139		366		441		
P.H.F.	0.885		0.905		0.910		0.848		0.888		0.919		

PRECISION
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Lincoln Street
west of Everet Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 B Volume
Site Code: TBA

Start	WB				EB				Combined				16-Nov-11
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Wed
12:00	13		46		4		18		17		64		
12:15	9		34		2		24		11		58		
12:30	10		43		1		19		11		62		
12:45	6	38	32	155	6	13	12	73	12	51	44	228	
01:00	10		37		4		26		14		63		
01:15	1		50		2		14		3		64		
01:30	4		38		1		24		5		62		
01:45	4	19	47	172	0	7	32	96	4	26	79	268	
02:00	0		50		0		19		0		69		
02:15	2		51		0		21		2		72		
02:30	2		43		0		25		2		68		
02:45	6	10	44	188	0	0	27	92	6	10	71	280	
03:00	0		60		0		30		0		90		
03:15	0		56		1		18		1		74		
03:30	1		71		1		33		2		104		
03:45	1	2	56	243	0	2	24	105	1	4	80	348	
04:00	2		52		1		11		3		63		
04:15	2		68		4		28		6		96		
04:30	4		69		4		32		8		101		
04:45	3	11	77	266	2	11	30	101	5	22	107	367	
05:00	2		88		2		28		4		116		
05:15	9		86		2		30		11		116		
05:30	9		89		6		23		15		112		
05:45	14	34	67	330	6	16	25	106	20	50	92	436	
06:00	16		72		8		25		24		97		
06:15	23		73		14		28		37		101		
06:30	28		72		20		18		48		90		
06:45	46	113	42	259	30	72	22	93	76	185	64	352	
07:00	42		42		18		24		60		66		
07:15	24		40		26		11		50		51		
07:30	52		44		39		14		91		58		
07:45	51	169	26	152	42	125	18	67	93	294	44	219	
08:00	49		37		35		8		84		45		
08:15	54		28		31		15		85		43		
08:30	59		29		35		10		94		39		
08:45	53	215	29	123	38	139	15	48	91	354	44	171	
09:00	53		19		18		10		71		29		
09:15	46		24		22		6		68		30		
09:30	38		17		18		9		56		26		
09:45	36	173	20	80	30	88	10	35	66	261	30	115	
10:00	34		20		25		10		59		30		
10:15	33		17		24		9		57		26		
10:30	41		20		17		6		58		26		
10:45	47	155	17	74	15	81	4	29	62	236	21	103	
11:00	45		19		14		3		59		22		
11:15	30		17		20		4		50		21		
11:30	39		4		17		4		56		8		
11:45	36	150	11	51	16	67	6	17	52	217	17	68	
Total	1089		2093		621		862		1710		2955		
Percent	63.7%		70.8%		36.3%		29.2%						
Day Total		3182				1483				4665			
Peak	08:15		04:45		07:30		04:30		07:45		04:45		
Vol.	219		340		147		120		356		451		
P.H.F.	0.928		0.955		0.875		0.938		0.947		0.972		

PRECISION
D A T A
INDUSTRIES, LLC
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Lincoln Street
west of Everet Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 B Volume
Site Code: TBA

Start	WB				EB				Combined				17-Nov-11
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Thu
12:00	10		42		5		18		15		60		
12:15	4		40		4		20		8		60		
12:30	12		40		4		24		16		64		
12:45	7	33	44	166	0	13	22	84	7	46	66	250	
01:00	2		52		0		25		2		77		
01:15	2		34		3		24		5		58		
01:30	5		62		0		22		5		84		
01:45	3	12	43	191	1	4	29	100	4	16	72	291	
02:00	1		50		1		36		2		86		
02:15	3		40		2		22		5		62		
02:30	3		49		0		25		3		74		
02:45	2	9	44	183	0	3	32	115	2	12	76	298	
03:00	2		45		0		33		2		78		
03:15	2		65		4		28		6		93		
03:30	2		54		1		41		3		95		
03:45	2	8	59	223	1	6	35	137	3	14	94	360	
04:00	2		69		2		25		4		94		
04:15	1		70		2		39		3		109		
04:30	1		68		2		31		3		99		
04:45	3	7	79	286	1	7	31	126	4	14	110	412	
05:00	3		97		2		40		5		137		
05:15	7		88		6		40		13		128		
05:30	6		82		4		17		10		99		
05:45	13	29	78	345	7	19	24	121	20	48	102	466	
06:00	13		88		8		27		21		115		
06:15	24		66		15		18		39		84		
06:30	30		34		19		21		49		55		
06:45	40	107	51	239	33	75	16	82	73	182	67	321	
07:00	42		53		14		20		56		73		
07:15	39		58		23		12		62		70		
07:30	58		44		37		10		95		54		
07:45	54	193	42	197	39	113	16	58	93	306	58	255	
08:00	56		23		45		14		101		37		
08:15	60		41		27		15		87		56		
08:30	56		37		23		19		79		56		
08:45	55	227	21	122	28	123	11	59	83	350	32	181	
09:00	47		19		39		11		86		30		
09:15	39		19		24		11		63		30		
09:30	49		31		22		15		71		46		
09:45	40	175	28	97	29	114	6	43	69	289	34	140	
10:00	37		29		19		8		56		37		
10:15	36		15		20		11		56		26		
10:30	37		23		13		6		50		29		
10:45	27	137	17	84	22	74	8	33	49	211	25	117	
11:00	35		27		19		4		54		31		
11:15	24		21		20		4		44		25		
11:30	32		17		22		7		54		24		
11:45	44	135	15	80	19	80	2	17	63	215	17	97	
Total	1072		2213		631		975		1703		3188		
Percent	62.9%		69.4%		37.1%		30.6%						
Day Total		3285				1606				4891			
Peak	07:30		04:45		07:30		04:30		07:30		04:30		
Vol.	228		346		148		142		376		474		
P.H.F.	0.950		0.892		0.822		0.888		0.931		0.865		

PRECISION DATA INDUSTRIES, LLC
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Lincoln Street
west of Everet Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 B Class
Site Code: TBA

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/15/1														
1	1	19	2	0	0	0	0	0	0	0	0	0	0	22
01:00	1	19	0	0	1	0	0	0	0	0	0	0	0	21
02:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:00	0	9	0	0	0	1	0	0	0	0	0	0	0	10
05:00	0	27	1	0	2	0	0	0	3	0	0	0	0	33
06:00	0	95	21	1	4	5	0	1	0	0	0	0	0	127
07:00	3	166	33	2	6	0	0	0	2	0	0	0	0	212
08:00	2	173	41	1	9	1	0	0	3	0	0	0	0	230
09:00	0	126	35	1	7	3	0	0	0	0	0	0	0	172
10:00	2	103	28	1	7	1	0	0	2	0	0	0	0	144
11:00	2	113	29	3	5	0	0	1	0	0	0	0	0	153
12 PM	2	126	33	3	5	2	1	0	0	0	0	0	0	172
13:00	2	145	42	2	10	2	0	0	0	0	0	0	0	203
14:00	3	126	27	4	8	1	0	0	0	0	0	0	0	169
15:00	0	175	32	2	10	0	0	0	0	0	0	0	0	219
16:00	1	215	37	0	6	0	0	1	0	0	0	0	0	260
17:00	6	263	27	1	6	1	0	0	0	0	0	0	0	304
18:00	4	209	19	0	3	0	0	0	0	0	0	0	0	235
19:00	2	128	16	0	1	0	0	0	0	0	0	0	0	147
20:00	2	111	11	0	0	0	0	0	0	0	0	0	0	124
21:00	3	98	4	0	0	0	0	0	0	0	0	0	0	105
22:00	1	72	4	0	0	1	0	0	0	0	0	0	0	78
23:00	2	51	5	0	0	0	0	0	0	0	0	0	0	58
Percent	1.2%	80.4%	14.0%	0.7%	2.8%	0.6%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	08:00	11:00	08:00	06:00		06:00	05:00					08:00
Vol.	3	173	41	3	9	5		1	3					230
PM Peak	17:00	17:00	13:00	14:00	13:00	12:00	12:00	16:00						17:00
Vol.	6	263	42	4	10	2	1	1						304

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Lincoln Street
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112704 B Class
Site Code: TBA

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/16/1														
1	1	34	3	0	0	0	0	0	0	0	0	0	0	38
01:00	0	19	0	0	0	0	0	0	0	0	0	0	0	19
02:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
03:00	0	1	0	0	0	1	0	0	0	0	0	0	0	2
04:00	0	10	0	0	0	1	0	0	0	0	0	0	0	11
05:00	0	25	4	1	2	0	0	0	2	0	0	0	0	34
06:00	0	83	23	0	3	1	0	0	3	0	0	0	0	113
07:00	2	134	25	3	4	1	0	0	0	0	0	0	0	169
08:00	3	172	32	0	8	0	0	0	0	0	0	0	0	215
09:00	1	130	28	2	4	1	0	0	7	0	0	0	0	173
10:00	3	116	26	1	8	1	0	0	0	0	0	0	0	155
11:00	1	113	24	2	7	0	0	2	1	0	0	0	0	150
12 PM	0	117	29	0	5	3	0	0	1	0	0	0	0	155
13:00	2	133	27	2	8	0	0	0	0	0	0	0	0	172
14:00	0	146	29	4	9	0	0	0	0	0	0	0	0	188
15:00	0	181	54	0	7	0	0	1	0	0	0	0	0	243
16:00	3	220	34	1	7	0	0	1	0	0	0	0	0	266
17:00	6	294	24	0	4	1	0	1	0	0	0	0	0	330
18:00	4	232	19	0	3	0	0	0	1	0	0	0	0	259
19:00	1	129	21	0	1	0	0	0	0	0	0	0	0	152
20:00	0	107	14	0	2	0	0	0	0	0	0	0	0	123
21:00	0	68	12	0	0	0	0	0	0	0	0	0	0	80
22:00	1	67	6	0	0	0	0	0	0	0	0	0	0	74
23:00	3	47	1	0	0	0	0	0	0	0	0	0	0	51
Percent	1.0%	81.3%	13.7%	0.5%	2.6%	0.3%	0.0%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	08:00	07:00	08:00	03:00		11:00	09:00					08:00
Vol.	3	172	32	3	8	1		2	7					215
PM Peak	17:00	17:00	15:00	14:00	14:00	12:00		15:00	12:00					17:00
Vol.	6	294	54	4	9	3		1	1					330

PRECISION
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Lincoln Street
west of Everet Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 B Class
Site Code: TBA

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/17/11	0	27	6	0	0	0	0	0	0	0	0	0	0	33
01:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
02:00	0	7	1	0	0	1	0	0	0	0	0	0	0	9
03:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
04:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
05:00	0	22	4	0	1	0	0	0	2	0	0	0	0	29
06:00	1	78	21	0	2	3	0	0	2	0	0	0	0	107
07:00	1	155	24	4	8	1	0	0	0	0	0	0	0	193
08:00	2	169	39	1	9	1	0	0	6	0	0	0	0	227
09:00	0	130	40	0	2	0	0	0	3	0	0	0	0	175
10:00	0	105	19	1	9	0	0	0	3	0	0	0	0	137
11:00	1	100	23	0	3	4	0	1	3	0	0	0	0	135
12 PM	0	118	39	3	4	1	0	0	1	0	0	0	0	166
13:00	3	141	32	3	9	0	0	0	3	0	0	0	0	191
14:00	3	138	30	5	5	0	0	1	1	0	0	0	0	183
15:00	1	172	38	1	10	1	0	0	0	0	0	0	0	223
16:00	1	228	46	0	8	0	0	2	1	0	0	0	0	286
17:00	2	312	27	0	4	0	0	0	0	0	0	0	0	345
18:00	3	209	24	1	2	0	0	0	0	0	0	0	0	239
19:00	2	172	20	0	3	0	0	0	0	0	0	0	0	197
20:00	1	103	16	1	1	0	0	0	0	0	0	0	0	122
21:00	0	90	7	0	0	0	0	0	0	0	0	0	0	97
22:00	0	75	7	0	2	0	0	0	0	0	0	0	0	84
23:00	1	73	5	0	1	0	0	0	0	0	0	0	0	80
Percent	0.7%	80.7%	14.3%	0.6%	2.5%	0.4%	0.0%	0.1%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	09:00	07:00	08:00	11:00		11:00	08:00					08:00
Vol.	2	169	40	4	9	4		1	6					227
PM Peak	13:00	17:00	16:00	14:00	15:00	12:00		16:00	13:00					17:00
Vol.	3	312	46	5	10	1		2	3					345

PRECISION
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Lincoln Street
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112704 B Class
Site Code: TBA

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/15/1														
1	0	6	0	0	0	0	0	0	0	0	0	0	0	6
01:00	0	7	0	0	2	0	0	0	0	0	0	0	0	9
02:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
03:00	0	3	0	0	1	0	0	0	0	0	0	0	0	4
04:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
05:00	0	9	1	0	1	0	0	0	1	0	0	0	0	12
06:00	1	56	8	1	2	1	0	0	0	0	0	0	0	69
07:00	1	87	31	0	0	1	0	0	0	0	0	0	0	120
08:00	1	116	14	0	1	0	0	0	0	0	0	0	0	132
09:00	0	74	16	0	3	0	0	0	0	0	0	0	0	93
10:00	6	68	17	2	4	2	0	1	0	0	0	0	0	100
11:00	1	82	18	2	3	0	0	0	0	0	0	0	0	106
12 PM	1	77	16	0	2	0	0	0	0	0	0	0	0	96
13:00	0	83	14	0	2	0	0	0	0	0	0	0	0	99
14:00	0	79	13	2	1	0	0	0	0	0	0	0	0	95
15:00	0	94	16	0	3	0	0	0	0	0	0	0	0	113
16:00	1	100	13	1	5	0	0	0	0	0	0	0	0	120
17:00	1	122	10	0	3	0	0	1	0	0	0	0	0	137
18:00	2	90	9	0	0	0	0	0	0	0	0	0	0	101
19:00	0	58	5	0	0	0	0	0	0	0	0	0	0	63
20:00	2	52	3	0	0	0	0	0	0	0	0	0	0	57
21:00	0	33	3	0	0	0	0	0	0	0	0	0	0	36
22:00	0	28	3	0	0	0	0	0	0	0	0	0	0	31
23:00	0	13	0	0	0	0	0	0	0	0	0	0	0	13
Percent	1.0%	82.9%	13.0%	0.5%	2.1%	0.2%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	08:00	07:00	10:00	10:00	10:00		10:00	05:00					08:00
Vol.	6	116	31	2	4	2		1	1					132
PM Peak	18:00	17:00	12:00	14:00	16:00			17:00						17:00
Vol.	2	122	16	2	5			1						137

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112704 B Class
Site Code: TBA

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/16/1														
1	0	12	1	0	0	0	0	0	0	0	0	0	0	13
01:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
04:00	0	8	3	0	0	0	0	0	0	0	0	0	0	11
05:00	0	14	2	0	0	0	0	0	0	0	0	0	0	16
06:00	0	59	9	1	3	0	0	0	0	0	0	0	0	72
07:00	0	95	26	1	3	0	0	0	0	0	0	0	0	125
08:00	3	113	18	0	5	0	0	0	0	0	0	0	0	139
09:00	1	72	9	0	5	1	0	0	0	0	0	0	0	88
10:00	0	66	12	0	2	1	0	0	0	0	0	0	0	81
11:00	0	48	13	0	3	3	0	0	0	0	0	0	0	67
12 PM	0	58	12	0	2	0	0	1	0	0	0	0	0	73
13:00	1	75	14	1	5	0	0	0	0	0	0	0	0	96
14:00	1	76	12	1	2	0	0	0	0	0	0	0	0	92
15:00	0	86	16	1	1	1	0	0	0	0	0	0	0	105
16:00	0	85	13	0	3	0	0	0	0	0	0	0	0	101
17:00	0	93	10	0	2	0	0	1	0	0	0	0	0	106
18:00	0	84	9	0	0	0	0	0	0	0	0	0	0	93
19:00	0	62	4	0	0	0	1	0	0	0	0	0	0	67
20:00	1	41	5	0	0	1	0	0	0	0	0	0	0	48
21:00	0	33	2	0	0	0	0	0	0	0	0	0	0	35
22:00	0	28	1	0	0	0	0	0	0	0	0	0	0	29
23:00	0	16	1	0	0	0	0	0	0	0	0	0	0	17
Percent	0.5%	83.0%	13.0%	0.3%	2.5%	0.5%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	07:00	06:00	08:00	11:00								08:00
Vol.	3	113	26	1	5	3								139
PM Peak	13:00	17:00	15:00	13:00	13:00	15:00	19:00	12:00						17:00
Vol.	1	93	16	1	5	1	1	1						106

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112704 B Class
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EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/17/1														
1	0	12	0	0	1	0	0	0	0	0	0	0	0	13
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	5	0	0	1	0	0	0	0	0	0	0	0	6
04:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
05:00	0	16	1	0	1	1	0	0	0	0	0	0	0	19
06:00	0	61	12	1	1	0	0	0	0	0	0	0	0	75
07:00	1	91	19	0	1	1	0	0	0	0	0	0	0	113
08:00	0	101	17	1	3	1	0	0	0	0	0	0	0	123
09:00	3	88	16	0	7	0	0	0	0	0	0	0	0	114
10:00	3	51	16	2	2	0	0	0	0	0	0	0	0	74
11:00	1	60	13	1	3	2	0	0	0	0	0	0	0	80
12 PM	1	67	11	1	3	1	0	0	0	0	0	0	0	84
13:00	0	80	18	0	1	0	0	1	0	0	0	0	0	100
14:00	1	98	13	2	1	0	0	0	0	0	0	0	0	115
15:00	1	115	17	0	4	0	0	0	0	0	0	0	0	137
16:00	0	113	10	0	2	1	0	0	0	0	0	0	0	126
17:00	0	106	12	0	3	0	0	0	0	0	0	0	0	121
18:00	2	76	3	0	0	1	0	0	0	0	0	0	0	82
19:00	0	52	6	0	0	0	0	0	0	0	0	0	0	58
20:00	0	54	4	0	1	0	0	0	0	0	0	0	0	59
21:00	0	42	1	0	0	0	0	0	0	0	0	0	0	43
22:00	0	32	0	0	1	0	0	0	0	0	0	0	0	33
23:00	0	16	1	0	0	0	0	0	0	0	0	0	0	17
Percent	0.8%	84.1%	11.8%	0.5%	2.2%	0.5%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	07:00	10:00	09:00	11:00								08:00
Vol.	3	101	19	2	7	2								123
PM Peak	18:00	15:00	13:00	14:00	15:00	12:00		13:00						15:00
Vol.	2	115	18	2	4	1		1						137

PRECISION DATA INDUSTRIES, LLC

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Lincoln Street
west of Everet Street
City, State: Brighton, MA
Client: VHB/ L. Orlando

112704 B Speed
Site Code: TBA

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/15/1																
1	1	0	1	4	5	6	5	0	0	0	0	0	0	22	41	32
01:00	1	0	0	9	7	2	2	0	0	0	0	0	0	21	33	29
02:00	0	0	1	4	1	4	0	0	0	0	0	0	0	10	36	31
03:00	0	0	0	3	1	0	0	0	0	0	0	0	0	4	27	28
04:00	0	0	1	1	2	3	3	0	0	0	0	0	0	10	40	35
05:00	0	1	3	3	8	13	5	0	0	0	0	0	0	33	39	33
06:00	0	1	5	38	35	43	5	0	0	0	0	0	0	127	37	32
07:00	1	3	**15**	43	65	**69**	**16**	0	0	0	0	0	0	212	37	32
08:00	**2**	**4**	15	**72**	**84**	41	12	0	0	0	0	0	0	**230**	36	30
09:00	1	2	9	33	77	36	11	**3**	0	0	0	0	0	172	37	32
10:00	0	1	15	32	49	37	9	1	0	0	0	0	0	144	37	32
11:00	2	2	11	59	52	22	5	0	0	0	0	0	0	153	35	30
12 PM	1	**6**	17	57	57	27	**7**	0	0	0	0	0	0	172	35	29
13:00	**3**	2	23	57	74	36	7	1	0	0	0	0	0	203	35	30
14:00	2	3	21	53	65	18	5	**2**	0	0	0	0	0	169	34	29
15:00	1	4	26	66	83	32	7	0	0	0	0	0	0	219	34	30
16:00	2	4	23	91	102	34	4	0	0	0	0	0	0	260	34	30
17:00	2	4	**27**	**104**	**131**	34	2	0	0	0	0	0	0	**304**	34	29
18:00	1	4	10	71	92	**52**	5	0	0	0	0	0	0	235	36	31
19:00	1	2	8	40	64	29	3	0	0	0	0	0	0	147	35	31
20:00	2	1	11	32	55	20	3	0	0	0	0	0	0	124	35	30
21:00	2	1	6	34	40	18	4	0	0	0	0	0	0	105	35	30
22:00	1	0	1	15	33	24	4	0	0	0	0	0	0	78	37	32
23:00	1	1	2	11	19	21	3	0	0	0	0	0	0	58	37	32
%	0.8%	1.4%	7.8%	29.0%	37.4%	19.3%	4.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	07:00	08:00	08:00	07:00	07:00	09:00						08:00		
Vol.	2	4	15	72	84	69	16	3						230		
PM Peak	13:00	12:00	17:00	17:00	17:00	18:00	12:00	14:00						17:00		
Vol.	3	6	27	104	131	52	7	2						304		

Pecent	15th Percentile :	24 MPH
	50th Percentile :	30 MPH
	85th Percentile :	36 MPH
	95th Percentile :	39 MPH
Stats	10 MPH Pace Speed :	26-35 MPH
	Number in Pace :	1994
	Percent in Pace :	62.1%
	Number of Vehicles > 35 MPH :	646
	Percent of Vehicles > 35 MPH :	20.1%
	Mean Speed(Average) :	30 MPH

PRECISION DATA INDUSTRIES, LLC

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Lincoln Street
west of Everet Street
City, State: Brighton, MA
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112704 B Speed
Site Code: TBA

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/16/1																
1	1	0	3	14	7	10	2	1	0	0	0	0	0	38	37	31
01:00	0	0	2	3	7	5	2	0	0	0	0	0	0	19	38	33
02:00	0	0	1	2	5	1	1	0	0	0	0	0	0	10	33	32
03:00	0	0	0	1	0	1	0	0	0	0	0	0	0	2	*	32
04:00	0	1	0	3	2	3	2	0	0	0	0	0	0	11	37	32
05:00	0	1	3	4	15	7	3	1	0	0	0	0	0	34	37	32
06:00	0	0	1	31	40	33	6	1	**1**	0	0	0	0	113	37	33
07:00	0	1	5	38	64	44	**17**	0	0	0	0	0	0	169	38	33
08:00	**2**	1	13	53	**85**	**49**	9	**3**	0	0	0	0	0	**215**	36	31
09:00	1	0	16	**59**	55	33	8	1	0	0	0	0	0	173	36	31
10:00	0	**2**	7	33	69	36	7	1	0	0	0	0	0	155	36	32
11:00	1	2	**20**	43	53	24	7	0	0	0	0	0	0	150	35	30
12 PM	1	2	17	56	55	20	4	0	0	0	0	0	0	155	34	29
13:00	1	2	21	51	69	21	6	0	**1**	0	0	0	0	172	34	30
14:00	2	3	27	65	59	27	5	0	0	0	0	0	0	188	35	29
15:00	0	3	**35**	84	90	25	6	0	0	0	0	0	0	243	34	29
16:00	1	3	29	96	101	30	6	0	0	0	0	0	0	266	34	29
17:00	2	**4**	26	**132**	**130**	33	3	0	0	0	0	0	0	**330**	33	29
18:00	1	3	19	90	103	**41**	1	**1**	0	0	0	0	0	259	34	30
19:00	1	0	7	46	54	36	**8**	0	0	0	0	0	0	152	37	31
20:00	1	2	9	26	53	29	3	0	0	0	0	0	0	123	36	31
21:00	0	2	8	20	19	24	6	0	1	0	0	0	0	80	37	32
22:00	2	0	2	22	23	18	7	0	0	0	0	0	0	74	38	31
23:00	**3**	0	3	11	17	14	2	1	0	0	0	0	0	51	36	30
%	0.6%	1.0%	8.6%	30.9%	36.9%	17.7%	3.8%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	10:00	11:00	09:00	08:00	08:00	07:00	08:00	06:00					08:00		
Vol.	2	2	20	59	85	49	17	3	1					215		
PM Peak	23:00	17:00	15:00	17:00	17:00	18:00	19:00	18:00	13:00					17:00		
Vol.	3	4	35	132	130	41	8	1	1					330		

Pecent	15th Percentile :	24 MPH
	50th Percentile :	30 MPH
	85th Percentile :	35 MPH
	95th Percentile :	39 MPH

Stats	10 MPH Pace Speed :	26-35 MPH
	Number in Pace :	2003
	Percent in Pace :	62.9%
	Number of Vehicles > 35 MPH :	604
	Percent of Vehicles > 35 MPH :	19.0%
	Mean Speed(Average) :	30 MPH

PRECISION
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112704 B Speed
Site Code: TBA

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/17/1																
1	1	1	4	12	7	5	3	0	0	0	0	0	0	33	37	29
01:00	0	1	3	5	2	0	1	0	0	0	0	0	0	12	28	26
02:00	0	0	2	3	3	1	0	0	0	0	0	0	0	9	31	29
03:00	0	0	0	4	2	1	1	0	0	0	0	0	0	8	29	31
04:00	0	0	1	2	0	1	2	1	0	0	0	0	0	7	*	35
05:00	0	1	1	5	14	6	1	1	0	0	0	0	0	29	36	32
06:00	0	1	3	25	35	36	6	1	0	0	0	0	0	107	37	33
07:00	0	1	10	39	68	**54**	**19**	2	0	0	0	0	0	193	38	33
08:00	**2**	**6**	10	**47**	**97**	48	16	1	0	0	0	0	0	**227**	37	31
09:00	0	1	**14**	43	66	42	6	**3**	0	0	0	0	0	175	37	32
10:00	0	1	10	38	52	33	2	1	0	0	0	0	0	137	36	31
11:00	0	6	13	37	46	25	8	0	0	0	0	0	0	135	36	30
12 PM	0	5	20	49	67	19	5	1	0	0	0	0	0	166	34	30
13:00	**3**	3	41	55	65	19	5	0	0	0	0	0	0	191	34	28
14:00	2	4	19	72	61	24	0	1	0	0	0	0	0	183	34	29
15:00	0	**7**	35	80	79	17	4	1	0	0	0	0	0	223	33	29
16:00	0	7	**49**	**135**	66	27	2	0	0	0	0	0	0	286	32	28
17:00	2	3	30	124	**141**	37	6	**2**	0	0	0	0	0	**345**	34	30
18:00	0	0	14	67	104	**45**	8	1	0	0	0	0	0	239	36	31
19:00	1	2	14	46	79	45	**10**	0	0	0	0	0	0	197	36	31
20:00	1	1	12	39	35	26	7	1	0	0	0	0	0	122	36	31
21:00	0	0	3	21	37	27	7	2	0	0	0	0	0	97	37	33
22:00	0	1	7	23	37	14	1	1	0	0	0	0	0	84	35	31
23:00	0	1	8	16	31	15	9	0	0	0	0	0	0	80	38	32
%	0.4%	1.6%	9.8%	30.0%	36.3%	17.3%	3.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	09:00	08:00	08:00	07:00	07:00	09:00						08:00		
Vol.	2	6	14	47	97	54	19	3						227		
PM Peak	13:00	15:00	16:00	16:00	17:00	18:00	19:00	17:00						17:00		
Vol.	3	7	49	135	141	45	10	2						345		

Pecent	15th Percentile :	23 MPH
	50th Percentile :	30 MPH
	85th Percentile :	35 MPH
	95th Percentile :	39 MPH
Stats	10 MPH Pace Speed :	26-35 MPH
	Number in Pace :	2024
	Percent in Pace :	61.6%
	Number of Vehicles > 35 MPH :	621
	Percent of Vehicles > 35 MPH :	18.9%
	Mean Speed(Average) :	30 MPH

PRECISION
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Lincoln Street
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112704 B Speed
Site Code: TBA

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/15/1																
1	**1**	0	0	0	4	0	0	1	0	0	0	0	0	6	32	28
01:00	0	0	2	0	4	3	0	0	0	0	0	0	0	9	35	31
02:00	0	0	1	1	1	0	0	0	0	0	0	0	0	3	*	27
03:00	0	0	1	2	1	0	0	0	0	0	0	0	0	4	*	27
04:00	0	0	0	3	3	0	0	**3**	0	0	0	0	0	9	31	35
05:00	0	1	1	4	2	2	1	1	0	0	0	0	0	12	29	30
06:00	0	4	5	25	19	9	6	1	0	0	0	0	0	69	36	30
07:00	0	2	12	29	45	25	**7**	0	0	0	0	0	0	120	36	31
08:00	0	1	**15**	35	**48**	**28**	5	0	0	0	0	0	0	**132**	36	31
09:00	0	**5**	7	27	38	13	3	0	0	0	0	0	0	93	35	30
10:00	1	2	5	**40**	35	9	7	1	0	0	0	0	0	100	35	30
11:00	0	3	7	39	36	17	3	1	0	0	0	0	0	106	35	30
12 PM	**2**	0	10	27	43	10	4	0	0	0	0	0	0	96	34	30
13:00	0	0	12	41	30	12	4	0	0	0	0	0	0	99	34	30
14:00	1	1	9	28	35	15	**6**	0	0	0	0	0	0	95	36	30
15:00	0	1	**15**	45	38	11	3	0	0	0	0	0	0	113	33	29
16:00	0	**2**	14	44	45	12	3	0	0	0	0	0	0	120	34	29
17:00	0	2	10	**52**	**47**	**22**	4	0	0	0	0	0	0	**137**	35	30
18:00	2	0	8	44	32	13	2	0	0	0	0	0	0	101	34	29
19:00	0	0	4	21	24	9	5	0	0	0	0	0	0	63	36	31
20:00	2	0	5	20	17	13	0	0	0	0	0	0	0	57	36	29
21:00	0	1	3	12	14	5	1	0	0	0	0	0	0	36	34	30
22:00	0	0	5	6	13	4	3	0	0	0	0	0	0	31	37	31
23:00	0	0	1	6	4	2	0	0	0	0	0	0	0	13	33	30
%	0.6%	1.5%	9.4%	33.9%	35.6%	14.4%	4.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	00:00	09:00	08:00	10:00	08:00	08:00	07:00	04:00						08:00		
Vol.	1	5	15	40	48	28	7	3						132		
PM Peak	12:00	16:00	15:00	17:00	17:00	17:00	14:00							17:00		
Vol.	2	2	15	52	47	22	6							137		

Pecent

	15th Percentile :	23 MPH
	50th Percentile :	29 MPH
	85th Percentile :	35 MPH
	95th Percentile :	39 MPH

Stats

	10 MPH Pace Speed :	25-34 MPH
	Number in Pace :	1028
	Percent in Pace :	63.3%
	Number of Vehicles > 35 MPH :	273
	Percent of Vehicles > 35 MPH :	16.8%
	Mean Speed(Average) :	30 MPH

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112704 B Speed
Site Code: TBA

EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/16/1																
1	0	0	1	3	5	2	1	0	**1**	0	0	0	0	13	34	33
01:00	0	1	0	5	0	1	0	0	0	0	0	0	0	7	28	26
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	1	0	0	1	0	0	0	0	0	0	2	*	35
04:00	0	0	0	5	4	0	0	0	1	0	0	0	**1**	11	31	32
05:00	0	0	0	3	8	4	1	0	0	0	0	0	0	16	36	33
06:00	0	0	**12**	23	25	9	3	0	0	0	0	0	0	72	34	30
07:00	0	1	8	34	49	**28**	4	**1**	0	0	0	0	0	125	36	31
08:00	**1**	2	7	**49**	**53**	26	0	1	0	0	0	0	0	**139**	35	30
09:00	0	**5**	6	25	36	13	3	0	0	0	0	0	0	88	35	30
10:00	0	1	7	24	36	7	**5**	1	0	0	0	0	0	81	35	31
11:00	0	3	6	25	27	4	2	0	0	0	0	0	0	67	33	29
12 PM	1	0	7	26	26	9	4	0	0	0	0	0	0	73	35	30
13:00	0	0	9	38	**37**	10	0	**1**	**1**	0	0	0	0	96	33	30
14:00	**2**	1	15	31	33	8	2	0	0	0	0	0	0	92	34	28
15:00	0	2	15	**42**	33	11	2	0	0	0	0	0	0	105	33	29
16:00	1	3	**19**	33	28	**15**	2	0	0	0	0	0	0	101	34	28
17:00	0	2	16	38	36	12	2	0	0	0	0	0	0	**106**	33	29
18:00	0	0	15	34	35	7	2	0	0	0	0	0	0	93	33	29
19:00	0	2	7	23	25	10	0	0	0	0	0	0	0	67	34	29
20:00	0	**4**	6	18	11	7	1	1	0	0	0	0	0	48	34	28
21:00	0	1	3	14	13	4	0	0	0	0	0	0	0	35	33	29
22:00	0	1	1	7	12	3	**5**	0	0	0	0	0	0	29	39	32
23:00	0	0	2	5	4	4	1	1	0	0	0	0	0	17	36	32
%	0.3%	2.0%	10.9%	34.1%	36.1%	13.1%	2.8%	0.4%	0.2%	0.0%	0.0%	0.0%	0.1%			
AM Peak	08:00	09:00	06:00	08:00	08:00	07:00	10:00	07:00	00:00				04:00	08:00		
Vol.	1	5	12	49	53	28	5	1	1				1	139		
PM Peak	14:00	20:00	16:00	15:00	13:00	16:00	22:00	13:00	13:00					17:00		
Vol.	2	4	19	42	37	15	5	1	1					106		

Pecent		
	15th Percentile :	23 MPH
	50th Percentile :	29 MPH
	85th Percentile :	34 MPH
	95th Percentile :	38 MPH

Stats		
	10 MPH Pace Speed :	25-34 MPH
	Number in Pace :	948
	Percent in Pace :	64.0%
	Number of Vehicles > 35 MPH :	216
	Percent of Vehicles > 35 MPH :	14.6%
	Mean Speed(Average) :	30 MPH

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EB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th % ile	Ave Speed
11/17/1																
1	0	0	2	7	2	1	1	0	0	0	0	0	0	13	29	29
01:00	0	0	0	2	2	0	0	0	0	0	0	0	0	4	*	29
02:00	0	0	1	2	0	0	0	0	0	0	0	0	0	3	*	25
03:00	0	0	0	2	1	1	0	**2**	0	0	0	0	0	6	*	36
04:00	0	0	1	2	1	2	0	0	0	**1**	0	0	0	7	*	34
05:00	0	0	0	7	6	3	3	0	0	0	0	0	0	19	39	33
06:00	0	0	5	23	30	15	2	0	0	0	0	0	0	75	35	31
07:00	0	**1**	5	**35**	**45**	22	4	1	0	0	0	0	0	113	36	31
08:00	0	0	13	26	42	**34**	**8**	0	0	0	0	0	0	**123**	37	32
09:00	**3**	0	**15**	34	42	16	2	0	**2**	0	0	0	0	114	34	29
10:00	1	1	6	32	20	12	2	0	0	0	0	0	0	74	35	29
11:00	2	1	9	29	25	9	4	1	0	0	0	0	0	80	35	29
12 PM	2	1	7	32	37	5	0	0	0	0	0	0	0	84	33	28
13:00	1	**4**	18	41	30	5	1	0	0	0	0	0	0	100	32	27
14:00	1	1	20	46	35	9	3	0	0	0	0	0	0	115	33	28
15:00	0	1	**31**	**55**	41	8	1	0	0	0	0	0	0	**137**	32	28
16:00	**3**	3	25	40	43	**11**	0	**1**	0	0	0	0	0	126	33	28
17:00	0	2	14	39	**49**	10	**7**	0	0	0	0	0	0	121	34	30
18:00	1	0	6	25	36	10	4	0	0	0	0	0	0	82	35	30
19:00	0	0	8	22	17	11	0	0	0	0	0	0	0	58	34	30
20:00	0	1	11	20	16	9	2	0	0	0	0	0	0	59	35	29
21:00	1	0	3	17	15	5	2	0	0	0	0	0	0	43	35	29
22:00	0	1	3	13	10	5	1	0	0	0	0	0	0	33	35	29
23:00	0	1	1	3	8	4	0	0	0	0	0	0	0	17	35	30
%	0.9%	1.1%	12.7%	34.5%	34.4%	12.9%	2.9%	0.3%	0.1%	0.1%	0.0%	0.0%	0.0%			
AM Peak	09:00	07:00	09:00	07:00	07:00	08:00	08:00	03:00	09:00	04:00				08:00		
Vol.	3	1	15	35	45	34	8	2	2	1				123		
PM Peak	16:00	13:00	15:00	15:00	17:00	16:00	17:00	16:00						15:00		
Vol.	3	4	31	55	49	11	7	1						137		

Pecent		
	15th Percentile :	23 MPH
	50th Percentile :	29 MPH
	85th Percentile :	34 MPH
	95th Percentile :	38 MPH

Stats		
	10 MPH Pace Speed :	25-34 MPH
	Number in Pace :	1011
	Percent in Pace :	63.0%
	Number of Vehicles > 35 MPH :	232
	Percent of Vehicles > 35 MPH :	14.4%
	Mean Speed(Average) :	29 MPH

Synchro Level of Service (LOS)

2013 Existing Conditions
2018 No Build Conditions
2018 Build Conditions

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1811			1730			510			344	
Travel Time (s)		41.2			39.3			11.6			7.8	
Volume (vph)	0	1865	60	0	910	0	60	0	180	15	160	0
Confl. Peds. (#/hr)							3					3
Peak Hour Factor	0.97	0.97	0.97	0.92	0.92	0.92	0.82	0.82	0.82	0.72	0.72	0.72
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%
Lane Group Flow (vph)	0	1985	0	0	989	0	0	293	0	21	222	0
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Minimum Split (s)		45.0			45.0		16.0	16.0		16.0	16.0	
Total Split (s)	0.0	45.0	0.0	0.0	45.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	65.2%	0.0%	0.0%	65.2%	0.0%	34.8%	34.8%	0.0%	34.8%	34.8%	0.0%
Yellow Time (s)		4.0			4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)		1.0			1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		1.03			0.51			0.74		0.09	0.46	
Control Delay		45.5			9.3			35.0		19.3	23.9	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		45.5			9.3			35.0		19.3	23.9	
Queue Length 50th (ft)		~486			114			107		6	77	
Queue Length 95th (ft)		#622			158			#177		17	104	
Internal Link Dist (ft)		1731			1650			430			264	
Turn Bay Length (ft)												
Base Capacity (vph)		1924			1931			395		230	481	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		1.03			0.51			0.74		0.09	0.46	

Intersection Summary

Area Type: CBD
Cycle Length: 69
Actuated Cycle Length: 69
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 80
Control Type: Pretimed

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

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

Splits and Phases: 1: Soldiers Field Rd & Jughandle

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	4.0	
Lane Util. Factor		0.95			0.95			1.00		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			0.90		1.00	1.00	
Flt Protected		1.00			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		3234			3249			1517		1577	1660	
Flt Permitted		1.00			1.00			0.87		0.48	1.00	
Satd. Flow (perm)		3234			3249			1332		794	1660	
Volume (vph)	0	1865	60	0	910	0	60	0	180	15	160	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.92	0.92	0.92	0.82	0.82	0.82	0.72	0.72	0.72
Adj. Flow (vph)	0	1923	62	0	989	0	73	0	220	21	222	0
RTOR Reduction (vph)	0	3	0	0	0	0	0	9	0	0	0	0
Lane Group Flow (vph)	0	1982	0	0	989	0	0	284	0	21	222	0
Confl. Peds. (#/hr)							3					3
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)		40.0			40.0			20.0		20.0	20.0	
Effective Green, g (s)		41.0			41.0			20.0		20.0	20.0	
Actuated g/C Ratio		0.59			0.59			0.29		0.29	0.29	
Clearance Time (s)		5.0			5.0			4.0		4.0	4.0	
Lane Grp Cap (vph)		1922			1931			386		230	481	
v/s Ratio Prot		c0.61			0.30						0.13	
v/s Ratio Perm								c0.21		0.03		
v/c Ratio		1.03			0.51			0.74		0.09	0.46	
Uniform Delay, d1		14.0			8.2			22.1		17.9	20.1	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		29.0			1.0			11.8		0.8	3.2	
Delay (s)		43.0			9.1			33.9		18.7	23.3	
Level of Service		D			A			C		B	C	
Approach Delay (s)		43.0			9.1			33.9			22.9	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM Average Control Delay	31.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	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
Storage Length (ft)	0		100	100		0	50		0	0		0
Storage Lanes	0		1	1		0	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1704			1253			1044			510	
Travel Time (s)		38.7			28.5			23.7			11.6	
Volume (vph)	30	620	135	100	465	30	80	180	95	45	135	40
Confl. Peds. (#/hr)	24		13	13		24	16		10	10		16
Peak Hour Factor	0.94	0.94	0.94	0.93	0.93	0.93	0.75	0.75	0.75	0.81	0.81	0.81
Heavy Vehicles (%)	7%	7%	7%	9%	9%	9%	5%	5%	5%	2%	2%	2%
Lane Group Flow (vph)	0	692	144	108	532	0	107	367	0	0	272	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Detector Phases	1	1	1	1	1		3	3		3	3	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	28.0	28.0	28.0	28.0	28.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	0.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
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		2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None		None	None	
v/c Ratio		1.74	0.21	0.81	0.67		0.61	0.96			1.31	
Control Delay		362.5	10.8	71.0	27.1		43.7	70.2			200.7	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		362.5	10.8	71.0	27.1		43.7	70.2			200.7	
Queue Length 50th (ft)		~463	13	28	124		47	181			~178	
Queue Length 95th (ft)		#719	74	#171	#502		82	#257			#280	
Internal Link Dist (ft)		1624			1173			964			430	
Turn Bay Length (ft)			100	100			50					
Base Capacity (vph)		398	697	133	790		176	381			207	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		1.74	0.21	0.81	0.67		0.61	0.96			1.31	

Intersection Summary

Area Type: CBD

Cycle Length: 80

Actuated Cycle Length: 80

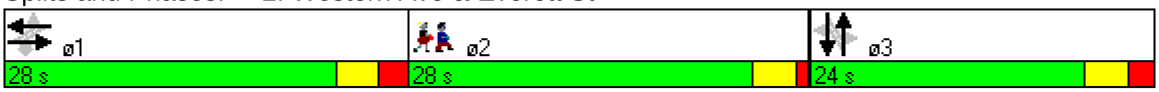
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	8.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	35%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 80
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Western Ave & Everett St



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		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00	0.97	1.00	1.00		1.00	0.99			0.99	
Flpb, ped/bikes		1.00	1.00	1.00	1.00		0.98	1.00			1.00	
Frt		1.00	0.85	1.00	0.99		1.00	0.95			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1594	1313	1485	1550		1522	1523			1601	
Flt Permitted		0.96	1.00	0.17	1.00		0.44	1.00			0.51	
Satd. Flow (perm)		1538	1313	269	1550		703	1523			827	
Volume (vph)	30	620	135	100	465	30	80	180	95	45	135	40
Peak-hour factor, PHF	0.94	0.94	0.94	0.93	0.93	0.93	0.75	0.75	0.75	0.81	0.81	0.81
Adj. Flow (vph)	32	660	144	108	500	32	107	240	127	56	167	49
RTOR Reduction (vph)	0	0	35	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	692	109	108	532	0	107	367	0	0	272	0
Confl. Peds. (#/hr)	24		13	13		24	16		10	10		16
Heavy Vehicles (%)	7%	7%	7%	9%	9%	9%	5%	5%	5%	2%	2%	2%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Actuated Green, G (s)		37.4	37.4	37.4	37.4		19.0	19.0			19.0	
Effective Green, g (s)		38.4	38.4	38.4	38.4		20.0	20.0			20.0	
Actuated g/C Ratio		0.48	0.48	0.48	0.48		0.25	0.25			0.25	
Clearance Time (s)		5.0	5.0	5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		738	630	129	744		176	381			207	
v/s Ratio Prot					0.34			0.24				
v/s Ratio Perm		c0.45	0.08	0.40			0.15				c0.33	
v/c Ratio		0.94	0.17	0.84	0.72		0.61	0.96			1.31	
Uniform Delay, d1		19.7	11.8	18.1	16.5		26.5	29.6			30.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		21.0	0.6	44.6	5.8		5.8	36.3			171.3	
Delay (s)		40.7	12.4	62.7	22.3		32.4	65.9			201.3	
Level of Service		D	B	E	C		C	E			F	
Approach Delay (s)		35.8			29.1			58.3			201.3	
Approach LOS		D			C			E			F	

Intersection Summary			
HCM Average Control Delay	58.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	21.6
Intersection Capacity Utilization	111.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50		50	50		50	50	
Trailing Detector (ft)				0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		852			829			430			1044	
Travel Time (s)		19.4			18.8			9.8			23.7	
Volume (vph)	0	0	0	30	5	30	5	340	15	10	340	20
Confl. Peds. (#/hr)	14		6	6		14	12		3	3		12
Peak Hour Factor	0.92	0.92	0.92	0.71	0.71	0.71	0.77	0.77	0.77	0.83	0.83	0.83
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	4%	4%	4%
Lane Group Flow (vph)	0	0	0	0	91	0	0	467	0	0	446	0
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Detector Phases				3	3		1	1		1	1	
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				16.0	16.0		38.0	38.0		38.0	38.0	
Total Split (s)	0.0	0.0	0.0	16.0	16.0	0.0	38.0	38.0	0.0	38.0	38.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	22.9%	22.9%	0.0%	54.3%	54.3%	0.0%	54.3%	54.3%	0.0%
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode				None	None		Min	Min		Min	Min	
v/c Ratio					0.41			0.40			0.38	
Control Delay					16.1			7.0			6.8	
Queue Delay					0.0			0.0			0.0	
Total Delay					16.1			7.0			6.8	
Queue Length 50th (ft)					12			41			38	
Queue Length 95th (ft)					42			172			180	
Internal Link Dist (ft)		772			749			350			964	
Turn Bay Length (ft)												
Base Capacity (vph)					301			1184			1183	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.30			0.39			0.38	

Intersection Summary

Area Type: CBD

Cycle Length: 70

Actuated Cycle Length: 69.8

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Holton St & Everett St

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	4.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	23%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.96			1.00			1.00	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.94			0.99			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					1461			1617			1628	
Flt Permitted					0.98			1.00			0.99	
Satd. Flow (perm)					1461			1611			1610	
Volume (vph)	0	0	0	30	5	30	5	340	15	10	340	20
Peak-hour factor, PHF	0.92	0.92	0.92	0.71	0.71	0.71	0.77	0.77	0.77	0.83	0.83	0.83
Adj. Flow (vph)	0	0	0	42	7	42	6	442	19	12	410	24
RTOR Reduction (vph)	0	0	0	0	37	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	0	0	0	54	0	0	466	0	0	444	0
Confl. Peds. (#/hr)	14		6	6		14	12		3	3		12
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	4%	4%	4%
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Actuated Green, G (s)					8.1			50.1			50.1	
Effective Green, g (s)					8.1			50.1			50.1	
Actuated g/C Ratio					0.11			0.69			0.69	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					163			1115			1114	
v/s Ratio Prot												
v/s Ratio Perm					0.04			c0.29			0.28	
v/c Ratio					0.33			0.42			0.40	
Uniform Delay, d1					29.6			4.8			4.7	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					1.2			0.3			0.2	
Delay (s)					30.8			5.1			5.0	
Level of Service					C			A			A	
Approach Delay (s)		0.0			30.8			5.1			5.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	72.4	Sum of lost time (s)	14.2
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0			50	0	0	
Storage Lanes	0			1	1	0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)	50	50	50	50	50		
Trailing Detector (ft)	0	0	0	0	0		
Turning Speed (mph)	15			9	15	9	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1373	1884		1787		
Travel Time (s)		31.2	42.8		40.6		
Volume (vph)	185	505	375	145	145	90	
Peak Hour Factor	0.93	0.92	0.92	0.92	0.83	0.83	
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%	
Lane Group Flow (vph)	0	748	408	158	283	0	
Turn Type	Perm			Perm			
Protected Phases		1	1		3		2
Permitted Phases	1			1			
Detector Phases	1	1	1	1	3		
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0		16.0
Total Split (s)	55.0	55.0	55.0	55.0	29.0	0.0	16.0
Total Split (%)	55.0%	55.0%	55.0%	55.0%	29.0%	0.0%	16%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		8.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		0.0
Lead/Lag	Lead	Lead	Lead	Lead			Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max		None
v/c Ratio		0.72	0.50	0.21	0.59		
Control Delay		24.0	18.7	7.2	37.5		
Queue Delay		0.0	0.0	0.0	0.0		
Total Delay		24.0	18.7	7.2	37.5		
Queue Length 50th (ft)		186	163	23	167		
Queue Length 95th (ft)		262	247	58	237		
Internal Link Dist (ft)		1293	1804		1707		
Turn Bay Length (ft)				50			
Base Capacity (vph)		1035	823	741	480		
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		0.72	0.50	0.21	0.59		

Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 9 (9%), Referenced to phase 1:EBWB, Start of Green	
Natural Cycle: 70	

Control Type: Actuated-Coordinated

Splits and Phases: 4: N Beacon St & Everett St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	
Lane Util. Factor		0.95	1.00	1.00	1.00	
Frt		1.00	1.00	0.85	0.95	
Flt Protected		0.99	1.00	1.00	0.97	
Satd. Flow (prot)		3025	1613	1371	1527	
Flt Permitted		0.65	1.00	1.00	0.97	
Satd. Flow (perm)		1999	1613	1371	1527	
Volume (vph)	185	505	375	145	145	90
Peak-hour factor, PHF	0.93	0.92	0.92	0.92	0.83	0.83
Adj. Flow (vph)	199	549	408	158	175	108
RTOR Reduction (vph)	0	0	0	44	0	0
Lane Group Flow (vph)	0	748	408	114	283	0
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%
Turn Type	Perm			Perm		
Protected Phases		1	1		3	
Permitted Phases	1			1		
Actuated Green, G (s)		47.8	47.8	47.8	31.4	
Effective Green, g (s)		47.8	47.8	47.8	31.4	
Actuated g/C Ratio		0.48	0.48	0.48	0.31	
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)		956	771	655	479	
v/s Ratio Prot			0.25		c0.19	
v/s Ratio Perm		c0.37		0.08		
v/c Ratio		0.78	0.53	0.17	0.59	
Uniform Delay, d1		21.8	18.2	14.9	28.9	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		6.4	2.6	0.6	5.3	
Delay (s)		28.1	20.8	15.4	34.2	
Level of Service		C	C	B	C	
Approach Delay (s)		28.1	19.3		34.2	
Approach LOS		C	B		C	

Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.8
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0		0	
Storage Lanes	1		0	1		0	0		0		0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50		50
Trailing Detector (ft)	0	0		0	0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Right Turn on Red			No			Yes			Yes			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1707			1977			1552				1303
Travel Time (s)		38.8			44.9			35.3				29.6
Volume (vph)	325	0	60	110	170	40	35	715	0	10	0	700
Confl. Peds. (#/hr)							4					
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Lane Group Flow (vph)	220	198	0	128	245	0	0	824	0	0	0	764
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Detector Phases	3	3		2	2		1	1		1		1
Minimum Initial (s)	8.0	8.0		8.0	8.0		21.0	21.0		21.0		21.0
Minimum Split (s)	27.0	27.0		14.0	14.0		27.0	27.0		27.0		27.0
Total Split (s)	18.0	18.0	0.0	20.0	20.0	0.0	52.0	52.0	0.0	52.0	0.0	52.0
Total Split (%)	20.0%	20.0%	0.0%	22.2%	22.2%	0.0%	57.8%	57.8%	0.0%	57.8%	0.0%	57.8%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0
Lead/Lag				Lag	Lag		Lead	Lead		Lead		Lead
Lead-Lag Optimize?				Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max		C-Max
v/c Ratio	0.93	0.87		0.47	0.84			0.56				0.49
Control Delay	83.8	72.6		39.5	60.1			15.8				14.6
Queue Delay	0.0	0.0		0.0	0.0			0.0				0.0
Total Delay	83.8	72.6		39.5	60.1			15.8				14.6
Queue Length 50th (ft)	132	117		66	129			154				135
Queue Length 95th (ft)	#278	#249		116	#238			209				184
Internal Link Dist (ft)		1627			1897			1472				1223
Turn Bay Length (ft)												
Base Capacity (vph)	236	228		280	296			1479				1568
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	0.93	0.87		0.46	0.83			0.56				0.49

Intersection Summary

Area Type: CBD

Cycle Length: 90

Actuated Cycle Length: 90

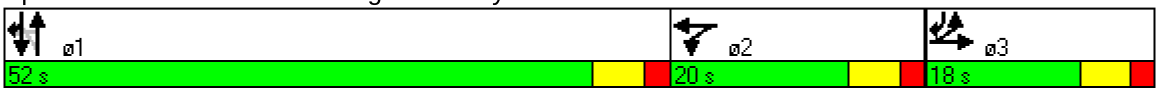
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green

Lane Group	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Storage Length (ft)	50
Storage Lanes	1
Total Lost Time (s)	4.0
Leading Detector (ft)	50
Trailing Detector (ft)	0
Turning Speed (mph)	9
Right Turn on Red	No
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	95
Confl. Peds. (#/hr)	4
Peak Hour Factor	0.93
Heavy Vehicles (%)	4%
Lane Group Flow (vph)	102
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Detector Phases	1 3
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	70.0
Total Split (%)	77.8%
Yellow Time (s)	
All-Red Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
v/c Ratio	0.10
Control Delay	3.7
Queue Delay	0.0
Total Delay	3.7
Queue Length 50th (ft)	14
Queue Length 95th (ft)	27
Internal Link Dist (ft)	
Turn Bay Length (ft)	50
Base Capacity (vph)	1029
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.10

Intersection Summary

Natural Cycle: 75
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Birmingham Pkwy & Lincoln St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
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	0.95	0.95		1.00	1.00			0.95				0.95
Frpb, ped/bikes	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
Frt	1.00	0.95		1.00	0.97			1.00				1.00
Flt Protected	0.95	0.97		0.95	1.00			1.00				1.00
Satd. Flow (prot)	1484	1437		1577	1612			3117				3122
Flt Permitted	0.95	0.97		0.95	1.00			0.89				0.94
Satd. Flow (perm)	1484	1437		1577	1612			2773				2940
Volume (vph)	325	0	60	110	170	40	35	715	0	10	0	700
Peak-hour factor, PHF	0.92	0.92	0.92	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Adj. Flow (vph)	353	0	65	128	198	47	38	786	0	11	0	753
RTOR Reduction (vph)	0	0	0	0	10	0	0	0	0	0	0	0
Lane Group Flow (vph)	220	198	0	128	235	0	0	824	0	0	0	764
Confl. Peds. (#/hr)							4					
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Actuated Green, G (s)	12.3	12.3		13.7	13.7			46.0				46.0
Effective Green, g (s)	14.3	14.3		15.7	15.7			48.0				48.0
Actuated g/C Ratio	0.16	0.16		0.17	0.17			0.53				0.53
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0				6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0				3.0
Lane Grp Cap (vph)	236	228		275	281			1479				1568
v/s Ratio Prot	c0.15	0.14		0.08	c0.15							
v/s Ratio Perm								c0.30				0.26
v/c Ratio	0.93	0.87		0.47	0.84			0.56				0.49
Uniform Delay, d1	37.4	36.9		33.4	35.9			13.9				13.2
Progression Factor	1.00	1.00		1.00	1.00			1.00				1.00
Incremental Delay, d2	40.2	27.6		1.2	19.0			1.5				1.1
Delay (s)	77.6	64.5		34.6	54.9			15.5				14.3
Level of Service	E	E		C	D			B				B
Approach Delay (s)		71.4			47.9			15.5				13.0
Approach LOS		E			D			B				B

Intersection Summary			
HCM Average Control Delay	28.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1398
Flt Permitted	1.00
Satd. Flow (perm)	1398
Volume (vph)	95
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	102
RTOR Reduction (vph)	0
Lane Group Flow (vph)	102
Confl. Peds. (#/hr)	4
Heavy Vehicles (%)	4%
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Actuated Green, G (s)	64.3
Effective Green, g (s)	66.3
Actuated g/C Ratio	0.74
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	1030
v/s Ratio Prot	0.07
v/s Ratio Perm	
v/c Ratio	0.10
Uniform Delay, d1	3.4
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	3.4
Level of Service	A
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		0		150		0	0		0	0
Storage Lanes		1		0		1		0	0		0	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50	50		50	50		50
Trailing Detector (ft)	0	0	0		0	0	0		0	0		0
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Right Turn on Red				Yes				Yes			Yes	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1533				1651			501		
Travel Time (s)			34.8				37.5			11.4		
Volume (vph)	10	70	1635	5	5	15	1050	90	5	0	10	125
Confl. Peds. (#/hr)		22		12		12		22	1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.94	0.94	0.94	0.94	0.46	0.46	0.46	0.93
Heavy Vehicles (%)	5%	5%	5%	5%	8%	8%	8%	8%	82%	82%	82%	4%
Parking (#/hr)							1					
Lane Group Flow (vph)	0	81	1673	0	0	21	1213	0	0	33	0	134
Turn Type	Prot	Prot			Prot	Prot			custom			custom
Protected Phases	1	1	2		1	1	2					
Permitted Phases									3	3		3
Detector Phases	1	1	2		1	1	2		3	3		3
Minimum Initial (s)	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0		1.0
Minimum Split (s)	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0		5.0
Total Split (s)	18.0	18.0	64.0	0.0	18.0	18.0	64.0	0.0	18.0	18.0	0.0	18.0
Total Split (%)	18.0%	18.0%	64.0%	0.0%	18.0%	18.0%	64.0%	0.0%	18.0%	18.0%	0.0%	18.0%
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)	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0		1.0
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes					
Recall Mode	Max	Max	C-Max		Max	Max	C-Max		None	None		None
v/c Ratio		0.36	0.63			0.09	0.72			0.25		0.84
Control Delay		44.0	14.1			38.8	16.9			25.6		81.3
Queue Delay		0.0	0.0			0.0	0.0			0.0		0.0
Total Delay		44.0	14.1			38.8	16.9			25.6		81.3
Queue Length 50th (ft)		48	232			12	261			6		84
Queue Length 95th (ft)		94	278			34	343			11		#185
Internal Link Dist (ft)			1453				1571			421		
Turn Bay Length (ft)		150				150						
Base Capacity (vph)		228	2668			222	1691			137		169
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		0.36	0.63			0.09	0.72			0.24		0.79

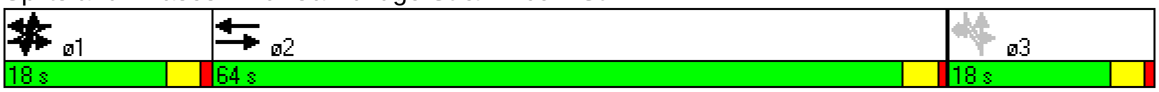
Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	

Lane Group	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		160
Storage Lanes		1
Total Lost Time (s)	4.0	4.0
Leading Detector (ft)		50
Trailing Detector (ft)		0
Turning Speed (mph)		9
Right Turn on Red		Yes
Link Speed (mph)	30	
Link Distance (ft)	1303	
Travel Time (s)	29.6	
Volume (vph)	0	75
Confl. Peds. (#/hr)		1
Peak Hour Factor	0.93	0.93
Heavy Vehicles (%)	4%	4%
Parking (#/hr)		
Lane Group Flow (vph)	0	81
Turn Type		custom
Protected Phases		
Permitted Phases		3
Detector Phases		3
Minimum Initial (s)		1.0
Minimum Split (s)		5.0
Total Split (s)	0.0	18.0
Total Split (%)	0.0%	18.0%
Yellow Time (s)		3.0
All-Red Time (s)		1.0
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode		None
v/c Ratio		0.32
Control Delay		12.6
Queue Delay		0.0
Total Delay		12.6
Queue Length 50th (ft)		0
Queue Length 95th (ft)		42
Internal Link Dist (ft)	1223	
Turn Bay Length (ft)		160
Base Capacity (vph)		263
Starvation Cap Reductn		0
Spillback Cap Reductn		0
Storage Cap Reductn		0
Reduced v/c Ratio		0.31

Intersection Summary

Offset: 90 (90%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cambridge St & Lincoln St



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
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		1.00	0.91			1.00	0.95			1.00		1.00
Frpb, ped/bikes		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
Frt		1.00	1.00			1.00	0.99			0.91		1.00
Flt Protected		0.95	1.00			0.95	1.00			0.98		0.95
Satd. Flow (prot)		1547	4444			1504	2808			840		1562
Flt Permitted		0.95	1.00			0.95	1.00			0.98		0.74
Satd. Flow (perm)		1547	4444			1504	2808			840		1210
Volume (vph)	10	70	1635	5	5	15	1050	90	5	0	10	125
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.94	0.94	0.94	0.94	0.46	0.46	0.46	0.93
Adj. Flow (vph)	10	71	1668	5	5	16	1117	96	11	0	22	134
RTOR Reduction (vph)	0	0	0	0	0	0	6	0	0	19	0	0
Lane Group Flow (vph)	0	81	1673	0	0	21	1207	0	0	14	0	134
Confl. Peds. (#/hr)		22		12		12		22	1			
Heavy Vehicles (%)	5%	5%	5%	5%	8%	8%	8%	8%	82%	82%	82%	4%
Parking (#/hr)							1					
Turn Type	Prot	Prot			Prot	Prot			custom			custom
Protected Phases	1	1	2		1	1	2					
Permitted Phases									3	3		3
Actuated Green, G (s)		14.7	60.0			14.7	60.0			13.3		13.3
Effective Green, g (s)		14.7	60.0			14.7	60.0			13.3		13.3
Actuated g/C Ratio		0.15	0.60			0.15	0.60			0.13		0.13
Clearance Time (s)		4.0	4.0			4.0	4.0			4.0		4.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0		3.0
Lane Grp Cap (vph)		227	2666			221	1685			112		161
v/s Ratio Prot		c0.05	0.38			0.01	c0.43					
v/s Ratio Perm										0.02		c0.11
v/c Ratio		0.36	0.63			0.10	0.72			0.12		0.83
Uniform Delay, d1		38.4	12.8			36.9	14.0			38.2		42.3
Progression Factor		1.00	1.00			1.00	1.00			1.00		1.00
Incremental Delay, d2		4.3	1.1			0.9	2.6			0.5		29.1
Delay (s)		42.7	14.0			37.7	16.7			38.7		71.4
Level of Service		D	B			D	B			D		E
Approach Delay (s)			15.3				17.0			38.7		
Approach LOS			B				B			D		

Intersection Summary			
HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)		4.0
Lane Util. Factor		1.00
Frpb, ped/bikes		0.99
Flpb, ped/bikes		1.00
Frt		0.85
Flt Protected		1.00
Satd. Flow (prot)		1378
Flt Permitted		1.00
Satd. Flow (perm)		1378
Volume (vph)	0	75
Peak-hour factor, PHF	0.93	0.93
Adj. Flow (vph)	0	81
RTOR Reduction (vph)	0	70
Lane Group Flow (vph)	0	11
Confl. Peds. (#/hr)		1
Heavy Vehicles (%)	4%	4%
Parking (#/hr)		
Turn Type		custom
Protected Phases		
Permitted Phases		3
Actuated Green, G (s)		13.3
Effective Green, g (s)		13.3
Actuated g/C Ratio		0.13
Clearance Time (s)		4.0
Vehicle Extension (s)		3.0
Lane Grp Cap (vph)		183
v/s Ratio Prot		
v/s Ratio Perm		0.01
v/c Ratio		0.06
Uniform Delay, d1		37.9
Progression Factor		1.00
Incremental Delay, d2		0.1
Delay (s)		38.0
Level of Service		D
Approach Delay (s)	58.8	
Approach LOS	E	

Intersection Summary

Lane Group	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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		377			462			1787			430	
Travel Time (s)		8.6			10.5			40.6			9.8	
Volume (vph)	0	5	5	25	0	40	0	305	25	65	325	0
Confl. Peds. (#/hr)	2		1	1			22		7			22
Peak Hour Factor	0.63	0.63	0.63	0.75	0.75	0.75	0.92	0.92	0.92	0.79	0.79	0.79
Heavy Vehicles (%)	80%	80%	80%	4%	4%	4%	5%	5%	5%	3%	3%	3%
Lane Group Flow (vph)	0	16	0	0	86	0	0	359	0	0	493	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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	5	5	25	0	40	0	305	25	65	325	0
Peak Hour Factor	0.63	0.63	0.63	0.75	0.75	0.75	0.92	0.92	0.92	0.79	0.79	0.79
Hourly flow rate (vph)	0	8	8	33	0	53	0	332	27	82	411	0
Pedestrians		22			7			1			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		2			1			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											430	
pX, platoon unblocked	0.92	0.92	0.92	0.92	0.92		0.92					
vC, conflicting volume	998	964	434	941	950	354	433			366		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	998	961	386	936	946	354	384			366		
tC, single (s)	7.9	7.3	7.0	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.2	4.7	4.0	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	95	98	83	100	92	100			93		
cM capacity (veh/h)	125	160	470	196	217	680	1046			1180		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	16	87	359	494
Volume Left	0	33	0	82
Volume Right	8	53	27	0
cSH	239	348	1046	1180
Volume to Capacity	0.07	0.25	0.00	0.07
Queue Length 95th (ft)	5	24	0	6
Control Delay (s)	21.2	18.7	0.0	2.0
Lane LOS	C	C		A
Approach Delay (s)	21.2	18.7	0.0	2.0
Approach LOS	C	C		

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		498	1675		462	
Travel Time (s)		11.3	38.1		10.5	
Volume (vph)	35	105	185	50	35	35
Confl. Peds. (#/hr)	11			11		
Peak Hour Factor	0.88	0.88	0.77	0.77	0.78	0.78
Heavy Vehicles (%)	2%	2%	7%	7%	3%	3%
Lane Group Flow (vph)	0	159	305	0	90	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	35	105	185	50	35	35
Peak Hour Factor	0.88	0.88	0.77	0.77	0.78	0.78
Hourly flow rate (vph)	40	119	240	65	45	45
Pedestrians					11	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	316				483	284
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	316				483	284
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				91	94
cM capacity (veh/h)	1233				519	746

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	159	305	90
Volume Left	40	0	45
Volume Right	0	65	45
cSH	1233	1700	612
Volume to Capacity	0.03	0.18	0.15
Queue Length 95th (ft)	2	0	13
Control Delay (s)	2.2	0.0	11.9
Lane LOS	A		B
Approach Delay (s)	2.2	0.0	11.9
Approach LOS			B

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		1977	498		584	
Travel Time (s)		44.9	11.3		13.3	
Volume (vph)	5	140	210	5	0	5
Confl. Peds. (#/hr)	11			11		
Peak Hour Factor	0.88	0.88	0.97	0.97	0.50	0.50
Heavy Vehicles (%)	2%	2%	8%	8%	100%	100%
Lane Group Flow (vph)	0	165	221	0	10	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	140	210	5	0	5
Peak Hour Factor	0.88	0.88	0.97	0.97	0.50	0.50
Hourly flow rate (vph)	6	159	216	5	0	10
Pedestrians					11	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	233				401	230
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	233				401	230
tC, single (s)	4.1				7.4	7.2
tC, 2 stage (s)						
tF (s)	2.2				4.4	4.2
p0 queue free %	100				100	98
cM capacity (veh/h)	1323				448	611

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	165	222	10
Volume Left	6	0	0
Volume Right	0	5	10
cSH	1323	1700	611
Volume to Capacity	0.00	0.13	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.3	0.0	11.0
Lane LOS	A		B
Approach Delay (s)	0.3	0.0	11.0
Approach LOS			B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	22.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1811			1730			510			344	
Travel Time (s)		41.2			39.3			11.6			7.8	
Volume (vph)	0	1305	65	0	1635	0	75	0	155	20	185	0
Confl. Peds. (#/hr)							6					6
Peak Hour Factor	0.97	0.97	0.97	0.93	0.93	0.93	0.91	0.91	0.91	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%
Lane Group Flow (vph)	0	1412	0	0	1758	0	0	252	0	23	215	0
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Minimum Split (s)		45.0			45.0		16.0	16.0		16.0	16.0	
Total Split (s)	0.0	45.0	0.0	0.0	45.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	65.2%	0.0%	0.0%	65.2%	0.0%	34.8%	34.8%	0.0%	34.8%	34.8%	0.0%
Yellow Time (s)		4.0			4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)		1.0			1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.73			0.91			0.62		0.09	0.44	
Control Delay		12.9			21.5			24.3		19.0	23.4	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		12.9			21.5			24.3		19.0	23.4	
Queue Length 50th (ft)		199			308			71		7	74	
Queue Length 95th (ft)		276			#506			146		22	125	
Internal Link Dist (ft)		1731			1650			430			264	
Turn Bay Length (ft)												
Base Capacity (vph)		1922			1931			407		263	491	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.73			0.91			0.62		0.09	0.44	

Intersection Summary

Area Type: CBD

Cycle Length: 69

Actuated Cycle Length: 69

Offset: 6 (9%), Referenced to phase 1:EBWB, Start of Green

Natural Cycle: 65

Control Type: Pretimed

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

Splits and Phases: 1: Soldiers Field Rd & Jughandle

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	4.0	
Lane Util. Factor		0.95			0.95			1.00		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		0.99			1.00			0.91		1.00	1.00	
Flt Protected		1.00			1.00			0.98		0.95	1.00	
Satd. Flow (prot)		3226			3249			1527		1608	1693	
Flt Permitted		1.00			1.00			0.82		0.54	1.00	
Satd. Flow (perm)		3226			3249			1274		908	1693	
Volume (vph)	0	1305	65	0	1635	0	75	0	155	20	185	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.91	0.91	0.91	0.86	0.86	0.86
Adj. Flow (vph)	0	1345	67	0	1758	0	82	0	170	23	215	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	38	0	0	0	0
Lane Group Flow (vph)	0	1407	0	0	1758	0	0	214	0	23	215	0
Confl. Peds. (#/hr)							6					6
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)		40.0			40.0			20.0		20.0	20.0	
Effective Green, g (s)		41.0			41.0			20.0		20.0	20.0	
Actuated g/C Ratio		0.59			0.59			0.29		0.29	0.29	
Clearance Time (s)		5.0			5.0			4.0		4.0	4.0	
Lane Grp Cap (vph)		1917			1931			369		263	491	
v/s Ratio Prot		0.44			c0.54						0.13	
v/s Ratio Perm								c0.17		0.03		
v/c Ratio		0.73			0.91			0.58		0.09	0.44	
Uniform Delay, d1		10.1			12.4			20.9		17.9	19.9	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		2.5			7.9			6.5		0.7	2.8	
Delay (s)		12.6			20.3			27.5		18.5	22.8	
Level of Service		B			C			C		B	C	
Approach Delay (s)		12.6			20.3			27.5			22.3	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	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
Storage Length (ft)	0		100	100		0	50		0	0		0
Storage Lanes	0		1	1		0	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1704			1253			1044			510	
Travel Time (s)		38.7			28.5			23.7			11.6	
Volume (vph)	20	565	165	105	585	65	100	145	75	50	160	70
Confl. Peds. (#/hr)	33		18	18		33	20		13	13		20
Peak Hour Factor	0.98	0.98	0.98	0.97	0.97	0.97	0.85	0.85	0.85	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	0%	0%	0%
Lane Group Flow (vph)	0	597	168	108	670	0	118	259	0	0	312	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Detector Phases	1	1	1	1	1		3	3		3	3	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	38.9%	38.9%	38.9%	38.9%	38.9%	0.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
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		2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None		None	None	
v/c Ratio		1.80	0.25	1.08	0.88		0.74	0.65			1.00	
Control Delay		393.8	11.4	149.3	42.3		60.4	38.9			86.1	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		393.8	11.4	149.3	42.3		60.4	38.9			86.1	
Queue Length 50th (ft)		~568	32	~85	~466		62	132			177	
Queue Length 95th (ft)		#652	82	#188	#676		#139	200			#346	
Internal Link Dist (ft)		1624			1173			964			430	
Turn Bay Length (ft)			100	100			50					
Base Capacity (vph)		332	677	100	761		159	396			313	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		1.80	0.25	1.08	0.88		0.74	0.65			1.00	

Intersection Summary

Area Type: CBD

Cycle Length: 90

Actuated Cycle Length: 90

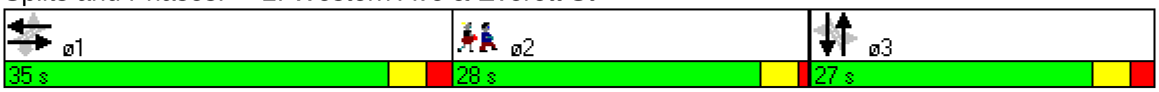
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	8.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	31%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 140
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Western Ave & Everett St



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		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00	0.96	1.00	0.99		1.00	0.98			0.99	
Flpb, ped/bikes		1.00	1.00	0.99	1.00		0.98	1.00			1.00	
Frt		1.00	0.85	1.00	0.98		1.00	0.95			0.97	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1657	1355	1567	1626		1549	1552			1609	
Flt Permitted		0.82	1.00	0.22	1.00		0.38	1.00			0.75	
Satd. Flow (perm)		1357	1355	358	1626		624	1552			1225	
Volume (vph)	20	565	165	105	585	65	100	145	75	50	160	70
Peak-hour factor, PHF	0.98	0.98	0.98	0.97	0.97	0.97	0.85	0.85	0.85	0.90	0.90	0.90
Adj. Flow (vph)	20	577	168	108	603	67	118	171	88	56	178	78
RTOR Reduction (vph)	0	0	47	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	597	121	108	670	0	118	259	0	0	312	0
Confl. Peds. (#/hr)	33		18	18		33	20		13	13		20
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	0%	0%	0%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Actuated Green, G (s)		39.6	39.6	39.6	39.6		22.0	22.0			22.0	
Effective Green, g (s)		40.6	40.6	40.6	40.6		23.0	23.0			23.0	
Actuated g/C Ratio		0.45	0.45	0.45	0.45		0.26	0.26			0.26	
Clearance Time (s)		5.0	5.0	5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		612	611	161	734		159	397			313	
v/s Ratio Prot					0.41			0.17				
v/s Ratio Perm		c0.44	0.09	0.30			0.19				c0.25	
v/c Ratio		0.98	0.20	0.67	0.91		0.74	0.65			1.00	
Uniform Delay, d1		24.2	14.9	19.4	23.0		30.8	29.9			33.5	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		30.8	0.7	20.1	17.7		16.9	3.8			49.7	
Delay (s)		55.1	15.6	39.5	40.7		47.7	33.7			83.1	
Level of Service		E	B	D	D		D	C			F	
Approach Delay (s)		46.4			40.6			38.1			83.1	
Approach LOS		D			D			D			F	

Intersection Summary			
HCM Average Control Delay	48.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	26.4
Intersection Capacity Utilization	118.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50		50	50		50	50	
Trailing Detector (ft)				0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		852			829			430			1044	
Travel Time (s)		19.4			18.8			9.8			23.7	
Volume (vph)	0	0	0	15	15	20	20	315	15	20	395	35
Confl. Peds. (#/hr)	14		4	4		14	22		13	13		22
Peak Hour Factor	0.92	0.92	0.92	0.75	0.75	0.75	0.94	0.94	0.94	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Lane Group Flow (vph)	0	0	0	0	67	0	0	372	0	0	474	0
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Detector Phases				3	3		1	1		1	1	
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				16.0	16.0		38.0	38.0		38.0	38.0	
Total Split (s)	0.0	0.0	0.0	16.0	16.0	0.0	38.0	38.0	0.0	38.0	38.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	22.9%	22.9%	0.0%	54.3%	54.3%	0.0%	54.3%	54.3%	0.0%
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode				None	None		Min	Min		Min	Min	
v/c Ratio					0.40			0.30			0.38	
Control Delay					21.2			6.6			7.3	
Queue Delay					0.0			0.0			0.0	
Total Delay					21.2			6.6			7.3	
Queue Length 50th (ft)					13			30			40	
Queue Length 95th (ft)					41			155			209	
Internal Link Dist (ft)		772			749			350			964	
Turn Bay Length (ft)												
Base Capacity (vph)					237			1243			1262	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.28			0.30			0.38	

Intersection Summary

Area Type: CBD

Cycle Length: 70

Actuated Cycle Length: 83.2

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Holton St & Everett St

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	4.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	23%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.95			1.00			1.00	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.95			0.99			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1476			1659			1667	
Flt Permitted					0.99			0.97			0.98	
Satd. Flow (perm)					1476			1610			1635	
Volume (vph)	0	0	0	15	15	20	20	315	15	20	395	35
Peak-hour factor, PHF	0.92	0.92	0.92	0.75	0.75	0.75	0.94	0.94	0.94	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	20	20	27	21	335	16	21	416	37
RTOR Reduction (vph)	0	0	0	0	25	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	0	0	0	42	0	0	371	0	0	472	0
Confl. Peds. (#/hr)	14		4	4		14	22		13	13		22
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Actuated Green, G (s)					6.1			63.0			63.0	
Effective Green, g (s)					6.1			63.0			63.0	
Actuated g/C Ratio					0.07			0.73			0.73	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					104			1175			1194	
v/s Ratio Prot												
v/s Ratio Perm					0.03			0.23			c0.29	
v/c Ratio					0.40			0.32			0.40	
Uniform Delay, d1					38.4			4.1			4.4	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					2.5			0.2			0.2	
Delay (s)					40.9			4.2			4.6	
Level of Service					D			A			A	
Approach Delay (s)		0.0			40.9			4.2			4.6	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM Average Control Delay	7.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	86.3	Sum of lost time (s)	17.2
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0			50	0	0	
Storage Lanes	0			1	1	0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)	50	50	50	50	50		
Trailing Detector (ft)	0	0	0	0	0		
Turning Speed (mph)	15			9	15	9	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1373	1884		1787		
Travel Time (s)		31.2	42.8		40.6		
Volume (vph)	145	540	455	110	235	130	
Peak Hour Factor	0.92	0.92	0.86	0.86	0.92	0.92	
Heavy Vehicles (%)	2%	2%	3%	3%	0%	0%	
Lane Group Flow (vph)	0	745	529	128	396	0	
Turn Type	Perm			Perm			
Protected Phases		1	1		3		2
Permitted Phases	1			1			
Detector Phases	1	1	1	1	3		
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0		16.0
Total Split (s)	60.0	60.0	60.0	60.0	34.0	0.0	16.0
Total Split (%)	54.5%	54.5%	54.5%	54.5%	30.9%	0.0%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		8.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		0.0
Lead/Lag	Lead	Lead	Lead	Lead			Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max		None
v/c Ratio		0.75	0.63	0.17	0.76		
Control Delay		27.2	23.6	9.7	46.1		
Queue Delay		0.0	0.0	0.0	0.0		
Total Delay		27.2	23.6	9.7	46.1		
Queue Length 50th (ft)		211	259	28	272		
Queue Length 95th (ft)		293	348	57	#457		
Internal Link Dist (ft)		1293	1804		1707		
Turn Bay Length (ft)				50			
Base Capacity (vph)		997	845	742	522		
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		0.75	0.63	0.17	0.76		

Intersection Summary

Area Type: CBD

Cycle Length: 110

Actuated Cycle Length: 110

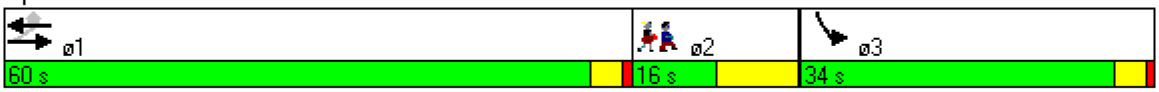
Offset: 56 (51%), Referenced to phase 1:EBWB, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

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

Splits and Phases: 4: N Beacon St & Everett St



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	
Lane Util. Factor		0.95	1.00	1.00	1.00	
Frt		1.00	1.00	0.85	0.95	
Flt Protected		0.99	1.00	1.00	0.97	
Satd. Flow (prot)		3152	1660	1411	1577	
Flt Permitted		0.60	1.00	1.00	0.97	
Satd. Flow (perm)		1916	1660	1411	1577	
Volume (vph)	145	540	455	110	235	130
Peak-hour factor, PHF	0.92	0.92	0.86	0.86	0.92	0.92
Adj. Flow (vph)	158	587	529	128	255	141
RTOR Reduction (vph)	0	0	0	25	0	0
Lane Group Flow (vph)	0	745	529	103	396	0
Heavy Vehicles (%)	2%	2%	3%	3%	0%	0%
Turn Type	Perm			Perm		
Protected Phases		1	1		3	
Permitted Phases	1			1		
Actuated Green, G (s)		52.8	52.8	52.8	36.4	
Effective Green, g (s)		52.8	52.8	52.8	36.4	
Actuated g/C Ratio		0.48	0.48	0.48	0.33	
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)		920	797	677	522	
v/s Ratio Prot			0.32		c0.25	
v/s Ratio Perm		c0.39		0.07		
v/c Ratio		0.81	0.66	0.15	0.76	
Uniform Delay, d1		24.3	21.8	16.0	32.9	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		7.6	4.3	0.5	9.9	
Delay (s)		32.0	26.2	16.5	42.8	
Level of Service		C	C	B	D	
Approach Delay (s)		32.0	24.3		42.8	
Approach LOS		C	C		D	

Intersection Summary			
HCM Average Control Delay	31.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.8
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0		0	
Storage Lanes	1		0	1		0	0		0		0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50		50
Trailing Detector (ft)	0	0		0	0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Right Turn on Red			No			Yes			Yes			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1707			1977			1552				1303
Travel Time (s)		38.8			44.9			35.3				29.6
Volume (vph)	175	0	45	110	185	45	95	940	0	5	0	855
Confl. Peds. (#/hr)			2	2			2					
Peak Hour Factor	0.86	0.86	0.86	0.84	0.84	0.84	0.91	0.91	0.91	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Lane Group Flow (vph)	135	120	0	131	274	0	0	1137	0	0	0	886
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Detector Phases	3	3		2	2		1	1		1		1
Minimum Initial (s)	8.0	8.0		8.0	8.0		21.0	21.0		21.0		21.0
Minimum Split (s)	27.0	27.0		14.0	14.0		27.0	27.0		27.0		27.0
Total Split (s)	17.0	17.0	0.0	20.0	20.0	0.0	53.0	53.0	0.0	53.0	0.0	53.0
Total Split (%)	18.9%	18.9%	0.0%	22.2%	22.2%	0.0%	58.9%	58.9%	0.0%	58.9%	0.0%	58.9%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0
Lead/Lag				Lag	Lag		Lead	Lead		Lead		Lead
Lead-Lag Optimize?				Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max		C-Max
v/c Ratio	0.64	0.60		0.46	0.91			0.91				0.53
Control Delay	51.3	49.5		39.1	69.5			30.4				14.3
Queue Delay	0.0	0.0		0.0	0.0			0.0				0.0
Total Delay	51.3	49.5		39.1	69.5			30.4				14.3
Queue Length 50th (ft)	76	68		67	148			290				160
Queue Length 95th (ft)	133	121		114	#264			#452				213
Internal Link Dist (ft)		1627			1897			1472				1223
Turn Bay Length (ft)												
Base Capacity (vph)	221	210		286	302			1256				1682
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	0.61	0.57		0.46	0.91			0.91				0.53

Intersection Summary

Area Type: CBD

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green

Lane Group	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Storage Length (ft)	50
Storage Lanes	1
Total Lost Time (s)	4.0
Leading Detector (ft)	50
Trailing Detector (ft)	0
Turning Speed (mph)	9
Right Turn on Red	No
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	180
Confl. Peds. (#/hr)	2
Peak Hour Factor	0.92
Heavy Vehicles (%)	1%
Lane Group Flow (vph)	196
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Detector Phases	1 3
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	70.0
Total Split (%)	77.8%
Yellow Time (s)	
All-Red Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
v/c Ratio	0.19
Control Delay	4.2
Queue Delay	0.0
Total Delay	4.2
Queue Length 50th (ft)	28
Queue Length 95th (ft)	49
Internal Link Dist (ft)	
Turn Bay Length (ft)	50
Base Capacity (vph)	1052
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.19

Intersection Summary

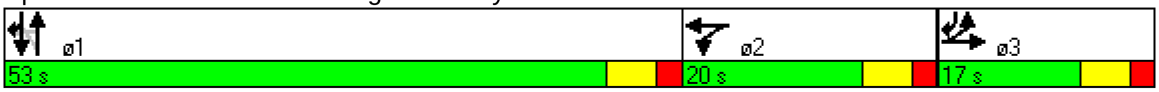
Natural Cycle: 110

Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Birmingham Pkwy & Lincoln St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
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	0.95	0.95		1.00	1.00			0.95				0.95
Frpb, ped/bikes	1.00	0.99		1.00	1.00			1.00				1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00				1.00
Frt	1.00	0.94		1.00	0.97			1.00				1.00
Flt Protected	0.95	0.97		0.95	1.00			1.00				1.00
Satd. Flow (prot)	1528	1453		1608	1643			3171				3216
Flt Permitted	0.95	0.97		0.95	1.00			0.72				0.95
Satd. Flow (perm)	1528	1453		1608	1643			2290				3053
Volume (vph)	175	0	45	110	185	45	95	940	0	5	0	855
Peak-hour factor, PHF	0.86	0.86	0.86	0.84	0.84	0.84	0.91	0.91	0.91	0.97	0.97	0.97
Adj. Flow (vph)	203	0	52	131	220	54	104	1033	0	5	0	881
RTOR Reduction (vph)	0	0	0	0	10	0	0	0	0	0	0	0
Lane Group Flow (vph)	135	120	0	131	264	0	0	1137	0	0	0	886
Confl. Peds. (#/hr)			2	2			2					
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Actuated Green, G (s)	10.4	10.4		14.0	14.0			47.6				47.6
Effective Green, g (s)	12.4	12.4		16.0	16.0			49.6				49.6
Actuated g/C Ratio	0.14	0.14		0.18	0.18			0.55				0.55
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0				6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0				3.0
Lane Grp Cap (vph)	211	200		286	292			1262				1683
v/s Ratio Prot	c0.09	0.08		0.08	c0.16							
v/s Ratio Perm								c0.50				0.29
v/c Ratio	0.64	0.60		0.46	0.90			0.90				0.53
Uniform Delay, d1	36.7	36.5		33.1	36.3			18.0				12.8
Progression Factor	1.00	1.00		1.00	1.00			1.00				1.00
Incremental Delay, d2	6.2	5.0		1.2	29.2			10.5				1.2
Delay (s)	42.9	41.5		34.3	65.5			28.5				14.0
Level of Service	D	D		C	E			C				B
Approach Delay (s)		42.2			55.4			28.5				12.1
Approach LOS		D			E			C				B

Intersection Summary			
HCM Average Control Delay	27.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1439
Flt Permitted	1.00
Satd. Flow (perm)	1439
Volume (vph)	180
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	196
RTOR Reduction (vph)	0
Lane Group Flow (vph)	196
Confl. Peds. (#/hr)	2
Heavy Vehicles (%)	1%
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Actuated Green, G (s)	64.0
Effective Green, g (s)	66.0
Actuated g/C Ratio	0.73
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	1055
v/s Ratio Prot	0.14
v/s Ratio Perm	
v/c Ratio	0.19
Uniform Delay, d1	3.7
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	3.8
Level of Service	A
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	EBU	EBL	EBT	EBR	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
Storage Length (ft)		150		0	150		0	0		0	0	
Storage Lanes		1		0	1		0	0		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	0		0	
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Right Turn on Red				Yes			Yes			Yes		
Link Speed (mph)			30			30			30			30
Link Distance (ft)			1533			1651			501			1303
Travel Time (s)			34.8			37.5			11.4			29.6
Volume (vph)	20	120	1485	0	5	1280	145	0	0	5	150	0
Confl. Peds. (#/hr)		33		8	8		33			1	1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.92	0.92	0.92	0.38	0.38	0.38	0.82	0.82
Parking (#/hr)						1						
Lane Group Flow (vph)	0	145	1531	0	5	1549	0	0	13	0	183	0
Turn Type	Prot	Prot			Prot			custom			custom	
Protected Phases	1	1	2		1	2						
Permitted Phases								3	3		3	
Detector Phases	1	1	2		1	2		3	3		3	
Minimum Initial (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0		1.0	
Minimum Split (s)	5.0	5.0	5.0		5.0	5.0		5.0	5.0		5.0	
Total Split (s)	19.0	19.0	70.0	0.0	19.0	70.0	0.0	21.0	21.0	0.0	21.0	0.0
Total Split (%)	17.3%	17.3%	63.6%	0.0%	17.3%	63.6%	0.0%	19.1%	19.1%	0.0%	19.1%	0.0%
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	Lag		Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes						
Recall Mode	Max	Max	C-Max		Max	C-Max		None	None		None	
v/c Ratio		0.67	0.56		0.02	0.87			0.03		0.94	
Control Delay		61.2	14.2		41.6	24.9			0.2		98.7	
Queue Delay		0.0	0.0		0.0	0.0			0.0		0.0	
Total Delay		61.2	14.2		41.6	24.9			0.2		98.7	
Queue Length 50th (ft)		99	222		3	444			0		130	
Queue Length 95th (ft)		#182	264		14	568			0		#232	
Internal Link Dist (ft)			1453			1571			421			1223
Turn Bay Length (ft)		150			150							
Base Capacity (vph)		217	2746		217	1783			415		194	
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		0.67	0.56		0.02	0.87			0.03		0.94	

Intersection Summary

Area Type: CBD
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 5 (5%), Referenced to phase 2:EBWB, Start of Green

Lane Group	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Storage Length (ft)	160
Storage Lanes	1
Total Lost Time (s)	4.0
Leading Detector (ft)	50
Trailing Detector (ft)	0
Turning Speed (mph)	9
Right Turn on Red	Yes
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	65
Confl. Peds. (#/hr)	
Peak Hour Factor	0.82
Parking (#/hr)	
Lane Group Flow (vph)	79
Turn Type	custom
Protected Phases	
Permitted Phases	3
Detector Phases	3
Minimum Initial (s)	1.0
Minimum Split (s)	5.0
Total Split (s)	21.0
Total Split (%)	19.1%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
v/c Ratio	0.28
Control Delay	11.9
Queue Delay	0.0
Total Delay	11.9
Queue Length 50th (ft)	0
Queue Length 95th (ft)	35
Internal Link Dist (ft)	
Turn Bay Length (ft)	160
Base Capacity (vph)	287
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.28

Intersection Summary

Natural Cycle: 75

Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Cambridge St & Lincoln St

Movement	EBU	EBL	EBT	EBR	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
Total Lost time (s)		4.0	4.0		4.0	4.0			4.0		4.0	
Lane Util. Factor		1.00	0.91		1.00	0.95			1.00		1.00	
Frpb, ped/bikes		1.00	1.00		1.00	1.00			0.99		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00			1.00		1.00	
Frt		1.00	1.00		1.00	0.98			0.86		1.00	
Flt Protected		0.95	1.00		0.95	1.00			1.00		0.95	
Satd. Flow (prot)		1593	4577		1593	2958			1430		1590	
Flt Permitted		0.95	1.00		0.95	1.00			1.00		0.75	
Satd. Flow (perm)		1593	4577		1593	2958			1430		1253	
Volume (vph)	20	120	1485	0	5	1280	145	0	0	5	150	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.92	0.92	0.92	0.38	0.38	0.38	0.82	0.82
Adj. Flow (vph)	21	124	1531	0	5	1391	158	0	0	13	183	0
RTOR Reduction (vph)	0	0	0	0	0	8	0	0	11	0	0	0
Lane Group Flow (vph)	0	145	1531	0	5	1541	0	0	2	0	183	0
Confl. Peds. (#/hr)		33		8	8		33			1	1	
Parking (#/hr)						1						
Turn Type	Prot	Prot			Prot			custom			custom	
Protected Phases	1	1	2		1	2						
Permitted Phases								3	3		3	
Actuated Green, G (s)		15.0	66.0		15.0	66.0			17.0		17.0	
Effective Green, g (s)		15.0	66.0		15.0	66.0			17.0		17.0	
Actuated g/C Ratio		0.14	0.60		0.14	0.60			0.15		0.15	
Clearance Time (s)		4.0	4.0		4.0	4.0			4.0		4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0			3.0		3.0	
Lane Grp Cap (vph)		217	2746		217	1775			221		194	
v/s Ratio Prot		c0.09	0.33		0.00	c0.52						
v/s Ratio Perm									0.00		c0.15	
v/c Ratio		0.67	0.56		0.02	0.87			0.01		0.94	
Uniform Delay, d1		45.1	13.2		41.2	18.4			39.4		46.0	
Progression Factor		1.00	1.00		1.00	1.00			1.00		1.00	
Incremental Delay, d2		15.2	0.8		0.2	6.1			0.0		48.3	
Delay (s)		60.3	14.0		41.3	24.4			39.4		94.3	
Level of Service		E	B		D	C			D		F	
Approach Delay (s)			18.0			24.5			39.4			77.8
Approach LOS			B			C			D			E

Intersection Summary			
HCM Average Control Delay	25.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1425
Flt Permitted	1.00
Satd. Flow (perm)	1425
Volume (vph)	65
Peak-hour factor, PHF	0.82
Adj. Flow (vph)	79
RTOR Reduction (vph)	67
Lane Group Flow (vph)	12
Confl. Peds. (#/hr)	
Parking (#/hr)	
Turn Type	custom
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	17.0
Effective Green, g (s)	17.0
Actuated g/C Ratio	0.15
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	220
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.06
Uniform Delay, d1	39.7
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	39.8
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		377			462			1787			430	
Travel Time (s)		8.6			10.5			40.6			9.8	
Volume (vph)	5	0	10	50	5	65	5	260	35	60	375	0
Confl. Peds. (#/hr)			4	4			23		12			23
Peak Hour Factor	0.50	0.50	0.50	0.87	0.87	0.87	0.94	0.94	0.94	0.87	0.87	0.87
Heavy Vehicles (%)	6%	6%	6%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Lane Group Flow (vph)	0	30	0	0	138	0	0	319	0	0	500	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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)	5	0	10	50	5	65	5	260	35	60	375	0
Peak Hour Factor	0.50	0.50	0.50	0.87	0.87	0.87	0.94	0.94	0.94	0.87	0.87	0.87
Hourly flow rate (vph)	10	0	20	57	6	75	5	277	37	69	431	0
Pedestrians		23			12			4				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		2			1			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											430	
pX, platoon unblocked	0.93	0.93	0.93	0.93	0.93		0.93					
vC, conflicting volume	975	928	458	911	910	307	454			326		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	973	923	414	904	903	307	410			326		
tC, single (s)	7.2	6.6	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	100	96	73	98	90	99			94		
cM capacity (veh/h)	170	224	569	213	235	728	1048			1227		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	30	138	319	500
Volume Left	10	57	5	69
Volume Right	20	75	37	0
cSH	319	347	1048	1227
Volume to Capacity	0.09	0.40	0.01	0.06
Queue Length 95th (ft)	8	46	0	4
Control Delay (s)	17.5	22.0	0.2	1.6
Lane LOS	C	C	A	A
Approach Delay (s)	17.5	22.0	0.2	1.6
Approach LOS	C	C		

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		498	1675		462	
Travel Time (s)		11.3	38.1		10.5	
Volume (vph)	30	100	265	65	35	40
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.79	0.79	0.86	0.86	0.70	0.70
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%
Lane Group Flow (vph)	0	165	384	0	107	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	30	100	265	65	35	40
Peak Hour Factor	0.79	0.79	0.86	0.86	0.70	0.70
Hourly flow rate (vph)	38	127	308	76	50	57
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	388				552	350
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	388				552	350
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				90	92
cM capacity (veh/h)	1161				477	691

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	165	384	107
Volume Left	38	0	50
Volume Right	0	76	57
cSH	1161	1700	571
Volume to Capacity	0.03	0.23	0.19
Queue Length 95th (ft)	3	0	17
Control Delay (s)	2.1	0.0	12.8
Lane LOS	A		B
Approach Delay (s)	2.1	0.0	12.8
Approach LOS			B

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		1977	498		584	
Travel Time (s)		44.9	11.3		13.3	
Volume (vph)	5	125	295	5	10	5
Confl. Peds. (#/hr)	13			13		
Peak Hour Factor	0.83	0.83	0.86	0.86	0.53	0.53
Heavy Vehicles (%)	2%	2%	2%	2%	12%	12%
Lane Group Flow (vph)	0	157	349	0	28	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	125	295	5	10	5
Peak Hour Factor	0.83	0.83	0.86	0.86	0.53	0.53
Hourly flow rate (vph)	6	151	343	6	19	9
Pedestrians					13	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	362				522	359
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	362				522	359
tC, single (s)	4.1				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.4
p0 queue free %	99				96	99
cM capacity (veh/h)	1184				490	656

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	157	349	28
Volume Left	6	0	19
Volume Right	0	6	9
cSH	1184	1700	535
Volume to Capacity	0.01	0.21	0.05
Queue Length 95th (ft)	0	0	4
Control Delay (s)	0.4	0.0	12.1
Lane LOS	A		B
Approach Delay (s)	0.4	0.0	12.1
Approach LOS			B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1811			1730			510			344	
Travel Time (s)		41.2			39.3			11.6			7.8	
Volume (vph)	0	1940	68	0	980	0	68	0	192	15	215	0
Confl. Peds. (#/hr)							3					3
Peak Hour Factor	0.97	0.97	0.97	0.92	0.92	0.92	0.82	0.82	0.82	0.72	0.72	0.72
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%
Lane Group Flow (vph)	0	2070	0	0	1065	0	0	317	0	21	299	0
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Minimum Split (s)		45.0			45.0		16.0	16.0		16.0	16.0	
Total Split (s)	0.0	45.0	0.0	0.0	45.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	65.2%	0.0%	0.0%	65.2%	0.0%	34.8%	34.8%	0.0%	34.8%	34.8%	0.0%
Yellow Time (s)		4.0			4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)		1.0			1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		1.08			0.55			1.00		0.10	0.62	
Control Delay		60.9			9.8			77.8		19.4	27.9	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		60.9			9.8			77.8		19.4	27.9	
Queue Length 50th (ft)		~527			127			129		6	109	
Queue Length 95th (ft)		#665			176			#248		17	139	
Internal Link Dist (ft)		1731			1650			430			264	
Turn Bay Length (ft)												
Base Capacity (vph)		1925			1931			318		221	481	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		1.08			0.55			1.00		0.10	0.62	

Intersection Summary

Area Type: CBD
Cycle Length: 69
Actuated Cycle Length: 69
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 65
Control Type: Pretimed

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

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

Splits and Phases: 1: Soldiers Field Rd & Jughandle

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	4.0	
Lane Util. Factor		0.95			0.95			1.00		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		0.99			1.00			0.90		1.00	1.00	
Flt Protected		1.00			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		3233			3249			1519		1577	1660	
Flt Permitted		1.00			1.00			0.69		0.46	1.00	
Satd. Flow (perm)		3233			3249			1069		763	1660	
Volume (vph)	0	1940	68	0	980	0	68	0	192	15	215	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.92	0.92	0.92	0.82	0.82	0.82	0.72	0.72	0.72
Adj. Flow (vph)	0	2000	70	0	1065	0	83	0	234	21	299	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	2066	0	0	1065	0	0	309	0	21	299	0
Confl. Peds. (#/hr)							3					3
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)		40.0			40.0			20.0		20.0	20.0	
Effective Green, g (s)		41.0			41.0			20.0		20.0	20.0	
Actuated g/C Ratio		0.59			0.59			0.29		0.29	0.29	
Clearance Time (s)		5.0			5.0			4.0		4.0	4.0	
Lane Grp Cap (vph)		1921			1931			310		221	481	
v/s Ratio Prot		c0.64			0.33						0.18	
v/s Ratio Perm								c0.29		0.03		
v/c Ratio		1.08			0.55			1.00		0.10	0.62	
Uniform Delay, d1		14.0			8.5			24.5		17.9	21.2	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		44.3			1.1			50.5		0.9	5.9	
Delay (s)		58.3			9.6			74.9		18.7	27.2	
Level of Service		E			A			E		B	C	
Approach Delay (s)		58.3			9.6			74.9			26.6	
Approach LOS		E			A			E			C	

Intersection Summary			
HCM Average Control Delay	43.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	102.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	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
Storage Length (ft)	0		100	0		100	50		0	0		0
Storage Lanes	0		1	1		1	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1704			1253			1044			510	
Travel Time (s)		38.7			28.5			23.7			11.6	
Volume (vph)	33	736	140	150	528	31	82	196	143	58	178	46
Confl. Peds. (#/hr)	24		13	13		24	16		10	10		16
Peak Hour Factor	0.94	0.94	0.94	0.93	0.93	0.93	0.75	0.75	0.75	0.81	0.81	0.81
Heavy Vehicles (%)	7%	7%	7%	9%	9%	9%	5%	5%	5%	2%	2%	2%
Lane Group Flow (vph)	0	818	149	161	601	0	109	452	0	0	349	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Detector Phases	1	1	1	1	1		3	3		3	3	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	28.0	28.0	28.0	28.0	28.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	0.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
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		2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None		None	None	
v/c Ratio		3.44	0.22	1.21	0.76		0.76	1.21			3.36	
Control Delay		1118.5	11.7	172.4	30.5		62.3	145.1			1099.4	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		1118.5	11.7	172.4	30.5		62.3	145.1			1099.4	
Queue Length 50th (ft)		~561	15	64	151		50	~279			~314	
Queue Length 95th (ft)		#963	82	#214	#583		#101	#346			#384	
Internal Link Dist (ft)		1624			1173			964			430	
Turn Bay Length (ft)			100				50					
Base Capacity (vph)		238	693	133	791		144	375			104	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		3.44	0.22	1.21	0.76		0.76	1.21			3.36	

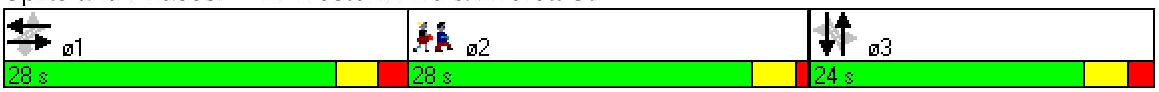
Intersection Summary	
Area Type:	CBD
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green	

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	8.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	35%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 100
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Western Ave & Everett St



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		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00	0.97	1.00	1.00		1.00	0.98			0.99	
Flpb, ped/bikes		1.00	1.00	1.00	1.00		0.99	1.00			1.00	
Frt		1.00	0.85	1.00	0.99		1.00	0.94			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1594	1313	1486	1552		1527	1500			1607	
Flt Permitted		0.89	1.00	0.10	1.00		0.36	1.00			0.25	
Satd. Flow (perm)		1421	1313	163	1552		576	1500			414	
Volume (vph)	33	736	140	150	528	31	82	196	143	58	178	46
Peak-hour factor, PHF	0.94	0.94	0.94	0.93	0.93	0.93	0.75	0.75	0.75	0.81	0.81	0.81
Adj. Flow (vph)	35	783	149	161	568	33	109	261	191	72	220	57
RTOR Reduction (vph)	0	0	31	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	818	118	161	601	0	109	452	0	0	349	0
Confl. Peds. (#/hr)	24		13	13		24	16		10	10		16
Heavy Vehicles (%)	7%	7%	7%	9%	9%	9%	5%	5%	5%	2%	2%	2%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Actuated Green, G (s)		37.4	37.4	37.4	37.4		19.0	19.0			19.0	
Effective Green, g (s)		38.4	38.4	38.4	38.4		20.0	20.0			20.0	
Actuated g/C Ratio		0.48	0.48	0.48	0.48		0.25	0.25			0.25	
Clearance Time (s)		5.0	5.0	5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		682	630	78	745		144	375			104	
v/s Ratio Prot					0.39			0.30				
v/s Ratio Perm		0.58	0.09	c0.99			0.19				c0.84	
v/c Ratio		1.20	0.19	2.06	0.81		0.76	1.21			3.36	
Uniform Delay, d1		20.8	11.9	20.8	17.7		27.8	30.0			30.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		103.5	0.7	520.1	9.1		20.1	115.0			1084.2	
Delay (s)		124.3	12.5	540.9	26.8		47.8	145.0			1114.2	
Level of Service		F	B	F	C		D	F			F	
Approach Delay (s)		107.1			135.4			126.1			1114.2	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	252.5	HCM Level of Service	F
HCM Volume to Capacity ratio	2.51		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	21.6
Intersection Capacity Utilization	130.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50		50	50		50	50	
Trailing Detector (ft)				0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		852			829			430			1044	
Travel Time (s)		19.4			18.8			9.8			23.7	
Volume (vph)	0	0	0	31	5	31	8	407	15	10	439	22
Confl. Peds. (#/hr)	14		6	6		14	12		3	3		12
Peak Hour Factor	0.92	0.92	0.92	0.71	0.71	0.71	0.77	0.77	0.77	0.83	0.83	0.83
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	4%	4%	4%
Lane Group Flow (vph)	0	0	0	0	95	0	0	558	0	0	568	0
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Detector Phases				3	3		1	1		1	1	
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				16.0	16.0		38.0	38.0		38.0	38.0	
Total Split (s)	0.0	0.0	0.0	16.0	16.0	0.0	38.0	38.0	0.0	38.0	38.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	22.9%	22.9%	0.0%	54.3%	54.3%	0.0%	54.3%	54.3%	0.0%
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode				None	None		Min	Min		Min	Min	
v/c Ratio					0.47			0.48			0.49	
Control Delay					21.1			9.7			9.8	
Queue Delay					0.0			0.0			0.0	
Total Delay					21.1			9.7			9.8	
Queue Length 50th (ft)					14			54			55	
Queue Length 95th (ft)					43			219			254	
Internal Link Dist (ft)		772			749			350			964	
Turn Bay Length (ft)												
Base Capacity (vph)					266			1151			1157	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.36			0.48			0.49	

Intersection Summary	
Area Type:	CBD
Cycle Length: 70	
Actuated Cycle Length: 78.6	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 3: Holton St & Everett St

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	4.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	23%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.96			1.00			1.00	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.94			1.00			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					1452			1618			1630	
Flt Permitted					0.98			0.99			0.99	
Satd. Flow (perm)					1452			1605			1613	
Volume (vph)	0	0	0	31	5	31	8	407	15	10	439	22
Peak-hour factor, PHF	0.92	0.92	0.92	0.71	0.71	0.71	0.77	0.77	0.77	0.83	0.83	0.83
Adj. Flow (vph)	0	0	0	44	7	44	10	529	19	12	529	27
RTOR Reduction (vph)	0	0	0	0	40	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	0	0	0	55	0	0	557	0	0	566	0
Confl. Peds. (#/hr)	14		6	6		14	12		3	3		12
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	4%	4%	4%
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Actuated Green, G (s)					8.0			55.8			55.8	
Effective Green, g (s)					8.0			55.8			55.8	
Actuated g/C Ratio					0.10			0.69			0.69	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					144			1108			1114	
v/s Ratio Prot												
v/s Ratio Perm					0.04			0.35			c0.35	
v/c Ratio					0.38			0.50			0.51	
Uniform Delay, d1					34.1			5.9			6.0	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					1.7			0.4			0.4	
Delay (s)					35.8			6.3			6.3	
Level of Service					D			A			A	
Approach Delay (s)		0.0			35.8			6.3			6.3	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.8	Sum of lost time (s)	17.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0			50	0	0	
Storage Lanes	1			1	1	0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)	50	50	50	50	50		
Trailing Detector (ft)	0	0	0	0	0		
Turning Speed (mph)	15			9	15	9	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1373	1884		1787		
Travel Time (s)		31.2	42.8		40.6		
Volume (vph)	214	562	572	172	201	106	
Confl. Peds. (#/hr)	23			23	20	19	
Peak Hour Factor	0.93	0.92	0.92	0.92	0.83	0.83	
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%	
Lane Group Flow (vph)	230	611	622	187	370	0	
Turn Type	Perm			Perm			
Protected Phases		1	1		3		2
Permitted Phases	1			1			
Detector Phases	1	1	1	1	3		
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0		16.0
Total Split (s)	55.0	55.0	55.0	55.0	29.0	0.0	16.0
Total Split (%)	55.0%	55.0%	55.0%	55.0%	29.0%	0.0%	16%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		8.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		0.0
Lead/Lag	Lead	Lead	Lead	Lead			Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max		None
v/c Ratio	1.15	0.74	0.76	0.27	0.79		
Control Delay	137.1	26.2	26.8	9.9	47.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	137.1	26.2	26.8	9.9	47.6		
Queue Length 50th (ft)	~174	294	303	40	236		
Queue Length 95th (ft)	#323	440	452	82	#370		
Internal Link Dist (ft)		1293	1804		1707		
Turn Bay Length (ft)				50			
Base Capacity (vph)	200	823	823	702	471		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	1.15	0.74	0.76	0.27	0.79		

Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 9 (9%), Referenced to phase 1:EBWB, Start of Green	

Natural Cycle: 110

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: N Beacon St & Everett St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	0.96	0.98	
Flpb, ped/bikes	0.99	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.95	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1521	1613	1613	1311	1506	
Flt Permitted	0.22	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	348	1613	1613	1311	1506	
Volume (vph)	214	562	572	172	201	106
Peak-hour factor, PHF	0.93	0.92	0.92	0.92	0.83	0.83
Adj. Flow (vph)	230	611	622	187	242	128
RTOR Reduction (vph)	0	0	0	34	0	0
Lane Group Flow (vph)	230	611	622	153	370	0
Confl. Peds. (#/hr)	23			23	20	19
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%
Turn Type	Perm			Perm		
Protected Phases		1	1		3	
Permitted Phases	1			1		
Actuated Green, G (s)	47.8	47.8	47.8	47.8	31.4	
Effective Green, g (s)	47.8	47.8	47.8	47.8	31.4	
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.31	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	166	771	771	627	473	
v/s Ratio Prot		0.38	0.39		c0.25	
v/s Ratio Perm	c0.66			0.12		
v/c Ratio	1.39	0.79	0.81	0.24	0.78	
Uniform Delay, d1	26.1	21.9	22.2	15.4	31.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	206.3	8.2	8.8	0.9	12.2	
Delay (s)	232.4	30.1	31.0	16.3	43.4	
Level of Service	F	C	C	B	D	
Approach Delay (s)		85.4	27.6		43.4	
Approach LOS		F	C		D	

Intersection Summary			
HCM Average Control Delay	54.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.8
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0		0	
Storage Lanes	1		0	0		0	0		0		0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50		50
Trailing Detector (ft)	0	0		0	0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Right Turn on Red			No			Yes			Yes			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1707			1977			1552				1303
Travel Time (s)		38.8			44.9			35.3				29.6
Volume (vph)	341	0	62	111	174	80	42	795	0	10	0	824
Confl. Peds. (#/hr)							4					
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Lane Group Flow (vph)	231	207	0	0	424	0	0	920	0	0	0	897
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Detector Phases	3	3		2	2		1	1		1		1
Minimum Initial (s)	8.0	8.0		8.0	8.0		21.0	21.0		21.0		21.0
Minimum Split (s)	27.0	27.0		14.0	14.0		27.0	27.0		27.0		27.0
Total Split (s)	18.0	18.0	0.0	20.0	20.0	0.0	52.0	52.0	0.0	52.0	0.0	52.0
Total Split (%)	20.0%	20.0%	0.0%	22.2%	22.2%	0.0%	57.8%	57.8%	0.0%	57.8%	0.0%	57.8%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0
Lead/Lag				Lag	Lag		Lead	Lead		Lead		Lead
Lead-Lag Optimize?				Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max		C-Max
v/c Ratio	0.97	0.90			0.77			0.64				0.57
Control Delay	92.2	78.5			43.0			17.5				15.9
Queue Delay	0.0	0.0			0.0			0.0				0.0
Total Delay	92.2	78.5			43.0			17.5				15.9
Queue Length 50th (ft)	~140	124			111			183				170
Queue Length 95th (ft)	#294	#263			155			249				227
Internal Link Dist (ft)		1627			1897			1472				1223
Turn Bay Length (ft)												
Base Capacity (vph)	238	229			563			1436				1568
Starvation Cap Reductn	0	0			0			0				0
Spillback Cap Reductn	0	0			0			0				0
Storage Cap Reductn	0	0			0			0				0
Reduced v/c Ratio	0.97	0.90			0.75			0.64				0.57

Intersection Summary

Area Type: CBD

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green

Lane Group	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Storage Length (ft)	50
Storage Lanes	1
Total Lost Time (s)	4.0
Leading Detector (ft)	50
Trailing Detector (ft)	0
Turning Speed (mph)	9
Right Turn on Red	No
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	98
Confl. Peds. (#/hr)	4
Peak Hour Factor	0.93
Heavy Vehicles (%)	4%
Lane Group Flow (vph)	105
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Detector Phases	1 3
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	70.0
Total Split (%)	77.8%
Yellow Time (s)	
All-Red Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
v/c Ratio	0.10
Control Delay	3.7
Queue Delay	0.0
Total Delay	3.7
Queue Length 50th (ft)	14
Queue Length 95th (ft)	28
Internal Link Dist (ft)	
Turn Bay Length (ft)	50
Base Capacity (vph)	1031
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.10

Intersection Summary

Natural Cycle: 80

Control Type: Actuated-Coordinated

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

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

Splits and Phases: 5: Birmingham Pkwy & Lincoln St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
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
Lane Util. Factor	0.95	0.95			0.95			0.95				0.95
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	0.95			0.97			1.00				1.00
Flt Protected	0.95	0.97			0.99			1.00				1.00
Satd. Flow (prot)	1484	1438			3005			3116				3122
Flt Permitted	0.95	0.97			0.99			0.86				0.94
Satd. Flow (perm)	1484	1438			3005			2691				2940
Volume (vph)	341	0	62	111	174	80	42	795	0	10	0	824
Peak-hour factor, PHF	0.92	0.92	0.92	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Adj. Flow (vph)	371	0	67	129	202	93	46	874	0	11	0	886
RTOR Reduction (vph)	0	0	0	0	29	0	0	0	0	0	0	0
Lane Group Flow (vph)	231	207	0	0	395	0	0	920	0	0	0	897
Confl. Peds. (#/hr)							4					
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Actuated Green, G (s)	12.4	12.4			13.6			46.0				46.0
Effective Green, g (s)	14.4	14.4			15.6			48.0				48.0
Actuated g/C Ratio	0.16	0.16			0.17			0.53				0.53
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)	237	230			521			1435				1568
v/s Ratio Prot	c0.16	0.14			c0.13							
v/s Ratio Perm								c0.34				0.31
v/c Ratio	0.97	0.90			0.76			0.64				0.57
Uniform Delay, d1	37.6	37.1			35.4			14.9				14.1
Progression Factor	1.00	1.00			1.00			1.00				1.00
Incremental Delay, d2	50.9	33.8			6.3			2.2				1.5
Delay (s)	88.5	70.9			41.7			17.1				15.6
Level of Service	F	E			D			B				B
Approach Delay (s)		80.2			41.7			17.1				14.3
Approach LOS		F			D			B				B

Intersection Summary			
HCM Average Control Delay	29.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1398
Flt Permitted	1.00
Satd. Flow (perm)	1398
Volume (vph)	98
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	105
RTOR Reduction (vph)	0
Lane Group Flow (vph)	105
Confl. Peds. (#/hr)	4
Heavy Vehicles (%)	4%
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Actuated Green, G (s)	64.4
Effective Green, g (s)	66.4
Actuated g/C Ratio	0.74
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	1031
v/s Ratio Prot	0.08
v/s Ratio Perm	
v/c Ratio	0.10
Uniform Delay, d1	3.3
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	3.4
Level of Service	A
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		0		150		0	0		0	0
Storage Lanes		1		0		1		0	0		0	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50	50		50	50		50
Trailing Detector (ft)	0	0	0		0	0	0		0	0		0
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Right Turn on Red				Yes				Yes			Yes	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1533				1651			501		
Travel Time (s)			34.8				37.5			11.4		
Volume (vph)	10	72	1814	5	5	10	1413	92	5	0	10	128
Confl. Peds. (#/hr)		22		12		12		22	1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.94	0.94	0.94	0.94	0.46	0.46	0.46	0.93
Heavy Vehicles (%)	5%	5%	5%	5%	8%	8%	8%	8%	82%	82%	82%	4%
Parking (#/hr)							1					
Lane Group Flow (vph)	0	83	1856	0	0	16	1601	0	0	33	0	138
Turn Type	Prot	Prot			Prot	Prot			custom			custom
Protected Phases	1	1	2		1	1	2					
Permitted Phases									3	3		3
Detector Phases	1	1	2		1	1	2		3	3		3
Minimum Initial (s)	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0		1.0
Minimum Split (s)	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0		5.0
Total Split (s)	18.0	18.0	64.0	0.0	18.0	18.0	64.0	0.0	18.0	18.0	0.0	18.0
Total Split (%)	18.0%	18.0%	64.0%	0.0%	18.0%	18.0%	64.0%	0.0%	18.0%	18.0%	0.0%	18.0%
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)	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0		1.0
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes					
Recall Mode	Max	Max	C-Max		Max	Max	C-Max		None	None		None
v/c Ratio		0.37	0.70			0.07	0.94			0.25		0.85
Control Delay		44.3	15.5			38.5	31.4			25.5		84.0
Queue Delay		0.0	0.0			0.0	0.0			0.0		0.0
Total Delay		44.3	15.5			38.5	31.4			25.5		84.0
Queue Length 50th (ft)		49	275			9	457			6		86
Queue Length 95th (ft)		96	330			29	#665			11		#193
Internal Link Dist (ft)			1453				1571			421		
Turn Bay Length (ft)		150				150						
Base Capacity (vph)		226	2668			220	1696			137		169
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		0.37	0.70			0.07	0.94			0.24		0.82

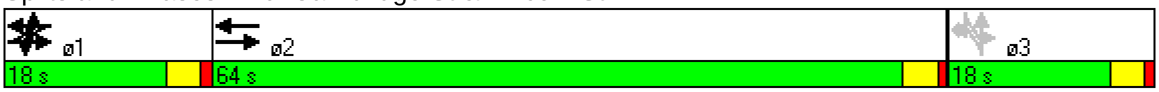
Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	

Lane Group	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		160
Storage Lanes		1
Total Lost Time (s)	4.0	4.0
Leading Detector (ft)		50
Trailing Detector (ft)		0
Turning Speed (mph)		9
Right Turn on Red		Yes
Link Speed (mph)	30	
Link Distance (ft)	1303	
Travel Time (s)	29.6	
Volume (vph)	0	77
Confl. Peds. (#/hr)		1
Peak Hour Factor	0.93	0.93
Heavy Vehicles (%)	4%	4%
Parking (#/hr)		
Lane Group Flow (vph)	0	83
Turn Type		custom
Protected Phases		
Permitted Phases		3
Detector Phases		3
Minimum Initial (s)		1.0
Minimum Split (s)		5.0
Total Split (s)	0.0	18.0
Total Split (%)	0.0%	18.0%
Yellow Time (s)		3.0
All-Red Time (s)		1.0
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode		None
v/c Ratio		0.32
Control Delay		12.6
Queue Delay		0.0
Total Delay		12.6
Queue Length 50th (ft)		0
Queue Length 95th (ft)		43
Internal Link Dist (ft)	1223	
Turn Bay Length (ft)		160
Base Capacity (vph)		264
Starvation Cap Reductn		0
Spillback Cap Reductn		0
Storage Cap Reductn		0
Reduced v/c Ratio		0.31

Intersection Summary

Offset: 90 (90%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cambridge St & Lincoln St



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
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		1.00	0.91			1.00	0.95			1.00		1.00
Frpb, ped/bikes		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
Frt		1.00	1.00			1.00	0.99			0.91		1.00
Flt Protected		0.95	1.00			0.95	1.00			0.98		0.95
Satd. Flow (prot)		1547	4444			1504	2818			840		1562
Flt Permitted		0.95	1.00			0.95	1.00			0.98		0.74
Satd. Flow (perm)		1547	4444			1504	2818			840		1210
Volume (vph)	10	72	1814	5	5	10	1413	92	5	0	10	128
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.94	0.94	0.94	0.94	0.46	0.46	0.46	0.93
Adj. Flow (vph)	10	73	1851	5	5	11	1503	98	11	0	22	138
RTOR Reduction (vph)	0	0	0	0	0	0	5	0	0	19	0	0
Lane Group Flow (vph)	0	83	1856	0	0	16	1596	0	0	14	0	138
Confl. Peds. (#/hr)		22		12		12		22	1			
Heavy Vehicles (%)	5%	5%	5%	5%	8%	8%	8%	8%	82%	82%	82%	4%
Parking (#/hr)							1					
Turn Type	Prot	Prot			Prot	Prot			custom			custom
Protected Phases	1	1	2		1	1	2					
Permitted Phases									3	3		3
Actuated Green, G (s)		14.6	60.0			14.6	60.0			13.4		13.4
Effective Green, g (s)		14.6	60.0			14.6	60.0			13.4		13.4
Actuated g/C Ratio		0.15	0.60			0.15	0.60			0.13		0.13
Clearance Time (s)		4.0	4.0			4.0	4.0			4.0		4.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0		3.0
Lane Grp Cap (vph)		226	2666			220	1691			113		162
v/s Ratio Prot		c0.05	0.42			0.01	c0.57					
v/s Ratio Perm										0.02		c0.11
v/c Ratio		0.37	0.70			0.07	0.94			0.12		0.85
Uniform Delay, d1		38.5	13.7			36.9	18.4			38.1		42.3
Progression Factor		1.00	1.00			1.00	1.00			1.00		1.00
Incremental Delay, d2		4.6	1.5			0.6	12.1			0.5		32.6
Delay (s)		43.1	15.3			37.5	30.6			38.6		74.9
Level of Service		D	B			D	C			D		E
Approach Delay (s)			16.5				30.6			38.6		
Approach LOS			B				C			D		

Intersection Summary			
HCM Average Control Delay	25.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)		4.0
Lane Util. Factor		1.00
Frpb, ped/bikes		0.99
Flpb, ped/bikes		1.00
Frt		0.85
Flt Protected		1.00
Satd. Flow (prot)		1378
Flt Permitted		1.00
Satd. Flow (perm)		1378
Volume (vph)	0	77
Peak-hour factor, PHF	0.93	0.93
Adj. Flow (vph)	0	83
RTOR Reduction (vph)	0	72
Lane Group Flow (vph)	0	11
Confl. Peds. (#/hr)		1
Heavy Vehicles (%)	4%	4%
Parking (#/hr)		
Turn Type		custom
Protected Phases		
Permitted Phases		3
Actuated Green, G (s)		13.4
Effective Green, g (s)		13.4
Actuated g/C Ratio		0.13
Clearance Time (s)		4.0
Vehicle Extension (s)		3.0
Lane Grp Cap (vph)		185
v/s Ratio Prot		
v/s Ratio Perm		0.01
v/c Ratio		0.06
Uniform Delay, d1		37.8
Progression Factor		1.00
Incremental Delay, d2		0.1
Delay (s)		37.9
Level of Service		D
Approach Delay (s)	61.0	
Approach LOS	E	

Intersection Summary

Lane Group	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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		377			462			1787			430	
Travel Time (s)		8.6			10.5			40.6			9.8	
Volume (vph)	0	5	5	26	0	41	0	374	26	68	422	0
Confl. Peds. (#/hr)	2		1	1			22		7			22
Peak Hour Factor	0.63	0.63	0.63	0.75	0.75	0.75	0.92	0.92	0.92	0.79	0.79	0.79
Heavy Vehicles (%)	80%	80%	80%	4%	4%	4%	5%	5%	5%	3%	3%	3%
Lane Group Flow (vph)	0	16	0	0	90	0	0	435	0	0	620	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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	5	5	26	0	41	0	374	26	68	422	0
Peak Hour Factor	0.63	0.63	0.63	0.75	0.75	0.75	0.92	0.92	0.92	0.79	0.79	0.79
Hourly flow rate (vph)	0	8	8	35	0	55	0	407	28	86	534	0
Pedestrians		22			7			1			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		2			1			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											430	
pX, platoon unblocked	0.85	0.85	0.85	0.85	0.85		0.85					
vC, conflicting volume	1206	1170	557	1147	1156	430	556			442		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1241	1199	481	1172	1183	430	480			442		
tC, single (s)	7.9	7.3	7.0	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.2	4.7	4.0	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	92	98	71	100	91	100			92		
cM capacity (veh/h)	75	102	380	121	144	617	894			1106		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	16	89	435	620
Volume Left	0	35	0	86
Volume Right	8	55	28	0
cSH	161	238	894	1106
Volume to Capacity	0.10	0.38	0.00	0.08
Queue Length 95th (ft)	8	41	0	6
Control Delay (s)	29.8	28.9	0.0	2.0
Lane LOS	D	D		A
Approach Delay (s)	29.8	28.9	0.0	2.0
Approach LOS	D	D		

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		498	1675		462	
Travel Time (s)		11.3	38.1		10.5	
Volume (vph)	36	108	190	51	36	37
Confl. Peds. (#/hr)	11			11		
Peak Hour Factor	0.88	0.88	0.77	0.77	0.78	0.78
Heavy Vehicles (%)	2%	2%	7%	7%	3%	3%
Lane Group Flow (vph)	0	164	313	0	93	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	36	108	190	51	36	37
Peak Hour Factor	0.88	0.88	0.77	0.77	0.78	0.78
Hourly flow rate (vph)	41	123	247	66	46	47
Pedestrians					11	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	324				495	291
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	324				495	291
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				91	94
cM capacity (veh/h)	1224				509	739

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	164	313	94
Volume Left	41	0	46
Volume Right	0	66	47
cSH	1224	1700	605
Volume to Capacity	0.03	0.18	0.15
Queue Length 95th (ft)	3	0	14
Control Delay (s)	2.2	0.0	12.0
Lane LOS	A		B
Approach Delay (s)	2.2	0.0	12.0
Approach LOS			B

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		1977	498		584	
Travel Time (s)		44.9	11.3		13.3	
Volume (vph)	5	144	216	5	0	5
Confl. Peds. (#/hr)	11			11		
Peak Hour Factor	0.88	0.88	0.97	0.97	0.50	0.50
Heavy Vehicles (%)	2%	2%	8%	8%	100%	100%
Lane Group Flow (vph)	0	170	228	0	10	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	144	216	5	0	5
Peak Hour Factor	0.88	0.88	0.97	0.97	0.50	0.50
Hourly flow rate (vph)	6	164	223	5	0	10
Pedestrians					11	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	239				411	236
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	239				411	236
tC, single (s)	4.1				7.4	7.2
tC, 2 stage (s)						
tF (s)	2.2				4.4	4.2
p0 queue free %	100				100	98
cM capacity (veh/h)	1316				441	606

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	169	228	10
Volume Left	6	0	0
Volume Right	0	5	10
cSH	1316	1700	606
Volume to Capacity	0.00	0.13	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.3	0.0	11.0
Lane LOS	A		B
Approach Delay (s)	0.3	0.0	11.0
Approach LOS			B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1811			1730			510			344	
Travel Time (s)		41.2			39.3			11.6			7.8	
Volume (vph)	0	1486	71	0	1727	0	90	0	195	21	230	0
Confl. Peds. (#/hr)							6					6
Peak Hour Factor	0.97	0.97	0.97	0.93	0.93	0.93	0.91	0.91	0.91	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%
Lane Group Flow (vph)	0	1605	0	0	1857	0	0	313	0	24	267	0
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Minimum Split (s)		45.0			45.0		16.0	16.0		16.0	16.0	
Total Split (s)	0.0	45.0	0.0	0.0	45.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	65.2%	0.0%	0.0%	65.2%	0.0%	34.8%	34.8%	0.0%	34.8%	34.8%	0.0%
Yellow Time (s)		4.0			4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)		1.0			1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.84			0.96			0.94		0.10	0.54	
Control Delay		16.4			28.2			60.8		19.4	25.6	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		16.4			28.2			60.8		19.4	25.6	
Queue Length 50th (ft)		254			349			116		7	95	
Queue Length 95th (ft)		357			#554			#267		23	154	
Internal Link Dist (ft)		1731			1650			430			264	
Turn Bay Length (ft)												
Base Capacity (vph)		1922			1931			334		236	491	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.84			0.96			0.94		0.10	0.54	

Intersection Summary

Area Type: CBD

Cycle Length: 69

Actuated Cycle Length: 69

Offset: 6 (9%), Referenced to phase 1:EBWB, Start of Green

Natural Cycle: 70

Control Type: Pretimed

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

Splits and Phases: 1: Soldiers Field Rd & Jughandle

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	4.0	
Lane Util. Factor		0.95			0.95			1.00		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		0.99			1.00			0.91		1.00	1.00	
Flt Protected		1.00			1.00			0.98		0.95	1.00	
Satd. Flow (prot)		3227			3249			1526		1608	1693	
Flt Permitted		1.00			1.00			0.69		0.48	1.00	
Satd. Flow (perm)		3227			3249			1070		812	1693	
Volume (vph)	0	1486	71	0	1727	0	90	0	195	21	230	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.91	0.91	0.91	0.86	0.86	0.86
Adj. Flow (vph)	0	1532	73	0	1857	0	99	0	214	24	267	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	1600	0	0	1857	0	0	289	0	24	267	0
Confl. Peds. (#/hr)							6					6
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)		40.0			40.0			20.0		20.0	20.0	
Effective Green, g (s)		41.0			41.0			20.0		20.0	20.0	
Actuated g/C Ratio		0.59			0.59			0.29		0.29	0.29	
Clearance Time (s)		5.0			5.0			4.0		4.0	4.0	
Lane Grp Cap (vph)		1917			1931			310		235	491	
v/s Ratio Prot		0.50			c0.57						0.16	
v/s Ratio Perm								c0.27		0.03		
v/c Ratio		0.83			0.96			0.93		0.10	0.54	
Uniform Delay, d1		11.3			13.3			23.8		17.9	20.7	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		4.5			13.2			36.3		0.9	4.3	
Delay (s)		15.7			26.5			60.2		18.8	24.9	
Level of Service		B			C			E		B	C	
Approach Delay (s)		15.7			26.5			60.2			24.4	
Approach LOS		B			C			E			C	

Intersection Summary			
HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	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
Storage Length (ft)	0		100	0		100	50		0	0		0
Storage Lanes	0		1	1		1	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1704			1253			1044			510	
Travel Time (s)		38.7			28.5			23.7			11.6	
Volume (vph)	21	653	174	174	711	67	104	198	141	54	185	61
Confl. Peds. (#/hr)	33		18	18		33	20		13	13		20
Peak Hour Factor	0.98	0.98	0.98	0.97	0.97	0.97	0.85	0.85	0.85	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	0%	0%	0%
Lane Group Flow (vph)	0	687	178	179	802	0	122	399	0	0	334	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Detector Phases	1	1	1	1	1		3	3		3	3	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	38.9%	38.9%	38.9%	38.9%	38.9%	0.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
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		2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None		None	None	
v/c Ratio		2.12	0.26	1.79	1.05		0.81	1.02			1.86	
Control Delay		535.4	12.5	417.2	75.9		70.7	86.9			430.2	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		535.4	12.5	417.2	75.9		70.7	86.9			430.2	
Queue Length 50th (ft)		~679	39	~170	~623		65	~236			~291	
Queue Length 95th (ft)		#778	92	#264	#844		#150	#383			#456	
Internal Link Dist (ft)		1624			1173			964			430	
Turn Bay Length (ft)			100				50					
Base Capacity (vph)		324	674	100	764		151	390			180	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		2.12	0.26	1.79	1.05		0.81	1.02			1.86	

Intersection Summary

Area Type: CBD

Cycle Length: 90

Actuated Cycle Length: 90

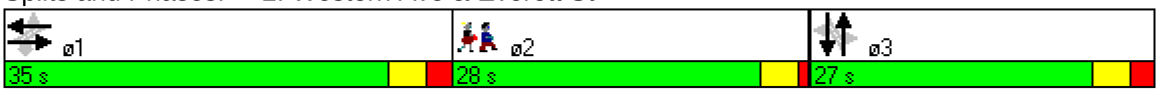
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	8.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	31%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 100
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Western Ave & Everett St



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		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00	0.96	1.00	1.00		1.00	0.98			0.99	
Flpb, ped/bikes		1.00	1.00	0.99	1.00		0.98	1.00			1.00	
Frt		1.00	0.85	1.00	0.99		1.00	0.94			0.97	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1657	1355	1569	1631		1550	1527			1626	
Flt Permitted		0.56	1.00	0.14	1.00		0.36	1.00			0.43	
Satd. Flow (perm)		937	1355	232	1631		589	1527			705	
Volume (vph)	21	653	174	174	711	67	104	198	141	54	185	61
Peak-hour factor, PHF	0.98	0.98	0.98	0.97	0.97	0.97	0.85	0.85	0.85	0.90	0.90	0.90
Adj. Flow (vph)	21	666	178	179	733	69	122	233	166	60	206	68
RTOR Reduction (vph)	0	0	43	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	687	135	179	802	0	122	399	0	0	334	0
Confl. Peds. (#/hr)	33		18	18		33	20		13	13		20
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	0%	0%	0%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Actuated Green, G (s)		39.6	39.6	39.6	39.6		22.0	22.0			22.0	
Effective Green, g (s)		40.6	40.6	40.6	40.6		23.0	23.0			23.0	
Actuated g/C Ratio		0.45	0.45	0.45	0.45		0.26	0.26			0.26	
Clearance Time (s)		5.0	5.0	5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		423	611	105	736		151	390			180	
v/s Ratio Prot					0.49			0.26				
v/s Ratio Perm		0.73	0.10	c0.77			0.21				c0.47	
v/c Ratio		1.62	0.22	1.70	1.09		0.81	1.02			1.86	
Uniform Delay, d1		24.7	15.1	24.7	24.7		31.4	33.5			33.5	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		291.5	0.8	354.3	60.3		26.2	51.6			405.6	
Delay (s)		316.2	15.9	379.0	85.0		57.6	85.1			439.1	
Level of Service		F	B	F	F		E	F			F	
Approach Delay (s)		254.4			138.6			78.6			439.1	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM Average Control Delay	201.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	26.4
Intersection Capacity Utilization	139.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50		50	50		50	50	
Trailing Detector (ft)				0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		852			829			430			1044	
Travel Time (s)		19.4			18.8			9.8			23.7	
Volume (vph)	0	0	0	15	15	21	31	425	15	21	498	37
Confl. Peds. (#/hr)	14		4	4		14	22		13	13		22
Peak Hour Factor	0.92	0.92	0.92	0.75	0.75	0.75	0.94	0.94	0.94	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Lane Group Flow (vph)	0	0	0	0	68	0	0	501	0	0	585	0
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Detector Phases				3	3		1	1		1	1	
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				16.0	16.0		38.0	38.0		38.0	38.0	
Total Split (s)	0.0	0.0	0.0	16.0	16.0	0.0	38.0	38.0	0.0	38.0	38.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	22.9%	22.9%	0.0%	54.3%	54.3%	0.0%	54.3%	54.3%	0.0%
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode				None	None		Min	Min		Min	Min	
v/c Ratio					0.43			0.40			0.45	
Control Delay					23.9			7.5			8.1	
Queue Delay					0.0			0.0			0.0	
Total Delay					23.9			7.5			8.1	
Queue Length 50th (ft)					17			46			57	
Queue Length 95th (ft)					41			235			288	
Internal Link Dist (ft)		772			749			350			964	
Turn Bay Length (ft)												
Base Capacity (vph)					221			1245			1290	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.31			0.40			0.45	

Intersection Summary	
Area Type:	CBD
Cycle Length: 70	
Actuated Cycle Length: 88.3	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 3: Holton St & Everett St

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	4.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	23%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.95			1.00			1.00	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.94			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1467			1662			1671	
Flt Permitted					0.99			0.95			0.98	
Satd. Flow (perm)					1467			1578			1634	
Volume (vph)	0	0	0	15	15	21	31	425	15	21	498	37
Peak-hour factor, PHF	0.92	0.92	0.92	0.75	0.75	0.75	0.94	0.94	0.94	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	20	20	28	33	452	16	22	524	39
RTOR Reduction (vph)	0	0	0	0	26	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	0	0	0	42	0	0	500	0	0	583	0
Confl. Peds. (#/hr)	14		4	4		14	22		13	13		22
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Actuated Green, G (s)					6.0			68.3			68.3	
Effective Green, g (s)					6.0			68.3			68.3	
Actuated g/C Ratio					0.07			0.75			0.75	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					96			1177			1218	
v/s Ratio Prot												
v/s Ratio Perm					0.03			0.32			c0.36	
v/c Ratio					0.44			0.43			0.48	
Uniform Delay, d1					41.2			4.3			4.6	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					3.1			0.2			0.3	
Delay (s)					44.3			4.6			4.9	
Level of Service					D			A			A	
Approach Delay (s)		0.0			44.3			4.6			4.9	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM Average Control Delay	7.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	91.6	Sum of lost time (s)	17.3
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0			50	0	0	
Storage Lanes	1			1	1	0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)	50	50	50	50	50		
Trailing Detector (ft)	0	0	0	0	0		
Turning Speed (mph)	15			9	15	9	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1373	1884		1787		
Travel Time (s)		31.2	42.8		40.6		
Volume (vph)	172	665	621	137	397	163	
Peak Hour Factor	0.92	0.92	0.86	0.86	0.92	0.92	
Heavy Vehicles (%)	2%	2%	3%	3%	0%	0%	
Lane Group Flow (vph)	187	723	722	159	609	0	
Turn Type	Perm			Perm			
Protected Phases		1	1		3		2
Permitted Phases	1			1			
Detector Phases	1	1	1	1	3		
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0		16.0
Total Split (s)	60.0	60.0	60.0	60.0	34.0	0.0	16.0
Total Split (%)	54.5%	54.5%	54.5%	54.5%	30.9%	0.0%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		8.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		0.0
Lead/Lag	Lead	Lead	Lead	Lead			Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max		None
v/c Ratio	1.32	0.85	0.85	0.21	1.16		
Control Delay	211.0	34.6	35.3	11.4	126.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	211.0	34.6	35.3	11.4	126.6		
Queue Length 50th (ft)	~171	424	426	42	~578		
Queue Length 95th (ft)	#218	#665	566	76	#796		
Internal Link Dist (ft)		1293	1804		1707		
Turn Bay Length (ft)				50			
Base Capacity (vph)	142	853	845	740	525		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	1.32	0.85	0.85	0.21	1.16		

Intersection Summary

Area Type: CBD
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 140

Control Type: Actuated-Coordinated

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

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

Splits and Phases: 4: N Beacon St & Everett St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.96	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1593	1676	1660	1411	1587	
Flt Permitted	0.14	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	229	1676	1660	1411	1587	
Volume (vph)	172	665	621	137	397	163
Peak-hour factor, PHF	0.92	0.92	0.86	0.86	0.92	0.92
Adj. Flow (vph)	187	723	722	159	432	177
RTOR Reduction (vph)	0	0	0	23	0	0
Lane Group Flow (vph)	187	723	722	136	609	0
Heavy Vehicles (%)	2%	2%	3%	3%	0%	0%
Turn Type	Perm			Perm		
Protected Phases		1	1		3	
Permitted Phases	1			1		
Actuated Green, G (s)	52.8	52.8	52.8	52.8	36.4	
Effective Green, g (s)	52.8	52.8	52.8	52.8	36.4	
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	110	804	797	677	525	
v/s Ratio Prot		0.43	0.43		c0.38	
v/s Ratio Perm	c0.81			0.10		
v/c Ratio	1.70	0.90	0.91	0.20	1.16	
Uniform Delay, d1	28.6	26.2	26.3	16.5	36.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	350.7	15.0	15.8	0.7	91.5	
Delay (s)	379.3	41.2	42.1	17.1	128.3	
Level of Service	F	D	D	B	F	
Approach Delay (s)		110.7	37.6		128.3	
Approach LOS		F	D		F	

Intersection Summary			
HCM Average Control Delay	88.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.48		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.8
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0		0	
Storage Lanes	1		0	0		0	0		0		0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50		50
Trailing Detector (ft)	0	0		0	0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Right Turn on Red			No			Yes			Yes			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1707			1977			1552				1303
Travel Time (s)		38.8			44.9			35.3				29.6
Volume (vph)	181	0	62	114	191	46	137	1078	0	5	0	956
Confl. Peds. (#/hr)			2	2			2					
Peak Hour Factor	0.86	0.86	0.86	0.84	0.84	0.84	0.91	0.91	0.91	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Lane Group Flow (vph)	150	132	0	0	418	0	0	1336	0	0	0	991
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Detector Phases	3	3		2	2		1	1		1		1
Minimum Initial (s)	8.0	8.0		8.0	8.0		21.0	21.0		21.0		21.0
Minimum Split (s)	27.0	27.0		14.0	14.0		27.0	27.0		27.0		27.0
Total Split (s)	17.0	17.0	0.0	20.0	20.0	0.0	53.0	53.0	0.0	53.0	0.0	53.0
Total Split (%)	18.9%	18.9%	0.0%	22.2%	22.2%	0.0%	58.9%	58.9%	0.0%	58.9%	0.0%	58.9%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0
Lead/Lag				Lag	Lag		Lead	Lead		Lead		Lead
Lead-Lag Optimize?				Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max		C-Max
v/c Ratio	0.70	0.66			0.76			1.23				0.59
Control Delay	55.8	53.7			43.8			134.9				15.3
Queue Delay	0.0	0.0			0.0			0.0				0.0
Total Delay	55.8	53.7			43.8			134.9				15.3
Queue Length 50th (ft)	86	75			115			~504				188
Queue Length 95th (ft)	#161	#143			153			#635				248
Internal Link Dist (ft)		1627			1897			1472				1223
Turn Bay Length (ft)												
Base Capacity (vph)	221	207			565			1085				1689
Starvation Cap Reductn	0	0			0			0				0
Spillback Cap Reductn	0	0			0			0				0
Storage Cap Reductn	0	0			0			0				0
Reduced v/c Ratio	0.68	0.64			0.74			1.23				0.59

Intersection Summary

Area Type: CBD

Cycle Length: 90

Actuated Cycle Length: 90

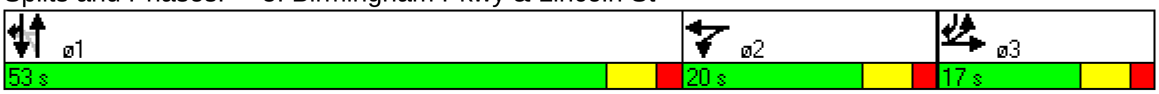
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green

Lane Group	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Storage Length (ft)	50
Storage Lanes	1
Total Lost Time (s)	4.0
Leading Detector (ft)	50
Trailing Detector (ft)	0
Turning Speed (mph)	9
Right Turn on Red	No
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	193
Confl. Peds. (#/hr)	2
Peak Hour Factor	0.92
Heavy Vehicles (%)	1%
Lane Group Flow (vph)	210
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Detector Phases	1 3
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	70.0
Total Split (%)	77.8%
Yellow Time (s)	
All-Red Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
v/c Ratio	0.20
Control Delay	4.2
Queue Delay	0.0
Total Delay	4.2
Queue Length 50th (ft)	31
Queue Length 95th (ft)	53
Internal Link Dist (ft)	
Turn Bay Length (ft)	50
Base Capacity (vph)	1056
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.20

Intersection Summary

Natural Cycle: 140
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Birmingham Pkwy & Lincoln St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
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
Lane Util. Factor	0.95	0.95			0.95			0.95				0.95
Frpb, ped/bikes	1.00	0.99			1.00			1.00				1.00
Flpb, ped/bikes	1.00	1.00			1.00			1.00				1.00
Frt	1.00	0.92			0.98			1.00				1.00
Flt Protected	0.95	0.98			0.98			0.99				1.00
Satd. Flow (prot)	1528	1433			3103			3167				3216
Flt Permitted	0.95	0.98			0.98			0.62				0.95
Satd. Flow (perm)	1528	1433			3103			1970				3050
Volume (vph)	181	0	62	114	191	46	137	1078	0	5	0	956
Peak-hour factor, PHF	0.86	0.86	0.86	0.84	0.84	0.84	0.91	0.91	0.91	0.97	0.97	0.97
Adj. Flow (vph)	210	0	72	136	227	55	151	1185	0	5	0	986
RTOR Reduction (vph)	0	0	0	0	13	0	0	0	0	0	0	0
Lane Group Flow (vph)	150	132	0	0	405	0	0	1336	0	0	0	991
Confl. Peds. (#/hr)			2	2			2					
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Actuated Green, G (s)	10.5	10.5			13.6			47.9				47.9
Effective Green, g (s)	12.5	12.5			15.6			49.9				49.9
Actuated g/C Ratio	0.14	0.14			0.17			0.55				0.55
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)	212	199			538			1092				1691
v/s Ratio Prot	c0.10	0.09			c0.13							
v/s Ratio Perm								c0.68				0.32
v/c Ratio	0.71	0.66			0.75			1.22				0.59
Uniform Delay, d1	37.0	36.8			35.4			20.0				13.2
Progression Factor	1.00	1.00			1.00			1.00				1.00
Incremental Delay, d2	10.3	8.1			5.9			108.9				1.5
Delay (s)	47.3	44.8			41.3			128.9				14.7
Level of Service	D	D			D			F				B
Approach Delay (s)		46.1			41.3			128.9				12.8
Approach LOS		D			D			F				B

Intersection Summary			
HCM Average Control Delay	67.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1439
Flt Permitted	1.00
Satd. Flow (perm)	1439
Volume (vph)	193
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	210
RTOR Reduction (vph)	0
Lane Group Flow (vph)	210
Confl. Peds. (#/hr)	2
Heavy Vehicles (%)	1%
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Actuated Green, G (s)	64.4
Effective Green, g (s)	66.4
Actuated g/C Ratio	0.74
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	1062
v/s Ratio Prot	0.15
v/s Ratio Perm	
v/c Ratio	0.20
Uniform Delay, d1	3.6
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	3.7
Level of Service	A
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	EBU	EBL	EBT	EBR	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
Storage Length (ft)		150		0	150		0	0		0	0	
Storage Lanes		1		0	1		0	0		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	0		0	
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Right Turn on Red				Yes			Yes			Yes		
Link Speed (mph)			30			30			30			30
Link Distance (ft)			1533			1651			501			1303
Travel Time (s)			34.8			37.5			11.4			29.6
Volume (vph)	21	123	1888	0	5	1542	150	0	0	5	154	0
Confl. Peds. (#/hr)		33		8	8		33			1	1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.92	0.92	0.92	0.38	0.38	0.38	0.82	0.82
Parking (#/hr)						1						
Lane Group Flow (vph)	0	149	1946	0	5	1839	0	0	13	0	188	0
Turn Type	Prot	Prot			Prot			custom			custom	
Protected Phases	1	1	2		1	2						
Permitted Phases								3	3		3	
Detector Phases	1	1	2		1	2		3	3		3	
Minimum Initial (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0		1.0	
Minimum Split (s)	5.0	5.0	5.0		5.0	5.0		5.0	5.0		5.0	
Total Split (s)	19.0	19.0	70.0	0.0	19.0	70.0	0.0	21.0	21.0	0.0	21.0	0.0
Total Split (%)	17.3%	17.3%	63.6%	0.0%	17.3%	63.6%	0.0%	19.1%	19.1%	0.0%	19.1%	0.0%
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	Lag		Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes						
Recall Mode	Max	Max	C-Max		Max	C-Max		None	None		None	
v/c Ratio		0.69	0.71		0.02	1.03			0.03		0.97	
Control Delay		62.5	17.1		41.6	52.0			0.2		104.6	
Queue Delay		0.0	0.0		0.0	0.0			0.0		0.0	
Total Delay		62.5	17.1		41.6	52.0			0.2		104.6	
Queue Length 50th (ft)		102	327		3	~731			0		134	
Queue Length 95th (ft)		#191	383		14	#873			0		#240	
Internal Link Dist (ft)			1453			1571			421			1223
Turn Bay Length (ft)		150			150							
Base Capacity (vph)		217	2746		217	1786			400		194	
Starvation Cap Reductn		0	0		0	0			0		0	
Spillback Cap Reductn		0	0		0	0			0		0	
Storage Cap Reductn		0	0		0	0			0		0	
Reduced v/c Ratio		0.69	0.71		0.02	1.03			0.03		0.97	

Intersection Summary

Area Type: CBD

Cycle Length: 110

Actuated Cycle Length: 110

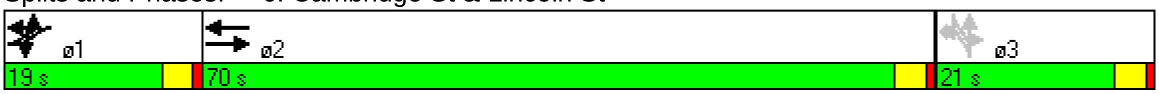
Offset: 5 (5%), Referenced to phase 2:EBWB, Start of Green

Lane Group	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Storage Length (ft)	160
Storage Lanes	1
Total Lost Time (s)	4.0
Leading Detector (ft)	50
Trailing Detector (ft)	0
Turning Speed (mph)	9
Right Turn on Red	Yes
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	67
Confl. Peds. (#/hr)	
Peak Hour Factor	0.82
Parking (#/hr)	
Lane Group Flow (vph)	82
Turn Type	custom
Protected Phases	
Permitted Phases	3
Detector Phases	3
Minimum Initial (s)	1.0
Minimum Split (s)	5.0
Total Split (s)	21.0
Total Split (%)	19.1%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
v/c Ratio	0.28
Control Delay	11.7
Queue Delay	0.0
Total Delay	11.7
Queue Length 50th (ft)	0
Queue Length 95th (ft)	35
Internal Link Dist (ft)	
Turn Bay Length (ft)	160
Base Capacity (vph)	290
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.28

Intersection Summary

Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cambridge St & Lincoln St



Movement	EBU	EBL	EBT	EBR	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
Total Lost time (s)		4.0	4.0		4.0	4.0			4.0		4.0	
Lane Util. Factor		1.00	0.91		1.00	0.95			1.00		1.00	
Frpb, ped/bikes		1.00	1.00		1.00	1.00			0.99		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00			1.00		1.00	
Frt		1.00	1.00		1.00	0.99			0.86		1.00	
Flt Protected		0.95	1.00		0.95	1.00			1.00		0.95	
Satd. Flow (prot)		1593	4577		1593	2966			1430		1590	
Flt Permitted		0.95	1.00		0.95	1.00			1.00		0.75	
Satd. Flow (perm)		1593	4577		1593	2966			1430		1253	
Volume (vph)	21	123	1888	0	5	1542	150	0	0	5	154	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.92	0.92	0.92	0.38	0.38	0.38	0.82	0.82
Adj. Flow (vph)	22	127	1946	0	5	1676	163	0	0	13	188	0
RTOR Reduction (vph)	0	0	0	0	0	7	0	0	11	0	0	0
Lane Group Flow (vph)	0	149	1946	0	5	1832	0	0	2	0	188	0
Confl. Peds. (#/hr)		33		8	8		33			1	1	
Parking (#/hr)						1						
Turn Type	Prot	Prot			Prot			custom			custom	
Protected Phases	1	1	2		1	2						
Permitted Phases								3	3		3	
Actuated Green, G (s)		15.0	66.0		15.0	66.0			17.0		17.0	
Effective Green, g (s)		15.0	66.0		15.0	66.0			17.0		17.0	
Actuated g/C Ratio		0.14	0.60		0.14	0.60			0.15		0.15	
Clearance Time (s)		4.0	4.0		4.0	4.0			4.0		4.0	
Vehicle Extension (s)		2.0	3.0		2.0	3.0			3.0		3.0	
Lane Grp Cap (vph)		217	2746		217	1780			221		194	
v/s Ratio Prot		c0.09	0.43		0.00	c0.62						
v/s Ratio Perm									0.00		c0.15	
v/c Ratio		0.69	0.71		0.02	1.03			0.01		0.97	
Uniform Delay, d1		45.3	15.3		41.2	22.0			39.4		46.2	
Progression Factor		1.00	1.00		1.00	1.00			1.00		1.00	
Incremental Delay, d2		16.3	1.6		0.2	29.2			0.0		55.0	
Delay (s)		61.6	16.9		41.3	51.2			39.4		101.2	
Level of Service		E	B		D	D			D		F	
Approach Delay (s)			20.1			51.2			39.4			82.6
Approach LOS			C			D			D			F

Intersection Summary			
HCM Average Control Delay	37.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1425
Flt Permitted	1.00
Satd. Flow (perm)	1425
Volume (vph)	67
Peak-hour factor, PHF	0.82
Adj. Flow (vph)	82
RTOR Reduction (vph)	69
Lane Group Flow (vph)	13
Confl. Peds. (#/hr)	
Parking (#/hr)	
Turn Type	custom
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	17.0
Effective Green, g (s)	17.0
Actuated g/C Ratio	0.15
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	220
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.06
Uniform Delay, d1	39.7
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	39.8
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		377			462			1787			430	
Travel Time (s)		8.6			10.5			40.6			9.8	
Volume (vph)	5	0	10	51	5	69	5	391	36	63	479	0
Confl. Peds. (#/hr)			4	4			23		12			23
Peak Hour Factor	0.50	0.50	0.50	0.87	0.87	0.87	0.94	0.94	0.94	0.87	0.87	0.87
Heavy Vehicles (%)	6%	6%	6%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Lane Group Flow (vph)	0	30	0	0	144	0	0	459	0	0	623	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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)	5	0	10	51	5	69	5	391	36	63	479	0
Peak Hour Factor	0.50	0.50	0.50	0.87	0.87	0.87	0.94	0.94	0.94	0.87	0.87	0.87
Hourly flow rate (vph)	10	0	20	59	6	79	5	416	38	72	551	0
Pedestrians		23			12			4				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		2			1			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											430	
pX, platoon unblocked	0.88	0.88	0.88	0.88	0.88		0.88					
vC, conflicting volume	1246	1195	578	1177	1176	447	574			466		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1279	1221	521	1201	1200	447	517			466		
tC, single (s)	7.2	6.6	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	100	96	53	96	87	99			93		
cM capacity (veh/h)	95	140	472	125	148	607	913			1089		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	30	144	460	623
Volume Left	10	59	5	72
Volume Right	20	79	38	0
cSH	203	225	913	1089
Volume to Capacity	0.15	0.64	0.01	0.07
Queue Length 95th (ft)	13	96	0	5
Control Delay (s)	25.8	45.4	0.2	1.7
Lane LOS	D	E	A	A
Approach Delay (s)	25.8	45.4	0.2	1.7
Approach LOS	D	E		

Intersection Summary			
Average Delay	6.7		
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		498	1675		462	
Travel Time (s)		11.3	38.1		10.5	
Volume (vph)	31	103	272	68	36	42
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.79	0.79	0.86	0.86	0.70	0.70
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%
Lane Group Flow (vph)	0	169	395	0	111	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	31	103	272	68	36	42
Peak Hour Factor	0.79	0.79	0.86	0.86	0.70	0.70
Hourly flow rate (vph)	39	130	316	79	51	60
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	399				569	360
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	399				569	360
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				89	91
cM capacity (veh/h)	1150				466	682

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	170	395	111
Volume Left	39	0	51
Volume Right	0	79	60
cSH	1150	1700	562
Volume to Capacity	0.03	0.23	0.20
Queue Length 95th (ft)	3	0	18
Control Delay (s)	2.1	0.0	13.0
Lane LOS	A		B
Approach Delay (s)	2.1	0.0	13.0
Approach LOS			B

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		1977	498		584	
Travel Time (s)		44.9	11.3		13.3	
Volume (vph)	5	128	303	5	10	5
Confl. Peds. (#/hr)	13			13		
Peak Hour Factor	0.83	0.83	0.86	0.86	0.53	0.53
Heavy Vehicles (%)	2%	2%	2%	2%	12%	12%
Lane Group Flow (vph)	0	160	358	0	28	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	128	303	5	10	5
Peak Hour Factor	0.83	0.83	0.86	0.86	0.53	0.53
Hourly flow rate (vph)	6	154	352	6	19	9
Pedestrians					13	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	371				534	368
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	371				534	368
tC, single (s)	4.1				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.4
p0 queue free %	99				96	99
cM capacity (veh/h)	1174				482	648

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	160	358	28
Volume Left	6	0	19
Volume Right	0	6	9
cSH	1174	1700	527
Volume to Capacity	0.01	0.21	0.05
Queue Length 95th (ft)	0	0	4
Control Delay (s)	0.3	0.0	12.2
Lane LOS	A		B
Approach Delay (s)	0.3	0.0	12.2
Approach LOS			B

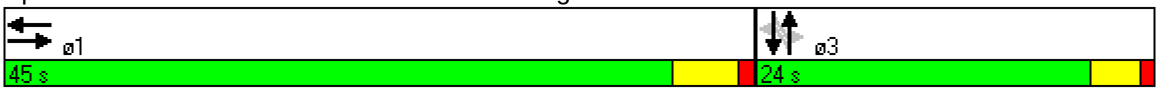
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	26.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1811			1730			510			344	
Travel Time (s)		41.2			39.3			11.6			7.8	
Volume (vph)	0	1940	68	0	980	0	68	0	192	15	217	0
Confl. Peds. (#/hr)							3					3
Peak Hour Factor	0.97	0.97	0.97	0.92	0.92	0.92	0.82	0.82	0.82	0.72	0.72	0.72
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%
Lane Group Flow (vph)	0	2070	0	0	1065	0	0	317	0	21	301	0
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Minimum Split (s)		45.0			45.0		16.0	16.0		16.0	16.0	
Total Split (s)	0.0	45.0	0.0	0.0	45.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	65.2%	0.0%	0.0%	65.2%	0.0%	34.8%	34.8%	0.0%	34.8%	34.8%	0.0%
Yellow Time (s)		4.0			4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)		1.0			1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		1.08			0.55			1.00		0.10	0.63	
Control Delay		60.9			9.8			79.6		19.4	28.1	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		60.9			9.8			79.6		19.4	28.1	
Queue Length 50th (ft)		~527			127			~131		6	110	
Queue Length 95th (ft)		#665			176			#249		17	140	
Internal Link Dist (ft)		1731			1650			430			264	
Turn Bay Length (ft)												
Base Capacity (vph)		1925			1931			316		221	481	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		1.08			0.55			1.00		0.10	0.63	

Intersection Summary

Area Type: CBD
Cycle Length: 69
Actuated Cycle Length: 69
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 75
Control Type: Pretimed
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Soldiers Field Rd & Jughandle



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	4.0	
Lane Util. Factor		0.95			0.95			1.00		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		0.99			1.00			0.90		1.00	1.00	
Flt Protected		1.00			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		3233			3249			1519		1577	1660	
Flt Permitted		1.00			1.00			0.69		0.46	1.00	
Satd. Flow (perm)		3233			3249			1064		763	1660	
Volume (vph)	0	1940	68	0	980	0	68	0	192	15	217	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.92	0.92	0.92	0.82	0.82	0.82	0.72	0.72	0.72
Adj. Flow (vph)	0	2000	70	0	1065	0	83	0	234	21	301	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	2066	0	0	1065	0	0	309	0	21	301	0
Confl. Peds. (#/hr)							3					3
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)		40.0			40.0			20.0		20.0	20.0	
Effective Green, g (s)		41.0			41.0			20.0		20.0	20.0	
Actuated g/C Ratio		0.59			0.59			0.29		0.29	0.29	
Clearance Time (s)		5.0			5.0			4.0		4.0	4.0	
Lane Grp Cap (vph)		1921			1931			308		221	481	
v/s Ratio Prot		c0.64			0.33						0.18	
v/s Ratio Perm								c0.29		0.03		
v/c Ratio		1.08			0.55			1.00		0.10	0.63	
Uniform Delay, d1		14.0			8.5			24.5		17.9	21.3	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		44.3			1.1			52.3		0.9	6.0	
Delay (s)		58.3			9.6			76.8		18.7	27.3	
Level of Service		E			A			E		B	C	
Approach Delay (s)		58.3			9.6			76.8			26.7	
Approach LOS		E			A			E			C	

Intersection Summary			
HCM Average Control Delay	43.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	102.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	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
Storage Length (ft)	0		100	0		100	50		0	0		0
Storage Lanes	0		1	1		1	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1704			1253			1044			510	
Travel Time (s)		38.7			28.5			23.7			11.6	
Volume (vph)	33	736	143	151	528	31	83	196	144	58	180	46
Confl. Peds. (#/hr)	24		13	13		24	16		10	10		16
Peak Hour Factor	0.94	0.94	0.94	0.93	0.93	0.93	0.75	0.75	0.75	0.81	0.81	0.81
Heavy Vehicles (%)	7%	7%	7%	9%	9%	9%	5%	5%	5%	2%	2%	2%
Lane Group Flow (vph)	0	818	152	162	601	0	111	453	0	0	351	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Detector Phases	1	1	1	1	1		3	3		3	3	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	28.0	28.0	28.0	28.0	28.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	0.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
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		2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None		None	None	
v/c Ratio		3.44	0.22	1.22	0.76		0.78	1.21			3.41	
Control Delay		1118.5	11.7	175.0	30.5		65.2	146.1			1122.7	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		1118.5	11.7	175.0	30.5		65.2	146.1			1122.7	
Queue Length 50th (ft)		~561	15	65	151		52	~281			~317	
Queue Length 95th (ft)		#963	83	#215	#583		#104	#347			#387	
Internal Link Dist (ft)		1624			1173			964			430	
Turn Bay Length (ft)			100				50					
Base Capacity (vph)		238	693	133	791		143	375			103	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		3.44	0.22	1.22	0.76		0.78	1.21			3.41	

Intersection Summary

Area Type: CBD
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	8.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	35%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

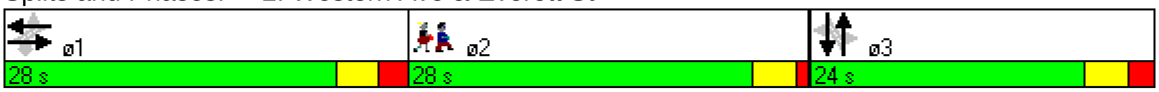
Natural Cycle: 100

Control Type: Actuated-Coordinated

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

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

Splits and Phases: 2: Western Ave & Everett St



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		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00	0.97	1.00	1.00		1.00	0.98			0.99	
Flpb, ped/bikes		1.00	1.00	1.00	1.00		0.99	1.00			1.00	
Frt		1.00	0.85	1.00	0.99		1.00	0.94			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1594	1313	1486	1552		1527	1499			1607	
Flt Permitted		0.89	1.00	0.10	1.00		0.36	1.00			0.25	
Satd. Flow (perm)		1421	1313	163	1552		573	1499			410	
Volume (vph)	33	736	143	151	528	31	83	196	144	58	180	46
Peak-hour factor, PHF	0.94	0.94	0.94	0.93	0.93	0.93	0.75	0.75	0.75	0.81	0.81	0.81
Adj. Flow (vph)	35	783	152	162	568	33	111	261	192	72	222	57
RTOR Reduction (vph)	0	0	31	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	818	121	162	601	0	111	453	0	0	351	0
Confl. Peds. (#/hr)	24		13	13		24	16		10	10		16
Heavy Vehicles (%)	7%	7%	7%	9%	9%	9%	5%	5%	5%	2%	2%	2%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Actuated Green, G (s)		37.4	37.4	37.4	37.4		19.0	19.0			19.0	
Effective Green, g (s)		38.4	38.4	38.4	38.4		20.0	20.0			20.0	
Actuated g/C Ratio		0.48	0.48	0.48	0.48		0.25	0.25			0.25	
Clearance Time (s)		5.0	5.0	5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		682	630	78	745		143	375			103	
v/s Ratio Prot					0.39			0.30				
v/s Ratio Perm		0.58	0.09	c0.99			0.19				c0.86	
v/c Ratio		1.20	0.19	2.08	0.81		0.78	1.21			3.41	
Uniform Delay, d1		20.8	11.9	20.8	17.7		27.9	30.0			30.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		103.5	0.7	525.6	9.1		22.7	116.1			1107.7	
Delay (s)		124.3	12.6	546.4	26.8		50.6	146.1			1137.7	
Level of Service		F	B	F	C		D	F			F	
Approach Delay (s)		106.8			137.1			127.3			1137.7	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	256.5	HCM Level of Service	F
HCM Volume to Capacity ratio	2.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	21.6
Intersection Capacity Utilization	130.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50		50	50		50	50	
Trailing Detector (ft)				0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		852			829			430			1044	
Travel Time (s)		19.4			18.8			9.8			23.7	
Volume (vph)	0	0	0	31	5	31	8	409	15	10	443	22
Confl. Peds. (#/hr)	14		6	6		14	12		3	3		12
Peak Hour Factor	0.92	0.92	0.92	0.71	0.71	0.71	0.77	0.77	0.77	0.83	0.83	0.83
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	4%	4%	4%
Lane Group Flow (vph)	0	0	0	0	95	0	0	560	0	0	573	0
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Detector Phases				3	3		1	1		1	1	
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				16.0	16.0		38.0	38.0		38.0	38.0	
Total Split (s)	0.0	0.0	0.0	16.0	16.0	0.0	38.0	38.0	0.0	38.0	38.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	22.9%	22.9%	0.0%	54.3%	54.3%	0.0%	54.3%	54.3%	0.0%
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode				None	None		Min	Min		Min	Min	
v/c Ratio					0.44			0.47			0.48	
Control Delay					17.7			7.9			8.0	
Queue Delay					0.0			0.0			0.0	
Total Delay					17.7			7.9			8.0	
Queue Length 50th (ft)					14			54			56	
Queue Length 95th (ft)					43			220			258	
Internal Link Dist (ft)		772			749			350			964	
Turn Bay Length (ft)												
Base Capacity (vph)					286			1185			1192	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.33			0.47			0.48	

Intersection Summary

Area Type: CBD

Cycle Length: 70

Actuated Cycle Length: 73.3

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Holton St & Everett St

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	4.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	23%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.96			1.00			1.00	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.94			1.00			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					1457			1618			1630	
Flt Permitted					0.98			0.99			0.99	
Satd. Flow (perm)					1457			1605			1613	
Volume (vph)	0	0	0	31	5	31	8	409	15	10	443	22
Peak-hour factor, PHF	0.92	0.92	0.92	0.71	0.71	0.71	0.77	0.77	0.77	0.83	0.83	0.83
Adj. Flow (vph)	0	0	0	44	7	44	10	531	19	12	534	27
RTOR Reduction (vph)	0	0	0	0	39	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	0	0	0	56	0	0	559	0	0	572	0
Confl. Peds. (#/hr)	14		6	6		14	12		3	3		12
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	4%	4%	4%
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Actuated Green, G (s)					8.2			53.6			53.6	
Effective Green, g (s)					8.2			53.6			53.6	
Actuated g/C Ratio					0.11			0.70			0.70	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					157			1129			1135	
v/s Ratio Prot												
v/s Ratio Perm					0.04			0.35			c0.35	
v/c Ratio					0.35			0.49			0.50	
Uniform Delay, d1					31.5			5.1			5.2	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					1.4			0.3			0.4	
Delay (s)					32.9			5.5			5.5	
Level of Service					C			A			A	
Approach Delay (s)		0.0			32.9			5.5			5.5	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	76.2	Sum of lost time (s)	14.4
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0			50	0	0	
Storage Lanes	1			1	1	0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)	50	50	50	50	50		
Trailing Detector (ft)	0	0	0	0	0		
Turning Speed (mph)	15			9	15	9	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1373	1884		1787		
Travel Time (s)		31.2	42.8		40.6		
Volume (vph)	215	562	572	175	202	107	
Confl. Peds. (#/hr)	23			23	20	19	
Peak Hour Factor	0.93	0.92	0.92	0.92	0.83	0.83	
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%	
Lane Group Flow (vph)	231	611	622	190	372	0	
Turn Type	Perm			Perm			
Protected Phases		1	1		3		2
Permitted Phases	1			1			
Detector Phases	1	1	1	1	3		
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0		16.0
Total Split (s)	55.0	55.0	55.0	55.0	29.0	0.0	16.0
Total Split (%)	55.0%	55.0%	55.0%	55.0%	29.0%	0.0%	16%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		8.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		0.0
Lead/Lag	Lead	Lead	Lead	Lead			Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max		None
v/c Ratio	1.16	0.74	0.76	0.27	0.79		
Control Delay	138.8	26.2	26.8	9.9	47.9		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	138.8	26.2	26.8	9.9	47.9		
Queue Length 50th (ft)	~175	294	303	41	237		
Queue Length 95th (ft)	#324	440	452	83	#371		
Internal Link Dist (ft)		1293	1804		1707		
Turn Bay Length (ft)				50			
Base Capacity (vph)	200	823	823	703	471		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	1.16	0.74	0.76	0.27	0.79		

Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 9 (9%), Referenced to phase 1:EBWB, Start of Green	

Natural Cycle: 110

Control Type: Actuated-Coordinated

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

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

Splits and Phases: 4: N Beacon St & Everett St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	0.96	0.98	
Flpb, ped/bikes	0.99	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.95	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1521	1613	1613	1311	1506	
Flt Permitted	0.22	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	348	1613	1613	1311	1506	
Volume (vph)	215	562	572	175	202	107
Peak-hour factor, PHF	0.93	0.92	0.92	0.92	0.83	0.83
Adj. Flow (vph)	231	611	622	190	243	129
RTOR Reduction (vph)	0	0	0	35	0	0
Lane Group Flow (vph)	231	611	622	155	372	0
Confl. Peds. (#/hr)	23			23	20	19
Heavy Vehicles (%)	6%	6%	6%	6%	3%	3%
Turn Type	Perm			Perm		
Protected Phases		1	1		3	
Permitted Phases	1			1		
Actuated Green, G (s)	47.8	47.8	47.8	47.8	31.4	
Effective Green, g (s)	47.8	47.8	47.8	47.8	31.4	
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.31	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	166	771	771	627	473	
v/s Ratio Prot		0.38	0.39		c0.25	
v/s Ratio Perm	c0.66			0.12		
v/c Ratio	1.39	0.79	0.81	0.25	0.79	
Uniform Delay, d1	26.1	21.9	22.2	15.5	31.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	208.7	8.2	8.8	0.9	12.4	
Delay (s)	234.8	30.1	31.0	16.4	43.7	
Level of Service	F	C	C	B	D	
Approach Delay (s)		86.3	27.6		43.7	
Approach LOS		F	C		D	

Intersection Summary			
HCM Average Control Delay	54.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.8
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0		0	
Storage Lanes	1		0	0		0	0		0		0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50		50
Trailing Detector (ft)	0	0		0	0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Right Turn on Red			No			Yes			Yes			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1707			1977			1552				1303
Travel Time (s)		38.8			44.9			35.3				29.6
Volume (vph)	341	0	62	111	174	80	42	795	0	10	0	824
Confl. Peds. (#/hr)							4					
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Lane Group Flow (vph)	231	207	0	0	424	0	0	920	0	0	0	897
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Detector Phases	3	3		2	2		1	1		1		1
Minimum Initial (s)	8.0	8.0		8.0	8.0		21.0	21.0		21.0		21.0
Minimum Split (s)	27.0	27.0		14.0	14.0		27.0	27.0		27.0		27.0
Total Split (s)	18.0	18.0	0.0	20.0	20.0	0.0	52.0	52.0	0.0	52.0	0.0	52.0
Total Split (%)	20.0%	20.0%	0.0%	22.2%	22.2%	0.0%	57.8%	57.8%	0.0%	57.8%	0.0%	57.8%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0
Lead/Lag				Lag	Lag		Lead	Lead		Lead		Lead
Lead-Lag Optimize?				Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max		C-Max
v/c Ratio	0.97	0.90			0.77			0.64				0.57
Control Delay	92.2	78.5			43.0			17.5				15.9
Queue Delay	0.0	0.0			0.0			0.0				0.0
Total Delay	92.2	78.5			43.0			17.5				15.9
Queue Length 50th (ft)	~140	124			111			183				170
Queue Length 95th (ft)	#294	#263			155			249				227
Internal Link Dist (ft)		1627			1897			1472				1223
Turn Bay Length (ft)												
Base Capacity (vph)	238	229			563			1436				1568
Starvation Cap Reductn	0	0			0			0				0
Spillback Cap Reductn	0	0			0			0				0
Storage Cap Reductn	0	0			0			0				0
Reduced v/c Ratio	0.97	0.90			0.75			0.64				0.57

Intersection Summary

Area Type: CBD

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green

Lane Group	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Storage Length (ft)	50
Storage Lanes	1
Total Lost Time (s)	4.0
Leading Detector (ft)	50
Trailing Detector (ft)	0
Turning Speed (mph)	9
Right Turn on Red	No
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	98
Confl. Peds. (#/hr)	4
Peak Hour Factor	0.93
Heavy Vehicles (%)	4%
Lane Group Flow (vph)	105
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Detector Phases	1 3
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	70.0
Total Split (%)	77.8%
Yellow Time (s)	
All-Red Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
v/c Ratio	0.10
Control Delay	3.7
Queue Delay	0.0
Total Delay	3.7
Queue Length 50th (ft)	14
Queue Length 95th (ft)	28
Internal Link Dist (ft)	
Turn Bay Length (ft)	50
Base Capacity (vph)	1031
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.10

Intersection Summary

Natural Cycle: 80
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Birmingham Pkwy & Lincoln St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
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
Lane Util. Factor	0.95	0.95			0.95			0.95				0.95
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	0.95			0.97			1.00				1.00
Flt Protected	0.95	0.97			0.99			1.00				1.00
Satd. Flow (prot)	1484	1438			3005			3116				3122
Flt Permitted	0.95	0.97			0.99			0.86				0.94
Satd. Flow (perm)	1484	1438			3005			2691				2940
Volume (vph)	341	0	62	111	174	80	42	795	0	10	0	824
Peak-hour factor, PHF	0.92	0.92	0.92	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Adj. Flow (vph)	371	0	67	129	202	93	46	874	0	11	0	886
RTOR Reduction (vph)	0	0	0	0	29	0	0	0	0	0	0	0
Lane Group Flow (vph)	231	207	0	0	395	0	0	920	0	0	0	897
Confl. Peds. (#/hr)							4					
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	4%	4%	4%	4%	4%	4%
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Actuated Green, G (s)	12.4	12.4			13.6			46.0				46.0
Effective Green, g (s)	14.4	14.4			15.6			48.0				48.0
Actuated g/C Ratio	0.16	0.16			0.17			0.53				0.53
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)	237	230			521			1435				1568
v/s Ratio Prot	c0.16	0.14			c0.13							
v/s Ratio Perm								c0.34				0.31
v/c Ratio	0.97	0.90			0.76			0.64				0.57
Uniform Delay, d1	37.6	37.1			35.4			14.9				14.1
Progression Factor	1.00	1.00			1.00			1.00				1.00
Incremental Delay, d2	50.9	33.8			6.3			2.2				1.5
Delay (s)	88.5	70.9			41.7			17.1				15.6
Level of Service	F	E			D			B				B
Approach Delay (s)		80.2			41.7			17.1				14.3
Approach LOS		F			D			B				B

Intersection Summary			
HCM Average Control Delay	29.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1398
Flt Permitted	1.00
Satd. Flow (perm)	1398
Volume (vph)	98
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	105
RTOR Reduction (vph)	0
Lane Group Flow (vph)	105
Confl. Peds. (#/hr)	4
Heavy Vehicles (%)	4%
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Actuated Green, G (s)	64.4
Effective Green, g (s)	66.4
Actuated g/C Ratio	0.74
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	1031
v/s Ratio Prot	0.08
v/s Ratio Perm	
v/c Ratio	0.10
Uniform Delay, d1	3.3
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	3.4
Level of Service	A
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		0		150		0	0		0	0
Storage Lanes		1		0		1		0	0		0	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50	50		50	50		50
Trailing Detector (ft)	0	0	0		0	0	0		0	0		0
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Right Turn on Red				Yes				Yes			Yes	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1533				1651			501		
Travel Time (s)			34.8				37.5			11.4		
Volume (vph)	10	72	1814	5	5	10	1413	110	5	0	10	137
Confl. Peds. (#/hr)		22		12		12		22	1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.94	0.94	0.94	0.94	0.46	0.46	0.46	0.93
Heavy Vehicles (%)	5%	5%	5%	5%	8%	8%	8%	8%	82%	82%	82%	4%
Parking (#/hr)							1					
Lane Group Flow (vph)	0	83	1856	0	0	16	1620	0	0	33	0	147
Turn Type	Prot	Prot			Prot	Prot			custom			custom
Protected Phases	1	1	2		1	1	2					
Permitted Phases									3	3		3
Detector Phases	1	1	2		1	1	2		3	3		3
Minimum Initial (s)	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0		1.0
Minimum Split (s)	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0		5.0
Total Split (s)	18.0	18.0	64.0	0.0	18.0	18.0	64.0	0.0	18.0	18.0	0.0	18.0
Total Split (%)	18.0%	18.0%	64.0%	0.0%	18.0%	18.0%	64.0%	0.0%	18.0%	18.0%	0.0%	18.0%
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)	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0		1.0
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes					
Recall Mode	Max	Max	C-Max		Max	Max	C-Max		None	None		None
v/c Ratio		0.37	0.70			0.07	0.96			0.25		0.89
Control Delay		44.6	15.5			38.5	33.5			25.3		90.0
Queue Delay		0.0	0.0			0.0	0.0			0.0		0.0
Total Delay		44.6	15.5			38.5	33.5			25.3		90.0
Queue Length 50th (ft)		49	275			9	471			6		93
Queue Length 95th (ft)		96	330			29	#680			11		#207
Internal Link Dist (ft)			1453				1571			421		
Turn Bay Length (ft)		150				150						
Base Capacity (vph)		222	2668			216	1692			137		169
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		0.37	0.70			0.07	0.96			0.24		0.87

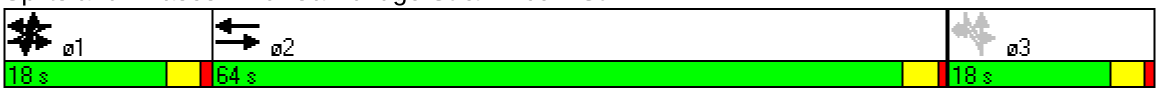
Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	

Lane Group	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		160
Storage Lanes		1
Total Lost Time (s)	4.0	4.0
Leading Detector (ft)		50
Trailing Detector (ft)		0
Turning Speed (mph)		9
Right Turn on Red		Yes
Link Speed (mph)	30	
Link Distance (ft)	1303	
Travel Time (s)	29.6	
Volume (vph)	0	77
Confl. Peds. (#/hr)		1
Peak Hour Factor	0.93	0.93
Heavy Vehicles (%)	4%	4%
Parking (#/hr)		
Lane Group Flow (vph)	0	83
Turn Type		custom
Protected Phases		
Permitted Phases		3
Detector Phases		3
Minimum Initial (s)		1.0
Minimum Split (s)		5.0
Total Split (s)	0.0	18.0
Total Split (%)	0.0%	18.0%
Yellow Time (s)		3.0
All-Red Time (s)		1.0
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode		None
v/c Ratio		0.32
Control Delay		12.4
Queue Delay		0.0
Total Delay		12.4
Queue Length 50th (ft)		0
Queue Length 95th (ft)		43
Internal Link Dist (ft)	1223	
Turn Bay Length (ft)		160
Base Capacity (vph)		264
Starvation Cap Reductn		0
Spillback Cap Reductn		0
Storage Cap Reductn		0
Reduced v/c Ratio		0.31

Intersection Summary

Offset: 90 (90%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cambridge St & Lincoln St



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
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		1.00	0.91			1.00	0.95			1.00		1.00
Frpb, ped/bikes		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
Frt		1.00	1.00			1.00	0.99			0.91		1.00
Flt Protected		0.95	1.00			0.95	1.00			0.98		0.95
Satd. Flow (prot)		1547	4444			1504	2812			840		1562
Flt Permitted		0.95	1.00			0.95	1.00			0.98		0.74
Satd. Flow (perm)		1547	4444			1504	2812			840		1210
Volume (vph)	10	72	1814	5	5	10	1413	110	5	0	10	137
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.94	0.94	0.94	0.94	0.46	0.46	0.46	0.93
Adj. Flow (vph)	10	73	1851	5	5	11	1503	117	11	0	22	147
RTOR Reduction (vph)	0	0	0	0	0	0	6	0	0	19	0	0
Lane Group Flow (vph)	0	83	1856	0	0	16	1614	0	0	14	0	147
Confl. Peds. (#/hr)		22		12		12		22	1			
Heavy Vehicles (%)	5%	5%	5%	5%	8%	8%	8%	8%	82%	82%	82%	4%
Parking (#/hr)							1					
Turn Type	Prot	Prot			Prot	Prot			custom			custom
Protected Phases	1	1	2		1	1	2					
Permitted Phases									3	3		3
Actuated Green, G (s)		14.3	60.0			14.3	60.0			13.7		13.7
Effective Green, g (s)		14.3	60.0			14.3	60.0			13.7		13.7
Actuated g/C Ratio		0.14	0.60			0.14	0.60			0.14		0.14
Clearance Time (s)		4.0	4.0			4.0	4.0			4.0		4.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0		3.0
Lane Grp Cap (vph)		221	2666			215	1687			115		166
v/s Ratio Prot		c0.05	0.42			0.01	c0.57					
v/s Ratio Perm										0.02		c0.12
v/c Ratio		0.38	0.70			0.07	0.96			0.12		0.89
Uniform Delay, d1		38.8	13.7			37.1	18.8			37.9		42.4
Progression Factor		1.00	1.00			1.00	1.00			1.00		1.00
Incremental Delay, d2		4.8	1.5			0.7	13.8			0.5		38.7
Delay (s)		43.6	15.3			37.8	32.6			38.3		81.1
Level of Service		D	B			D	C			D		F
Approach Delay (s)			16.5				32.7			38.3		
Approach LOS			B				C			D		

Intersection Summary			
HCM Average Control Delay	26.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR
Lane Configurations		
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)		4.0
Lane Util. Factor		1.00
Frpb, ped/bikes		0.99
Flpb, ped/bikes		1.00
Frt		0.85
Flt Protected		1.00
Satd. Flow (prot)		1378
Flt Permitted		1.00
Satd. Flow (perm)		1378
Volume (vph)	0	77
Peak-hour factor, PHF	0.93	0.93
Adj. Flow (vph)	0	83
RTOR Reduction (vph)	0	72
Lane Group Flow (vph)	0	11
Confl. Peds. (#/hr)		1
Heavy Vehicles (%)	4%	4%
Parking (#/hr)		
Turn Type		custom
Protected Phases		
Permitted Phases		3
Actuated Green, G (s)		13.7
Effective Green, g (s)		13.7
Actuated g/C Ratio		0.14
Clearance Time (s)		4.0
Vehicle Extension (s)		3.0
Lane Grp Cap (vph)		189
v/s Ratio Prot		
v/s Ratio Perm		0.01
v/c Ratio		0.06
Uniform Delay, d1		37.5
Progression Factor		1.00
Incremental Delay, d2		0.1
Delay (s)		37.7
Level of Service		D
Approach Delay (s)	65.4	
Approach LOS	E	

Intersection Summary

Lane Group	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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		377			462			1787			430	
Travel Time (s)		8.6			10.5			40.6			9.8	
Volume (vph)	2	7	7	26	2	42	4	374	26	68	422	5
Confl. Peds. (#/hr)	2		1	1			22		7			22
Peak Hour Factor	0.63	0.63	0.63	0.75	0.75	0.75	0.92	0.92	0.92	0.79	0.79	0.79
Heavy Vehicles (%)	80%	80%	80%	4%	4%	4%	5%	5%	5%	3%	3%	3%
Lane Group Flow (vph)	0	25	0	0	94	0	0	439	0	0	626	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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)	2	7	7	26	2	42	4	374	26	68	422	5
Peak Hour Factor	0.63	0.63	0.63	0.75	0.75	0.75	0.92	0.92	0.92	0.79	0.79	0.79
Hourly flow rate (vph)	3	11	11	35	3	56	4	407	28	86	534	6
Pedestrians		22			7			1			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		2			1			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											430	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1220	1182	560	1164	1171	430	563			442		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1256	1212	489	1190	1199	430	491			442		
tC, single (s)	7.9	7.3	7.0	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	4.2	4.7	4.0	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	89	97	70	98	91	100			92		
cM capacity (veh/h)	72	100	379	114	141	617	892			1106		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	25	93	439	627
Volume Left	3	35	4	86
Volume Right	11	56	28	6
cSH	138	225	892	1106
Volume to Capacity	0.18	0.41	0.00	0.08
Queue Length 95th (ft)	16	48	0	6
Control Delay (s)	36.9	31.8	0.1	2.0
Lane LOS	E	D	A	A
Approach Delay (s)	36.9	31.8	0.1	2.0
Approach LOS	E	D		

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		498	1675		462	
Travel Time (s)		11.3	38.1		10.5	
Volume (vph)	36	114	206	53	38	37
Confl. Peds. (#/hr)	11			11		
Peak Hour Factor	0.88	0.88	0.77	0.77	0.78	0.78
Heavy Vehicles (%)	2%	2%	7%	7%	3%	3%
Lane Group Flow (vph)	0	171	337	0	96	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	36	114	206	53	38	37
Peak Hour Factor	0.88	0.88	0.77	0.77	0.78	0.78
Hourly flow rate (vph)	41	130	268	69	49	47
Pedestrians					11	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	347				524	313
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	347				524	313
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				90	93
cM capacity (veh/h)	1200				490	718

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	170	336	96
Volume Left	41	0	49
Volume Right	0	69	47
cSH	1200	1700	581
Volume to Capacity	0.03	0.20	0.17
Queue Length 95th (ft)	3	0	15
Control Delay (s)	2.2	0.0	12.4
Lane LOS	A		B
Approach Delay (s)	2.2	0.0	12.4
Approach LOS			B

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		1977	498		584	
Travel Time (s)		44.9	11.3		13.3	
Volume (vph)	5	144	216	5	0	5
Confl. Peds. (#/hr)	11			11		
Peak Hour Factor	0.88	0.88	0.97	0.97	0.50	0.50
Heavy Vehicles (%)	2%	2%	8%	8%	100%	100%
Lane Group Flow (vph)	0	170	228	0	10	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	144	216	5	0	5
Peak Hour Factor	0.88	0.88	0.97	0.97	0.50	0.50
Hourly flow rate (vph)	6	164	223	5	0	10
Pedestrians					11	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	239				411	236
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	239				411	236
tC, single (s)	4.1				7.4	7.2
tC, 2 stage (s)						
tF (s)	2.2				4.4	4.2
p0 queue free %	100				100	98
cM capacity (veh/h)	1316				441	606

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	169	228	10
Volume Left	6	0	0
Volume Right	0	5	10
cSH	1316	1700	606
Volume to Capacity	0.00	0.13	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.3	0.0	11.0
Lane LOS	A		B
Approach Delay (s)	0.3	0.0	11.0
Approach LOS			B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1811			1730			510			344	
Travel Time (s)		41.2			39.3			11.6			7.8	
Volume (vph)	0	1486	71	0	1727	0	90	0	200	21	237	0
Confl. Peds. (#/hr)							6					6
Peak Hour Factor	0.97	0.97	0.97	0.93	0.93	0.93	0.91	0.91	0.91	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%
Lane Group Flow (vph)	0	1605	0	0	1857	0	0	319	0	24	276	0
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Minimum Split (s)		45.0			45.0		16.0	16.0		16.0	16.0	
Total Split (s)	0.0	45.0	0.0	0.0	45.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	65.2%	0.0%	0.0%	65.2%	0.0%	34.8%	34.8%	0.0%	34.8%	34.8%	0.0%
Yellow Time (s)		4.0			4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)		1.0			1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.84			0.96			0.97		0.10	0.56	
Control Delay		16.4			28.2			69.1		19.5	26.1	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		16.4			28.2			69.1		19.5	26.1	
Queue Length 50th (ft)		254			349			120		7	99	
Queue Length 95th (ft)		357			#554			#276		23	160	
Internal Link Dist (ft)		1731			1650			430			264	
Turn Bay Length (ft)												
Base Capacity (vph)		1922			1931			328		232	491	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.84			0.96			0.97		0.10	0.56	

Intersection Summary

Area Type: CBD

Cycle Length: 69

Actuated Cycle Length: 69

Offset: 6 (9%), Referenced to phase 1:EBWB, Start of Green

Natural Cycle: 70

Control Type: Pretimed

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

Splits and Phases: 1: Soldiers Field Rd & Jughandle

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	4.0	
Lane Util. Factor		0.95			0.95			1.00		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		0.99			1.00			0.91		1.00	1.00	
Flt Protected		1.00			1.00			0.98		0.95	1.00	
Satd. Flow (prot)		3227			3249			1525		1608	1693	
Flt Permitted		1.00			1.00			0.68		0.47	1.00	
Satd. Flow (perm)		3227			3249			1048		801	1693	
Volume (vph)	0	1486	71	0	1727	0	90	0	200	21	237	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.91	0.91	0.91	0.86	0.86	0.86
Adj. Flow (vph)	0	1532	73	0	1857	0	99	0	220	24	276	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	1600	0	0	1857	0	0	295	0	24	276	0
Confl. Peds. (#/hr)							6					6
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%
Turn Type							Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases							3			3		
Actuated Green, G (s)		40.0			40.0			20.0		20.0	20.0	
Effective Green, g (s)		41.0			41.0			20.0		20.0	20.0	
Actuated g/C Ratio		0.59			0.59			0.29		0.29	0.29	
Clearance Time (s)		5.0			5.0			4.0		4.0	4.0	
Lane Grp Cap (vph)		1917			1931			304		232	491	
v/s Ratio Prot		0.50			c0.57						0.16	
v/s Ratio Perm								c0.28		0.03		
v/c Ratio		0.83			0.96			0.97		0.10	0.56	
Uniform Delay, d1		11.3			13.3			24.2		17.9	20.8	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		4.5			13.2			44.5		0.9	4.6	
Delay (s)		15.7			26.5			68.7		18.8	25.4	
Level of Service		B			C			E		B	C	
Approach Delay (s)		15.7			26.5			68.7			24.9	
Approach LOS		B			C			E			C	

Intersection Summary			
HCM Average Control Delay	25.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	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
Storage Length (ft)	0		100	100		0	50		0	0		0
Storage Lanes	0		1	1		0	1		0	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			No			No			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1704			1253			1044			510	
Travel Time (s)		38.7			28.5			23.7			11.6	
Volume (vph)	21	653	184	178	711	67	108	202	144	54	192	61
Confl. Peds. (#/hr)	33		18	18		33	20		13	13		20
Peak Hour Factor	0.98	0.98	0.98	0.97	0.97	0.97	0.85	0.85	0.85	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	0%	0%	0%
Lane Group Flow (vph)	0	687	188	184	802	0	127	407	0	0	341	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Detector Phases	1	1	1	1	1		3	3		3	3	
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	13.0	13.0	13.0	13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	35.0	35.0	35.0	35.0	35.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	38.9%	38.9%	38.9%	38.9%	38.9%	0.0%	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%
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		2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	None		None	None	
v/c Ratio		2.12	0.28	1.84	1.05		0.86	1.04			1.97	
Control Delay		535.4	12.6	438.3	75.9		80.8	92.3			480.8	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay		535.4	12.6	438.3	75.9		80.8	92.3			480.8	
Queue Length 50th (ft)		~679	42	~176	~623		69	~253			~304	
Queue Length 95th (ft)		#778	97	#272	#844		#160	#393			#470	
Internal Link Dist (ft)		1624			1173			964			430	
Turn Bay Length (ft)			100	100			50					
Base Capacity (vph)		324	676	100	764		147	390			173	
Starvation Cap Reductn		0	0	0	0		0	0			0	
Spillback Cap Reductn		0	0	0	0		0	0			0	
Storage Cap Reductn		0	0	0	0		0	0			0	
Reduced v/c Ratio		2.12	0.28	1.84	1.05		0.86	1.04			1.97	

Intersection Summary

Area Type: CBD

Cycle Length: 90

Actuated Cycle Length: 90

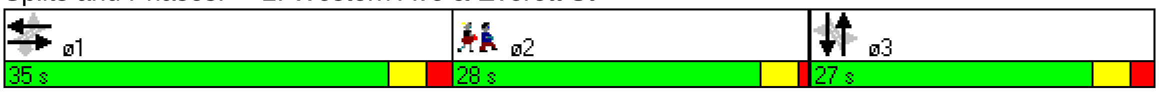
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	8.0
Minimum Split (s)	28.0
Total Split (s)	28.0
Total Split (%)	31%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 110
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Western Ave & Everett St



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		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frpb, ped/bikes		1.00	0.96	1.00	1.00		1.00	0.98			0.99	
Flpb, ped/bikes		1.00	1.00	0.99	1.00		0.98	1.00			1.00	
Frt		1.00	0.85	1.00	0.99		1.00	0.94			0.97	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1657	1355	1569	1631		1551	1528			1628	
Flt Permitted		0.56	1.00	0.14	1.00		0.35	1.00			0.41	
Satd. Flow (perm)		937	1355	232	1631		575	1528			676	
Volume (vph)	21	653	184	178	711	67	108	202	144	54	192	61
Peak-hour factor, PHF	0.98	0.98	0.98	0.97	0.97	0.97	0.85	0.85	0.85	0.90	0.90	0.90
Adj. Flow (vph)	21	666	188	184	733	69	127	238	169	60	213	68
RTOR Reduction (vph)	0	0	46	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	687	142	184	802	0	127	407	0	0	341	0
Confl. Peds. (#/hr)	33		18	18		33	20		13	13		20
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	0%	0%	0%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		1			1			3			3	
Permitted Phases	1		1	1			3			3		
Actuated Green, G (s)		39.6	39.6	39.6	39.6		22.0	22.0			22.0	
Effective Green, g (s)		40.6	40.6	40.6	40.6		23.0	23.0			23.0	
Actuated g/C Ratio		0.45	0.45	0.45	0.45		0.26	0.26			0.26	
Clearance Time (s)		5.0	5.0	5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		423	611	105	736		147	390			173	
v/s Ratio Prot					0.49			0.27				
v/s Ratio Perm		0.73	0.11	c0.79			0.22				c0.50	
v/c Ratio		1.62	0.23	1.75	1.09		0.86	1.04			1.97	
Uniform Delay, d1		24.7	15.2	24.7	24.7		32.0	33.5			33.5	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2		291.5	0.9	374.7	60.3		37.4	57.4			457.2	
Delay (s)		316.2	16.0	399.4	85.0		69.4	90.9			490.7	
Level of Service		F	B	F	F		E	F			F	
Approach Delay (s)		251.7			143.6			85.8			490.7	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	210.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	26.4
Intersection Capacity Utilization	140.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50		50	50		50	50	
Trailing Detector (ft)				0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		852			829			430			1044	
Travel Time (s)		19.4			18.8			9.8			23.7	
Volume (vph)	0	0	0	15	15	21	31	437	15	21	519	37
Confl. Peds. (#/hr)	14		4	4		14	22		13	13		22
Peak Hour Factor	0.92	0.92	0.92	0.75	0.75	0.75	0.94	0.94	0.94	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Lane Group Flow (vph)	0	0	0	0	68	0	0	514	0	0	607	0
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Detector Phases				3	3		1	1		1	1	
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				16.0	16.0		38.0	38.0		38.0	38.0	
Total Split (s)	0.0	0.0	0.0	16.0	16.0	0.0	38.0	38.0	0.0	38.0	38.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	22.9%	22.9%	0.0%	54.3%	54.3%	0.0%	54.3%	54.3%	0.0%
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode				None	None		Min	Min		Min	Min	
v/c Ratio					0.43			0.41			0.47	
Control Delay					24.2			7.6			8.3	
Queue Delay					0.0			0.0			0.0	
Total Delay					24.2			7.6			8.3	
Queue Length 50th (ft)					17			48			60	
Queue Length 95th (ft)					41			244			306	
Internal Link Dist (ft)		772			749			350			964	
Turn Bay Length (ft)												
Base Capacity (vph)					220			1247			1292	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.31			0.41			0.47	

Intersection Summary

Area Type: CBD

Cycle Length: 70

Actuated Cycle Length: 88.9

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Holton St & Everett St

Lane Group	ø2
Lane Configurations	
Ideal Flow (vphpl)	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phases	
Minimum Initial (s)	4.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	23%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.95			1.00			1.00	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.94			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1466			1662			1671	
Flt Permitted					0.99			0.95			0.98	
Satd. Flow (perm)					1466			1577			1635	
Volume (vph)	0	0	0	15	15	21	31	437	15	21	519	37
Peak-hour factor, PHF	0.92	0.92	0.92	0.75	0.75	0.75	0.94	0.94	0.94	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	20	20	28	33	465	16	22	546	39
RTOR Reduction (vph)	0	0	0	0	26	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	0	0	0	42	0	0	513	0	0	605	0
Confl. Peds. (#/hr)	14		4	4		14	22		13	13		22
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Turn Type				Perm			Perm			Perm		
Protected Phases					3			1			1	
Permitted Phases				3			1			1		
Actuated Green, G (s)					6.0			68.9			68.9	
Effective Green, g (s)					6.0			68.9			68.9	
Actuated g/C Ratio					0.07			0.75			0.75	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					95			1177			1220	
v/s Ratio Prot												
v/s Ratio Perm					0.03			0.33			c0.37	
v/c Ratio					0.44			0.44			0.50	
Uniform Delay, d1					41.5			4.4			4.7	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					3.2			0.3			0.3	
Delay (s)					44.8			4.7			5.0	
Level of Service					D			A			A	
Approach Delay (s)		0.0			44.8			4.7			5.0	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM Average Control Delay	7.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	92.3	Sum of lost time (s)	17.4
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0			50	0	0	
Storage Lanes	1			1	1	0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)	50	50	50	50	50		
Trailing Detector (ft)	0	0	0	0	0		
Turning Speed (mph)	15			9	15	9	
Right Turn on Red				Yes		No	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1373	1884		1787		
Travel Time (s)		31.2	42.8		40.6		
Volume (vph)	178	665	621	150	406	167	
Peak Hour Factor	0.92	0.92	0.86	0.86	0.92	0.92	
Heavy Vehicles (%)	2%	2%	3%	3%	0%	0%	
Lane Group Flow (vph)	193	723	722	174	623	0	
Turn Type	Perm			Perm			
Protected Phases		1	1		3		2
Permitted Phases	1			1			
Detector Phases	1	1	1	1	3		
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0		16.0
Total Split (s)	60.0	60.0	60.0	60.0	34.0	0.0	16.0
Total Split (%)	54.5%	54.5%	54.5%	54.5%	30.9%	0.0%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		8.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		0.0
Lead/Lag	Lead	Lead	Lead	Lead			Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max		None
v/c Ratio	1.36	0.85	0.85	0.23	1.19		
Control Delay	227.4	34.6	35.3	11.6	136.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	227.4	34.6	35.3	11.6	136.4		
Queue Length 50th (ft)	~180	424	426	46	~599		
Queue Length 95th (ft)	#230	#665	566	82	#818		
Internal Link Dist (ft)		1293	1804		1707		
Turn Bay Length (ft)				50			
Base Capacity (vph)	142	853	845	742	525		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	1.36	0.85	0.85	0.23	1.19		

Intersection Summary

Area Type: CBD

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 56 (51%), Referenced to phase 1:EBWB, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

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

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

Splits and Phases: 4: N Beacon St & Everett St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.96	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1593	1676	1660	1411	1586	
Flt Permitted	0.14	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	229	1676	1660	1411	1586	
Volume (vph)	178	665	621	150	406	167
Peak-hour factor, PHF	0.92	0.92	0.86	0.86	0.92	0.92
Adj. Flow (vph)	193	723	722	174	441	182
RTOR Reduction (vph)	0	0	0	25	0	0
Lane Group Flow (vph)	193	723	722	149	623	0
Heavy Vehicles (%)	2%	2%	3%	3%	0%	0%
Turn Type	Perm			Perm		
Protected Phases		1	1		3	
Permitted Phases	1			1		
Actuated Green, G (s)	52.8	52.8	52.8	52.8	36.4	
Effective Green, g (s)	52.8	52.8	52.8	52.8	36.4	
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	110	804	797	677	525	
v/s Ratio Prot		0.43	0.43		c0.39	
v/s Ratio Perm	c0.84			0.11		
v/c Ratio	1.75	0.90	0.91	0.22	1.19	
Uniform Delay, d1	28.6	26.2	26.3	16.6	36.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	374.1	15.0	15.8	0.7	102.0	
Delay (s)	402.7	41.2	42.1	17.4	138.8	
Level of Service	F	D	D	B	F	
Approach Delay (s)		117.3	37.3		138.8	
Approach LOS		F	D		F	

Intersection Summary			
HCM Average Control Delay	93.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.52		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.8
Intersection Capacity Utilization	93.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0		0	
Storage Lanes	1		0	0		0	0		0		0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50		50
Trailing Detector (ft)	0	0		0	0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Right Turn on Red			No			Yes			Yes			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1707			1977			1552				1303
Travel Time (s)		38.8			44.9			35.3				29.6
Volume (vph)	183	0	62	115	191	46	137	1079	0	5	0	956
Confl. Peds. (#/hr)			2	2			2					
Peak Hour Factor	0.86	0.86	0.86	0.84	0.84	0.84	0.91	0.91	0.91	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Lane Group Flow (vph)	151	134	0	0	419	0	0	1337	0	0	0	991
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Detector Phases	3	3		2	2		1	1		1		1
Minimum Initial (s)	8.0	8.0		8.0	8.0		21.0	21.0		21.0		21.0
Minimum Split (s)	27.0	27.0		14.0	14.0		27.0	27.0		27.0		27.0
Total Split (s)	17.0	17.0	0.0	20.0	20.0	0.0	53.0	53.0	0.0	53.0	0.0	53.0
Total Split (%)	18.9%	18.9%	0.0%	22.2%	22.2%	0.0%	58.9%	58.9%	0.0%	58.9%	0.0%	58.9%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0
Lead/Lag				Lag	Lag		Lead	Lead		Lead		Lead
Lead-Lag Optimize?				Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max		C-Max
v/c Ratio	0.71	0.67			0.76			1.23				0.59
Control Delay	56.2	54.4			43.9			135.3				15.3
Queue Delay	0.0	0.0			0.0			0.0				0.0
Total Delay	56.2	54.4			43.9			135.3				15.3
Queue Length 50th (ft)	87	76			115			~505				188
Queue Length 95th (ft)	#163	#144			154			#636				248
Internal Link Dist (ft)		1627			1897			1472				1223
Turn Bay Length (ft)												
Base Capacity (vph)	221	207			565			1085				1689
Starvation Cap Reductn	0	0			0			0				0
Spillback Cap Reductn	0	0			0			0				0
Storage Cap Reductn	0	0			0			0				0
Reduced v/c Ratio	0.68	0.65			0.74			1.23				0.59

Intersection Summary

Area Type: CBD

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green

Lane Group	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Storage Length (ft)	50
Storage Lanes	1
Total Lost Time (s)	4.0
Leading Detector (ft)	50
Trailing Detector (ft)	0
Turning Speed (mph)	9
Right Turn on Red	No
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	193
Confl. Peds. (#/hr)	2
Peak Hour Factor	0.92
Heavy Vehicles (%)	1%
Lane Group Flow (vph)	210
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Detector Phases	1 3
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	70.0
Total Split (%)	77.8%
Yellow Time (s)	
All-Red Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
v/c Ratio	0.20
Control Delay	4.2
Queue Delay	0.0
Total Delay	4.2
Queue Length 50th (ft)	31
Queue Length 95th (ft)	53
Internal Link Dist (ft)	
Turn Bay Length (ft)	50
Base Capacity (vph)	1056
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.20

Intersection Summary

Natural Cycle: 140
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Birmingham Pkwy & Lincoln St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
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
Lane Util. Factor	0.95	0.95			0.95			0.95				0.95
Frpb, ped/bikes	1.00	0.99			1.00			1.00				1.00
Flpb, ped/bikes	1.00	1.00			1.00			1.00				1.00
Frt	1.00	0.92			0.98			1.00				1.00
Flt Protected	0.95	0.98			0.98			0.99				1.00
Satd. Flow (prot)	1528	1434			3103			3167				3216
Flt Permitted	0.95	0.98			0.98			0.62				0.95
Satd. Flow (perm)	1528	1434			3103			1970				3050
Volume (vph)	183	0	62	115	191	46	137	1079	0	5	0	956
Peak-hour factor, PHF	0.86	0.86	0.86	0.84	0.84	0.84	0.91	0.91	0.91	0.97	0.97	0.97
Adj. Flow (vph)	213	0	72	137	227	55	151	1186	0	5	0	986
RTOR Reduction (vph)	0	0	0	0	13	0	0	0	0	0	0	0
Lane Group Flow (vph)	151	134	0	0	406	0	0	1337	0	0	0	991
Confl. Peds. (#/hr)			2	2			2					
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Turn Type	Split			Split			Perm			Perm		
Protected Phases	3	3		2	2			1				1
Permitted Phases							1			1		
Actuated Green, G (s)	10.5	10.5			13.6			47.9				47.9
Effective Green, g (s)	12.5	12.5			15.6			49.9				49.9
Actuated g/C Ratio	0.14	0.14			0.17			0.55				0.55
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)	212	199			538			1092				1691
v/s Ratio Prot	c0.10	0.09			c0.13							
v/s Ratio Perm								c0.68				0.32
v/c Ratio	0.71	0.67			0.75			1.22				0.59
Uniform Delay, d1	37.0	36.8			35.4			20.0				13.2
Progression Factor	1.00	1.00			1.00			1.00				1.00
Incremental Delay, d2	10.8	8.7			5.9			109.3				1.5
Delay (s)	47.8	45.5			41.3			129.3				14.7
Level of Service	D	D			D			F				B
Approach Delay (s)		46.7			41.3			129.3				12.8
Approach LOS		D			D			F				B

Intersection Summary			
HCM Average Control Delay	67.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1439
Flt Permitted	1.00
Satd. Flow (perm)	1439
Volume (vph)	193
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	210
RTOR Reduction (vph)	0
Lane Group Flow (vph)	210
Confl. Peds. (#/hr)	2
Heavy Vehicles (%)	1%
Turn Type	pt+ov
Protected Phases	1 3
Permitted Phases	
Actuated Green, G (s)	64.4
Effective Green, g (s)	66.4
Actuated g/C Ratio	0.74
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	1062
v/s Ratio Prot	0.15
v/s Ratio Perm	
v/c Ratio	0.20
Uniform Delay, d1	3.6
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	3.7
Level of Service	A
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	EBU	EBL	EBT	EBR	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
Storage Length (ft)		150		0	150		0	0		0	0	
Storage Lanes		1		0	1		0	0		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	0		0	
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Right Turn on Red				Yes			Yes			Yes		
Link Speed (mph)			30			30			30			30
Link Distance (ft)			1533			1651			501			1303
Travel Time (s)			34.8			37.5			11.4			29.6
Volume (vph)	21	123	1888	0	5	1542	228	0	0	5	205	0
Confl. Peds. (#/hr)		33		8	8		33			1	1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.92	0.92	0.92	0.38	0.38	0.38	0.82	0.82
Parking (#/hr)						1						
Lane Group Flow (vph)	0	149	1946	0	5	1924	0	0	13	0	250	0
Turn Type	Prot	Prot			Prot			custom			custom	
Protected Phases	1	1	2		1	2						
Permitted Phases								3	3		3	
Detector Phases	1	1	2		1	2		3	3		3	
Minimum Initial (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0		1.0	
Minimum Split (s)	5.0	5.0	5.0		5.0	5.0		5.0	5.0		5.0	
Total Split (s)	19.0	19.0	70.0	0.0	19.0	70.0	0.0	21.0	21.0	0.0	21.0	0.0
Total Split (%)	17.3%	17.3%	63.6%	0.0%	17.3%	63.6%	0.0%	19.1%	19.1%	0.0%	19.1%	0.0%
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	Lag		Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes						
Recall Mode	Max	Max	C-Max		Max	C-Max		None	None		None	
v/c Ratio		0.69	0.71		0.02	1.08			0.03		1.29	
Control Delay		62.5	17.1		41.6	70.5			0.2		201.7	
Queue Delay		0.0	0.0		0.0	0.0			0.0		0.0	
Total Delay		62.5	17.1		41.6	70.5			0.2		201.7	
Queue Length 50th (ft)		102	327		3	~800			0		~226	
Queue Length 95th (ft)		#191	383		14	#942			0		#339	
Internal Link Dist (ft)			1453			1571			421			1223
Turn Bay Length (ft)		150			150							
Base Capacity (vph)		217	2746		217	1777			400		194	
Starvation Cap Reductn		0	0		0	0			0		0	
Spillback Cap Reductn		0	0		0	0			0		0	
Storage Cap Reductn		0	0		0	0			0		0	
Reduced v/c Ratio		0.69	0.71		0.02	1.08			0.03		1.29	

Intersection Summary

Area Type: CBD

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:EBWB, Start of Green

Lane Group	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Storage Length (ft)	160
Storage Lanes	1
Total Lost Time (s)	4.0
Leading Detector (ft)	50
Trailing Detector (ft)	0
Turning Speed (mph)	9
Right Turn on Red	Yes
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	67
Confl. Peds. (#/hr)	
Peak Hour Factor	0.82
Parking (#/hr)	
Lane Group Flow (vph)	82
Turn Type	custom
Protected Phases	
Permitted Phases	3
Detector Phases	3
Minimum Initial (s)	1.0
Minimum Split (s)	5.0
Total Split (s)	21.0
Total Split (%)	19.1%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
v/c Ratio	0.28
Control Delay	11.7
Queue Delay	0.0
Total Delay	11.7
Queue Length 50th (ft)	0
Queue Length 95th (ft)	35
Internal Link Dist (ft)	
Turn Bay Length (ft)	160
Base Capacity (vph)	290
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.28

Intersection Summary

Natural Cycle: 120

Control Type: Actuated-Coordinated

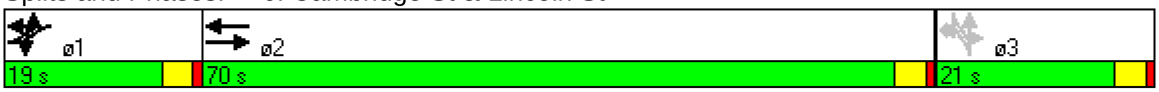
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Cambridge St & Lincoln St



Movement	EBU	EBL	EBT	EBR	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
Total Lost time (s)		4.0	4.0		4.0	4.0			4.0		4.0	
Lane Util. Factor		1.00	0.91		1.00	0.95			1.00		1.00	
Frpb, ped/bikes		1.00	1.00		1.00	0.99			0.99		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00			1.00		1.00	
Frt		1.00	1.00		1.00	0.98			0.86		1.00	
Flt Protected		0.95	1.00		0.95	1.00			1.00		0.95	
Satd. Flow (prot)		1593	4577		1593	2942			1430		1590	
Flt Permitted		0.95	1.00		0.95	1.00			1.00		0.75	
Satd. Flow (perm)		1593	4577		1593	2942			1430		1253	
Volume (vph)	21	123	1888	0	5	1542	228	0	0	5	205	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.92	0.92	0.92	0.38	0.38	0.38	0.82	0.82
Adj. Flow (vph)	22	127	1946	0	5	1676	248	0	0	13	250	0
RTOR Reduction (vph)	0	0	0	0	0	11	0	0	11	0	0	0
Lane Group Flow (vph)	0	149	1946	0	5	1913	0	0	2	0	250	0
Confl. Peds. (#/hr)		33		8	8		33			1	1	
Parking (#/hr)						1						
Turn Type	Prot	Prot			Prot			custom			custom	
Protected Phases	1	1	2		1	2						
Permitted Phases								3	3		3	
Actuated Green, G (s)		15.0	66.0		15.0	66.0			17.0		17.0	
Effective Green, g (s)		15.0	66.0		15.0	66.0			17.0		17.0	
Actuated g/C Ratio		0.14	0.60		0.14	0.60			0.15		0.15	
Clearance Time (s)		4.0	4.0		4.0	4.0			4.0		4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0			3.0		3.0	
Lane Grp Cap (vph)		217	2746		217	1765			221		194	
v/s Ratio Prot		c0.09	0.43		0.00	c0.65						
v/s Ratio Perm									0.00		c0.20	
v/c Ratio		0.69	0.71		0.02	1.08			0.01		1.29	
Uniform Delay, d1		45.3	15.3		41.2	22.0			39.4		46.5	
Progression Factor		1.00	1.00		1.00	1.00			1.00		1.00	
Incremental Delay, d2		16.3	1.6		0.2	48.1			0.0		162.9	
Delay (s)		61.6	16.9		41.3	70.1			39.4		209.4	
Level of Service		E	B		D	E			D		F	
Approach Delay (s)			20.1			70.0			39.4			167.5
Approach LOS			C			E			D			F

Intersection Summary			
HCM Average Control Delay	53.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1425
Flt Permitted	1.00
Satd. Flow (perm)	1425
Volume (vph)	67
Peak-hour factor, PHF	0.82
Adj. Flow (vph)	82
RTOR Reduction (vph)	69
Lane Group Flow (vph)	13
Confl. Peds. (#/hr)	
Parking (#/hr)	
Turn Type	custom
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	17.0
Effective Green, g (s)	17.0
Actuated g/C Ratio	0.15
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	220
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.06
Uniform Delay, d1	39.7
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	39.8
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		377			462			1787			430	
Travel Time (s)		8.6			10.5			40.6			9.8	
Volume (vph)	14	13	23	51	13	72	24	391	36	63	479	21
Confl. Peds. (#/hr)			4	4			23		12			23
Peak Hour Factor	0.50	0.50	0.50	0.87	0.87	0.87	0.94	0.94	0.94	0.87	0.87	0.87
Heavy Vehicles (%)	6%	6%	6%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Lane Group Flow (vph)	0	100	0	0	157	0	0	480	0	0	647	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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)	14	13	23	51	13	72	24	391	36	63	479	21
Peak Hour Factor	0.50	0.50	0.50	0.87	0.87	0.87	0.94	0.94	0.94	0.87	0.87	0.87
Hourly flow rate (vph)	28	26	46	59	15	83	26	416	38	72	551	24
Pedestrians		23			12			4				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		2			1			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											430	
pX, platoon unblocked	0.87	0.87	0.87	0.87	0.87		0.87					
vC, conflicting volume	1307	1248	590	1269	1241	447	598			466		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1352	1284	530	1308	1276	447	539			466		
tC, single (s)	7.2	6.6	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	63	79	90	28	88	86	97			93		
cM capacity (veh/h)	76	124	462	81	129	607	885			1089		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	100	156	480	647
Volume Left	28	59	26	72
Volume Right	46	83	38	24
cSH	148	161	885	1089
Volume to Capacity	0.67	0.97	0.03	0.07
Queue Length 95th (ft)	95	185	2	5
Control Delay (s)	69.0	120.7	0.8	1.7
Lane LOS	F	F	A	A
Approach Delay (s)	69.0	120.7	0.8	1.7
Approach LOS	F	F		

Intersection Summary			
Average Delay	19.7		
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		498	1675		462	
Travel Time (s)		11.3	38.1		10.5	
Volume (vph)	34	141	342	76	49	42
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.79	0.79	0.86	0.86	0.70	0.70
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%
Lane Group Flow (vph)	0	221	486	0	130	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	34	141	342	76	49	42
Peak Hour Factor	0.79	0.79	0.86	0.86	0.70	0.70
Hourly flow rate (vph)	43	178	398	88	70	60
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	490				710	446
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	490				710	446
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				82	90
cM capacity (veh/h)	1064				382	610

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	222	486	130
Volume Left	43	0	70
Volume Right	0	88	60
cSH	1064	1700	462
Volume to Capacity	0.04	0.29	0.28
Queue Length 95th (ft)	3	0	29
Control Delay (s)	2.0	0.0	15.8
Lane LOS	A		C
Approach Delay (s)	2.0	0.0	15.8
Approach LOS			C

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Link Speed (mph)		30	30		30	
Link Distance (ft)		1977	498		584	
Travel Time (s)		44.9	11.3		13.3	
Volume (vph)	5	128	304	5	10	6
Confl. Peds. (#/hr)	13			13		
Peak Hour Factor	0.83	0.83	0.86	0.86	0.53	0.53
Heavy Vehicles (%)	2%	2%	2%	2%	12%	12%
Lane Group Flow (vph)	0	160	359	0	30	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	128	304	5	10	6
Peak Hour Factor	0.83	0.83	0.86	0.86	0.53	0.53
Hourly flow rate (vph)	6	154	353	6	19	11
Pedestrians					13	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	372				536	369
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	372				536	369
tC, single (s)	4.1				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.4
p0 queue free %	99				96	98
cM capacity (veh/h)	1173				481	647

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	160	359	30
Volume Left	6	0	19
Volume Right	0	6	11
cSH	1173	1700	532
Volume to Capacity	0.01	0.21	0.06
Queue Length 95th (ft)	0	0	4
Control Delay (s)	0.3	0.0	12.2
Lane LOS	A		B
Approach Delay (s)	0.3	0.0	12.2
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	26.3%	ICU Level of Service	A
Analysis Period (min)	15		

Ice Traffic Projections

Skating Club of Boston

Ice Traffic Projections

Rink # 1

September-April (35 weeks)

Time	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
6:00-7:00 am	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Open	Open
No of Skaters	6	6	6	6	6	5	5
7:00-8:00 am	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Open	Open
No of Skaters	10	10	10	10	10	10	10
8:00-9:00 am	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Ice Dance	L/M T FS	L/M T FS
No of Skaters	15	15	15	15	15	15	15
9:00-10:00 am	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Ice Dance	L/M T FS	L/M T FS
No of Skaters	15	15	15	15	15	20	20
10:00-11:00 am	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Ice Dance	L/M T FS	L/M T FS
No of Skaters	15	15	15	15	15	30	30
11:00-12:00 pm	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Syc-Begin	Syc-Prelim
No of Skaters	15	15	15	15	15		
12:00-1:00 pm	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Bridge	Prel/Pre Juv
No of Skaters	15	15	15	15	15		
1:00-2:00 pm	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Basic Skills	Syc-PreJuv
No of Skaters	15	15	15	15	15		
2:00-3:00 pm	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Ice Dance	Basic Skills	Bridge
No of Skaters	15	15	15	15	15		
3:00-4:00 pm	L/M T FS	L/M T FS	L/M T FS	L/M T FS	L/M T FS	Moves/Skills	Basic Skills
No of Skaters	30	30	30	30	30		
4:00-5:00 pm	L/M T FS	L/M T FS	L/M T FS	L/M T FS	L/M T FS	Sync-Int	Basic Skills
No of Skaters	30	30	30	30	30		
5:00-6:00 pm	Basic Skills	L/M T FS	L/M T FS	Basic Skills	L/M T FS	Sync-Int	Syc-Juven
No of Skaters		30	30		30		
6:00-7:00 pm	Bridge	L/M T FS	L/M T FS	Bridge	L/M T FS	Speed Sk8	Syc-Juven
No of Skaters		20	20		20		
7:00-8:00 pm	Adult	Speed Sk8	Syc Skills	Speed Sk8	Public Sk8	Speed Sk8	Syc-Novice
No of Skaters			20		35		
8:00-9:00 pm	Sync-Adult	Speed Sk8	Syc-OpenC	Speed Sk8	Public Sk8	Open	Syc-Novice
No of Skaters					35	10	
9:00-10:00 pm	Sync-Adult	Open	Syc-OpenC	Open	Public Sk8	Open	Open
No of Skaters		10		10	35	10	10
10:00-11:00 pm	Open	Open	Open	Open	Public Sk8	Open	Open
No of Skaters	5	5	5	5	20	5	5

Skating Club of Boston
Ice Traffic Projections
Center Rink (Rink # 2)
September-April (35 weeks)

Time	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
6:00-7:00 am	Open	Open	Open	Open	Open	Open	Open
No of Skaters	6	6	6	6	6	6	6
7:00-8:00 am	Open	Open	Open	Open	Open	Open	Open
No of Skaters	10	10	10	10	10	10	10
8:00-9:00 am--	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P
No of Skaters	12	12	12	12	12	12	12
9:00-10:00 am	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P
No of Skaters	15	15	15	15	15	15	15
10:00-11:00 am	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P
No of Skaters	15	15	15	15	15	15	15
11:00-12:00 pm	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	Syc-Senior	Syc-Interm
No of Skaters	15	15	15	15	15		
12:00-1:00 pm	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	Syc-Senior	Syc-Interm
No of Skaters	15	15	15	15	15		
1:00-2:00 pm	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	Syc-Senior	Club Hot C
No of Skaters	15	15	15	15	15		100
2:00-3:00 pm	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	Sync Skills	Club Hot C
No of Skaters	15	15	15	15	15	20	100
3:00-4:00 pm	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	Syc-College	Moves
No of Skaters	25	25	25	25	25		15
4:00-5:00 pm	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	Syc-College	TOI
No of Skaters	25	25	25	25	25		
5:00-6:00 pm	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	HP-FS/P	Syc-College	TOI
No of Skaters	25	25	25	25	25		
6:00-7:00 pm	Syc-Senior	Syc-Novice	Syc-Senior	TOI	Club Ice	Public Sk8	TOI
No of Skaters				0	0	40	0
7:00-8:00 pm	Syc-Senior	Syc-Novice	Syc-Senior	TOI	Exhibitions	Public Sk8	TOI
No of Skaters				0	0	40	0
8:00-9:00 pm	Syc-College	Syc-Junior	Syc-Senior	Public Sk8	Club Ice	Public Sk8	TOI
No of Skaters				40	0	40	0
9:00-10:00 pm	Syc-College	Syc-Junior	Open	Public Sk8	Club Dance	Public Sk8	TOI
No of Skaters			5	40	0	40	0
10:00-11:00 pm	Syc-College	Open	Open	Public Sk8	Club Dance	Public Sk8	Open
No of Skaters		5	5	40	0	40	5

Trip Generation

Empirical
ITE
MEPA

Skating Club of Boston
Expanded PNF
Trip Generation Estimate
August 2013

Skating Club of Boston Trip Generation

	Size	Trip Rate	Unadjusted Vehicle Trips	VOR	Person Trips	Transit Share	Walk/Other Share	Vehicle Share	Local VOR	Transit Trips	Walk/Other Trips	Vehicle Trips
Daily Skating		302	603		724					29	7	574
In	2	151	302	1.2	362	4%	1%	95%	1.2	14	4	287
Out	Rinks	151	302	1.2	362	4%	1%	95%	1.2	14	4	287
Daily Hockey		374	374		449					18	4	356
In	1	187	187	1.2	224	4%	1%	95%	1.2	9	2	178
Out	Rinks	187	187	1.2	224	4%	1%	95%	1.2	9	2	178
Total Daily			977		1,173					47	12	930
In			489		586					23	6	465
Out			489		586					23	6	465
AM Skating		15	30		36					1	0	29
In	2	10	21	1.2	25	4%	1%	95%	1.2	1	0	20
Out	Rinks	5	9	1.2	11	4%	1%	95%	1.2	0	0	9
AM Hockey		11	11		13					1	0	11
In	1	7	7	1.2	8	4%	1%	95%	1.2	0	0	7
Out	Rinks	4	4	1.2	5	4%	1%	95%	1.2	0	0	4
Total AM Peak Hour			41		49					2	0	40
In			28		33					1	0	27
Out			13		16					1	0	13
PM Skating		59	118		141					6	1	113
In	2	43	86	1.2	103	4%	1%	95%	1.2	4	1	82
Out	Rinks	16	32	1.2	38	4%	1%	95%	1.2	2	0	31
PM Hockey		87	87		104					4	1	84
In	1	38	38	1.2	46	4%	1%	95%	1.2	2	0	37
Out	Rinks	49	49	1.2	59	4%	1%	95%	1.2	2	1	47
Total PM Peak Hour			205		245					10	2	197
In			124		149					6	1	119
Out			81		97					4	1	78

Notes:
Skating Rinks trip rate based on projections provided by the Skating Club of Boston on future ice use.
Hockey Rink trip rate based on study of Mark Bavis Ice Arena (formally Mass Sports Club) in Rockland, MA.

Mode Split: Based on historic trends at the Skating Club of Boston

Skating Club of Boston
Expanded PNF
Trip Generation Estimate
August 2013

Ice Skating Rink Trip Generation

	Size	Trip Rate	Unadjusted Vehicle Trips	VOR	Person Trips	Transit Share	Walk/Other Share	Vehicle Share	Local VOR	Transit Trips	Walk/Other Trips	Vehicle Trips
Daily Total		1.26	3,326		3992					319	1597	1,730
In	2,640	0.63	1663	1.2	1996	8%	40%	52%	1.2	160	798	865
Out	Seats	0.63	1663	1.2	1996	8%	40%	52%	1.2	160	798	865
AM Peak		N/A										
In	2,640											
Out	Seats											
PM Peak		0.12	317		380					35	175	142
In	2,640	0.05*	143	1.2	171	7%	46%	47%	1.2	12	79	67
Out	Seats	0.07*	174	1.2	209	11%	46%	43%	1.2	23	96	75

Notes:
1. ITE LUC 465, Ice Skating Rink, 9th Edition (average rate) was used.
2. Trip rate based upon single data observation, a 300-seat hockey rink.
3. Only independent variable available for weekday analysis is seats.
4. Trip rate for the AM peak hour not available.
* Direction distribution assumed from other independent variables.

Mode Split: BTD Area 17

Skating Club of Boston
Expanded PNF
Trip Generation Estimate
August 2013

ITE Unadjusted Trip Generation

(MEPA Threshold Analysis)

	Size	Trip Rate	Unadjusted Vehicle Trips
Daily Total		1.26	3,326
In	2,640	0.63	1,663
Out	Seats	0.63	1,663
Total Daily			3,326
In			1,663
Out			1,663

Notes:
1. ITE LUC 465, Ice Skating Rink, 9th Edition (average rate) was used.
2. Trip rate based upon single data observation, a 300-seat hockey rink.
3. Only independent variable available for weekday analysis is seats.

Trip Distribution

AM Peak
PM Peak

Skating Club of Boston
Trip Distribution
AM Peak

				Background Projects												2017 Project Trips			
	Raw Volumes	Rounded Volumes	Balanced Volumes	Charlesview Redevelopment	New Brighton Landing	Penniman	District 9	37 N Beacon	Harvard Allston	Harvard Science	Barry's Corner	375 Market St	Total	2017 Grown	2017 No-Build	% IN	% OUT	Trips	2017 Build
Birmingham Pkwy/Lincoln St/Market St																			
Birmingham SB Right	94	95	95	-	0	0	0	0	3	0	0	0	3	97	100	0%	0%	0	100
Birmingham SB Thru	702	700	700	-	134	0	0	0	11	1	0	3	149	718	867	0%	0%	0	867
Birmingham SB U-turn	11	10	10	-	0	0	0	0	0	0	0	0	0	10	10	0%	0%	0	10
Lincoln WB Right	42	40	40	-	39	0	0	0	0	0	0	0	39	41	80	0%	0%	0	80
Lincoln WB Thru	168	170	170	-	0	0	0	0	0	0	1	0	1	174	175	0%	1%	0	175
Lincoln WB Left	109	110	110	-	0	0	0	0	0	0	0	0	0	113	113	0%	1%	0	113
Market NB Thru	717	715	715	-	22	0	2	1	10	8	0	10	53	733	786	1%	0%	0	786
Market NB Left	36	35	35	-	6	0	0	0	0	0	0	0	6	36	42	0%	0%	0	42
Birmingham EB Right	62	60	60	-	0	0	0	0	0	0	0	0	0	62	62	0%	0%	0	62
Birmingham EB Left	324	325	325	-	43	0	0	0	3	2	0	0	48	333	381	1%	0%	0	381
Soldiers Field Rd/Everett St																			
Driveway SB Right	2	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Driveway SB Thru	153	155	155	-	14	0	1	1	0	0	0	0	16	159	175	6%	0%	2	177
Driveway SB Left	17	15	15	-	0	0	0	0	0	0	0	0	0	15	15	0%	0%	0	15
Soldiers WB Thru	887	885	885	-	44	0	0	0	3	0	0	3	50	907	957	0%	0%	0	957
Everett NB Right	173	175	175	-	2	0	1	3	0	0	0	0	6	179	185	0%	6%	1	186
Everett NB Left	37	35	35	-	2	0	0	1	0	0	0	0	3	36	39	0%	0%	0	39
Soldiers EB Right	74	75	75	-	2	0	0	1	0	0	0	0	3	77	80	0%	0%	0	80
Soldiers EB Thru	1698	1700	1700	-	5	0	0	0	3	0	0	10	18	1743	1761	0%	0%	0	1761
Everett St/Western Ave																			
Everett SB Right	23	25	25	-	0	0	0	0	0	0	0	0	0	26	26	0%	0%	0	26
Everett SB Thru	119	120	120	-	16	0	1	2	0	0	0	0	19	123	142	6%	0%	2	144
Everett SB Left	48	50	50	-	0	0	0	0	0	0	0	0	0	51	51	0%	0%	0	51
Western WB Right	51	50	50	-	0	0	0	0	0	0	0	0	0	51	51	0%	0%	0	51
Western WB Thru	420	420	420	-	36	0	0	0	19	2	9	0	66	431	497	0%	0%	0	497
Western WB Left	107	105	105	-	17	0	0	1	5	1	7	0	31	108	139	4%	0%	1	140
Everett NB Right	95	95	95	-	3	0	1	2	4	4	3	0	17	97	114	0%	4%	1	115
Everett NB Thru	177	175	175	-	4	0	1	4	1	0	0	0	10	179	189	0%	6%	1	190
Everett NB Left	83	85	85	-	0	0	0	0	0	0	0	0	0	87	87	0%	6%	1	88
Western EB Right	141	140	140	-	0	0	0	0	0	0	0	0	0	144	144	8%	0%	2	146
Western EB Thru	572	570	570	-	5	0	0	0	18	16	4	0	43	584	627	0%	0%	0	627
Western EB Left	16	15	15	-	0	0	0	0	0	0	0	0	0	15	15	0%	0%	0	15
Everett St/Holton St																			
Everett SB Right	18	20	20	-	0	0	0	0	0	0	1	0	1	21	22	0%	0%	0	22
Everett SB Thru	311	310	340	-	34	0	1	3	5	1	6	0	50	349	399	18%	0%	5	403
Everett SB Left	11	10	10	-	0	0	0	0	0	0	0	0	0	10	10	0%	0%	0	10
Holton WB Right	30	30	30	-	0	0	0	0	0	0	0	0	0	31	31	0%	0%	0	31
Holton WB Thru	7	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Holton WB Left	31	30	30	-	0	0	0	0	0	0	0	0	0	31	31	0%	0%	0	31
Everett NB Right	14	15	15	-	0	0	0	0	0	0	0	0	0	15	15	0%	0%	0	15
Everett NB Thru	339	340	340	-	7	0	2	6	5	4	3	0	27	349	376	0%	16%	2	378
Everett NB Left	6	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5

Skating Club of Boston

Trip Distribution

AM Peak

Everett St/Rear Driveway/Everett Ext.																			
Everett SB Right	1	0	0	-	0	0	0	0	0	0	0	0	0	0	0	18%	0%	5	5
Everett SB Slight Right	327	325	325	-	34	0	1	3	5	1	5	0	49	333	382	0%	0%	0	382
Everett SB Thru	65	65	65	-	0	0	0	0	0	0	1	0	1	67	68	0%	0%	0	68
Everett Ext. NB Thru (at grade)	42	40	40	-	0	0	0	0	0	0	0	0	0	41	41	0%	4%	1	42
Everett Ext. NB Left (at grade)	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	7%	0%	2	2
Everett Ext. NB Sharp Left (at grade)	24	25	25	-	0	0	0	0	0	0	0	0	0	26	26	0%	0%	0	26
Everett NB Sharp Right (overpass)	24	25	25	-	0	0	0	0	0	0	0	0	0	26	26	0%	0%	0	26
Everett NB Slight Left (overpass)	305	305	305	-	7	0	2	6	5	4	3	0	27	313	340	0%	0%	0	340
Everett NB Sharp Left (overpass)	1	0	0	-	0	0	0	0	0	0	0	0	0	0	0	16%	0%	4	4
Driveway EB Sharp Right	3	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	16%	2	7
Driveway EB Right	2	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	17%	2	7
Driveway EB Left	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%	12%	2	2
Everett St/North Beacon St																			
Everett SB Right	90	90	90	-	0	1	1	6	2	0	2	0	12	92	104	0%	5%	1	105
Everett SB Left	145	145	145	-	0	1	0	2	3	1	3	0	10	149	159	0%	11%	1	160
N. Beacon WB Right	144	145	145	-	0	0	0	2	2	2	1	0	7	149	156	11%	0%	3	159
N. Beacon WB Thru	375	375	375	-	343	3	2	6	0	0	0	0	354	384	738	0%	0%	0	738
N. Beacon EB Thru	504	505	505	-	77	1	7	10	0	0	0	0	95	518	613	0%	0%	0	613
N. Beacon EB Left	187	185	185	-	7	0	2	3	3	2	2	0	19	190	209	5%	0%	1	210
Site Driveway/Lincoln St																			
Driveway SB Right	2	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	1%	0	5
Driveway SB Left	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0	0
Lincoln WB Right	4	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Lincoln WB Thru	210	210	210	-	43	0	0	0	0	0	1	0	44	215	259	0%	1%	0	259
Lincoln EB Thru	140	140	140	-	0	0	0	0	0	0	0	0	0	144	144	0%	0%	0	144
Lincoln EB Left	7	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Everett St Ext./Lincoln St																			
Everett Ext. SB Right	34	35	35	-	0	0	0	0	0	0	1	0	1	36	37	0%	0%	0	37
Everett Ext. SB Left	35	35	35	-	0	0	0	0	0	0	0	0	0	36	36	0%	17%	2	38
Lincoln WB Right	48	50	50	-	0	0	0	0	0	0	0	0	0	51	51	7%	0%	2	53
Lincoln WB Thru	185	185	185	-	0	0	0	0	0	0	0	0	0	190	190	59%	0%	16	206
Lincoln EB Thru	106	105	105	-	0	0	0	0	0	0	0	0	0	108	108	0%	49%	6	114
Lincoln EB Left	35	35	35	-	0	0	0	0	0	0	0	0	0	36	36	0%	4%	1	36
Lincoln St/Cambridge St																			
Lincoln SB Right	74	75	75	-	0	0	0	0	0	0	0	0	0	77	77	0%	0%	0	77
Lincoln SB Thru	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0	0
Lincoln SB Left	127	125	125	-	0	0	0	0	0	0	0	0	0	128	128	0%	66%	9	137
Cambridge WB Right	90	90	90	-	43	0	0	0	0	0	0	0	43	92	135	66%	0%	18	153
Cambridge WB Thru	1052	1050	1050	-	272	2	2	8	16	1	0	0	301	1077	1378	0%	0%	0	1378
Cambridge WB Left	9	10	10	-	0	0	0	0	0	0	0	0	0	10	10	0%	0%	0	10
Cambridge WB U-Turn	2	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Driveway NB Right	8	10	10	-	0	0	0	0	0	0	0	0	0	10	10	0%	0%	0	10
Driveway NB Thru	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0	0
Driveway NB Left	3	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Cambridge EB Right	2	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Cambridge EB Thru	1633	1635	1635	-	63	7	6	12	15	8	0	0	111	1676	1787	0%	0%	0	1787
Cambridge EB Left	69	70	70	-	0	0	0	0	0	0	0	0	0	72	72	0%	0%	0	72
Cambridge EB U-Turn	12	10	10	-	0	0	0	0	0	0	0	0	0	10	10	0%	0%	0	10

Skating Club of Boston
Trip Distribution
PM Peak

										Background Projects							2017 Project Trips		
Intersection	**Raw Volumes**	**Rounded Volumes**	**Balanced Volumes**	**Charlesview Redevelopment**	**New Brighton Landing**	**Penniman**	**District 9**	**37 N Beacon**	**Harvard Allston**	**Harvard Science**	**Barry's Corner**	**375 Market St**	**Total**	**2017 Grown**	**2017 No-Build**	**% IN**	**% OUT**	**Trips**	**2017 Build**
Birmingham Pkwy/Lincoln St/Market St																			
Birmingham SB Right	180	180	180	-	0	0	0	0	3	2	0	0	5	185	190	0%	0%	0	190
Birmingham SB Thru	853	855	855	-	47	0	1	0	14	8	0	10	80	877	957	0%	0%	0	957
Birmingham SB U-turn	4	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Lincoln WB Right	45	45	45	-	0	0	0	0	0	0	0	0	0	46	46	0%	0%	0	46
Lincoln WB Thru	185	185	185	-	0	0	0	0	0	0	1	0	1	190	191	0%	1%	1	191
Lincoln WB Left	109	110	110	-	34	0	0	0	0	0	0	0	34	113	147	0%	1%	1	148
Market NB Thru	942	940	940	-	135	0	0	1	15	1	0	5	157	964	1121	1%	0%	1	1122
Market NB Left	97	95	95	-	40	0	0	0	0	0	0	0	40	97	137	0%	0%	0	137
Birmingham EB Right	43	45	45	-	16	0	0	0	0	0	0	0	16	46	62	0%	0%	0	62
Birmingham EB Left	173	175	175	-	0	0	0	0	3	0	0	0	3	179	182	1%	0%	1	184
Soldiers Field Rd/Everett St																			
Driveway SB Right	3	5	5	-	1	0	0	0	0	0	0	0	1	5	6	0%	0%	0	6
Driveway SB Thru	175	175	175	-	8	0	2	4	0	0	0	0	14	179	193	6%	0%	7	201
Driveway SB Left	22	20	20	-	0	0	0	0	0	0	0	0	0	21	21	0%	0%	0	21
Soldiers WB Thru	1507	1505	1505	-	41	0	0	0	3	0	0	10	54	1543	1597	0%	0%	0	1597
Everett NB Right	165	165	165	-	14	0	0	4	0	0	0	0	18	169	187	0%	6%	5	192
Everett NB Left	78	80	80	-	5	0	0	2	0	0	0	0	7	82	89	0%	0%	0	89
Soldiers EB Right	40	40	40	-	2	0	0	1	0	0	0	0	3	41	44	0%	0%	0	44
Soldiers EB Thru	1215	1215	1215	-	133	0	0	0	3	0	0	5	141	1246	1387	0%	0%	0	1387
Everett St/Western Ave																			
Everett SB Right	37	35	35	-	0	0	0	0	0	0	0	0	0	36	36	0%	0%	0	36
Everett SB Thru	173	175	175	-	10	0	2	5	0	0	0	0	17	179	196	6%	0%	7	204
Everett SB Left	28	30	30	-	0	0	0	0	0	0	0	0	0	31	31	0%	0%	0	31
Western WB Right	65	65	65	-	0	0	0	0	0	0	0	0	0	67	67	0%	0%	0	67
Western WB Thru	537	535	535	-	13	0	0	0	24	16	12	0	65	549	614	0%	0%	0	614
Western WB Left	128	130	130	-	11	0	0	4	7	4	10	0	36	133	169	4%	0%	5	174
Everett NB Right	83	85	85	-	20	0	0	4	6	1	14	0	45	87	132	0%	4%	3	135
Everett NB Thru	126	125	145	-	19	0	0	6	1	0	0	0	26	149	175	0%	6%	5	179
Everett NB Left	92	90	90	-	0	1	0	0	0	0	0	0	1	92	93	0%	6%	5	98
Western EB Right	171	170	170	-	0	1	0	0	0	0	0	0	1	174	175	8%	0%	10	185
Western EB Thru	505	505	505	-	37	0	0	0	25	2	17	0	81	518	599	0%	0%	0	599
Western EB Left	12	10	10	-	0	0	0	0	0	0	0	0	0	10	10	0%	0%	0	10
Everett St/Holton St																			
Everett SB Right	35	35	35	-	0	0	0	0	0	0	1	0	1	36	37	0%	0%	0	37
Everett SB Thru	395	395	395	-	25	1	2	9	7	4	9	0	57	405	462	18%	0%	21	483
Everett SB Left	20	20	20	-	0	0	0	0	0	0	0	0	0	21	21	0%	0%	0	21
Holton WB Right	19	20	20	-	0	0	0	0	0	0	0	0	0	21	21	0%	0%	0	21
Holton WB Thru	13	15	15	-	0	0	0	0	0	0	0	0	0	15	15	0%	0%	0	15
Holton WB Left	16	15	15	-	0	0	0	0	0	0	0	0	0	15	15	0%	0%	0	15
Everett NB Right	16	15	15	-	0	0	0	0	0	0	0	0	0	15	15	0%	0%	0	15
Everett NB Thru	317	315	315	-	44	1	0	10	7	1	0	0	63	323	386	0%	16%	12	398
Everett NB Left	19	20	20	-	0	0	0	0	0	0	0	0	0	21	21	0%	0%	0	21

Skating Club of Boston

Trip Distribution

PM Peak

Everett St/Rear Driveway/Everett Ext.																			
Everett SB Right	1	0	0	-	0	0	0	0	0	0	0	0	0	0	0	18%	0%	21	21
Everett SB Slight Right	374	375	375	-	25	1	2	9	7	4	8	0	56	384	440	0%	0%	0	440
Everett SB Thru	61	60	60	-	0	0	0	0	0	0	1	0	1	62	63	0%	0%	0	63
Everett Ext. NB Thru (at grade)	77	75	65	-	0	0	0	0	0	0	1	1	2	67	69	0%	4%	3	72
Everett Ext. NB Left (at grade)	2	5	5	-	0	0	0	0	0	0	0	0	0	5	5	7%	0%	8	13
Everett Ext. NB Sharp Left (at grade)	55	55	50	-	0	0	0	0	0	0	0	0	0	51	51	0%	0%	0	51
Everett NB Sharp Right (overpass)	37	35	35	-	0	0	0	0	0	0	0	0	0	36	36	0%	0%	0	36
Everett NB Slight Left (overpass)	258	260	260	-	44	1	0	10	7	1	12	0	75	267	342	0%	0%	0	342
Everett NB Sharp Left (overpass)	3	5	5	-	0	0	0	0	0	0	0	0	0	5	5	16%	0%	19	24
Driveway EB Sharp Right	8	10	10	-	0	0	0	0	0	0	0	0	0	10	10	0%	16%	12	23
Driveway EB Right	1	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%	17%	13	13
Driveway EB Left	7	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	12%	9	14
Everett St/North Beacon St																			
Everett SB Right	129	130	130	-	0	0	2	8	3	2	3	0	18	133	151	0%	5%	4	155
Everett SB Left	236	235	235	-	0	0	0	3	4	2	5	0	14	241	255	0%	11%	9	264
N. Beacon WB Right	108	110	110	-	0	1	0	4	3	0	6	0	14	113	127	11%	0%	13	140
N. Beacon WB Thru	455	455	455	-	162	3	4	24	0	0	0	0	193	466	659	0%	0%	0	659
N. Beacon EB Thru	538	540	540	-	419	5	1	18	0	0	0	0	443	554	997	0%	0%	0	997
N. Beacon EB Left	143	145	145	-	44	0	0	8	4	0	6	0	62	149	211	5%	0%	6	217
Site Driveway/Lincoln St																			
Driveway SB Right	7	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	1%	1	6
Driveway SB Left	10	10	10	-	0	0	0	0	0	0	0	0	0	10	10	0%	0%	0	10
Lincoln WB Right	3	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Lincoln WB Thru	297	295	295	-	34	0	0	0	0	0	1	0	35	302	337	0%	1%	1	338
Lincoln EB Thru	127	125	125	-	0	0	0	0	0	0	0	0	0	128	128	0%	0%	0	128
Lincoln EB Left	6	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Everett St Ext./Lincoln St																			
Everett Ext. SB Right	36	35	40	-	0	0	0	0	0	0	1	0	1	41	42	0%	0%	0	42
Everett Ext. SB Left	28	30	35	-	0	0	0	0	0	0	0	0	0	36	36	0%	17%	13	49
Lincoln WB Right	65	65	65	-	0	0	0	0	0	0	1	0	1	67	68	7%	0%	8	76
Lincoln WB Thru	263	265	265	-	34	0	0	0	0	0	0	0	34	272	306	59%	0%	70	376
Lincoln EB Thru	102	100	100	-	0	0	0	0	0	0	0	0	0	103	103	0%	49%	38	141
Lincoln EB Left	30	30	30	-	0	0	0	0	0	0	0	0	0	31	31	0%	4%	3	34
Lincoln St/Cambridge St																			
Lincoln SB Right	63	65	65	-	0	0	0	0	0	0	0	0	0	67	67	0%	0%	0	67
Lincoln SB Thru	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0	0
Lincoln SB Left	150	150	150	-	0	0	0	0	0	0	0	0	0	154	154	0%	66%	51	205
Cambridge WB Right	144	145	145	-	34	0	0	0	0	0	1	0	35	149	184	66%	0%	79	262
Cambridge WB Thru	1282	1280	1280	-	106	10	3	22	21	8	0	0	170	1312	1482	0%	0%	0	1482
Cambridge WB Left	2	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Cambridge WB U-Turn	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0	0
Driveway NB Right	3	5	5	-	0	0	0	0	0	0	0	0	0	5	5	0%	0%	0	5
Driveway NB Thru	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0	0
Driveway NB Left	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0	0
Cambridge EB Right	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0	0
Cambridge EB Thru	1487	1485	1485	-	331	6	0	16	22	1	0	0	376	1522	1898	0%	0%	0	1898
Cambridge EB Left	122	120	120	-	0	0	0	0	0	0	0	0	0	123	123	0%	0%	0	123
Cambridge EB U-Turn	18	20	20	-	0	0	0	0	0	0	0	0	0	21	21	0%	0%	0	21

Crash/Accident Analysis

Vehicular Crash Summary (2008-2010)

Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Street	Intersection	Distance From Nearest Intersection	Vehicles Travel Directions	Most Harmful Events	Vehicle Configuration	Non Motorist Type
1/27/2008	9:00 AM	Non-fatal injury	2	1	0	Rear-end	Wet	Daylight	Snow	CAMBRIDGE STREET / LINCOLN STREET	CAMBRIDGE STREET / LINCOLN STREET		V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	
2/9/2008	4:08 AM	Non-fatal injury	1	1	0	Single vehicle crash	Wet	Dark - lighted roadway	Cloudy	BIRMINGHAM PARKWAY / LINCOLN STREET	BIRMINGHAM PARKWAY / LINCOLN STREET		V1:Southbound	V1: Collision with curb	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	
3/12/2008	5:09 PM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Clear			BIRMINGHAM PARKWAY / MARKET STREET	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	
4/11/2008	7:30 AM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear			WESTERN AVENUE / EVERETT STREET	V1:Eastbound / V2:Eastbound	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	
4/15/2008	10:30 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear			SOLDIERS FIELD ROAD / EVERETT STREET	V1:Eastbound / V2:Eastbound	V1: Collision with curb / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Not reported	
5/13/2008	5:15 AM	Non-fatal injury	2	1	0	Rear-end	Dry	Daylight	Clear			100 feet E from Intersection 252 WESTERN AVENUE / EVERETT STREET	V1:Eastbound / V2:Eastbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	
5/21/2008	10:15 PM	Non-fatal injury	2	1	0	Rear-end	Wet	Dark - lighted roadway	Rain	SOLDIERS FIELD ROAD / EVERETT STREET	SOLDIERS FIELD ROAD / EVERETT STREET		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	
6/5/2008	3:30 PM	Non-fatal injury	2	1	0	Rear-end	Wet	Daylight	Rain	CAMBRIDGE STREET / LINCOLN STREET	CAMBRIDGE STREET / LINCOLN STREET		V1:Not reported / V2:Eastbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	
6/8/2008	4:45 AM	Property damage only	2	0	0	Sideswipe, opposite	Dry	Daylight	Clear	WESTERN AVENUE / EVERETT	WESTERN AVENUE / EVERETT		V1:Westbound / V2:Northbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	
6/13/2008	10:20 AM	Property damage only	2	0	0	Sideswipe, same	Dry	Daylight	Clear			305 WESTERN AVENUE	V1:Not reported / V2:Eastbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	
6/15/2008	9:10 AM	Non-fatal injury	1	2	0	Single vehicle crash	Wet	Daylight	Cloudy/Rain			SOLDIERS FIELD ROAD / EVERETT STREET	V1:Eastbound	V1: Collision with light pole or other post/support	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	
7/12/2008	9:45 PM	Non-fatal injury	2	1	0	Not reported	Dry	Dark - lighted	Clear	EVERETT STREET / HOLTON STREET	EVERETT STREET / HOLTON		V1:Southbound / V2:Not reported	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	
7/17/2008	4:30 AM	Unknown	2	0	0	Rear-end	Dry	Daylight	Clear	SOLDIERS FIELD ROAD / EVERETT	SOLDIERS FIELD ROAD /		V1:Westbound / V2:Westbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	
7/18/2008	6:00 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	SOLDIERS FIELD PARK / EVERETT STREET / WESTERN AVENUE	SOLDIERS FIELD PARK / EVERETT STREET / WESTERN		V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Motorcycle	
7/19/2008	11:11 PM	Property damage only	2	0	0	Sideswipe, opposite	Dry	Dawn	Clear			WESTERN AVENUE / EVERETT STREET	V1:Northbound / V2:Not reported	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	
7/24/2008	8:47 PM	Non-fatal injury	2	1	0	Rear-end	Wet	Dark - roadway not lighted	Rain	CAMBRIDGE STREET / LINCOLN STREET	CAMBRIDGE STREET / LINCOLN STREET		V1:Eastbound / V2:Eastbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	
8/6/2008	3:04 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Cloudy			70 BIRMINGHAM PARKWAY / LINCOLN STREET	V1:Westbound / V2:Westbound	V1: Collision with parked motor vehicle / V2: Collision with parked motor vehicle	V1: Passenger car / V2:Unknown heavy truck, cannot classify	
8/7/2008	5:10 AM	Property damage only (none injured)	2	0	0	Not reported	Wet	Daylight	Rain	CAMBRIDGE STREET / LINCOLN STREET	CAMBRIDGE STREET / LINCOLN STREET		V1:Eastbound / V2:Eastbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	
9/28/2008	11:40 AM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Daylight	Rain			SOLDIERS FIELD ROAD / EVERETT STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	
10/15/2008	6:15 PM	Non-fatal injury	2	2	0	Rear-end	Dry	Daylight	Clear			LINCOLN STREET / EVERETT STREET	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Not reported	
10/22/2008	3:10 AM	Non-fatal injury	2	1	0	Not reported	Wet	Daylight	Rain	EVERETT STREET / HOLTON STREET	EVERETT STREET / HOLTON		V1:Not reported / V2:Westbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Not reported	
11/8/2008	3:40 PM	Non-fatal injury	2	5	0	Angle	Dry	Daylight	Cloudy	SOLDIERS FIELD ROAD / EVERETT STREET	SOLDIERS FIELD ROAD / EVERETT STREET		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	
11/16/2008	3:09 AM	Fatal injury	1	0	1	Single vehicle crash	Wet	Dark - lighted roadway	Rain	SOLDIERS FIELD ROAD / EVERETT STREET	SOLDIERS FIELD ROAD / EVERETT STREET	1170 SOLDIERS FIELD ROAD	V1:Eastbound	V1: Collision with pedestrian	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	P1:Pedestrian
11/28/2008	6:45 AM	Property damage only	2	0	0	Not reported	Wet	Dark - roadway not	Clear			CAMBRIDGE STREET / LINCOLN	V1:Eastbound / V2:Eastbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	
12/21/2008	1:30 PM	Not Reported	2	0	0	Not reported	Snow	Daylight	Snow	BIRMINGHAM PARKWAY / SOLDIERS FIELD ROAD / LINCOLN STREET	BIRMINGHAM PARKWAY / SOLDIERS FIELD ROAD /		V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	
1/14/2009	5:39 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Dark - lighted roadway	Clear			SOLDIERS FIELD ROAD / EVERETT STREET	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	
4/21/2009	8:30 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Dark - lighted roadway	Rain			312 WESTERN AVENUE / EVERETT STREET	V1:Westbound / V2:Westbound	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Passenger car	
5/10/2009	9:40 AM	Non-fatal injury	2	1	0	Angle	Dry	Daylight	Not Reported	SOLDIERS FIELD ROAD / EVERETT STREET	SOLDIERS FIELD ROAD / EVERETT STREET		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	
5/15/2009	6:34 PM	Property damage only (none injured)	2	0	0	Rear-end	Dry	Daylight	Clear	SOLDIERS FIELD ROAD / EVERETT STREET	SOLDIERS FIELD ROAD / EVERETT STREET		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	
5/21/2009	9:20 AM	Property damage only	2	0	0	Not reported	Wet	Daylight	Cloudy	EVERETT STREET / WESTERN	EVERETT STREET / WESTERN		V1:Southbound / V2:Northbound	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	
6/25/2009	10:03 AM	Property damage only (none injured)	2	0	0	Angle	Dry	Daylight	Not Reported			SOLDIERS FIELD ROAD / EVERETT STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	
7/24/2009	8:30 AM	Non-fatal injury	2	1	0	Rear-end	Wet	Daylight	Cloudy/Rain			SOLDIERS FIELD ROAD / EVERETT STREET	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	
8/1/2009	7:00 PM	Not Reported	3	0	0	Rear-end	Dry	Daylight	Clear			1234 SOLDIERS FIELD ROAD	V1:Eastbound / V2:Eastbound / V3:Eastbound	V1: Not reported / V2: Not reported / V3: Not reported	V1: Not reported / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V3:Passenger car	
9/15/2009	7:32 AM	Non-fatal injury	3	1	0	Head-on	Dry	Daylight	Clear			SOLDIERS FIELD ROAD	V1:Eastbound / V2:Westbound / V3:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car / V3:Passenger car	
10/19/2009	1:11 PM	Not Reported	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	WESTERN AVENUE / EVERETT STREET	WESTERN AVENUE / EVERETT STREET		V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Not reported	V1: Not reported / V2:Not reported	
10/30/2009	7:42 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	Dry	Daylight	Clear	BIRMINGHAM PARKWAY / MARKET STREET	BIRMINGHAM PARKWAY / MARKET STREET		V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	
11/23/2009	7:41 PM	Property damage only (none injured)	2	0	0	Rear-end	Wet	Dark - lighted roadway	Cloudy	SOLDIERS FIELD ROAD / EVERETT STREET	SOLDIERS FIELD ROAD / EVERETT STREET		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	
1/5/2010	11:00 AM	Not Reported	2	0	0	Rear-end	Wet	Daylight	Snow/Other	WESTERN AVENUE / EVERETT STREET	WESTERN AVENUE / EVERETT STREET		V1:Not reported / V2:Not reported	V1: Not reported / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	
1/14/2010	11:30 AM	Non-fatal injury	2	1	0	Rear-end	Wet	Daylight	Clear	CAMBRIDGE STREET / LINCOLN STREET	CAMBRIDGE STREET / LINCOLN STREET		V1:Westbound / V2:Not reported	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Not reported	

Crash Date	Crash Time	Crash Severity	Total Vehicles	Total Injured	Total Fatals	Collision manner	Road Surface	Lighting	Weather	Street	Intersection	Distance From Nearest Intersection	Vehicles Travel Directions	Most Harmful Events	Vehicle Configuration	Non Motorist Type
2/9/2010	11:08 AM	Non-fatal injury	2	1	0	Rear-end	Dry	Daylight	Clear			BIRMINGHAM PARKWAY / LINCOLN STREET	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	
5/20/2010	2:43 AM	Non-fatal injury	3	1	0	Rear-end	Dry	Dark - lighted roadway	Clear			BIRMINGHAM PARKWAY / LINCOLN STREET	V1:Northbound / V2:Northbound / V3:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car / V3:Passenger car	
7/24/2010	11:31 PM	Property damage only (none injured)	2	0	0	Angle	Dry	Dark - lighted roadway	Clear/Clear	CAMBRIDGE STREET / LINCOLN STREET	CAMBRIDGE STREET / LINCOLN STREET		V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Not reported / V2:Not reported	
8/29/2010	4:10 AM	Non-fatal injury	1	1	0	Single vehicle crash	Dry	Dark - lighted roadway	Not Reported			BIRMINGHAM PARKWAY / MARKET STREET	V1:Southbound	V1: Collision with light pole or other post/support	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	
9/23/2010	6:47 PM	Not Reported	1	0	0	Sideswipe, opposite direction	Dry	Dark - lighted roadway	Clear/Clear	EVERETT STREET / HOLTON STREET	EVERETT STREET / HOLTON STREET		V1:Westbound	V1: Not reported	V1: Not reported	P2:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)
11/3/2010	7:00 PM	Property damage only	2	0	0		Dry	Dark - lighted	Cloudy			EVERETT STREET Rte 20 / Rte 20	V1:Not reported / V2:Southbound	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	
11/17/2010	9:50 AM	Property damage only (none injured)	2	0	0	Angle	Wet	Daylight	Cloudy			SOLDIERS FIELD ROAD / EVERETT STREET	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	
12/27/2010	4:40 PM	Property damage only (none injured)	2	0	0	Rear-end	Snow	Dusk	Cloudy/Snow	SOLDIERS FIELD ROAD / EVERETT STREET	SOLDIERS FIELD ROAD / EVERETT STREET		V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston (Brighton) COUNT DATE : Nov. 15, 2011

DISTRICT : 6 UNSIGNALIZED : SIGNALIZED : X

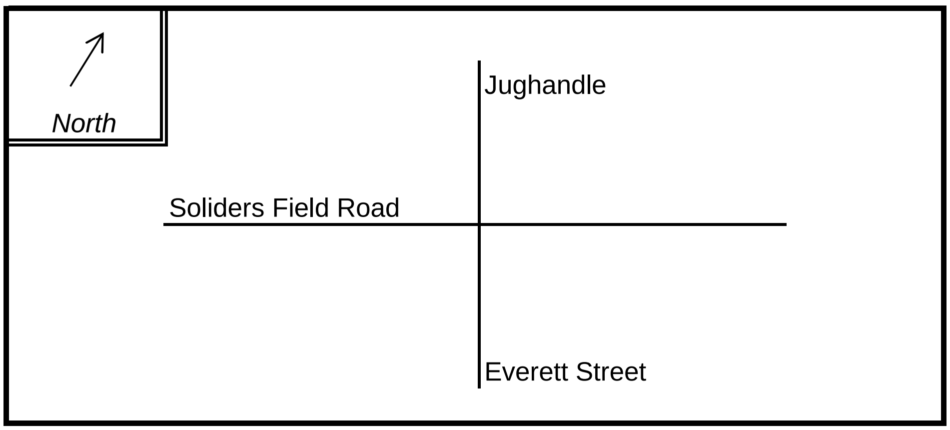
~ INTERSECTION DATA ~

MAJOR STREET : Soliders Field Road

MINOR STREET(S) : Everett Street

Jughandle

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	SB	EB	WB		
PEAK HOURLY VOLUMES (AM/PM) :	243	200	1,255	1,507		3,205

" K " FACTOR : **0.09** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **35,611**

TOTAL # OF CRASHES : 16 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **5.33**

CRASH RATE CALCULATION : **0.41** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments :

Project Title & Date: Boston Skating Club, October 2012

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston (Brighton) COUNT DATE : Nov. 15, 2011

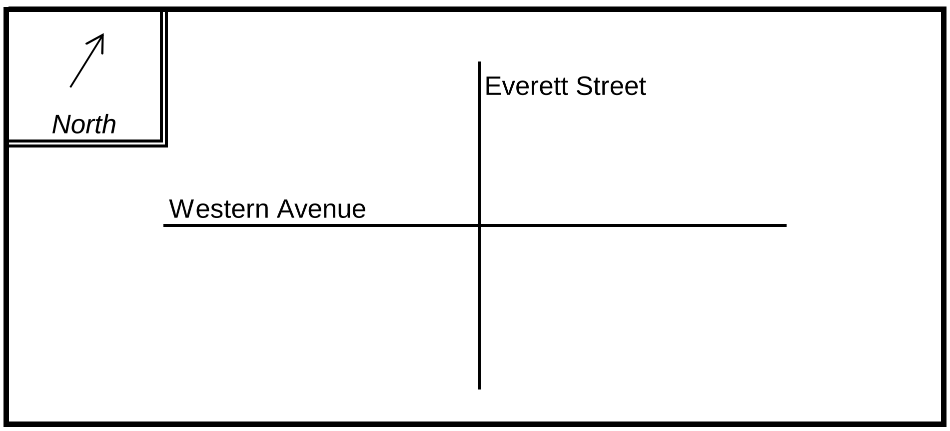
DISTRICT : 6 UNSIGNALIZED : SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Western Avenue

MINOR STREET(S) : Everett Street

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	SB	EB	WB		
PEAK HOURLY VOLUMES (AM/PM) :	301	238	688	730		1,957

" K " FACTOR : **0.09** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **21,744**

TOTAL # OF CRASHES : 10 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **3.33**

CRASH RATE CALCULATION : **0.42** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments :

Project Title & Date: Boston Skating Club, October 2012

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston (Brighton) COUNT DATE : Nov. 15, 2011

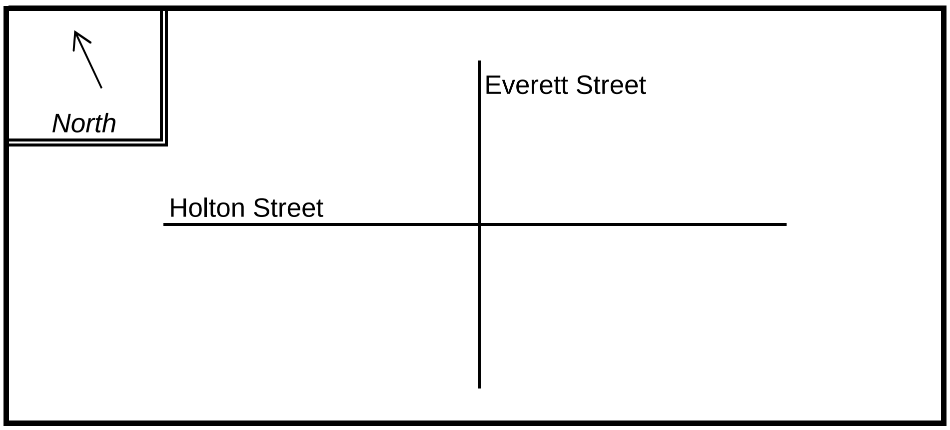
DISTRICT : 6 UNSIGNALIZED : SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Everett Street

MINOR STREET(S) : Holton Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	SB	WB			
PEAK HOURLY VOLUMES (AM/PM) :	352	450	48			850

" K " FACTOR :	0.09	INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME :	9,444
TOTAL # OF CRASHES :	3	# OF YEARS : 3 — AVERAGE # OF CRASHES PER YEAR (**A**) :	1.00

CRASH RATE CALCULATION : **0.29** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments :

Project Title & Date: Boston Skating Club, October 2012

Moving Massachusetts Forward. massDOT Highway

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston (Brighton) COUNT DATE : Nov. 15, 2011

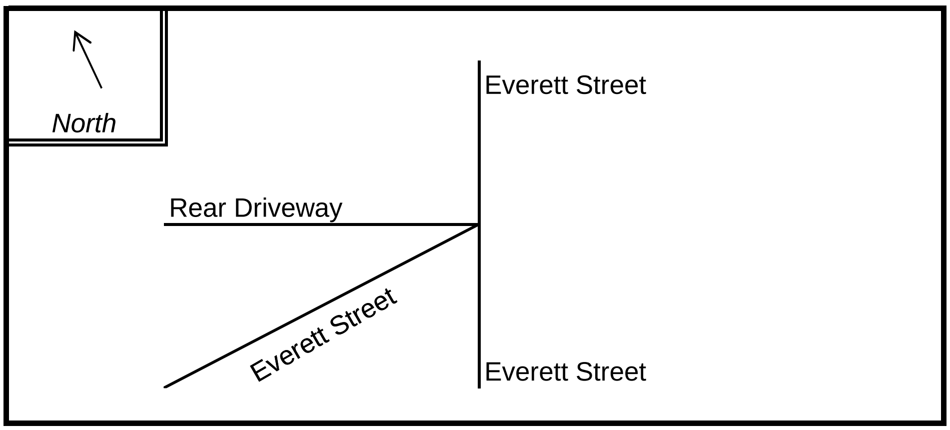
DISTRICT : 6 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Everett Street

MINOR STREET(S) : Rear Driveway

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	SB	EB	NEB		
PEAK HOURLY VOLUMES (AM/PM) :	134	436	16	295		**881**

" K " FACTOR : **0.09**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **9,789**

TOTAL # OF CRASHES : 0

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.00**

CRASH RATE CALCULATION : **0.00**

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

Comments :

Project Title & Date: Boston Skating Club, October 2012

Moving Massachusetts Forward. massDOT Highway

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston (Brighton) COUNT DATE : Nov. 15, 2011

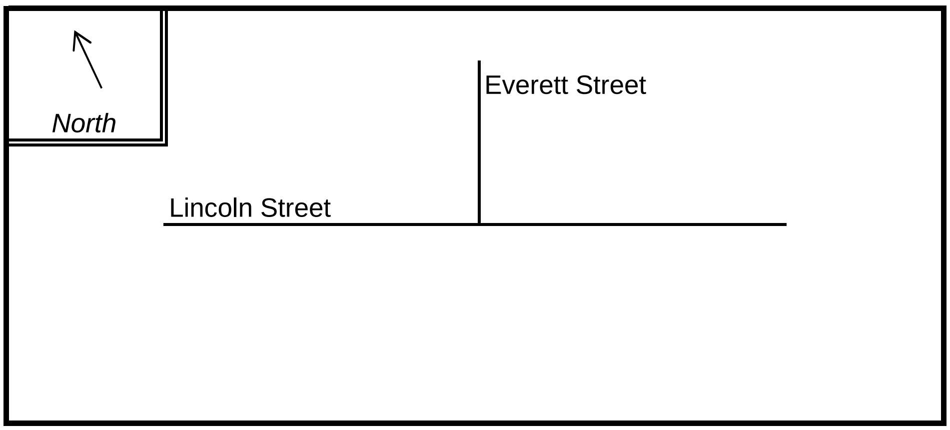
DISTRICT : 6 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Lincoln Street

MINOR STREET(S) : Everett Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	SB	EB	WB			
PEAK HOURLY VOLUMES (AM/PM) :	64	132	328			**524**

" K " FACTOR : **0.09** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **5,822**

TOTAL # OF CRASHES : 1 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.33**

CRASH RATE CALCULATION : **0.16** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments :

Project Title & Date: Boston Skating Club, October 2012

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston (Brighton) COUNT DATE : Nov. 15, 2011

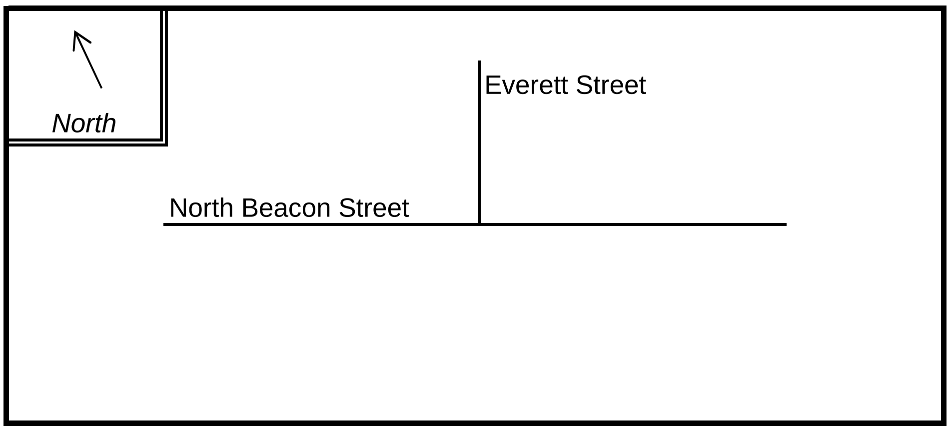
DISTRICT : 6 UNSIGNALIZED : SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : North Beacon Road/Route 20

MINOR STREET(S) : Everett Street

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	SB	EB	WB			
PEAK HOURLY VOLUMES (AM/PM) :	365	681	563			1,609

" K " FACTOR : **0.09** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **17,878**

TOTAL # OF CRASHES : 1 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.33**

CRASH RATE CALCULATION : **0.05** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments :

Project Title & Date: Boston Skating Club, October 2012

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston (Brighton) COUNT DATE : Nov. 15, 2011

DISTRICT : 6 UNSIGNALIZED : SIGNALIZED : X

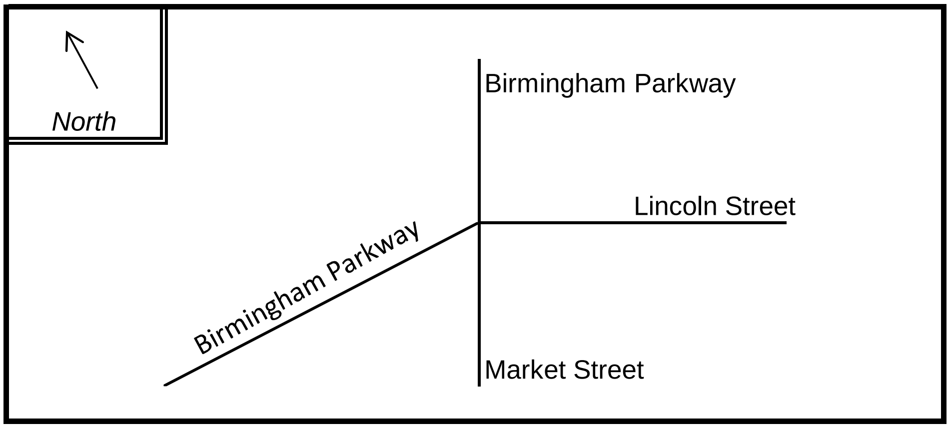
~ INTERSECTION DATA ~

MAJOR STREET : Birmingham Parkway

MINOR STREET(S) : Lincoln Street

Market Street

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	SB	WB	NEB		
PEAK HOURLY VOLUMES (AM/PM) :	1,039	1,037	339	216		**2,631**

" K " FACTOR : **0.09** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **29,233**

TOTAL # OF CRASHES : 9 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **3.00**

CRASH RATE CALCULATION : **0.28** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments :

Project Title & Date: Boston Skating Club, October 2012

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston (Brighton) COUNT DATE : Nov. 15, 2011

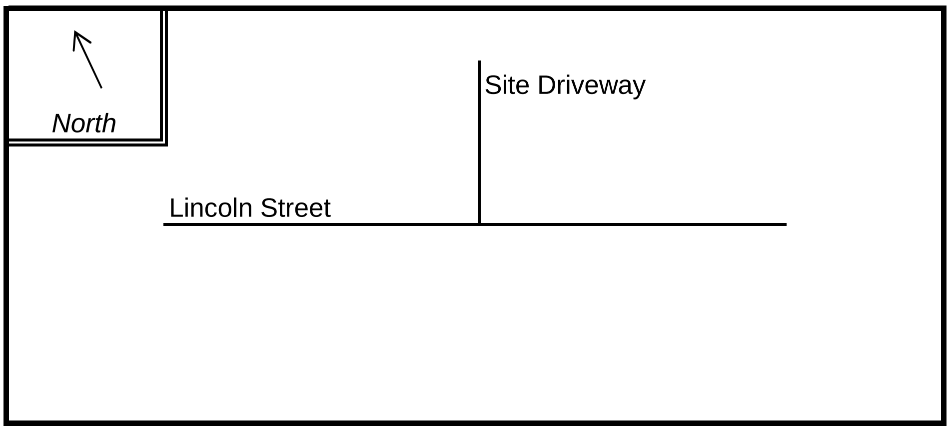
DISTRICT : 6 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Lincoln Street

MINOR STREET(S) : Site Driveway

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	SB	EB	WB			
PEAK HOURLY VOLUMES (AM/PM) :	17	133	300			450

" K " FACTOR : **0.09** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **5,000**

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 :

Project Title & Date: Boston Skating Club, October 2012

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Boston (Brighton) COUNT DATE : Nov. 15, 2011

DISTRICT : 6 UNSIGNALIZED : SIGNALIZED : X

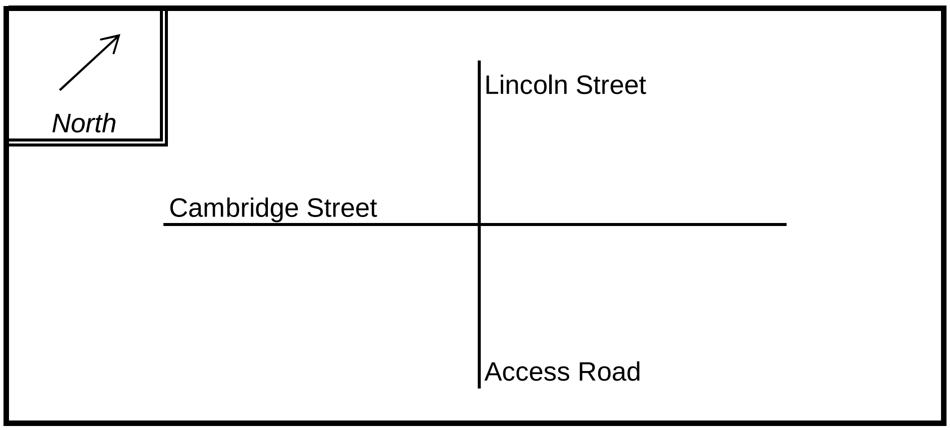
~ INTERSECTION DATA ~

MAJOR STREET : Cambridge Street

MINOR STREET(S) : Lincoln Street

Access Road

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	SB	EB	WB		
PEAK HOURLY VOLUMES (AM/PM) :	3	213	1,627	1,428		3,271

" K " FACTOR : **0.09** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **36,344**

TOTAL # OF CRASHES : 7 # OF YEARS : 3 AVERAGE # OF CRASHES PER YEAR (**A**) : **2.33**

CRASH RATE CALCULATION : **0.18** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments :

Project Title & Date: Boston Skating Club, October 2012

Appendix C
Air Quality Analysis

- **MOBILE 6.2 Input Files**

- **MOBILE 6.2 Output Files**

MOBILE SOURCE ANALYSIS

- **Microscale Input Files**
  - Carbon Monoxide (CO)
    - 2013 Existing
    - 2018 No-Build Condition
    - 2018 Build Condition
  - Particulate Matter 10 (PM10)
    - 2013 Existing
    - 2018 No-Build Condition
    - 2018 Build Condition
  - Particulate Matter 2.5 (PM2.5)
    - 2013 Existing
    - 2018 No-Build Condition
    - 2018 Build Condition

- **Microscale Output Files**
  - Carbon Monoxide (CO)
    - 2013 Existing
    - 2018 No-Build Condition
    - 2018 Build Condition
  - Particulate Matter 10 (PM10)
    - 2013 Existing
    - 2018 No-Build Condition
    - 2018 Build Condition
  - Particulate Matter 2.5 (PM2.5)
    - 2013 Existing
    - 2018 No-Build Condition
    - 2018 Build Condition

- **Microscale Results**
  - Carbon Monoxide (CO)
  - Particulate Matter 10 (PM10)
  - Particulate Matter 2.5 (PM2.5)

MOBILE 6.2 Input Files

```
* Calendar Year 2013 Generic MOBILE6 input file for Mesoscale Build/No-Build
Analyses
* Filename MA13_ALL.INP created by Craig Woleader, MADEP 617-348-4046,
craig.woleader@state.ma.us and Marc Bennett, MADEP 617-292-5597,
marc.bennett@state.ma.us
* revised 12/2/05 to include actual diesel rebuild effects
* revised 12/17/08 to include new IM program program for 2013
*
***************     Header Section     ***************
MOBILE6 INPUT FILE
*
PARTICULATES       :
POLLUTANTS         : HC CO NOX CO2
DATABASE OUTPUT    :
WITH FIELDNAMES    :
AGGREGATED OUTPUT  :
SPREADSHEET        :
EMISSIONS TABLE    : MA13_WIN.tb1 REPLACE
REPORT FILE        : MA13_WIN.txt REPLACE
*
RUN DATA
***************     Run Section     ***************
> *** Mass. 2013 with LEV II Program ***

* Pollutant output format
EXPRESS HC AS VOC  :

* Mass. specific user inputs -- require external data file
REG DIST           : 2005_REG.D
I/M DESC FILE      : 09NEWIM.D

STAGE II REFUELING :
91 3 84. 84.

* Set Diesel Rebuild effects to 10% as per EPA
REBUILD EFFECTS    : 0.10

* Inputs for LEV II
94+ LDG IMP        : MA_LEV2.D
T2 EXH PHASE-IN    : LEV2EXH.D

T2 EVAP PHASE-IN   : LEV2EVAP.D

T2 CERT            : LEV2CERT.D


* Meteorological inputs

MIN/MAX TEMP       : 22.8 38.3


* Fuel inputs
FUEL RVP           : 13.5
FUEL PROGRAM       : 2 N


DIESEL FRACTIONS   :

0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000
0.003   0.003   0.002   0.002   0.002   0.002   0.001   0.001   0.001   0.000
0.001   0.001   0.003   0.001   0.002
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
0.001   0.001   0.001   0.001   0.001   0.000   0.001   0.001   0.001   0.001
0.001   0.001   0.002   0.002   0.003
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
0.001   0.001   0.001   0.001   0.001   0.000   0.001   0.001   0.001   0.001
```

```
0.001   0.001   0.002   0.002   0.003
0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
0.005   0.005   0.005   0.005   0.006   0.005   0.012   0.012   0.017   0.015
0.014   0.016   0.017   0.014   0.018
0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
0.005   0.005   0.005   0.005   0.006   0.005   0.012   0.012   0.017   0.015
0.014   0.016   0.017   0.014   0.018
0.176   0.176   0.176   0.176   0.176   0.176   0.176   0.176   0.176   0.176
0.170   0.207   0.202   0.206   0.243   0.176   0.285   0.267   0.212   0.255
0.295   0.249   0.251   0.188   0.175
0.385   0.385   0.385   0.385   0.385   0.385   0.385   0.385   0.385   0.385
0.407   0.433   0.467   0.464   0.480   0.375   0.472   0.480   0.366   0.400
0.344   0.285   0.333   0.314   0.253
0.674   0.674   0.674   0.674   0.674   0.674   0.674   0.674   0.674   0.674
0.634   0.664   0.719   0.717   0.744   0.715   0.565   0.810   0.803   0.644
0.654   0.605   0.525   0.389   0.356
0.830   0.830   0.830   0.830   0.830   0.830   0.830   0.830   0.830   0.830
0.845   0.860   0.840   0.819   0.813   0.610   0.686   0.570   0.733   0.607
0.729   0.685   0.725   0.631   0.350
0.884   0.884   0.884   0.884   0.884   0.884   0.884   0.884   0.884   0.884
0.840   0.887   0.931   0.917   0.914   0.923   0.901   0.908   0.898   0.903
0.876   0.804   0.844   0.782   0.702
0.977   0.977   0.977   0.977   0.977   0.977   0.977   0.977   0.977   0.977
0.972   0.953   0.993   0.992   0.992   0.990   0.981   0.976   0.975   0.959
0.982   0.965   0.963   0.945   0.902
0.972   0.972   0.972   0.972   0.972   0.972   0.972   0.972   0.972   0.972
0.955   0.984   0.995   0.992   0.991   0.995   0.993   0.993   0.995   0.992
0.986   0.995   0.981   0.993   0.971
1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000
1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000
1.000   1.000   1.000   1.000   1.000
0.786   0.786   0.786   0.786   0.786   0.786   0.786   0.786   0.786   0.786
0.917   0.884   0.925   0.968   0.961   0.972   0.985   0.971   0.941   0.905
0.965   0.940   0.907   0.964   0.609

***************     Scenario Section PM 2.5    ***************

****************** Freeway Scenarios *******************

SCENARIO RECORD    : MA Freeway 2.71 mph (= minimum allowed freeway speed)

CALENDAR YEAR      : 2013

EVALUATION MONTH   : 1

AVERAGE SPEED      : 2.71 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 3 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 3 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 4 mph
```

```
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 4 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 5 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 5 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 6 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 6 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 7 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 7 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 8 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 8 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 9 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 9 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 10 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 10 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
```

```
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Arterial speed 62 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 62 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Arterial speed 63 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 63 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Arterial speed 64 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 64 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Arterial speed 65 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 1
AVERAGE SPEED      : 65 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15

***************     End of This Run     ***************
END OF RUN
```

```
* Calendar Year 2013 Generic MOBILE6 input file for Mesoscale Build/No-Build
Analyses
* Filename MA13_ALL.INP created by Craig Woleader, MADEP 617-348-4046,
craig.woleader@state.ma.us and Marc Bennett, MADEP 617-292-5597,
marc.bennett@state.ma.us
* revised 12/2/05 to include actual diesel rebuild effects
* revised 12/17/08 to include new IM program program for 2013
*
***************     Header Section     ***************
MOBILE6 INPUT FILE
*
PARTICULATES        :
POLLUTANTS          : HC CO NOX CO2
DATABASE OUTPUT     :
WITH FIELDNAMES     :
AGGREGATED OUTPUT   :
SPREADSHEET         :
EMISSIONS TABLE     : MA13_SUM.tb1 REPLACE
REPORT FILE         : MA13_SUM.txt REPLACE
*
RUN DATA
***************     Run Section     ***************
> *** Mass. 2013 with LEV II Program ***

* Pollutant output format
EXPRESS HC AS VOC  :

* Mass. specific user inputs -- require external data file
REG DIST            : 2005_REG.D
I/M DESC FILE       : 09NEWIM.D

STAGE II REFUELING :
91 3 84. 84.

* Set Diesel Rebuild effects to 10% as per EPA
REBUILD EFFECTS     : 0.10

* Inputs for LEV II
94+ LDG IMP         : MA_LEV2.D
T2 EXH PHASE-IN     : LEV2EXH.D

T2 EVAP PHASE-IN    : LEV2EVAP.D

T2 CERT             : LEV2CERT.D


* Meteorological inputs
MIN/MAX TEMP        : 70.4 93.7

* Fuel inputs
FUEL RVP            : 6.8
FUEL PROGRAM        : 2 N


DIESEL FRACTIONS    :

0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000
0.003   0.003   0.002   0.002   0.002   0.002   0.001   0.001   0.001   0.000
0.001   0.001   0.003   0.001   0.002
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
0.001   0.001   0.001   0.001   0.001   0.000   0.001   0.001   0.001   0.001
0.001   0.001   0.002   0.002   0.003
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
```

```
0.001   0.001   0.001   0.001   0.001   0.000   0.001   0.001   0.001   0.001
0.001   0.001   0.002   0.002   0.003
0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
0.005   0.005   0.005   0.005   0.006   0.005   0.012   0.012   0.017   0.015
0.014   0.016   0.017   0.014   0.018
0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
0.005   0.005   0.005   0.005   0.006   0.005   0.012   0.012   0.017   0.015
0.014   0.016   0.017   0.014   0.018
0.176   0.176   0.176   0.176   0.176   0.176   0.176   0.176   0.176   0.176
0.170   0.207   0.202   0.206   0.243   0.176   0.285   0.267   0.212   0.255
0.295   0.249   0.251   0.188   0.175
0.385   0.385   0.385   0.385   0.385   0.385   0.385   0.385   0.385   0.385
0.407   0.433   0.467   0.464   0.480   0.375   0.472   0.480   0.366   0.400
0.344   0.285   0.333   0.314   0.253
0.674   0.674   0.674   0.674   0.674   0.674   0.674   0.674   0.674   0.674
0.634   0.664   0.719   0.717   0.744   0.715   0.565   0.810   0.803   0.644
0.654   0.605   0.525   0.389   0.356
0.830   0.830   0.830   0.830   0.830   0.830   0.830   0.830   0.830   0.830
0.845   0.860   0.840   0.819   0.813   0.610   0.686   0.570   0.733   0.607
0.729   0.685   0.725   0.631   0.350
0.884   0.884   0.884   0.884   0.884   0.884   0.884   0.884   0.884   0.884
0.840   0.887   0.931   0.917   0.914   0.923   0.901   0.908   0.898   0.903
0.876   0.804   0.844   0.782   0.702
0.977   0.977   0.977   0.977   0.977   0.977   0.977   0.977   0.977   0.977
0.972   0.953   0.993   0.992   0.992   0.990   0.981   0.976   0.975   0.959
0.982   0.965   0.963   0.945   0.902
0.972   0.972   0.972   0.972   0.972   0.972   0.972   0.972   0.972   0.972
0.955   0.984   0.995   0.992   0.991   0.995   0.993   0.993   0.995   0.992
0.986   0.995   0.981   0.993   0.971
1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000
1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000
1.000   1.000   1.000   1.000   1.000
0.786   0.786   0.786   0.786   0.786   0.786   0.786   0.786   0.786   0.786
0.917   0.884   0.925   0.968   0.961   0.972   0.985   0.971   0.941   0.905
0.965   0.940   0.907   0.964   0.609

***************     Scenario Section PM 2.5    ***************


****************** Freeway Scenarios *******************


SCENARIO RECORD    : MA Freeway 2.71 mph (= minimum allowed freeway speed)

CALENDAR YEAR      : 2013

EVALUATION MONTH   : 7

AVERAGE SPEED      : 2.71 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 3 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 7
AVERAGE SPEED      : 3 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15
```

```
SCENARIO RECORD    : MA Freeway speed 4 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 7
AVERAGE SPEED      : 4 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 5 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 7
AVERAGE SPEED      : 5 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 6 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 7
AVERAGE SPEED      : 6 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 7 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 7
AVERAGE SPEED      : 7 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 8 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 7
AVERAGE SPEED      : 8 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 9 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 7
AVERAGE SPEED      : 9 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 10 mph
```

```
AVERAGE SPEED      : 62 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Arterial speed 63 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 7
AVERAGE SPEED      : 63 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Arterial speed 64 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 7
AVERAGE SPEED      : 64 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Arterial speed 65 mph
CALENDAR YEAR      : 2013
EVALUATION MONTH   : 7
AVERAGE SPEED      : 65 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15

***************     End of This Run     ***************
END OF RUN
```

```
* Calendar Year 2018 Generic MOBILE6 input file for Mesoscale Build/No-Build
Analyses
* Filename MA18_ALL.INP created by Craig Woleader, MADEP 617-348-4046,
craig.woleader@state.ma.us and Marc Bennett, MADEP 617-292-5597,
marc.bennett@state.ma.us
* revised 12/2/05 to include actual diesel rebuild effects
* revised 12/17/08 to include new IM program program for 2018
*
***************     Header Section     ***************
MOBILE6 INPUT FILE
*
PARTICULATES       :
POLLUTANTS         : HC CO NOX CO2
DATABASE OUTPUT    :
WITH FIELDNAMES    :
AGGREGATED OUTPUT  :
SPREADSHEET        :
EMISSIONS TABLE    : MA18_WIN.tb1 REPLACE
REPORT FILE        : MA18_WIN.txt REPLACE
*
RUN DATA
***************     Run Section     ***************
> *** Mass. 2013 with LEV II Program ***

* Pollutant output format
EXPRESS HC AS VOC  :

* Mass. specific user inputs -- require external data file
REG DIST           : 2005_REG.D
I/M DESC FILE      : 09NEWIM.D

STAGE II REFUELING :
91 3 84. 84.

* Set Diesel Rebuild effects to 10% as per EPA
REBUILD EFFECTS    : 0.10

* Inputs for LEV II
94+ LDG IMP        : MA_LEV2.D
T2 EXH PHASE-IN    : LEV2EXH.D

T2 EVAP PHASE-IN   : LEV2EVAP.D

T2 CERT            : LEV2CERT.D


* Meteorological inputs

MIN/MAX TEMP       : 22.8 38.3


* Fuel inputs
FUEL RVP           : 13.5
FUEL PROGRAM       : 2 N


DIESEL FRACTIONS   :

0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000
0.000   0.000   0.000   0.000   0.000   0.003   0.003   0.002   0.002   0.002
0.002   0.001   0.001   0.001   0.000
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
0.000   0.001   0.001   0.001   0.001
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
```

```
0.000   0.001   0.001   0.001   0.001
0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006
0.005   0.012   0.012   0.017   0.015
0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006
0.005   0.012   0.012   0.017   0.015
0.176   0.176   0.176   0.176   0.176   0.176   0.176   0.176   0.176   0.176
0.176   0.176   0.176   0.176   0.176   0.170   0.207   0.202   0.206   0.243
0.176   0.285   0.267   0.212   0.255
0.385   0.385   0.385   0.385   0.385   0.385   0.385   0.385   0.385   0.385
0.385   0.385   0.385   0.385   0.385   0.407   0.433   0.467   0.464   0.480
0.375   0.472   0.480   0.366   0.400
0.674   0.674   0.674   0.674   0.674   0.674   0.674   0.674   0.674   0.674
0.674   0.674   0.674   0.674   0.674   0.634   0.664   0.719   0.717   0.744
0.715   0.565   0.810   0.803   0.644
0.830   0.830   0.830   0.830   0.830   0.830   0.830   0.830   0.830   0.830
0.830   0.830   0.830   0.830   0.830   0.845   0.860   0.840   0.819   0.813
0.610   0.686   0.570   0.733   0.607
0.884   0.884   0.884   0.884   0.884   0.884   0.884   0.884   0.884   0.884
0.884   0.884   0.884   0.884   0.884   0.840   0.887   0.931   0.917   0.914
0.923   0.901   0.908   0.898   0.903
0.977   0.977   0.977   0.977   0.977   0.977   0.977   0.977   0.977   0.977
0.977   0.977   0.977   0.977   0.977   0.972   0.953   0.993   0.992   0.992
0.990   0.981   0.976   0.975   0.959
0.972   0.972   0.972   0.972   0.972   0.972   0.972   0.972   0.972   0.972
0.972   0.972   0.972   0.972   0.972   0.955   0.984   0.995   0.992   0.991
0.995   0.993   0.993   0.995   0.992
1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000
1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000   1.000
1.000   1.000   1.000   1.000   1.000
0.786   0.786   0.786   0.786   0.786   0.786   0.786   0.786   0.786   0.786
0.786   0.786   0.786   0.786   0.786   0.917   0.884   0.925   0.968   0.961
0.972   0.985   0.971   0.941   0.905

***************     Scenario Section PM 2.5    ***************

****************** Freeway Scenarios *******************

SCENARIO RECORD    : MA Freeway 2.71 mph (= minimum allowed freeway speed)

CALENDAR YEAR      : 2018

EVALUATION MONTH   : 1

AVERAGE SPEED      : 2.71 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 3 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 3 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 4 mph
```

```
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 4 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 5 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 5 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 6 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 6 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 7 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 7 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 8 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 8 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 9 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 9 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 10 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 10 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE      : 2.5
```

```
PARTICULATE EF      : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE       : 10
DIESEL SULFUR       : 15


SCENARIO RECORD     : MA Arterial speed 62 mph
CALENDAR YEAR       : 2018
EVALUATION MONTH    : 1
AVERAGE SPEED       : 62 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF      : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE       : 10
DIESEL SULFUR       : 15


SCENARIO RECORD     : MA Arterial speed 63 mph
CALENDAR YEAR       : 2018
EVALUATION MONTH    : 1
AVERAGE SPEED       : 63 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF      : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE       : 10
DIESEL SULFUR       : 15


SCENARIO RECORD     : MA Arterial speed 64 mph
CALENDAR YEAR       : 2018
EVALUATION MONTH    : 1
AVERAGE SPEED       : 64 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF      : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE       : 10
DIESEL SULFUR       : 15


SCENARIO RECORD     : MA Arterial speed 65 mph
CALENDAR YEAR       : 2018
EVALUATION MONTH    : 1
AVERAGE SPEED       : 65 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF      : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV
PMDDR1.CSV  PMDDR2.CSV
PARTICLE SIZE       : 10
DIESEL SULFUR       : 15

***************     End of This Run     ***************
END OF RUN
```

```
* Calendar Year 2018 Generic MOBILE6 input file for Mesoscale Build/No-Build
Analyses
* Filename MA18_ALL.INP created by Craig Woleader, MADEP 617-348-4046,
craig.woleader@state.ma.us and Marc Bennett, MADEP 617-292-5597,
marc.bennett@state.ma.us
* revised 12/2/05 to include actual diesel rebuild effects
* revised 12/17/08 to include new IM program program for 2018
*
***************     Header Section     ***************
MOBILE6 INPUT FILE
*
PARTICULATES        :
POLLUTANTS          : HC CO NOX CO2
DATABASE OUTPUT     :
WITH FIELDNAMES     :
AGGREGATED OUTPUT   :
SPREADSHEET         :
EMISSIONS TABLE     : MA18_SUM.tb1 REPLACE
REPORT FILE         : MA18_SUM.txt REPLACE
*
RUN DATA
***************     Run Section     ***************
> *** Mass. 2013 with LEV II Program ***

* Pollutant output format
EXPRESS HC AS VOC  :

* Mass. specific user inputs -- require external data file
REG DIST            : 2005_REG.D
I/M DESC FILE       : 09NEWIM.D

STAGE II REFUELING :
91 3 84. 84.

* Set Diesel Rebuild effects to 10% as per EPA
REBUILD EFFECTS     : 0.10

* Inputs for LEV II
94+ LDG IMP         : MA_LEV2.D
T2 EXH PHASE-IN     : LEV2EXH.D

T2 EVAP PHASE-IN    : LEV2EVAP.D

T2 CERT             : LEV2CERT.D


* Meteorological inputs
MIN/MAX TEMP        : 70.4 93.7

* Fuel inputs
FUEL RVP            : 6.8
FUEL PROGRAM        : 2 N


DIESEL FRACTIONS    :

0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000
0.000   0.000   0.000   0.000   0.000   0.003   0.003   0.002   0.002   0.002
0.002   0.001   0.001   0.001   0.000
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
0.000   0.001   0.001   0.001   0.001
0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001   0.001
```

```
0.001    0.001    0.001    0.001    0.001    0.001    0.001    0.001    0.001    0.001
0.000    0.001    0.001    0.001    0.001
0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.005
0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.006
0.005    0.012    0.012    0.017    0.015
0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.005
0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.005    0.006
0.005    0.012    0.012    0.017    0.015
0.176    0.176    0.176    0.176    0.176    0.176    0.176    0.176    0.176    0.176
0.176    0.176    0.176    0.176    0.176    0.170    0.207    0.202    0.206    0.243
0.176    0.285    0.267    0.212    0.255
0.385    0.385    0.385    0.385    0.385    0.385    0.385    0.385    0.385    0.385
0.385    0.385    0.385    0.385    0.385    0.407    0.433    0.467    0.464    0.480
0.375    0.472    0.480    0.366    0.400
0.674    0.674    0.674    0.674    0.674    0.674    0.674    0.674    0.674    0.674
0.674    0.674    0.674    0.674    0.674    0.634    0.664    0.719    0.717    0.744
0.715    0.565    0.810    0.803    0.644
0.830    0.830    0.830    0.830    0.830    0.830    0.830    0.830    0.830    0.830
0.830    0.830    0.830    0.830    0.830    0.845    0.860    0.840    0.819    0.813
0.610    0.686    0.570    0.733    0.607
0.884    0.884    0.884    0.884    0.884    0.884    0.884    0.884    0.884    0.884
0.884    0.884    0.884    0.884    0.884    0.840    0.887    0.931    0.917    0.914
0.923    0.901    0.908    0.898    0.903
0.977    0.977    0.977    0.977    0.977    0.977    0.977    0.977    0.977    0.977
0.977    0.977    0.977    0.977    0.977    0.972    0.953    0.993    0.992    0.992
0.990    0.981    0.976    0.975    0.959
0.972    0.972    0.972    0.972    0.972    0.972    0.972    0.972    0.972    0.972
0.972    0.972    0.972    0.972    0.972    0.955    0.984    0.995    0.992    0.991
0.995    0.993    0.993    0.995    0.992
1.000    1.000    1.000    1.000    1.000    1.000    1.000    1.000    1.000    1.000
1.000    1.000    1.000    1.000    1.000    1.000    1.000    1.000    1.000    1.000
1.000    1.000    1.000    1.000    1.000
0.786    0.786    0.786    0.786    0.786    0.786    0.786    0.786    0.786    0.786
0.786    0.786    0.786    0.786    0.786    0.917    0.884    0.925    0.968    0.961
0.972    0.985    0.971    0.941    0.905


***************     Scenario Section PM 2.5    ***************


****************** Freeway Scenarios *******************


SCENARIO RECORD    : MA Freeway 2.71 mph (= minimum allowed freeway speed)

CALENDAR YEAR      : 2018

EVALUATION MONTH   : 1

AVERAGE SPEED      : 2.71 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 3 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 3 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
```

```
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 4 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 4 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 5 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 5 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 6 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 6 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 7 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 7 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 8 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 8 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Freeway speed 9 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 9 Freeway 92.0 0.0 0.0 8.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 2.5
DIESEL SULFUR      : 15
```

```
EVALUATION MONTH   : 1
AVERAGE SPEED      : 62 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Arterial speed 63 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 63 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Arterial speed 64 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 64 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15


SCENARIO RECORD    : MA Arterial speed 65 mph
CALENDAR YEAR      : 2018
EVALUATION MONTH   : 1
AVERAGE SPEED      : 65 Arterial 0.0 100.0 0.0 0.0
PARTICULATE EF     : PMGZML.CSV  PMGDR1.CSV  PMGDR2.CSV  PMDZML.CSV  PMDDR1.CSV
PMDDR2.CSV
PARTICLE SIZE      : 10
DIESEL SULFUR      : 15

***************     End of This Run     ***************
END OF RUN
```

MOBILE 6.2 Output Files

2013 Mobile Emission Rate

Arterial				Freeway			
Speed	Carbon Monoxide (CO)	Particulate Matter 10 (PM10)	Particulate Matter 2.5 (PM2.5)	Speed	Carbon Monoxide (CO)	Particulate Matter 10 (PM10)	Particulate Matter 2.5 (PM2.5)
2.5	21.7500	0.0335	0.0183	2.7	20.9700	0.0335	0.0183
3	19.6100	0.0335	0.0183	3	19.8300	0.0335	0.0183
4	16.9400	0.0335	0.0183	4	17.1600	0.0335	0.0183
5	15.3400	0.0335	0.0183	5	15.5600	0.0335	0.0183
6	14.2300	0.0335	0.0183	6	14.3800	0.0335	0.0183
7	13.4300	0.0335	0.0183	7	13.4900	0.0335	0.0183
8	12.8400	0.0335	0.0183	8	12.8200	0.0335	0.0183
9	12.3700	0.0335	0.0183	9	12.3000	0.0335	0.0183
10	12.0000	0.0335	0.0183	10	11.8900	0.0335	0.0183
11	11.6900	0.0335	0.0183	11	11.5500	0.0335	0.0183
12	11.4300	0.0335	0.0183	12	11.2800	0.0335	0.0183
13	11.2100	0.0335	0.0183	13	11.0400	0.0335	0.0183
14	11.0300	0.0335	0.0183	14	10.8500	0.0335	0.0183
15	10.8600	0.0335	0.0183	15	10.6700	0.0335	0.0183
16	10.7100	0.0335	0.0183	16	10.5400	0.0335	0.0183
17	10.5800	0.0335	0.0183	17	10.4800	0.0335	0.0183
18	10.4600	0.0335	0.0183	18	10.4200	0.0335	0.0183
19	10.3600	0.0335	0.0183	19	10.3600	0.0335	0.0183
20	10.2600	0.0335	0.0183	20	10.3100	0.0335	0.0183
21	10.1800	0.0335	0.0183	21	10.2700	0.0335	0.0183
22	10.1100	0.0335	0.0183	22	10.2300	0.0335	0.0183
23	10.0400	0.0335	0.0183	23	10.1900	0.0335	0.0183
24	9.9800	0.0335	0.0183	24	10.1600	0.0335	0.0183
25	9.9200	0.0335	0.0183	25	10.1300	0.0335	0.0183
26	9.8900	0.0335	0.0183	26	10.1000	0.0335	0.0183
27	9.8600	0.0335	0.0183	27	10.0700	0.0335	0.0183
28	9.8300	0.0335	0.0183	28	10.0500	0.0335	0.0183
29	9.8000	0.0335	0.0183	29	10.0300	0.0335	0.0183
30	9.7800	0.0335	0.0183	30	10.0100	0.0335	0.0183
31	9.7800	0.0335	0.0183	31	10.0000	0.0335	0.0183
32	9.7800	0.0335	0.0183	32	10.0000	0.0335	0.0183
33	9.7800	0.0335	0.0183	33	10.0100	0.0335	0.0183
34	9.7900	0.0335	0.0183	34	10.0100	0.0335	0.0183
35	9.7900	0.0335	0.0183	35	10.0100	0.0335	0.0183
36	9.8500	0.0335	0.0183	36	10.0700	0.0335	0.0183
37	9.9000	0.0335	0.0183	37	10.1300	0.0335	0.0183
38	9.9500	0.0335	0.0183	38	10.1800	0.0335	0.0183
39	10.0000	0.0335	0.0183	39	10.2300	0.0335	0.0183
40	10.0500	0.0335	0.0183	40	10.2900	0.0335	0.0183
41	10.1100	0.0335	0.0183	41	10.3500	0.0335	0.0183
42	10.1700	0.0335	0.0183	42	10.4100	0.0335	0.0183
43	10.2300	0.0335	0.0183	43	10.4600	0.0335	0.0183
44	10.2800	0.0335	0.0183	44	10.5200	0.0335	0.0183
45	10.3300	0.0335	0.0183	45	10.5800	0.0335	0.0183
46	10.4000	0.0335	0.0183	46	10.6500	0.0335	0.0183
47	10.4600	0.0335	0.0183	47	10.7100	0.0335	0.0183
48	10.5200	0.0335	0.0183	48	10.7700	0.0335	0.0183
49	10.5700	0.0335	0.0183	49	10.8400	0.0335	0.0183
50	10.6300	0.0335	0.0183	50	10.9100	0.0335	0.0183
51	10.6900	0.0335	0.0183	51	10.9700	0.0335	0.0183
52	10.7600	0.0335	0.0183	52	11.0400	0.0335	0.0183
53	10.8200	0.0335	0.0183	53	11.1100	0.0335	0.0183
54	10.8800	0.0335	0.0183	54	11.1900	0.0335	0.0183
55	10.9400	0.0335	0.0183	55	11.2700	0.0335	0.0183
56	11.0100	0.0335	0.0183	56	11.3400	0.0335	0.0183
57	11.0900	0.0335	0.0183	57	11.4200	0.0335	0.0183
58	11.1600	0.0335	0.0183	58	11.5100	0.0335	0.0183
59	11.2200	0.0335	0.0183	59	11.6000	0.0335	0.0183
60	11.2900	0.0335	0.0183	60	11.6800	0.0335	0.0183
61	11.3700	0.0335	0.0183	60.7	11.7400	0.0335	0.0183
62	11.4500	0.0335	0.0183	60.7	11.7400	0.0335	0.0183
63	11.5200	0.0335	0.0183	60.7	11.7400	0.0335	0.0183
64	11.5900	0.0335	0.0183	60.7	11.7400	0.0335	0.0183
65	11.6700	0.0335	0.0183	60.7	11.7400	0.0335	0.0183

2018 Mobile Emission Rate

Arterial				Freeway			
Speed	Carbon Monoxide (CO)	Particulate Matter 10 (PM10)	Particulate Matter 2.5 (PM2.5)	Speed	Carbon Monoxide (CO)	Particulate Matter 10 (PM10)	Particulate Matter 2.5 (PM2.5)
2.5	19.1600	0.0289	0.0141	2.7	18.4800	0.0289	0.0141
3	17.3100	0.0289	0.0141	3	17.4900	0.0289	0.0141
4	15.0000	0.0289	0.0141	4	15.1700	0.0289	0.0141
5	13.6100	0.0289	0.0141	5	13.7800	0.0289	0.0141
6	12.6400	0.0289	0.0141	6	12.7600	0.0289	0.0141
7	11.9500	0.0289	0.0141	7	11.9900	0.0289	0.0141
8	11.4400	0.0289	0.0141	8	11.4000	0.0289	0.0141
9	11.0400	0.0289	0.0141	9	10.9500	0.0289	0.0141
10	10.7100	0.0289	0.0141	10	10.5900	0.0289	0.0141
11	10.4400	0.0289	0.0141	11	10.2900	0.0289	0.0141
12	10.2200	0.0289	0.0141	12	10.0600	0.0289	0.0141
13	10.0300	0.0289	0.0141	13	9.8500	0.0289	0.0141
14	9.8700	0.0289	0.0141	14	9.6800	0.0289	0.0141
15	9.7200	0.0289	0.0141	15	9.5300	0.0289	0.0141
16	9.6000	0.0289	0.0141	16	9.4200	0.0289	0.0141
17	9.4800	0.0289	0.0141	17	9.3600	0.0289	0.0141
18	9.3800	0.0289	0.0141	18	9.3100	0.0289	0.0141
19	9.2900	0.0289	0.0141	19	9.2700	0.0289	0.0141
20	9.2100	0.0289	0.0141	20	9.2300	0.0289	0.0141
21	9.1400	0.0289	0.0141	21	9.1900	0.0289	0.0141
22	9.0700	0.0289	0.0141	22	9.1600	0.0289	0.0141
23	9.0100	0.0289	0.0141	23	9.1300	0.0289	0.0141
24	8.9600	0.0289	0.0141	24	9.1000	0.0289	0.0141
25	8.9100	0.0289	0.0141	25	9.0700	0.0289	0.0141
26	8.8800	0.0289	0.0141	26	9.0500	0.0289	0.0141
27	8.8500	0.0289	0.0141	27	9.0300	0.0289	0.0141
28	8.8300	0.0289	0.0141	28	9.0100	0.0289	0.0141
29	8.8100	0.0289	0.0141	29	8.9900	0.0289	0.0141
30	8.7900	0.0289	0.0141	30	8.9700	0.0289	0.0141
31	8.7900	0.0289	0.0141	31	8.9700	0.0289	0.0141
32	8.7900	0.0289	0.0141	32	8.9700	0.0289	0.0141
33	8.7900	0.0289	0.0141	33	8.9700	0.0289	0.0141
34	8.7900	0.0289	0.0141	34	8.9800	0.0289	0.0141
35	8.8000	0.0289	0.0141	35	8.9800	0.0289	0.0141
36	8.8500	0.0289	0.0141	36	9.0300	0.0289	0.0141
37	8.9000	0.0289	0.0141	37	9.0800	0.0289	0.0141
38	8.9500	0.0289	0.0141	38	9.1300	0.0289	0.0141
39	8.9900	0.0289	0.0141	39	9.1800	0.0289	0.0141
40	9.0400	0.0289	0.0141	40	9.2300	0.0289	0.0141
41	9.0900	0.0289	0.0141	41	9.2800	0.0289	0.0141
42	9.1400	0.0289	0.0141	42	9.3300	0.0289	0.0141
43	9.1900	0.0289	0.0141	43	9.3800	0.0289	0.0141
44	9.2400	0.0289	0.0141	44	9.4300	0.0289	0.0141
45	9.2900	0.0289	0.0141	45	9.4900	0.0289	0.0141
46	9.3500	0.0289	0.0141	46	9.5500	0.0289	0.0141
47	9.4000	0.0289	0.0141	47	9.6100	0.0289	0.0141
48	9.4500	0.0289	0.0141	48	9.6600	0.0289	0.0141
49	9.5000	0.0289	0.0141	49	9.7200	0.0289	0.0141
50	9.5500	0.0289	0.0141	50	9.7800	0.0289	0.0141
51	9.6100	0.0289	0.0141	51	9.8400	0.0289	0.0141
52	9.6700	0.0289	0.0141	52	9.9000	0.0289	0.0141
53	9.7300	0.0289	0.0141	53	9.9600	0.0289	0.0141
54	9.7800	0.0289	0.0141	54	10.0400	0.0289	0.0141
55	9.8300	0.0289	0.0141	55	10.1100	0.0289	0.0141
56	9.9000	0.0289	0.0141	56	10.1700	0.0289	0.0141
57	9.9600	0.0289	0.0141	57	10.2500	0.0289	0.0141
58	10.0300	0.0289	0.0141	58	10.3200	0.0289	0.0141
59	10.0900	0.0289	0.0141	59	10.4000	0.0289	0.0141
60	10.1500	0.0289	0.0141	60	10.4800	0.0289	0.0141
61	10.2200	0.0289	0.0141	60.7	10.5300	0.0289	0.0141
62	10.2900	0.0289	0.0141	60.7	10.5300	0.0289	0.0141
63	10.3500	0.0289	0.0141	60.7	10.5300	0.0289	0.0141
64	10.4200	0.0289	0.0141	60.7	10.5300	0.0289	0.0141
65	10.4800	0.0289	0.0141	60.7	10.5300	0.0289	0.0141

MOBILE SOURCE ANALYSIS

Microscale (CAL3QHC) Input Files

2013 Existing
2018 No-Build Condition
2018 Build Condition

2013 Existing
Microscale Input Files
(Carbon Monoxide (CO))

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'Skating Club of Boston'   60   175   0   0   55   0.3048   1   0
'Soldiers/Jug NE1'   5230.2   6478.25   6
'Soldiers/Jug NE2'   5230.2   6403.25   6
'Soldiers/Jug NE3'   5230.2   6328.25   6
'Soldiers/Jug NE4'   5296.96   6362.42   6
'Soldiers/Jug NE5'   5363.73   6396.6   6
'Soldiers/Jug SE1'   5398.65   6298.39   6
'Soldiers/Jug SE2'   5332.53   6263   6
'Soldiers/Jug SE3'   5266.41   6227.61   6
'Soldiers/Jug SE4'   5266.41   6152.61   6
'Soldiers/Jug SE5'   5265.78   6077.61   6
'Soldiers/Jug SW1'   5204.32   6056.03   6
'Soldiers/Jug SW2'   5204   6131.03   6
'Soldiers/Jug SW3'   5204.32   6206.03   6
'Soldiers/Jug SW4'   5136.65   6173.69   6
'Soldiers/Jug SW5'   5068.98   6141.35   6
'Soldiers/Jug NW1'   5031.32   6236.22   6
'Soldiers/Jug NW2'   5099.76   6266.89   6
'Soldiers/Jug NW3'   5168.2   6297.56   6
'Soldiers/Jug NW4'   5168.2   6372.56   6
'Soldiers/Jug NW5'   5168.2   6447.56   6
'Western/Ever NE1'   5269.08   5895.94   6
'Western/Ever NE2'   5267.37   5820.96   6
'Western/Ever NE3'   5265.66   5745.98   6
'Western/Ever NE4'   5339.63   5758.39   6
'Western/Ever NE5'   5413.6   5770.8   6
'Western/Ever SE1'   5416.08   5684.02   6
'Western/Ever SE2'   5342.11   5671.61   6
'Western/Ever SE3'   5268.14   5659.2   6
'Western/Ever SE4'   5244.74   5587.94   6
'Western/Ever SE5'   5221.33   5516.69   6
'Western/Ever SW1'   5140.35   5507.29   6
'Western/Ever SW2'   5163.76   5578.54   6
'Western/Ever SW3'   5187.16   5649.79   6
'Western/Ever SW4'   5112.95   5638.95   6
'Western/Ever SW5'   5038.74   5628.12   6
'Western/Ever NW1'   5054.93   5711.33   6
'Western/Ever NW2'   5129.14   5722.17   6
'Western/Ever NW3'   5203.35   5733.01   6
'Western/Ever NW4'   5205.06   5807.99   6
'Western/Ever NW5'   5206.76   5882.97   6
'Ever/Rt20 NE1'   4271.65   2618.41   6
'Ever/Rt20 NE2'   4252.22   2545.97   6
'Ever/Rt20 NE3'   4232.79   2473.53   6
'Ever/Rt20 NE4'   4306.28   2458.54   6
'Ever/Rt20 NE5'   4379.77   2443.56   6
'Ever/Rt20 S1'   4333   2377.57   6
'Ever/Rt20 S2'   4259.51   2392.56   6
'Ever/Rt20 S3'   4186.02   2407.54   6
'Ever/Rt20 S4'   4112.04   2419.86   6
'Ever/Rt20 S5'   4038.06   2432.18   6
'Ever/Rt20 NW1'   4023.7   2509.59   6
'Ever/Rt20 NW2'   4097.69   2497.27   6
'Ever/Rt20 NW3'   4171.67   2484.95   6
'Ever/Rt20 NW4'   4191.1   2557.39   6
'Ever/Rt20 NW5'   4210.53   2629.83   6
'2013EX'   45   1   0   'C'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   200   54.3875   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1505   54.3875   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   245   54.3875   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1255   54.3875   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   240   54.3875   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   730   54.3875   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   320   54.3875   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   685   54.3875   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   365   54.3875   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   565   54.3875   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   685   54.3875   1600   1   3
 2
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'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   215   54.3875   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   54.3875   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1425   54.3875   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   54.3875   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   140   54.3875   1600   1   3
 2
'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1485   54.3875   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   180   54.3875   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   855   54.3875   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   340   54.3875   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1035   54.3875   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   220   54.3875   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   200   9.783   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1505   9.79   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1400   9.79   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   460   9.783   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1255   9.79   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1590   9.79   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   460   9.783   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1350   9.783   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   795   9.783   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1345   9.783   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   620   9.783   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   1340   9.783   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   1270   9.783   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1040   9.79   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1160   9.79   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   340   9.783   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   1935   9.79   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   220   9.79   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   460   9.79   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   480   9.783   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3070   9.783   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   9.783   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   2970   9.783   1   102
1   0   4   1000   0   'Y'   10   0   36
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'Skating Club of Boston'   60   175   0   0   40   0.3048   1   0
'Birm/Linc NE1'   2174.45   4423.09   6
'Birm/Linc NE2'   2139.18   4356.91   6
'Birm/Linc NE3'   2103.9   4290.72   6
'Birm/Linc NE4'   2176.88   4273.42   6
'Birm/Linc NE5'   2249.85   4256.13   6
'Birm/Linc SE1'   2228.12   4197.56   6
'Birm/Linc SE2'   2130.66   4220.66   6
'Birm/Linc SE3'   2082.17   4232.15   6
'Birm/Linc SE4'   2050.96   4163.96   6
'Birm/Linc SE5'   2019.75   4095.76   6
'Birm/Linc SW1'   1911.26   4065.36   6
'Birm/Linc SW2'   1942.47   4133.55   6
'Birm/Linc SW3'   1973.68   4201.75   6
'Birm/Linc SW4'   1905.67   4170.12   6
'Birm/Linc SW5'   1837.66   4138.5   6
'Birm/Linc NW1'   1831.18   4255.52   6
'Birm/Linc NW2'   1899.57   4286.31   6
'Birm/Linc NW3'   1967.96   4317.1   6
'Birm/Linc NW4'   2003.64   4383.07   6
'Birm/Linc NW5'   2039.33   4449.04   6
'Camb/Linc NE1'   7013.36   3812.14   6
'Camb/Linc NE2'   7045.6   3744.43   6
'Camb/Linc NE3'   7077.85   3676.71   6
'Camb/Linc NE4'   7145.56   3708.96   6
'Camb/Linc NE5'   7213.28   3741.2   6
'Camb/Linc SE1'   7278.54   3637.16   6
'Camb/Linc SE2'   7210.83   3604.91   6
'Camb/Linc SE3'   7143.11   3572.67   6
'Camb/Linc SE4'   7144.86   3497.69   6
'Camb/Linc SE5'   7146.6   3422.71   6
'Camb/Linc SW1'   7085.26   3393.48   6
'Camb/Linc SW2'   7083.52   3468.46   6
'Camb/Linc SW3'   7081.78   3543.44   6
'Camb/Linc SW4'   7014.09   3511.14   6
'Camb/Linc SW5'   6946.41   3478.83   6
'Camb/Linc NW1'   6870.27   3577.67   6
'Camb/Linc NW2'   6937.95   3609.98   6
'Camb/Linc NW3'   7005.64   3642.28   6
'Camb/Linc NW4'   6973.39   3710   6
'Camb/Linc NW5'   6941.15   3777.71   6
'2013EX'   45   1   0   'C'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   200   54.3875   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1505   54.3875   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   245   54.3875   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1255   54.3875   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   240   54.3875   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   730   54.3875   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   320   54.3875   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   685   54.3875   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   365   54.3875   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   565   54.3875   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   685   54.3875   1600   1   3
 2
'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   215   54.3875   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   54.3875   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1425   54.3875   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   54.3875   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   140   54.3875   1600   1   3
 2
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'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1485   54.3875   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   180   54.3875   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   855   54.3875   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   340   54.3875   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1035   54.3875   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   220   54.3875   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   200   9.783   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1505   9.79   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1400   9.79   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   460   9.783   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1255   9.79   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1590   9.79   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   460   9.783   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1350   9.783   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   795   9.783   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1345   9.783   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   620   9.783   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   1340   9.783   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   1270   9.783   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1040   9.79   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1160   9.79   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   340   9.783   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   1935   9.79   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   220   9.79   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   460   9.79   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   480   9.783   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3070   9.783   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   9.783   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   2970   9.783   1   102
1   0   4   1000   0   'Y'   10   0   36
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2018 No-Build
Microscale Input Files
(Carbon Monoxide (CO))

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'Skating Club of Boston'   60   175   0   0   55   0.3048   1   0
'Soldiers/Jug NE1'   5230.2   6478.25   6
'Soldiers/Jug NE2'   5230.2   6403.25   6
'Soldiers/Jug NE3'   5230.2   6328.25   6
'Soldiers/Jug NE4'   5296.96   6362.42   6
'Soldiers/Jug NE5'   5363.73   6396.6   6
'Soldiers/Jug SE1'   5398.65   6298.39   6
'Soldiers/Jug SE2'   5332.53   6263   6
'Soldiers/Jug SE3'   5266.41   6227.61   6
'Soldiers/Jug SE4'   5266.41   6152.61   6
'Soldiers/Jug SE5'   5265.78   6077.61   6
'Soldiers/Jug SW1'   5204.32   6056.03   6
'Soldiers/Jug SW2'   5204   6131.03   6
'Soldiers/Jug SW3'   5204.32   6206.03   6
'Soldiers/Jug SW4'   5136.65   6173.69   6
'Soldiers/Jug SW5'   5068.98   6141.35   6
'Soldiers/Jug NW1'   5031.32   6236.22   6
'Soldiers/Jug NW2'   5099.76   6266.89   6
'Soldiers/Jug NW3'   5168.2   6297.56   6
'Soldiers/Jug NW4'   5168.2   6372.56   6
'Soldiers/Jug NW5'   5168.2   6447.56   6
'Western/Ever NE1'   5269.08   5895.94   6
'Western/Ever NE2'   5267.37   5820.96   6
'Western/Ever NE3'   5265.66   5745.98   6
'Western/Ever NE4'   5339.63   5758.39   6
'Western/Ever NE5'   5413.6   5770.8   6
'Western/Ever SE1'   5416.08   5684.02   6
'Western/Ever SE2'   5342.11   5671.61   6
'Western/Ever SE3'   5268.14   5659.2   6
'Western/Ever SE4'   5244.74   5587.94   6
'Western/Ever SE5'   5221.33   5516.69   6
'Western/Ever SW1'   5140.35   5507.29   6
'Western/Ever SW2'   5163.76   5578.54   6
'Western/Ever SW3'   5187.16   5649.79   6
'Western/Ever SW4'   5112.95   5638.95   6
'Western/Ever SW5'   5038.74   5628.12   6
'Western/Ever NW1'   5054.93   5711.33   6
'Western/Ever NW2'   5129.14   5722.17   6
'Western/Ever NW3'   5203.35   5733.01   6
'Western/Ever NW4'   5205.06   5807.99   6
'Western/Ever NW5'   5206.76   5882.97   6
'Ever/Rt20 NE1'   4271.65   2618.41   6
'Ever/Rt20 NE2'   4252.22   2545.97   6
'Ever/Rt20 NE3'   4232.79   2473.53   6
'Ever/Rt20 NE4'   4306.28   2458.54   6
'Ever/Rt20 NE5'   4379.77   2443.56   6
'Ever/Rt20 S1'   4333   2377.57   6
'Ever/Rt20 S2'   4259.51   2392.56   6
'Ever/Rt20 S3'   4186.02   2407.54   6
'Ever/Rt20 S4'   4112.04   2419.86   6
'Ever/Rt20 S5'   4038.06   2432.18   6
'Ever/Rt20 NW1'   4023.7   2509.59   6
'Ever/Rt20 NW2'   4097.69   2497.27   6
'Ever/Rt20 NW3'   4171.67   2484.95   6
'Ever/Rt20 NW4'   4191.1   2557.39   6
'Ever/Rt20 NW5'   4210.53   2629.83   6
'2018NB'   45   1   0   'C'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   220   47.9125   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   47.9125   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   276   47.9125   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   47.9125   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   263   47.9125   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   850   47.9125   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   400   47.9125   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   784   47.9125   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   406   47.9125   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   786   47.9125   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1208   47.9125   1600   1   3
 2
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'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   221   47.9125   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   47.9125   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1666   47.9125   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   47.9125   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   47.9125   1600   1   3
 2
'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   47.9125   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   47.9125   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   47.9125   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   384   47.9125   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1258   47.9125   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   244   47.9125   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   220   8.793   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   8.8010   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1595   8.8010   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   513   8.793   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   8.8010   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   8.8010   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   515   8.793   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1612   8.793   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   940   8.793   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1527   8.793   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   744   8.793   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2038   8.793   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2018   8.793   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   8.8010   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1349   8.8010   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   384   8.793   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2424   8.8010   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   244   8.8010   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   8.8010   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   528   8.793   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3728   8.793   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   8.793   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   8.793   1   102
1   0   4   1000   0   'Y'   10   0   36
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'Skating Club of Boston'   60   175   0   0   40   0.3048   1   0
'Birm/Linc NE1'   2174.45   4423.09   6
'Birm/Linc NE2'   2139.18   4356.91   6
'Birm/Linc NE3'   2103.9   4290.72   6
'Birm/Linc NE4'   2176.88   4273.42   6
'Birm/Linc NE5'   2249.85   4256.13   6
'Birm/Linc SE1'   2228.12   4197.56   6
'Birm/Linc SE2'   2130.66   4220.66   6
'Birm/Linc SE3'   2082.17   4232.15   6
'Birm/Linc SE4'   2050.96   4163.96   6
'Birm/Linc SE5'   2019.75   4095.76   6
'Birm/Linc SW1'   1911.26   4065.36   6
'Birm/Linc SW2'   1942.47   4133.55   6
'Birm/Linc SW3'   1973.68   4201.75   6
'Birm/Linc SW4'   1905.67   4170.12   6
'Birm/Linc SW5'   1837.66   4138.5   6
'Birm/Linc NW1'   1831.18   4255.52   6
'Birm/Linc NW2'   1899.57   4286.31   6
'Birm/Linc NW3'   1967.96   4317.1   6
'Birm/Linc NW4'   2003.64   4383.07   6
'Birm/Linc NW5'   2039.33   4449.04   6
'Camb/Linc NE1'   7013.36   3812.14   6
'Camb/Linc NE2'   7045.6   3744.43   6
'Camb/Linc NE3'   7077.85   3676.71   6
'Camb/Linc NE4'   7145.56   3708.96   6
'Camb/Linc NE5'   7213.28   3741.2   6
'Camb/Linc SE1'   7278.54   3637.16   6
'Camb/Linc SE2'   7210.83   3604.91   6
'Camb/Linc SE3'   7143.11   3572.67   6
'Camb/Linc SE4'   7144.86   3497.69   6
'Camb/Linc SE5'   7146.6   3422.71   6
'Camb/Linc SW1'   7085.26   3393.48   6
'Camb/Linc SW2'   7083.52   3468.46   6
'Camb/Linc SW3'   7081.78   3543.44   6
'Camb/Linc SW4'   7014.09   3511.14   6
'Camb/Linc SW5'   6946.41   3478.83   6
'Camb/Linc NW1'   6870.27   3577.67   6
'Camb/Linc NW2'   6937.95   3609.98   6
'Camb/Linc NW3'   7005.64   3642.28   6
'Camb/Linc NW4'   6973.39   3710   6
'Camb/Linc NW5'   6941.15   3777.71   6
'2018NB'   45   1   0   'C'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   220   47.9125   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   47.9125   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   276   47.9125   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   47.9125   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   263   47.9125   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   850   47.9125   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   400   47.9125   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   784   47.9125   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   406   47.9125   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   786   47.9125   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1208   47.9125   1600   1   3
 2
'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   221   47.9125   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   47.9125   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1666   47.9125   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   47.9125   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   47.9125   1600   1   3
 2
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'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   47.9125   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   47.9125   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   47.9125   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   384   47.9125   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1258   47.9125   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   244   47.9125   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   220   8.793   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   8.8010   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1595   8.8010   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   513   8.793   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   8.8010   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   8.8010   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   515   8.793   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1612   8.793   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   940   8.793   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1527   8.793   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   744   8.793   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2038   8.793   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2018   8.793   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   8.8010   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1349   8.8010   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   384   8.793   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2424   8.8010   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   244   8.8010   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   8.8010   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   528   8.793   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3728   8.793   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   8.793   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   8.793   1   102
1   0   4   1000   0   'Y'   10   0   36
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2018 Build
Microscale Input Files
(Carbon Monoxide (CO))

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'Skating Club of Boston'   60   175   0   0   55   0.3048   1   0
'Soldiers/Jug NE1'   5230.2   6478.25   6
'Soldiers/Jug NE2'   5230.2   6403.25   6
'Soldiers/Jug NE3'   5230.2   6328.25   6
'Soldiers/Jug NE4'   5296.96   6362.42   6
'Soldiers/Jug NE5'   5363.73   6396.6   6
'Soldiers/Jug SE1'   5398.65   6298.39   6
'Soldiers/Jug SE2'   5332.53   6263   6
'Soldiers/Jug SE3'   5266.41   6227.61   6
'Soldiers/Jug SE4'   5266.41   6152.61   6
'Soldiers/Jug SE5'   5265.78   6077.61   6
'Soldiers/Jug SW1'   5204.32   6056.03   6
'Soldiers/Jug SW2'   5204   6131.03   6
'Soldiers/Jug SW3'   5204.32   6206.03   6
'Soldiers/Jug SW4'   5136.65   6173.69   6
'Soldiers/Jug SW5'   5068.98   6141.35   6
'Soldiers/Jug NW1'   5031.32   6236.22   6
'Soldiers/Jug NW2'   5099.76   6266.89   6
'Soldiers/Jug NW3'   5168.2   6297.56   6
'Soldiers/Jug NW4'   5168.2   6372.56   6
'Soldiers/Jug NW5'   5168.2   6447.56   6
'Western/Ever NE1'   5269.08   5895.94   6
'Western/Ever NE2'   5267.37   5820.96   6
'Western/Ever NE3'   5265.66   5745.98   6
'Western/Ever NE4'   5339.63   5758.39   6
'Western/Ever NE5'   5413.6   5770.8   6
'Western/Ever SE1'   5416.08   5684.02   6
'Western/Ever SE2'   5342.11   5671.61   6
'Western/Ever SE3'   5268.14   5659.2   6
'Western/Ever SE4'   5244.74   5587.94   6
'Western/Ever SE5'   5221.33   5516.69   6
'Western/Ever SW1'   5140.35   5507.29   6
'Western/Ever SW2'   5163.76   5578.54   6
'Western/Ever SW3'   5187.16   5649.79   6
'Western/Ever SW4'   5112.95   5638.95   6
'Western/Ever SW5'   5038.74   5628.12   6
'Western/Ever NW1'   5054.93   5711.33   6
'Western/Ever NW2'   5129.14   5722.17   6
'Western/Ever NW3'   5203.35   5733.01   6
'Western/Ever NW4'   5205.06   5807.99   6
'Western/Ever NW5'   5206.76   5882.97   6
'Ever/Rt20 NE1'   4271.65   2618.41   6
'Ever/Rt20 NE2'   4252.22   2545.97   6
'Ever/Rt20 NE3'   4232.79   2473.53   6
'Ever/Rt20 NE4'   4306.28   2458.54   6
'Ever/Rt20 NE5'   4379.77   2443.56   6
'Ever/Rt20 S1'   4333   2377.57   6
'Ever/Rt20 S2'   4259.51   2392.56   6
'Ever/Rt20 S3'   4186.02   2407.54   6
'Ever/Rt20 S4'   4112.04   2419.86   6
'Ever/Rt20 S5'   4038.06   2432.18   6
'Ever/Rt20 NW1'   4023.7   2509.59   6
'Ever/Rt20 NW2'   4097.69   2497.27   6
'Ever/Rt20 NW3'   4171.67   2484.95   6
'Ever/Rt20 NW4'   4191.1   2557.39   6
'Ever/Rt20 NW5'   4210.53   2629.83   6
'2018BD'   45   1   0   'C'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   228   47.9125   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   47.9125   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   281   47.9125   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   47.9125   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   271   47.9125   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   855   47.9125   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   412   47.9125   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   794   47.9125   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   419   47.9125   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   799   47.9125   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1214   47.9125   1600   1   3
 2
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'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   272   47.9125   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   47.9125   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1744   47.9125   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   47.9125   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   47.9125   1600   1   3
 2
'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   47.9125   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   47.9125   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   47.9125   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   385   47.9125   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1259   47.9125   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   246   47.9125   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   228   8.793   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   8.8010   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1600   8.8010   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   526   8.793   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   8.8010   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   8.8010   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   524   8.793   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1620   8.793   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   975   8.793   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1542   8.793   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   776   8.793   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2060   8.793   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2028   8.793   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   8.8010   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1352   8.8010   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   385   8.793   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2426   8.8010   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   246   8.8010   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   8.8010   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   657   8.793   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3857   8.793   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   8.793   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   8.793   1   102
1   0   4   1000   0   'Y'   10   0   36
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'Skating Club of Boston'   60   175   0   0   40   0.3048   1   0
'Birm/Linc NE1'   2174.45   4423.09   6
'Birm/Linc NE2'   2139.18   4356.91   6
'Birm/Linc NE3'   2103.9   4290.72   6
'Birm/Linc NE4'   2176.88   4273.42   6
'Birm/Linc NE5'   2249.85   4256.13   6
'Birm/Linc SE1'   2228.12   4197.56   6
'Birm/Linc SE2'   2130.66   4220.66   6
'Birm/Linc SE3'   2082.17   4232.15   6
'Birm/Linc SE4'   2050.96   4163.96   6
'Birm/Linc SE5'   2019.75   4095.76   6
'Birm/Linc SW1'   1911.26   4065.36   6
'Birm/Linc SW2'   1942.47   4133.55   6
'Birm/Linc SW3'   1973.68   4201.75   6
'Birm/Linc SW4'   1905.67   4170.12   6
'Birm/Linc SW5'   1837.66   4138.5   6
'Birm/Linc NW1'   1831.18   4255.52   6
'Birm/Linc NW2'   1899.57   4286.31   6
'Birm/Linc NW3'   1967.96   4317.1   6
'Birm/Linc NW4'   2003.64   4383.07   6
'Birm/Linc NW5'   2039.33   4449.04   6
'Camb/Linc NE1'   7013.36   3812.14   6
'Camb/Linc NE2'   7045.6   3744.43   6
'Camb/Linc NE3'   7077.85   3676.71   6
'Camb/Linc NE4'   7145.56   3708.96   6
'Camb/Linc NE5'   7213.28   3741.2   6
'Camb/Linc SE1'   7278.54   3637.16   6
'Camb/Linc SE2'   7210.83   3604.91   6
'Camb/Linc SE3'   7143.11   3572.67   6
'Camb/Linc SE4'   7144.86   3497.69   6
'Camb/Linc SE5'   7146.6   3422.71   6
'Camb/Linc SW1'   7085.26   3393.48   6
'Camb/Linc SW2'   7083.52   3468.46   6
'Camb/Linc SW3'   7081.78   3543.44   6
'Camb/Linc SW4'   7014.09   3511.14   6
'Camb/Linc SW5'   6946.41   3478.83   6
'Camb/Linc NW1'   6870.27   3577.67   6
'Camb/Linc NW2'   6937.95   3609.98   6
'Camb/Linc NW3'   7005.64   3642.28   6
'Camb/Linc NW4'   6973.39   3710   6
'Camb/Linc NW5'   6941.15   3777.71   6
'2018BD'   45   1   0   'C'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   228   47.9125   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   47.9125   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   281   47.9125   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   47.9125   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   271   47.9125   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   855   47.9125   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   412   47.9125   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   794   47.9125   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   419   47.9125   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   799   47.9125   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1214   47.9125   1600   1   3
 2
'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   272   47.9125   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   47.9125   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1744   47.9125   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   47.9125   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   47.9125   1600   1   3
 2
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'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   47.9125   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   47.9125   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   47.9125   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   385   47.9125   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1259   47.9125   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   246   47.9125   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   228   8.793   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   8.8010   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1600   8.8010   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   526   8.793   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   8.8010   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   8.8010   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   524   8.793   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1620   8.793   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   975   8.793   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1542   8.793   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   776   8.793   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2060   8.793   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2028   8.793   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   8.8010   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1352   8.8010   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   385   8.793   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2426   8.8010   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   246   8.8010   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   8.8010   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   657   8.793   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3857   8.793   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   8.793   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   8.793   1   102
1   0   4   1000   0   'Y'   10   0   36
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2013 Existing
Microscale Input Files
(Particulate Matter 10 (PM10))

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'Skating Club of Boston'   60   175   0   0   55   0.3048   1   0
'Soldiers/Jug NE1'   5230.2   6478.25   6
'Soldiers/Jug NE2'   5230.2   6403.25   6
'Soldiers/Jug NE3'   5230.2   6328.25   6
'Soldiers/Jug NE4'   5296.96   6362.42   6
'Soldiers/Jug NE5'   5363.73   6396.6   6
'Soldiers/Jug SE1'   5398.65   6298.39   6
'Soldiers/Jug SE2'   5332.53   6263   6
'Soldiers/Jug SE3'   5266.41   6227.61   6
'Soldiers/Jug SE4'   5266.41   6152.61   6
'Soldiers/Jug SE5'   5265.78   6077.61   6
'Soldiers/Jug SW1'   5204.32   6056.03   6
'Soldiers/Jug SW2'   5204   6131.03   6
'Soldiers/Jug SW3'   5204.32   6206.03   6
'Soldiers/Jug SW4'   5136.65   6173.69   6
'Soldiers/Jug SW5'   5068.98   6141.35   6
'Soldiers/Jug NW1'   5031.32   6236.22   6
'Soldiers/Jug NW2'   5099.76   6266.89   6
'Soldiers/Jug NW3'   5168.2   6297.56   6
'Soldiers/Jug NW4'   5168.2   6372.56   6
'Soldiers/Jug NW5'   5168.2   6447.56   6
'Western/Ever NE1'   5269.08   5895.94   6
'Western/Ever NE2'   5267.37   5820.96   6
'Western/Ever NE3'   5265.66   5745.98   6
'Western/Ever NE4'   5339.63   5758.39   6
'Western/Ever NE5'   5413.6   5770.8   6
'Western/Ever SE1'   5416.08   5684.02   6
'Western/Ever SE2'   5342.11   5671.61   6
'Western/Ever SE3'   5268.14   5659.2   6
'Western/Ever SE4'   5244.74   5587.94   6
'Western/Ever SE5'   5221.33   5516.69   6
'Western/Ever SW1'   5140.35   5507.29   6
'Western/Ever SW2'   5163.76   5578.54   6
'Western/Ever SW3'   5187.16   5649.79   6
'Western/Ever SW4'   5112.95   5638.95   6
'Western/Ever SW5'   5038.74   5628.12   6
'Western/Ever NW1'   5054.93   5711.33   6
'Western/Ever NW2'   5129.14   5722.17   6
'Western/Ever NW3'   5203.35   5733.01   6
'Western/Ever NW4'   5205.06   5807.99   6
'Western/Ever NW5'   5206.76   5882.97   6
'Ever/Rt20 NE1'   4271.65   2618.41   6
'Ever/Rt20 NE2'   4252.22   2545.97   6
'Ever/Rt20 NE3'   4232.79   2473.53   6
'Ever/Rt20 NE4'   4306.28   2458.54   6
'Ever/Rt20 NE5'   4379.77   2443.56   6
'Ever/Rt20 S1'   4333   2377.57   6
'Ever/Rt20 S2'   4259.51   2392.56   6
'Ever/Rt20 S3'   4186.02   2407.54   6
'Ever/Rt20 S4'   4112.04   2419.86   6
'Ever/Rt20 S5'   4038.06   2432.18   6
'Ever/Rt20 NW1'   4023.7   2509.59   6
'Ever/Rt20 NW2'   4097.69   2497.27   6
'Ever/Rt20 NW3'   4171.67   2484.95   6
'Ever/Rt20 NW4'   4191.1   2557.39   6
'Ever/Rt20 NW5'   4210.53   2629.83   6
'2013EX'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   200   0.0838   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1505   0.0838   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   245   0.0838   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1255   0.0838   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   240   0.0838   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   730   0.0838   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   320   0.0838   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   685   0.0838   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   365   0.0838   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   565   0.0838   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   685   0.0838   1600   1   3
 2
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'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   215   0.0838   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.0838   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1425   0.0838   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.0838   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   140   0.0838   1600   1   3
 2
'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1485   0.0838   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   180   0.0838   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   855   0.0838   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   340   0.0838   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1035   0.0838   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   220   0.0838   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   200   0.0335   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1505   0.0335   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1400   0.0335   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   460   0.0335   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1255   0.0335   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1590   0.0335   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   460   0.0335   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1350   0.0335   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   795   0.0335   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1345   0.0335   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   620   0.0335   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   1340   0.0335   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   1270   0.0335   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1040   0.0335   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1160   0.0335   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   340   0.0335   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   1935   0.0335   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   220   0.0335   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   460   0.0335   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   480   0.0335   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3070   0.0335   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0335   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   2970   0.0335   1   102
1   0   4   1000   0   'Y'   10   0   36
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'Skating Club of Boston'   60   175   0   0   40   0.3048   1   0
'Birm/Linc NE1'   2174.45   4423.09   6
'Birm/Linc NE2'   2139.18   4356.91   6
'Birm/Linc NE3'   2103.9   4290.72   6
'Birm/Linc NE4'   2176.88   4273.42   6
'Birm/Linc NE5'   2249.85   4256.13   6
'Birm/Linc SE1'   2228.12   4197.56   6
'Birm/Linc SE2'   2130.66   4220.66   6
'Birm/Linc SE3'   2082.17   4232.15   6
'Birm/Linc SE4'   2050.96   4163.96   6
'Birm/Linc SE5'   2019.75   4095.76   6
'Birm/Linc SW1'   1911.26   4065.36   6
'Birm/Linc SW2'   1942.47   4133.55   6
'Birm/Linc SW3'   1973.68   4201.75   6
'Birm/Linc SW4'   1905.67   4170.12   6
'Birm/Linc SW5'   1837.66   4138.5   6
'Birm/Linc NW1'   1831.18   4255.52   6
'Birm/Linc NW2'   1899.57   4286.31   6
'Birm/Linc NW3'   1967.96   4317.1   6
'Birm/Linc NW4'   2003.64   4383.07   6
'Birm/Linc NW5'   2039.33   4449.04   6
'Camb/Linc NE1'   7013.36   3812.14   6
'Camb/Linc NE2'   7045.6   3744.43   6
'Camb/Linc NE3'   7077.85   3676.71   6
'Camb/Linc NE4'   7145.56   3708.96   6
'Camb/Linc NE5'   7213.28   3741.2   6
'Camb/Linc SE1'   7278.54   3637.16   6
'Camb/Linc SE2'   7210.83   3604.91   6
'Camb/Linc SE3'   7143.11   3572.67   6
'Camb/Linc SE4'   7144.86   3497.69   6
'Camb/Linc SE5'   7146.6   3422.71   6
'Camb/Linc SW1'   7085.26   3393.48   6
'Camb/Linc SW2'   7083.52   3468.46   6
'Camb/Linc SW3'   7081.78   3543.44   6
'Camb/Linc SW4'   7014.09   3511.14   6
'Camb/Linc SW5'   6946.41   3478.83   6
'Camb/Linc NW1'   6870.27   3577.67   6
'Camb/Linc NW2'   6937.95   3609.98   6
'Camb/Linc NW3'   7005.64   3642.28   6
'Camb/Linc NW4'   6973.39   3710   6
'Camb/Linc NW5'   6941.15   3777.71   6
'2013EX'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   200   0.0838   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1505   0.0838   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   245   0.0838   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1255   0.0838   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   240   0.0838   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   730   0.0838   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   320   0.0838   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   685   0.0838   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   365   0.0838   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   565   0.0838   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   685   0.0838   1600   1   3
 2
'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   215   0.0838   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.0838   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1425   0.0838   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.0838   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   140   0.0838   1600   1   3
 2
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2013EX_2_PM10.inp

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'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1485   0.0838   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   180   0.0838   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   855   0.0838   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   340   0.0838   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1035   0.0838   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   220   0.0838   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   200   0.0335   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1505   0.0335   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1400   0.0335   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   460   0.0335   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1255   0.0335   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1590   0.0335   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   460   0.0335   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1350   0.0335   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   795   0.0335   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1345   0.0335   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   620   0.0335   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   1340   0.0335   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   1270   0.0335   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1040   0.0335   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1160   0.0335   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   340   0.0335   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   1935   0.0335   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   220   0.0335   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   460   0.0335   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   480   0.0335   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3070   0.0335   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0335   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   2970   0.0335   1   102
1   0   4   1000   0   'Y'   10   0   36
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2018 No-Build
Microscale Input Files
(Particulate Matter 10 (PM10))

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'Skating Club of Boston'   60   175   0   0   55   0.3048   1   0
'Soldiers/Jug NE1'   5230.2   6478.25   6
'Soldiers/Jug NE2'   5230.2   6403.25   6
'Soldiers/Jug NE3'   5230.2   6328.25   6
'Soldiers/Jug NE4'   5296.96   6362.42   6
'Soldiers/Jug NE5'   5363.73   6396.6   6
'Soldiers/Jug SE1'   5398.65   6298.39   6
'Soldiers/Jug SE2'   5332.53   6263   6
'Soldiers/Jug SE3'   5266.41   6227.61   6
'Soldiers/Jug SE4'   5266.41   6152.61   6
'Soldiers/Jug SE5'   5265.78   6077.61   6
'Soldiers/Jug SW1'   5204.32   6056.03   6
'Soldiers/Jug SW2'   5204   6131.03   6
'Soldiers/Jug SW3'   5204.32   6206.03   6
'Soldiers/Jug SW4'   5136.65   6173.69   6
'Soldiers/Jug SW5'   5068.98   6141.35   6
'Soldiers/Jug NW1'   5031.32   6236.22   6
'Soldiers/Jug NW2'   5099.76   6266.89   6
'Soldiers/Jug NW3'   5168.2   6297.56   6
'Soldiers/Jug NW4'   5168.2   6372.56   6
'Soldiers/Jug NW5'   5168.2   6447.56   6
'Western/Ever NE1'   5269.08   5895.94   6
'Western/Ever NE2'   5267.37   5820.96   6
'Western/Ever NE3'   5265.66   5745.98   6
'Western/Ever NE4'   5339.63   5758.39   6
'Western/Ever NE5'   5413.6   5770.8   6
'Western/Ever SE1'   5416.08   5684.02   6
'Western/Ever SE2'   5342.11   5671.61   6
'Western/Ever SE3'   5268.14   5659.2   6
'Western/Ever SE4'   5244.74   5587.94   6
'Western/Ever SE5'   5221.33   5516.69   6
'Western/Ever SW1'   5140.35   5507.29   6
'Western/Ever SW2'   5163.76   5578.54   6
'Western/Ever SW3'   5187.16   5649.79   6
'Western/Ever SW4'   5112.95   5638.95   6
'Western/Ever SW5'   5038.74   5628.12   6
'Western/Ever NW1'   5054.93   5711.33   6
'Western/Ever NW2'   5129.14   5722.17   6
'Western/Ever NW3'   5203.35   5733.01   6
'Western/Ever NW4'   5205.06   5807.99   6
'Western/Ever NW5'   5206.76   5882.97   6
'Ever/Rt20 NE1'   4271.65   2618.41   6
'Ever/Rt20 NE2'   4252.22   2545.97   6
'Ever/Rt20 NE3'   4232.79   2473.53   6
'Ever/Rt20 NE4'   4306.28   2458.54   6
'Ever/Rt20 NE5'   4379.77   2443.56   6
'Ever/Rt20 S1'   4333   2377.57   6
'Ever/Rt20 S2'   4259.51   2392.56   6
'Ever/Rt20 S3'   4186.02   2407.54   6
'Ever/Rt20 S4'   4112.04   2419.86   6
'Ever/Rt20 S5'   4038.06   2432.18   6
'Ever/Rt20 NW1'   4023.7   2509.59   6
'Ever/Rt20 NW2'   4097.69   2497.27   6
'Ever/Rt20 NW3'   4171.67   2484.95   6
'Ever/Rt20 NW4'   4191.1   2557.39   6
'Ever/Rt20 NW5'   4210.53   2629.83   6
'2018NB'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   220   0.07225   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   0.07225   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   276   0.07225   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   0.07225   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   263   0.07225   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   850   0.07225   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   400   0.07225   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   784   0.07225   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   406   0.07225   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   786   0.07225   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1208   0.07225   1600   1   3
 2
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'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   221   0.07225   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.07225   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1666   0.07225   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.07225   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   0.07225   1600   1   3
 2
'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   0.07225   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   0.07225   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   0.07225   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   384   0.07225   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1258   0.07225   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   244   0.07225   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   220   0.0289   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   0.0289   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1595   0.0289   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   513   0.0289   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   0.0289   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   0.0289   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   515   0.0289   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1612   0.0289   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   940   0.0289   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1527   0.0289   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   744   0.0289   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2038   0.0289   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2018   0.0289   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   0.0289   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1349   0.0289   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   384   0.0289   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2424   0.0289   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   244   0.0289   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   0.0289   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   528   0.0289   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3728   0.0289   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0289   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   0.0289   1   102
1   0   4   1000   0   'Y'   10   0   36
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'Skating Club of Boston'   60   175   0   0   40   0.3048   1   0
'Birm/Linc NE1'   2174.45   4423.09   6
'Birm/Linc NE2'   2139.18   4356.91   6
'Birm/Linc NE3'   2103.9   4290.72   6
'Birm/Linc NE4'   2176.88   4273.42   6
'Birm/Linc NE5'   2249.85   4256.13   6
'Birm/Linc SE1'   2228.12   4197.56   6
'Birm/Linc SE2'   2130.66   4220.66   6
'Birm/Linc SE3'   2082.17   4232.15   6
'Birm/Linc SE4'   2050.96   4163.96   6
'Birm/Linc SE5'   2019.75   4095.76   6
'Birm/Linc SW1'   1911.26   4065.36   6
'Birm/Linc SW2'   1942.47   4133.55   6
'Birm/Linc SW3'   1973.68   4201.75   6
'Birm/Linc SW4'   1905.67   4170.12   6
'Birm/Linc SW5'   1837.66   4138.5   6
'Birm/Linc NW1'   1831.18   4255.52   6
'Birm/Linc NW2'   1899.57   4286.31   6
'Birm/Linc NW3'   1967.96   4317.1   6
'Birm/Linc NW4'   2003.64   4383.07   6
'Birm/Linc NW5'   2039.33   4449.04   6
'Camb/Linc NE1'   7013.36   3812.14   6
'Camb/Linc NE2'   7045.6   3744.43   6
'Camb/Linc NE3'   7077.85   3676.71   6
'Camb/Linc NE4'   7145.56   3708.96   6
'Camb/Linc NE5'   7213.28   3741.2   6
'Camb/Linc SE1'   7278.54   3637.16   6
'Camb/Linc SE2'   7210.83   3604.91   6
'Camb/Linc SE3'   7143.11   3572.67   6
'Camb/Linc SE4'   7144.86   3497.69   6
'Camb/Linc SE5'   7146.6   3422.71   6
'Camb/Linc SW1'   7085.26   3393.48   6
'Camb/Linc SW2'   7083.52   3468.46   6
'Camb/Linc SW3'   7081.78   3543.44   6
'Camb/Linc SW4'   7014.09   3511.14   6
'Camb/Linc SW5'   6946.41   3478.83   6
'Camb/Linc NW1'   6870.27   3577.67   6
'Camb/Linc NW2'   6937.95   3609.98   6
'Camb/Linc NW3'   7005.64   3642.28   6
'Camb/Linc NW4'   6973.39   3710   6
'Camb/Linc NW5'   6941.15   3777.71   6
'2018NB'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   220   0.07225   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   0.07225   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   276   0.07225   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   0.07225   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   263   0.07225   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   850   0.07225   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   400   0.07225   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   784   0.07225   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   406   0.07225   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   786   0.07225   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1208   0.07225   1600   1   3
 2
'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   221   0.07225   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.07225   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1666   0.07225   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.07225   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   0.07225   1600   1   3
 2
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'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   0.07225   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   0.07225   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   0.07225   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   384   0.07225   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1258   0.07225   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   244   0.07225   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   220   0.0289   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   0.0289   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1595   0.0289   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   513   0.0289   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   0.0289   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   0.0289   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   515   0.0289   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1612   0.0289   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   940   0.0289   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1527   0.0289   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   744   0.0289   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2038   0.0289   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2018   0.0289   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   0.0289   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1349   0.0289   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   384   0.0289   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2424   0.0289   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   244   0.0289   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   0.0289   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   528   0.0289   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3728   0.0289   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0289   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   0.0289   1   102
1   0   4   1000   0   'Y'   10   0   36
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2018 Build
Microscale Input Files
(Particulate Matter 10 (PM10))

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'Skating Club of Boston'   60   175   0   0   55   0.3048   1   0
'Soldiers/Jug NE1'   5230.2   6478.25   6
'Soldiers/Jug NE2'   5230.2   6403.25   6
'Soldiers/Jug NE3'   5230.2   6328.25   6
'Soldiers/Jug NE4'   5296.96   6362.42   6
'Soldiers/Jug NE5'   5363.73   6396.6   6
'Soldiers/Jug SE1'   5398.65   6298.39   6
'Soldiers/Jug SE2'   5332.53   6263   6
'Soldiers/Jug SE3'   5266.41   6227.61   6
'Soldiers/Jug SE4'   5266.41   6152.61   6
'Soldiers/Jug SE5'   5265.78   6077.61   6
'Soldiers/Jug SW1'   5204.32   6056.03   6
'Soldiers/Jug SW2'   5204   6131.03   6
'Soldiers/Jug SW3'   5204.32   6206.03   6
'Soldiers/Jug SW4'   5136.65   6173.69   6
'Soldiers/Jug SW5'   5068.98   6141.35   6
'Soldiers/Jug NW1'   5031.32   6236.22   6
'Soldiers/Jug NW2'   5099.76   6266.89   6
'Soldiers/Jug NW3'   5168.2   6297.56   6
'Soldiers/Jug NW4'   5168.2   6372.56   6
'Soldiers/Jug NW5'   5168.2   6447.56   6
'Western/Ever NE1'   5269.08   5895.94   6
'Western/Ever NE2'   5267.37   5820.96   6
'Western/Ever NE3'   5265.66   5745.98   6
'Western/Ever NE4'   5339.63   5758.39   6
'Western/Ever NE5'   5413.6   5770.8   6
'Western/Ever SE1'   5416.08   5684.02   6
'Western/Ever SE2'   5342.11   5671.61   6
'Western/Ever SE3'   5268.14   5659.2   6
'Western/Ever SE4'   5244.74   5587.94   6
'Western/Ever SE5'   5221.33   5516.69   6
'Western/Ever SW1'   5140.35   5507.29   6
'Western/Ever SW2'   5163.76   5578.54   6
'Western/Ever SW3'   5187.16   5649.79   6
'Western/Ever SW4'   5112.95   5638.95   6
'Western/Ever SW5'   5038.74   5628.12   6
'Western/Ever NW1'   5054.93   5711.33   6
'Western/Ever NW2'   5129.14   5722.17   6
'Western/Ever NW3'   5203.35   5733.01   6
'Western/Ever NW4'   5205.06   5807.99   6
'Western/Ever NW5'   5206.76   5882.97   6
'Ever/Rt20 NE1'   4271.65   2618.41   6
'Ever/Rt20 NE2'   4252.22   2545.97   6
'Ever/Rt20 NE3'   4232.79   2473.53   6
'Ever/Rt20 NE4'   4306.28   2458.54   6
'Ever/Rt20 NE5'   4379.77   2443.56   6
'Ever/Rt20 S1'   4333   2377.57   6
'Ever/Rt20 S2'   4259.51   2392.56   6
'Ever/Rt20 S3'   4186.02   2407.54   6
'Ever/Rt20 S4'   4112.04   2419.86   6
'Ever/Rt20 S5'   4038.06   2432.18   6
'Ever/Rt20 NW1'   4023.7   2509.59   6
'Ever/Rt20 NW2'   4097.69   2497.27   6
'Ever/Rt20 NW3'   4171.67   2484.95   6
'Ever/Rt20 NW4'   4191.1   2557.39   6
'Ever/Rt20 NW5'   4210.53   2629.83   6
'2018BD'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   228   0.07225   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   0.07225   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   281   0.07225   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   0.07225   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   271   0.07225   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   855   0.07225   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   412   0.07225   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   794   0.07225   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   419   0.07225   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   799   0.07225   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1214   0.07225   1600   1   3
 2
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2018BD_PM10.inp

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'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   272   0.07225   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.07225   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1744   0.07225   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.07225   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   0.07225   1600   1   3
 2
'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   0.07225   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   0.07225   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   0.07225   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   385   0.07225   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1259   0.07225   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   246   0.07225   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   228   0.0289   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   0.0289   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1600   0.0289   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   526   0.0289   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   0.0289   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   0.0289   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   524   0.0289   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1620   0.0289   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   975   0.0289   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1542   0.0289   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   776   0.0289   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2060   0.0289   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2028   0.0289   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   0.0289   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1352   0.0289   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   385   0.0289   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2426   0.0289   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   246   0.0289   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   0.0289   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   657   0.0289   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3857   0.0289   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0289   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   0.0289   1   102
1   0   4   1000   0   'Y'   10   0   36
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'Skating Club of Boston'   60   175   0   0   40   0.3048   1   0
'Birm/Linc NE1'   2174.45   4423.09   6
'Birm/Linc NE2'   2139.18   4356.91   6
'Birm/Linc NE3'   2103.9   4290.72   6
'Birm/Linc NE4'   2176.88   4273.42   6
'Birm/Linc NE5'   2249.85   4256.13   6
'Birm/Linc SE1'   2228.12   4197.56   6
'Birm/Linc SE2'   2130.66   4220.66   6
'Birm/Linc SE3'   2082.17   4232.15   6
'Birm/Linc SE4'   2050.96   4163.96   6
'Birm/Linc SE5'   2019.75   4095.76   6
'Birm/Linc SW1'   1911.26   4065.36   6
'Birm/Linc SW2'   1942.47   4133.55   6
'Birm/Linc SW3'   1973.68   4201.75   6
'Birm/Linc SW4'   1905.67   4170.12   6
'Birm/Linc SW5'   1837.66   4138.5   6
'Birm/Linc NW1'   1831.18   4255.52   6
'Birm/Linc NW2'   1899.57   4286.31   6
'Birm/Linc NW3'   1967.96   4317.1   6
'Birm/Linc NW4'   2003.64   4383.07   6
'Birm/Linc NW5'   2039.33   4449.04   6
'Camb/Linc NE1'   7013.36   3812.14   6
'Camb/Linc NE2'   7045.6   3744.43   6
'Camb/Linc NE3'   7077.85   3676.71   6
'Camb/Linc NE4'   7145.56   3708.96   6
'Camb/Linc NE5'   7213.28   3741.2   6
'Camb/Linc SE1'   7278.54   3637.16   6
'Camb/Linc SE2'   7210.83   3604.91   6
'Camb/Linc SE3'   7143.11   3572.67   6
'Camb/Linc SE4'   7144.86   3497.69   6
'Camb/Linc SE5'   7146.6   3422.71   6
'Camb/Linc SW1'   7085.26   3393.48   6
'Camb/Linc SW2'   7083.52   3468.46   6
'Camb/Linc SW3'   7081.78   3543.44   6
'Camb/Linc SW4'   7014.09   3511.14   6
'Camb/Linc SW5'   6946.41   3478.83   6
'Camb/Linc NW1'   6870.27   3577.67   6
'Camb/Linc NW2'   6937.95   3609.98   6
'Camb/Linc NW3'   7005.64   3642.28   6
'Camb/Linc NW4'   6973.39   3710   6
'Camb/Linc NW5'   6941.15   3777.71   6
'2018BD'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   228   0.07225   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   0.07225   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   281   0.07225   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   0.07225   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   271   0.07225   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   855   0.07225   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   412   0.07225   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   794   0.07225   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   419   0.07225   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   799   0.07225   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1214   0.07225   1600   1   3
 2
'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   272   0.07225   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.07225   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1744   0.07225   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.07225   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   0.07225   1600   1   3
 2
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'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   0.07225   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   0.07225   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   0.07225   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   385   0.07225   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1259   0.07225   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   246   0.07225   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   228   0.0289   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   0.0289   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1600   0.0289   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   526   0.0289   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   0.0289   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   0.0289   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   524   0.0289   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1620   0.0289   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   975   0.0289   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1542   0.0289   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   776   0.0289   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2060   0.0289   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2028   0.0289   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   0.0289   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1352   0.0289   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   385   0.0289   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2426   0.0289   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   246   0.0289   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   0.0289   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   657   0.0289   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3857   0.0289   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0289   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   0.0289   1   102
1   0   4   1000   0   'Y'   10   0   36
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2013 Existing
Microscale Input Files
(Particulate Matter 2.5 (PM2.5))

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'Skating Club of Boston'   60   175   0   0   55   0.3048   1   0
'Soldiers/Jug NE1'   5230.2   6478.25   6
'Soldiers/Jug NE2'   5230.2   6403.25   6
'Soldiers/Jug NE3'   5230.2   6328.25   6
'Soldiers/Jug NE4'   5296.96   6362.42   6
'Soldiers/Jug NE5'   5363.73   6396.6   6
'Soldiers/Jug SE1'   5398.65   6298.39   6
'Soldiers/Jug SE2'   5332.53   6263   6
'Soldiers/Jug SE3'   5266.41   6227.61   6
'Soldiers/Jug SE4'   5266.41   6152.61   6
'Soldiers/Jug SE5'   5265.78   6077.61   6
'Soldiers/Jug SW1'   5204.32   6056.03   6
'Soldiers/Jug SW2'   5204   6131.03   6
'Soldiers/Jug SW3'   5204.32   6206.03   6
'Soldiers/Jug SW4'   5136.65   6173.69   6
'Soldiers/Jug SW5'   5068.98   6141.35   6
'Soldiers/Jug NW1'   5031.32   6236.22   6
'Soldiers/Jug NW2'   5099.76   6266.89   6
'Soldiers/Jug NW3'   5168.2   6297.56   6
'Soldiers/Jug NW4'   5168.2   6372.56   6
'Soldiers/Jug NW5'   5168.2   6447.56   6
'Western/Ever NE1'   5269.08   5895.94   6
'Western/Ever NE2'   5267.37   5820.96   6
'Western/Ever NE3'   5265.66   5745.98   6
'Western/Ever NE4'   5339.63   5758.39   6
'Western/Ever NE5'   5413.6   5770.8   6
'Western/Ever SE1'   5416.08   5684.02   6
'Western/Ever SE2'   5342.11   5671.61   6
'Western/Ever SE3'   5268.14   5659.2   6
'Western/Ever SE4'   5244.74   5587.94   6
'Western/Ever SE5'   5221.33   5516.69   6
'Western/Ever SW1'   5140.35   5507.29   6
'Western/Ever SW2'   5163.76   5578.54   6
'Western/Ever SW3'   5187.16   5649.79   6
'Western/Ever SW4'   5112.95   5638.95   6
'Western/Ever SW5'   5038.74   5628.12   6
'Western/Ever NW1'   5054.93   5711.33   6
'Western/Ever NW2'   5129.14   5722.17   6
'Western/Ever NW3'   5203.35   5733.01   6
'Western/Ever NW4'   5205.06   5807.99   6
'Western/Ever NW5'   5206.76   5882.97   6
'Ever/Rt20 NE1'   4271.65   2618.41   6
'Ever/Rt20 NE2'   4252.22   2545.97   6
'Ever/Rt20 NE3'   4232.79   2473.53   6
'Ever/Rt20 NE4'   4306.28   2458.54   6
'Ever/Rt20 NE5'   4379.77   2443.56   6
'Ever/Rt20 S1'   4333   2377.57   6
'Ever/Rt20 S2'   4259.51   2392.56   6
'Ever/Rt20 S3'   4186.02   2407.54   6
'Ever/Rt20 S4'   4112.04   2419.86   6
'Ever/Rt20 S5'   4038.06   2432.18   6
'Ever/Rt20 NW1'   4023.7   2509.59   6
'Ever/Rt20 NW2'   4097.69   2497.27   6
'Ever/Rt20 NW3'   4171.67   2484.95   6
'Ever/Rt20 NW4'   4191.1   2557.39   6
'Ever/Rt20 NW5'   4210.53   2629.83   6
'2013EX'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   200   0.0458   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1505   0.0458   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   245   0.0458   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1255   0.0458   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   240   0.0458   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   730   0.0458   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   320   0.0458   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   685   0.0458   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   365   0.0458   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   565   0.0458   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   685   0.0458   1600   1   3
 2
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'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   215   0.0458   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.0458   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1425   0.0458   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.0458   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   140   0.0458   1600   1   3
 2
'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1485   0.0458   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   180   0.0458   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   855   0.0458   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   340   0.0458   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1035   0.0458   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   220   0.0458   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   200   0.0183   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1505   0.0183   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1400   0.0183   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   460   0.0183   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1255   0.0183   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1590   0.0183   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   460   0.0183   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1350   0.0183   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   795   0.0183   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1345   0.0183   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   620   0.0183   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   1340   0.0183   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   1270   0.0183   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1040   0.0183   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1160   0.0183   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   340   0.0183   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   1935   0.0183   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   220   0.0183   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   460   0.0183   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   480   0.0183   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3070   0.0183   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0183   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   2970   0.0183   1   102
1   0   4   1000   0   'Y'   10   0   36
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'Skating Club of Boston'   60   175   0   0   40   0.3048   1   0
'Birm/Linc NE1'   2174.45   4423.09   6
'Birm/Linc NE2'   2139.18   4356.91   6
'Birm/Linc NE3'   2103.9   4290.72   6
'Birm/Linc NE4'   2176.88   4273.42   6
'Birm/Linc NE5'   2249.85   4256.13   6
'Birm/Linc SE1'   2228.12   4197.56   6
'Birm/Linc SE2'   2130.66   4220.66   6
'Birm/Linc SE3'   2082.17   4232.15   6
'Birm/Linc SE4'   2050.96   4163.96   6
'Birm/Linc SE5'   2019.75   4095.76   6
'Birm/Linc SW1'   1911.26   4065.36   6
'Birm/Linc SW2'   1942.47   4133.55   6
'Birm/Linc SW3'   1973.68   4201.75   6
'Birm/Linc SW4'   1905.67   4170.12   6
'Birm/Linc SW5'   1837.66   4138.5   6
'Birm/Linc NW1'   1831.18   4255.52   6
'Birm/Linc NW2'   1899.57   4286.31   6
'Birm/Linc NW3'   1967.96   4317.1   6
'Birm/Linc NW4'   2003.64   4383.07   6
'Birm/Linc NW5'   2039.33   4449.04   6
'Camb/Linc NE1'   7013.36   3812.14   6
'Camb/Linc NE2'   7045.6   3744.43   6
'Camb/Linc NE3'   7077.85   3676.71   6
'Camb/Linc NE4'   7145.56   3708.96   6
'Camb/Linc NE5'   7213.28   3741.2   6
'Camb/Linc SE1'   7278.54   3637.16   6
'Camb/Linc SE2'   7210.83   3604.91   6
'Camb/Linc SE3'   7143.11   3572.67   6
'Camb/Linc SE4'   7144.86   3497.69   6
'Camb/Linc SE5'   7146.6   3422.71   6
'Camb/Linc SW1'   7085.26   3393.48   6
'Camb/Linc SW2'   7083.52   3468.46   6
'Camb/Linc SW3'   7081.78   3543.44   6
'Camb/Linc SW4'   7014.09   3511.14   6
'Camb/Linc SW5'   6946.41   3478.83   6
'Camb/Linc NW1'   6870.27   3577.67   6
'Camb/Linc NW2'   6937.95   3609.98   6
'Camb/Linc NW3'   7005.64   3642.28   6
'Camb/Linc NW4'   6973.39   3710   6
'Camb/Linc NW5'   6941.15   3777.71   6
'2013EX'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   200   0.0458   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1505   0.0458   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   245   0.0458   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1255   0.0458   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   240   0.0458   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   730   0.0458   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   320   0.0458   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   685   0.0458   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   365   0.0458   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   565   0.0458   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   685   0.0458   1600   1   3
 2
'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   215   0.0458   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.0458   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1425   0.0458   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.0458   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   140   0.0458   1600   1   3
 2
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'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1485   0.0458   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   180   0.0458   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   855   0.0458   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   340   0.0458   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1035   0.0458   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   220   0.0458   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   200   0.0183   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1505   0.0183   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1400   0.0183   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   460   0.0183   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1255   0.0183   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1590   0.0183   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   460   0.0183   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1350   0.0183   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   795   0.0183   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1345   0.0183   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   620   0.0183   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   1340   0.0183   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   1270   0.0183   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1040   0.0183   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1160   0.0183   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   340   0.0183   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   1935   0.0183   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   220   0.0183   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   460   0.0183   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   480   0.0183   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3070   0.0183   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0183   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   2970   0.0183   1   102
1   0   4   1000   0   'Y'   10   0   36
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2018 No-Build
Microscale Input Files
(Particulate Matter 2.5 (PM2.5))

```
'Skating Club of Boston'   60   175   0   0   55   0.3048   1   0
'Soldiers/Jug NE1'   5230.2   6478.25   6
'Soldiers/Jug NE2'   5230.2   6403.25   6
'Soldiers/Jug NE3'   5230.2   6328.25   6
'Soldiers/Jug NE4'   5296.96   6362.42   6
'Soldiers/Jug NE5'   5363.73   6396.6   6
'Soldiers/Jug SE1'   5398.65   6298.39   6
'Soldiers/Jug SE2'   5332.53   6263   6
'Soldiers/Jug SE3'   5266.41   6227.61   6
'Soldiers/Jug SE4'   5266.41   6152.61   6
'Soldiers/Jug SE5'   5265.78   6077.61   6
'Soldiers/Jug SW1'   5204.32   6056.03   6
'Soldiers/Jug SW2'   5204   6131.03   6
'Soldiers/Jug SW3'   5204.32   6206.03   6
'Soldiers/Jug SW4'   5136.65   6173.69   6
'Soldiers/Jug SW5'   5068.98   6141.35   6
'Soldiers/Jug NW1'   5031.32   6236.22   6
'Soldiers/Jug NW2'   5099.76   6266.89   6
'Soldiers/Jug NW3'   5168.2   6297.56   6
'Soldiers/Jug NW4'   5168.2   6372.56   6
'Soldiers/Jug NW5'   5168.2   6447.56   6
'Western/Ever NE1'   5269.08   5895.94   6
'Western/Ever NE2'   5267.37   5820.96   6
'Western/Ever NE3'   5265.66   5745.98   6
'Western/Ever NE4'   5339.63   5758.39   6
'Western/Ever NE5'   5413.6   5770.8   6
'Western/Ever SE1'   5416.08   5684.02   6
'Western/Ever SE2'   5342.11   5671.61   6
'Western/Ever SE3'   5268.14   5659.2   6
'Western/Ever SE4'   5244.74   5587.94   6
'Western/Ever SE5'   5221.33   5516.69   6
'Western/Ever SW1'   5140.35   5507.29   6
'Western/Ever SW2'   5163.76   5578.54   6
'Western/Ever SW3'   5187.16   5649.79   6
'Western/Ever SW4'   5112.95   5638.95   6
'Western/Ever SW5'   5038.74   5628.12   6
'Western/Ever NW1'   5054.93   5711.33   6
'Western/Ever NW2'   5129.14   5722.17   6
'Western/Ever NW3'   5203.35   5733.01   6
'Western/Ever NW4'   5205.06   5807.99   6
'Western/Ever NW5'   5206.76   5882.97   6
'Ever/Rt20 NE1'   4271.65   2618.41   6
'Ever/Rt20 NE2'   4252.22   2545.97   6
'Ever/Rt20 NE3'   4232.79   2473.53   6
'Ever/Rt20 NE4'   4306.28   2458.54   6
'Ever/Rt20 NE5'   4379.77   2443.56   6
'Ever/Rt20 S1'   4333   2377.57   6
'Ever/Rt20 S2'   4259.51   2392.56   6
'Ever/Rt20 S3'   4186.02   2407.54   6
'Ever/Rt20 S4'   4112.04   2419.86   6
'Ever/Rt20 S5'   4038.06   2432.18   6
'Ever/Rt20 NW1'   4023.7   2509.59   6
'Ever/Rt20 NW2'   4097.69   2497.27   6
'Ever/Rt20 NW3'   4171.67   2484.95   6
'Ever/Rt20 NW4'   4191.1   2557.39   6
'Ever/Rt20 NW5'   4210.53   2629.83   6
'2018NB'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   220   0.03525   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   0.03525   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   276   0.03525   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   0.03525   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   263   0.03525   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   850   0.03525   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   400   0.03525   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   784   0.03525   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   406   0.03525   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   786   0.03525   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1208   0.03525   1600   1   3
 2
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'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   221   0.03525   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.03525   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1666   0.03525   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.03525   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   0.03525   1600   1   3
 2
'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   0.03525   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   0.03525   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   0.03525   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   384   0.03525   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1258   0.03525   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   244   0.03525   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   220   0.0141   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   0.0141   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1595   0.0141   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   513   0.0141   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   0.0141   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   0.0141   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   515   0.0141   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1612   0.0141   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   940   0.0141   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1527   0.0141   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   744   0.0141   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2038   0.0141   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2018   0.0141   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   0.0141   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1349   0.0141   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   384   0.0141   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2424   0.0141   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   244   0.0141   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   0.0141   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   528   0.0141   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3728   0.0141   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0141   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   0.0141   1   102
1   0   4   1000   0   'Y'   10   0   36
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'Skating Club of Boston'   60   175   0   0   40   0.3048   1   0
'Birm/Linc NE1'   2174.45   4423.09   6
'Birm/Linc NE2'   2139.18   4356.91   6
'Birm/Linc NE3'   2103.9   4290.72   6
'Birm/Linc NE4'   2176.88   4273.42   6
'Birm/Linc NE5'   2249.85   4256.13   6
'Birm/Linc SE1'   2228.12   4197.56   6
'Birm/Linc SE2'   2130.66   4220.66   6
'Birm/Linc SE3'   2082.17   4232.15   6
'Birm/Linc SE4'   2050.96   4163.96   6
'Birm/Linc SE5'   2019.75   4095.76   6
'Birm/Linc SW1'   1911.26   4065.36   6
'Birm/Linc SW2'   1942.47   4133.55   6
'Birm/Linc SW3'   1973.68   4201.75   6
'Birm/Linc SW4'   1905.67   4170.12   6
'Birm/Linc SW5'   1837.66   4138.5   6
'Birm/Linc NW1'   1831.18   4255.52   6
'Birm/Linc NW2'   1899.57   4286.31   6
'Birm/Linc NW3'   1967.96   4317.1   6
'Birm/Linc NW4'   2003.64   4383.07   6
'Birm/Linc NW5'   2039.33   4449.04   6
'Camb/Linc NE1'   7013.36   3812.14   6
'Camb/Linc NE2'   7045.6   3744.43   6
'Camb/Linc NE3'   7077.85   3676.71   6
'Camb/Linc NE4'   7145.56   3708.96   6
'Camb/Linc NE5'   7213.28   3741.2   6
'Camb/Linc SE1'   7278.54   3637.16   6
'Camb/Linc SE2'   7210.83   3604.91   6
'Camb/Linc SE3'   7143.11   3572.67   6
'Camb/Linc SE4'   7144.86   3497.69   6
'Camb/Linc SE5'   7146.6   3422.71   6
'Camb/Linc SW1'   7085.26   3393.48   6
'Camb/Linc SW2'   7083.52   3468.46   6
'Camb/Linc SW3'   7081.78   3543.44   6
'Camb/Linc SW4'   7014.09   3511.14   6
'Camb/Linc SW5'   6946.41   3478.83   6
'Camb/Linc NW1'   6870.27   3577.67   6
'Camb/Linc NW2'   6937.95   3609.98   6
'Camb/Linc NW3'   7005.64   3642.28   6
'Camb/Linc NW4'   6973.39   3710   6
'Camb/Linc NW5'   6941.15   3777.71   6
'2018NB'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   220   0.03525   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   0.03525   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   276   0.03525   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   0.03525   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   263   0.03525   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   850   0.03525   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   400   0.03525   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   784   0.03525   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   406   0.03525   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   786   0.03525   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1208   0.03525   1600   1   3
 2
'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   221   0.03525   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.03525   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1666   0.03525   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.03525   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   0.03525   1600   1   3
 2
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'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   0.03525   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   0.03525   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   0.03525   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   384   0.03525   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1258   0.03525   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   244   0.03525   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   220   0.0141   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   0.0141   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1595   0.0141   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   513   0.0141   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   0.0141   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   0.0141   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   515   0.0141   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1612   0.0141   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   940   0.0141   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1527   0.0141   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   744   0.0141   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2038   0.0141   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2018   0.0141   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   0.0141   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1349   0.0141   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   384   0.0141   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2424   0.0141   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   244   0.0141   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   0.0141   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   528   0.0141   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3728   0.0141   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0141   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   0.0141   1   102
1   0   4   1000   0   'Y'   10   0   36
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2018 Build
Microscale Input Files
(Particulate Matter 2.5 (PM2.5))

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'Skating Club of Boston'   60   175   0   0   55   0.3048   1   0
'Soldiers/Jug NE1'   5230.2   6478.25   6
'Soldiers/Jug NE2'   5230.2   6403.25   6
'Soldiers/Jug NE3'   5230.2   6328.25   6
'Soldiers/Jug NE4'   5296.96   6362.42   6
'Soldiers/Jug NE5'   5363.73   6396.6   6
'Soldiers/Jug SE1'   5398.65   6298.39   6
'Soldiers/Jug SE2'   5332.53   6263   6
'Soldiers/Jug SE3'   5266.41   6227.61   6
'Soldiers/Jug SE4'   5266.41   6152.61   6
'Soldiers/Jug SE5'   5265.78   6077.61   6
'Soldiers/Jug SW1'   5204.32   6056.03   6
'Soldiers/Jug SW2'   5204   6131.03   6
'Soldiers/Jug SW3'   5204.32   6206.03   6
'Soldiers/Jug SW4'   5136.65   6173.69   6
'Soldiers/Jug SW5'   5068.98   6141.35   6
'Soldiers/Jug NW1'   5031.32   6236.22   6
'Soldiers/Jug NW2'   5099.76   6266.89   6
'Soldiers/Jug NW3'   5168.2   6297.56   6
'Soldiers/Jug NW4'   5168.2   6372.56   6
'Soldiers/Jug NW5'   5168.2   6447.56   6
'Western/Ever NE1'   5269.08   5895.94   6
'Western/Ever NE2'   5267.37   5820.96   6
'Western/Ever NE3'   5265.66   5745.98   6
'Western/Ever NE4'   5339.63   5758.39   6
'Western/Ever NE5'   5413.6   5770.8   6
'Western/Ever SE1'   5416.08   5684.02   6
'Western/Ever SE2'   5342.11   5671.61   6
'Western/Ever SE3'   5268.14   5659.2   6
'Western/Ever SE4'   5244.74   5587.94   6
'Western/Ever SE5'   5221.33   5516.69   6
'Western/Ever SW1'   5140.35   5507.29   6
'Western/Ever SW2'   5163.76   5578.54   6
'Western/Ever SW3'   5187.16   5649.79   6
'Western/Ever SW4'   5112.95   5638.95   6
'Western/Ever SW5'   5038.74   5628.12   6
'Western/Ever NW1'   5054.93   5711.33   6
'Western/Ever NW2'   5129.14   5722.17   6
'Western/Ever NW3'   5203.35   5733.01   6
'Western/Ever NW4'   5205.06   5807.99   6
'Western/Ever NW5'   5206.76   5882.97   6
'Ever/Rt20 NE1'   4271.65   2618.41   6
'Ever/Rt20 NE2'   4252.22   2545.97   6
'Ever/Rt20 NE3'   4232.79   2473.53   6
'Ever/Rt20 NE4'   4306.28   2458.54   6
'Ever/Rt20 NE5'   4379.77   2443.56   6
'Ever/Rt20 S1'   4333   2377.57   6
'Ever/Rt20 S2'   4259.51   2392.56   6
'Ever/Rt20 S3'   4186.02   2407.54   6
'Ever/Rt20 S4'   4112.04   2419.86   6
'Ever/Rt20 S5'   4038.06   2432.18   6
'Ever/Rt20 NW1'   4023.7   2509.59   6
'Ever/Rt20 NW2'   4097.69   2497.27   6
'Ever/Rt20 NW3'   4171.67   2484.95   6
'Ever/Rt20 NW4'   4191.1   2557.39   6
'Ever/Rt20 NW5'   4210.53   2629.83   6
'2018BD'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   228   0.03525   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   0.03525   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   281   0.03525   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   0.03525   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   271   0.03525   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   855   0.03525   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   412   0.03525   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   794   0.03525   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   419   0.03525   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   799   0.03525   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1214   0.03525   1600   1   3
 2
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'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   272   0.03525   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.03525   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1744   0.03525   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.03525   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   0.03525   1600   1   3
 2
'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   0.03525   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   0.03525   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   0.03525   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   385   0.03525   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1259   0.03525   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   246   0.03525   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   228   0.0141   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   0.0141   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1600   0.0141   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   526   0.0141   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   0.0141   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   0.0141   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   524   0.0141   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1620   0.0141   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   975   0.0141   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1542   0.0141   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   776   0.0141   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2060   0.0141   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2028   0.0141   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   0.0141   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1352   0.0141   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   385   0.0141   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2426   0.0141   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   246   0.0141   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   0.0141   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   657   0.0141   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3857   0.0141   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0141   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   0.0141   1   102
1   0   4   1000   0   'Y'   10   0   36
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'Skating Club of Boston'   60   175   0   0   40   0.3048   1   0
'Birm/Linc NE1'   2174.45   4423.09   6
'Birm/Linc NE2'   2139.18   4356.91   6
'Birm/Linc NE3'   2103.9   4290.72   6
'Birm/Linc NE4'   2176.88   4273.42   6
'Birm/Linc NE5'   2249.85   4256.13   6
'Birm/Linc SE1'   2228.12   4197.56   6
'Birm/Linc SE2'   2130.66   4220.66   6
'Birm/Linc SE3'   2082.17   4232.15   6
'Birm/Linc SE4'   2050.96   4163.96   6
'Birm/Linc SE5'   2019.75   4095.76   6
'Birm/Linc SW1'   1911.26   4065.36   6
'Birm/Linc SW2'   1942.47   4133.55   6
'Birm/Linc SW3'   1973.68   4201.75   6
'Birm/Linc SW4'   1905.67   4170.12   6
'Birm/Linc SW5'   1837.66   4138.5   6
'Birm/Linc NW1'   1831.18   4255.52   6
'Birm/Linc NW2'   1899.57   4286.31   6
'Birm/Linc NW3'   1967.96   4317.1   6
'Birm/Linc NW4'   2003.64   4383.07   6
'Birm/Linc NW5'   2039.33   4449.04   6
'Camb/Linc NE1'   7013.36   3812.14   6
'Camb/Linc NE2'   7045.6   3744.43   6
'Camb/Linc NE3'   7077.85   3676.71   6
'Camb/Linc NE4'   7145.56   3708.96   6
'Camb/Linc NE5'   7213.28   3741.2   6
'Camb/Linc SE1'   7278.54   3637.16   6
'Camb/Linc SE2'   7210.83   3604.91   6
'Camb/Linc SE3'   7143.11   3572.67   6
'Camb/Linc SE4'   7144.86   3497.69   6
'Camb/Linc SE5'   7146.6   3422.71   6
'Camb/Linc SW1'   7085.26   3393.48   6
'Camb/Linc SW2'   7083.52   3468.46   6
'Camb/Linc SW3'   7081.78   3543.44   6
'Camb/Linc SW4'   7014.09   3511.14   6
'Camb/Linc SW5'   6946.41   3478.83   6
'Camb/Linc NW1'   6870.27   3577.67   6
'Camb/Linc NW2'   6937.95   3609.98   6
'Camb/Linc NW3'   7005.64   3642.28   6
'Camb/Linc NW4'   6973.39   3710   6
'Camb/Linc NW5'   6941.15   3777.71   6
'2018BD'   45   1   0   'P'
 2
'Soldier/Jug SB LTR'   'AG'   5198.91   6311.72   5197.15   6386.44   1   20   2
69   45   3   228   0.03525   1600   1   3
 2
'Soldier/Jug WB TT'   'AG'   5228.83   6294.14   5334.41   6353.04   1   20   2
69   24   3   1597   0.03525   1600   1   3
 2
'Soldier/Jug NB LTR'   'AG'   5237.63   6215.91   5234.99   6098.11   1   10   1
69   45   3   281   0.03525   1600   1   3
 2
'Soldiers/Jug EB TTR'   'AG'   5191.87   6230.85   5101.25   6188.66   1   20   2
69   24   3   1431   0.03525   1600   1   3
 2
'Western/Ever SB LTR'   'AG'   5231.79   5725.24   5234.01   5820.67   1   10   1
90   63   3   271   0.03525   1600   1   3
 2
'Western/Ever WB LTR'   'AG'   5264.94   5714.2   5374.38   5732.84   1   10   1
90   55   3   855   0.03525   1600   1   3
 2
'West/Ever NB LTR'   'AG'   5233.85   5654.56   5205.25   5570.07   1   20   2
90   63   3   412   0.03525   1600   1   3
 2
'West/Ever EB LTR'   'AG'   5190.32   5675.68   5054.77   5659.53   1   20   2
90   55   3   794   0.03525   1600   1   3
 2
'Ever/Rt20 SB LR'   'AG'   4193.64   2488.99   4217.1   2570.05   1   10   1
119   80   3   419   0.03525   1600   1   3
 2
'Ever/Rt20 WB TR'   'AG'   4221.01   2443.09   4307.03   2425.51   1   20   2
119   55   3   799   0.03525   1600   1   3
 2
'Ever/Rt20 EB LTT'   'AG'   4155.51   2436.25   4050.91   2454.81   1   20   2
119   55   3   1214   0.03525   1600   1   3
 2
'Camb/Linc SB LR'   'AG'   7036.14   3650.09   6995.66   3733.16   1   20   2
110   89   3   272   0.03525   1600   1   3
 2
'Camb/Linc WB L'   'AG'   7113.82   3630.42   7193.69   3670.86   1   10   1
110   91   3   5   0.03525   1600   1   3
 2
'Camb/Linc WB TTR'   'AG'   7096.32   3646.81   7179.46   3689.44   1   20   2
110   40   3   1744   0.03525   1600   1   3
 2
'Camb/Linc NB LTR'   'AG'   7116.01   3570.3   7120.38   3516.74   1   10   1
110   89   3   5   0.03525   1600   1   3
 2
'Camb/Linc EB L'   'AG'   7032.86   3580.14   6975.97   3552.81   1   10   1
110   91   3   144   0.03525   1600   1   3
 2
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'Camb/Linc EB TTTR'   'AG'   7047.43   3560.66   6988.61   3532.63   1   30   3
110   40   3   1898   0.03525   1600   1   3
 2
'Birm/Linc SB R'   'AG'   2027.5   4361.01   2072.32   4441.31   1   10   1
90   20   3   190   0.03525   1600   1   3
 2
'Birm/Linc SB TT'   'AG'   2045.2   4352.97   2091.25   4435.36   1   20   2
90   37   3   962   0.03525   1600   1   3
 2
'Birm/Linc WB LTR'   'AG'   2100.89   4264.16   2168.9   4249.18   1   20   2
90   70   3   385   0.03525   1600   1   3
 2
'Birm/Linc NB LTT'   'AG'   2029.7   4188.83   1974.88   4073.83   1   20   2
90   37   3   1259   0.03525   1600   1   3
 2
'Birm/Linc EB LLTR'   'AG'   1966.66   4229.91   1850.18   4177.88   1   20   2
90   73   3   246   0.03525   1600   1   3
 1
'Soldier/Jug N'   'AG'   5199.2   6279.54   5199.2   6392.52   228   0.0141   1   42
 1
'Soldier/Jug E-N'   'AG'   5199.2   6277.56   5400.57   6380.63   1597   0.0141   1   42
 1
'Soldier/Jug E-S'   'AG'   5219.27   6237.54   5420.92   6345.47   1600   0.0141   1   42
 1
'Soldier/Jug S'   'AG'   5235.48   6245.16   5234.58   6031.11   526   0.0141   1   42
 1
'Soldier/Jug W-S'   'AG'   5214.48   6245.25   4975.32   6130.94   1431   0.0141   1   42
 1
'Soldier/Jug W-N'   'AG'   5200.37   6278.01   4964.52   6172.31   1692   0.0141   1   42
 1
'West/Ever N'   'AG'   5233.54   5696.99   5238.15   5899.54   524   0.0141   1   42
 1
'West/Ever E'   'AG'   5233.54   5696.99   5535.35   5747.63   1620   0.0141   1   66
 1
'West/Ever S'   'AG'   5236.27   5680.72   5158.2   5443.08   975   0.0141   1   54
 1
'West/Ever W'   'AG'   5233.54   5696.99   4823.26   5637.07   1542   0.0141   1   60
 1
'Ever/Rt20 N'   'AG'   4192.76   2443.93   4258.33   2688.39   776   0.0141   1   42
 1
'Ever/Rt20 E'   'AG'   4192.76   2443.93   4427.86   2395.99   2060   0.0141   1   54
 1
'Ever/Rt20 W'   'AG'   4192.76   2443.93   3904.89   2491.86   2028   0.0141   1   54
 1
'Birm/Linc N-SB'   'AG'   1998.59   4295.96   2178.66   4628.86   1152   0.0141   1   54
 1
'Birm/Linc N NB'   'AG'   2048.59   4265.62   2230.29   4606.5   1352   0.0141   1   54
 1
'Birm/Linc E'   'AG'   2048.59   4271.97   2311.95   4209.55   385   0.0141   1   42
 1
'Birm/Linc S'   'AG'   2043.75   4251.54   1930.53   4004.14   2426   0.0141   1   66
 1
'Birm/Linc W-EB'   'AG'   2011.35   4253.46   1764.63   4138.72   246   0.0141   1   42
 1
'Birm/Linc W-WB'   'AG'   1974.48   4286.04   1744.78   4182.63   518   0.0141   1   42
 1
'Camb/Linc N'   'AG'   7067.96   3604.44   6988.98   3770.3   657   0.0141   1   60
 1
'Camb/Linc E'   'AG'   7067.96   3604.44   7289.34   3709.86   3857   0.0141   1   102
 1
'Camb/Linc S'   'AG'   7111.48   3599.61   7116.31   3391.88   10   0.0141   1   42
 1
'Camb/Linc W'   'AG'   7067.96   3604.44   6777.84   3465.96   3591   0.0141   1   102
1   0   4   1000   0   'Y'   10   0   36
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Microscale (CAL3QHC) Output Files

2013 Existing
2018 No-Build Condition
2018 Build Condition

2013 Existing
Microscale Output Files
(Carbon Monoxide (CO))

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♀                    CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221                        PAGE  1

      JOB: Skating Club of Boston                              RUN: 2013EX

      DATE :  8/22/13
      TIME : 16:29:57

         The MODE flag has been set to C for calculating CO averages.

       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =   0.0 CM/S      VD =   0.0 CM/S      Z0 = 175. CM
        U =  1.0 M/S        CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =  0.0 PPM

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*--------------------------------------*-------------------------------------------------------
----
       1. Soldier/Jug SB LTR  *   5198.9    6311.7    5198.3    6336.3 *      25.   359. AG    190. 100.0    1.0 20.0
0.23   1.2
       2. Soldier/Jug WB TT   *   5228.8    6294.1    5321.4    6345.8 *     106.    61. AG    101. 100.0    1.0 20.0
0.81   5.4
       3. Soldier/Jug NB LTR  *   5237.6    6215.9    5236.3    6155.6 *      60.   181. AG     95. 100.0    1.0 10.0
0.56   3.1
       4. Soldiers/Jug EB TTR *   5191.9    6230.9    5117.3    6196.1 *      82.   245. AG    101. 100.0    1.0 20.0
0.68   4.2
       5. Western/Ever SB LTR *   5231.8    5725.2    5233.7    5807.9 *      83.     1. AG    102. 100.0    1.0 10.0
0.61   4.2
       6. Western/Ever WB LTR *   5264.9    5714.2    7544.8    6102.5 *    2313.    80. AG     89. 100.0    1.0 10.0
1.37 117.5
       7. West/Ever NB LTR    *   5233.9    5654.6    5216.2    5602.4 *      55.   199. AG    204. 100.0    1.0 20.0
0.41   2.8
       8. West/Ever EB LTR    *   5190.3    5675.7    5088.2    5663.5 *     103.   263. AG    178. 100.0    1.0 20.0
0.64   5.2
       9. Ever/Rt20 SB LR     *   4193.6    2489.0    4240.6    2651.3 *     169.    16. AG     98. 100.0    1.0 10.0
0.80   8.6
      10. Ever/Rt20 WB TR     *   4221.0    2443.1    4304.1    2426.1 *      85.   102. AG    135. 100.0    1.0 20.0
0.36   4.3
      11. Ever/Rt20 EB LTT    *   4155.5    2436.3    4054.2    2454.2 *     103.   280. AG    135. 100.0    1.0 20.0
0.43   5.2
      12. Camb/Linc SB LR     *   7036.1    3650.1    7013.3    3696.9 *      52.   334. AG    236. 100.0    1.0 20.0
0.46   2.6
      13. Camb/Linc WB L      *   7113.8    3630.4    7116.0    3631.5 *       2.    63. AG    121. 100.0    1.0 10.0
0.02   0.1
      14. Camb/Linc WB TTR    *   7096.3    3646.8    7234.9    3717.9 *     156.    63. AG    106. 100.0    1.0 20.0
0.75   7.9
      15. Camb/Linc NB LTR    *   7116.0    3570.3    7116.2    3567.9 *       2.   175. AG    118. 100.0    1.0 10.0
0.02   0.1
      16. Camb/Linc EB L      *   7032.9    3580.1    6966.6    3548.3 *      74.   244. AG    121. 100.0    1.0 10.0
0.69   3.7
      17. Camb/Linc EB TTTR   *   7047.4    3560.7    6949.7    3514.1 *     108.   245. AG    159. 100.0    1.0 30.0
0.52   5.5
      18. Birm/Linc SB R      *   2027.5    4361.0    2037.1    4378.2 *      20.    29. AG     32. 100.0    1.0 10.0
0.16   1.0
      19. Birm/Linc SB TT     *   2045.2    4353.0    2087.3    4428.4 *      86.    29. AG    120. 100.0    1.0 20.0
0.50   4.4
      20. Birm/Linc WB LTR    *   2100.9    4264.2    2165.3    4250.0 *      66.   102. AG    227. 100.0    1.0 20.0
0.64   3.3
      21. Birm/Linc NB LTT    *   2029.7    4188.8    1984.7    4094.4 *     105.   205. AG    120. 100.0    1.0 20.0
0.61   5.3
      22. Birm/Linc EB LLTR   *   1966.7    4229.9    1926.6    4212.0 *      44.   246. AG    237. 100.0    1.0 20.0
0.52   2.2
      23. Soldier/Jug N       *   5199.2    6279.5    5199.2    6392.5 *     113.   360. AG    200.   9.8    1.0 42.0
      24. Soldier/Jug E-N     *   5199.2    6277.6    5400.6    6380.6 *     226.    63. AG   1505.   9.8    1.0 42.0
      25. Soldier/Jug E-S     *   5219.3    6237.5    5420.9    6345.5 *     229.    62. AG   1400.   9.8    1.0 42.0
      26. Soldier/Jug S       *   5235.5    6245.2    5234.6    6031.1 *     214.   180. AG    460.   9.8    1.0 42.0
      27. Soldier/Jug W-S     *   5214.5    6245.3    4975.3    6130.9 *     265.   244. AG   1255.   9.8    1.0 42.0
      28. Soldier/Jug W-N     *   5200.4    6278.0    4964.5    6172.3 *     258.   246. AG   1590.   9.8    1.0 42.0
      29. West/Ever N         *   5233.5    5697.0    5238.2    5899.5 *     203.     1. AG    460.   9.8    1.0 42.0
      30. West/Ever E         *   5233.5    5697.0    5535.4    5747.6 *     306.    80. AG   1350.   9.8    1.0 66.0
      31. West/Ever S         *   5236.3    5680.7    5158.2    5443.1 *     250.   198. AG    795.   9.8    1.0 54.0
      32. West/Ever W         *   5233.5    5697.0    4823.3    5637.1 *     415.   262. AG   1345.   9.8    1.0 60.0
      33. Ever/Rt20 N         *   4192.8    2443.9    4258.3    2688.4 *     253.    15. AG    620.   9.8    1.0 42.0
      34. Ever/Rt20 E         *   4192.8    2443.9    4427.9    2396.0 *     240.   102. AG   1340.   9.8    1.0 54.0
      35. Ever/Rt20 W         *   4192.8    2443.9    3904.9    2491.9 *     292.   279. AG   1270.   9.8    1.0 54.0
      36. Birm/Linc N-SB      *   1998.6    4296.0    2178.7    4628.9 *     378.    28. AG   1040.   9.8    1.0 54.0
      37. Birm/Linc N NB      *   2048.6    4265.6    2230.3    4606.5 *     386.    28. AG   1160.   9.8    1.0 54.0
      38. Birm/Linc E         *   2048.6    4272.0    2312.0    4209.5 *     271.   103. AG    340.   9.8    1.0 42.0
      39. Birm/Linc S         *   2043.8    4251.5    1930.5    4004.1 *     272.   205. AG   1935.   9.8    1.0 66.0
      40. Birm/Linc W-EB      *   2011.4    4253.5    1764.6    4138.7 *     272.   245. AG    220.   9.8    1.0 42.0
      41. Birm/Linc W-WB      *   1974.5    4286.0    1744.8    4182.6 *     252.   246. AG    460.   9.8    1.0 42.0
      42. Camb/Linc N         *   7068.0    3604.4    6989.0    3770.3 *     184.   335. AG    480.   9.8    1.0 60.0
      43. Camb/Linc E         *   7068.0    3604.4    7289.3    3709.9 *     245.    65. AG   3070.   9.8    1.0 ****
      44. Camb/Linc S         *   7111.5    3599.6    7116.3    3391.9 *     208.   179. AG     10.   9.8    1.0 42.0
♀                                                                                                            PAGE  2
      JOB: Skating Club of Boston                              RUN: 2013EX
```



```
      DATE :  8/22/13
      TIME : 16:29:57

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*--------------------------------------*-------------------------------------------------------
----
      45. Camb/Linc W         *   7068.0    3604.4    6777.8    3466.0 *     321.   244. AG   2970.   9.8    1.0 ****
♀                                                                                                            PAGE  3
      JOB: Skating Club of Boston                              RUN: 2013EX

      DATE :  8/22/13
      TIME : 16:29:57

       ADDITIONAL QUEUE LINK PARAMETERS
       --------------------------------
         LINK DESCRIPTION     *    CYCLE    RED     CLEARANCE  APPROACH  SATURATION   IDLE   SIGNAL    ARRIVAL
                              *    LENGTH   TIME    LOST TIME    VOL     FLOW RATE   EM FAC   TYPE      RATE
                              *    (SEC)    (SEC)     (SEC)     (VPH)      (VPH)     (gm/hr)
      ------------------------*--------------------------------------------------------------------------------
       1. Soldier/Jug SB LTR  *     69       45        3.0       200       1600      54.39      1         3
       2. Soldier/Jug WB TT   *     69       24        3.0      1505       1600      54.39      1         3
       3. Soldier/Jug NB LTR  *     69       45        3.0       245       1600      54.39      1         3
       4. Soldiers/Jug EB TTR *     69       24        3.0      1255       1600      54.39      1         3
       5. Western/Ever SB LTR *     90       63        3.0       240       1600      54.39      1         3
       6. Western/Ever WB LTR *     90       55        3.0       730       1600      54.39      1         3
       7. West/Ever NB LTR    *     90       63        3.0       320       1600      54.39      1         3
       8. West/Ever EB LTR    *     90       55        3.0       685       1600      54.39      1         3
       9. Ever/Rt20 SB LR     *    119       80        3.0       365       1600      54.39      1         3
      10. Ever/Rt20 WB TR     *    119       55        3.0       565       1600      54.39      1         3
      11. Ever/Rt20 EB LTT    *    119       55        3.0       685       1600      54.39      1         3
      12. Camb/Linc SB LR     *    110       89        3.0       215       1600      54.39      1         3
      13. Camb/Linc WB L      *    110       91        3.0         5       1600      54.39      1         3
      14. Camb/Linc WB TTR    *    110       40        3.0      1425       1600      54.39      1         3
      15. Camb/Linc NB LTR    *    110       89        3.0         5       1600      54.39      1         3
      16. Camb/Linc EB L      *    110       91        3.0       140       1600      54.39      1         3
      17. Camb/Linc EB TTTR   *    110       40        3.0      1485       1600      54.39      1         3
      18. Birm/Linc SB R      *     90       20        3.0       180       1600      54.39      1         3
      19. Birm/Linc SB TT     *     90       37        3.0       855       1600      54.39      1         3
      20. Birm/Linc WB LTR    *     90       70        3.0       340       1600      54.39      1         3
      21. Birm/Linc NB LTT    *     90       37        3.0      1035       1600      54.39      1         3
      22. Birm/Linc EB LLTR   *     90       73        3.0       220       1600      54.39      1         3

       RECEPTOR LOCATIONS
       ------------------
                              *         COORDINATES (FT)           *
         RECEPTOR             *      X           Y          Z      *
      ------------------------*------------------------------------*
       1. Soldiers/Jug NE1    *      5230.2      6478.3       6.0   *
       2. Soldiers/Jug NE2    *      5230.2      6403.2       6.0   *
       3. Soldiers/Jug NE3    *      5230.2      6328.3       6.0   *
       4. Soldiers/Jug NE4    *      5297.0      6362.4       6.0   *
       5. Soldiers/Jug NE5    *      5363.7      6396.6       6.0   *
       6. Soldiers/Jug SE1    *      5398.7      6298.4       6.0   *
       7. Soldiers/Jug SE2    *      5332.5      6263.0       6.0   *
       8. Soldiers/Jug SE3    *      5266.4      6227.6       6.0   *
       9. Soldiers/Jug SE4    *      5266.4      6152.6       6.0   *
      10. Soldiers/Jug SE5    *      5265.8      6077.6       6.0   *
      11. Soldiers/Jug SW1    *      5204.3      6056.0       6.0   *
      12. Soldiers/Jug SW2    *      5204.0      6131.0       6.0   *
      13. Soldiers/Jug SW3    *      5204.3      6206.0       6.0   *
      14. Soldiers/Jug SW4    *      5136.6      6173.7       6.0   *
      15. Soldiers/Jug SW5    *      5069.0      6141.4       6.0   *
      16. Soldiers/Jug NW1    *      5031.3      6236.2       6.0   *
      17. Soldiers/Jug NW2    *      5099.8      6266.9       6.0   *
      18. Soldiers/Jug NW3    *      5168.2      6297.6       6.0   *
      19. Soldiers/Jug NW4    *      5168.2      6372.6       6.0   *
      20. Soldiers/Jug NW5    *      5168.2      6447.6       6.0   *
      21. Western/Ever NE1    *      5269.1      5895.9       6.0   *
      22. Western/Ever NE2    *      5267.4      5821.0       6.0   *
      23. Western/Ever NE3    *      5265.7      5746.0       6.0   *
♀                                                                                                            PAGE  4
      JOB: Skating Club of Boston                              RUN: 2013EX

      DATE :  8/22/13
      TIME : 16:29:57


       RECEPTOR LOCATIONS
       ------------------
                              *         COORDINATES (FT)           *
         RECEPTOR             *      X           Y          Z      *
      ------------------------*------------------------------------*
      24. Western/Ever NE4    *      5339.6      5758.4       6.0   *
      25. Western/Ever NE5    *      5413.6      5770.8       6.0   *
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  26. Western/Ever SE1     *      5416.1     5684.0        6.0   *
  27. Western/Ever SE2     *      5342.1     5671.6        6.0   *
  28. Western/Ever SE3     *      5268.1     5659.2        6.0   *
  29. Western/Ever SE4     *      5244.7     5587.9        6.0   *
  30. Western/Ever SE5     *      5221.3     5516.7        6.0   *
  31. Western/Ever SW1     *      5140.4     5507.3        6.0   *
  32. Western/Ever SW2     *      5163.8     5578.5        6.0   *
  33. Western/Ever SW3     *      5187.2     5649.8        6.0   *
  34. Western/Ever SW4     *      5113.0     5639.0        6.0   *
  35. Western/Ever SW5     *      5038.7     5628.1        6.0   *
  36. Western/Ever NW1     *      5054.9     5711.3        6.0   *
  37. Western/Ever NW2     *      5129.1     5722.2        6.0   *
  38. Western/Ever NW3     *      5203.4     5733.0        6.0   *
  39. Western/Ever NW4     *      5205.1     5808.0        6.0   *
  40. Western/Ever NW5     *      5206.8     5883.0        6.0   *
  41. Ever/Rt20 NE1        *      4271.6     2618.4        6.0   *
  42. Ever/Rt20 NE2        *      4252.2     2546.0        6.0   *
  43. Ever/Rt20 NE3        *      4232.8     2473.5        6.0   *
  44. Ever/Rt20 NE4        *      4306.3     2458.5        6.0   *
  45. Ever/Rt20 NE5        *      4379.8     2443.6        6.0   *
  46. Ever/Rt20 S1         *      4333.0     2377.6        6.0   *
  47. Ever/Rt20 S2         *      4259.5     2392.6        6.0   *
  48. Ever/Rt20 S3         *      4186.0     2407.5        6.0   *
  49. Ever/Rt20 S4         *      4112.0     2419.9        6.0   *
  50. Ever/Rt20 S5         *      4038.1     2432.2        6.0   *
  51. Ever/Rt20 NW1        *      4023.7     2509.6        6.0   *
  52. Ever/Rt20 NW2        *      4097.7     2497.3        6.0   *
  53. Ever/Rt20 NW3        *      4171.7     2485.0        6.0   *
  54. Ever/Rt20 NW4        *      4191.1     2557.4        6.0   *
  55. Ever/Rt20 NW5        *      4210.5     2629.8        6.0   *
♀                                                                                               PAGE  5
      JOB: Skating Club of Boston                                  RUN: 2013EX

       MODEL RESULTS
       -------------

       REMARKS : In search of the angle corresponding to
                 the maximum concentration, only the first
                 angle, of the angles with same maximum
                 concentrations, is indicated as maximum.

 WIND ANGLE RANGE:   0.-360.

 WIND  * CONCENTRATION
 ANGLE *      (PPM)
 (DEGR)* REC1  REC2  REC3  REC4  REC5  REC6  REC7  REC8  REC9  REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
REC19 REC20

------*-----------------------------------------------------------------------------------------------------------
-------
   0.  *   0.0   0.0   0.0   0.0   0.0   0.5   0.6   0.7   0.5   0.3   0.5   0.4   0.8   0.8   0.6   0.0   0.0   0.0
0.0   0.0
  10.  *   0.0   0.0   0.0   0.0   0.0   0.4   0.6   0.8   0.5   0.2   0.3   0.5   0.7   0.9   0.7   0.0   0.0   0.0
0.0   0.0
  20.  *   0.0   0.0   0.0   0.0   0.0   0.3   0.6   0.9   0.3   0.2   0.4   0.7   0.9   1.0   0.7   0.0   0.0   0.2
0.0   0.0
  30.  *   0.0   0.0   0.0   0.0   0.0   0.2   0.7   0.8   0.3   0.1   0.4   0.5   0.9   0.9   0.8   0.0   0.0   0.3
0.0   0.0
  40.  *   0.0   0.0   0.0   0.0   0.0   0.2   0.5   0.7   0.1   0.0   0.3   0.5   1.0   1.1   0.9   0.0   0.0   0.3
0.0   0.0
  50.  *   0.0   0.0   0.1   0.0   0.0   0.1   0.3   0.5   0.1   0.0   0.1   0.3   0.9   0.9   0.8   0.1   0.1   0.4
0.0   0.0
  60.  *   0.0   0.0   0.2   0.1   0.0   0.0   0.2   0.3   0.0   0.0   0.1   0.2   0.6   0.6   0.7   0.3   0.4   0.6
0.0   0.0
  70.  *   0.0   0.0   0.5   0.2   0.0   0.0   0.1   0.1   0.0   0.0   0.1   0.1   0.5   0.3   0.2   0.5   0.6   0.9
0.0   0.0
  80.  *   0.0   0.0   0.8   0.4   0.1   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.3   0.3   0.0   0.8   0.9   1.1
0.2   0.0
  90.  *   0.0   0.1   0.9   0.5   0.1   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.2   0.0   1.1   1.0   1.0
0.3   0.0
 100.  *   0.0   0.2   1.0   0.7   0.2   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.1   0.0   0.9   0.8   0.8
0.5   0.1
 110.  *   0.0   0.3   1.0   0.8   0.2   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.1   0.0   0.8   0.9   0.7
0.5   0.2
 120.  *   0.1   0.4   0.8   0.7   0.4   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.3   0.1   0.0   0.7   0.8   0.6
0.6   0.2
 130.  *   0.2   0.4   0.8   0.8   0.4   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.1   0.0   0.6   0.8   0.8
0.6   0.3
 140.  *   0.2   0.4   0.8   0.8   0.6   0.0   0.0   0.0   0.0   0.0   0.2   0.1   0.3   0.0   0.1   0.6   0.7   0.8
0.7   0.3
 150.  *   0.3   0.4   0.8   0.8   0.6   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.3   0.1   0.1   0.6   0.7   0.8
0.6   0.3
 160.  *   0.3   0.4   0.8   0.8   0.6   0.0   0.0   0.1   0.1   0.1   0.1   0.2   0.3   0.1   0.0   0.6   0.7   0.8
0.7   0.2
 170.  *   0.3   0.4   0.9   0.9   0.6   0.0   0.1   0.1   0.1   0.1   0.1   0.2   0.1   0.0   0.1   0.6   0.7   0.7
0.5   0.4
 180.  *   0.2   0.4   0.9   0.9   0.6   0.0   0.0   0.1   0.1   0.1   0.1   0.0   0.1   0.1   0.1   0.7   0.7   0.7
0.4   0.2
 190.  *   0.3   0.5   0.9   1.0   0.7   0.0   0.0   0.2   0.1   0.1   0.1   0.1   0.1   0.1   0.1   0.7   0.8   0.9
0.4   0.2
 200.  *   0.2   0.6   1.0   1.1   0.8   0.0   0.0   0.4   0.2   0.2   0.1   0.1   0.1   0.1   0.0   0.7   0.7   0.8
```



```
0.3   0.3
 210.  *   0.2   0.5   0.8   1.1   0.8   0.0   0.2   0.4   0.2   0.2   0.1   0.1   0.0   0.0   0.0   0.6   0.7   0.8
0.3   0.2
 220.  *   0.2   0.5   1.0   1.0   1.0   0.0   0.1   0.4   0.1   0.2   0.1   0.0   0.0   0.0   0.0   0.5   0.8   0.8
0.3   0.1
 230.  *   0.0   0.2   1.0   0.9   0.9   0.1   0.2   0.3   0.1   0.1   0.0   0.0   0.1   0.0   0.0   0.3   0.6   0.8
0.1   0.0
 240.  *   0.0   0.1   0.9   0.7   0.6   0.4   0.3   0.3   0.1   0.1   0.0   0.0   0.2   0.1   0.1   0.2   0.3   0.5
0.0   0.0
 250.  *   0.0   0.0   0.6   0.3   0.3   0.7   0.7   0.8   0.1   0.1   0.0   0.0   0.5   0.3   0.2   0.1   0.2   0.2
0.0   0.0
 260.  *   0.0   0.0   0.5   0.1   0.0   0.8   0.9   0.8   0.2   0.1   0.0   0.1   0.8   0.5   0.3   0.0   0.1   0.1
0.0   0.0
 270.  *   0.0   0.0   0.4   0.0   0.0   0.9   0.8   1.0   0.4   0.1   0.0   0.2   1.0   0.6   0.5   0.0   0.0   0.0
0.0   0.0
 280.  *   0.0   0.0   0.3   0.0   0.0   0.9   0.7   1.0   0.5   0.2   0.0   0.3   1.0   0.7   0.5   0.0   0.0   0.0
0.0   0.0
 290.  *   0.0   0.0   0.3   0.0   0.0   0.8   0.8   0.8   0.7   0.3   0.1   0.4   1.0   0.7   0.6   0.0   0.0   0.0
0.0   0.0
 300.  *   0.0   0.0   0.2   0.0   0.0   0.8   0.7   0.8   0.8   0.3   0.2   0.4   0.9   0.7   0.6   0.0   0.0   0.0
0.0   0.0
 310.  *   0.0   0.0   0.1   0.0   0.0   0.7   0.7   0.6   0.7   0.3   0.2   0.5   0.8   0.7   0.6   0.0   0.0   0.0
0.0   0.0
 320.  *   0.0   0.0   0.1   0.0   0.0   0.7   0.7   0.8   0.5   0.5   0.2   0.5   0.8   0.7   0.6   0.0   0.0   0.0
0.0   0.0
 330.  *   0.0   0.0   0.0   0.0   0.0   0.6   0.7   0.8   0.6   0.4   0.2   0.5   0.7   0.8   0.6   0.0   0.0   0.0
0.0   0.0
 340.  *   0.0   0.0   0.0   0.0   0.0   0.6   0.7   0.7   0.4   0.7   0.3   0.5   0.6   0.8   0.6   0.0   0.0   0.0
0.0   0.0
 350.  *   0.0   0.0   0.0   0.0   0.0   0.6   0.8   0.7   0.5   0.4   0.2   0.3   0.7   0.8   0.6   0.0   0.0   0.0
0.0   0.0
 360.  *   0.0   0.0   0.0   0.0   0.0   0.5   0.6   0.7   0.5   0.3   0.5   0.4   0.8   0.8   0.6   0.0   0.0   0.0
0.0   0.0

------*-----------------------------------------------------------------------------------------------------------
-------
 MAX   *   0.3   0.6   1.0   1.1   1.0   0.9   0.9   1.0   0.8   0.7   0.5   0.7   1.0   1.1   0.9   1.1   1.0   1.1
0.7   0.4
 DEGR. *  150   200   100   200   220   270   260   270   300   340     0    20    40    40    40    90    90    80
140   170

♀                                                                                               PAGE  6
      JOB: Skating Club of Boston                                  RUN: 2013EX

       MODEL RESULTS
       -------------

       REMARKS : In search of the angle corresponding to
                 the maximum concentration, only the first
                 angle, of the angles with same maximum
                 concentrations, is indicated as maximum.

 WIND ANGLE RANGE:   0.-360.

 WIND  * CONCENTRATION
 ANGLE *      (PPM)
 (DEGR)* REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
REC39 REC40

------*-----------------------------------------------------------------------------------------------------------
-------
   0.  *   0.2   0.0   0.1   0.0   0.0   0.4   0.4   0.5   0.7   0.6   0.2   0.4   0.6   0.7   0.3   0.1   0.1   0.1
0.0   0.0
  10.  *   0.2   0.1   0.0   0.0   0.0   0.4   0.4   0.4   0.4   0.4   0.3   0.3   0.7   0.7   0.3   0.1   0.0   0.2
0.1   0.3
  20.  *   0.0   0.0   0.0   0.0   0.0   0.4   0.5   0.5   0.3   0.3   0.4   0.5   0.6   0.8   0.4   0.0   0.0   0.3
0.1   0.1
  30.  *   0.0   0.0   0.0   0.0   0.0   0.5   0.5   0.5   0.3   0.2   0.5   0.5   0.8   0.8   0.4   0.0   0.0   0.4
0.1   0.0
  40.  *   0.0   0.0   0.0   0.0   0.0   0.5   0.5   0.5   0.3   0.2   0.5   0.7   0.7   1.0   0.5   0.0   0.1   0.4
0.1   0.0
  50.  *   0.0   0.0   0.0   0.0   0.0   0.5   0.5   0.5   0.3   0.2   0.6   0.7   0.6   0.9   0.6   0.0   0.1   0.3
0.1   0.0
  60.  *   0.0   0.0   0.0   0.0   0.0   0.5   0.6   0.7   0.2   0.2   0.5   0.7   0.8   1.1   0.8   0.0   0.2   0.3
0.1   0.1
  70.  *   0.0   0.0   0.2   0.2   0.1   0.5   0.5   0.6   0.2   0.1   0.3   0.6   0.9   0.9   0.9   0.3   0.4   0.5
0.1   0.1
  80.  *   0.0   0.1   0.4   0.4   0.3   0.2   0.3   0.4   0.1   0.0   0.2   0.4   0.9   0.8   0.8   0.4   0.6   0.8
0.2   0.1
  90.  *   0.1   0.1   0.6   0.5   0.4   0.2   0.2   0.2   0.0   0.0   0.2   0.2   0.6   0.5   0.5   0.7   0.6   0.8
0.4   0.2
 100.  *   0.1   0.2   0.7   0.6   0.5   0.0   0.0   0.0   0.0   0.0   0.2   0.2   0.5   0.2   0.2   0.7   0.6   0.9
0.4   0.2
 110.  *   0.1   0.3   0.6   0.6   0.6   0.0   0.0   0.0   0.0   0.0   0.2   0.2   0.6   0.2   0.1   0.9   0.5   0.8
0.6   0.3
 120.  *   0.2   0.3   0.6   0.6   0.6   0.0   0.0   0.0   0.0   0.0   0.2   0.2   0.6   0.1   0.1   0.9   0.8   0.5
0.6   0.3
 130.  *   0.2   0.3   0.6   0.6   0.6   0.0   0.0   0.0   0.0   0.0   0.2   0.2   0.5   0.1   0.1   0.8   0.8   0.6
0.6   0.3
 140.  *   0.2   0.3   0.6   0.6   0.6   0.0   0.0   0.0   0.0   0.0   0.2   0.2   0.5   0.1   0.1   0.7   0.8   0.6
0.6   0.4
```

150.	*	0.2	0.3	0.4	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.1	0.0	0.5	0.8	0.7	0.5	0.3
160.	*	0.2	0.3	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.1	0.0	0.4	0.7	0.5	0.5	0.4
170.	*	0.1	0.3	0.5	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.0	0.4	0.8	0.7	0.6	0.5
180.	*	0.2	0.3	0.6	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.0	0.3	0.6	0.7	0.6	0.4
190.	*	0.5	0.6	0.6	0.4	0.4	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.2	0.0	0.0	0.3	0.6	0.7	0.4	0.3
200.	*	0.6	0.6	0.8	0.6	0.6	0.0	0.0	0.3	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.4	0.6	0.7	0.3	0.2
210.	*	0.4	0.8	0.8	0.8	0.6	0.0	0.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.6	0.3	0.2
220.	*	0.4	0.6	0.8	0.8	0.7	0.0	0.1	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.7	0.3	0.1
230.	*	0.2	0.6	0.7	0.8	0.7	0.1	0.2	0.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.7	0.2	0.1
240.	*	0.2	0.4	0.9	0.8	0.8	0.1	0.2	0.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.7	0.2	0.1
250.	*	0.1	0.3	0.8	0.7	0.7	0.4	0.3	0.6	0.2	0.2	0.0	0.0	0.1	0.1	0.1	0.4	0.5	0.6	0.1	0.0
260.	*	0.1	0.1	0.6	0.6	0.5	0.6	0.6	0.7	0.2	0.2	0.0	0.0	0.4	0.2	0.2	0.3	0.3	0.3	0.0	0.0
270.	*	0.1	0.1	0.4	0.3	0.2	0.6	0.8	1.0	0.3	0.2	0.0	0.1	0.6	0.4	0.3	0.1	0.1	0.2	0.0	0.0
280.	*	0.1	0.1	0.3	0.2	0.0	0.6	0.6	1.0	0.5	0.3	0.0	0.1	0.9	0.5	0.4	0.0	0.0	0.0	0.0	0.0
290.	*	0.0	0.1	0.3	0.2	0.0	0.6	0.4	0.8	0.7	0.3	0.1	0.2	1.0	0.6	0.4	0.0	0.0	0.0	0.0	0.0
300.	*	0.0	0.1	0.3	0.1	0.0	0.5	0.7	0.6	0.8	0.3	0.1	0.2	0.9	0.5	0.4	0.0	0.0	0.0	0.0	0.0
310.	*	0.0	0.1	0.3	0.1	0.0	0.5	0.7	0.5	0.9	0.3	0.1	0.3	0.9	0.6	0.4	0.0	0.0	0.0	0.0	0.0
320.	*	0.2	0.1	0.3	0.0	0.0	0.5	0.5	0.6	0.9	0.4	0.1	0.3	0.9	0.7	0.4	0.0	0.0	0.0	0.0	0.0
330.	*	0.2	0.3	0.3	0.1	0.0	0.4	0.4	0.6	0.9	0.4	0.1	0.4	0.7	0.6	0.3	0.0	0.0	0.0	0.0	0.2
340.	*	0.2	0.3	0.4	0.0	0.0	0.4	0.4	0.5	0.8	0.6	0.2	0.4	0.7	0.7	0.3	0.0	0.0	0.1	0.2	0.2
350.	*	0.1	0.1	0.1	0.0	0.0	0.5	0.5	0.5	0.8	0.6	0.2	0.4	0.8	0.8	0.4	0.0	0.1	0.1	0.2	0.2
360.	*	0.2	0.0	0.1	0.0	0.0	0.4	0.4	0.5	0.7	0.6	0.2	0.4	0.6	0.7	0.3	0.1	0.1	0.1	0.0	0.0
MAX	*	0.6	0.8	0.9	0.8	0.8	0.6	0.8	1.0	0.9	0.6	0.6	0.7	1.0	1.1	0.9	0.9	0.8	0.9	0.6	0.5
DEGR.	*	200	210	240	210	240	260	270	270	310	0	50	40	290	60	70	110	120	100	110	170

JOB: Skating Club of Boston RUN: 2013EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	*	0.1	0.3	0.3	0.0	0.0	0.3	0.6	0.6	0.6	0.3	0.0	0.0	0.0	0.0	0.0
10.	*	0.1	0.1	0.3	0.0	0.0	0.4	0.6	0.7	0.6	0.3	0.0	0.0	0.2	0.1	0.0
20.	*	0.0	0.1	0.1	0.0	0.0	0.4	0.6	0.6	0.6	0.4	0.0	0.0	0.4	0.2	0.1
30.	*	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.5	0.8	0.4	0.0	0.0	0.5	0.4	0.1
40.	*	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.5	0.9	0.5	0.0	0.1	0.5	0.4	0.2
50.	*	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.6	0.9	0.9	0.0	0.2	0.5	0.4	0.3
60.	*	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.6	0.8	0.9	0.0	0.2	0.4	0.4	0.3
70.	*	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.7	0.9	1.0	0.2	0.2	0.4	0.4	0.4
80.	*	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.7	0.6	0.9	0.2	0.2	0.3	0.4	0.4
90.	*	0.0	0.0	0.1	0.1	0.0	0.2	0.3	0.5	0.7	0.9	0.3	0.3	0.4	0.4	0.4
100.	*	0.0	0.0	0.2	0.1	0.0	0.1	0.2	0.3	0.4	0.4	0.3	0.5	0.5	0.4	0.4
110.	*	0.0	0.0	0.5	0.3	0.1	0.0	0.1	0.1	0.1	0.3	0.5	0.6	0.7	0.4	0.4
120.	*	0.0	0.1	0.7	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.7	0.6	0.9	0.5	0.4
130.	*	0.0	0.1	0.8	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.8	0.6	0.4
140.	*	0.1	0.2	0.7	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.7	0.5
150.	*	0.1	0.2	0.7	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.5	0.7	0.5
160.	*	0.1	0.3	0.7	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.4	0.7	0.6
170.	*	0.1	0.3	0.7	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.5	0.6	0.6
180.	*	0.2	0.3	0.6	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.3	0.5	0.5
190.	*	0.3	0.3	0.6	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.4	0.3	0.3
200.	*	0.3	0.3	0.6	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.4	0.3	0.4
210.	*	0.4	0.4	0.5	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.5	0.3	0.2

220.	*	0.5	0.5	0.5	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.6	0.3	0.2
230.	*	0.6	0.6	0.5	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.6	0.3	0.1
240.	*	0.5	0.6	0.6	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.6	0.2	0.1
250.	*	0.5	0.6	0.7	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.6	0.2	0.1
260.	*	0.3	0.4	0.8	0.9	0.6	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.6	0.1	0.0
270.	*	0.3	0.4	0.8	0.8	0.7	0.2	0.1	0.2	0.1	0.1	0.2	0.3	0.5	0.0	0.0
280.	*	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.3	0.2	0.1	0.2	0.2	0.0	0.0
290.	*	0.3	0.3	0.4	0.3	0.3	0.7	0.6	0.7	0.5	0.3	0.0	0.1	0.1	0.0	0.0
300.	*	0.3	0.3	0.3	0.2	0.1	0.7	0.5	0.8	0.6	0.4	0.0	0.0	0.0	0.0	0.0
310.	*	0.3	0.3	0.3	0.2	0.2	0.8	0.7	0.6	0.7	0.4	0.0	0.0	0.0	0.0	0.0
320.	*	0.3	0.3	0.3	0.2	0.1	0.7	0.7	0.5	0.8	0.4	0.0	0.0	0.0	0.0	0.0
330.	*	0.2	0.4	0.4	0.2	0.0	0.7	0.8	0.5	0.8	0.4	0.0	0.0	0.0	0.0	0.0
340.	*	0.2	0.3	0.4	0.1	0.0	0.6	0.8	0.3	0.7	0.3	0.0	0.0	0.0	0.0	0.0
350.	*	0.1	0.3	0.4	0.0	0.0	0.3	0.7	0.5	0.6	0.3	0.0	0.0	0.0	0.0	0.0
360.	*	0.1	0.3	0.3	0.0	0.0	0.3	0.6	0.6	0.6	0.3	0.0	0.0	0.0	0.0	0.0
MAX	*	0.6	0.6	0.8	0.9	0.7	0.8	0.8	0.8	0.9	1.0	0.7	0.6	0.9	0.7	0.6
DEGR.	*	230	230	130	260	270	310	330	300	40	70	120	110	120	140	160

THE HIGHEST CONCENTRATION OF 1.10 PPM OCCURRED AT RECEPTOR REC14.

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221 PAGE 1

JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 16:30: 7

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. Soldier/Jug SB LTR	5198.9	6311.7	5198.3	6336.3	25.	359.	AG	190.	100.0	1.0	20.0	0.23	1.2
2. Soldier/Jug WB TT	5228.8	6294.1	5321.4	6345.8	106.	61.	AG	101.	100.0	1.0	20.0	0.81	5.4
3. Soldier/Jug NB LTR	5237.6	6215.9	5236.3	6155.6	60.	181.	AG	95.	100.0	1.0	10.0	0.56	3.1
4. Soldiers/Jug EB TTR	5191.9	6230.9	5117.3	6196.1	82.	245.	AG	101.	100.0	1.0	20.0	0.68	4.2
5. Western/Ever SB LTR	5231.8	5725.2	5233.7	5807.9	83.	1.	AG	102.	100.0	1.0	10.0	0.61	4.2
6. Western/Ever WB LTR	5264.9	5714.2	7544.8	6102.5	2313.	80.	AG	89.	100.0	1.0	10.0	1.37	117.5
7. West/Ever NB LTR	5233.9	5654.6	5216.2	5602.4	55.	199.	AG	204.	100.0	1.0	20.0	0.41	2.8
8. West/Ever EB LTR	5190.3	5675.7	5088.2	5663.5	103.	263.	AG	178.	100.0	1.0	20.0	0.64	5.2
9. Ever/Rt20 SB LR	4193.6	2489.0	4240.6	2651.3	169.	16.	AG	98.	100.0	1.0	10.0	0.80	8.6
10. Ever/Rt20 WB TR	4221.0	2443.1	4304.1	2426.1	85.	102.	AG	135.	100.0	1.0	20.0	0.36	4.3
11. Ever/Rt20 EB LTT	4155.5	2436.3	4054.2	2454.2	103.	280.	AG	135.	100.0	1.0	20.0	0.43	5.2
12. Camb/Linc SB LR	7036.1	3650.1	7013.3	3696.9	52.	334.	AG	236.	100.0	1.0	20.0	0.46	2.6
13. Camb/Linc WB L	7113.8	3630.4	7116.0	3631.5	2.	63.	AG	121.	100.0	1.0	10.0	0.02	0.1
14. Camb/Linc WB TTR	7096.3	3646.8	7234.9	3717.9	156.	63.	AG	106.	100.0	1.0	20.0	0.75	7.9
15. Camb/Linc NB LTR	7116.0	3570.3	7116.2	3567.9	2.	175.	AG	118.	100.0	1.0	10.0	0.02	0.1
16. Camb/Linc EB L	7032.9	3580.1	6966.6	3548.3	74.	244.	AG	121.	100.0	1.0	10.0	0.69	3.7
17. Camb/Linc EB TTTR	7047.4	3560.7	6949.7	3514.1	108.	245.	AG	159.	100.0	1.0	30.0	0.52	5.5
18. Birm/Linc SB R	2027.5	4361.0	2037.1	4378.2	20.	29.	AG	32.	100.0	1.0	10.0	0.16	1.0
19. Birm/Linc SB TT	2045.2	4353.0	2087.3	4428.4	86.	29.	AG	120.	100.0	1.0	20.0	0.50	4.4
20. Birm/Linc WB LTR	2100.9	4264.2	2165.3	4250.0	66.	102.	AG	227.	100.0	1.0	20.0	0.64	3.3
21. Birm/Linc NB LTT	2029.7	4188.8	1984.7	4094.4	105.	205.	AG	120.	100.0	1.0	20.0	0.61	5.3
22. Birm/Linc EB LLTR	1966.7	4229.9	1926.6	4212.0	44.	246.	AG	237.	100.0	1.0	20.0	0.52	2.2
23. Soldier/Jug N	5199.2	6279.5	5199.2	6392.5	113.	360.	AG	200.	9.8	1.0	42.0		
24. Soldier/Jug E-N	5199.2	6277.6	5400.6	6380.6	226.	63.	AG	1505.	9.8	1.0	42.0		
25. Soldier/Jug E-S	5219.3	6237.5	5420.9	6345.5	229.	62.	AG	1400.	9.8	1.0	42.0		
26. Soldier/Jug S	5235.5	6245.2	5234.6	6031.1	214.	180.	AG	460.	9.8	1.0	42.0		
27. Soldier/Jug W-S	5214.5	6245.3	4975.3	6130.9	265.	244.	AG	1255.	9.8	1.0	42.0		
28. Soldier/Jug W-N	5200.4	6278.0	4964.5	6172.3	258.	246.	AG	1590.	9.8	1.0	42.0		
29. West/Ever N	5233.5	5697.0	5238.2	5899.5	203.	1.	AG	460.	9.8	1.0	42.0		
30. West/Ever E	5233.5	5697.0	5535.4	5747.6	306.	80.	AG	1350.	9.8	1.0	66.0		
31. West/Ever S	5236.3	5680.7	5158.2	5443.1	250.	198.	AG	795.	9.8	1.0	54.0		
32. West/Ever W	5233.5	5697.0	4823.3	5637.1	415.	262.	AG	1345.	9.8	1.0	60.0		
33. Ever/Rt20 N	4192.8	2443.9	4258.3	2688.4	253.	15.	AG	620.	9.8	1.0	42.0		
34. Ever/Rt20 E	4192.8	2443.9	4427.9	2396.0	240.	102.	AG	1340.	9.8	1.0	54.0		
35. Ever/Rt20 W	4192.8	2443.9	3904.9	2491.9	292.	279.	AG	1270.	9.8	1.0	54.0		
36. Birm/Linc N-SB	1998.6	4296.0	2178.7	4628.9	378.	28.	AG	1040.	9.8	1.0	54.0		
37. Birm/Linc N NB	2048.6	4265.6	2230.3	4606.5	386.	28.	AG	1160.	9.8	1.0	54.0		
38. Birm/Linc E	2048.6	4272.0	2312.0	4209.5	271.	103.	AG	340.	9.8	1.0	42.0		
39. Birm/Linc S	2043.8	4251.5	1930.5	4004.1	272.	205.	AG	1935.	9.8	1.0	66.0		
40. Birm/Linc W-EB	2011.4	4253.5	1764.6	4138.7	272.	245.	AG	220.	9.8	1.0	42.0		
41. Birm/Linc W-WB	1974.5	4286.0	1744.8	4182.6	252.	246.	AG	460.	9.8	1.0	42.0		
42. Camb/Linc N	7068.0	3604.4	6989.0	3770.3	184.	335.	AG	480.	9.8	1.0	60.0		
43. Camb/Linc E	7068.0	3604.4	7289.3	3709.9	245.	65.	AG	3070.	9.8	1.0	****		
44. Camb/Linc S	7111.5	3599.6	7116.3	3391.9	208.	179.	AG	10.	9.8	1.0	42.0		

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JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 16:30: 7

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. Camb/Linc W	7068.0	3604.4	6777.8	3466.0	321.	244.	AG	2970.	9.8	1.0	****		

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JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 16:30: 7

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. Soldier/Jug SB LTR	69	45	3.0	200	1600	54.39	1	3
2. Soldier/Jug WB TT	69	24	3.0	1505	1600	54.39	1	3
3. Soldier/Jug NB LTR	69	45	3.0	245	1600	54.39	1	3
4. Soldiers/Jug EB TTR	69	24	3.0	1255	1600	54.39	1	3
5. Western/Ever SB LTR	90	63	3.0	240	1600	54.39	1	3
6. Western/Ever WB LTR	90	55	3.0	730	1600	54.39	1	3
7. West/Ever NB LTR	90	63	3.0	320	1600	54.39	1	3
8. West/Ever EB LTR	90	55	3.0	685	1600	54.39	1	3
9. Ever/Rt20 SB LR	119	80	3.0	365	1600	54.39	1	3
10. Ever/Rt20 WB TR	119	55	3.0	565	1600	54.39	1	3
11. Ever/Rt20 EB LTT	119	55	3.0	685	1600	54.39	1	3
12. Camb/Linc SB LR	110	89	3.0	215	1600	54.39	1	3
13. Camb/Linc WB L	110	91	3.0	5	1600	54.39	1	3
14. Camb/Linc WB TTR	110	40	3.0	1425	1600	54.39	1	3
15. Camb/Linc NB LTR	110	89	3.0	5	1600	54.39	1	3
16. Camb/Linc EB L	110	91	3.0	140	1600	54.39	1	3
17. Camb/Linc EB TTTR	110	40	3.0	1485	1600	54.39	1	3
18. Birm/Linc SB R	90	20	3.0	180	1600	54.39	1	3
19. Birm/Linc SB TT	90	37	3.0	855	1600	54.39	1	3
20. Birm/Linc WB LTR	90	70	3.0	340	1600	54.39	1	3
21. Birm/Linc NB LTT	90	37	3.0	1035	1600	54.39	1	3
22. Birm/Linc EB LLTR	90	73	3.0	220	1600	54.39	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. Birm/Linc NE1	2174.4	4423.1	6.0
2. Birm/Linc NE2	2139.2	4356.9	6.0
3. Birm/Linc NE3	2103.9	4290.7	6.0
4. Birm/Linc NE4	2176.9	4273.4	6.0
5. Birm/Linc NE5	2249.9	4256.1	6.0
6. Birm/Linc SE1	2228.1	4197.6	6.0
7. Birm/Linc SE2	2130.7	4220.7	6.0
8. Birm/Linc SE3	2082.2	4232.2	6.0
9. Birm/Linc SE4	2051.0	4164.0	6.0
10. Birm/Linc SE5	2019.8	4095.8	6.0
11. Birm/Linc SW1	1911.3	4065.4	6.0
12. Birm/Linc SW2	1942.5	4133.5	6.0
13. Birm/Linc SW3	1973.7	4201.7	6.0
14. Birm/Linc SW4	1905.7	4170.1	6.0
15. Birm/Linc SW5	1837.7	4138.5	6.0
16. Birm/Linc NW1	1831.2	4255.5	6.0
17. Birm/Linc NW2	1899.6	4286.3	6.0
18. Birm/Linc NW3	1968.0	4317.1	6.0
19. Birm/Linc NW4	2003.6	4383.1	6.0
20. Birm/Linc NW5	2039.3	4449.0	6.0
21. Camb/Linc NE1	7013.4	3812.1	6.0
22. Camb/Linc NE2	7045.6	3744.4	6.0
23. Camb/Linc NE3	7077.9	3676.7	6.0

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JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 16:30: 7

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
24. Camb/Linc NE4	7145.6	3709.0	6.0
25. Camb/Linc NE5	7213.3	3741.2	6.0

26.	Camb/Linc SE1	*	7278.5	3637.2	6.0	*
27.	Camb/Linc SE2	*	7210.8	3604.9	6.0	*
28.	Camb/Linc SE3	*	7143.1	3572.7	6.0	*
29.	Camb/Linc SE4	*	7144.9	3497.7	6.0	*
30.	Camb/Linc SE5	*	7146.6	3422.7	6.0	*
31.	Camb/Linc SW1	*	7085.3	3393.5	6.0	*
32.	Camb/Linc SW2	*	7083.5	3468.5	6.0	*
33.	Camb/Linc SW3	*	7081.8	3543.4	6.0	*
34.	Camb/Linc SW4	*	7014.1	3511.1	6.0	*
35.	Camb/Linc SW5	*	6946.4	3478.8	6.0	*
36.	Camb/Linc NW1	*	6870.3	3577.7	6.0	*
37.	Camb/Linc NW2	*	6938.0	3610.0	6.0	*
38.	Camb/Linc NW3	*	7005.6	3642.3	6.0	*
39.	Camb/Linc NW4	*	6973.4	3710.0	6.0	*
40.	Camb/Linc NW5	*	6941.2	3777.7	6.0	*

JOB: Skating Club of Boston RUN: 2013EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	0.5	0.5	0.7	0.3	0.1	0.2	0.9	0.7	0.7	1.0	0.1	0.2	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0
10. *	0.5	0.5	0.5	0.1	0.0	0.1	0.9	0.7	0.6	0.9	0.3	0.4	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0
20. *	0.3	0.3	0.5	0.0	0.0	0.1	0.6	0.6	0.6	0.8	0.5	0.5	0.6	0.5	0.2	0.0	0.0	0.1	0.1	0.1
30. *	0.2	0.2	0.2	0.0	0.0	0.1	0.5	0.5	0.3	0.3	0.6	0.6	0.8	0.7	0.3	0.0	0.1	0.3	0.2	0.2
40. *	0.1	0.1	0.1	0.0	0.0	0.1	0.4	0.5	0.2	0.2	0.8	0.7	0.6	0.6	0.5	0.1	0.2	0.6	0.5	0.4
50. *	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.1	0.0	0.7	0.9	0.6	0.6	0.5	0.2	0.4	0.7	0.7	0.5
60. *	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.1	0.0	0.7	0.8	0.6	0.5	0.4	0.2	0.4	0.7	0.7	0.6
70. *	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.0	0.0	0.7	0.8	0.7	0.5	0.3	0.3	0.3	0.6	0.7	0.5
80. *	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.0	0.0	0.5	0.7	0.6	0.4	0.3	0.3	0.3	0.5	0.7	0.5
90. *	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.0	0.5	0.7	0.5	0.4	0.3	0.4	0.4	0.5	0.7	0.5
100. *	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.5	0.7	0.6	0.4	0.3	0.4	0.4	0.5	0.7	0.5
110. *	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.6	0.4	0.2	0.4	0.3	0.5	0.7	0.6
120. *	0.0	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.7	0.4	0.2	0.5	0.4	0.6	0.7	0.6
130. *	0.0	0.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.7	0.4	0.2	0.4	0.5	0.4	0.7	0.7
140. *	0.0	0.0	0.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.7	0.3	0.2	0.3	0.6	0.3	0.6	0.7
150. *	0.0	0.0	0.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.7	0.3	0.1	0.2	0.6	0.3	0.6	0.8
160. *	0.0	0.1	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.8	0.3	0.0	0.2	0.4	0.4	0.5	0.8
170. *	0.0	0.1	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.7	0.2	0.0	0.1	0.4	0.6	0.6	0.7
180. *	0.1	0.2	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.7	0.1	0.0	0.1	0.2	0.6	0.7	0.7
190. *	0.1	0.3	0.4	0.2	0.1	0.0	0.0	0.1	0.1	0.0	0.2	0.4	0.6	0.1	0.0	0.1	0.1	0.5	0.5	0.5
200. *	0.3	0.4	0.6	0.3	0.1	0.0	0.0	0.3	0.2	0.1	0.1	0.3	0.4	0.0	0.0	0.1	0.1	0.3	0.3	0.3
210. *	0.5	0.6	0.7	0.5	0.1	0.0	0.1	0.6	0.5	0.3	0.0	0.1	0.2	0.0	0.0	0.1	0.2	0.2	0.3	0.2
220. *	0.5	0.6	0.8	0.7	0.1	0.0	0.3	0.8	0.8	0.4	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.2	0.1	0.0
230. *	0.6	0.5	0.7	0.9	0.2	0.1	0.4	0.8	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0
240. *	0.6	0.6	0.6	1.1	0.3	0.1	0.4	0.7	0.9	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
250. *	0.7	0.5	0.6	0.9	0.4	0.3	0.4	0.6	0.9	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0
260. *	0.6	0.5	0.6	0.8	0.4	0.3	0.4	0.6	0.8	0.6	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
270. *	0.6	0.6	0.4	0.6	0.4	0.2	0.4	0.6	0.8	0.6	0.0	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
280. *	0.5	0.6	0.4	0.4	0.4	0.2	0.3	0.6	0.9	0.7	0.0	0.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0
290. *	0.5	0.6	0.4	0.3	0.3	0.4	0.3	0.3	0.9	0.7	0.0	0.0	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0
300. *	0.5	0.6	0.5	0.3	0.2	0.5	0.4	0.3	0.8	0.8	0.0	0.1	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0
310. *	0.5	0.6	0.5	0.4	0.2	0.5	0.4	0.4	0.8	0.8	0.0	0.1	0.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0
320. *	0.5	0.6	0.6	0.4	0.2	0.4	0.6	0.5	0.7	0.9	0.0	0.1	0.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0
330. *	0.5	0.6	0.6	0.3	0.2	0.3	0.8	0.4	0.6	0.9	0.0	0.1	0.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0
340. *	0.5	0.6	0.7	0.3	0.2	0.3	0.9	0.7	0.6	1.0	0.0	0.2	0.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0
350. *	0.5	0.6	0.7	0.3	0.1	0.3	0.8	0.7	0.6	1.0	0.0	0.2	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0
360. *	0.5	0.5	0.7	0.3	0.1	0.2	0.9	0.7	0.7	1.0	0.1	0.2	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0
MAX *	0.7	0.6	0.8	1.1	0.4	0.5	0.9	0.8	0.9	1.0	0.8	0.9	0.8	0.7	0.5	0.5	0.6	0.7	0.7	0.8
DEGR. *	250	210	220	240	250	300	0	220	240	0	40	50	30	30	40	120	140	50	180	150

JOB: Skating Club of Boston RUN: 2013EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0. *	0.0	0.0	0.0	0.0	0.0	0.5	0.8	0.8	0.6	0.4	0.3	0.4	0.8	1.3	0.8	0.0	0.0	0.3	0.1	0.0
10. *	0.0	0.0	0.0	0.0	0.0	0.4	0.8	0.8	0.6	0.3	0.4	0.6	0.8	1.4	1.0	0.0	0.0	0.5	0.1	0.0
20. *	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.9	0.5	0.3	0.3	0.5	0.9	1.5	1.3	0.0	0.0	0.6	0.1	0.0
30. *	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.9	0.3	0.2	0.2	0.5	0.9	1.2	1.5	0.0	0.2	0.6	0.1	0.0
40. *	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.8	0.2	0.1	0.1	0.3	0.9	1.2	1.5	0.0	0.2	0.6	0.1	0.0
50. *	0.0	0.0	0.1	0.1	0.0	0.1	0.5	0.7	0.1	0.0	0.0	0.2	0.7	1.0	1.4	0.3	0.5	0.7	0.1	0.0
60. *	0.0	0.0	0.3	0.2	0.0	0.1	0.3	0.5	0.0	0.0	0.0	0.1	0.5	0.6	0.9	0.5	0.5	0.9	0.1	0.0
70. *	0.0	0.0	0.6	0.5	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.3	0.3	0.5	1.0	1.0	1.1	0.1	0.0
80. *	0.0	0.1	0.9	0.6	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.9	1.0	1.2	0.2	0.0
90. *	0.0	0.2	1.0	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.9	1.2	0.6	0.1
100. *	0.1	0.4	1.1	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.8	1.0	0.8	0.3
110. *	0.2	0.5	1.0	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.0	0.9	0.9	0.5
120. *	0.4	0.5	0.9	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	0.9	1.0	0.5
130. *	0.4	0.5	0.9	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.9	0.8	0.8	0.5
140. *	0.4	0.5	0.9	0.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.9	0.8	0.7	0.5
150. *	0.3	0.5	0.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	0.8	0.7	0.5
160. *	0.5	0.5	0.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.9	0.9	0.5	0.5
170. *	0.5	0.6	0.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.9	0.6	0.4
180. *	0.5	0.8	0.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	1.0	0.5	0.3
190. *	0.6	1.0	1.0	0.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	1.0	0.5	0.3
200. *	0.4	0.9	1.0	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.8	1.0	0.4	0.2
210. *	0.3	0.7	1.1	1.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.8	0.9	0.4	0.2
220. *	0.1	0.5	1.3	1.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.6	0.8	0.8		

```
0.3   0.1
 230.  *   0.0   0.4   1.1   1.2   1.3   0.2   0.2   0.1   0.0   0.0   0.0   0.0   0.1   0.1   0.1   0.5   0.7   0.8
0.1   0.0
 240.  *   0.0   0.2   0.9   0.9   1.0   0.4   0.5   0.4   0.0   0.0   0.0   0.0   0.4   0.3   0.2   0.3   0.5   0.6
0.0   0.0
 250.  *   0.0   0.1   0.7   0.5   0.5   0.9   0.9   0.8   0.1   0.0   0.0   0.1   0.8   0.6   0.4   0.2   0.2   0.3
0.0   0.0
 260.  *   0.0   0.1   0.6   0.4   0.3   1.0   1.1   1.2   0.2   0.0   0.0   0.2   1.2   0.9   0.6   0.1   0.1   0.1
0.0   0.0
 270.  *   0.0   0.1   0.4   0.2   0.0   1.1   0.9   1.1   0.5   0.1   0.1   0.3   1.4   1.1   0.7   0.0   0.0   0.1
0.0   0.0
 280.  *   0.0   0.1   0.4   0.1   0.0   1.0   1.0   0.9   0.5   0.2   0.2   0.5   1.3   1.2   0.7   0.0   0.0   0.0
0.0   0.0
 290.  *   0.0   0.1   0.3   0.0   0.0   0.9   1.1   0.8   0.6   0.4   0.2   0.5   1.1   1.2   0.7   0.0   0.0   0.0
0.0   0.0
 300.  *   0.0   0.1   0.2   0.0   0.0   0.8   0.9   1.0   0.5   0.4   0.3   0.6   1.0   1.1   0.7   0.0   0.0   0.0
0.0   0.0
 310.  *   0.0   0.1   0.1   0.0   0.0   0.8   0.8   0.9   0.6   0.4   0.4   0.7   0.8   1.2   0.6   0.0   0.0   0.0
0.0   0.0
 320.  *   0.0   0.0   0.1   0.0   0.0   0.8   0.8   0.9   0.7   0.4   0.4   0.7   0.8   1.1   0.6   0.0   0.0   0.0
0.0   0.0
 330.  *   0.0   0.0   0.1   0.0   0.0   0.8   0.8   0.9   0.6   0.3   0.4   0.6   0.9   1.2   0.7   0.0   0.0   0.0
0.0   0.0
 340.  *   0.0   0.0   0.0   0.0   0.0   0.7   0.8   0.8   0.5   0.3   0.4   0.8   0.9   1.2   0.7   0.0   0.0   0.1
0.0   0.0
 350.  *   0.0   0.0   0.0   0.0   0.0   0.6   0.8   0.8   0.5   0.4   0.4   0.7   0.9   1.2   0.7   0.0   0.0   0.2
0.0   0.0
 360.  *   0.0   0.0   0.0   0.0   0.0   0.5   0.8   0.8   0.6   0.4   0.3   0.4   0.8   1.3   0.8   0.0   0.0   0.3
0.1   0.0

------*-------------------------------------------------------------------------------------------------------------
-------
 MAX   *   0.6   1.0   1.3   1.2   1.4   1.1   1.1   1.2   0.7   0.4   0.4   0.8   1.4   1.5   1.5   1.1   1.0   1.2
1.0   0.5
 DEGR. *  190   190   220   220   220   270   260   260   320     0    10   340   270    20    30    90    70    80
120   110

 THE HIGHEST CONCENTRATION OF    1.50 PPM OCCURRED AT RECEPTOR REC34.
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2018 No-Build
Microscale Output Files
(Carbon Monoxide (CO))

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221 PAGE 1

JOB: Skating Club of Boston RUN: 2018NB

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The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S	VD = 0.0 CM/S	Z0 = 175. CM		
U = 1.0 M/S	CLAS = 4 (D)	ATIM = 60. MINUTES	MIXH = 1000. M	AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. Soldier/Jug SB LTR	5198.9	6311.7	5198.3	6338.8	27.	359.	AG	168.	100.0	1.0	20.0	0.25	1.4
2. Soldier/Jug WB TT	5228.8	6294.1	5339.5	6355.9	127.	61.	AG	89.	100.0	1.0	20.0	0.86	6.4
3. Soldier/Jug NB LTR	5237.6	6215.9	5236.1	6148.0	68.	181.	AG	84.	100.0	1.0	10.0	0.63	3.5
4. Soldiers/Jug EB TTR	5191.9	6230.9	5106.8	6191.2	94.	245.	AG	89.	100.0	1.0	20.0	0.77	4.8
5. Western/Ever SB LTR	5231.8	5725.2	5233.9	5815.8	91.	1.	AG	90.	100.0	1.0	10.0	0.67	4.6
6. Western/Ever WB LTR	5264.9	5714.2	8769.8	6311.1	3555.	80.	AG	79.	100.0	1.0	10.0	1.59	180.6
7. West/Ever NB LTR	5233.9	5654.6	5211.8	5589.3	69.	199.	AG	180.	100.0	1.0	20.0	0.51	3.5
8. West/Ever EB LTR	5190.3	5675.7	5072.2	5661.6	119.	263.	AG	157.	100.0	1.0	20.0	0.74	6.0
9. Ever/Rt20 SB LR	4193.6	2489.0	4252.1	2691.0	210.	16.	AG	86.	100.0	1.0	10.0	0.89	10.7
10. Ever/Rt20 WB TR	4221.0	2443.1	4336.8	2419.4	118.	102.	AG	119.	100.0	1.0	20.0	0.50	6.0
11. Ever/Rt20 EB LTT	4155.5	2436.3	3976.7	2468.0	182.	280.	AG	119.	100.0	1.0	20.0	0.76	9.2
12. Camb/Linc SB LR	7036.1	3650.1	7012.7	3698.2	54.	334.	AG	208.	100.0	1.0	20.0	0.47	2.7
13. Camb/Linc WB L	7113.8	3630.4	7116.0	3631.5	2.	63.	AG	106.	100.0	1.0	10.0	0.02	0.1
14. Camb/Linc WB TTR	7096.3	3646.8	7280.3	3741.2	207.	63.	AG	93.	100.0	1.0	20.0	0.88	10.5
15. Camb/Linc NB LTR	7116.0	3570.3	7116.2	3567.9	2.	175.	AG	104.	100.0	1.0	10.0	0.02	0.1
16. Camb/Linc EB L	7032.9	3580.1	6963.7	3546.9	77.	244.	AG	106.	100.0	1.0	10.0	0.71	3.9
17. Camb/Linc EB TTTR	7047.4	3560.7	6922.6	3501.2	138.	245.	AG	140.	100.0	1.0	30.0	0.67	7.0
18. Birm/Linc SB R	2027.5	4361.0	2037.6	4379.2	21.	29.	AG	29.	100.0	1.0	10.0	0.16	1.1
19. Birm/Linc SB TT	2045.2	4353.0	2092.7	4437.9	97.	29.	AG	106.	100.0	1.0	20.0	0.56	4.9
20. Birm/Linc WB LTR	2100.9	4264.2	2178.0	4247.2	79.	102.	AG	200.	100.0	1.0	20.0	0.72	4.0
21. Birm/Linc NB LTT	2029.7	4188.8	1974.9	4074.0	127.	205.	AG	106.	100.0	1.0	20.0	0.74	6.5
22. Birm/Linc EB LLTR	1966.7	4229.9	1922.2	4210.0	49.	246.	AG	208.	100.0	1.0	20.0	0.57	2.5
23. Soldier/Jug N	5199.2	6279.5	5199.2	6392.5	113.	360.	AG	220.	8.8	1.0	42.0		
24. Soldier/Jug E-N	5199.2	6277.6	5400.6	6380.6	226.	63.	AG	1597.	8.8	1.0	42.0		
25. Soldier/Jug E-S	5219.3	6237.5	5420.9	6345.5	229.	62.	AG	1595.	8.8	1.0	42.0		
26. Soldier/Jug S	5235.5	6245.2	5234.6	6031.1	214.	180.	AG	513.	8.8	1.0	42.0		
27. Soldier/Jug W-S	5214.5	6245.3	4975.3	6130.9	265.	244.	AG	1431.	8.8	1.0	42.0		
28. Soldier/Jug W-N	5200.4	6278.0	4964.5	6172.3	258.	246.	AG	1692.	8.8	1.0	42.0		
29. West/Ever N	5233.5	5697.0	5238.2	5899.5	203.	1.	AG	515.	8.8	1.0	42.0		
30. West/Ever E	5233.5	5697.0	5535.4	5747.6	306.	80.	AG	1612.	8.8	1.0	66.0		
31. West/Ever S	5236.3	5680.7	5158.2	5443.1	250.	198.	AG	940.	8.8	1.0	54.0		
32. West/Ever W	5233.5	5697.0	4823.3	5637.1	415.	262.	AG	1527.	8.8	1.0	60.0		
33. Ever/Rt20 N	4192.8	2443.9	4258.3	2688.4	253.	15.	AG	744.	8.8	1.0	42.0		
34. Ever/Rt20 E	4192.8	2443.9	4427.9	2396.0	240.	102.	AG	2038.	8.8	1.0	54.0		
35. Ever/Rt20 W	4192.8	2443.9	3904.9	2491.9	292.	279.	AG	2018.	8.8	1.0	54.0		
36. Birm/Linc N-SB	1998.6	4296.0	2178.7	4628.9	378.	28.	AG	1152.	8.8	1.0	54.0		
37. Birm/Linc N NB	2048.6	4265.6	2230.3	4606.5	386.	28.	AG	1349.	8.8	1.0	54.0		
38. Birm/Linc E	2048.6	4272.0	2312.0	4209.5	271.	103.	AG	384.	8.8	1.0	42.0		
39. Birm/Linc S	2043.8	4251.5	1930.5	4004.1	272.	205.	AG	2424.	8.8	1.0	66.0		
40. Birm/Linc W-EB	2011.4	4253.5	1764.6	4138.7	272.	245.	AG	244.	8.8	1.0	42.0		
41. Birm/Linc W-WB	1974.5	4286.0	1744.8	4182.6	252.	246.	AG	518.	8.8	1.0	42.0		
42. Camb/Linc N	7068.0	3604.4	6989.0	3770.3	184.	335.	AG	528.	8.8	1.0	60.0		
43. Camb/Linc E	7068.0	3604.4	7289.3	3709.9	245.	65.	AG	3728.	8.8	1.0	****		
44. Camb/Linc S	7111.5	3599.6	7116.3	3391.9	208.	179.	AG	10.	8.8	1.0	42.0		

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JOB: Skating Club of Boston RUN: 2018NB

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LINK VARIABLES

LINK DESCRIPTION	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. Camb/Linc W	7068.0	3604.4	6777.8	3466.0	321.	244.	AG	3591.	8.8	1.0	****		

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ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. Soldier/Jug SB LTR	69	45	3.0	220	1600	47.91	1	3
2. Soldier/Jug WB TT	69	24	3.0	1597	1600	47.91	1	3
3. Soldier/Jug NB LTR	69	45	3.0	276	1600	47.91	1	3
4. Soldiers/Jug EB TTR	69	24	3.0	1431	1600	47.91	1	3
5. Western/Ever SB LTR	90	63	3.0	263	1600	47.91	1	3
6. Western/Ever WB LTR	90	55	3.0	850	1600	47.91	1	3
7. West/Ever NB LTR	90	63	3.0	400	1600	47.91	1	3
8. West/Ever EB LTR	90	55	3.0	784	1600	47.91	1	3
9. Ever/Rt20 SB LR	119	80	3.0	406	1600	47.91	1	3
10. Ever/Rt20 WB TR	119	55	3.0	786	1600	47.91	1	3
11. Ever/Rt20 EB LTT	119	55	3.0	1208	1600	47.91	1	3
12. Camb/Linc SB LR	110	89	3.0	221	1600	47.91	1	3
13. Camb/Linc WB L	110	91	3.0	5	1600	47.91	1	3
14. Camb/Linc WB TTR	110	40	3.0	1666	1600	47.91	1	3
15. Camb/Linc NB LTR	110	89	3.0	5	1600	47.91	1	3
16. Camb/Linc EB L	110	91	3.0	144	1600	47.91	1	3
17. Camb/Linc EB TTTR	110	40	3.0	1898	1600	47.91	1	3
18. Birm/Linc SB R	90	20	3.0	190	1600	47.91	1	3
19. Birm/Linc SB TT	90	37	3.0	962	1600	47.91	1	3
20. Birm/Linc WB LTR	90	70	3.0	384	1600	47.91	1	3
21. Birm/Linc NB LTT	90	37	3.0	1258	1600	47.91	1	3
22. Birm/Linc EB LLTR	90	73	3.0	244	1600	47.91	1	3

RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
1. Soldiers/Jug NE1	5230.2	6478.3	6.0
2. Soldiers/Jug NE2	5230.2	6403.2	6.0
3. Soldiers/Jug NE3	5230.2	6328.3	6.0
4. Soldiers/Jug NE4	5297.0	6362.4	6.0
5. Soldiers/Jug NE5	5363.7	6396.6	6.0
6. Soldiers/Jug SE1	5398.7	6298.4	6.0
7. Soldiers/Jug SE2	5332.5	6263.0	6.0
8. Soldiers/Jug SE3	5266.4	6227.6	6.0
9. Soldiers/Jug SE4	5266.4	6152.6	6.0
10. Soldiers/Jug SE5	5265.8	6077.6	6.0
11. Soldiers/Jug SW1	5204.3	6056.0	6.0
12. Soldiers/Jug SW2	5204.0	6131.0	6.0
13. Soldiers/Jug SW3	5204.3	6206.0	6.0
14. Soldiers/Jug SW4	5136.6	6173.7	6.0
15. Soldiers/Jug SW5	5069.0	6141.4	6.0
16. Soldiers/Jug NW1	5031.3	6236.2	6.0
17. Soldiers/Jug NW2	5099.8	6266.9	6.0
18. Soldiers/Jug NW3	5168.2	6297.6	6.0
19. Soldiers/Jug NW4	5168.2	6372.6	6.0
20. Soldiers/Jug NW5	5168.2	6447.6	6.0
21. Western/Ever NE1	5269.1	5895.9	6.0
22. Western/Ever NE2	5267.4	5821.0	6.0
23. Western/Ever NE3	5265.7	5746.0	6.0

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RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
24. Western/Ever NE4	5339.6	5758.4	6.0
25. Western/Ever NE5	5413.6	5770.8	6.0

26. Western/Ever SE1	*	5416.1	5684.0	6.0	*
27. Western/Ever SE2	*	5342.1	5671.6	6.0	*
28. Western/Ever SE3	*	5268.1	5659.2	6.0	*
29. Western/Ever SE4	*	5244.7	5587.9	6.0	*
30. Western/Ever SE5	*	5221.3	5516.7	6.0	*
31. Western/Ever SW1	*	5140.4	5507.3	6.0	*
32. Western/Ever SW2	*	5163.8	5578.5	6.0	*
33. Western/Ever SW3	*	5187.2	5649.8	6.0	*
34. Western/Ever SW4	*	5113.0	5639.0	6.0	*
35. Western/Ever SW5	*	5038.7	5628.1	6.0	*
36. Western/Ever NW1	*	5054.9	5711.3	6.0	*
37. Western/Ever NW2	*	5129.1	5722.2	6.0	*
38. Western/Ever NW3	*	5203.4	5733.0	6.0	*
39. Western/Ever NW4	*	5205.1	5808.0	6.0	*
40. Western/Ever NW5	*	5206.8	5883.0	6.0	*
41. Ever/Rt20 NE1	*	4271.6	2618.4	6.0	*
42. Ever/Rt20 NE2	*	4252.2	2546.0	6.0	*
43. Ever/Rt20 NE3	*	4232.8	2473.5	6.0	*
44. Ever/Rt20 NE4	*	4306.3	2458.5	6.0	*
45. Ever/Rt20 NE5	*	4379.8	2443.6	6.0	*
46. Ever/Rt20 S1	*	4333.0	2377.6	6.0	*
47. Ever/Rt20 S2	*	4259.5	2392.6	6.0	*
48. Ever/Rt20 S3	*	4186.0	2407.5	6.0	*
49. Ever/Rt20 S4	*	4112.0	2419.9	6.0	*
50. Ever/Rt20 S5	*	4038.1	2432.2	6.0	*
51. Ever/Rt20 NW1	*	4023.7	2509.6	6.0	*
52. Ever/Rt20 NW2	*	4097.7	2497.3	6.0	*
53. Ever/Rt20 NW3	*	4171.7	2485.0	6.0	*
54. Ever/Rt20 NW4	*	4191.1	2557.4	6.0	*
55. Ever/Rt20 NW5	*	4210.5	2629.8	6.0	*

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MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.7	0.5	0.3	0.5	0.4	0.7	0.9	0.7	0.0	0.0	0.0	0.0	0.0
10.	*	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.7	0.5	0.2	0.3	0.4	0.6	0.9	0.7	0.0	0.0	0.0	0.0	0.0
20.	*	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.8	0.3	0.2	0.4	0.7	0.9	0.9	0.7	0.0	0.0	0.2	0.0	0.0
30.	*	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.8	0.3	0.1	0.4	0.5	0.9	1.0	0.8	0.0	0.0	0.3	0.0	0.0
40.	*	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.7	0.1	0.0	0.3	0.5	1.0	1.1	1.0	0.0	0.0	0.3	0.0	0.0
50.	*	0.0	0.0	0.1	0.0	0.0	0.1	0.3	0.5	0.1	0.0	0.1	0.3	1.0	0.9	0.8	0.0	0.1	0.4	0.0	0.0
60.	*	0.0	0.0	0.3	0.1	0.0	0.0	0.2	0.3	0.0	0.0	0.1	0.2	0.6	0.6	0.6	0.2	0.3	0.6	0.0	0.0
70.	*	0.0	0.0	0.6	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.5	0.4	0.2	0.5	0.6	0.8	0.0	0.0
80.	*	0.0	0.0	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.0	0.8	0.8	1.1	0.1	0.0
90.	*	0.0	0.1	0.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.0	1.0	0.8	0.9	0.3	0.0
100.	*	0.0	0.2	0.9	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.9	0.8	0.8	0.5	0.1
110.	*	0.0	0.3	0.9	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.8	0.9	0.7	0.5	0.2
120.	*	0.1	0.4	0.8	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.8	0.8	0.6	0.7	0.2
130.	*	0.2	0.4	0.8	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.6	0.8	0.7	0.7	0.3
140.	*	0.2	0.5	0.8	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3	0.0	0.1	0.6	0.7	0.8	0.7	0.3
150.	*	0.3	0.5	0.8	0.8	0.6	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.1	0.1	0.6	0.7	0.8	0.6	0.3
160.	*	0.3	0.4	0.8	0.8	0.6	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.4	0.1	0.0	0.6	0.7	0.8	0.7	0.2
170.	*	0.3	0.4	0.9	0.8	0.6	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.0	0.1	0.7	0.7	0.7	0.4	0.4
180.	*	0.2	0.5	0.9	0.8	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.7	0.7	0.7	0.4	0.2
190.	*	0.3	0.5	0.9	0.9	0.6	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.7	0.8	0.4	0.2
200.	*	0.2	0.5	0.9	1.0	0.9	0.0	0.1	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.7	0.7	0.8		

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
																				0.3	0.2
210.	*	0.2	0.5	0.8	1.0	0.8	0.0	0.2	0.4	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.6	0.7	0.8	0.3	0.2
220.	*	0.2	0.5	0.9	1.0	1.1	0.0	0.1	0.3	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.5	0.7	0.8	0.3	0.1
230.	*	0.0	0.2	1.0	0.9	1.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.3	0.6	0.8	0.1	0.0
240.	*	0.0	0.1	0.8	0.7	0.6	0.4	0.3	0.3	0.1	0.1	0.0	0.0	0.2	0.1	0.1	0.2	0.3	0.5	0.0	0.0
250.	*	0.0	0.0	0.5	0.3	0.3	0.7	0.7	0.8	0.1	0.1	0.0	0.0	0.5	0.3	0.2	0.1	0.2	0.2	0.0	0.0
260.	*	0.0	0.0	0.5	0.1	0.0	0.8	0.8	0.8	0.3	0.1	0.0	0.1	0.8	0.5	0.3	0.0	0.1	0.1	0.0	0.0
270.	*	0.0	0.0	0.4	0.0	0.0	0.9	0.8	1.0	0.4	0.1	0.0	0.2	1.0	0.6	0.4	0.0	0.0	0.0	0.0	0.0
280.	*	0.0	0.0	0.3	0.0	0.0	0.8	0.8	1.0	0.5	0.2	0.0	0.3	0.9	0.6	0.5	0.0	0.0	0.0	0.0	0.0
290.	*	0.0	0.0	0.3	0.0	0.0	0.8	0.8	0.8	0.7	0.3	0.1	0.3	0.9	0.8	0.6	0.0	0.0	0.0	0.0	0.0
300.	*	0.0	0.0	0.2	0.0	0.0	0.7	0.7	0.8	0.7	0.3	0.2	0.4	0.9	0.8	0.6	0.0	0.0	0.0	0.0	0.0
310.	*	0.0	0.0	0.1	0.0	0.0	0.7	0.7	0.6	0.7	0.3	0.2	0.5	0.9	0.8	0.6	0.0	0.0	0.0	0.0	0.0
320.	*	0.0	0.0	0.1	0.0	0.0	0.6	0.7	0.8	0.4	0.4	0.2	0.5	0.8	0.8	0.6	0.0	0.0	0.0	0.0	0.0
330.	*	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.8	0.6	0.4	0.2	0.5	0.8	0.9	0.7	0.0	0.0	0.0	0.0	0.0
340.	*	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.7	0.4	0.7	0.3	0.5	0.7	0.9	0.7	0.0	0.0	0.0	0.0	0.0
350.	*	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.7	0.4	0.4	0.2	0.4	0.7	0.8	0.6	0.0	0.0	0.0	0.0	0.0
360.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.7	0.5	0.3	0.5	0.4	0.7	0.9	0.7	0.0	0.0	0.0	0.0	0.0
MAX	*	0.3	0.5	1.0	1.0	1.1	0.9	0.8	1.0	0.7	0.7	0.5	0.7	1.0	1.1	1.0	1.0	0.9	1.1	0.7	0.4
DEGR.	*	150	140	230	200	220	270	290	270	290	340	0	20	40	40	40	90	110	80	140	170

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JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0.	*	0.2	0.0	0.1	0.0	0.0	0.5	0.5	0.6	0.7	0.7	0.2	0.3	0.7	0.8	0.4	0.2	0.1	0.1	0.0	0.0
10.	*	0.2	0.1	0.0	0.0	0.0	0.5	0.5	0.5	0.4	0.5	0.3	0.3	0.7	0.7	0.3	0.0	0.0	0.2	0.2	0.3
20.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.3	0.3	0.6	0.6	0.6	0.8	0.4	0.0	0.0	0.3	0.1	0.1
30.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.3	0.2	0.5	0.5	0.7	0.8	0.5	0.0	0.0	0.4	0.1	0.0
40.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.3	0.2	0.5	0.7	0.7	0.9	0.6	0.0	0.1	0.4	0.1	0.0
50.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.6	0.3	0.2	0.6	0.9	0.7	0.9	0.6	0.0	0.1	0.3	0.1	0.0
60.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.6	0.3	0.2	0.5	0.9	0.8	1.0	0.9	0.0	0.2	0.3	0.1	0.1
70.	*	0.0	0.0	0.2	0.2	0.1	0.5	0.6	0.6	0.2	0.1	0.3	0.6	1.0	0.9	0.9	0.3	0.4	0.5	0.2	0.1
80.	*	0.0	0.1	0.4	0.4	0.3	0.3	0.3	0.4	0.1	0.0	0.2	0.4	0.8	0.8	0.8	0.4	0.6	0.7	0.3	0.1
90.	*	0.1	0.1	0.6	0.6	0.4	0.1	0.2	0.2	0.0	0.0	0.2	0.3	0.6	0.5	0.5	0.7	0.6	0.8	0.4	0.2
100.	*	0.1	0.2	0.7	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	0.2	0.2	0.6	0.6	0.9	0.4	0.2
110.	*	0.1	0.3	0.7	0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	0.2	0.1	0.9	0.7	0.8	0.6	0.3
120.	*	0.2	0.3	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	0.2	0.1	0.9	0.8	0.5	0.6	0.3
130.	*	0.2	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	0.1	0.1	0.9	0.8	0.6	0.6	0.3
140.	*	0.1	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	0.1	0.1	0.7	0.8	0.6	0.5	0.3

150.	*	0.1	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.1	0.0	0.6	0.7	0.7	0.5	0.4
160.	*	0.1	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.1	0.0	0.4	0.6	0.7	0.5	0.4
170.	*	0.1	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.1	0.0	0.5	0.7	0.8	0.6	0.5
180.	*	0.3	0.4	0.7	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.0	0.4	0.6	0.8	0.5	0.4
190.	*	0.5	0.6	0.6	0.5	0.5	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.2	0.0	0.0	0.3	0.5	0.8	0.4	0.3
200.	*	0.5	0.6	0.8	0.6	0.5	0.0	0.0	0.3	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.4	0.6	0.7	0.3	0.2
210.	*	0.5	0.7	0.9	0.7	0.5	0.0	0.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.6	0.3	0.2
220.	*	0.4	0.6	0.8	0.7	0.7	0.0	0.1	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.6	0.3	0.1
230.	*	0.2	0.6	0.7	0.8	0.9	0.1	0.2	0.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.7	0.2	0.1
240.	*	0.2	0.4	0.9	0.8	0.7	0.1	0.2	0.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.7	0.2	0.1
250.	*	0.1	0.3	0.8	0.7	0.8	0.4	0.3	0.6	0.2	0.2	0.0	0.0	0.1	0.1	0.1	0.4	0.5	0.6	0.1	0.0
260.	*	0.1	0.2	0.6	0.6	0.5	0.6	0.6	0.7	0.3	0.2	0.0	0.0	0.4	0.2	0.2	0.3	0.3	0.3	0.0	0.0
270.	*	0.1	0.1	0.3	0.4	0.2	0.6	0.8	0.9	0.5	0.2	0.0	0.1	0.6	0.4	0.3	0.1	0.1	0.2	0.0	0.0
280.	*	0.1	0.1	0.2	0.2	0.0	0.6	0.6	1.0	0.7	0.3	0.0	0.1	0.9	0.6	0.5	0.0	0.0	0.0	0.0	0.0
290.	*	0.0	0.1	0.2	0.2	0.0	0.6	0.5	0.8	0.8	0.3	0.1	0.2	0.9	0.7	0.5	0.0	0.0	0.0	0.0	0.0
300.	*	0.0	0.1	0.2	0.1	0.0	0.5	0.7	0.6	0.9	0.3	0.1	0.2	0.9	0.6	0.4	0.0	0.0	0.0	0.0	0.0
310.	*	0.0	0.1	0.2	0.1	0.0	0.5	0.7	0.5	1.0	0.4	0.1	0.3	0.8	0.7	0.4	0.0	0.0	0.0	0.0	0.0
320.	*	0.2	0.1	0.3	0.0	0.0	0.5	0.6	0.6	0.9	0.4	0.1	0.3	0.8	0.8	0.4	0.0	0.0	0.0	0.0	0.0
330.	*	0.2	0.3	0.3	0.0	0.0	0.5	0.5	0.6	0.9	0.5	0.1	0.4	0.7	0.7	0.3	0.0	0.0	0.0	0.0	0.2
340.	*	0.2	0.3	0.4	0.0	0.0	0.5	0.5	0.5	0.7	0.6	0.2	0.4	0.7	0.7	0.3	0.0	0.0	0.0	0.2	0.2
350.	*	0.1	0.1	0.1	0.0	0.0	0.5	0.5	0.6	0.8	0.7	0.2	0.4	0.7	0.8	0.4	0.0	0.1	0.1	0.2	0.2
360.	*	0.2	0.0	0.1	0.0	0.0	0.5	0.5	0.6	0.7	0.7	0.2	0.3	0.7	0.8	0.4	0.2	0.1	0.1	0.0	0.0
MAX	*	0.5	0.7	0.9	0.8	0.9	0.6	0.8	1.0	1.0	0.7	0.6	0.9	1.0	1.0	0.9	0.9	0.8	0.9	0.6	0.5
DEGR.	*	190	210	210	230	230	260	270	280	310	0	20	50	70	60	60	110	120	100	110	170

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JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	*	0.1	0.3	0.3	0.0	0.0	0.6	0.9	0.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0
10.	*	0.1	0.1	0.3	0.0	0.0	0.6	0.7	0.8	0.8	0.8	0.0	0.0	0.2	0.2	0.0
20.	*	0.0	0.1	0.1	0.0	0.0	0.5	0.7	0.8	0.8	0.8	0.0	0.0	0.4	0.2	0.2
30.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.7	1.0	0.8	0.0	0.0	0.4	0.4	0.2
40.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.7	1.0	0.8	0.0	0.2	0.4	0.4	0.4
50.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.6	1.0	1.0	0.0	0.2	0.4	0.4	0.4
60.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.8	0.8	1.0	1.1	0.0	0.2	0.4	0.4	0.4
70.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.8	1.0	1.1	0.2	0.2	0.3	0.4	0.4
80.	*	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.8	0.8	1.0	0.1	0.2	0.3	0.4	0.4
90.	*	0.0	0.0	0.1	0.1	0.0	0.3	0.5	0.7	0.8	0.9	0.3	0.3	0.4	0.4	0.4
100.	*	0.0	0.0	0.4	0.2	0.1	0.2	0.3	0.5	0.5	0.5	0.5	0.6	0.6	0.4	0.4
110.	*	0.0	0.0	0.6	0.4	0.2	0.1	0.1	0.2	0.1	0.2	0.9	0.8	1.0	0.4	0.4
120.	*	0.0	0.1	0.8	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.8	0.9	1.1	0.5	0.4
130.	*	0.0	0.2	0.9	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.9	0.8	0.9	0.7	0.5
140.	*	0.1	0.2	0.9	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.8	0.7	0.9	0.8	0.5
150.	*	0.1	0.4	0.8	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.8	0.6
160.	*	0.2	0.3	0.8	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6	0.7	0.7
170.	*	0.3	0.3	0.8	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6	0.7	0.7
180.	*	0.3	0.3	0.7	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.5	0.5	0.6
190.	*	0.3	0.3	0.7	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6	0.5	0.5
200.	*	0.4	0.5	0.6	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6	0.3	0.4
210.	*	0.5	0.4	0.7	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6	0.3	0.3

220.	*	0.6	0.7	0.6	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.7	0.3	0.3
230.	*	0.6	0.6	0.6	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.7	0.4	0.3
240.	*	0.6	0.7	0.8	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.7	0.8	0.8	0.4	0.1
250.	*	0.4	0.6	0.9	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.5	0.8	0.8	0.3	0.1
260.	*	0.4	0.5	1.0	1.0	0.9	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.9	0.1	0.0
270.	*	0.3	0.4	0.9	1.0	1.0	0.2	0.2	0.3	0.2	0.1	0.3	0.6	0.7	0.1	0.0
280.	*	0.3	0.3	0.6	0.7	0.7	0.5	0.5	0.6	0.5	0.3	0.2	0.3	0.3	0.0	0.0
290.	*	0.3	0.3	0.5	0.3	0.3	0.8	0.7	0.9	0.8	0.5	0.1	0.1	0.1	0.0	0.0
300.	*	0.3	0.3	0.3	0.2	0.1	0.9	0.8	1.0	1.0	0.7	0.0	0.0	0.0	0.0	0.0
310.	*	0.3	0.3	0.3	0.2	0.1	1.0	0.8	0.8	1.0	0.9	0.0	0.0	0.0	0.0	0.0
320.	*	0.3	0.3	0.3	0.2	0.1	0.9	0.8	0.7	1.0	0.9	0.0	0.0	0.0	0.0	0.0
330.	*	0.3	0.3	0.3	0.2	0.0	0.9	1.0	0.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0
340.	*	0.3	0.3	0.3	0.2	0.0	0.8	0.9	0.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0
350.	*	0.2	0.3	0.3	0.1	0.0	0.7	0.9	0.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0
360.	*	0.1	0.3	0.3	0.0	0.0	0.6	0.9	0.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0
MAX	*	0.6	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	0.9	0.9	1.1	0.8	0.7
DEGR.	*	220	240	260	260	270	310	330	300	30	60	130	120	120	140	160

THE HIGHEST CONCENTRATION OF 1.10 PPM OCCURRED AT RECEPTOR REC14.

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221 PAGE 1

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The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. Soldier/Jug SB LTR	5198.9	6311.7	5198.3	6338.8	27.	359.	AG	168.	100.0	1.0	20.0	0.25	1.4
2. Soldier/Jug WB TT	5228.8	6294.1	5339.5	6355.9	127.	61.	AG	89.	100.0	1.0	20.0	0.86	6.4
3. Soldier/Jug NB LTR	5237.6	6215.9	5236.1	6148.0	68.	181.	AG	84.	100.0	1.0	10.0	0.63	3.5
4. Soldiers/Jug EB TTR	5191.9	6230.9	5106.8	6191.2	94.	245.	AG	89.	100.0	1.0	20.0	0.77	4.8
5. Western/Ever SB LTR	5231.8	5725.2	5233.9	5815.8	91.	1.	AG	90.	100.0	1.0	10.0	0.67	4.6
6. Western/Ever WB LTR	5264.9	5714.2	8769.8	6311.1	3555.	80.	AG	79.	100.0	1.0	10.0	1.59	180.6
7. West/Ever NB LTR	5233.9	5654.6	5211.8	5589.3	69.	199.	AG	180.	100.0	1.0	20.0	0.51	3.5
8. West/Ever EB LTR	5190.3	5675.7	5072.2	5661.6	119.	263.	AG	157.	100.0	1.0	20.0	0.74	6.0
9. Ever/Rt20 SB LR	4193.6	2489.0	4252.1	2691.0	210.	16.	AG	86.	100.0	1.0	10.0	0.89	10.7
10. Ever/Rt20 WB TR	4221.0	2443.1	4336.8	2419.4	118.	102.	AG	119.	100.0	1.0	20.0	0.50	6.0
11. Ever/Rt20 EB LTT	4155.5	2436.3	3976.7	2468.0	182.	280.	AG	119.	100.0	1.0	20.0	0.76	9.2
12. Camb/Linc SB LR	7036.1	3650.1	7012.7	3698.2	54.	334.	AG	208.	100.0	1.0	20.0	0.47	2.7
13. Camb/Linc WB L	7113.8	3630.4	7116.0	3631.5	2.	63.	AG	106.	100.0	1.0	10.0	0.02	0.1
14. Camb/Linc WB TTR	7096.3	3646.8	7280.3	3741.2	207.	63.	AG	93.	100.0	1.0	20.0	0.88	10.5
15. Camb/Linc NB LTR	7116.0	3570.3	7116.2	3567.9	2.	175.	AG	104.	100.0	1.0	10.0	0.02	0.1
16. Camb/Linc EB L	7032.9	3580.1	6963.7	3546.9	77.	244.	AG	106.	100.0	1.0	10.0	0.71	3.9
17. Camb/Linc EB TTTR	7047.4	3560.7	6922.6	3501.2	138.	245.	AG	140.	100.0	1.0	30.0	0.67	7.0
18. Birm/Linc SB R	2027.5	4361.0	2037.6	4379.2	21.	29.	AG	29.	100.0	1.0	10.0	0.16	1.1
19. Birm/Linc SB TT	2045.2	4353.0	2092.7	4437.9	97.	29.	AG	106.	100.0	1.0	20.0	0.56	4.9
20. Birm/Linc WB LTR	2100.9	4264.2	2178.0	4247.2	79.	102.	AG	200.	100.0	1.0	20.0	0.72	4.0
21. Birm/Linc NB LTT	2029.7	4188.8	1974.9	4074.0	127.	205.	AG	106.	100.0	1.0	20.0	0.74	6.5
22. Birm/Linc EB LLTR	1966.7	4229.9	1922.2	4210.0	49.	246.	AG	208.	100.0	1.0	20.0	0.57	2.5
23. Soldier/Jug N	5199.2	6279.5	5199.2	6392.5	113.	360.	AG	220.	8.8	1.0	42.0		
24. Soldier/Jug E-N	5199.2	6277.6	5400.6	6380.6	226.	63.	AG	1597.	8.8	1.0	42.0		
25. Soldier/Jug E-S	5219.3	6237.5	5420.9	6345.5	229.	62.	AG	1595.	8.8	1.0	42.0		
26. Soldier/Jug S	5235.5	6245.2	5234.6	6031.1	214.	180.	AG	513.	8.8	1.0	42.0		
27. Soldier/Jug W-S	5214.5	6245.3	4975.3	6130.9	265.	244.	AG	1431.	8.8	1.0	42.0		
28. Soldier/Jug W-N	5200.4	6278.0	4964.5	6172.3	258.	246.	AG	1692.	8.8	1.0	42.0		
29. West/Ever N	5233.5	5697.0	5238.2	5899.5	203.	1.	AG	515.	8.8	1.0	42.0		
30. West/Ever E	5233.5	5697.0	5535.4	5747.6	306.	80.	AG	1612.	8.8	1.0	66.0		
31. West/Ever S	5236.3	5680.7	5158.2	5443.1	250.	198.	AG	940.	8.8	1.0	54.0		
32. West/Ever W	5233.5	5697.0	4823.3	5637.1	415.	262.	AG	1527.	8.8	1.0	60.0		
33. Ever/Rt20 N	4192.8	2443.9	4258.3	2688.4	253.	15.	AG	744.	8.8	1.0	42.0		
34. Ever/Rt20 E	4192.8	2443.9	4427.9	2396.0	240.	102.	AG	2038.	8.8	1.0	54.0		
35. Ever/Rt20 W	4192.8	2443.9	3904.9	2491.9	292.	279.	AG	2018.	8.8	1.0	54.0		
36. Birm/Linc N-SB	1998.6	4296.0	2178.7	4628.9	378.	28.	AG	1152.	8.8	1.0	54.0		
37. Birm/Linc N NB	2048.6	4265.6	2230.3	4606.5	386.	28.	AG	1349.	8.8	1.0	54.0		
38. Birm/Linc E	2048.6	4272.0	2312.0	4209.5	271.	103.	AG	384.	8.8	1.0	42.0		
39. Birm/Linc S	2043.8	4251.5	1930.5	4004.1	272.	205.	AG	2424.	8.8	1.0	66.0		
40. Birm/Linc W-EB	2011.4	4253.5	1764.6	4138.7	272.	245.	AG	244.	8.8	1.0	42.0		
41. Birm/Linc W-WB	1974.5	4286.0	1744.8	4182.6	252.	246.	AG	518.	8.8	1.0	42.0		
42. Camb/Linc N	7068.0	3604.4	6989.0	3770.3	184.	335.	AG	528.	8.8	1.0	60.0		
43. Camb/Linc E	7068.0	3604.4	7289.3	3709.9	245.	65.	AG	3728.	8.8	1.0	****		
44. Camb/Linc S	7111.5	3599.6	7116.3	3391.9	208.	179.	AG	10.	8.8	1.0	42.0		

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LINK VARIABLES

LINK DESCRIPTION	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. Camb/Linc W	7068.0	3604.4	6777.8	3466.0	321.	244.	AG	3591.	8.8	1.0	****		

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ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. Soldier/Jug SB LTR	69	45	3.0	220	1600	47.91	1	3
2. Soldier/Jug WB TT	69	24	3.0	1597	1600	47.91	1	3
3. Soldier/Jug NB LTR	69	45	3.0	276	1600	47.91	1	3
4. Soldiers/Jug EB TTR	69	24	3.0	1431	1600	47.91	1	3
5. Western/Ever SB LTR	90	63	3.0	263	1600	47.91	1	3
6. Western/Ever WB LTR	90	55	3.0	850	1600	47.91	1	3
7. West/Ever NB LTR	90	63	3.0	400	1600	47.91	1	3
8. West/Ever EB LTR	90	55	3.0	784	1600	47.91	1	3
9. Ever/Rt20 SB LR	119	80	3.0	406	1600	47.91	1	3
10. Ever/Rt20 WB TR	119	55	3.0	786	1600	47.91	1	3
11. Ever/Rt20 EB LTT	119	55	3.0	1208	1600	47.91	1	3
12. Camb/Linc SB LR	110	89	3.0	221	1600	47.91	1	3
13. Camb/Linc WB L	110	91	3.0	5	1600	47.91	1	3
14. Camb/Linc WB TTR	110	40	3.0	1666	1600	47.91	1	3
15. Camb/Linc NB LTR	110	89	3.0	5	1600	47.91	1	3
16. Camb/Linc EB L	110	91	3.0	144	1600	47.91	1	3
17. Camb/Linc EB TTTR	110	40	3.0	1898	1600	47.91	1	3
18. Birm/Linc SB R	90	20	3.0	190	1600	47.91	1	3
19. Birm/Linc SB TT	90	37	3.0	962	1600	47.91	1	3
20. Birm/Linc WB LTR	90	70	3.0	384	1600	47.91	1	3
21. Birm/Linc NB LTT	90	37	3.0	1258	1600	47.91	1	3
22. Birm/Linc EB LLTR	90	73	3.0	244	1600	47.91	1	3

RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
1. Birm/Linc NE1	2174.4	4423.1	6.0
2. Birm/Linc NE2	2139.2	4356.9	6.0
3. Birm/Linc NE3	2103.9	4290.7	6.0
4. Birm/Linc NE4	2176.9	4273.4	6.0
5. Birm/Linc NE5	2249.9	4256.1	6.0
6. Birm/Linc SE1	2228.1	4197.6	6.0
7. Birm/Linc SE2	2130.7	4220.7	6.0
8. Birm/Linc SE3	2082.2	4232.2	6.0
9. Birm/Linc SE4	2051.0	4164.0	6.0
10. Birm/Linc SE5	2019.8	4095.8	6.0
11. Birm/Linc SW1	1911.3	4065.4	6.0
12. Birm/Linc SW2	1942.5	4133.5	6.0
13. Birm/Linc SW3	1973.7	4201.7	6.0
14. Birm/Linc SW4	1905.7	4170.1	6.0
15. Birm/Linc SW5	1837.7	4138.5	6.0
16. Birm/Linc NW1	1831.2	4255.5	6.0
17. Birm/Linc NW2	1899.6	4286.3	6.0
18. Birm/Linc NW3	1968.0	4317.1	6.0
19. Birm/Linc NW4	2003.6	4383.1	6.0
20. Birm/Linc NW5	2039.3	4449.0	6.0
21. Camb/Linc NE1	7013.4	3812.1	6.0
22. Camb/Linc NE2	7045.6	3744.4	6.0
23. Camb/Linc NE3	7077.9	3676.7	6.0

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RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
24. Camb/Linc NE4	7145.6	3709.0	6.0
25. Camb/Linc NE5	7213.3	3741.2	6.0

26.	Camb/Linc SE1	*	7278.5	3637.2	6.0	*
27.	Camb/Linc SE2	*	7210.8	3604.9	6.0	*
28.	Camb/Linc SE3	*	7143.1	3572.7	6.0	*
29.	Camb/Linc SE4	*	7144.9	3497.7	6.0	*
30.	Camb/Linc SE5	*	7146.6	3422.7	6.0	*
31.	Camb/Linc SW1	*	7085.3	3393.5	6.0	*
32.	Camb/Linc SW2	*	7083.5	3468.5	6.0	*
33.	Camb/Linc SW3	*	7081.8	3543.4	6.0	*
34.	Camb/Linc SW4	*	7014.1	3511.1	6.0	*
35.	Camb/Linc SW5	*	6946.4	3478.8	6.0	*
36.	Camb/Linc NW1	*	6870.3	3577.7	6.0	*
37.	Camb/Linc NW2	*	6938.0	3610.0	6.0	*
38.	Camb/Linc NW3	*	7005.6	3642.3	6.0	*
39.	Camb/Linc NW4	*	6973.4	3710.0	6.0	*
40.	Camb/Linc NW5	*	6941.2	3777.7	6.0	*

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MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	0.5	0.5	0.7	0.3	0.1	0.2	0.8	0.8	0.7	1.0	0.1	0.2	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0
10. *	0.5	0.5	0.6	0.1	0.0	0.1	0.8	0.6	0.6	0.8	0.3	0.4	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0
20. *	0.3	0.4	0.5	0.0	0.0	0.1	0.6	0.6	0.6	0.8	0.5	0.5	0.5	0.5	0.2	0.0	0.0	0.1	0.1	0.1
30. *	0.2	0.2	0.2	0.0	0.0	0.1	0.5	0.5	0.3	0.4	0.7	0.7	0.8	0.7	0.3	0.0	0.1	0.3	0.2	0.2
40. *	0.1	0.1	0.1	0.0	0.0	0.1	0.5	0.5	0.1	0.2	0.9	0.8	0.7	0.8	0.5	0.1	0.2	0.6	0.5	0.4
50. *	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.1	0.1	0.8	0.9	0.6	0.6	0.5	0.2	0.3	0.7	0.7	0.5
60. *	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.1	0.0	0.9	0.9	0.7	0.4	0.5	0.2	0.4	0.7	0.7	0.6
70. *	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.0	0.0	0.7	0.7	0.7	0.4	0.3	0.3	0.3	0.6	0.7	0.5
80. *	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.0	0.0	0.7	0.8	0.8	0.5	0.3	0.3	0.3	0.5	0.7	0.5
90. *	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.0	0.7	0.7	0.5	0.5	0.4	0.4	0.4	0.5	0.7	0.5
100. *	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.5	0.7	0.6	0.5	0.4	0.5	0.4	0.5	0.7	0.6
110. *	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.7	0.5	0.4	0.4	0.3	0.5	0.6	0.6
120. *	0.0	0.0	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.7	0.5	0.3	0.5	0.4	0.6	0.7	0.6
130. *	0.0	0.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.7	0.5	0.2	0.4	0.5	0.4	0.7	0.7
140. *	0.0	0.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.8	0.5	0.2	0.3	0.7	0.3	0.6	0.8
150. *	0.0	0.1	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.8	0.4	0.1	0.3	0.7	0.3	0.6	0.8
160. *	0.0	0.1	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.8	0.3	0.0	0.2	0.4	0.4	0.6	0.8
170. *	0.0	0.2	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.8	0.2	0.0	0.1	0.4	0.7	0.7	0.7
180. *	0.1	0.2	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.8	0.1	0.0	0.1	0.2	0.6	0.7	0.7
190. *	0.1	0.3	0.4	0.5	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.5	0.7	0.1	0.0	0.1	0.1	0.4	0.6	0.5
200. *	0.3	0.4	0.6	0.5	0.1	0.0	0.0	0.4	0.2	0.1	0.1	0.3	0.4	0.0	0.0	0.1	0.1	0.3	0.3	0.4
210. *	0.5	0.7	0.7	0.7	0.1	0.0	0.1	0.6	0.5	0.3	0.0	0.1	0.2	0.0	0.0	0.1	0.2	0.2	0.3	0.2
220. *	0.6	0.6	0.8	0.8	0.1	0.0	0.3	0.9	0.8	0.5	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.2	0.1	0.0
230. *	0.6	0.5	0.7	1.0	0.2	0.1	0.4	0.8	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0
240. *	0.6	0.6	0.7	1.0	0.3	0.2	0.5	0.8	1.0	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
250. *	0.7	0.5	0.8	0.8	0.4	0.3	0.5	0.7	0.9	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0
260. *	0.7	0.5	0.6	0.8	0.5	0.3	0.4	0.7	0.8	0.8	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
270. *	0.6	0.6	0.4	0.6	0.5	0.2	0.4	0.7	0.7	0.7	0.0	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0

280. *	0.6	0.6	0.4	0.4	0.4	0.2	0.4	0.6	0.8	0.7	0.0	0.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0
290. *	0.5	0.6	0.4	0.3	0.3	0.5	0.4	0.4	0.9	0.8	0.0	0.0	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0
300. *	0.5	0.6	0.5	0.3	0.2	0.5	0.4	0.4	0.9	0.8	0.0	0.1	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0
310. *	0.5	0.6	0.5	0.4	0.2	0.5	0.4	0.4	0.8	0.7	0.0	0.1	0.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0
320. *	0.5	0.6	0.6	0.4	0.2	0.5	0.6	0.5	0.6	0.8	0.0	0.1	0.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0
330. *	0.5	0.6	0.6	0.4	0.2	0.4	0.7	0.4	0.7	0.9	0.0	0.1	0.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0
340. *	0.6	0.6	0.7	0.3	0.2	0.3	0.8	0.6	0.6	1.0	0.0	0.2	0.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0
350. *	0.5	0.6	0.7	0.3	0.1	0.3	0.8	0.7	0.7	1.0	0.0	0.2	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0
360. *	0.5	0.5	0.7	0.3	0.1	0.2	0.8	0.8	0.7	1.0	0.1	0.2	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0
MAX *	0.7	0.7	0.8	1.0	0.5	0.5	0.8	0.9	1.0	1.0	0.9	0.9	0.8	0.8	0.5	0.5	0.7	0.7	0.7	0.8
DEGR. *	250	210	220	230	260	290	0	220	240	0	40	50	30	40	40	100	140	170	170	140

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0. *	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.8	0.6	0.3	0.3	0.5	0.8	1.4	1.1	0.0	0.0	0.3	0.1	0.0
10. *	0.0	0.0	0.0	0.0	0.0	0.4	0.9	0.9	0.6	0.4	0.4	0.6	0.9	1.5	1.3	0.0	0.0	0.4	0.1	0.0
20. *	0.0	0.0	0.0	0.0	0.0	0.4	0.9	0.9	0.6	0.3	0.3	0.5	0.9	1.3	1.5	0.0	0.0	0.5	0.1	0.0
30. *	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.0	0.4	0.2	0.3	0.5	1.0	1.4	1.6	0.0	0.2	0.6	0.1	0.0
40. *	0.0	0.0	0.1	0.0	0.0	0.2	0.6	0.9	0.2	0.1	0.1	0.3	1.0	1.3	1.5	0.0	0.2	0.6	0.1	0.0
50. *	0.0	0.0	0.1	0.1	0.0	0.2	0.5	0.7	0.1	0.0	0.0	0.2	0.9	1.2	1.4	0.3	0.4	0.6	0.1	0.0
60. *	0.0	0.0	0.4	0.2	0.0	0.1	0.3	0.5	0.0	0.0	0.0	0.1	0.6	0.6	0.9	0.5	0.7	0.9	0.1	0.0
70. *	0.0	0.0	0.6	0.5	0.1	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.3	0.3	0.5	1.0	1.0	1.1	0.2	0.0
80. *	0.0	0.1	1.0	0.8	0.3	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	1.0	1.2	1.2	0.3	0.0
90. *	0.0	0.3	1.1	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.0	1.2	0.6	0.1
100. *	0.1	0.4	1.1	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.0	1.1	0.8	0.3
110. *	0.2	0.5	1.0	1.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.0	0.9	0.9	0.5
120. *	0.4	0.6	1.0	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.9	0.9	0.9	0.5
130. *	0.4	0.6	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.0	0.9	0.8	0.6
140. *	0.4	0.6	0.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.0	0.9	0.7	0.5
150. *	0.3	0.5	0.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.1	0.8	0.7	0.5
160. *	0.5	0.6	0.8	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	0.9	0.5	0.5
170. *	0.5	0.6	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.9	1.0	0.6	0.4
180. *	0.6	0.8	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.8	1.0	0.6	0.4
190. *	0.6	0.9	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	1.1	0.6	0.3
200. *	0.4	0.8	1.0	1.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	1.1	0.5	0.3
210. *	0.4	0.8	1.3	1.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.9	1.0	0.4	0.2
220. *	0.1	0.6	1.4	1.2	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.6	0.8	1.0		

```
0.3   0.1
 230.  *   0.0   0.4   1.2   1.3   1.4   0.2   0.2   0.1   0.0   0.0   0.0   0.0   0.1   0.1   0.1   0.5   0.7   0.8
0.1   0.0
 240.  *   0.0   0.2   1.0   0.9   0.9   0.5   0.5   0.4   0.0   0.0   0.0   0.0   0.4   0.3   0.2   0.4   0.5   0.6
0.0   0.0
 250.  *   0.0   0.1   0.7   0.6   0.5   0.9   0.9   0.9   0.1   0.0   0.0   0.1   0.9   0.7   0.4   0.2   0.2   0.3
0.0   0.0
 260.  *   0.0   0.1   0.5   0.4   0.2   1.2   1.2   1.2   0.2   0.0   0.0   0.2   1.2   1.0   0.6   0.1   0.1   0.1
0.0   0.0
 270.  *   0.0   0.1   0.4   0.2   0.0   1.2   1.1   1.2   0.5   0.1   0.1   0.3   1.4   1.2   0.7   0.0   0.0   0.1
0.0   0.0
 280.  *   0.0   0.1   0.4   0.1   0.0   1.1   1.0   1.1   0.6   0.3   0.2   0.5   1.3   1.3   0.8   0.0   0.0   0.0
0.0   0.0
 290.  *   0.0   0.1   0.3   0.0   0.0   0.9   1.2   0.9   0.6   0.4   0.3   0.6   1.1   1.2   0.9   0.0   0.0   0.0
0.0   0.0
 300.  *   0.0   0.1   0.2   0.0   0.0   0.9   1.0   1.1   0.5   0.4   0.4   0.7   1.1   1.3   0.9   0.0   0.0   0.0
0.0   0.0
 310.  *   0.0   0.1   0.1   0.0   0.0   0.8   0.8   1.0   0.6   0.4   0.4   0.8   0.9   1.2   0.9   0.0   0.0   0.0
0.0   0.0
 320.  *   0.0   0.0   0.1   0.0   0.0   0.8   0.8   0.9   0.7   0.4   0.4   0.8   0.9   1.2   0.9   0.0   0.0   0.0
0.0   0.0
 330.  *   0.0   0.0   0.1   0.0   0.0   0.9   0.9   1.0   0.7   0.3   0.4   0.5   0.9   1.3   1.1   0.0   0.0   0.0
0.0   0.0
 340.  *   0.0   0.0   0.0   0.0   0.0   0.9   0.9   0.9   0.5   0.3   0.4   0.8   1.0   1.3   1.0   0.0   0.0   0.1
0.0   0.0
 350.  *   0.0   0.0   0.0   0.0   0.0   0.8   0.8   0.8   0.6   0.4   0.4   0.7   0.9   1.3   1.1   0.0   0.0   0.2
0.0   0.0
 360.  *   0.0   0.0   0.0   0.0   0.0   0.6   0.8   0.8   0.6   0.3   0.3   0.5   0.8   1.4   1.1   0.0   0.0   0.3
0.1   0.0

------*-----------------------------------------------------------------------------------------------------------------
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 MAX   *   0.6   0.9   1.4   1.3   1.4   1.2   1.2   1.2   0.7   0.4   0.4   0.8   1.4   1.5   1.6   1.2   1.2   1.2
0.9   0.6
 DEGR. *  180   190   220   210   230   260   260   260   320    10    10   310   270    10    30    90    80    80
120   130

 THE HIGHEST CONCENTRATION OF    1.60 PPM OCCURRED AT RECEPTOR REC35.
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2018 Build
Microscale Output Files
(Carbon Monoxide (CO))

JOB: Skating Club of Boston RUN: 2018BD

DATE : 8/22/13
TIME : 17:53: 4

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. Soldier/Jug SB LTR	5198.9	6311.7	5198.2	6339.8	28.	359.	AG	168.	100.0	1.0	20.0	0.26	1.4
2. Soldier/Jug WB TT	5228.8	6294.1	5339.5	6355.9	127.	61.	AG	89.	100.0	1.0	20.0	0.86	6.4
3. Soldier/Jug NB LTR	5237.6	6215.9	5236.1	6146.8	69.	181.	AG	84.	100.0	1.0	10.0	0.64	3.5
4. Soldiers/Jug EB TTR	5191.9	6230.9	5106.8	6191.2	94.	245.	AG	89.	100.0	1.0	20.0	0.77	4.8
5. Western/Ever SB LTR	5231.8	5725.2	5234.0	5819.6	94.	1.	AG	90.	100.0	1.0	10.0	0.69	4.8
6. Western/Ever WB LTR	5264.9	5714.2	8820.8	6319.8	3607.	80.	AG	79.	100.0	1.0	10.0	1.60	183.2
7. West/Ever NB LTR	5233.9	5654.6	5211.1	5587.3	71.	199.	AG	180.	100.0	1.0	20.0	0.53	3.6
8. West/Ever EB LTR	5190.3	5675.7	5069.7	5661.3	121.	263.	AG	157.	100.0	1.0	20.0	0.74	6.2
9. Ever/Rt20 SB LR	4193.6	2489.0	4257.1	2708.2	228.	16.	AG	86.	100.0	1.0	10.0	0.92	11.6
10. Ever/Rt20 WB TR	4221.0	2443.1	4338.6	2419.1	120.	102.	AG	119.	100.0	1.0	20.0	0.50	6.1
11. Ever/Rt20 EB LTT	4155.5	2436.3	3975.8	2468.1	183.	280.	AG	119.	100.0	1.0	20.0	0.77	9.3
12. Camb/Linc SB LR	7036.1	3650.1	7007.1	3709.6	66.	334.	AG	208.	100.0	1.0	20.0	0.59	3.4
13. Camb/Linc WB L	7113.8	3630.4	7116.0	3631.5	2.	63.	AG	106.	100.0	1.0	10.0	0.02	0.1
14. Camb/Linc WB TTR	7096.3	3646.8	7311.7	3757.2	242.	63.	AG	93.	100.0	1.0	20.0	0.92	12.3
15. Camb/Linc NB LTR	7116.0	3570.3	7116.2	3567.9	2.	175.	AG	104.	100.0	1.0	10.0	0.02	0.1
16. Camb/Linc EB L	7032.9	3580.1	6963.7	3546.9	77.	244.	AG	106.	100.0	1.0	10.0	0.71	3.9
17. Camb/Linc EB TTTR	7047.4	3560.7	6922.6	3501.2	138.	245.	AG	140.	100.0	1.0	30.0	0.67	7.0
18. Birm/Linc SB R	2027.5	4361.0	2037.6	4379.2	21.	29.	AG	29.	100.0	1.0	10.0	0.16	1.1
19. Birm/Linc SB TT	2045.2	4353.0	2092.7	4437.9	97.	29.	AG	106.	100.0	1.0	20.0	0.56	4.9
20. Birm/Linc WB LTR	2100.9	4264.2	2178.0	4247.2	79.	102.	AG	200.	100.0	1.0	20.0	0.72	4.0
21. Birm/Linc NB LTT	2029.7	4188.8	1974.9	4074.0	127.	205.	AG	106.	100.0	1.0	20.0	0.74	6.5
22. Birm/Linc EB LLTR	1966.7	4229.9	1921.8	4209.9	49.	246.	AG	208.	100.0	1.0	20.0	0.58	2.5
23. Soldier/Jug N	5199.2	6279.5	5199.2	6392.5	113.	360.	AG	228.	8.8	1.0	42.0		
24. Soldier/Jug E-N	5199.2	6277.6	5400.6	6380.6	226.	63.	AG	1597.	8.8	1.0	42.0		
25. Soldier/Jug E-S	5219.3	6237.5	5420.9	6345.5	229.	62.	AG	1600.	8.8	1.0	42.0		
26. Soldier/Jug S	5235.5	6245.2	5234.6	6031.1	214.	180.	AG	526.	8.8	1.0	42.0		
27. Soldier/Jug W-S	5214.5	6245.3	4975.3	6130.9	265.	244.	AG	1431.	8.8	1.0	42.0		
28. Soldier/Jug W-N	5200.4	6278.0	4964.5	6172.3	258.	246.	AG	1692.	8.8	1.0	42.0		
29. West/Ever N	5233.5	5697.0	5238.2	5899.5	203.	1.	AG	524.	8.8	1.0	42.0		
30. West/Ever E	5233.5	5697.0	5535.4	5747.6	306.	80.	AG	1620.	8.8	1.0	66.0		
31. West/Ever S	5236.3	5680.7	5158.2	5443.1	250.	198.	AG	975.	8.8	1.0	54.0		
32. West/Ever W	5233.5	5697.0	4823.3	5637.1	415.	262.	AG	1542.	8.8	1.0	60.0		
33. Ever/Rt20 N	4192.8	2443.9	4258.3	2688.4	253.	15.	AG	776.	8.8	1.0	42.0		
34. Ever/Rt20 E	4192.8	2443.9	4427.9	2396.0	240.	102.	AG	2060.	8.8	1.0	54.0		
35. Ever/Rt20 W	4192.8	2443.9	3904.9	2491.9	292.	279.	AG	2028.	8.8	1.0	54.0		
36. Birm/Linc N-SB	1998.6	4296.0	2178.7	4628.9	378.	28.	AG	1152.	8.8	1.0	54.0		
37. Birm/Linc N NB	2048.6	4265.6	2230.3	4606.5	386.	28.	AG	1352.	8.8	1.0	54.0		
38. Birm/Linc E	2048.6	4272.0	2312.0	4209.5	271.	103.	AG	385.	8.8	1.0	42.0		
39. Birm/Linc S	2043.8	4251.5	1930.5	4004.1	272.	205.	AG	2426.	8.8	1.0	66.0		
40. Birm/Linc W-EB	2011.4	4253.5	1764.6	4138.7	272.	245.	AG	246.	8.8	1.0	42.0		
41. Birm/Linc W-WB	1974.5	4286.0	1744.8	4182.6	252.	246.	AG	518.	8.8	1.0	42.0		
42. Camb/Linc N	7068.0	3604.4	6989.0	3770.3	184.	335.	AG	657.	8.8	1.0	60.0		
43. Camb/Linc E	7068.0	3604.4	7289.3	3709.9	245.	65.	AG	3857.	8.8	1.0	****		
44. Camb/Linc S	7111.5	3599.6	7116.3	3391.9	208.	179.	AG	10.	8.8	1.0	42.0		

JOB: Skating Club of Boston RUN: 2018BD

DATE : 8/22/13
TIME : 17:53: 4

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. Camb/Linc W	7068.0	3604.4	6777.8	3466.0	321.	244.	AG	3591.	8.8	1.0	****		

JOB: Skating Club of Boston RUN: 2018BD

DATE : 8/22/13
TIME : 17:53: 4

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. Soldier/Jug SB LTR	69	45	3.0	228	1600	47.91	1	3
2. Soldier/Jug WB TT	69	24	3.0	1597	1600	47.91	1	3
3. Soldier/Jug NB LTR	69	45	3.0	281	1600	47.91	1	3
4. Soldiers/Jug EB TTR	69	24	3.0	1431	1600	47.91	1	3
5. Western/Ever SB LTR	90	63	3.0	271	1600	47.91	1	3
6. Western/Ever WB LTR	90	55	3.0	855	1600	47.91	1	3
7. West/Ever NB LTR	90	63	3.0	412	1600	47.91	1	3
8. West/Ever EB LTR	90	55	3.0	794	1600	47.91	1	3
9. Ever/Rt20 SB LR	119	80	3.0	419	1600	47.91	1	3
10. Ever/Rt20 WB TR	119	55	3.0	799	1600	47.91	1	3
11. Ever/Rt20 EB LTT	119	55	3.0	1214	1600	47.91	1	3
12. Camb/Linc SB LR	110	89	3.0	272	1600	47.91	1	3
13. Camb/Linc WB L	110	91	3.0	5	1600	47.91	1	3
14. Camb/Linc WB TTR	110	40	3.0	1744	1600	47.91	1	3
15. Camb/Linc NB LTR	110	89	3.0	5	1600	47.91	1	3
16. Camb/Linc EB L	110	91	3.0	144	1600	47.91	1	3
17. Camb/Linc EB TTTR	110	40	3.0	1898	1600	47.91	1	3
18. Birm/Linc SB R	90	20	3.0	190	1600	47.91	1	3
19. Birm/Linc SB TT	90	37	3.0	962	1600	47.91	1	3
20. Birm/Linc WB LTR	90	70	3.0	385	1600	47.91	1	3
21. Birm/Linc NB LTT	90	37	3.0	1259	1600	47.91	1	3
22. Birm/Linc EB LLTR	90	73	3.0	246	1600	47.91	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. Soldiers/Jug NE1	5230.2	6478.3	6.0
2. Soldiers/Jug NE2	5230.2	6403.2	6.0
3. Soldiers/Jug NE3	5230.2	6328.3	6.0
4. Soldiers/Jug NE4	5297.0	6362.4	6.0
5. Soldiers/Jug NE5	5363.7	6396.6	6.0
6. Soldiers/Jug SE1	5398.7	6298.4	6.0
7. Soldiers/Jug SE2	5332.5	6263.0	6.0
8. Soldiers/Jug SE3	5266.4	6227.6	6.0
9. Soldiers/Jug SE4	5266.4	6152.6	6.0
10. Soldiers/Jug SE5	5265.8	6077.6	6.0
11. Soldiers/Jug SW1	5204.3	6056.0	6.0
12. Soldiers/Jug SW2	5204.0	6131.0	6.0
13. Soldiers/Jug SW3	5204.3	6206.0	6.0
14. Soldiers/Jug SW4	5136.6	6173.7	6.0
15. Soldiers/Jug SW5	5069.0	6141.4	6.0
16. Soldiers/Jug NW1	5031.3	6236.2	6.0
17. Soldiers/Jug NW2	5099.8	6266.9	6.0
18. Soldiers/Jug NW3	5168.2	6297.6	6.0
19. Soldiers/Jug NW4	5168.2	6372.6	6.0
20. Soldiers/Jug NW5	5168.2	6447.6	6.0
21. Western/Ever NE1	5269.1	5895.9	6.0
22. Western/Ever NE2	5267.4	5821.0	6.0
23. Western/Ever NE3	5265.7	5746.0	6.0

JOB: Skating Club of Boston RUN: 2018BD

DATE : 8/22/13
TIME : 17:53: 4

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
24. Western/Ever NE4	5339.6	5758.4	6.0
25. Western/Ever NE5	5413.6	5770.8	6.0

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   26. Western/Ever SE1     *      5416.1     5684.0        6.0   *
   27. Western/Ever SE2     *      5342.1     5671.6        6.0   *
   28. Western/Ever SE3     *      5268.1     5659.2        6.0   *
   29. Western/Ever SE4     *      5244.7     5587.9        6.0   *
   30. Western/Ever SE5     *      5221.3     5516.7        6.0   *
   31. Western/Ever SW1     *      5140.4     5507.3        6.0   *
   32. Western/Ever SW2     *      5163.8     5578.5        6.0   *
   33. Western/Ever SW3     *      5187.2     5649.8        6.0   *
   34. Western/Ever SW4     *      5113.0     5639.0        6.0   *
   35. Western/Ever SW5     *      5038.7     5628.1        6.0   *
   36. Western/Ever NW1     *      5054.9     5711.3        6.0   *
   37. Western/Ever NW2     *      5129.1     5722.2        6.0   *
   38. Western/Ever NW3     *      5203.4     5733.0        6.0   *
   39. Western/Ever NW4     *      5205.1     5808.0        6.0   *
   40. Western/Ever NW5     *      5206.8     5883.0        6.0   *
   41. Ever/Rt20 NE1        *      4271.6     2618.4        6.0   *
   42. Ever/Rt20 NE2        *      4252.2     2546.0        6.0   *
   43. Ever/Rt20 NE3        *      4232.8     2473.5        6.0   *
   44. Ever/Rt20 NE4        *      4306.3     2458.5        6.0   *
   45. Ever/Rt20 NE5        *      4379.8     2443.6        6.0   *
   46. Ever/Rt20 S1         *      4333.0     2377.6        6.0   *
   47. Ever/Rt20 S2         *      4259.5     2392.6        6.0   *
   48. Ever/Rt20 S3         *      4186.0     2407.5        6.0   *
   49. Ever/Rt20 S4         *      4112.0     2419.9        6.0   *
   50. Ever/Rt20 S5         *      4038.1     2432.2        6.0   *
   51. Ever/Rt20 NW1        *      4023.7     2509.6        6.0   *
   52. Ever/Rt20 NW2        *      4097.7     2497.3        6.0   *
   53. Ever/Rt20 NW3        *      4171.7     2485.0        6.0   *
   54. Ever/Rt20 NW4        *      4191.1     2557.4        6.0   *
   55. Ever/Rt20 NW5        *      4210.5     2629.8        6.0   *
♀                                                                                                   PAGE  5
    JOB: Skating Club of Boston                                   RUN: 2018BD

     MODEL RESULTS
     -------------

     REMARKS : In search of the angle corresponding to
               the maximum concentration, only the first
               angle, of the angles with same maximum
               concentrations, is indicated as maximum.

 WIND ANGLE RANGE:   0.-360.

 WIND  * CONCENTRATION
 ANGLE *      (PPM)
 (DEGR)* REC1  REC2  REC3  REC4  REC5  REC6  REC7  REC8  REC9  REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
REC19 REC20

------*-----------------------------------------------------------------------------------------------------------
-------
   0.  *  0.0   0.0   0.0   0.0   0.0   0.5   0.7   0.7   0.5   0.3   0.5   0.5   0.7   0.9   0.7   0.0   0.0   0.0
0.0  0.0
  10.  *  0.0   0.0   0.0   0.0   0.0   0.5   0.6   0.7   0.5   0.2   0.3   0.4   0.6   0.9   0.7   0.0   0.0   0.0
0.0  0.0
  20.  *  0.0   0.0   0.0   0.0   0.0   0.3   0.7   0.8   0.3   0.2   0.4   0.7   0.9   0.9   0.7   0.0   0.0   0.2
0.0  0.0
  30.  *  0.0   0.0   0.0   0.0   0.0   0.3   0.6   0.8   0.3   0.1   0.4   0.6   0.9   1.0   0.8   0.0   0.0   0.3
0.0  0.0
  40.  *  0.0   0.0   0.0   0.0   0.0   0.2   0.5   0.7   0.1   0.0   0.3   0.6   1.0   1.1   1.0   0.0   0.0   0.3
0.0  0.0
  50.  *  0.0   0.0   0.1   0.0   0.0   0.1   0.3   0.5   0.1   0.0   0.1   0.3   1.0   0.9   0.8   0.0   0.2   0.4
0.0  0.0
  60.  *  0.0   0.0   0.3   0.1   0.0   0.0   0.2   0.3   0.0   0.0   0.1   0.2   0.6   0.6   0.6   0.2   0.3   0.6
0.0  0.0
  70.  *  0.0   0.0   0.6   0.2   0.0   0.0   0.1   0.1   0.0   0.0   0.1   0.2   0.5   0.4   0.2   0.5   0.6   0.8
0.0  0.0
  80.  *  0.0   0.0   0.8   0.4   0.1   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.3   0.3   0.0   0.8   0.8   1.1
0.2  0.0
  90.  *  0.0   0.1   0.9   0.6   0.1   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.2   0.0   1.0   0.8   0.9
0.3  0.0
 100.  *  0.0   0.2   0.9   0.7   0.2   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.1   0.0   0.9   0.8   0.9
0.5  0.1
 110.  *  0.0   0.3   0.9   0.8   0.2   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.1   0.0   0.8   0.9   0.7
0.5  0.2
 120.  *  0.1   0.4   0.8   0.8   0.4   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.1   0.0   0.8   0.8   0.6
0.7  0.2
 130.  *  0.2   0.4   0.8   0.8   0.4   0.0   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.1   0.0   0.6   0.8   0.7
0.7  0.3
 140.  *  0.2   0.5   0.8   0.8   0.6   0.0   0.0   0.0   0.0   0.0   0.2   0.1   0.3   0.0   0.1   0.6   0.7   0.8
0.7  0.3
 150.  *  0.3   0.5   0.8   0.8   0.6   0.0   0.0   0.0   0.0   0.1   0.1   0.2   0.3   0.1   0.1   0.6   0.7   0.8
0.6  0.3
 160.  *  0.3   0.4   0.8   0.8   0.6   0.0   0.0   0.1   0.1   0.1   0.1   0.2   0.4   0.1   0.0   0.6   0.7   0.8
0.7  0.3
 170.  *  0.3   0.4   0.9   0.8   0.6   0.0   0.1   0.1   0.1   0.1   0.1   0.2   0.2   0.0   0.1   0.7   0.7   0.7
0.4  0.4
 180.  *  0.2   0.6   0.9   0.8   0.6   0.1   0.1   0.1   0.1   0.1   0.1   0.0   0.1   0.1   0.1   0.7   0.7   0.7
0.4  0.2
 190.  *  0.3   0.5   0.9   0.9   0.6   0.0   0.0   0.2   0.2   0.1   0.1   0.1   0.1   0.1   0.1   0.6   0.7   0.8
0.4  0.2
 200.  *  0.2   0.5   0.9   1.0   0.9   0.0   0.1   0.4   0.2   0.2   0.1   0.1   0.1   0.1   0.1   0.7   0.7   0.8
```



```
0.3  0.2
 210.  *  0.2   0.5   0.8   1.0   0.8   0.0   0.2   0.4   0.3   0.2   0.1   0.1   0.0   0.0   0.0   0.6   0.7   0.8
0.3  0.2
 220.  *  0.2   0.5   0.9   1.0   1.1   0.0   0.1   0.3   0.2   0.2   0.1   0.0   0.0   0.0   0.0   0.5   0.7   0.8
0.3  0.1
 230.  *  0.0   0.2   1.0   0.9   1.0   0.1   0.1   0.2   0.1   0.1   0.0   0.0   0.1   0.0   0.0   0.3   0.6   0.8
0.1  0.0
 240.  *  0.0   0.1   0.8   0.7   0.6   0.4   0.3   0.3   0.1   0.1   0.0   0.0   0.2   0.1   0.1   0.2   0.3   0.5
0.0  0.0
 250.  *  0.0   0.0   0.5   0.3   0.3   0.7   0.7   0.8   0.1   0.1   0.0   0.0   0.5   0.3   0.2   0.1   0.2   0.2
0.0  0.0
 260.  *  0.0   0.0   0.5   0.1   0.0   0.8   0.8   0.8   0.3   0.1   0.0   0.1   0.8   0.5   0.3   0.0   0.1   0.1
0.0  0.0
 270.  *  0.0   0.0   0.4   0.0   0.0   0.9   0.9   1.0   0.4   0.1   0.0   0.2   1.0   0.6   0.4   0.0   0.0   0.0
0.0  0.0
 280.  *  0.0   0.0   0.4   0.0   0.0   0.8   0.8   1.0   0.5   0.2   0.0   0.3   0.9   0.6   0.5   0.0   0.0   0.0
0.0  0.0
 290.  *  0.0   0.0   0.3   0.0   0.0   0.8   0.8   0.8   0.7   0.3   0.1   0.3   0.9   0.8   0.6   0.0   0.0   0.0
0.0  0.0
 300.  *  0.0   0.0   0.2   0.0   0.0   0.7   0.7   0.8   0.7   0.3   0.2   0.4   0.9   0.8   0.6   0.0   0.0   0.0
0.0  0.0
 310.  *  0.0   0.0   0.2   0.0   0.0   0.7   0.7   0.7   0.7   0.3   0.2   0.5   0.9   0.8   0.6   0.0   0.0   0.0
0.0  0.0
 320.  *  0.0   0.0   0.1   0.0   0.0   0.6   0.7   0.8   0.4   0.4   0.2   0.5   0.8   0.8   0.6   0.0   0.0   0.0
0.0  0.0
 330.  *  0.0   0.0   0.1   0.0   0.0   0.6   0.7   0.8   0.6   0.4   0.2   0.5   0.8   0.9   0.7   0.0   0.0   0.0
0.0  0.0
 340.  *  0.0   0.0   0.0   0.0   0.0   0.6   0.7   0.7   0.4   0.7   0.3   0.5   0.7   0.9   0.7   0.0   0.0   0.0
0.0  0.0
 350.  *  0.0   0.0   0.0   0.0   0.0   0.6   0.7   0.7   0.4   0.4   0.2   0.4   0.7   0.8   0.6   0.0   0.0   0.0
0.0  0.0
 360.  *  0.0   0.0   0.0   0.0   0.0   0.5   0.7   0.7   0.5   0.3   0.5   0.5   0.7   0.9   0.7   0.0   0.0   0.0
0.0  0.0

------*-----------------------------------------------------------------------------------------------------------
-------
 MAX   *  0.3   0.6   1.0   1.0   1.1   0.9   0.9   1.0   0.7   0.7   0.5   0.7   1.0   1.1   1.0   1.0   0.9   1.1
0.7  0.4
 DEGR. * 150   180   230   200   220   270   270   270   290   340     0    20    40    40    40    90   110    80
140  170

♀                                                                                                   PAGE  6
    JOB: Skating Club of Boston                                   RUN: 2018BD

     MODEL RESULTS
     -------------

     REMARKS : In search of the angle corresponding to
               the maximum concentration, only the first
               angle, of the angles with same maximum
               concentrations, is indicated as maximum.

 WIND ANGLE RANGE:   0.-360.

 WIND  * CONCENTRATION
 ANGLE *      (PPM)
 (DEGR)* REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
REC39 REC40

------*-----------------------------------------------------------------------------------------------------------
-------
   0.  *  0.2   0.1   0.1   0.0   0.0   0.5   0.5   0.6   0.7   0.7   0.2   0.3   0.7   0.8   0.4   0.2   0.1   0.1
0.0  0.0
  10.  *  0.2   0.1   0.0   0.0   0.0   0.5   0.5   0.5   0.4   0.5   0.3   0.3   0.7   0.7   0.3   0.0   0.0   0.2
0.2  0.3
  20.  *  0.0   0.0   0.0   0.0   0.0   0.5   0.5   0.5   0.3   0.3   0.6   0.6   0.6   0.8   0.4   0.0   0.0   0.3
0.1  0.1
  30.  *  0.0   0.0   0.0   0.0   0.0   0.5   0.5   0.5   0.3   0.2   0.6   0.5   0.7   0.8   0.5   0.0   0.0   0.4
0.1  0.0
  40.  *  0.0   0.0   0.0   0.0   0.0   0.5   0.5   0.5   0.3   0.2   0.5   0.7   0.7   0.9   0.6   0.0   0.1   0.4
0.1  0.0
  50.  *  0.0   0.0   0.0   0.0   0.0   0.5   0.6   0.6   0.3   0.2   0.6   0.9   0.7   0.9   0.8   0.0   0.1   0.3
0.1  0.0
  60.  *  0.0   0.0   0.0   0.0   0.0   0.5   0.6   0.6   0.3   0.2   0.5   0.9   0.8   1.0   0.9   0.0   0.2   0.3
0.2  0.1
  70.  *  0.0   0.0   0.2   0.2   0.1   0.5   0.6   0.6   0.2   0.1   0.4   0.7   1.0   0.9   0.9   0.3   0.4   0.5
0.2  0.1
  80.  *  0.0   0.1   0.4   0.4   0.3   0.3   0.3   0.4   0.1   0.0   0.2   0.5   0.8   0.8   0.8   0.4   0.6   0.7
0.3  0.1
  90.  *  0.1   0.1   0.6   0.6   0.4   0.1   0.2   0.2   0.0   0.0   0.2   0.3   0.6   0.5   0.5   0.7   0.7   0.8
0.4  0.2
 100.  *  0.1   0.2   0.7   0.6   0.5   0.0   0.0   0.0   0.0   0.0   0.2   0.2   0.5   0.2   0.2   0.6   0.6   0.9
0.5  0.2
 110.  *  0.1   0.3   0.7   0.7   0.6   0.0   0.0   0.0   0.0   0.0   0.2   0.2   0.5   0.2   0.1   0.9   0.7   0.8
0.6  0.3
 120.  *  0.2   0.3   0.6   0.6   0.6   0.0   0.0   0.0   0.0   0.0   0.2   0.2   0.5   0.2   0.1   0.9   0.8   0.5
0.6  0.3
 130.  *  0.2   0.3   0.5   0.5   0.5   0.0   0.0   0.0   0.0   0.0   0.2   0.2   0.5   0.1   0.1   0.9   0.8   0.6
0.6  0.3
 140.  *  0.1   0.3   0.5   0.5   0.5   0.0   0.0   0.0   0.0   0.0   0.2   0.2   0.5   0.1   0.1   0.7   0.8   0.6
0.5  0.3
```

150.	*	0.1	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.6	0.1	0.0	0.6	0.7	0.7	0.5	0.4
160.	*	0.1	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.1	0.0	0.5	0.7	0.7	0.5	0.4
170.	*	0.1	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.1	0.0	0.5	0.7	0.8	0.6	0.5
180.	*	0.3	0.4	0.7	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.0	0.4	0.7	0.8	0.5	0.4
190.	*	0.5	0.6	0.6	0.5	0.5	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.2	0.0	0.0	0.3	0.5	0.8	0.4	0.3
200.	*	0.6	0.6	0.8	0.6	0.5	0.0	0.0	0.3	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.4	0.6	0.7	0.3	0.2
210.	*	0.5	0.7	0.9	0.7	0.5	0.0	0.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.6	0.3	0.2
220.	*	0.4	0.7	0.8	0.7	0.7	0.0	0.1	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.7	0.3	0.1
230.	*	0.2	0.6	0.7	0.8	0.9	0.1	0.2	0.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.7	0.3	0.1
240.	*	0.2	0.4	0.9	0.8	0.7	0.1	0.2	0.7	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.7	0.2	0.1
250.	*	0.1	0.3	0.8	0.7	0.8	0.4	0.3	0.7	0.4	0.3	0.0	0.0	0.1	0.1	0.1	0.4	0.5	0.6	0.1	0.0
260.	*	0.1	0.2	0.6	0.6	0.5	0.7	0.6	0.7	0.3	0.2	0.0	0.0	0.4	0.2	0.2	0.3	0.3	0.3	0.0	0.0
270.	*	0.1	0.2	0.3	0.4	0.2	0.6	0.8	0.9	0.5	0.2	0.0	0.1	0.6	0.4	0.4	0.1	0.1	0.2	0.0	0.0
280.	*	0.1	0.1	0.2	0.2	0.0	0.6	0.6	1.0	0.7	0.3	0.0	0.1	0.9	0.6	0.5	0.0	0.0	0.0	0.0	0.0
290.	*	0.0	0.1	0.2	0.2	0.0	0.6	0.5	0.8	0.8	0.3	0.1	0.2	0.9	0.7	0.5	0.0	0.0	0.0	0.0	0.0
300.	*	0.0	0.1	0.2	0.1	0.0	0.5	0.7	0.6	0.9	0.3	0.1	0.2	0.9	0.7	0.4	0.0	0.0	0.0	0.0	0.0
310.	*	0.0	0.1	0.2	0.1	0.0	0.5	0.7	0.5	1.0	0.4	0.1	0.3	0.8	0.7	0.4	0.0	0.0	0.0	0.0	0.0
320.	*	0.2	0.1	0.3	0.0	0.0	0.5	0.6	0.6	0.9	0.4	0.1	0.3	0.8	0.8	0.4	0.0	0.0	0.0	0.0	0.0
330.	*	0.2	0.3	0.3	0.0	0.0	0.5	0.5	0.6	1.0	0.5	0.1	0.4	0.8	0.7	0.3	0.0	0.0	0.0	0.0	0.2
340.	*	0.2	0.3	0.4	0.0	0.0	0.5	0.5	0.5	0.7	0.6	0.2	0.4	0.8	0.8	0.4	0.0	0.0	0.0	0.2	0.2
350.	*	0.1	0.1	0.1	0.0	0.0	0.5	0.5	0.6	0.8	0.7	0.2	0.4	0.7	0.8	0.4	0.0	0.1	0.1	0.2	0.2
360.	*	0.2	0.1	0.1	0.0	0.0	0.5	0.5	0.6	0.7	0.7	0.2	0.3	0.7	0.8	0.4	0.2	0.1	0.1	0.0	0.0
MAX	*	0.6	0.7	0.9	0.8	0.9	0.7	0.8	1.0	1.0	0.7	0.6	0.9	1.0	1.0	0.9	0.9	0.8	0.9	0.6	0.5
DEGR.	*	200	210	210	230	230	260	270	280	310	0	20	50	70	60	60	110	120	100	110	170

♀ PAGE 7

JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	*	0.1	0.3	0.3	0.0	0.0	0.6	0.9	0.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0
10.	*	0.1	0.2	0.3	0.0	0.0	0.6	0.7	0.8	0.8	0.8	0.0	0.0	0.2	0.2	0.0
20.	*	0.0	0.1	0.1	0.0	0.0	0.6	0.7	0.8	0.9	0.8	0.0	0.0	0.4	0.2	0.2
30.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.7	1.0	0.8	0.0	0.0	0.4	0.4	0.2
40.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.7	1.0	0.8	0.0	0.2	0.5	0.4	0.4
50.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.6	1.0	1.0	0.0	0.2	0.4	0.4	0.4
60.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.8	0.8	1.0	1.1	0.1	0.2	0.4	0.4	0.4
70.	*	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.8	1.0	1.1	0.2	0.2	0.3	0.4	0.4
80.	*	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.9	0.8	1.1	0.1	0.2	0.3	0.4	0.4
90.	*	0.0	0.0	0.1	0.1	0.0	0.3	0.5	0.7	0.8	0.9	0.3	0.3	0.4	0.4	0.4
100.	*	0.0	0.0	0.4	0.2	0.1	0.2	0.3	0.5	0.5	0.5	0.5	0.6	0.6	0.4	0.4
110.	*	0.0	0.0	0.6	0.4	0.2	0.1	0.1	0.2	0.1	0.2	0.9	0.8	1.0	0.5	0.4
120.	*	0.0	0.1	0.8	0.5	0.3	0.0	0.0	0.1	0.0	0.0	0.8	0.9	1.1	0.5	0.4
130.	*	0.0	0.2	0.9	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.9	0.8	0.9	0.7	0.5
140.	*	0.1	0.2	0.9	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.8	0.7	0.9	0.8	0.5
150.	*	0.1	0.4	0.9	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.8	0.6
160.	*	0.2	0.3	0.8	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6	0.7	0.7
170.	*	0.3	0.3	0.8	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6	0.7	0.7
180.	*	0.3	0.3	0.7	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.5	0.5	0.6
190.	*	0.4	0.3	0.7	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6	0.5	0.5
200.	*	0.4	0.5	0.6	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6	0.3	0.4
210.	*	0.5	0.4	0.8	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6	0.3	0.3

220.	*	0.6	0.7	0.6	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.7	0.3	0.3
230.	*	0.6	0.6	0.6	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.7	0.4	0.3
240.	*	0.6	0.7	0.9	0.9	0.8	0.0	0.0	0.0	0.0	0.0	0.7	0.8	0.8	0.4	0.1
250.	*	0.4	0.7	0.9	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.5	0.8	0.8	0.3	0.1
260.	*	0.4	0.5	1.0	1.1	0.9	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.9	0.1	0.0
270.	*	0.3	0.4	0.9	1.0	1.0	0.2	0.2	0.3	0.2	0.1	0.3	0.6	0.7	0.1	0.0
280.	*	0.3	0.3	0.7	0.7	0.7	0.5	0.5	0.6	0.5	0.3	0.2	0.3	0.3	0.0	0.0
290.	*	0.3	0.3	0.5	0.3	0.3	0.8	0.7	0.9	0.8	0.5	0.1	0.1	0.1	0.0	0.0
300.	*	0.3	0.3	0.3	0.2	0.1	1.0	0.8	1.0	1.0	0.7	0.0	0.0	0.0	0.0	0.0
310.	*	0.3	0.3	0.3	0.2	0.1	1.0	0.8	0.8	1.0	0.9	0.0	0.0	0.0	0.0	0.0
320.	*	0.3	0.3	0.3	0.2	0.1	0.9	0.8	0.7	1.0	0.9	0.0	0.0	0.0	0.0	0.0
330.	*	0.3	0.3	0.3	0.2	0.0	1.0	1.0	0.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0
340.	*	0.3	0.3	0.3	0.2	0.0	0.8	0.9	0.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0
350.	*	0.3	0.3	0.4	0.1	0.0	0.7	0.9	0.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0
360.	*	0.1	0.3	0.3	0.0	0.0	0.6	0.9	0.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0
MAX	*	0.6	0.7	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.1	0.9	0.9	1.1	0.8	0.7
DEGR.	*	220	240	260	260	270	300	330	300	30	60	130	120	120	140	160

THE HIGHEST CONCENTRATION OF 1.10 PPM OCCURRED AT RECEPTOR REC14.

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♀                    CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221                        PAGE  1

      JOB: Skating Club of Boston                                RUN: 2018BD

      DATE :  8/22/13
      TIME : 17:52:59

         The MODE flag has been set to C for calculating CO averages.

       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =   0.0 CM/S       VD =   0.0 CM/S       Z0 = 175. CM
        U =  1.0 M/S         CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =  0.0 PPM

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*---------------------------------------*------------------------------------------------------
----
       1. Soldier/Jug SB LTR  *   5198.9    6311.7    5198.2    6339.8 *      28.   359. AG   168. 100.0   1.0 20.0
0.26   1.4
       2. Soldier/Jug WB TT   *   5228.8    6294.1    5339.5    6355.9 *     127.    61. AG    89. 100.0   1.0 20.0
0.86   6.4
       3. Soldier/Jug NB LTR  *   5237.6    6215.9    5236.1    6146.8 *      69.   181. AG    84. 100.0   1.0 10.0
0.64   3.5
       4. Soldiers/Jug EB TTR *   5191.9    6230.9    5106.8    6191.2 *      94.   245. AG    89. 100.0   1.0 20.0
0.77   4.8
       5. Western/Ever SB LTR *   5231.8    5725.2    5234.0    5819.6 *      94.     1. AG    90. 100.0   1.0 10.0
0.69   4.8
       6. Western/Ever WB LTR *   5264.9    5714.2    8820.8    6319.8 *    3607.    80. AG    79. 100.0   1.0 10.0
1.60 183.2
       7. West/Ever NB LTR    *   5233.9    5654.6    5211.1    5587.3 *      71.   199. AG   180. 100.0   1.0 20.0
0.53   3.6
       8. West/Ever EB LTR    *   5190.3    5675.7    5069.7    5661.3 *     121.   263. AG   157. 100.0   1.0 20.0
0.74   6.2
       9. Ever/Rt20 SB LR     *   4193.6    2489.0    4257.1    2708.2 *     228.    16. AG    86. 100.0   1.0 10.0
0.92  11.6
      10. Ever/Rt20 WB TR     *   4221.0    2443.1    4338.6    2419.1 *     120.   102. AG   119. 100.0   1.0 20.0
0.50   6.1
      11. Ever/Rt20 EB LTT    *   4155.5    2436.3    3975.8    2468.1 *     183.   280. AG   119. 100.0   1.0 20.0
0.77   9.3
      12. Camb/Linc SB LR     *   7036.1    3650.1    7007.1    3709.6 *      66.   334. AG   208. 100.0   1.0 20.0
0.59   3.4
      13. Camb/Linc WB L      *   7113.8    3630.4    7116.0    3631.5 *       2.    63. AG   106. 100.0   1.0 10.0
0.02   0.1
      14. Camb/Linc WB TTR    *   7096.3    3646.8    7311.7    3757.2 *     242.    63. AG    93. 100.0   1.0 20.0
0.92  12.3
      15. Camb/Linc NB LTR    *   7116.0    3570.3    7116.2    3567.9 *       2.   175. AG   104. 100.0   1.0 10.0
0.02   0.1
      16. Camb/Linc EB L      *   7032.9    3580.1    6963.7    3546.9 *      77.   244. AG   106. 100.0   1.0 10.0
0.71   3.9
      17. Camb/Linc EB TTTR   *   7047.4    3560.7    6922.6    3501.2 *     138.   245. AG   140. 100.0   1.0 30.0
0.67   7.0
      18. Birm/Linc SB R      *   2027.5    4361.0    2037.6    4379.2 *      21.    29. AG    29. 100.0   1.0 10.0
0.16   1.1
      19. Birm/Linc SB TT     *   2045.2    4353.0    2092.7    4437.9 *      97.    29. AG   106. 100.0   1.0 20.0
0.56   4.9
      20. Birm/Linc WB LTR    *   2100.9    4264.2    2178.0    4247.2 *      79.   102. AG   200. 100.0   1.0 20.0
0.72   4.0
      21. Birm/Linc NB LTT    *   2029.7    4188.8    1974.9    4074.0 *     127.   205. AG   106. 100.0   1.0 20.0
0.74   6.5
      22. Birm/Linc EB LLTR   *   1966.7    4229.9    1921.8    4209.9 *      49.   246. AG   208. 100.0   1.0 20.0
0.58   2.5
      23. Soldier/Jug N       *   5199.2    6279.5    5199.2    6392.5 *     113.   360. AG   228.    8.8   1.0 42.0
      24. Soldier/Jug E-N     *   5199.2    6277.6    5400.6    6380.6 *     226.    63. AG  1597.    8.8   1.0 42.0
      25. Soldier/Jug E-S     *   5219.3    6237.5    5420.9    6345.5 *     229.    62. AG  1600.    8.8   1.0 42.0
      26. Soldier/Jug S       *   5235.5    6245.2    5234.6    6031.1 *     214.   180. AG   526.    8.8   1.0 42.0
      27. Soldier/Jug W-S     *   5214.5    6245.3    4975.3    6130.9 *     265.   244. AG  1431.    8.8   1.0 42.0
      28. Soldier/Jug W-N     *   5200.4    6278.0    4964.5    6172.3 *     258.   246. AG  1692.    8.8   1.0 42.0
      29. West/Ever N         *   5233.5    5697.0    5238.2    5899.5 *     203.     1. AG   524.    8.8   1.0 42.0
      30. West/Ever E         *   5233.5    5697.0    5535.4    5747.6 *     306.    80. AG  1620.    8.8   1.0 66.0
      31. West/Ever S         *   5236.3    5680.7    5158.2    5443.1 *     250.   198. AG   975.    8.8   1.0 54.0
      32. West/Ever W         *   5233.5    5697.0    4823.3    5637.1 *     415.   262. AG  1542.    8.8   1.0 60.0
      33. Ever/Rt20 N         *   4192.8    2443.9    4258.3    2688.4 *     253.    15. AG   776.    8.8   1.0 42.0
      34. Ever/Rt20 E         *   4192.8    2443.9    4427.9    2396.0 *     240.   102. AG  2060.    8.8   1.0 54.0
      35. Ever/Rt20 W         *   4192.8    2443.9    3904.9    2491.9 *     292.   279. AG  2028.    8.8   1.0 54.0
      36. Birm/Linc N-SB      *   1998.6    4296.0    2178.7    4628.9 *     378.    28. AG  1152.    8.8   1.0 54.0
      37. Birm/Linc N NB      *   2048.6    4265.6    2230.3    4606.5 *     386.    28. AG  1352.    8.8   1.0 54.0
      38. Birm/Linc E         *   2048.6    4272.0    2312.0    4209.5 *     271.   103. AG   385.    8.8   1.0 42.0
      39. Birm/Linc S         *   2043.8    4251.5    1930.5    4004.1 *     272.   205. AG  2426.    8.8   1.0 66.0
      40. Birm/Linc W-EB      *   2011.4    4253.5    1764.6    4138.7 *     272.   245. AG   246.    8.8   1.0 42.0
      41. Birm/Linc W-WB      *   1974.5    4286.0    1744.8    4182.6 *     252.   246. AG   518.    8.8   1.0 42.0
      42. Camb/Linc N         *   7068.0    3604.4    6989.0    3770.3 *     184.   335. AG   657.    8.8   1.0 60.0
      43. Camb/Linc E         *   7068.0    3604.4    7289.3    3709.9 *     245.    65. AG  3857.    8.8   1.0 ****
      44. Camb/Linc S         *   7111.5    3599.6    7116.3    3391.9 *     208.   179. AG    10.    8.8   1.0 42.0
♀                                                                                                            PAGE  2
      JOB: Skating Club of Boston                                RUN: 2018BD
```



```
      DATE :  8/22/13
      TIME : 17:52:59

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*---------------------------------------*------------------------------------------------------
----
      45. Camb/Linc W         *   7068.0    3604.4    6777.8    3466.0 *     321.   244. AG  3591.    8.8   1.0 ****
♀                                                                                                            PAGE  3
      JOB: Skating Club of Boston                                RUN: 2018BD

      DATE :  8/22/13
      TIME : 17:52:59

       ADDITIONAL QUEUE LINK PARAMETERS
       --------------------------------
         LINK DESCRIPTION     *    CYCLE    RED     CLEARANCE  APPROACH  SATURATION   IDLE    SIGNAL    ARRIVAL
                              *    LENGTH   TIME    LOST TIME    VOL     FLOW RATE   EM FAC    TYPE      RATE
                              *    (SEC)   (SEC)     (SEC)      (VPH)      (VPH)    (gm/hr)
      ------------------------*--------------------------------------------------------------------------------
       1. Soldier/Jug SB LTR  *      69      45       3.0        228       1600      47.91      1         3
       2. Soldier/Jug WB TT   *      69      24       3.0       1597       1600      47.91      1         3
       3. Soldier/Jug NB LTR  *      69      45       3.0        281       1600      47.91      1         3
       4. Soldiers/Jug EB TTR *      69      24       3.0       1431       1600      47.91      1         3
       5. Western/Ever SB LTR *      90      63       3.0        271       1600      47.91      1         3
       6. Western/Ever WB LTR *      90      55       3.0        855       1600      47.91      1         3
       7. West/Ever NB LTR    *      90      63       3.0        412       1600      47.91      1         3
       8. West/Ever EB LTR    *      90      55       3.0        794       1600      47.91      1         3
       9. Ever/Rt20 SB LR     *     119      80       3.0        419       1600      47.91      1         3
      10. Ever/Rt20 WB TR     *     119      55       3.0        799       1600      47.91      1         3
      11. Ever/Rt20 EB LTT    *     119      55       3.0       1214       1600      47.91      1         3
      12. Camb/Linc SB LR     *     110      89       3.0        272       1600      47.91      1         3
      13. Camb/Linc WB L      *     110      91       3.0          5       1600      47.91      1         3
      14. Camb/Linc WB TTR    *     110      40       3.0       1744       1600      47.91      1         3
      15. Camb/Linc NB LTR    *     110      89       3.0          5       1600      47.91      1         3
      16. Camb/Linc EB L      *     110      91       3.0        144       1600      47.91      1         3
      17. Camb/Linc EB TTTR   *     110      40       3.0       1898       1600      47.91      1         3
      18. Birm/Linc SB R      *      90      20       3.0        190       1600      47.91      1         3
      19. Birm/Linc SB TT     *      90      37       3.0        962       1600      47.91      1         3
      20. Birm/Linc WB LTR    *      90      70       3.0        385       1600      47.91      1         3
      21. Birm/Linc NB LTT    *      90      37       3.0       1259       1600      47.91      1         3
      22. Birm/Linc EB LLTR   *      90      73       3.0        246       1600      47.91      1         3

       RECEPTOR LOCATIONS
       ------------------
                              *       COORDINATES (FT)        *
         RECEPTOR             *      X          Y          Z      *
     -------------------------*-------------------------------*
      1. Birm/Linc NE1        *     2174.4     4423.1       6.0   *
      2. Birm/Linc NE2        *     2139.2     4356.9       6.0   *
      3. Birm/Linc NE3        *     2103.9     4290.7       6.0   *
      4. Birm/Linc NE4        *     2176.9     4273.4       6.0   *
      5. Birm/Linc NE5        *     2249.9     4256.1       6.0   *
      6. Birm/Linc SE1        *     2228.1     4197.6       6.0   *
      7. Birm/Linc SE2        *     2130.7     4220.7       6.0   *
      8. Birm/Linc SE3        *     2082.2     4232.2       6.0   *
      9. Birm/Linc SE4        *     2051.0     4164.0       6.0   *
     10. Birm/Linc SE5        *     2019.8     4095.8       6.0   *
     11. Birm/Linc SW1        *     1911.3     4065.4       6.0   *
     12. Birm/Linc SW2        *     1942.5     4133.5       6.0   *
     13. Birm/Linc SW3        *     1973.7     4201.7       6.0   *
     14. Birm/Linc SW4        *     1905.7     4170.1       6.0   *
     15. Birm/Linc SW5        *     1837.7     4138.5       6.0   *
     16. Birm/Linc NW1        *     1831.2     4255.5       6.0   *
     17. Birm/Linc NW2        *     1899.6     4286.3       6.0   *
     18. Birm/Linc NW3        *     1968.0     4317.1       6.0   *
     19. Birm/Linc NW4        *     2003.6     4383.1       6.0   *
     20. Birm/Linc NW5        *     2039.3     4449.0       6.0   *
     21. Camb/Linc NE1        *     7013.4     3812.1       6.0   *
     22. Camb/Linc NE2        *     7045.6     3744.4       6.0   *
     23. Camb/Linc NE3        *     7077.9     3676.7       6.0   *
♀                                                                                                            PAGE  4
      JOB: Skating Club of Boston                                RUN: 2018BD

      DATE :  8/22/13
      TIME : 17:52:59


       RECEPTOR LOCATIONS
       ------------------
                              *       COORDINATES (FT)        *
         RECEPTOR             *      X          Y          Z      *
     -------------------------*-------------------------------*
     24. Camb/Linc NE4        *     7145.6     3709.0       6.0   *
     25. Camb/Linc NE5        *     7213.3     3741.2       6.0   *
```

26. Camb/Linc SE1	*	7278.5	3637.2	6.0	*
27. Camb/Linc SE2	*	7210.8	3604.9	6.0	*
28. Camb/Linc SE3	*	7143.1	3572.7	6.0	*
29. Camb/Linc SE4	*	7144.9	3497.7	6.0	*
30. Camb/Linc SE5	*	7146.6	3422.7	6.0	*
31. Camb/Linc SW1	*	7085.3	3393.5	6.0	*
32. Camb/Linc SW2	*	7083.5	3468.5	6.0	*
33. Camb/Linc SW3	*	7081.8	3543.4	6.0	*
34. Camb/Linc SW4	*	7014.1	3511.1	6.0	*
35. Camb/Linc SW5	*	6946.4	3478.8	6.0	*
36. Camb/Linc NW1	*	6870.3	3577.7	6.0	*
37. Camb/Linc NW2	*	6938.0	3610.0	6.0	*
38. Camb/Linc NW3	*	7005.6	3642.3	6.0	*
39. Camb/Linc NW4	*	6973.4	3710.0	6.0	*
40. Camb/Linc NW5	*	6941.2	3777.7	6.0	*

♀ PAGE 5

JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	0.5	0.5	0.7	0.3	0.1	0.2	0.8	0.8	0.7	1.0	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0
10.	*	0.5	0.5	0.6	0.1	0.0	0.1	0.8	0.6	0.6	0.8	0.3	0.4	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0
20.	*	0.3	0.4	0.5	0.0	0.0	0.1	0.6	0.6	0.6	0.8	0.5	0.5	0.5	0.5	0.2	0.0	0.0	0.1	0.1	0.1
30.	*	0.2	0.2	0.2	0.0	0.0	0.1	0.5	0.5	0.3	0.4	0.7	0.7	0.8	0.7	0.3	0.0	0.1	0.3	0.2	0.2
40.	*	0.1	0.1	0.1	0.0	0.0	0.1	0.5	0.5	0.1	0.2	0.9	0.8	0.7	0.8	0.5	0.1	0.2	0.6	0.5	0.4
50.	*	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.1	0.1	0.8	0.9	0.6	0.6	0.5	0.2	0.3	0.7	0.7	0.5
60.	*	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.1	0.0	0.9	0.9	0.7	0.4	0.5	0.2	0.4	0.7	0.7	0.6
70.	*	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.0	0.0	0.7	0.7	0.7	0.4	0.3	0.3	0.3	0.6	0.7	0.5
80.	*	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.0	0.0	0.7	0.8	0.8	0.5	0.3	0.3	0.3	0.5	0.7	0.5
90.	*	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.0	0.7	0.7	0.5	0.5	0.4	0.5	0.4	0.5	0.7	0.5
100.	*	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.5	0.7	0.6	0.5	0.4	0.5	0.4	0.5	0.7	0.6
110.	*	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.7	0.5	0.4	0.4	0.3	0.5	0.6	0.6
120.	*	0.0	0.0	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.7	0.5	0.3	0.5	0.4	0.6	0.7	0.6
130.	*	0.0	0.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.7	0.5	0.2	0.4	0.5	0.4	0.7	0.7
140.	*	0.0	0.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.8	0.5	0.2	0.3	0.7	0.3	0.6	0.8
150.	*	0.0	0.1	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.8	0.4	0.1	0.3	0.7	0.3	0.6	0.8
160.	*	0.0	0.1	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.8	0.3	0.0	0.2	0.5	0.4	0.6	0.8
170.	*	0.0	0.2	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.8	0.2	0.0	0.1	0.4	0.7	0.7	0.7
180.	*	0.1	0.2	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.8	0.1	0.0	0.1	0.2	0.6	0.7	0.7
190.	*	0.1	0.3	0.4	0.5	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.5	0.7	0.1	0.0	0.1	0.1	0.5	0.6	0.5
200.	*	0.3	0.4	0.6	0.5	0.1	0.0	0.0	0.4	0.2	0.1	0.1	0.3	0.4	0.0	0.0	0.1	0.1	0.3	0.3	0.4
210.	*	0.5	0.7	0.7	0.7	0.1	0.0	0.1	0.6	0.5	0.3	0.0	0.1	0.2	0.0	0.0	0.1	0.2	0.2	0.3	0.2
220.	*	0.6	0.6	0.8	0.8	0.1	0.0	0.3	0.9	0.8	0.5	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.2	0.1	0.0
230.	*	0.6	0.5	0.7	1.0	0.2	0.1	0.4	0.8	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0
240.	*	0.6	0.6	0.7	1.0	0.3	0.2	0.5	0.8	1.0	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
250.	*	0.7	0.5	0.8	0.8	0.4	0.3	0.5	0.7	0.9	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0
260.	*	0.7	0.5	0.6	0.8	0.5	0.3	0.4	0.7	0.8	0.8	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
270.	*	0.6	0.6	0.4	0.6	0.5	0.2	0.4	0.7	0.7	0.7	0.0	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0

(DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
280.	*	0.6	0.6	0.4	0.4	0.4	0.2	0.4	0.6	0.8	0.7	0.0	0.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0
290.	*	0.5	0.6	0.4	0.3	0.3	0.5	0.4	0.4	0.9	0.8	0.0	0.0	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0
300.	*	0.5	0.6	0.5	0.3	0.2	0.5	0.4	0.4	0.9	0.8	0.0	0.1	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0
310.	*	0.5	0.6	0.5	0.4	0.2	0.5	0.4	0.4	0.8	0.7	0.0	0.1	0.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0
320.	*	0.5	0.6	0.6	0.4	0.2	0.5	0.6	0.5	0.6	0.8	0.0	0.1	0.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0
330.	*	0.5	0.6	0.6	0.4	0.2	0.4	0.7	0.4	0.7	0.9	0.0	0.1	0.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0
340.	*	0.6	0.6	0.7	0.3	0.2	0.3	0.8	0.6	0.6	1.0	0.0	0.2	0.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0
350.	*	0.5	0.6	0.7	0.3	0.1	0.3	0.8	0.7	0.7	1.0	0.0	0.3	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0
360.	*	0.5	0.5	0.7	0.3	0.1	0.2	0.8	0.8	0.7	1.0	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0
MAX	*	0.7	0.7	0.8	1.0	0.5	0.5	0.8	0.9	1.0	1.0	0.9	0.9	0.8	0.8	0.5	0.5	0.7	0.7	0.7	0.8
DEGR.	*	250	210	220	230	260	290	0	220	240	0	40	50	30	40	40	90	140	170	170	140

♀ PAGE 6

JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)	*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0.	*	0.0	0.0	0.0	0.0	0.0	0.7	0.8	0.9	0.6	0.4	0.3	0.5	0.8	1.4	1.1	0.0	0.0	0.5	0.1	0.0
10.	*	0.0	0.0	0.0	0.0	0.0	0.6	0.9	0.9	0.6	0.4	0.4	0.6	1.0	1.5	1.4	0.0	0.0	0.6	0.1	0.0
20.	*	0.0	0.0	0.0	0.0	0.0	0.4	0.9	1.0	0.6	0.3	0.4	0.6	1.0	1.4	1.6	0.0	0.1	0.7	0.1	0.0
30.	*	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.0	0.5	0.2	0.3	0.5	1.0	1.4	1.7	0.0	0.2	0.7	0.1	0.0
40.	*	0.0	0.0	0.1	0.0	0.0	0.2	0.6	1.0	0.2	0.1	0.1	0.3	1.1	1.3	1.6	0.0	0.2	0.6	0.1	0.0
50.	*	0.0	0.0	0.1	0.1	0.0	0.2	0.5	0.7	0.1	0.0	0.0	0.2	0.9	1.2	1.4	0.4	0.5	0.6	0.1	0.0
60.	*	0.0	0.0	0.4	0.3	0.0	0.1	0.3	0.5	0.0	0.0	0.0	0.1	0.6	0.6	0.9	0.6	0.7	1.0	0.2	0.0
70.	*	0.0	0.0	0.8	0.5	0.3	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.3	0.3	0.5	1.0	1.0	1.3	0.4	0.0
80.	*	0.0	0.1	1.0	0.8	0.3	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	1.0	1.2	1.2	0.5	0.0
90.	*	0.0	0.3	1.1	0.9	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.0	1.2	0.8	0.2
100.	*	0.1	0.4	1.1	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.0	1.1	1.0	0.4
110.	*	0.3	0.5	1.1	1.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.0	1.0	1.1	0.5
120.	*	0.4	0.6	1.0	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.9	0.9	1.1	0.6
130.	*	0.4	0.6	1.0	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.0	0.9	1.0	0.7
140.	*	0.4	0.6	0.9	0.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.0	0.9	0.7	0.7
150.	*	0.4	0.5	0.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.1	0.8	0.7	0.5
160.	*	0.5	0.6	0.8	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	0.9	0.5	0.6
170.	*	0.6	0.7	0.9	0.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.9	1.0	0.6	0.4
180.	*	0.7	0.9	1.0	0.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.8	1.0	0.6	0.4
190.	*	0.6	1.1	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	1.1	0.6	0.3
200.	*	0.4	1.0	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	1.1	0.5	0.3
210.	*	0.4	1.0	1.3	1.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.9	1.0	0.4	0.2
220.	*	0.2	0.8	1.4	1.2	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.6	0.8	1.0		

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0.3   0.1
 230.  *   0.0   0.5   1.3   1.3   1.4   0.2   0.2   0.1   0.0   0.0   0.0   0.0   0.1   0.1   0.1   0.5   0.7   0.8
0.1   0.0
 240.  *   0.0   0.4   1.1   0.9   1.0   0.5   0.5   0.4   0.0   0.0   0.0   0.0   0.4   0.3   0.2   0.4   0.5   0.6
0.0   0.0
 250.  *   0.0   0.2   0.8   0.6   0.6   1.0   0.9   0.9   0.1   0.0   0.0   0.1   0.9   0.7   0.4   0.2   0.2   0.3
0.0   0.0
 260.  *   0.0   0.1   0.5   0.4   0.4   1.2   1.2   1.2   0.2   0.0   0.0   0.2   1.2   1.0   0.6   0.1   0.1   0.1
0.0   0.0
 270.  *   0.0   0.1   0.5   0.2   0.1   1.2   1.1   1.2   0.5   0.1   0.1   0.3   1.4   1.2   0.7   0.0   0.0   0.1
0.0   0.0
 280.  *   0.0   0.1   0.5   0.2   0.0   1.2   1.2   1.1   0.6   0.3   0.2   0.5   1.3   1.3   0.8   0.0   0.0   0.0
0.0   0.0
 290.  *   0.0   0.1   0.4   0.0   0.0   1.0   1.2   1.0   0.6   0.4   0.3   0.6   1.1   1.2   0.9   0.0   0.0   0.0
0.0   0.0
 300.  *   0.0   0.1   0.4   0.0   0.0   0.9   1.1   1.1   0.5   0.4   0.4   0.7   1.1   1.3   0.9   0.0   0.0   0.0
0.0   0.0
 310.  *   0.0   0.1   0.3   0.0   0.0   0.9   0.8   1.0   0.6   0.4   0.4   0.8   0.9   1.2   0.9   0.0   0.0   0.0
0.0   0.0
 320.  *   0.0   0.1   0.1   0.0   0.0   0.9   0.8   1.0   0.7   0.4   0.4   0.8   0.9   1.2   0.9   0.0   0.0   0.0
0.0   0.0
 330.  *   0.0   0.0   0.1   0.0   0.0   0.9   0.9   1.0   0.7   0.3   0.4   0.5   0.9   1.3   1.1   0.0   0.0   0.0
0.0   0.0
 340.  *   0.0   0.0   0.0   0.0   0.0   0.9   0.9   0.9   0.6   0.3   0.4   0.8   1.0   1.3   1.0   0.0   0.0   0.2
0.0   0.0
 350.  *   0.0   0.0   0.0   0.0   0.0   0.8   0.8   0.9   0.6   0.4   0.4   0.7   0.9   1.4   1.1   0.0   0.0   0.3
0.1   0.0
 360.  *   0.0   0.0   0.0   0.0   0.0   0.7   0.8   0.9   0.6   0.4   0.3   0.5   0.8   1.4   1.1   0.0   0.0   0.5
0.1   0.0

------*-----------------------------------------------------------------------------------------------------------------
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 MAX   *   0.7   1.1   1.4   1.3   1.4   1.2   1.2   1.2   0.7   0.4   0.4   0.8   1.4   1.5   1.7   1.2   1.2   1.3
1.1   0.7
 DEGR. *  180   190   220   210   220   260   260   260   320     0    10   310   270    10    30    90    80    70
110   130

 THE HIGHEST CONCENTRATION OF    1.70 PPM OCCURRED AT RECEPTOR REC35.
```

2013 Existing
Microscale Output Files
(Particulate Matter 10 (PM10))

♀ CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221 PAGE 1

JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
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The MODE flag has been set to P for calculating PM averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 ug/m**3

LINK VARIABLES

LINK DESCRIPTION	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. Soldier/Jug SB LTR	5198.9	6311.7	5198.3	6336.3	25.	359.	AG	0.	100.0	1.0	20.0	0.23	1.2
2. Soldier/Jug WB TT	5228.8	6294.1	5321.4	6345.8	106.	61.	AG	0.	100.0	1.0	20.0	0.81	5.4
3. Soldier/Jug NB LTR	5237.6	6215.9	5236.3	6155.6	60.	181.	AG	0.	100.0	1.0	10.0	0.56	3.1
4. Soldiers/Jug EB TTR	5191.9	6230.9	5117.3	6196.1	82.	245.	AG	0.	100.0	1.0	20.0	0.68	4.2
5. Western/Ever SB LTR	5231.8	5725.2	5233.7	5807.9	83.	1.	AG	0.	100.0	1.0	10.0	0.61	4.2
6. Western/Ever WB LTR	5264.9	5714.2	7544.8	6102.5	2313.	80.	AG	0.	100.0	1.0	10.0	1.37	117.5
7. West/Ever NB LTR	5233.9	5654.6	5216.2	5602.4	55.	199.	AG	0.	100.0	1.0	20.0	0.41	2.8
8. West/Ever EB LTR	5190.3	5675.7	5088.2	5663.5	103.	263.	AG	0.	100.0	1.0	20.0	0.64	5.2
9. Ever/Rt20 SB LR	4193.6	2489.0	4240.6	2651.3	169.	16.	AG	0.	100.0	1.0	10.0	0.80	8.6
10. Ever/Rt20 WB TR	4221.0	2443.1	4304.1	2426.1	85.	102.	AG	0.	100.0	1.0	20.0	0.36	4.3
11. Ever/Rt20 EB LTT	4155.5	2436.3	4054.2	2454.2	103.	280.	AG	0.	100.0	1.0	20.0	0.43	5.2
12. Camb/Linc SB LR	7036.1	3650.1	7013.3	3696.9	52.	334.	AG	0.	100.0	1.0	20.0	0.46	2.6
13. Camb/Linc WB L	7113.8	3630.4	7116.0	3631.5	2.	63.	AG	0.	100.0	1.0	10.0	0.02	0.1
14. Camb/Linc WB TTR	7096.3	3646.8	7234.9	3717.9	156.	63.	AG	0.	100.0	1.0	20.0	0.75	7.9
15. Camb/Linc NB LTR	7116.0	3570.3	7116.2	3567.9	2.	175.	AG	0.	100.0	1.0	10.0	0.02	0.1
16. Camb/Linc EB L	7032.9	3580.1	6966.6	3548.3	74.	244.	AG	0.	100.0	1.0	10.0	0.69	3.7
17. Camb/Linc EB TTTR	7047.4	3560.7	6949.7	3514.1	108.	245.	AG	0.	100.0	1.0	30.0	0.52	5.5
18. Birm/Linc SB R	2027.5	4361.0	2037.1	4378.2	20.	29.	AG	0.	100.0	1.0	10.0	0.16	1.0
19. Birm/Linc SB TT	2045.2	4353.0	2087.3	4428.4	86.	29.	AG	0.	100.0	1.0	20.0	0.50	4.4
20. Birm/Linc WB LTR	2100.9	4264.2	2165.3	4250.0	66.	102.	AG	0.	100.0	1.0	20.0	0.64	3.3
21. Birm/Linc NB LTT	2029.7	4188.8	1984.7	4094.4	105.	205.	AG	0.	100.0	1.0	20.0	0.61	5.3
22. Birm/Linc EB LLTR	1966.7	4229.9	1926.6	4212.0	44.	246.	AG	0.	100.0	1.0	20.0	0.52	2.2
23. Soldier/Jug N	5199.2	6279.5	5199.2	6392.5	113.	360.	AG	200.	0.0	1.0	42.0		
24. Soldier/Jug E-N	5199.2	6277.6	5400.6	6380.6	226.	63.	AG	1505.	0.0	1.0	42.0		
25. Soldier/Jug E-S	5219.3	6237.5	5420.9	6345.5	229.	62.	AG	1400.	0.0	1.0	42.0		
26. Soldier/Jug S	5235.5	6245.2	5234.6	6031.1	214.	180.	AG	460.	0.0	1.0	42.0		
27. Soldier/Jug W-S	5214.5	6245.3	4975.3	6130.9	265.	244.	AG	1255.	0.0	1.0	42.0		
28. Soldier/Jug W-N	5200.4	6278.0	4964.5	6172.3	258.	246.	AG	1590.	0.0	1.0	42.0		
29. West/Ever N	5233.5	5697.0	5238.2	5899.5	203.	1.	AG	460.	0.0	1.0	42.0		
30. West/Ever E	5233.5	5697.0	5535.4	5747.6	306.	80.	AG	1350.	0.0	1.0	66.0		
31. West/Ever S	5236.3	5680.7	5158.2	5443.1	250.	198.	AG	795.	0.0	1.0	54.0		
32. West/Ever W	5233.5	5697.0	4823.3	5637.1	415.	262.	AG	1345.	0.0	1.0	60.0		
33. Ever/Rt20 N	4192.8	2443.9	4258.3	2688.4	253.	15.	AG	620.	0.0	1.0	42.0		
34. Ever/Rt20 E	4192.8	2443.9	4427.9	2396.0	240.	102.	AG	1340.	0.0	1.0	54.0		
35. Ever/Rt20 W	4192.8	2443.9	3904.9	2491.9	292.	279.	AG	1270.	0.0	1.0	54.0		
36. Birm/Linc N-SB	1998.6	4296.0	2178.7	4628.9	378.	28.	AG	1040.	0.0	1.0	54.0		
37. Birm/Linc N NB	2048.6	4265.6	2230.3	4606.5	386.	28.	AG	1160.	0.0	1.0	54.0		
38. Birm/Linc E	2048.6	4272.0	2312.0	4209.5	271.	103.	AG	340.	0.0	1.0	42.0		
39. Birm/Linc S	2043.8	4251.5	1930.5	4004.1	272.	205.	AG	1935.	0.0	1.0	66.0		
40. Birm/Linc W-EB	2011.4	4253.5	1764.6	4138.7	272.	245.	AG	220.	0.0	1.0	42.0		
41. Birm/Linc W-WB	1974.5	4286.0	1744.8	4182.6	252.	246.	AG	460.	0.0	1.0	42.0		
42. Camb/Linc N	7068.0	3604.4	6989.0	3770.3	184.	335.	AG	480.	0.0	1.0	60.0		
43. Camb/Linc E	7068.0	3604.4	7289.3	3709.9	245.	65.	AG	3070.	0.0	1.0	****		
44. Camb/Linc S	7111.5	3599.6	7116.3	3391.9	208.	179.	AG	10.	0.0	1.0	42.0		

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JOB: Skating Club of Boston RUN: 2013EX

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LINK VARIABLES

LINK DESCRIPTION	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. Camb/Linc W	7068.0	3604.4	6777.8	3466.0	321.	244.	AG	2970.	0.0	1.0	****		

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JOB: Skating Club of Boston RUN: 2013EX

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1. Soldier/Jug SB LTR	69	45	3.0	200	1600	0.08	1	3
2. Soldier/Jug WB TT	69	24	3.0	1505	1600	0.08	1	3
3. Soldier/Jug NB LTR	69	45	3.0	245	1600	0.08	1	3
4. Soldiers/Jug EB TTR	69	24	3.0	1255	1600	0.08	1	3
5. Western/Ever SB LTR	90	63	3.0	240	1600	0.08	1	3
6. Western/Ever WB LTR	90	55	3.0	730	1600	0.08	1	3
7. West/Ever NB LTR	90	63	3.0	320	1600	0.08	1	3
8. West/Ever EB LTR	90	55	3.0	685	1600	0.08	1	3
9. Ever/Rt20 SB LR	119	80	3.0	365	1600	0.08	1	3
10. Ever/Rt20 WB TR	119	55	3.0	565	1600	0.08	1	3
11. Ever/Rt20 EB LTT	119	55	3.0	685	1600	0.08	1	3
12. Camb/Linc SB LR	110	89	3.0	215	1600	0.08	1	3
13. Camb/Linc WB L	110	91	3.0	5	1600	0.08	1	3
14. Camb/Linc WB TTR	110	40	3.0	1425	1600	0.08	1	3
15. Camb/Linc NB LTR	110	89	3.0	5	1600	0.08	1	3
16. Camb/Linc EB L	110	91	3.0	140	1600	0.08	1	3
17. Camb/Linc EB TTTR	110	40	3.0	1485	1600	0.08	1	3
18. Birm/Linc SB R	90	20	3.0	180	1600	0.08	1	3
19. Birm/Linc SB TT	90	37	3.0	855	1600	0.08	1	3
20. Birm/Linc WB LTR	90	70	3.0	340	1600	0.08	1	3
21. Birm/Linc NB LTT	90	37	3.0	1035	1600	0.08	1	3
22. Birm/Linc EB LLTR	90	73	3.0	220	1600	0.08	1	3

RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
1. Soldiers/Jug NE1	5230.2	6478.3	6.0
2. Soldiers/Jug NE2	5230.2	6403.2	6.0
3. Soldiers/Jug NE3	5230.2	6328.3	6.0
4. Soldiers/Jug NE4	5297.0	6362.4	6.0
5. Soldiers/Jug NE5	5363.7	6396.6	6.0
6. Soldiers/Jug SE1	5398.7	6298.4	6.0
7. Soldiers/Jug SE2	5332.5	6263.0	6.0
8. Soldiers/Jug SE3	5266.4	6227.6	6.0
9. Soldiers/Jug SE4	5266.4	6152.6	6.0
10. Soldiers/Jug SE5	5265.8	6077.6	6.0
11. Soldiers/Jug SW1	5204.3	6056.0	6.0
12. Soldiers/Jug SW2	5204.0	6131.0	6.0
13. Soldiers/Jug SW3	5204.3	6206.0	6.0
14. Soldiers/Jug SW4	5136.6	6173.7	6.0
15. Soldiers/Jug SW5	5069.0	6141.4	6.0
16. Soldiers/Jug NW1	5031.3	6236.2	6.0
17. Soldiers/Jug NW2	5099.8	6266.9	6.0
18. Soldiers/Jug NW3	5168.2	6297.6	6.0
19. Soldiers/Jug NW4	5168.2	6372.6	6.0
20. Soldiers/Jug NW5	5168.2	6447.6	6.0
21. Western/Ever NE1	5269.1	5895.9	6.0
22. Western/Ever NE2	5267.4	5821.0	6.0
23. Western/Ever NE3	5265.7	5746.0	6.0
24. Western/Ever NE4	5339.6	5758.4	6.0
25. Western/Ever NE5	5413.6	5770.8	6.0
26. Western/Ever SE1	5416.1	5684.0	6.0
27. Western/Ever SE2	5342.1	5671.6	6.0
28. Western/Ever SE3	5268.1	5659.2	6.0
29. Western/Ever SE4	5244.7	5587.9	6.0

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RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
30. Western/Ever SE5	5221.3	5516.7	6.0
31. Western/Ever SW1	5140.4	5507.3	6.0

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    32. Western/Ever SW2     *      5163.8     5578.5        6.0   *
    33. Western/Ever SW3     *      5187.2     5649.8        6.0   *
    34. Western/Ever SW4     *      5113.0     5639.0        6.0   *
    35. Western/Ever SW5     *      5038.7     5628.1        6.0   *
    36. Western/Ever NW1     *      5054.9     5711.3        6.0   *
    37. Western/Ever NW2     *      5129.1     5722.2        6.0   *
    38. Western/Ever NW3     *      5203.4     5733.0        6.0   *
    39. Western/Ever NW4     *      5205.1     5808.0        6.0   *
    40. Western/Ever NW5     *      5206.8     5883.0        6.0   *
    41. Ever/Rt20 NE1        *      4271.6     2618.4        6.0   *
    42. Ever/Rt20 NE2        *      4252.2     2546.0        6.0   *
    43. Ever/Rt20 NE3        *      4232.8     2473.5        6.0   *
    44. Ever/Rt20 NE4        *      4306.3     2458.5        6.0   *
    45. Ever/Rt20 NE5        *      4379.8     2443.6        6.0   *
    46. Ever/Rt20 S1         *      4333.0     2377.6        6.0   *
    47. Ever/Rt20 S2         *      4259.5     2392.6        6.0   *
    48. Ever/Rt20 S3         *      4186.0     2407.5        6.0   *
    49. Ever/Rt20 S4         *      4112.0     2419.9        6.0   *
    50. Ever/Rt20 S5         *      4038.1     2432.2        6.0   *
    51. Ever/Rt20 NW1        *      4023.7     2509.6        6.0   *
    52. Ever/Rt20 NW2        *      4097.7     2497.3        6.0   *
    53. Ever/Rt20 NW3        *      4171.7     2485.0        6.0   *
    54. Ever/Rt20 NW4        *      4191.1     2557.4        6.0   *
    55. Ever/Rt20 NW5        *      4210.5     2629.8        6.0   *
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     JOB: Skating Club of Boston                          RUN: 2013EX

      MODEL RESULTS
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      REMARKS : In search of the angle corresponding to
                the maximum concentration, only the first
                angle, of the angles with same maximum
                concentrations, is indicated as maximum.

 WIND ANGLE RANGE:   0.-360.

 WIND  * CONCENTRATION
 ANGLE *      (ug/m**3)
 (DEGR)* REC1  REC2  REC3  REC4  REC5  REC6  REC7  REC8  REC9  REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
REC19 REC20

------*-----------------------------------------------------------------------------------------------------------------
-------
   0.  *   0.    0.    0.    0.    0.    2.    3.    3.    2.    1.    2.    2.    3.    3.    2.    0.    0.    0.
0.    0.
  10.  *   0.    0.    0.    0.    0.    2.    2.    3.    2.    1.    2.    2.    3.    3.    3.    0.    0.    0.
0.    0.
  20.  *   0.    0.    0.    0.    0.    1.    2.    3.    2.    1.    2.    2.    3.    3.    3.    0.    0.    0.
0.    0.
  30.  *   0.    0.    0.    0.    0.    1.    2.    3.    1.    0.    2.    2.    3.    4.    3.    0.    0.    0.
0.    0.
  40.  *   0.    0.    0.    0.    0.    1.    2.    3.    1.    0.    1.    2.    4.    4.    3.    0.    0.    1.
0.    0.
  50.  *   0.    0.    0.    0.    0.    0.    1.    2.    0.    0.    1.    1.    3.    3.    3.    0.    0.    1.
0.    0.
  60.  *   0.    0.    1.    0.    0.    0.    1.    1.    0.    0.    0.    1.    3.    2.    3.    2.    1.    2.
0.    0.
  70.  *   0.    0.    2.    1.    0.    0.    0.    0.    0.    0.    0.    0.    2.    1.    1.    2.    2.    2.
0.    0.
  80.  *   0.    0.    3.    2.    0.    0.    0.    0.    0.    0.    0.    0.    1.    1.    1.    4.    3.    3.
1.    0.
  90.  *   0.    0.    3.    2.    0.    0.    0.    0.    0.    0.    1.    0.    1.    0.    0.    4.    4.    3.
1.    0.
 100.  *   0.    1.    3.    2.    1.    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    4.    4.    3.
2.    0.
 110.  *   0.    1.    3.    3.    1.    0.    0.    0.    0.    0.    0.    1.    1.    0.    0.    3.    3.    3.
2.    1.
 120.  *   0.    1.    3.    3.    1.    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    3.    3.    3.
2.    1.
 130.  *   1.    2.    3.    3.    2.    0.    0.    0.    0.    0.    0.    1.    1.    0.    0.    3.    3.    3.
2.    1.
 140.  *   1.    2.    3.    3.    2.    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    3.    3.    3.
2.    1.
 150.  *   1.    2.    3.    3.    2.    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    3.    3.    3.
2.    1.
 160.  *   1.    2.    3.    3.    3.    0.    0.    0.    0.    0.    0.    1.    1.    0.    0.    3.    3.    3.
2.    1.
 170.  *   1.    2.    3.    3.    3.    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    3.    3.    3.
2.    2.
 180.  *   2.    2.    3.    3.    3.    0.    0.    1.    1.    1.    1.    1.    1.    0.    0.    3.    3.    3.
2.    2.
 190.  *   1.    2.    4.    4.    3.    0.    0.    1.    1.    1.    1.    1.    0.    0.    0.    3.    3.    3.
2.    1.
 200.  *   1.    2.    4.    4.    3.    0.    0.    1.    1.    1.    0.    0.    0.    0.    0.    3.    3.    3.
2.    1.
 210.  *   1.    2.    4.    4.    3.    0.    0.    1.    1.    1.    0.    0.    0.    0.    0.    2.    3.    3.
2.    1.
 220.  *   1.    2.    4.    4.    4.    0.    1.    1.    1.    1.    0.    0.    0.    0.    0.    2.    3.    3.
1.    0.
 230.  *   0.    1.    4.    4.    4.    1.    1.    1.    1.    1.    0.    0.    0.    0.    0.    2.    2.    3.
```



```
0.    0.
 240.  *   0.    0.    3.    2.    3.    2.    2.    2.    0.    0.    0.    0.    1.    0.    0.    1.    2.    2.
0.    0.
 250.  *   0.    0.    2.    1.    1.    3.    2.    2.    1.    0.    0.    0.    2.    1.    1.    0.    1.    1.
0.    0.
 260.  *   0.    0.    1.    0.    0.    4.    3.    3.    1.    0.    0.    0.    3.    2.    1.    0.    0.    0.
0.    0.
 270.  *   0.    0.    1.    0.    0.    3.    4.    4.    1.    1.    0.    1.    3.    2.    2.    0.    0.    0.
0.    0.
 280.  *   0.    0.    1.    0.    0.    3.    3.    4.    2.    1.    0.    1.    3.    3.    2.    0.    0.    0.
0.    0.
 290.  *   0.    0.    0.    0.    0.    3.    3.    3.    2.    1.    0.    1.    3.    3.    2.    0.    0.    0.
0.    0.
 300.  *   0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    1.    2.    3.    3.    2.    0.    0.    0.
0.    0.
 310.  *   0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    1.    2.    3.    2.    2.    0.    0.    0.
0.    0.
 320.  *   0.    0.    0.    0.    0.    2.    3.    3.    2.    2.    1.    2.    3.    3.    2.    0.    0.    0.
0.    0.
 330.  *   0.    0.    0.    0.    0.    2.    3.    3.    2.    2.    1.    2.    3.    3.    2.    0.    0.    0.
0.    0.
 340.  *   0.    0.    0.    0.    0.    2.    3.    3.    2.    2.    1.    2.    3.    3.    2.    0.    0.    0.
0.    0.
 350.  *   0.    0.    0.    0.    0.    2.    2.    3.    2.    2.    1.    2.    3.    3.    2.    0.    0.    0.
0.    0.
 360.  *   0.    0.    0.    0.    0.    2.    3.    3.    2.    1.    2.    2.    3.    3.    2.    0.    0.    0.
0.    0.

------*-----------------------------------------------------------------------------------------------------------------
-------
 MAX   *   2.    2.    4.    4.    4.    4.    4.    4.    2.    2.    2.    2.    4.    4.    3.    4.    4.    3.
2.    2.
 DEGR. *  180   200   190   220   230   260   270   270   320   330    20    30    40    30    40    90    90    90
160   180
```



```
     JOB: Skating Club of Boston                          RUN: 2013EX

      MODEL RESULTS
      -------------

      REMARKS : In search of the angle corresponding to
                the maximum concentration, only the first
                angle, of the angles with same maximum
                concentrations, is indicated as maximum.

 WIND ANGLE RANGE:   0.-360.

 WIND  * CONCENTRATION
 ANGLE *      (ug/m**3)
 (DEGR)* REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
REC39 REC40

------*-----------------------------------------------------------------------------------------------------------------
-------
   0.  *   1.    1.    1.    0.    0.    2.    2.    2.    3.    3.    1.    2.    3.    3.    2.    0.    1.    1.
1.    1.
  10.  *   1.    1.    0.    0.    0.    2.    2.    2.    2.    2.    2.    2.    3.    3.    2.    1.    0.    1.
1.    1.
  20.  *   0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    2.    2.    2.    3.    2.    0.    0.    1.
1.    0.
  30.  *   0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    2.    2.    2.    3.    2.    0.    0.    1.
1.    0.
  40.  *   0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    2.    2.    3.    3.    2.    0.    0.    1.
1.    0.
  50.  *   0.    0.    0.    0.    0.    2.    2.    2.    1.    0.    2.    2.    3.    3.    2.    0.    0.    1.
0.    0.
  60.  *   0.    0.    0.    0.    0.    2.    2.    2.    1.    0.    1.    2.    3.    3.    3.    0.    0.    1.
0.    0.
  70.  *   0.    0.    0.    0.    0.    1.    2.    2.    0.    0.    1.    2.    3.    3.    3.    1.    1.    2.
0.    0.
  80.  *   0.    0.    1.    1.    1.    1.    1.    1.    0.    0.    1.    1.    2.    2.    2.    2.    2.    2.
1.    0.
  90.  *   0.    0.    2.    2.    1.    0.    0.    0.    0.    0.    1.    1.    2.    2.    1.    2.    2.    3.
1.    1.
 100.  *   0.    0.    2.    2.    2.    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    3.    2.    3.
1.    1.
 110.  *   0.    1.    2.    2.    2.    0.    0.    0.    0.    0.    1.    1.    1.    1.    0.    3.    2.    3.
2.    1.
 120.  *   0.    1.    2.    2.    2.    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    3.    2.    2.
2.    1.
 130.  *   1.    1.    2.    2.    2.    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    2.    2.    2.
2.    1.
 140.  *   1.    1.    2.    2.    2.    0.    0.    0.    0.    0.    1.    1.    2.    0.    0.    2.    2.    2.
2.    1.
 150.  *   1.    1.    2.    2.    2.    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    2.    2.    2.
2.    1.
 160.  *   1.    1.    2.    2.    2.    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    2.    2.    2.
2.    1.
 170.  *   1.    1.    2.    2.    2.    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    2.    2.    2.
2.    1.
```

180.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	1.	2.	2.	2.	1.
190.	*	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	1.	2.	2.	1.	1.
200.	*	2.	2.	3.	2.	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
210.	*	1.	2.	3.	2.	2.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
220.	*	1.	2.	3.	2.	2.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
230.	*	1.	2.	3.	3.	3.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
240.	*	1.	2.	3.	3.	3.	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
250.	*	0.	1.	3.	3.	2.	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	0.	0.
260.	*	0.	1.	2.	2.	2.	2.	2.	2.	1.	1.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.
270.	*	0.	0.	1.	1.	1.	2.	2.	3.	1.	1.	0.	0.	2.	2.	1.	0.	0.	1.	0.	0.
280.	*	0.	0.	1.	0.	0.	2.	2.	3.	2.	1.	0.	0.	3.	2.	2.	0.	0.	0.	0.	0.
290.	*	0.	0.	1.	0.	0.	2.	2.	3.	2.	1.	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.
300.	*	0.	0.	1.	0.	0.	2.	2.	2.	2.	1.	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.
310.	*	0.	1.	1.	0.	0.	2.	2.	2.	2.	2.	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.
320.	*	0.	1.	1.	0.	0.	2.	2.	2.	2.	2.	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.
330.	*	1.	1.	1.	1.	1.	2.	2.	2.	3.	2.	1.	1.	2.	2.	1.	0.	0.	0.	0.	1.
340.	*	1.	1.	1.	1.	0.	2.	2.	3.	3.	2.	1.	1.	2.	2.	1.	0.	0.	0.	0.	1.
350.	*	1.	1.	1.	1.	0.	2.	2.	3.	3.	2.	1.	1.	2.	2.	2.	0.	0.	1.	1.	1.
360.	*	1.	1.	1.	0.	0.	2.	2.	2.	3.	3.	1.	2.	3.	3.	2.	0.	1.	1.	1.	1.
MAX	*	2.	2.	3.	3.	3.	2.	2.	3.	3.	3.	2.	2.	3.	3.	3.	3.	2.	3.	2.	1.
DEGR.	*	200	200	240	230	240	280	270	270	350	0	40	60	60	50	70	100	110	100	150	170

♀ PAGE 7

JOB: Skating Club of Boston RUN: 2013EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (ug/m**3) REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	*	0.	1.	1.	0.	0.	1.	2.	2.	2.	1.	0.	0.	0.	0.	0.
10.	*	0.	1.	1.	0.	0.	1.	2.	2.	2.	1.	0.	0.	0.	0.	0.
20.	*	0.	0.	0.	0.	0.	1.	2.	2.	2.	1.	0.	0.	1.	1.	0.
30.	*	0.	0.	0.	0.	0.	1.	2.	2.	2.	2.	0.	0.	1.	1.	0.
40.	*	0.	0.	0.	0.	0.	1.	2.	2.	2.	2.	0.	0.	1.	1.	1.
50.	*	0.	0.	0.	0.	0.	2.	2.	2.	3.	2.	0.	0.	1.	1.	1.
60.	*	0.	0.	0.	0.	0.	2.	2.	2.	3.	3.	0.	0.	1.	1.	1.
70.	*	0.	0.	0.	0.	0.	1.	2.	2.	2.	3.	0.	0.	1.	1.	1.
80.	*	0.	0.	0.	0.	0.	1.	2.	2.	2.	3.	0.	1.	1.	1.	1.
90.	*	0.	0.	0.	0.	0.	1.	1.	2.	2.	2.	1.	1.	1.	1.	1.
100.	*	0.	0.	1.	0.	0.	0.	1.	1.	1.	1.	2.	2.	2.	1.	1.
110.	*	0.	0.	2.	1.	0.	0.	0.	0.	0.	1.	2.	2.	2.	1.	1.
120.	*	0.	0.	2.	2.	1.	0.	0.	0.	0.	0.	2.	2.	3.	1.	1.
130.	*	0.	0.	2.	2.	1.	0.	0.	0.	0.	0.	2.	2.	3.	2.	1.
140.	*	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.
150.	*	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	2.	2.	2.	2.	2.
160.	*	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	2.	2.	2.	2.	2.
170.	*	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	1.	2.	2.	2.	2.
180.	*	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.	1.	2.	2.	2.	2.
190.	*	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.	1.	2.	2.	1.	2.
200.	*	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
210.	*	2.	1.	2.	2.	1.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
220.	*	2.	2.	2.	2.	1.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
230.	*	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
240.	*	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
250.	*	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
260.	*	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	1.	2.	2.	0.	0.
270.	*	1.	1.	2.	2.	2.	1.	1.	0.	0.	0.	1.	1.	2.	0.	0.

280.	*	1.	1.	2.	2.	2.	1.	1.	1.	1.	1.	0.	1.	1.	0.	0.
290.	*	1.	1.	1.	1.	1.	2.	2.	2.	2.	1.	0.	0.	0.	0.	0.
300.	*	1.	1.	1.	1.	0.	3.	2.	2.	2.	2.	0.	0.	0.	0.	0.
310.	*	1.	1.	1.	0.	0.	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.
320.	*	1.	1.	1.	0.	0.	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.
330.	*	1.	1.	1.	0.	0.	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.
340.	*	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.	0.	0.	0.	0.	0.
350.	*	0.	1.	1.	0.	0.	1.	2.	2.	2.	1.	0.	0.	0.	0.	0.
360.	*	0.	1.	1.	0.	0.	1.	2.	2.	2.	1.	0.	0.	0.	0.	0.
MAX	*	2.	2.	3.	3.	2.	3.	2.	2.	3.	3.	2.	2.	3.	2.	2.
DEGR.	*	220	230	260	250	260	300	330	10	50	80	120	120	120	150	170

THE HIGHEST CONCENTRATION OF 4. ug/m**3 OCCURRED AT RECEPTOR REC4 .

♀ CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221 PAGE 1

JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 21:55:33

The MODE flag has been set to P for calculating PM averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S	VD = 0.0 CM/S	Z0 = 175. CM		
U = 1.0 M/S	CLAS = 4 (D)	ATIM = 60. MINUTES	MIXH = 1000. M	AMB = 0.0 ug/m**3

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
	LINK COORDINATES (FT)												
1. Soldier/Jug SB LTR	5198.9	6311.7	5198.3	6336.3	25.	359.	AG	0.	100.0	1.0	20.0	0.23	1.2
2. Soldier/Jug WB TT	5228.8	6294.1	5321.4	6345.8	106.	61.	AG	0.	100.0	1.0	20.0	0.81	5.4
3. Soldier/Jug NB LTR	5237.6	6215.9	5236.3	6155.6	60.	181.	AG	0.	100.0	1.0	10.0	0.56	3.1
4. Soldiers/Jug EB TTR	5191.9	6230.9	5117.3	6196.1	82.	245.	AG	0.	100.0	1.0	20.0	0.68	4.2
5. Western/Ever SB LTR	5231.8	5725.2	5233.7	5807.9	83.	1.	AG	0.	100.0	1.0	10.0	0.61	4.2
6. Western/Ever WB LTR	5264.9	5714.2	7544.8	6102.5	2313.	80.	AG	0.	100.0	1.0	10.0	1.37	117.5
7. West/Ever NB LTR	5233.9	5654.6	5216.2	5602.4	55.	199.	AG	0.	100.0	1.0	20.0	0.41	2.8
8. West/Ever EB LTR	5190.3	5675.7	5088.2	5663.5	103.	263.	AG	0.	100.0	1.0	20.0	0.64	5.2
9. Ever/Rt20 SB LR	4193.6	2489.0	4240.6	2651.3	169.	16.	AG	0.	100.0	1.0	10.0	0.80	8.6
10. Ever/Rt20 WB TR	4221.0	2443.1	4304.1	2426.1	85.	102.	AG	0.	100.0	1.0	20.0	0.36	4.3
11. Ever/Rt20 EB LTT	4155.5	2436.3	4054.2	2454.2	103.	280.	AG	0.	100.0	1.0	20.0	0.43	5.2
12. Camb/Linc SB LR	7036.1	3650.1	7013.3	3696.9	52.	334.	AG	0.	100.0	1.0	20.0	0.46	2.6
13. Camb/Linc WB L	7113.8	3630.4	7116.0	3631.5	2.	63.	AG	0.	100.0	1.0	10.0	0.02	0.1
14. Camb/Linc WB TTR	7096.3	3646.8	7234.9	3717.9	156.	63.	AG	0.	100.0	1.0	20.0	0.75	7.9
15. Camb/Linc NB LTR	7116.0	3570.3	7116.2	3567.9	2.	175.	AG	0.	100.0	1.0	10.0	0.02	0.1
16. Camb/Linc EB L	7032.9	3580.1	6966.6	3548.3	74.	244.	AG	0.	100.0	1.0	10.0	0.69	3.7
17. Camb/Linc EB TTTR	7047.4	3560.7	6949.7	3514.1	108.	245.	AG	0.	100.0	1.0	30.0	0.52	5.5
18. Birm/Linc SB R	2027.5	4361.0	2037.1	4378.2	20.	29.	AG	0.	100.0	1.0	10.0	0.16	1.0
19. Birm/Linc SB TT	2045.2	4353.0	2087.3	4428.4	86.	29.	AG	0.	100.0	1.0	20.0	0.50	4.4
20. Birm/Linc WB LTR	2100.9	4264.2	2165.3	4250.0	66.	102.	AG	0.	100.0	1.0	20.0	0.64	3.3
21. Birm/Linc NB LTT	2029.7	4188.8	1984.7	4094.4	105.	205.	AG	0.	100.0	1.0	20.0	0.61	5.3
22. Birm/Linc EB LLTR	1966.7	4229.9	1926.6	4212.0	44.	246.	AG	0.	100.0	1.0	20.0	0.52	2.2
23. Soldier/Jug N	5199.2	6279.5	5199.2	6392.5	113.	360.	AG	200.	0.0	1.0	42.0		
24. Soldier/Jug E-N	5199.2	6277.6	5400.6	6380.6	226.	63.	AG	1505.	0.0	1.0	42.0		
25. Soldier/Jug E-S	5219.3	6237.5	5420.9	6345.5	229.	62.	AG	1400.	0.0	1.0	42.0		
26. Soldier/Jug S	5235.5	6245.2	5234.6	6031.1	214.	180.	AG	460.	0.0	1.0	42.0		
27. Soldier/Jug W-S	5214.5	6245.3	4975.3	6130.9	265.	244.	AG	1255.	0.0	1.0	42.0		
28. Soldier/Jug W-N	5200.4	6278.0	4964.5	6172.3	258.	246.	AG	1590.	0.0	1.0	42.0		
29. West/Ever N	5233.5	5697.0	5238.2	5899.5	203.	1.	AG	460.	0.0	1.0	42.0		
30. West/Ever E	5233.5	5697.0	5535.4	5747.6	306.	80.	AG	1350.	0.0	1.0	66.0		
31. West/Ever S	5236.3	5680.7	5158.2	5443.1	250.	198.	AG	795.	0.0	1.0	54.0		
32. West/Ever W	5233.5	5697.0	4823.3	5637.1	415.	262.	AG	1345.	0.0	1.0	60.0		
33. Ever/Rt20 N	4192.8	2443.9	4258.3	2688.4	253.	15.	AG	620.	0.0	1.0	42.0		
34. Ever/Rt20 E	4192.8	2443.9	4427.9	2396.0	240.	102.	AG	1340.	0.0	1.0	54.0		
35. Ever/Rt20 W	4192.8	2443.9	3904.9	2491.9	292.	279.	AG	1270.	0.0	1.0	54.0		
36. Birm/Linc N-SB	1998.6	4296.0	2178.7	4628.9	378.	28.	AG	1040.	0.0	1.0	54.0		
37. Birm/Linc N NB	2048.6	4265.6	2230.3	4606.5	386.	28.	AG	1160.	0.0	1.0	54.0		
38. Birm/Linc E	2048.6	4272.0	2312.0	4209.5	271.	103.	AG	340.	0.0	1.0	42.0		
39. Birm/Linc S	2043.8	4251.5	1930.5	4004.1	272.	205.	AG	1935.	0.0	1.0	66.0		
40. Birm/Linc W-EB	2011.4	4253.5	1764.6	4138.7	272.	245.	AG	220.	0.0	1.0	42.0		
41. Birm/Linc W-WB	1974.5	4286.0	1744.8	4182.6	252.	246.	AG	460.	0.0	1.0	42.0		
42. Camb/Linc N	7068.0	3604.4	6989.0	3770.3	184.	335.	AG	480.	0.0	1.0	60.0		
43. Camb/Linc E	7068.0	3604.4	7289.3	3709.9	245.	65.	AG	3070.	0.0	1.0	****		
44. Camb/Linc S	7111.5	3599.6	7116.3	3391.9	208.	179.	AG	10.	0.0	1.0	42.0		

♀ PAGE 2

JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 21:55:33

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
	LINK COORDINATES (FT)												
45. Camb/Linc W	7068.0	3604.4	6777.8	3466.0	321.	244.	AG	2970.	0.0	1.0	****		

♀ PAGE 3

JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 21:55:33

1. Soldier/Jug SB LTR	69	45	3.0	200	1600	0.08	1	3
2. Soldier/Jug WB TT	69	24	3.0	1505	1600	0.08	1	3
3. Soldier/Jug NB LTR	69	45	3.0	245	1600	0.08	1	3
4. Soldiers/Jug EB TTR	69	24	3.0	1255	1600	0.08	1	3
5. Western/Ever SB LTR	90	63	3.0	240	1600	0.08	1	3
6. Western/Ever WB LTR	90	55	3.0	730	1600	0.08	1	3
7. West/Ever NB LTR	90	63	3.0	320	1600	0.08	1	3
8. West/Ever EB LTR	90	55	3.0	685	1600	0.08	1	3
9. Ever/Rt20 SB LR	119	80	3.0	365	1600	0.08	1	3
10. Ever/Rt20 WB TR	119	55	3.0	565	1600	0.08	1	3
11. Ever/Rt20 EB LTT	119	55	3.0	685	1600	0.08	1	3
12. Camb/Linc SB LR	110	89	3.0	215	1600	0.08	1	3
13. Camb/Linc WB L	110	91	3.0	5	1600	0.08	1	3
14. Camb/Linc WB TTR	110	40	3.0	1425	1600	0.08	1	3
15. Camb/Linc NB LTR	110	89	3.0	5	1600	0.08	1	3
16. Camb/Linc EB L	110	91	3.0	140	1600	0.08	1	3
17. Camb/Linc EB TTTR	110	40	3.0	1485	1600	0.08	1	3
18. Birm/Linc SB R	90	20	3.0	180	1600	0.08	1	3
19. Birm/Linc SB TT	90	37	3.0	855	1600	0.08	1	3
20. Birm/Linc WB LTR	90	70	3.0	340	1600	0.08	1	3
21. Birm/Linc NB LTT	90	37	3.0	1035	1600	0.08	1	3
22. Birm/Linc EB LLTR	90	73	3.0	220	1600	0.08	1	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. Birm/Linc NE1	2174.4	4423.1	6.0
2. Birm/Linc NE2	2139.2	4356.9	6.0
3. Birm/Linc NE3	2103.9	4290.7	6.0
4. Birm/Linc NE4	2176.9	4273.4	6.0
5. Birm/Linc NE5	2249.9	4256.1	6.0
6. Birm/Linc SE1	2228.1	4197.6	6.0
7. Birm/Linc SE2	2130.7	4220.7	6.0
8. Birm/Linc SE3	2082.2	4232.2	6.0
9. Birm/Linc SE4	2051.0	4164.0	6.0
10. Birm/Linc SE5	2019.8	4095.8	6.0
11. Birm/Linc SW1	1911.3	4065.4	6.0
12. Birm/Linc SW2	1942.5	4133.5	6.0
13. Birm/Linc SW3	1973.7	4201.7	6.0
14. Birm/Linc SW4	1905.7	4170.1	6.0
15. Birm/Linc SW5	1837.7	4138.5	6.0
16. Birm/Linc NW1	1831.2	4255.5	6.0
17. Birm/Linc NW2	1899.6	4286.3	6.0
18. Birm/Linc NW3	1968.0	4317.1	6.0
19. Birm/Linc NW4	2003.6	4383.1	6.0
20. Birm/Linc NW5	2039.3	4449.0	6.0
21. Camb/Linc NE1	7013.4	3812.1	6.0
22. Camb/Linc NE2	7045.6	3744.4	6.0
23. Camb/Linc NE3	7077.9	3676.7	6.0
24. Camb/Linc NE4	7145.6	3709.0	6.0
25. Camb/Linc NE5	7213.3	3741.2	6.0
26. Camb/Linc SE1	7278.5	3637.2	6.0
27. Camb/Linc SE2	7210.8	3604.9	6.0
28. Camb/Linc SE3	7143.1	3572.7	6.0
29. Camb/Linc SE4	7144.9	3497.7	6.0

♀ PAGE 4

JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 21:55:33

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
30. Camb/Linc SE5	7146.6	3422.7	6.0
31. Camb/Linc SW1	7085.3	3393.5	6.0

32. Camb/Linc SW2	*	7083.5	3468.5	6.0	*
33. Camb/Linc SW3	*	7081.8	3543.4	6.0	*
34. Camb/Linc SW4	*	7014.1	3511.1	6.0	*
35. Camb/Linc SW5	*	6946.4	3478.8	6.0	*
36. Camb/Linc NW1	*	6870.3	3577.7	6.0	*
37. Camb/Linc NW2	*	6938.0	3610.0	6.0	*
38. Camb/Linc NW3	*	7005.6	3642.3	6.0	*
39. Camb/Linc NW4	*	6973.4	3710.0	6.0	*
40. Camb/Linc NW5	*	6941.2	3777.7	6.0	*

♀ PAGE 5

JOB: Skating Club of Boston RUN: 2013EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	2.	2.	2.	1.	0.	1.	2.	2.	3.	3.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.
10. *	2.	2.	2.	0.	0.	0.	2.	2.	3.	3.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
20. *	1.	2.	2.	0.	0.	0.	2.	2.	2.	2.	2.	2.	2.	1.	1.	0.	0.	0.	0.	0.
30. *	1.	1.	1.	0.	0.	0.	1.	2.	1.	1.	3.	3.	3.	2.	1.	0.	0.	1.	1.	1.
40. *	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	3.	3.	3.	2.	2.	0.	1.	2.	2.	1.
50. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	2.	2.	2.	1.	1.	2.	2.	2.
60. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	2.	2.	2.	1.	1.	2.	2.	2.
70. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	2.	3.	2.	2.	1.	1.	2.	2.	2.	2.
80. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	2.	2.	2.	2.	1.	1.	1.	2.	2.	2.
90. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	2.	2.	2.	2.	1.	2.	1.	2.	2.	2.
100. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	2.	2.	2.
110. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	2.	2.	2.
120. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	2.	2.	2.
130. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	1.	2.	2.
140. *	0.	0.	2.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	1.	2.	1.	2.	2.
150. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.	1.	2.	1.	2.	2.
160. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.	1.	2.	2.	2.	2.
170. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	2.	3.	1.	0.	1.	1.	2.	2.	3.
180. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	0.	0.	1.	1.	2.	2.	3.
190. *	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	1.	2.	2.	0.	0.	1.	1.	2.	2.	2.
200. *	1.	1.	2.	1.	0.	0.	0.	1.	1.	0.	0.	1.	2.	0.	0.	1.	1.	1.	1.	2.
210. *	2.	2.	2.	1.	0.	0.	0.	2.	2.	1.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
220. *	2.	2.	3.	2.	1.	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.
230. *	2.	2.	3.	2.	1.	0.	1.	3.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.
240. *	2.	2.	2.	2.	1.	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
250. *	2.	2.	2.	3.	2.	1.	2.	2.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
260. *	2.	2.	2.	2.	2.	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
270. *	2.	2.	2.	2.	2.	1.	2.	2.	3.	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
280. *	2.	2.	2.	1.	1.	1.	2.	2.	3.	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
290. *	2.	2.	2.	1.	1.	1.	1.	2.	3.	3.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.
300. *	2.	2.	2.	1.	1.	2.	1.	2.	3.	3.	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
310. *	2.	2.	2.	1.	1.	2.	2.	2.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
320. *	2.	2.	2.	1.	1.	2.	2.	2.	2.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
330. *	2.	2.	2.	1.	1.	1.	2.	2.	2.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
340. *	2.	2.	2.	1.	1.	1.	2.	2.	2.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
350. *	2.	2.	2.	1.	1.	1.	3.	2.	3.	3.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.
360. *	2.	2.	2.	1.	0.	1.	2.	2.	3.	3.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.
MAX *	2.	2.	3.	3.	2.	2.	3.	3.	3.	3.	3.	3.	3.	2.	2.	2.	2.	2.	2.	3.
DEGR. *	230	230	220	250	260	310	350	230	290	350	40	40	40	40	50	100	130	50	180	170

♀ PAGE 6

JOB: Skating Club of Boston RUN: 2013EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0. *	0.	0.	0.	0.	0.	2.	3.	3.	2.	1.	1.	2.	3.	4.	3.	0.	0.	1.	0.	0.
10. *	0.	0.	0.	0.	0.	2.	3.	3.	2.	1.	1.	2.	3.	4.	4.	0.	0.	1.	0.	0.
20. *	0.	0.	0.	0.	0.	1.	3.	3.	2.	1.	1.	2.	3.	4.	4.	0.	0.	1.	0.	0.
30. *	0.	0.	0.	0.	0.	1.	2.	3.	1.	1.	1.	2.	3.	4.	5.	0.	0.	1.	0.	0.
40. *	0.	0.	0.	0.	0.	1.	2.	3.	1.	0.	0.	1.	3.	4.	5.	0.	1.	2.	0.	0.
50. *	0.	0.	0.	0.	0.	1.	2.	3.	0.	0.	0.	1.	3.	4.	4.	1.	1.	2.	0.	0.
60. *	0.	0.	1.	1.	0.	0.	1.	2.	0.	0.	0.	0.	2.	3.	3.	2.	2.	2.	0.	0.
70. *	0.	0.	2.	2.	0.	0.	0.	1.	0.	0.	0.	0.	1.	1.	2.	3.	3.	4.	1.	0.
80. *	0.	0.	3.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	4.	4.	1.	0.
90. *	0.	1.	4.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	4.	4.	2.	0.
100. *	0.	1.	4.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	4.	4.	2.	1.
110. *	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	3.	4.	3.	2.
120. *	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	3.	2.
130. *	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	3.	2.
140. *	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	3.	2.
150. *	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	2.
160. *	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	2.
170. *	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	3.	3.	2.	2.
180. *	2.	3.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	3.	3.	2.	1.
190. *	2.	3.	4.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
200. *	2.	3.	4.	4.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
210. *	1.	3.	4.	4.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	1.	1.
220. *	1.	2.	4.	4.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	3.	3.	1.	0.
230. *	0.	1.	4.	4.	4.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	2.	3.	3.	0.	0.
240. *	0.	1.	3.	3.	4.	2.	2.	2.	0.	0.	0.	0.	1.	1.	1.	1.	2.	2.	0.	0.
250. *	0.	1.	2.	2.	2.	3.	3.	3.	0.	0.	0.	0.	3.	2.	2.	1.	1.	1.		

```
0.    0.
 260.  *    0.    0.    1.    1.    1.    4.    4.    4.    1.    0.    0.    1.    4.    3.    2.    0.    0.    0.
0.    0.
 270.  *    0.    0.    1.    1.    0.    4.    4.    4.    2.    0.    0.    1.    4.    4.    3.    0.    0.    0.
0.    0.
 280.  *    0.    0.    1.    0.    0.    4.    4.    4.    2.    1.    1.    2.    4.    4.    3.    0.    0.    0.
0.    0.
 290.  *    0.    0.    1.    0.    0.    4.    4.    4.    2.    1.    1.    2.    4.    4.    3.    0.    0.    0.
0.    0.
 300.  *    0.    0.    1.    0.    0.    3.    3.    3.    2.    1.    1.    2.    3.    4.    3.    0.    0.    0.
0.    0.
 310.  *    0.    0.    1.    0.    0.    3.    3.    3.    2.    2.    1.    2.    3.    3.    2.    0.    0.    0.
0.    0.
 320.  *    0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    1.    2.    3.    3.    2.    0.    0.    0.
0.    0.
 330.  *    0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    2.    2.    3.    4.    3.    0.    0.    0.
0.    0.
 340.  *    0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    2.    2.    3.    4.    3.    0.    0.    0.
0.    0.
 350.  *    0.    0.    0.    0.    0.    2.    3.    3.    2.    2.    2.    2.    3.    4.    3.    0.    0.    1.
0.    0.
 360.  *    0.    0.    0.    0.    0.    2.    3.    3.    2.    1.    1.    2.    3.    4.    3.    0.    0.    1.
0.    0.

------*----------------------------------------------------------------------------------------------------------
-------
 MAX   *    2.    3.    4.    4.    5.    4.    4.    4.    2.    2.    2.    2.    4.    4.    5.    4.    4.    4.
3.    2.
 DEGR. *  180   200   210   220   220   260   260   270   290   350   340   340   270    10    40    90    80    80
110   130

 THE HIGHEST CONCENTRATION OF      5. ug/m**3 OCCURRED AT RECEPTOR REC35.
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2018 No-Build
Microscale Output Files
(Particulate Matter 10 (PM10))

```
♀                      CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221                          PAGE  1

      JOB: Skating Club of Boston                               RUN: 2018NB

      DATE :  8/22/13
      TIME : 21:57:14

         The MODE flag has been set to P for calculating PM averages.

       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =   0.0 CM/S       VD =   0.0 CM/S       Z0 = 175. CM
        U =  1.0 M/S         CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =  0.0 ug/m**3

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*---------------------------------------*----------------------------------------------------
----
       1. Soldier/Jug SB LTR  *   5198.9    6311.7    5198.3    6338.8 *      27.   359. AG      0. 100.0   1.0 20.0
0.25   1.4
       2. Soldier/Jug WB TT   *   5228.8    6294.1    5339.5    6355.9 *     127.    61. AG      0. 100.0   1.0 20.0
0.86   6.4
       3. Soldier/Jug NB LTR  *   5237.6    6215.9    5236.1    6148.0 *      68.   181. AG      0. 100.0   1.0 10.0
0.63   3.5
       4. Soldiers/Jug EB TTR *   5191.9    6230.9    5106.8    6191.2 *      94.   245. AG      0. 100.0   1.0 20.0
0.77   4.8
       5. Western/Ever SB LTR *   5231.8    5725.2    5233.9    5815.8 *      91.     1. AG      0. 100.0   1.0 10.0
0.67   4.6
       6. Western/Ever WB LTR *   5264.9    5714.2    8769.8    6311.1 *    3555.    80. AG      0. 100.0   1.0 10.0
1.59 180.6
       7. West/Ever NB LTR    *   5233.9    5654.6    5211.8    5589.3 *      69.   199. AG      0. 100.0   1.0 20.0
0.51   3.5
       8. West/Ever EB LTR    *   5190.3    5675.7    5072.2    5661.6 *     119.   263. AG      0. 100.0   1.0 20.0
0.74   6.0
       9. Ever/Rt20 SB LR     *   4193.6    2489.0    4252.1    2691.0 *     210.    16. AG      0. 100.0   1.0 10.0
0.89  10.7
      10. Ever/Rt20 WB TR     *   4221.0    2443.1    4336.8    2419.4 *     118.   102. AG      0. 100.0   1.0 20.0
0.50   6.0
      11. Ever/Rt20 EB LTT    *   4155.5    2436.3    3976.7    2468.0 *     182.   280. AG      0. 100.0   1.0 20.0
0.76   9.2
      12. Camb/Linc SB LR     *   7036.1    3650.1    7012.7    3698.2 *      54.   334. AG      0. 100.0   1.0 20.0
0.47   2.7
      13. Camb/Linc WB L      *   7113.8    3630.4    7116.0    3631.5 *       2.    63. AG      0. 100.0   1.0 10.0
0.02   0.1
      14. Camb/Linc WB TTR    *   7096.3    3646.8    7280.3    3741.2 *     207.    63. AG      0. 100.0   1.0 20.0
0.88  10.5
      15. Camb/Linc NB LTR    *   7116.0    3570.3    7116.2    3567.9 *       2.   175. AG      0. 100.0   1.0 10.0
0.02   0.1
      16. Camb/Linc EB L      *   7032.9    3580.1    6963.7    3546.9 *      77.   244. AG      0. 100.0   1.0 10.0
0.71   3.9
      17. Camb/Linc EB TTTR   *   7047.4    3560.7    6922.6    3501.2 *     138.   245. AG      0. 100.0   1.0 30.0
0.67   7.0
      18. Birm/Linc SB R      *   2027.5    4361.0    2037.6    4379.2 *      21.    29. AG      0. 100.0   1.0 10.0
0.16   1.1
      19. Birm/Linc SB TT     *   2045.2    4353.0    2092.7    4437.9 *      97.    29. AG      0. 100.0   1.0 20.0
0.56   4.9
      20. Birm/Linc WB LTR    *   2100.9    4264.2    2178.0    4247.2 *      79.   102. AG      0. 100.0   1.0 20.0
0.72   4.0
      21. Birm/Linc NB LTT    *   2029.7    4188.8    1974.9    4074.0 *     127.   205. AG      0. 100.0   1.0 20.0
0.74   6.5
      22. Birm/Linc EB LLTR   *   1966.7    4229.9    1922.2    4210.0 *      49.   246. AG      0. 100.0   1.0 20.0
0.57   2.5
      23. Soldier/Jug N       *   5199.2    6279.5    5199.2    6392.5 *     113.   360. AG    220.   0.0   1.0 42.0
      24. Soldier/Jug E-N     *   5199.2    6277.6    5400.6    6380.6 *     226.    63. AG   1597.   0.0   1.0 42.0
      25. Soldier/Jug E-S     *   5219.3    6237.5    5420.9    6345.5 *     229.    62. AG   1595.   0.0   1.0 42.0
      26. Soldier/Jug S       *   5235.5    6245.2    5234.6    6031.1 *     214.   180. AG    513.   0.0   1.0 42.0
      27. Soldier/Jug W-S     *   5214.5    6245.3    4975.3    6130.9 *     265.   244. AG   1431.   0.0   1.0 42.0
      28. Soldier/Jug W-N     *   5200.4    6278.0    4964.5    6172.3 *     258.   246. AG   1692.   0.0   1.0 42.0
      29. West/Ever N         *   5233.5    5697.0    5238.2    5899.5 *     203.     1. AG    515.   0.0   1.0 42.0
      30. West/Ever E         *   5233.5    5697.0    5535.4    5747.6 *     306.    80. AG   1612.   0.0   1.0 66.0
      31. West/Ever S         *   5236.3    5680.7    5158.2    5443.1 *     250.   198. AG    940.   0.0   1.0 54.0
      32. West/Ever W         *   5233.5    5697.0    4823.3    5637.1 *     415.   262. AG   1527.   0.0   1.0 60.0
      33. Ever/Rt20 N         *   4192.8    2443.9    4258.3    2688.4 *     253.    15. AG    744.   0.0   1.0 42.0
      34. Ever/Rt20 E         *   4192.8    2443.9    4427.9    2396.0 *     240.   102. AG   2038.   0.0   1.0 54.0
      35. Ever/Rt20 W         *   4192.8    2443.9    3904.9    2491.9 *     292.   279. AG   2018.   0.0   1.0 54.0
      36. Birm/Linc N-SB      *   1998.6    4296.0    2178.7    4628.9 *     378.    28. AG   1152.   0.0   1.0 54.0
      37. Birm/Linc N NB      *   2048.6    4265.6    2230.3    4606.5 *     386.    28. AG   1349.   0.0   1.0 54.0
      38. Birm/Linc E         *   2048.6    4272.0    2312.0    4209.5 *     271.   103. AG    384.   0.0   1.0 42.0
      39. Birm/Linc S         *   2043.8    4251.5    1930.5    4004.1 *     272.   205. AG   2424.   0.0   1.0 66.0
      40. Birm/Linc W-EB      *   2011.4    4253.5    1764.6    4138.7 *     272.   245. AG    244.   0.0   1.0 42.0
      41. Birm/Linc W-WB      *   1974.5    4286.0    1744.8    4182.6 *     252.   246. AG    518.   0.0   1.0 42.0
      42. Camb/Linc N         *   7068.0    3604.4    6989.0    3770.3 *     184.   335. AG    528.   0.0   1.0 60.0
      43. Camb/Linc E         *   7068.0    3604.4    7289.3    3709.9 *     245.    65. AG   3728.   0.0   1.0 ****
      44. Camb/Linc S         *   7111.5    3599.6    7116.3    3391.9 *     208.   179. AG     10.   0.0   1.0 42.0
♀                                                                                                          PAGE  2
      JOB: Skating Club of Boston                               RUN: 2018NB
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      DATE :  8/22/13
      TIME : 21:57:14

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*---------------------------------------*----------------------------------------------------
----
      45. Camb/Linc W         *   7068.0    3604.4    6777.8    3466.0 *     321.   244. AG   3591.   0.0   1.0 ****
♀                                                                                                          PAGE  3
      JOB: Skating Club of Boston                               RUN: 2018NB

      DATE :  8/22/13
      TIME : 21:57:14

       1. Soldier/Jug SB LTR  *      69        45       3.0       220       1600       0.07      1        3
       2. Soldier/Jug WB TT   *      69        24       3.0      1597       1600       0.07      1        3
       3. Soldier/Jug NB LTR  *      69        45       3.0       276       1600       0.07      1        3
       4. Soldiers/Jug EB TTR *      69        24       3.0      1431       1600       0.07      1        3
       5. Western/Ever SB LTR *      90        63       3.0       263       1600       0.07      1        3
       6. Western/Ever WB LTR *      90        55       3.0       850       1600       0.07      1        3
       7. West/Ever NB LTR    *      90        63       3.0       400       1600       0.07      1        3
       8. West/Ever EB LTR    *      90        55       3.0       784       1600       0.07      1        3
       9. Ever/Rt20 SB LR     *     119        80       3.0       406       1600       0.07      1        3
      10. Ever/Rt20 WB TR     *     119        55       3.0       786       1600       0.07      1        3
      11. Ever/Rt20 EB LTT    *     119        55       3.0      1208       1600       0.07      1        3
      12. Camb/Linc SB LR     *     110        89       3.0       221       1600       0.07      1        3
      13. Camb/Linc WB L      *     110        91       3.0         5       1600       0.07      1        3
      14. Camb/Linc WB TTR    *     110        40       3.0      1666       1600       0.07      1        3
      15. Camb/Linc NB LTR    *     110        89       3.0         5       1600       0.07      1        3
      16. Camb/Linc EB L      *     110        91       3.0       144       1600       0.07      1        3
      17. Camb/Linc EB TTTR   *     110        40       3.0      1898       1600       0.07      1        3
      18. Birm/Linc SB R      *      90        20       3.0       190       1600       0.07      1        3
      19. Birm/Linc SB TT     *      90        37       3.0       962       1600       0.07      1        3
      20. Birm/Linc WB LTR    *      90        70       3.0       384       1600       0.07      1        3
      21. Birm/Linc NB LTT    *      90        37       3.0      1258       1600       0.07      1        3
      22. Birm/Linc EB LLTR   *      90        73       3.0       244       1600       0.07      1        3

       RECEPTOR LOCATIONS
       ------------------
                              *          COORDINATES (FT)          *
         RECEPTOR             *      X          Y          Z       *
     -------------------------*------------------------------------*
       1. Soldiers/Jug NE1    *      5230.2     6478.3       6.0   *
       2. Soldiers/Jug NE2    *      5230.2     6403.2       6.0   *
       3. Soldiers/Jug NE3    *      5230.2     6328.3       6.0   *
       4. Soldiers/Jug NE4    *      5297.0     6362.4       6.0   *
       5. Soldiers/Jug NE5    *      5363.7     6396.6       6.0   *
       6. Soldiers/Jug SE1    *      5398.7     6298.4       6.0   *
       7. Soldiers/Jug SE2    *      5332.5     6263.0       6.0   *
       8. Soldiers/Jug SE3    *      5266.4     6227.6       6.0   *
       9. Soldiers/Jug SE4    *      5266.4     6152.6       6.0   *
      10. Soldiers/Jug SE5    *      5265.8     6077.6       6.0   *
      11. Soldiers/Jug SW1    *      5204.3     6056.0       6.0   *
      12. Soldiers/Jug SW2    *      5204.0     6131.0       6.0   *
      13. Soldiers/Jug SW3    *      5204.3     6206.0       6.0   *
      14. Soldiers/Jug SW4    *      5136.6     6173.7       6.0   *
      15. Soldiers/Jug SW5    *      5069.0     6141.4       6.0   *
      16. Soldiers/Jug NW1    *      5031.3     6236.2       6.0   *
      17. Soldiers/Jug NW2    *      5099.8     6266.9       6.0   *
      18. Soldiers/Jug NW3    *      5168.2     6297.6       6.0   *
      19. Soldiers/Jug NW4    *      5168.2     6372.6       6.0   *
      20. Soldiers/Jug NW5    *      5168.2     6447.6       6.0   *
      21. Western/Ever NE1    *      5269.1     5895.9       6.0   *
      22. Western/Ever NE2    *      5267.4     5821.0       6.0   *
      23. Western/Ever NE3    *      5265.7     5746.0       6.0   *
      24. Western/Ever NE4    *      5339.6     5758.4       6.0   *
      25. Western/Ever NE5    *      5413.6     5770.8       6.0   *
      26. Western/Ever SE1    *      5416.1     5684.0       6.0   *
      27. Western/Ever SE2    *      5342.1     5671.6       6.0   *
      28. Western/Ever SE3    *      5268.1     5659.2       6.0   *
      29. Western/Ever SE4    *      5244.7     5587.9       6.0   *
♀                                                                                                          PAGE  4
      JOB: Skating Club of Boston                               RUN: 2018NB

      DATE :  8/22/13
      TIME : 21:57:14


       RECEPTOR LOCATIONS
       ------------------
                              *          COORDINATES (FT)          *
         RECEPTOR             *      X          Y          Z       *
     -------------------------*------------------------------------*
      30. Western/Ever SE5    *      5221.3     5516.7       6.0   *
      31. Western/Ever SW1    *      5140.4     5507.3       6.0   *
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32.	Western/Ever SW2	*	5163.8	5578.5	6.0	*
33.	Western/Ever SW3	*	5187.2	5649.8	6.0	*
34.	Western/Ever SW4	*	5113.0	5639.0	6.0	*
35.	Western/Ever SW5	*	5038.7	5628.1	6.0	*
36.	Western/Ever NW1	*	5054.9	5711.3	6.0	*
37.	Western/Ever NW2	*	5129.1	5722.2	6.0	*
38.	Western/Ever NW3	*	5203.4	5733.0	6.0	*
39.	Western/Ever NW4	*	5205.1	5808.0	6.0	*
40.	Western/Ever NW5	*	5206.8	5883.0	6.0	*
41.	Ever/Rt20 NE1	*	4271.6	2618.4	6.0	*
42.	Ever/Rt20 NE2	*	4252.2	2546.0	6.0	*
43.	Ever/Rt20 NE3	*	4232.8	2473.5	6.0	*
44.	Ever/Rt20 NE4	*	4306.3	2458.5	6.0	*
45.	Ever/Rt20 NE5	*	4379.8	2443.6	6.0	*
46.	Ever/Rt20 S1	*	4333.0	2377.6	6.0	*
47.	Ever/Rt20 S2	*	4259.5	2392.6	6.0	*
48.	Ever/Rt20 S3	*	4186.0	2407.5	6.0	*
49.	Ever/Rt20 S4	*	4112.0	2419.9	6.0	*
50.	Ever/Rt20 S5	*	4038.1	2432.2	6.0	*
51.	Ever/Rt20 NW1	*	4023.7	2509.6	6.0	*
52.	Ever/Rt20 NW2	*	4097.7	2497.3	6.0	*
53.	Ever/Rt20 NW3	*	4171.7	2485.0	6.0	*
54.	Ever/Rt20 NW4	*	4191.1	2557.4	6.0	*
55.	Ever/Rt20 NW5	*	4210.5	2629.8	6.0	*

♀ PAGE 5

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) * CONCENTRATION (ug/m**3)

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	0.	0.	0.	0.	0.	2.	2.	3.	2.	1.	1.	2.	2.	3.	2.	0.	0.	0.	0.	0.
10.	*	0.	0.	0.	0.	0.	2.	2.	3.	2.	1.	2.	2.	3.	3.	2.	0.	0.	0.	0.	0.
20.	*	0.	0.	0.	0.	0.	1.	2.	3.	1.	1.	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.
30.	*	0.	0.	0.	0.	0.	1.	2.	3.	1.	0.	1.	2.	3.	4.	3.	0.	0.	0.	0.	0.
40.	*	0.	0.	0.	0.	0.	1.	2.	3.	1.	0.	1.	2.	3.	3.	3.	0.	0.	1.	0.	0.
50.	*	0.	0.	0.	0.	0.	0.	1.	2.	0.	0.	1.	1.	3.	3.	3.	0.	0.	1.	0.	0.
60.	*	0.	0.	1.	0.	0.	0.	1.	1.	0.	0.	0.	1.	2.	2.	2.	1.	1.	2.	0.	0.
70.	*	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	1.	2.	1.	1.	2.	2.	2.	0.	0.
80.	*	0.	0.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	3.	3.	3.	1.	0.
90.	*	0.	0.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	3.	3.	3.	1.	0.
100.	*	0.	1.	3.	2.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	4.	3.	3.	1.	0.
110.	*	0.	1.	3.	3.	1.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	1.
120.	*	0.	1.	3.	3.	1.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	1.
130.	*	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	1.
140.	*	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	3.	3.	3.	2.	1.
150.	*	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	3.	3.	3.	2.	1.
160.	*	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	1.
170.	*	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	3.	3.	3.	2.	2.
180.	*	2.	2.	3.	3.	3.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.	2.	3.	3.	2.	2.
190.	*	1.	2.	3.	3.	3.	0.	0.	1.	1.	1.	1.	0.	0.	0.	0.	3.	3.	3.	2.	1.
200.	*	1.	2.	3.	3.	3.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
210.	*	1.	2.	3.	4.	3.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	2.	3.	3.	1.	1.
220.	*	1.	1.	3.	4.	4.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	2.	3.	3.	1.	0.
230.	*	0.	1.	3.	3.	3.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	1.	2.	3.	0.	0.
240.	*	0.	0.	2.	2.	2.	2.	2.	2.	0.	0.	0.	0.	1.	0.	0.	1.	1.	2.	0.	0.
250.	*	0.	0.	2.	1.	1.	3.	2.	2.	1.	0.	0.	0.	2.	1.	1.	0.	1.	1.	0.	0.
260.	*	0.	0.	1.	0.	0.	3.	3.	3.	1.	0.	0.	0.	3.	2.	1.	0.	0.	0.	0.	0.
270.	*	0.	0.	1.	0.	0.	3.	3.	4.	2.	1.	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.
280.	*	0.	0.	1.	0.	0.	3.	3.	4.	2.	1.	0.	1.	3.	3.	2.	0.	0.	0.	0.	0.
290.	*	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.	0.	1.	3.	3.	2.	0.	0.	0.	0.	0.
300.	*	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.	1.	1.	3.	3.	2.	0.	0.	0.	0.	0.
310.	*	0.	0.	0.	0.	0.	2.	3.	3.	2.	2.	1.	1.	3.	3.	2.	0.	0.	0.	0.	0.
320.	*	0.	0.	0.	0.	0.	2.	2.	3.	2.	2.	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.
330.	*	0.	0.	0.	0.	0.	2.	3.	3.	2.	2.	1.	2.	2.	3.	2.	0.	0.	0.	0.	0.
340.	*	0.	0.	0.	0.	0.	2.	3.	3.	2.	2.	1.	1.	3.	3.	2.	0.	0.	0.	0.	0.
350.	*	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.
360.	*	0.	0.	0.	0.	0.	2.	2.	3.	2.	1.	1.	2.	2.	3.	2.	0.	0.	0.	0.	0.
MAX	*	2.	2.	3.	4.	4.	3.	3.	4.	2.	2.	2.	2.	3.	4.	3.	4.	3.	3.	2.	2.
DEGR.	*	180	200	220	220	220	260	270	270	310	330	20	30	40	30	40	100	100	90	160	180

♀ PAGE 6

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) * CONCENTRATION (ug/m**3)

WIND ANGLE (DEGR)	*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0.	*	1.	1.	1.	0.	0.	2.	2.	2.	3.	2.	1.	2.	2.	2.	2.	0.	1.	1.	1.	1.
10.	*	1.	0.	0.	0.	0.	2.	2.	2.	2.	2.	1.	2.	3.	2.	2.	1.	0.	1.	1.	1.
20.	*	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	2.	2.	2.	0.	0.	1.	1.	0.
30.	*	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	2.	3.	2.	0.	0.	1.	1.	0.
40.	*	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	3.	3.	2.	0.	0.	1.	0.	0.
50.	*	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.	2.	2.	3.	3.	2.	0.	0.	1.	0.	0.
60.	*	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.	2.	2.	3.	3.	3.	0.	0.	1.	1.	0.
70.	*	0.	0.	0.	0.	0.	1.	2.	2.	0.	0.	1.	2.	3.	3.	3.	1.	1.	1.	1.	0.
80.	*	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.	1.	1.	2.	2.	2.	2.	2.	2.	1.	0.
90.	*	0.	0.	2.	2.	1.	0.	0.	0.	0.	0.	1.	1.	2.	2.	1.	2.	2.	3.	1.	1.
100.	*	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	3.	2.	3.	2.	1.
110.	*	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	2.	2.	2.	2.	1.
120.	*	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	3.	2.	2.	2.	1.
130.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.
140.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	2.	0.	0.	2.	2.	2.	2.	1.
150.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.
160.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.
170.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.

180.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	1.	2.	2.	2.	1.
190.	*	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	1.	2.	2.	1.	1.
200.	*	2.	2.	2.	2.	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
210.	*	1.	2.	3.	2.	2.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
220.	*	1.	2.	3.	2.	2.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
230.	*	1.	2.	3.	3.	3.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
240.	*	1.	2.	3.	3.	3.	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
250.	*	0.	1.	3.	3.	2.	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	0.	0.
260.	*	0.	1.	2.	2.	2.	2.	2.	2.	1.	1.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.
270.	*	0.	1.	1.	1.	1.	2.	2.	3.	1.	1.	0.	0.	2.	2.	1.	0.	0.	1.	0.	0.
280.	*	0.	0.	1.	0.	0.	2.	2.	3.	2.	1.	0.	0.	2.	2.	2.	0.	0.	0.	0.	0.
290.	*	0.	0.	1.	0.	0.	2.	2.	3.	2.	1.	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.
300.	*	0.	0.	1.	0.	0.	2.	2.	2.	2.	1.	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.
310.	*	0.	1.	1.	0.	0.	2.	2.	2.	3.	1.	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.
320.	*	0.	1.	1.	0.	0.	2.	2.	2.	2.	2.	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.
330.	*	1.	1.	1.	1.	1.	2.	2.	2.	3.	2.	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.
340.	*	1.	1.	1.	1.	0.	2.	2.	2.	3.	2.	1.	1.	2.	2.	1.	0.	0.	0.	0.	1.
350.	*	1.	1.	1.	0.	0.	2.	2.	3.	3.	2.	1.	1.	2.	2.	2.	0.	0.	0.	1.	1.
360.	*	1.	1.	1.	0.	0.	2.	2.	2.	3.	2.	1.	2.	2.	2.	2.	0.	1.	1.	1.	1.
MAX	*	2.	2.	3.	3.	3.	2.	2.	3.	3.	2.	2.	2.	3.	3.	3.	3.	2.	3.	2.	1.
DEGR.	*	200	200	210	230	240	270	280	280	0	0	40	50	60	70	70	100	110	100	150	170

♀ PAGE 7

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (ug/m**3) REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	*	0.	1.	1.	0.	0.	2.	3.	3.	2.	2.	0.	0.	0.	0.	0.
10.	*	0.	1.	1.	0.	0.	2.	2.	3.	2.	2.	0.	0.	0.	0.	0.
20.	*	0.	0.	0.	0.	0.	2.	2.	3.	3.	2.	0.	0.	1.	1.	0.
30.	*	0.	0.	0.	0.	0.	2.	2.	3.	3.	2.	0.	0.	1.	1.	1.
40.	*	0.	0.	0.	0.	0.	2.	2.	2.	3.	3.	0.	0.	1.	1.	1.
50.	*	0.	0.	0.	0.	0.	2.	2.	2.	3.	3.	0.	0.	1.	1.	1.
60.	*	0.	0.	0.	0.	0.	2.	2.	2.	3.	3.	0.	0.	1.	1.	1.
70.	*	0.	0.	0.	0.	0.	2.	2.	3.	3.	3.	0.	0.	1.	1.	1.
80.	*	0.	0.	0.	0.	0.	2.	2.	3.	3.	4.	0.	1.	1.	1.	1.
90.	*	0.	0.	0.	0.	0.	1.	2.	2.	3.	3.	1.	1.	1.	1.	1.
100.	*	0.	0.	1.	1.	0.	1.	1.	2.	2.	2.	2.	2.	2.	1.	1.
110.	*	0.	0.	2.	1.	1.	0.	0.	1.	1.	1.	3.	3.	3.	1.	1.
120.	*	0.	0.	3.	2.	1.	0.	0.	0.	0.	0.	3.	3.	4.	2.	1.
130.	*	0.	1.	3.	2.	1.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
140.	*	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.	3.	2.	3.	2.	1.
150.	*	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.	2.	2.	3.	2.	2.
160.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	2.	2.
170.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	2.	2.
180.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	2.	2.
190.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.
200.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
210.	*	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
220.	*	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
230.	*	2.	2.	3.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
240.	*	2.	2.	3.	3.	2.	0.	0.	0.	0.	0.	2.	2.	3.	1.	1.
250.	*	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	2.	3.	3.	1.	0.
260.	*	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	2.	2.	3.	0.	0.
270.	*	1.	1.	3.	3.	3.	1.	1.	1.	1.	0.	1.	2.	2.	0.	0.

280.	*	1.	1.	2.	2.	2.	2.	2.	2.	2.	1.	1.	1.	1.	0.	0.
290.	*	1.	1.	1.	1.	1.	3.	3.	3.	2.	2.	0.	0.	0.	0.	0.
300.	*	1.	1.	1.	1.	1.	3.	3.	3.	3.	2.	0.	0.	0.	0.	0.
310.	*	1.	1.	1.	0.	0.	3.	3.	3.	3.	3.	0.	0.	0.	0.	0.
320.	*	1.	1.	1.	0.	0.	3.	3.	2.	3.	3.	0.	0.	0.	0.	0.
330.	*	1.	1.	1.	0.	0.	3.	3.	2.	3.	3.	0.	0.	0.	0.	0.
340.	*	1.	1.	1.	0.	0.	3.	3.	2.	2.	2.	0.	0.	0.	0.	0.
350.	*	1.	1.	1.	0.	0.	2.	3.	2.	2.	2.	0.	0.	0.	0.	0.
360.	*	0.	1.	1.	0.	0.	2.	3.	3.	2.	2.	0.	0.	0.	0.	0.
MAX	*	2.	2.	3.	3.	3.	3.	3.	3.	3.	4.	3.	3.	4.	2.	2.
DEGR.	*	230	240	260	270	260	300	310	300	60	80	120	120	120	150	170

THE HIGHEST CONCENTRATION OF 4. ug/m**3 OCCURRED AT RECEPTOR REC4 .

♀ CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221 PAGE 1

JOB: Skating Club of Boston RUN: 2018NB

DATE : 8/22/13
TIME : 21:56:19

The MODE flag has been set to P for calculating PM averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 ug/m**3

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. Soldier/Jug SB LTR	5198.9	6311.7	5198.3	6338.8	27.	359.	AG	0.	100.0	1.0	20.0	0.25	1.4
2. Soldier/Jug WB TT	5228.8	6294.1	5339.5	6355.9	127.	61.	AG	0.	100.0	1.0	20.0	0.86	6.4
3. Soldier/Jug NB LTR	5237.6	6215.9	5236.1	6148.0	68.	181.	AG	0.	100.0	1.0	10.0	0.63	3.5
4. Soldiers/Jug EB TTR	5191.9	6230.9	5106.8	6191.2	94.	245.	AG	0.	100.0	1.0	20.0	0.77	4.8
5. Western/Ever SB LTR	5231.8	5725.2	5233.9	5815.8	91.	1.	AG	0.	100.0	1.0	10.0	0.67	4.6
6. Western/Ever WB LTR	5264.9	5714.2	8769.8	6311.1	3555.	80.	AG	0.	100.0	1.0	10.0	1.59	180.6
7. West/Ever NB LTR	5233.9	5654.6	5211.8	5589.3	69.	199.	AG	0.	100.0	1.0	20.0	0.51	3.5
8. West/Ever EB LTR	5190.3	5675.7	5072.2	5661.6	119.	263.	AG	0.	100.0	1.0	20.0	0.74	6.0
9. Ever/Rt20 SB LR	4193.6	2489.0	4252.1	2691.0	210.	16.	AG	0.	100.0	1.0	10.0	0.89	10.7
10. Ever/Rt20 WB TR	4221.0	2443.1	4336.8	2419.4	118.	102.	AG	0.	100.0	1.0	20.0	0.50	6.0
11. Ever/Rt20 EB LTT	4155.5	2436.3	3976.7	2468.0	182.	280.	AG	0.	100.0	1.0	20.0	0.76	9.2
12. Camb/Linc SB LR	7036.1	3650.1	7012.7	3698.2	54.	334.	AG	0.	100.0	1.0	20.0	0.47	2.7
13. Camb/Linc WB L	7113.8	3630.4	7116.0	3631.5	2.	63.	AG	0.	100.0	1.0	10.0	0.02	0.1
14. Camb/Linc WB TTR	7096.3	3646.8	7280.3	3741.2	207.	63.	AG	0.	100.0	1.0	20.0	0.88	10.5
15. Camb/Linc NB LTR	7116.0	3570.3	7116.2	3567.9	2.	175.	AG	0.	100.0	1.0	10.0	0.02	0.1
16. Camb/Linc EB L	7032.9	3580.1	6963.7	3546.9	77.	244.	AG	0.	100.0	1.0	10.0	0.71	3.9
17. Camb/Linc EB TTTR	7047.4	3560.7	6922.6	3501.2	138.	245.	AG	0.	100.0	1.0	30.0	0.67	7.0
18. Birm/Linc SB R	2027.5	4361.0	2037.6	4379.2	21.	29.	AG	0.	100.0	1.0	10.0	0.16	1.1
19. Birm/Linc SB TT	2045.2	4353.0	2092.7	4437.9	97.	29.	AG	0.	100.0	1.0	20.0	0.56	4.9
20. Birm/Linc WB LTR	2100.9	4264.2	2178.0	4247.2	79.	102.	AG	0.	100.0	1.0	20.0	0.72	4.0
21. Birm/Linc NB LTT	2029.7	4188.8	1974.9	4074.0	127.	205.	AG	0.	100.0	1.0	20.0	0.74	6.5
22. Birm/Linc EB LLTR	1966.7	4229.9	1922.2	4210.0	49.	246.	AG	0.	100.0	1.0	20.0	0.57	2.5
23. Soldier/Jug N	5199.2	6279.5	5199.2	6392.5	113.	360.	AG	220.	0.0	1.0	42.0		
24. Soldier/Jug E-N	5199.2	6277.6	5400.6	6380.6	226.	63.	AG	1597.	0.0	1.0	42.0		
25. Soldier/Jug E-S	5219.3	6237.5	5420.9	6345.5	229.	62.	AG	1595.	0.0	1.0	42.0		
26. Soldier/Jug S	5235.5	6245.2	5234.6	6031.1	214.	180.	AG	513.	0.0	1.0	42.0		
27. Soldier/Jug W-S	5214.5	6245.3	4975.3	6130.9	265.	244.	AG	1431.	0.0	1.0	42.0		
28. Soldier/Jug W-N	5200.4	6278.0	4964.5	6172.3	258.	246.	AG	1692.	0.0	1.0	42.0		
29. West/Ever N	5233.5	5697.0	5238.2	5899.5	203.	1.	AG	515.	0.0	1.0	42.0		
30. West/Ever E	5233.5	5697.0	5535.4	5747.6	306.	80.	AG	1612.	0.0	1.0	66.0		
31. West/Ever S	5236.3	5680.7	5158.2	5443.1	250.	198.	AG	940.	0.0	1.0	54.0		
32. West/Ever W	5233.5	5697.0	4823.3	5637.1	415.	262.	AG	1527.	0.0	1.0	60.0		
33. Ever/Rt20 N	4192.8	2443.9	4258.3	2688.4	253.	15.	AG	744.	0.0	1.0	42.0		
34. Ever/Rt20 E	4192.8	2443.9	4427.9	2396.0	240.	102.	AG	2038.	0.0	1.0	54.0		
35. Ever/Rt20 W	4192.8	2443.9	3904.9	2491.9	292.	279.	AG	2018.	0.0	1.0	54.0		
36. Birm/Linc N-SB	1998.6	4296.0	2178.7	4628.9	378.	28.	AG	1152.	0.0	1.0	54.0		
37. Birm/Linc N NB	2048.6	4265.6	2230.3	4606.5	386.	28.	AG	1349.	0.0	1.0	54.0		
38. Birm/Linc E	2048.6	4272.0	2312.0	4209.5	271.	103.	AG	384.	0.0	1.0	42.0		
39. Birm/Linc S	2043.8	4251.5	1930.5	4004.1	272.	205.	AG	2424.	0.0	1.0	66.0		
40. Birm/Linc W-EB	2011.4	4253.5	1764.6	4138.7	272.	245.	AG	244.	0.0	1.0	42.0		
41. Birm/Linc W-WB	1974.5	4286.0	1744.8	4182.6	252.	246.	AG	518.	0.0	1.0	42.0		
42. Camb/Linc N	7068.0	3604.4	6989.0	3770.3	184.	335.	AG	528.	0.0	1.0	60.0		
43. Camb/Linc E	7068.0	3604.4	7289.3	3709.9	245.	65.	AG	3728.	0.0	1.0	****		
44. Camb/Linc S	7111.5	3599.6	7116.3	3391.9	208.	179.	AG	10.	0.0	1.0	42.0		

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JOB: Skating Club of Boston RUN: 2018NB

DATE : 8/22/13
TIME : 21:56:19

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. Camb/Linc W	7068.0	3604.4	6777.8	3466.0	321.	244.	AG	3591.	0.0	1.0	****		

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JOB: Skating Club of Boston RUN: 2018NB

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1. Soldier/Jug SB LTR	69	45	3.0	220	1600	0.07	1	3
2. Soldier/Jug WB TT	69	24	3.0	1597	1600	0.07	1	3
3. Soldier/Jug NB LTR	69	45	3.0	276	1600	0.07	1	3
4. Soldiers/Jug EB TTR	69	24	3.0	1431	1600	0.07	1	3
5. Western/Ever SB LTR	90	63	3.0	263	1600	0.07	1	3
6. Western/Ever WB LTR	90	55	3.0	850	1600	0.07	1	3
7. West/Ever NB LTR	90	63	3.0	400	1600	0.07	1	3
8. West/Ever EB LTR	90	55	3.0	784	1600	0.07	1	3
9. Ever/Rt20 SB LR	119	80	3.0	406	1600	0.07	1	3
10. Ever/Rt20 WB TR	119	55	3.0	786	1600	0.07	1	3
11. Ever/Rt20 EB LTT	119	55	3.0	1208	1600	0.07	1	3
12. Camb/Linc SB LR	110	89	3.0	221	1600	0.07	1	3
13. Camb/Linc WB L	110	91	3.0	5	1600	0.07	1	3
14. Camb/Linc WB TTR	110	40	3.0	1666	1600	0.07	1	3
15. Camb/Linc NB LTR	110	89	3.0	5	1600	0.07	1	3
16. Camb/Linc EB L	110	91	3.0	144	1600	0.07	1	3
17. Camb/Linc EB TTTR	110	40	3.0	1898	1600	0.07	1	3
18. Birm/Linc SB R	90	20	3.0	190	1600	0.07	1	3
19. Birm/Linc SB TT	90	37	3.0	962	1600	0.07	1	3
20. Birm/Linc WB LTR	90	70	3.0	384	1600	0.07	1	3
21. Birm/Linc NB LTT	90	37	3.0	1258	1600	0.07	1	3
22. Birm/Linc EB LLTR	90	73	3.0	244	1600	0.07	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. Birm/Linc NE1	2174.4	4423.1	6.0
2. Birm/Linc NE2	2139.2	4356.9	6.0
3. Birm/Linc NE3	2103.9	4290.7	6.0
4. Birm/Linc NE4	2176.9	4273.4	6.0
5. Birm/Linc NE5	2249.9	4256.1	6.0
6. Birm/Linc SE1	2228.1	4197.6	6.0
7. Birm/Linc SE2	2130.7	4220.7	6.0
8. Birm/Linc SE3	2082.2	4232.2	6.0
9. Birm/Linc SE4	2051.0	4164.0	6.0
10. Birm/Linc SE5	2019.8	4095.8	6.0
11. Birm/Linc SW1	1911.3	4065.4	6.0
12. Birm/Linc SW2	1942.5	4133.5	6.0
13. Birm/Linc SW3	1973.7	4201.7	6.0
14. Birm/Linc SW4	1905.7	4170.1	6.0
15. Birm/Linc SW5	1837.7	4138.5	6.0
16. Birm/Linc NW1	1831.2	4255.5	6.0
17. Birm/Linc NW2	1899.6	4286.3	6.0
18. Birm/Linc NW3	1968.0	4317.1	6.0
19. Birm/Linc NW4	2003.6	4383.1	6.0
20. Birm/Linc NW5	2039.3	4449.0	6.0
21. Camb/Linc NE1	7013.4	3812.1	6.0
22. Camb/Linc NE2	7045.6	3744.4	6.0
23. Camb/Linc NE3	7077.9	3676.7	6.0
24. Camb/Linc NE4	7145.6	3709.0	6.0
25. Camb/Linc NE5	7213.3	3741.2	6.0
26. Camb/Linc SE1	7278.5	3637.2	6.0
27. Camb/Linc SE2	7210.8	3604.9	6.0
28. Camb/Linc SE3	7143.1	3572.7	6.0
29. Camb/Linc SE4	7144.9	3497.7	6.0

♀ PAGE 4

JOB: Skating Club of Boston RUN: 2018NB

DATE : 8/22/13
TIME : 21:56:19

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
30. Camb/Linc SE5	7146.6	3422.7	6.0
31. Camb/Linc SW1	7085.3	3393.5	6.0

32.	Camb/Linc SW2	*	7083.5	3468.5	6.0	*
33.	Camb/Linc SW3	*	7081.8	3543.4	6.0	*
34.	Camb/Linc SW4	*	7014.1	3511.1	6.0	*
35.	Camb/Linc SW5	*	6946.4	3478.8	6.0	*
36.	Camb/Linc NW1	*	6870.3	3577.7	6.0	*
37.	Camb/Linc NW2	*	6938.0	3610.0	6.0	*
38.	Camb/Linc NW3	*	7005.6	3642.3	6.0	*
39.	Camb/Linc NW4	*	6973.4	3710.0	6.0	*
40.	Camb/Linc NW5	*	6941.2	3777.7	6.0	*

♀ PAGE 5

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	2.	2.	2.	1.	0.	1.	2.	2.	3.	4.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.
10. *	2.	2.	2.	0.	0.	0.	2.	2.	3.	3.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.
20. *	1.	2.	2.	0.	0.	0.	2.	2.	2.	2.	2.	2.	2.	1.	1.	0.	0.	0.	0.	0.
30. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	1.	3.	3.	2.	2.	1.	0.	0.	1.	1.	1.
40. *	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	4.	3.	3.	2.	2.	0.	1.	2.	2.	1.
50. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	2.	1.	1.	2.	2.	2.
60. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	2.	1.	1.	2.	2.	2.
70. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	1.	1.	2.	2.	2.	2.
80. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	2.	3.	2.	2.	1.	1.	1.	2.	2.	2.
90. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	2.	2.	2.	2.	1.	2.	1.	2.	2.	2.
100. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	2.	2.	2.	2.	2.
110. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	2.	2.	2.	2.	2.
120. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	2.	2.	2.	2.	2.
130. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	2.	2.	1.	2.	2.
140. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	1.	2.	1.	2.	2.
150. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	3.	1.	0.	1.	2.	2.	2.	2.
160. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	2.	2.	3.	1.	0.	1.	2.	2.	2.	2.
170. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	2.	3.	1.	0.	1.	2.	2.	2.	3.
180. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	2.	3.	0.	0.	1.	1.	2.	2.	3.
190. *	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	1.	2.	2.	0.	0.	1.	1.	2.	2.	2.
200. *	1.	1.	2.	1.	0.	0.	0.	1.	1.	0.	0.	1.	2.	0.	0.	1.	1.	1.	1.	2.
210. *	2.	2.	2.	1.	0.	0.	0.	2.	2.	1.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
220. *	2.	2.	3.	2.	1.	0.	1.	3.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.
230. *	3.	2.	3.	2.	1.	0.	1.	3.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.
240. *	2.	2.	2.	2.	1.	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
250. *	2.	2.	2.	3.	2.	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
260. *	2.	2.	2.	2.	2.	1.	2.	3.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
270. *	2.	2.	2.	2.	2.	1.	2.	2.	3.	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
280. *	2.	2.	2.	1.	1.	1.	2.	2.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
290. *	2.	2.	2.	1.	1.	1.	1.	2.	3.	3.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.
300. *	2.	2.	2.	1.	1.	1.	1.	2.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.

310. *	2.	2.	2.	1.	1.	2.	2.	1.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
320. *	2.	2.	2.	1.	1.	2.	2.	2.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
330. *	2.	2.	2.	1.	1.	1.	2.	2.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
340. *	2.	2.	2.	1.	1.	1.	2.	2.	3.	3.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.
350. *	2.	2.	2.	1.	1.	1.	2.	2.	3.	3.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.
360. *	2.	2.	2.	1.	0.	1.	2.	2.	3.	4.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.
MAX *	3.	2.	3.	3.	2.	2.	2.	3.	3.	4.	4.	3.	3.	2.	2.	2.	2.	2.	2.	3.
DEGR. *	230	230	220	250	260	310	340	220	230	0	40	50	40	40	60	100	140	50	170	170

♀ PAGE 6

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0. *	0.	0.	0.	0.	0.	2.	3.	3.	2.	2.	1.	2.	3.	4.	3.	0.	0.	1.	0.	0.
10. *	0.	0.	0.	0.	0.	2.	3.	3.	2.	1.	1.	2.	3.	4.	4.	0.	0.	1.	0.	0.
20. *	0.	0.	0.	0.	0.	1.	3.	3.	2.	1.	1.	2.	4.	4.	4.	0.	0.	1.	0.	0.
30. *	0.	0.	0.	0.	0.	1.	3.	4.	2.	1.	1.	2.	4.	4.	5.	0.	0.	1.	0.	0.
40. *	0.	0.	0.	0.	0.	1.	2.	3.	1.	0.	0.	1.	4.	4.	5.	0.	1.	1.	0.	0.
50. *	0.	0.	0.	0.	0.	1.	2.	3.	0.	0.	0.	1.	3.	4.	4.	1.	1.	1.	0.	0.
60. *	0.	0.	1.	1.	0.	0.	1.	2.	0.	0.	0.	0.	2.	3.	3.	2.	2.	2.	0.	0.
70. *	0.	0.	2.	2.	1.	0.	1.	1.	0.	0.	0.	0.	1.	1.	2.	3.	3.	4.	1.	0.
80. *	0.	0.	3.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	4.	4.	1.	0.
90. *	0.	1.	4.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	4.	4.	2.	0.
100. *	0.	1.	4.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	4.	4.	2.	1.
110. *	1.	2.	4.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	3.	4.	3.	2.
120. *	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	4.	3.	2.
130. *	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	3.	2.
140. *	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	2.
150. *	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	2.
160. *	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	2.
170. *	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
180. *	2.	3.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
190. *	2.	3.	4.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
200. *	2.	3.	4.	4.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	4.	2.	1.
210. *	1.	3.	4.	4.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	4.	2.	1.
220. *	1.	2.	4.	5.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	3.	4.	1.	0.
230. *	0.	1.	4.	4.	5.	1.	1.	0.	0.	0.	0.	0.	1.	0.	0.	2.	3.	3.	0.	0.
240. *	0.	1.	3.	3.	4.	2.	2.	2.	0.	0.	0.	0.	2.	1.	1.	1.	2.	2.	0.	0.
250. *	0.	1.	2.	2.	2.	3.	3.	3.	0.	0.	0.	0.	3.	2.	2.	1.	1.	1.		

```
0.    0.
 260.  *    0.    0.    1.    1.    1.    4.    4.    4.    1.    0.    0.    1.    4.    3.    2.    0.    0.    0.
0.    0.
 270.  *    0.    0.    1.    1.    0.    4.    4.    4.    2.    0.    0.    1.    4.    4.    3.    0.    0.    0.
0.    0.
 280.  *    0.    0.    1.    0.    0.    4.    4.    4.    2.    1.    1.    2.    4.    4.    3.    0.    0.    0.
0.    0.
 290.  *    0.    0.    1.    0.    0.    4.    4.    4.    2.    1.    1.    2.    4.    4.    3.    0.    0.    0.
0.    0.
 300.  *    0.    0.    1.    0.    0.    3.    3.    4.    2.    1.    1.    2.    3.    4.    3.    0.    0.    0.
0.    0.
 310.  *    0.    0.    1.    0.    0.    3.    3.    4.    2.    2.    1.    2.    3.    3.    3.    0.    0.    0.
0.    0.
 320.  *    0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    2.    2.    3.    3.    3.    0.    0.    0.
0.    0.
 330.  *    0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    2.    2.    3.    4.    3.    0.    0.    0.
0.    0.
 340.  *    0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    2.    2.    4.    4.    3.    0.    0.    0.
0.    0.
 350.  *    0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    2.    2.    3.    4.    3.    0.    0.    1.
0.    0.
 360.  *    0.    0.    0.    0.    0.    2.    3.    3.    2.    2.    1.    2.    3.    4.    3.    0.    0.    1.
0.    0.

------*------------------------------------------------------------------------------------------------------------------
-------
 MAX   *    2.    3.    4.    5.    5.    4.    4.    4.    2.    2.    2.    2.    4.    4.    5.    4.    4.    4.
3.    2.
 DEGR. *  170   200   220   220   220   270   260   260   280   330   340   300   270    20    30    80    80    90
120   130

 THE HIGHEST CONCENTRATION OF      5. ug/m**3 OCCURRED AT RECEPTOR REC35.
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2018 Build
Microscale Output Files
(Particulate Matter 10 (PM10))

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♀                    CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221                        PAGE  1

      JOB: Skating Club of Boston                               RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:56:52

         The MODE flag has been set to P for calculating PM averages.

       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =   0.0 CM/S       VD =   0.0 CM/S       Z0 = 175. CM
        U =  1.0 M/S         CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =  0.0 ug/m**3

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*--------------------------------------*-------------------------------------------------
----
       1. Soldier/Jug SB LTR  *   5198.9    6311.7    5198.2    6339.8 *      28.   359. AG      0. 100.0   1.0 20.0
0.26   1.4
       2. Soldier/Jug WB TT   *   5228.8    6294.1    5339.5    6355.9 *     127.    61. AG      0. 100.0   1.0 20.0
0.86   6.4
       3. Soldier/Jug NB LTR  *   5237.6    6215.9    5236.1    6146.8 *      69.   181. AG      0. 100.0   1.0 10.0
0.64   3.5
       4. Soldiers/Jug EB TTR *   5191.9    6230.9    5106.8    6191.2 *      94.   245. AG      0. 100.0   1.0 20.0
0.77   4.8
       5. Western/Ever SB LTR *   5231.8    5725.2    5234.0    5819.6 *      94.     1. AG      0. 100.0   1.0 10.0
0.69   4.8
       6. Western/Ever WB LTR *   5264.9    5714.2    8820.8    6319.8 *    3607.    80. AG      0. 100.0   1.0 10.0
1.60 183.2
       7. West/Ever NB LTR    *   5233.9    5654.6    5211.1    5587.3 *      71.   199. AG      0. 100.0   1.0 20.0
0.53   3.6
       8. West/Ever EB LTR    *   5190.3    5675.7    5069.7    5661.3 *     121.   263. AG      0. 100.0   1.0 20.0
0.74   6.2
       9. Ever/Rt20 SB LR     *   4193.6    2489.0    4257.1    2708.2 *     228.    16. AG      0. 100.0   1.0 10.0
0.92  11.6
      10. Ever/Rt20 WB TR     *   4221.0    2443.1    4338.6    2419.1 *     120.   102. AG      0. 100.0   1.0 20.0
0.50   6.1
      11. Ever/Rt20 EB LTT    *   4155.5    2436.3    3975.8    2468.1 *     183.   280. AG      0. 100.0   1.0 20.0
0.77   9.3
      12. Camb/Linc SB LR     *   7036.1    3650.1    7007.1    3709.6 *      66.   334. AG      0. 100.0   1.0 20.0
0.59   3.4
      13. Camb/Linc WB L      *   7113.8    3630.4    7116.0    3631.5 *       2.    63. AG      0. 100.0   1.0 10.0
0.02   0.1
      14. Camb/Linc WB TTR    *   7096.3    3646.8    7311.7    3757.2 *     242.    63. AG      0. 100.0   1.0 20.0
0.92  12.3
      15. Camb/Linc NB LTR    *   7116.0    3570.3    7116.2    3567.9 *       2.   175. AG      0. 100.0   1.0 10.0
0.02   0.1
      16. Camb/Linc EB L      *   7032.9    3580.1    6963.7    3546.9 *      77.   244. AG      0. 100.0   1.0 10.0
0.71   3.9
      17. Camb/Linc EB TTTR   *   7047.4    3560.7    6922.6    3501.2 *     138.   245. AG      0. 100.0   1.0 30.0
0.67   7.0
      18. Birm/Linc SB R      *   2027.5    4361.0    2037.6    4379.2 *      21.    29. AG      0. 100.0   1.0 10.0
0.16   1.1
      19. Birm/Linc SB TT     *   2045.2    4353.0    2092.7    4437.9 *      97.    29. AG      0. 100.0   1.0 20.0
0.56   4.9
      20. Birm/Linc WB LTR    *   2100.9    4264.2    2178.0    4247.2 *      79.   102. AG      0. 100.0   1.0 20.0
0.72   4.0
      21. Birm/Linc NB LTT    *   2029.7    4188.8    1974.9    4074.0 *     127.   205. AG      0. 100.0   1.0 20.0
0.74   6.5
      22. Birm/Linc EB LLTR   *   1966.7    4229.9    1921.8    4209.9 *      49.   246. AG      0. 100.0   1.0 20.0
0.58   2.5
      23. Soldier/Jug N       *   5199.2    6279.5    5199.2    6392.5 *     113.   360. AG    228.   0.0   1.0 42.0
      24. Soldier/Jug E-N     *   5199.2    6277.6    5400.6    6380.6 *     226.    63. AG   1597.   0.0   1.0 42.0
      25. Soldier/Jug E-S     *   5219.3    6237.5    5420.9    6345.5 *     229.    62. AG   1600.   0.0   1.0 42.0
      26. Soldier/Jug S       *   5235.5    6245.2    5234.6    6031.1 *     214.   180. AG    526.   0.0   1.0 42.0
      27. Soldier/Jug W-S     *   5214.5    6245.3    4975.3    6130.9 *     265.   244. AG   1431.   0.0   1.0 42.0
      28. Soldier/Jug W-N     *   5200.4    6278.0    4964.5    6172.3 *     258.   246. AG   1692.   0.0   1.0 42.0
      29. West/Ever N         *   5233.5    5697.0    5238.2    5899.5 *     203.     1. AG    524.   0.0   1.0 42.0
      30. West/Ever E         *   5233.5    5697.0    5535.4    5747.6 *     306.    80. AG   1620.   0.0   1.0 66.0
      31. West/Ever S         *   5236.3    5680.7    5158.2    5443.1 *     250.   198. AG    975.   0.0   1.0 54.0
      32. West/Ever W         *   5233.5    5697.0    4823.3    5637.1 *     415.   262. AG   1542.   0.0   1.0 60.0
      33. Ever/Rt20 N         *   4192.8    2443.9    4258.3    2688.4 *     253.    15. AG    776.   0.0   1.0 42.0
      34. Ever/Rt20 E         *   4192.8    2443.9    4427.9    2396.0 *     240.   102. AG   2060.   0.0   1.0 54.0
      35. Ever/Rt20 W         *   4192.8    2443.9    3904.9    2491.9 *     292.   279. AG   2028.   0.0   1.0 54.0
      36. Birm/Linc N-SB      *   1998.6    4296.0    2178.7    4628.9 *     378.    28. AG   1152.   0.0   1.0 54.0
      37. Birm/Linc N NB      *   2048.6    4265.6    2230.3    4606.5 *     386.    28. AG   1352.   0.0   1.0 54.0
      38. Birm/Linc E         *   2048.6    4272.0    2312.0    4209.5 *     271.   103. AG    385.   0.0   1.0 42.0
      39. Birm/Linc S         *   2043.8    4251.5    1930.5    4004.1 *     272.   205. AG   2426.   0.0   1.0 66.0
      40. Birm/Linc W-EB      *   2011.4    4253.5    1764.6    4138.7 *     272.   245. AG    246.   0.0   1.0 42.0
      41. Birm/Linc W-WB      *   1974.5    4286.0    1744.8    4182.6 *     252.   246. AG    518.   0.0   1.0 42.0
      42. Camb/Linc N         *   7068.0    3604.4    6989.0    3770.3 *     184.   335. AG    657.   0.0   1.0 60.0
      43. Camb/Linc E         *   7068.0    3604.4    7289.3    3709.9 *     245.    65. AG   3857.   0.0   1.0 ****
      44. Camb/Linc S         *   7111.5    3599.6    7116.3    3391.9 *     208.   179. AG     10.   0.0   1.0 42.0
♀                                                                                                             PAGE  2
      JOB: Skating Club of Boston                               RUN: 2018BD
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      DATE :  8/22/13
      TIME : 21:56:52

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*--------------------------------------*-------------------------------------------------
----
      45. Camb/Linc W         *   7068.0    3604.4    6777.8    3466.0 *     321.   244. AG   3591.   0.0   1.0 ****
♀                                                                                                             PAGE  3
      JOB: Skating Club of Boston                               RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:56:52

       1. Soldier/Jug SB LTR  *      69        45       3.0        228       1600       0.07      1        3
       2. Soldier/Jug WB TT   *      69        24       3.0       1597       1600       0.07      1        3
       3. Soldier/Jug NB LTR  *      69        45       3.0        281       1600       0.07      1        3
       4. Soldiers/Jug EB TTR *      69        24       3.0       1431       1600       0.07      1        3
       5. Western/Ever SB LTR *      90        63       3.0        271       1600       0.07      1        3
       6. Western/Ever WB LTR *      90        55       3.0        855       1600       0.07      1        3
       7. West/Ever NB LTR    *      90        63       3.0        412       1600       0.07      1        3
       8. West/Ever EB LTR    *      90        55       3.0        794       1600       0.07      1        3
       9. Ever/Rt20 SB LR     *     119        80       3.0        419       1600       0.07      1        3
      10. Ever/Rt20 WB TR     *     119        55       3.0        799       1600       0.07      1        3
      11. Ever/Rt20 EB LTT    *     119        55       3.0       1214       1600       0.07      1        3
      12. Camb/Linc SB LR     *     110        89       3.0        272       1600       0.07      1        3
      13. Camb/Linc WB L      *     110        91       3.0          5       1600       0.07      1        3
      14. Camb/Linc WB TTR    *     110        40       3.0       1744       1600       0.07      1        3
      15. Camb/Linc NB LTR    *     110        89       3.0          5       1600       0.07      1        3
      16. Camb/Linc EB L      *     110        91       3.0        144       1600       0.07      1        3
      17. Camb/Linc EB TTTR   *     110        40       3.0       1898       1600       0.07      1        3
      18. Birm/Linc SB R      *      90        20       3.0        190       1600       0.07      1        3
      19. Birm/Linc SB TT     *      90        37       3.0        962       1600       0.07      1        3
      20. Birm/Linc WB LTR    *      90        70       3.0        385       1600       0.07      1        3
      21. Birm/Linc NB LTT    *      90        37       3.0       1259       1600       0.07      1        3
      22. Birm/Linc EB LLTR   *      90        73       3.0        246       1600       0.07      1        3

       RECEPTOR LOCATIONS
       ------------------
                              *          COORDINATES (FT)         *
         RECEPTOR             *      X          Y          Z      *
     -------------------------*-----------------------------------*
       1. Soldiers/Jug NE1    *      5230.2     6478.3       6.0   *
       2. Soldiers/Jug NE2    *      5230.2     6403.2       6.0   *
       3. Soldiers/Jug NE3    *      5230.2     6328.3       6.0   *
       4. Soldiers/Jug NE4    *      5297.0     6362.4       6.0   *
       5. Soldiers/Jug NE5    *      5363.7     6396.6       6.0   *
       6. Soldiers/Jug SE1    *      5398.7     6298.4       6.0   *
       7. Soldiers/Jug SE2    *      5332.5     6263.0       6.0   *
       8. Soldiers/Jug SE3    *      5266.4     6227.6       6.0   *
       9. Soldiers/Jug SE4    *      5266.4     6152.6       6.0   *
      10. Soldiers/Jug SE5    *      5265.8     6077.6       6.0   *
      11. Soldiers/Jug SW1    *      5204.3     6056.0       6.0   *
      12. Soldiers/Jug SW2    *      5204.0     6131.0       6.0   *
      13. Soldiers/Jug SW3    *      5204.3     6206.0       6.0   *
      14. Soldiers/Jug SW4    *      5136.6     6173.7       6.0   *
      15. Soldiers/Jug SW5    *      5069.0     6141.4       6.0   *
      16. Soldiers/Jug NW1    *      5031.3     6236.2       6.0   *
      17. Soldiers/Jug NW2    *      5099.8     6266.9       6.0   *
      18. Soldiers/Jug NW3    *      5168.2     6297.6       6.0   *
      19. Soldiers/Jug NW4    *      5168.2     6372.6       6.0   *
      20. Soldiers/Jug NW5    *      5168.2     6447.6       6.0   *
      21. Western/Ever NE1    *      5269.1     5895.9       6.0   *
      22. Western/Ever NE2    *      5267.4     5821.0       6.0   *
      23. Western/Ever NE3    *      5265.7     5746.0       6.0   *
      24. Western/Ever NE4    *      5339.6     5758.4       6.0   *
      25. Western/Ever NE5    *      5413.6     5770.8       6.0   *
      26. Western/Ever SE1    *      5416.1     5684.0       6.0   *
      27. Western/Ever SE2    *      5342.1     5671.6       6.0   *
      28. Western/Ever SE3    *      5268.1     5659.2       6.0   *
      29. Western/Ever SE4    *      5244.7     5587.9       6.0   *
♀                                                                                                             PAGE  4
      JOB: Skating Club of Boston                               RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:56:52


       RECEPTOR LOCATIONS
       ------------------
                              *          COORDINATES (FT)         *
         RECEPTOR             *      X          Y          Z      *
     -------------------------*-----------------------------------*
      30. Western/Ever SE5    *      5221.3     5516.7       6.0   *
      31. Western/Ever SW1    *      5140.4     5507.3       6.0   *
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32.	Western/Ever SW2	*	5163.8	5578.5	6.0 *
33.	Western/Ever SW3	*	5187.2	5649.8	6.0 *
34.	Western/Ever SW4	*	5113.0	5639.0	6.0 *
35.	Western/Ever SW5	*	5038.7	5628.1	6.0 *
36.	Western/Ever NW1	*	5054.9	5711.3	6.0 *
37.	Western/Ever NW2	*	5129.1	5722.2	6.0 *
38.	Western/Ever NW3	*	5203.4	5733.0	6.0 *
39.	Western/Ever NW4	*	5205.1	5808.0	6.0 *
40.	Western/Ever NW5	*	5206.8	5883.0	6.0 *
41.	Ever/Rt20 NE1	*	4271.6	2618.4	6.0 *
42.	Ever/Rt20 NE2	*	4252.2	2546.0	6.0 *
43.	Ever/Rt20 NE3	*	4232.8	2473.5	6.0 *
44.	Ever/Rt20 NE4	*	4306.3	2458.5	6.0 *
45.	Ever/Rt20 NE5	*	4379.8	2443.6	6.0 *
46.	Ever/Rt20 S1	*	4333.0	2377.6	6.0 *
47.	Ever/Rt20 S2	*	4259.5	2392.6	6.0 *
48.	Ever/Rt20 S3	*	4186.0	2407.5	6.0 *
49.	Ever/Rt20 S4	*	4112.0	2419.9	6.0 *
50.	Ever/Rt20 S5	*	4038.1	2432.2	6.0 *
51.	Ever/Rt20 NW1	*	4023.7	2509.6	6.0 *
52.	Ever/Rt20 NW2	*	4097.7	2497.3	6.0 *
53.	Ever/Rt20 NW3	*	4171.7	2485.0	6.0 *
54.	Ever/Rt20 NW4	*	4191.1	2557.4	6.0 *
55.	Ever/Rt20 NW5	*	4210.5	2629.8	6.0 *

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
	CONCENTRATION (ug/m**3)																			
0. *	0.	0.	0.	0.	0.	2.	2.	3.	2.	1.	1.	2.	2.	3.	2.	0.	0.	0.	0.	0.
10. *	0.	0.	0.	0.	0.	2.	2.	3.	2.	1.	2.	2.	3.	3.	2.	0.	0.	0.	0.	0.
20. *	0.	0.	0.	0.	0.	1.	2.	3.	1.	1.	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.
30. *	0.	0.	0.	0.	0.	1.	2.	3.	1.	0.	1.	2.	3.	4.	3.	0.	0.	0.	0.	0.
40. *	0.	0.	0.	0.	0.	1.	2.	3.	1.	0.	1.	2.	4.	3.	3.	0.	0.	1.	0.	0.
50. *	0.	0.	0.	0.	0.	0.	1.	2.	0.	0.	1.	1.	3.	3.	3.	0.	0.	1.	0.	0.
60. *	0.	0.	1.	0.	0.	0.	1.	1.	0.	0.	0.	1.	2.	2.	2.	1.	1.	2.	0.	0.
70. *	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	1.	2.	1.	1.	2.	2.	2.	0.	0.
80. *	0.	0.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	3.	3.	3.	1.	0.
90. *	0.	0.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	3.	3.	3.	1.	0.
100. *	0.	1.	3.	2.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	4.	3.	3.	1.	0.
110. *	0.	1.	3.	3.	1.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	1.
120. *	0.	1.	3.	3.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	3.	3.	3.	2.	1.
130. *	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	1.
140. *	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	3.	3.	3.	2.	1.
150. *	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	3.	3.	3.	2.	1.
160. *	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	1.
170. *	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	3.	3.	3.	2.	2.
180. *	2.	2.	3.	3.	3.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.	2.	3.	3.	2.	2.
190. *	1.	2.	3.	3.	3.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	3.	3.	3.	2.	1.
200. *	1.	2.	3.	4.	3.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
210. *	1.	2.	3.	4.	3.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	2.	3.	3.	1.	1.
220. *	1.	1.	3.	4.	4.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	2.	3.	3.	1.	0.
230. *	0.	1.	3.	3.	3.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	2.	3.	0.	0.
240. *	0.	0.	2.	2.	2.	2.	2.	2.	0.	0.	0.	0.	1.	0.	0.	1.	1.	2.	0.	0.
250. *	0.	0.	2.	1.	1.	3.	2.	2.	1.	0.	0.	0.	2.	1.	1.	0.	1.	1.	0.	0.
260. *	0.	0.	1.	0.	0.	3.	3.	3.	1.	0.	0.	0.	3.	2.	1.	0.	0.	0.	0.	0.
270. *	0.	0.	1.	0.	0.	3.	3.	4.	2.	1.	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.
280. *	0.	0.	1.	0.	0.	3.	3.	4.	2.	1.	0.	1.	3.	3.	2.	0.	0.	0.	0.	0.
290. *	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.	0.	1.	3.	3.	2.	0.	0.	0.	0.	0.
300. *	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.	1.	1.	3.	3.	2.	0.	0.	0.	0.	0.
310. *	0.	0.	0.	0.	0.	2.	3.	3.	2.	2.	1.	1.	3.	3.	2.	0.	0.	0.	0.	0.
320. *	0.	0.	0.	0.	0.	2.	2.	3.	2.	2.	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.
330. *	0.	0.	0.	0.	0.	2.	3.	3.	2.	2.	1.	2.	2.	3.	2.	0.	0.	0.	0.	0.
340. *	0.	0.	0.	0.	0.	2.	3.	3.	2.	2.	1.	1.	3.	3.	2.	0.	0.	0.	0.	0.
350. *	0.	0.	0.	0.	0.	2.	2.	3.	2.	1.	1.	2.	3.	3.	2.	0.	0.	0.	0.	0.
360. *	0.	0.	0.	0.	0.	2.	2.	3.	2.	1.	1.	2.	2.	3.	2.	0.	0.	0.	0.	0.
MAX *	2.	2.	3.	4.	4.	3.	3.	4.	2.	2.	2.	2.	4.	4.	3.	4.	3.	3.	2.	2.
DEGR. *	180	200	190	210	220	260	270	270	310	330	20	30	40	30	40	100	100	180	160	180

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
	CONCENTRATION (ug/m**3)																			
0. *	1.	1.	1.	0.	0.	2.	2.	2.	3.	2.	1.	2.	2.	2.	2.	0.	1.	1.	1.	1.
10. *	1.	1.	0.	0.	0.	2.	2.	2.	2.	2.	2.	2.	3.	2.	2.	1.	0.	1.	1.	1.
20. *	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	2.	2.	2.	0.	0.	1.	1.	0.
30. *	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	2.	3.	2.	0.	0.	1.	1.	0.
40. *	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	3.	3.	2.	0.	0.	1.	0.	0.
50. *	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.	2.	2.	3.	3.	2.	0.	0.	1.	0.	0.
60. *	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.	2.	2.	3.	3.	3.	0.	0.	1.	1.	0.
70. *	0.	0.	0.	0.	0.	1.	2.	2.	0.	0.	1.	2.	3.	3.	3.	1.	1.	1.	1.	0.
80. *	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.	1.	2.	2.	2.	2.	2.	2.	2.	1.	0.
90. *	0.	0.	2.	2.	1.	0.	0.	0.	0.	0.	1.	1.	2.	2.	1.	2.	2.	3.	1.	1.
100. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.	3.	2.	3.	2.	1.
110. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	3.	2.	2.	2.	1.
120. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	3.	2.	2.	2.	1.
130. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	2.	2.	2.	2.	1.
140. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	2.	2.	2.	2.	1.
150. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.
160. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.
170. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	2.

180.	1.	2.	2.	2.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	1.	2.	2.	2.	1.
190.	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	1.	2.	2.	1.	1.
200.	2.	2.	3.	2.	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
210.	1.	2.	3.	2.	2.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
220.	1.	2.	3.	3.	2.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
230.	1.	2.	3.	3.	3.	0.	1.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
240.	1.	2.	3.	3.	3.	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
250.	0.	1.	3.	3.	2.	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	0.	0.
260.	0.	1.	2.	2.	2.	2.	2.	2.	1.	1.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.
270.	0.	1.	1.	1.	1.	2.	2.	3.	2.	1.	0.	0.	2.	2.	1.	0.	0.	1.	0.	0.
280.	0.	1.	1.	0.	0.	2.	2.	3.	2.	1.	0.	0.	3.	2.	2.	0.	0.	0.	0.	0.
290.	0.	0.	1.	0.	0.	2.	2.	3.	2.	1.	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.
300.	0.	0.	1.	0.	0.	2.	2.	2.	2.	1.	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.
310.	0.	1.	1.	0.	0.	2.	2.	2.	3.	2.	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.
320.	0.	1.	1.	0.	0.	2.	2.	2.	2.	2.	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.
330.	1.	1.	1.	1.	1.	2.	2.	2.	3.	2.	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.
340.	1.	1.	1.	1.	0.	2.	2.	2.	3.	2.	1.	1.	2.	2.	1.	0.	0.	0.	0.	1.
350.	1.	1.	1.	0.	0.	2.	2.	3.	3.	2.	1.	1.	2.	2.	2.	0.	0.	0.	1.	1.
360.	1.	1.	1.	0.	0.	2.	2.	2.	3.	2.	1.	2.	2.	2.	2.	0.	1.	1.	1.	1.
MAX	2.	2.	3.	3.	3.	2.	2.	3.	3.	2.	2.	2.	3.	3.	3.	3.	2.	3.	2.	2.
DEGR.	200	200	210	230	240	270	280	280	350	0	40	50	60	70	70	100	110	100	150	170

PAGE 7

JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (ug/m**3) REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	0.	1.	1.	0.	0.	2.	3.	3.	2.	2.	0.	0.	0.	0.	0.
10.	0.	1.	1.	0.	0.	2.	2.	3.	2.	2.	0.	0.	0.	0.	0.
20.	0.	0.	0.	0.	0.	2.	2.	3.	3.	2.	0.	0.	1.	1.	0.
30.	0.	0.	0.	0.	0.	2.	2.	3.	3.	2.	0.	0.	1.	1.	1.
40.	0.	0.	0.	0.	0.	2.	2.	2.	3.	3.	0.	0.	1.	1.	1.
50.	0.	0.	0.	0.	0.	2.	2.	2.	3.	3.	0.	0.	1.	1.	1.
60.	0.	0.	0.	0.	0.	2.	2.	3.	3.	3.	0.	0.	1.	1.	1.
70.	0.	0.	0.	0.	0.	2.	3.	3.	3.	3.	0.	0.	1.	1.	1.
80.	0.	0.	0.	0.	0.	2.	2.	3.	3.	4.	0.	1.	1.	1.	1.
90.	0.	0.	0.	0.	0.	1.	2.	2.	3.	3.	1.	1.	1.	1.	1.
100.	0.	0.	1.	1.	0.	1.	1.	2.	2.	2.	2.	2.	2.	1.	1.
110.	0.	0.	2.	1.	1.	0.	0.	1.	1.	1.	3.	3.	3.	1.	1.
120.	0.	0.	3.	2.	1.	0.	0.	0.	0.	0.	3.	3.	4.	2.	1.
130.	0.	1.	3.	2.	1.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
140.	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.	3.	2.	3.	2.	2.
150.	0.	1.	3.	2.	2.	0.	0.	0.	0.	0.	2.	2.	3.	2.	2.
160.	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	2.	2.
170.	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	2.	2.
180.	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	2.	2.
190.	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.
200.	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
210.	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
220.	2.	2.	2.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
230.	2.	2.	3.	2.	2.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
240.	2.	2.	3.	3.	2.	0.	0.	0.	0.	0.	2.	2.	3.	1.	1.
250.	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.	2.	3.	3.	1.	0.
260.	1.	2.	4.	3.	3.	0.	0.	0.	0.	0.	2.	2.	3.	0.	0.
270.	1.	1.	3.	3.	3.	1.	1.	1.	1.	0.	1.	2.	2.	0.	0.

280.	1.	1.	2.	2.	2.	2.	2.	2.	2.	1.	1.	1.	1.	0.	0.
290.	1.	1.	1.	1.	1.	3.	3.	3.	2.	2.	0.	0.	0.	0.	0.
300.	1.	1.	1.	1.	1.	3.	3.	3.	3.	2.	0.	0.	0.	0.	0.
310.	1.	1.	1.	0.	0.	3.	3.	3.	3.	3.	0.	0.	0.	0.	0.
320.	1.	1.	1.	0.	0.	3.	3.	2.	3.	3.	0.	0.	0.	0.	0.
330.	1.	1.	1.	0.	0.	3.	3.	2.	3.	3.	0.	0.	0.	0.	0.
340.	1.	1.	1.	0.	0.	3.	3.	2.	2.	2.	0.	0.	0.	0.	0.
350.	1.	1.	1.	0.	0.	2.	3.	2.	2.	2.	0.	0.	0.	0.	0.
360.	0.	1.	1.	0.	0.	2.	3.	3.	2.	2.	0.	0.	0.	0.	0.
MAX	2.	2.	4.	3.	3.	3.	3.	3.	3.	4.	3.	3.	4.	2.	2.
DEGR.	230	240	260	260	260	300	320	10	60	80	120	120	120	140	160

THE HIGHEST CONCENTRATION OF 4. ug/m**3 OCCURRED AT RECEPTOR REC4 .

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♀                     CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221                         PAGE  1

      JOB: Skating Club of Boston                            RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:56:42

         The MODE flag has been set to P for calculating PM averages.

       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =   0.0 CM/S       VD =   0.0 CM/S       Z0 = 175. CM
        U =  1.0 M/S         CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =  0.0 ug/m**3

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*---------------------------------------*--------------------------------------------------
----
       1. Soldier/Jug SB LTR  *   5198.9    6311.7    5198.2    6339.8 *      28.   359. AG      0. 100.0   1.0 20.0
0.26   1.4
       2. Soldier/Jug WB TT   *   5228.8    6294.1    5339.5    6355.9 *     127.    61. AG      0. 100.0   1.0 20.0
0.86   6.4
       3. Soldier/Jug NB LTR  *   5237.6    6215.9    5236.1    6146.8 *      69.   181. AG      0. 100.0   1.0 10.0
0.64   3.5
       4. Soldiers/Jug EB TTR *   5191.9    6230.9    5106.8    6191.2 *      94.   245. AG      0. 100.0   1.0 20.0
0.77   4.8
       5. Western/Ever SB LTR *   5231.8    5725.2    5234.0    5819.6 *      94.     1. AG      0. 100.0   1.0 10.0
0.69   4.8
       6. Western/Ever WB LTR *   5264.9    5714.2    8820.8    6319.8 *    3607.    80. AG      0. 100.0   1.0 10.0
1.60 183.2
       7. West/Ever NB LTR    *   5233.9    5654.6    5211.1    5587.3 *      71.   199. AG      0. 100.0   1.0 20.0
0.53   3.6
       8. West/Ever EB LTR    *   5190.3    5675.7    5069.7    5661.3 *     121.   263. AG      0. 100.0   1.0 20.0
0.74   6.2
       9. Ever/Rt20 SB LR     *   4193.6    2489.0    4257.1    2708.2 *     228.    16. AG      0. 100.0   1.0 10.0
0.92  11.6
      10. Ever/Rt20 WB TR     *   4221.0    2443.1    4338.6    2419.1 *     120.   102. AG      0. 100.0   1.0 20.0
0.50   6.1
      11. Ever/Rt20 EB LTT    *   4155.5    2436.3    3975.8    2468.1 *     183.   280. AG      0. 100.0   1.0 20.0
0.77   9.3
      12. Camb/Linc SB LR     *   7036.1    3650.1    7007.1    3709.6 *      66.   334. AG      0. 100.0   1.0 20.0
0.59   3.4
      13. Camb/Linc WB L      *   7113.8    3630.4    7116.0    3631.5 *       2.    63. AG      0. 100.0   1.0 10.0
0.02   0.1
      14. Camb/Linc WB TTR    *   7096.3    3646.8    7311.7    3757.2 *     242.    63. AG      0. 100.0   1.0 20.0
0.92  12.3
      15. Camb/Linc NB LTR    *   7116.0    3570.3    7116.2    3567.9 *       2.   175. AG      0. 100.0   1.0 10.0
0.02   0.1
      16. Camb/Linc EB L      *   7032.9    3580.1    6963.7    3546.9 *      77.   244. AG      0. 100.0   1.0 10.0
0.71   3.9
      17. Camb/Linc EB TTTR   *   7047.4    3560.7    6922.6    3501.2 *     138.   245. AG      0. 100.0   1.0 30.0
0.67   7.0
      18. Birm/Linc SB R      *   2027.5    4361.0    2037.6    4379.2 *      21.    29. AG      0. 100.0   1.0 10.0
0.16   1.1
      19. Birm/Linc SB TT     *   2045.2    4353.0    2092.7    4437.9 *      97.    29. AG      0. 100.0   1.0 20.0
0.56   4.9
      20. Birm/Linc WB LTR    *   2100.9    4264.2    2178.0    4247.2 *      79.   102. AG      0. 100.0   1.0 20.0
0.72   4.0
      21. Birm/Linc NB LTT    *   2029.7    4188.8    1974.9    4074.0 *     127.   205. AG      0. 100.0   1.0 20.0
0.74   6.5
      22. Birm/Linc EB LLTR   *   1966.7    4229.9    1921.8    4209.9 *      49.   246. AG      0. 100.0   1.0 20.0
0.58   2.5
      23. Soldier/Jug N       *   5199.2    6279.5    5199.2    6392.5 *     113.   360. AG   228.    0.0   1.0 42.0
      24. Soldier/Jug E-N     *   5199.2    6277.6    5400.6    6380.6 *     226.    63. AG  1597.    0.0   1.0 42.0
      25. Soldier/Jug E-S     *   5219.3    6237.5    5420.9    6345.5 *     229.    62. AG  1600.    0.0   1.0 42.0
      26. Soldier/Jug S       *   5235.5    6245.2    5234.6    6031.1 *     214.   180. AG   526.    0.0   1.0 42.0
      27. Soldier/Jug W-S     *   5214.5    6245.3    4975.3    6130.9 *     265.   244. AG  1431.    0.0   1.0 42.0
      28. Soldier/Jug W-N     *   5200.4    6278.0    4964.5    6172.3 *     258.   246. AG  1692.    0.0   1.0 42.0
      29. West/Ever N         *   5233.5    5697.0    5238.2    5899.5 *     203.     1. AG   524.    0.0   1.0 42.0
      30. West/Ever E         *   5233.5    5697.0    5535.4    5747.6 *     306.    80. AG  1620.    0.0   1.0 66.0
      31. West/Ever S         *   5236.3    5680.7    5158.2    5443.1 *     250.   198. AG   975.    0.0   1.0 54.0
      32. West/Ever W         *   5233.5    5697.0    4823.3    5637.1 *     415.   262. AG  1542.    0.0   1.0 60.0
      33. Ever/Rt20 N         *   4192.8    2443.9    4258.3    2688.4 *     253.    15. AG   776.    0.0   1.0 42.0
      34. Ever/Rt20 E         *   4192.8    2443.9    4427.9    2396.0 *     240.   102. AG  2060.    0.0   1.0 54.0
      35. Ever/Rt20 W         *   4192.8    2443.9    3904.9    2491.9 *     292.   279. AG  2028.    0.0   1.0 54.0
      36. Birm/Linc N-SB      *   1998.6    4296.0    2178.7    4628.9 *     378.    28. AG  1152.    0.0   1.0 54.0
      37. Birm/Linc N NB      *   2048.6    4265.6    2230.3    4606.5 *     386.    28. AG  1352.    0.0   1.0 54.0
      38. Birm/Linc E         *   2048.6    4272.0    2312.0    4209.5 *     271.   103. AG   385.    0.0   1.0 42.0
      39. Birm/Linc S         *   2043.8    4251.5    1930.5    4004.1 *     272.   205. AG  2426.    0.0   1.0 66.0
      40. Birm/Linc W-EB      *   2011.4    4253.5    1764.6    4138.7 *     272.   245. AG   246.    0.0   1.0 42.0
      41. Birm/Linc W-WB      *   1974.5    4286.0    1744.8    4182.6 *     252.   246. AG   518.    0.0   1.0 42.0
      42. Camb/Linc N         *   7068.0    3604.4    6989.0    3770.3 *     184.   335. AG   657.    0.0   1.0 60.0
      43. Camb/Linc E         *   7068.0    3604.4    7289.3    3709.9 *     245.    65. AG  3857.    0.0   1.0 ****
      44. Camb/Linc S         *   7111.5    3599.6    7116.3    3391.9 *     208.   179. AG    10.    0.0   1.0 42.0
♀                                                                                                             PAGE  2
      JOB: Skating Club of Boston                            RUN: 2018BD
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2018BD_2_PM10.out

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      DATE :  8/22/13
      TIME : 21:56:42

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*---------------------------------------*--------------------------------------------------
----
      45. Camb/Linc W         *   7068.0    3604.4    6777.8    3466.0 *     321.   244. AG  3591.    0.0   1.0 ****
♀                                                                                                             PAGE  3
      JOB: Skating Club of Boston                            RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:56:42

       1. Soldier/Jug SB LTR  *      69       45       3.0       228      1600      0.07      1        3
       2. Soldier/Jug WB TT   *      69       24       3.0      1597      1600      0.07      1        3
       3. Soldier/Jug NB LTR  *      69       45       3.0       281      1600      0.07      1        3
       4. Soldiers/Jug EB TTR *      69       24       3.0      1431      1600      0.07      1        3
       5. Western/Ever SB LTR *      90       63       3.0       271      1600      0.07      1        3
       6. Western/Ever WB LTR *      90       55       3.0       855      1600      0.07      1        3
       7. West/Ever NB LTR    *      90       63       3.0       412      1600      0.07      1        3
       8. West/Ever EB LTR    *      90       55       3.0       794      1600      0.07      1        3
       9. Ever/Rt20 SB LR     *     119       80       3.0       419      1600      0.07      1        3
      10. Ever/Rt20 WB TR     *     119       55       3.0       799      1600      0.07      1        3
      11. Ever/Rt20 EB LTT    *     119       55       3.0      1214      1600      0.07      1        3
      12. Camb/Linc SB LR     *     110       89       3.0       272      1600      0.07      1        3
      13. Camb/Linc WB L      *     110       91       3.0         5      1600      0.07      1        3
      14. Camb/Linc WB TTR    *     110       40       3.0      1744      1600      0.07      1        3
      15. Camb/Linc NB LTR    *     110       89       3.0         5      1600      0.07      1        3
      16. Camb/Linc EB L      *     110       91       3.0       144      1600      0.07      1        3
      17. Camb/Linc EB TTTR   *     110       40       3.0      1898      1600      0.07      1        3
      18. Birm/Linc SB R      *      90       20       3.0       190      1600      0.07      1        3
      19. Birm/Linc SB TT     *      90       37       3.0       962      1600      0.07      1        3
      20. Birm/Linc WB LTR    *      90       70       3.0       385      1600      0.07      1        3
      21. Birm/Linc NB LTT    *      90       37       3.0      1259      1600      0.07      1        3
      22. Birm/Linc EB LLTR   *      90       73       3.0       246      1600      0.07      1        3

       RECEPTOR LOCATIONS
       ------------------
                              *       COORDINATES (FT)          *
         RECEPTOR             *      X          Y          Z    *
     -------------------------*---------------------------------*
      1. Birm/Linc NE1        *      2174.4     4423.1       6.0   *
      2. Birm/Linc NE2        *      2139.2     4356.9       6.0   *
      3. Birm/Linc NE3        *      2103.9     4290.7       6.0   *
      4. Birm/Linc NE4        *      2176.9     4273.4       6.0   *
      5. Birm/Linc NE5        *      2249.9     4256.1       6.0   *
      6. Birm/Linc SE1        *      2228.1     4197.6       6.0   *
      7. Birm/Linc SE2        *      2130.7     4220.7       6.0   *
      8. Birm/Linc SE3        *      2082.2     4232.2       6.0   *
      9. Birm/Linc SE4        *      2051.0     4164.0       6.0   *
     10. Birm/Linc SE5        *      2019.8     4095.8       6.0   *
     11. Birm/Linc SW1        *      1911.3     4065.4       6.0   *
     12. Birm/Linc SW2        *      1942.5     4133.5       6.0   *
     13. Birm/Linc SW3        *      1973.7     4201.7       6.0   *
     14. Birm/Linc SW4        *      1905.7     4170.1       6.0   *
     15. Birm/Linc SW5        *      1837.7     4138.5       6.0   *
     16. Birm/Linc NW1        *      1831.2     4255.5       6.0   *
     17. Birm/Linc NW2        *      1899.6     4286.3       6.0   *
     18. Birm/Linc NW3        *      1968.0     4317.1       6.0   *
     19. Birm/Linc NW4        *      2003.6     4383.1       6.0   *
     20. Birm/Linc NW5        *      2039.3     4449.0       6.0   *
     21. Camb/Linc NE1        *      7013.4     3812.1       6.0   *
     22. Camb/Linc NE2        *      7045.6     3744.4       6.0   *
     23. Camb/Linc NE3        *      7077.9     3676.7       6.0   *
     24. Camb/Linc NE4        *      7145.6     3709.0       6.0   *
     25. Camb/Linc NE5        *      7213.3     3741.2       6.0   *
     26. Camb/Linc SE1        *      7278.5     3637.2       6.0   *
     27. Camb/Linc SE2        *      7210.8     3604.9       6.0   *
     28. Camb/Linc SE3        *      7143.1     3572.7       6.0   *
     29. Camb/Linc SE4        *      7144.9     3497.7       6.0   *
♀                                                                                                             PAGE  4
      JOB: Skating Club of Boston                            RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:56:42


       RECEPTOR LOCATIONS
       ------------------
                              *       COORDINATES (FT)          *
         RECEPTOR             *      X          Y          Z    *
     -------------------------*---------------------------------*
     30. Camb/Linc SE5        *      7146.6     3422.7       6.0   *
     31. Camb/Linc SW1        *      7085.3     3393.5       6.0   *
```

32. Camb/Linc SW2	*	7083.5	3468.5	6.0	*
33. Camb/Linc SW3	*	7081.8	3543.4	6.0	*
34. Camb/Linc SW4	*	7014.1	3511.1	6.0	*
35. Camb/Linc SW5	*	6946.4	3478.8	6.0	*
36. Camb/Linc NW1	*	6870.3	3577.7	6.0	*
37. Camb/Linc NW2	*	6938.0	3610.0	6.0	*
38. Camb/Linc NW3	*	7005.6	3642.3	6.0	*
39. Camb/Linc NW4	*	6973.4	3710.0	6.0	*
40. Camb/Linc NW5	*	6941.2	3777.7	6.0	*

♀ PAGE 5

JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	2.	2.	2.	1.	0.	1.	2.	2.	3.	4.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.
10. *	2.	2.	2.	0.	0.	0.	2.	2.	3.	3.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.
20. *	1.	2.	2.	0.	0.	0.	2.	2.	2.	2.	2.	2.	2.	1.	1.	0.	0.	0.	0.	0.
30. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	1.	3.	3.	2.	2.	1.	0.	0.	1.	1.	1.
40. *	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	4.	3.	3.	2.	2.	0.	1.	2.	2.	1.
50. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	2.	1.	1.	2.	2.	2.
60. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	2.	1.	2.	2.	2.	2.
70. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	3.	3.	3.	2.	1.	1.	2.	2.	2.	2.
80. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	2.	3.	2.	2.	1.	1.	1.	2.	2.	2.
90. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	2.	2.	2.	2.	1.	2.	1.	2.	2.	2.
100. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	2.	2.	2.	2.	2.
110. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	2.	2.	2.	2.	2.
120. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	2.	2.	2.	2.	2.
130. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	2.	2.	1.	2.	2.
140. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.	1.	2.	1.	2.	2.
150. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	2.	3.	1.	0.	1.	2.	2.	2.	2.
160. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	2.	2.	3.	1.	0.	1.	2.	2.	2.	2.
170. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	2.	3.	1.	0.	1.	2.	2.	2.	3.
180. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	2.	3.	0.	0.	1.	1.	2.	2.	3.
190. *	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	1.	2.	2.	0.	0.	1.	1.	2.	2.	2.
200. *	1.	1.	2.	1.	0.	0.	0.	1.	1.	0.	0.	1.	2.	0.	0.	1.	1.	1.	1.	2.
210. *	2.	2.	2.	1.	0.	0.	0.	2.	2.	1.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
220. *	2.	2.	3.	2.	1.	0.	1.	3.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.
230. *	3.	2.	3.	2.	1.	0.	1.	3.	3.	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.
240. *	2.	2.	2.	2.	1.	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
250. *	2.	2.	2.	3.	2.	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
260. *	2.	2.	2.	2.	2.	1.	2.	3.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
270. *	2.	2.	2.	2.	2.	1.	2.	2.	3.	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
280. *	2.	2.	2.	1.	1.	1.	2.	2.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
290. *	2.	2.	2.	1.	1.	1.	1.	2.	3.	3.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.
300. *	2.	2.	2.	1.	1.	1.	1.	2.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.

310. *	2.	2.	2.	1.	1.	2.	2.	1.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
320. *	2.	2.	2.	1.	1.	2.	2.	2.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
330. *	2.	2.	2.	1.	1.	1.	2.	2.	3.	3.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
340. *	2.	2.	2.	1.	1.	1.	2.	2.	3.	3.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.
350. *	2.	2.	2.	1.	1.	1.	2.	2.	3.	3.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.
360. *	2.	2.	2.	1.	0.	1.	2.	2.	3.	4.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.
MAX *	3.	2.	3.	3.	2.	2.	2.	3.	3.	4.	4.	3.	3.	2.	2.	2.	2.	2.	2.	3.
DEGR. *	230	230	220	250	260	310	340	220	230	0	40	50	40	40	60	100	140	50	170	170

♀ PAGE 6

JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0. *	0.	0.	0.	0.	0.	2.	3.	3.	2.	2.	1.	2.	3.	4.	3.	0.	0.	1.	0.	0.
10. *	0.	0.	0.	0.	0.	2.	3.	3.	2.	1.	2.	2.	3.	4.	4.	0.	0.	1.	0.	0.
20. *	0.	0.	0.	0.	0.	2.	3.	4.	2.	1.	1.	2.	4.	4.	4.	0.	0.	2.	0.	0.
30. *	0.	0.	0.	0.	0.	1.	3.	4.	2.	1.	1.	2.	4.	4.	5.	0.	0.	1.	0.	0.
40. *	0.	0.	0.	0.	0.	1.	2.	3.	1.	0.	0.	1.	4.	4.	5.	0.	1.	2.	0.	0.
50. *	0.	0.	0.	0.	0.	1.	2.	3.	0.	0.	0.	1.	3.	4.	5.	1.	1.	2.	1.	0.
60. *	0.	0.	1.	1.	0.	0.	1.	2.	0.	0.	0.	0.	2.	3.	3.	2.	2.	2.	1.	0.
70. *	0.	0.	2.	2.	1.	0.	1.	1.	0.	0.	0.	0.	1.	1.	2.	4.	4.	4.	1.	0.
80. *	0.	0.	3.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	4.	4.	2.	0.
90. *	0.	1.	4.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	4.	4.	2.	1.
100. *	0.	1.	4.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	4.	4.	3.	1.
110. *	1.	2.	4.	4.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	3.	4.	3.	2.
120. *	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	4.	3.	2.
130. *	1.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	3.	2.
140. *	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	3.	2.
150. *	2.	2.	3.	3.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	2.
160. *	2.	2.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	2.
170. *	2.	3.	3.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
180. *	2.	3.	4.	3.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
190. *	2.	3.	4.	4.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	3.	2.	1.
200. *	2.	3.	4.	4.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	4.	2.	1.
210. *	1.	3.	4.	4.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.	4.	2.	1.
220. *	1.	2.	4.	5.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	3.	4.	1.	0.
230. *	0.	2.	4.	5.	5.	1.	1.	0.	0.	0.	0.	0.	1.	0.	0.	2.	3.	3.	0.	0.
240. *	0.	1.	3.	4.	4.	2.	2.	2.	0.	0.	0.	0.	2.	1.	1.	1.	2.	2.	0.	0.
250. *	0.	1.	2.	2.	2.	3.	3.	3.	0.	0.	0.	0.	3.	2.	2.	1.	1.	1.		

```
0.    0.
 260.  *    0.    1.    1.    1.    1.    4.    4.    4.    1.    0.    0.    1.    4.    3.    2.    0.    0.    0.
0.    0.
 270.  *    0.    0.    1.    1.    0.    4.    4.    4.    2.    0.    0.    1.    4.    4.    3.    0.    0.    0.
0.    0.
 280.  *    0.    0.    1.    1.    0.    4.    4.    4.    2.    1.    1.    2.    4.    4.    3.    0.    0.    0.
0.    0.
 290.  *    0.    0.    1.    0.    0.    4.    4.    4.    2.    1.    1.    2.    4.    4.    3.    0.    0.    0.
0.    0.
 300.  *    0.    0.    1.    0.    0.    3.    4.    4.    2.    1.    1.    2.    3.    4.    3.    0.    0.    0.
0.    0.
 310.  *    0.    0.    1.    0.    0.    3.    3.    4.    2.    2.    1.    2.    3.    3.    3.    0.    0.    0.
0.    0.
 320.  *    0.    0.    0.    0.    0.    3.    3.    4.    2.    2.    2.    2.    3.    3.    3.    0.    0.    0.
0.    0.
 330.  *    0.    0.    0.    0.    0.    3.    3.    4.    2.    2.    2.    2.    3.    4.    3.    0.    0.    0.
0.    0.
 340.  *    0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    2.    2.    4.    4.    3.    0.    0.    0.
0.    0.
 350.  *    0.    0.    0.    0.    0.    3.    3.    3.    2.    2.    2.    2.    3.    4.    3.    0.    0.    1.
0.    0.
 360.  *    0.    0.    0.    0.    0.    2.    3.    3.    2.    2.    1.    2.    3.    4.    3.    0.    0.    1.
0.    0.

------*-----------------------------------------------------------------------------------------------------------
-------
 MAX   *    2.    3.    4.    5.    5.    4.    4.    4.    2.    2.    2.    2.    4.    4.    5.    4.    4.    4.
3.    2.
 DEGR. *  170   200   220   220   220   270   260   260   330   330   340   350   270    20    30    80    90    80
110   130

 THE HIGHEST CONCENTRATION OF      5. ug/m**3 OCCURRED AT RECEPTOR REC35.
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2013 Existing
Microscale Output Files
(Particulate Matter 2.5 (PM2.5))

♀ CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221 PAGE 1

JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 21:53:16

The MODE flag has been set to P for calculating PM averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 ug/m**3

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. Soldier/Jug SB LTR	5198.9	6311.7	5198.3	6336.3	25.	359.	AG	0.	100.0	1.0	20.0	0.23	1.2
2. Soldier/Jug WB TT	5228.8	6294.1	5321.4	6345.8	106.	61.	AG	0.	100.0	1.0	20.0	0.81	5.4
3. Soldier/Jug NB LTR	5237.6	6215.9	5236.3	6155.6	60.	181.	AG	0.	100.0	1.0	10.0	0.56	3.1
4. Soldiers/Jug EB TTR	5191.9	6230.9	5117.3	6196.1	82.	245.	AG	0.	100.0	1.0	20.0	0.68	4.2
5. Western/Ever SB LTR	5231.8	5725.2	5233.7	5807.9	83.	1.	AG	0.	100.0	1.0	10.0	0.61	4.2
6. Western/Ever WB LTR	5264.9	5714.2	7544.8	6102.5	2313.	80.	AG	0.	100.0	1.0	10.0	1.37	117.5
7. West/Ever NB LTR	5233.9	5654.6	5216.2	5602.4	55.	199.	AG	0.	100.0	1.0	20.0	0.41	2.8
8. West/Ever EB LTR	5190.3	5675.7	5088.2	5663.5	103.	263.	AG	0.	100.0	1.0	20.0	0.64	5.2
9. Ever/Rt20 SB LR	4193.6	2489.0	4240.6	2651.3	169.	16.	AG	0.	100.0	1.0	10.0	0.80	8.6
10. Ever/Rt20 WB TR	4221.0	2443.1	4304.1	2426.1	85.	102.	AG	0.	100.0	1.0	20.0	0.36	4.3
11. Ever/Rt20 EB LTT	4155.5	2436.3	4054.2	2454.2	103.	280.	AG	0.	100.0	1.0	20.0	0.43	5.2
12. Camb/Linc SB LR	7036.1	3650.1	7013.3	3696.9	52.	334.	AG	0.	100.0	1.0	20.0	0.46	2.6
13. Camb/Linc WB L	7113.8	3630.4	7116.0	3631.5	2.	63.	AG	0.	100.0	1.0	10.0	0.02	0.1
14. Camb/Linc WB TTR	7096.3	3646.8	7234.9	3717.9	156.	63.	AG	0.	100.0	1.0	20.0	0.75	7.9
15. Camb/Linc NB LTR	7116.0	3570.3	7116.2	3567.9	2.	175.	AG	0.	100.0	1.0	10.0	0.02	0.1
16. Camb/Linc EB L	7032.9	3580.1	6966.6	3548.3	74.	244.	AG	0.	100.0	1.0	10.0	0.69	3.7
17. Camb/Linc EB TTTR	7047.4	3560.7	6949.7	3514.1	108.	245.	AG	0.	100.0	1.0	30.0	0.52	5.5
18. Birm/Linc SB R	2027.5	4361.0	2037.1	4378.2	20.	29.	AG	0.	100.0	1.0	10.0	0.16	1.0
19. Birm/Linc SB TT	2045.2	4353.0	2087.3	4428.4	86.	29.	AG	0.	100.0	1.0	20.0	0.50	4.4
20. Birm/Linc WB LTR	2100.9	4264.2	2165.3	4250.0	66.	102.	AG	0.	100.0	1.0	20.0	0.64	3.3
21. Birm/Linc NB LTT	2029.7	4188.8	1984.7	4094.4	105.	205.	AG	0.	100.0	1.0	20.0	0.61	5.3
22. Birm/Linc EB LLTR	1966.7	4229.9	1926.6	4212.0	44.	246.	AG	0.	100.0	1.0	20.0	0.52	2.2
23. Soldier/Jug N	5199.2	6279.5	5199.2	6392.5	113.	360.	AG	200.	0.0	1.0	42.0		
24. Soldier/Jug E-N	5199.2	6277.6	5400.6	6380.6	226.	63.	AG	1505.	0.0	1.0	42.0		
25. Soldier/Jug E-S	5219.3	6237.5	5420.9	6345.5	229.	62.	AG	1400.	0.0	1.0	42.0		
26. Soldier/Jug S	5235.5	6245.2	5234.6	6031.1	214.	180.	AG	460.	0.0	1.0	42.0		
27. Soldier/Jug W-S	5214.5	6245.3	4975.3	6130.9	265.	244.	AG	1255.	0.0	1.0	42.0		
28. Soldier/Jug W-N	5200.4	6278.0	4964.5	6172.3	258.	246.	AG	1590.	0.0	1.0	42.0		
29. West/Ever N	5233.5	5697.0	5238.2	5899.5	203.	1.	AG	460.	0.0	1.0	42.0		
30. West/Ever E	5233.5	5697.0	5535.4	5747.6	306.	80.	AG	1350.	0.0	1.0	66.0		
31. West/Ever S	5236.3	5680.7	5158.2	5443.1	250.	198.	AG	795.	0.0	1.0	54.0		
32. West/Ever W	5233.5	5697.0	4823.3	5637.1	415.	262.	AG	1345.	0.0	1.0	60.0		
33. Ever/Rt20 N	4192.8	2443.9	4258.3	2688.4	253.	15.	AG	620.	0.0	1.0	42.0		
34. Ever/Rt20 E	4192.8	2443.9	4427.9	2396.0	240.	102.	AG	1340.	0.0	1.0	54.0		
35. Ever/Rt20 W	4192.8	2443.9	3904.9	2491.9	292.	279.	AG	1270.	0.0	1.0	54.0		
36. Birm/Linc N-SB	1998.6	4296.0	2178.7	4628.9	378.	28.	AG	1040.	0.0	1.0	54.0		
37. Birm/Linc N NB	2048.6	4265.6	2230.3	4606.5	386.	28.	AG	1160.	0.0	1.0	54.0		
38. Birm/Linc E	2048.6	4272.0	2312.0	4209.5	271.	103.	AG	340.	0.0	1.0	42.0		
39. Birm/Linc S	2043.8	4251.5	1930.5	4004.1	272.	205.	AG	1935.	0.0	1.0	66.0		
40. Birm/Linc W-EB	2011.4	4253.5	1764.6	4138.7	272.	245.	AG	220.	0.0	1.0	42.0		
41. Birm/Linc W-WB	1974.5	4286.0	1744.8	4182.6	252.	246.	AG	460.	0.0	1.0	42.0		
42. Camb/Linc N	7068.0	3604.4	6989.0	3770.3	184.	335.	AG	480.	0.0	1.0	60.0		
43. Camb/Linc E	7068.0	3604.4	7289.3	3709.9	245.	65.	AG	3070.	0.0	1.0	****		
44. Camb/Linc S	7111.5	3599.6	7116.3	3391.9	208.	179.	AG	10.	0.0	1.0	42.0		

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JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 21:53:16

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. Camb/Linc W	7068.0	3604.4	6777.8	3466.0	321.	244.	AG	2970.	0.0	1.0	****		

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JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 21:53:16

1. Soldier/Jug SB LTR	69	45	3.0	200	1600	0.05	1	3
2. Soldier/Jug WB TT	69	24	3.0	1505	1600	0.05	1	3
3. Soldier/Jug NB LTR	69	45	3.0	245	1600	0.05	1	3
4. Soldiers/Jug EB TTR	69	24	3.0	1255	1600	0.05	1	3
5. Western/Ever SB LTR	90	63	3.0	240	1600	0.05	1	3
6. Western/Ever WB LTR	90	55	3.0	730	1600	0.05	1	3
7. West/Ever NB LTR	90	63	3.0	320	1600	0.05	1	3
8. West/Ever EB LTR	90	55	3.0	685	1600	0.05	1	3
9. Ever/Rt20 SB LR	119	80	3.0	365	1600	0.05	1	3
10. Ever/Rt20 WB TR	119	55	3.0	565	1600	0.05	1	3
11. Ever/Rt20 EB LTT	119	55	3.0	685	1600	0.05	1	3
12. Camb/Linc SB LR	110	89	3.0	215	1600	0.05	1	3
13. Camb/Linc WB L	110	91	3.0	5	1600	0.05	1	3
14. Camb/Linc WB TTR	110	40	3.0	1425	1600	0.05	1	3
15. Camb/Linc NB LTR	110	89	3.0	5	1600	0.05	1	3
16. Camb/Linc EB L	110	91	3.0	140	1600	0.05	1	3
17. Camb/Linc EB TTTR	110	40	3.0	1485	1600	0.05	1	3
18. Birm/Linc SB R	90	20	3.0	180	1600	0.05	1	3
19. Birm/Linc SB TT	90	37	3.0	855	1600	0.05	1	3
20. Birm/Linc WB LTR	90	70	3.0	340	1600	0.05	1	3
21. Birm/Linc NB LTT	90	37	3.0	1035	1600	0.05	1	3
22. Birm/Linc EB LLTR	90	73	3.0	220	1600	0.05	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. Soldiers/Jug NE1	5230.2	6478.3	6.0
2. Soldiers/Jug NE2	5230.2	6403.2	6.0
3. Soldiers/Jug NE3	5230.2	6328.3	6.0
4. Soldiers/Jug NE4	5297.0	6362.4	6.0
5. Soldiers/Jug NE5	5363.7	6396.6	6.0
6. Soldiers/Jug SE1	5398.7	6298.4	6.0
7. Soldiers/Jug SE2	5332.5	6263.0	6.0
8. Soldiers/Jug SE3	5266.4	6227.6	6.0
9. Soldiers/Jug SE4	5266.4	6152.6	6.0
10. Soldiers/Jug SE5	5265.8	6077.6	6.0
11. Soldiers/Jug SW1	5204.3	6056.0	6.0
12. Soldiers/Jug SW2	5204.0	6131.0	6.0
13. Soldiers/Jug SW3	5204.3	6206.0	6.0
14. Soldiers/Jug SW4	5136.6	6173.7	6.0
15. Soldiers/Jug SW5	5069.0	6141.4	6.0
16. Soldiers/Jug NW1	5031.3	6236.2	6.0
17. Soldiers/Jug NW2	5099.8	6266.9	6.0
18. Soldiers/Jug NW3	5168.2	6297.6	6.0
19. Soldiers/Jug NW4	5168.2	6372.6	6.0
20. Soldiers/Jug NW5	5168.2	6447.6	6.0
21. Western/Ever NE1	5269.1	5895.9	6.0
22. Western/Ever NE2	5267.4	5821.0	6.0
23. Western/Ever NE3	5265.7	5746.0	6.0
24. Western/Ever NE4	5339.6	5758.4	6.0
25. Western/Ever NE5	5413.6	5770.8	6.0
26. Western/Ever SE1	5416.1	5684.0	6.0
27. Western/Ever SE2	5342.1	5671.6	6.0
28. Western/Ever SE3	5268.1	5659.2	6.0
29. Western/Ever SE4	5244.7	5587.9	6.0

♀ PAGE 4

JOB: Skating Club of Boston RUN: 2013EX

DATE : 8/22/13
TIME : 21:53:16

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
30. Western/Ever SE5	5221.3	5516.7	6.0
31. Western/Ever SW1	5140.4	5507.3	6.0

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    32. Western/Ever SW2     *      5163.8     5578.5        6.0   *
    33. Western/Ever SW3     *      5187.2     5649.8        6.0   *
    34. Western/Ever SW4     *      5113.0     5639.0        6.0   *
    35. Western/Ever SW5     *      5038.7     5628.1        6.0   *
    36. Western/Ever NW1     *      5054.9     5711.3        6.0   *
    37. Western/Ever NW2     *      5129.1     5722.2        6.0   *
    38. Western/Ever NW3     *      5203.4     5733.0        6.0   *
    39. Western/Ever NW4     *      5205.1     5808.0        6.0   *
    40. Western/Ever NW5     *      5206.8     5883.0        6.0   *
    41. Ever/Rt20 NE1        *      4271.6     2618.4        6.0   *
    42. Ever/Rt20 NE2        *      4252.2     2546.0        6.0   *
    43. Ever/Rt20 NE3        *      4232.8     2473.5        6.0   *
    44. Ever/Rt20 NE4        *      4306.3     2458.5        6.0   *
    45. Ever/Rt20 NE5        *      4379.8     2443.6        6.0   *
    46. Ever/Rt20 S1         *      4333.0     2377.6        6.0   *
    47. Ever/Rt20 S2         *      4259.5     2392.6        6.0   *
    48. Ever/Rt20 S3         *      4186.0     2407.5        6.0   *
    49. Ever/Rt20 S4         *      4112.0     2419.9        6.0   *
    50. Ever/Rt20 S5         *      4038.1     2432.2        6.0   *
    51. Ever/Rt20 NW1        *      4023.7     2509.6        6.0   *
    52. Ever/Rt20 NW2        *      4097.7     2497.3        6.0   *
    53. Ever/Rt20 NW3        *      4171.7     2485.0        6.0   *
    54. Ever/Rt20 NW4        *      4191.1     2557.4        6.0   *
    55. Ever/Rt20 NW5        *      4210.5     2629.8        6.0   *
```



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     JOB: Skating Club of Boston                           RUN: 2013EX

      MODEL RESULTS
      -------------

      REMARKS : In search of the angle corresponding to
                the maximum concentration, only the first
                angle, of the angles with same maximum
                concentrations, is indicated as maximum.

 WIND ANGLE RANGE:   0.-360.

 WIND  * CONCENTRATION
 ANGLE *      (ug/m**3)
 (DEGR)* REC1  REC2  REC3  REC4  REC5  REC6  REC7  REC8  REC9  REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
REC19 REC20

------*------------------------------------------------------------------------------------------------------------
-------
   0.  *    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.    1.    2.    2.    1.    0.    0.    0.
0.    0.
  10.  *    0.    0.    0.    0.    0.    1.    1.    2.    1.    1.    1.    1.    2.    2.    1.    0.    0.    0.
0.    0.
  20.  *    0.    0.    0.    0.    0.    1.    2.    2.    1.    0.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
  30.  *    0.    0.    0.    0.    0.    0.    1.    2.    1.    0.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
  40.  *    0.    0.    0.    0.    0.    0.    1.    2.    0.    0.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
  50.  *    0.    0.    0.    0.    0.    0.    1.    1.    0.    0.    0.    1.    2.    2.    2.    0.    0.    0.
0.    0.
  60.  *    0.    0.    0.    0.    0.    0.    0.    1.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.
0.    0.
  70.  *    0.    0.    1.    0.    0.    0.    0.    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.
0.    0.
  80.  *    0.    0.    2.    1.    0.    0.    0.    0.    0.    0.    0.    0.    1.    0.    0.    2.    2.    2.
0.    0.
  90.  *    0.    0.    2.    1.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
0.    0.
 100.  *    0.    0.    2.    1.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
1.    0.
 110.  *    0.    1.    2.    2.    1.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
1.    0.
 120.  *    0.    1.    2.    2.    1.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
1.    0.
 130.  *    0.    1.    2.    2.    1.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    1.
1.    1.
 140.  *    0.    1.    2.    2.    1.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
1.    1.
 150.  *    0.    1.    2.    2.    1.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
1.    1.
 160.  *    1.    1.    2.    2.    1.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
1.    1.
 170.  *    1.    1.    2.    2.    2.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
1.    1.
 180.  *    1.    1.    2.    2.    2.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
1.    1.
 190.  *    1.    1.    2.    2.    2.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
1.    1.
 200.  *    1.    1.    2.    2.    2.    0.    0.    1.    0.    0.    0.    0.    0.    0.    0.    2.    2.    2.
1.    1.
 210.  *    0.    1.    2.    2.    2.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    1.    2.    2.
1.    0.
 220.  *    0.    1.    2.    2.    2.    0.    0.    1.    0.    0.    0.    0.    0.    0.    0.    1.    2.    2.
1.    0.
 230.  *    0.    0.    2.    2.    2.    0.    0.    0.    0.    0.    0.    0.    0.    0.    0.    1.    1.    2.
```



```
0.    0.
 240.  *    0.    0.    2.    1.    1.    1.    1.    1.    0.    0.    0.    0.    0.    0.    0.    0.    1.    1.
0.    0.
 250.  *    0.    0.    1.    1.    1.    2.    2.    1.    0.    0.    0.    0.    1.    1.    0.    0.    0.    0.
0.    0.
 260.  *    0.    0.    1.    0.    0.    2.    2.    2.    1.    0.    0.    0.    2.    1.    1.    0.    0.    0.
0.    0.
 270.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    0.    0.    0.    2.    1.    1.    0.    0.    0.
0.    0.
 280.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    0.    0.    0.    2.    1.    1.    0.    0.    0.
0.    0.
 290.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    0.    1.    2.    2.    1.    0.    0.    0.
0.    0.
 300.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    0.    1.    2.    1.    1.    0.    0.    0.
0.    0.
 310.  *    0.    0.    0.    0.    0.    1.    1.    2.    1.    1.    1.    1.    2.    1.    1.    0.    0.    0.
0.    0.
 320.  *    0.    0.    0.    0.    0.    1.    1.    2.    1.    1.    1.    1.    2.    1.    1.    0.    0.    0.
0.    0.
 330.  *    0.    0.    0.    0.    0.    1.    1.    2.    1.    1.    1.    1.    1.    2.    1.    0.    0.    0.
0.    0.
 340.  *    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.    1.    1.    2.    1.    0.    0.    0.
0.    0.
 350.  *    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.    1.    2.    2.    1.    0.    0.    0.
0.    0.
 360.  *    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.    1.    2.    2.    1.    0.    0.    0.
0.    0.

------*------------------------------------------------------------------------------------------------------------
-------
 MAX   *    1.    1.    2.    2.    2.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    2.    2.    2.
1.    1.
 DEGR. *  170   180   200   210   220   270   260   270   290   350    10    20    40    40    40    80   100    90
150   160
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     JOB: Skating Club of Boston                           RUN: 2013EX

      MODEL RESULTS
      -------------

      REMARKS : In search of the angle corresponding to
                the maximum concentration, only the first
                angle, of the angles with same maximum
                concentrations, is indicated as maximum.

 WIND ANGLE RANGE:   0.-360.

 WIND  * CONCENTRATION
 ANGLE *      (ug/m**3)
 (DEGR)* REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
REC39 REC40

------*------------------------------------------------------------------------------------------------------------
-------
   0.  *    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.    1.    1.    1.    1.    0.    0.    0.
1.    0.
  10.  *    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.    1.    1.    2.    1.    0.    0.    1.
0.    0.
  20.  *    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.    1.    1.    2.    1.    0.    0.    1.
0.    0.
  30.  *    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    1.    1.    1.    1.    1.    0.    0.    0.
0.    0.
  40.  *    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    1.    1.    1.    2.    1.    0.    0.    0.
0.    0.
  50.  *    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    1.    1.    2.    2.    1.    0.    0.    0.
0.    0.
  60.  *    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    1.    1.    2.    2.    1.    0.    0.    1.
0.    0.
  70.  *    0.    0.    0.    0.    0.    1.    1.    1.    0.    0.    1.    1.    2.    2.    2.    0.    1.    1.
0.    0.
  80.  *    0.    0.    1.    1.    0.    0.    0.    1.    0.    0.    0.    1.    1.    1.    1.    1.    1.    1.
0.    0.
  90.  *    0.    0.    1.    1.    1.    0.    0.    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.
1.    0.
 100.  *    0.    0.    1.    1.    1.    0.    0.    0.    0.    0.    0.    0.    1.    0.    0.    1.    1.    2.
1.    0.
 110.  *    0.    0.    1.    1.    1.    0.    0.    0.    0.    0.    0.    0.    1.    0.    0.    1.    1.    2.
1.    1.
 120.  *    0.    0.    1.    1.    1.    0.    0.    0.    0.    0.    0.    0.    1.    0.    0.    2.    1.    1.
1.    1.
 130.  *    0.    0.    1.    1.    1.    0.    0.    0.    0.    0.    0.    0.    1.    0.    0.    1.    1.    1.
1.    1.
 140.  *    0.    0.    1.    1.    1.    0.    0.    0.    0.    0.    0.    0.    1.    0.    0.    1.    1.    1.
1.    1.
 150.  *    0.    0.    1.    1.    1.    0.    0.    0.    0.    0.    0.    0.    1.    0.    0.    1.    1.    1.
1.    1.
 160.  *    0.    0.    1.    1.    1.    0.    0.    0.    0.    0.    0.    0.    1.    0.    0.    1.    1.    1.
1.    1.
 170.  *    0.    1.    1.    1.    1.    0.    0.    0.    0.    0.    0.    0.    1.    0.    0.    1.    1.    1.
1.    1.
```

180.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
190.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
200.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
210.	*	1.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
220.	*	1.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
230.	*	1.	1.	2.	1.	1.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
240.	*	0.	1.	2.	2.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
250.	*	0.	1.	1.	1.	2.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
260.	*	0.	0.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.	0.	1.	1.	1.	0.	0.
270.	*	0.	0.	1.	0.	0.	1.	1.	2.	1.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
280.	*	0.	0.	1.	0.	0.	1.	1.	2.	1.	0.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.
290.	*	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
300.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
310.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
320.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
330.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
340.	*	0.	0.	1.	0.	0.	1.	1.	1.	2.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
350.	*	0.	1.	1.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
360.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.
MAX	*	1.	1.	2.	2.	2.	1.	1.	2.	2.	1.	1.	1.	2.	2.	2.	2.	1.	2.	1.	1.
DEGR.	*	200	210	240	240	250	280	280	280	340	350	40	50	70	60	70	120	100	100	120	160

♀ PAGE 7

JOB: Skating Club of Boston RUN: 2013EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (ug/m**3) REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
10.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
20.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
30.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	0.
40.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	0.
50.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	1.	0.
60.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	0.
70.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	2.	0.	0.	0.	1.	1.
80.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.
90.	*	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	0.
100.	*	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.
110.	*	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
120.	*	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.
130.	*	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
140.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
150.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
160.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
170.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
180.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
190.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
200.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
210.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
220.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
230.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
240.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
250.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
260.	*	1.	1.	1.	2.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
270.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.

280.	*	0.	0.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.
290.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
300.	*	0.	0.	1.	0.	0.	2.	1.	1.	1.	1.	0.	0.	0.	0.	0.
310.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
320.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
330.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
340.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
350.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
360.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
MAX	*	1.	1.	1.	2.	1.	2.	1.	1.	2.	2.	1.	1.	2.	1.	1.
DEGR.	*	230	220	250	260	270	300	330	10	50	70	120	120	120	140	160

THE HIGHEST CONCENTRATION OF 2. ug/m**3 OCCURRED AT RECEPTOR REC4 .

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♀                    CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221                        PAGE  1

      JOB: Skating Club of Boston                          RUN: 2013EX

      DATE :  8/22/13
      TIME : 21:55:48

         The MODE flag has been set to P for calculating PM averages.

       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =   0.0 CM/S       VD =   0.0 CM/S       Z0 = 175. CM
        U =  1.0 M/S         CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =  0.0 ug/m**3

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*---------------------------------------*---------------------------------------------------
----
       1. Soldier/Jug SB LTR  *   5198.9    6311.7    5198.3    6336.3 *      25.   359. AG      0. 100.0   1.0 20.0
0.23   1.2
       2. Soldier/Jug WB TT   *   5228.8    6294.1    5321.4    6345.8 *     106.    61. AG      0. 100.0   1.0 20.0
0.81   5.4
       3. Soldier/Jug NB LTR  *   5237.6    6215.9    5236.3    6155.6 *      60.   181. AG      0. 100.0   1.0 10.0
0.56   3.1
       4. Soldiers/Jug EB TTR *   5191.9    6230.9    5117.3    6196.1 *      82.   245. AG      0. 100.0   1.0 20.0
0.68   4.2
       5. Western/Ever SB LTR *   5231.8    5725.2    5233.7    5807.9 *      83.     1. AG      0. 100.0   1.0 10.0
0.61   4.2
       6. Western/Ever WB LTR *   5264.9    5714.2    7544.8    6102.5 *    2313.    80. AG      0. 100.0   1.0 10.0
1.37 117.5
       7. West/Ever NB LTR    *   5233.9    5654.6    5216.2    5602.4 *      55.   199. AG      0. 100.0   1.0 20.0
0.41   2.8
       8. West/Ever EB LTR    *   5190.3    5675.7    5088.2    5663.5 *     103.   263. AG      0. 100.0   1.0 20.0
0.64   5.2
       9. Ever/Rt20 SB LR     *   4193.6    2489.0    4240.6    2651.3 *     169.    16. AG      0. 100.0   1.0 10.0
0.80   8.6
      10. Ever/Rt20 WB TR     *   4221.0    2443.1    4304.1    2426.1 *      85.   102. AG      0. 100.0   1.0 20.0
0.36   4.3
      11. Ever/Rt20 EB LTT    *   4155.5    2436.3    4054.2    2454.2 *     103.   280. AG      0. 100.0   1.0 20.0
0.43   5.2
      12. Camb/Linc SB LR     *   7036.1    3650.1    7013.3    3696.9 *      52.   334. AG      0. 100.0   1.0 20.0
0.46   2.6
      13. Camb/Linc WB L      *   7113.8    3630.4    7116.0    3631.5 *       2.    63. AG      0. 100.0   1.0 10.0
0.02   0.1
      14. Camb/Linc WB TTR    *   7096.3    3646.8    7234.9    3717.9 *     156.    63. AG      0. 100.0   1.0 20.0
0.75   7.9
      15. Camb/Linc NB LTR    *   7116.0    3570.3    7116.2    3567.9 *       2.   175. AG      0. 100.0   1.0 10.0
0.02   0.1
      16. Camb/Linc EB L      *   7032.9    3580.1    6966.6    3548.3 *      74.   244. AG      0. 100.0   1.0 10.0
0.69   3.7
      17. Camb/Linc EB TTTR   *   7047.4    3560.7    6949.7    3514.1 *     108.   245. AG      0. 100.0   1.0 30.0
0.52   5.5
      18. Birm/Linc SB R      *   2027.5    4361.0    2037.1    4378.2 *      20.    29. AG      0. 100.0   1.0 10.0
0.16   1.0
      19. Birm/Linc SB TT     *   2045.2    4353.0    2087.3    4428.4 *      86.    29. AG      0. 100.0   1.0 20.0
0.50   4.4
      20. Birm/Linc WB LTR    *   2100.9    4264.2    2165.3    4250.0 *      66.   102. AG      0. 100.0   1.0 20.0
0.64   3.3
      21. Birm/Linc NB LTT    *   2029.7    4188.8    1984.7    4094.4 *     105.   205. AG      0. 100.0   1.0 20.0
0.61   5.3
      22. Birm/Linc EB LLTR   *   1966.7    4229.9    1926.6    4212.0 *      44.   246. AG      0. 100.0   1.0 20.0
0.52   2.2
      23. Soldier/Jug N       *   5199.2    6279.5    5199.2    6392.5 *     113.   360. AG    200.   0.0   1.0 42.0
      24. Soldier/Jug E-N     *   5199.2    6277.6    5400.6    6380.6 *     226.    63. AG   1505.   0.0   1.0 42.0
      25. Soldier/Jug E-S     *   5219.3    6237.5    5420.9    6345.5 *     229.    62. AG   1400.   0.0   1.0 42.0
      26. Soldier/Jug S       *   5235.5    6245.2    5234.6    6031.1 *     214.   180. AG    460.   0.0   1.0 42.0
      27. Soldier/Jug W-S     *   5214.5    6245.3    4975.3    6130.9 *     265.   244. AG   1255.   0.0   1.0 42.0
      28. Soldier/Jug W-N     *   5200.4    6278.0    4964.5    6172.3 *     258.   246. AG   1590.   0.0   1.0 42.0
      29. West/Ever N         *   5233.5    5697.0    5238.2    5899.5 *     203.     1. AG    460.   0.0   1.0 42.0
      30. West/Ever E         *   5233.5    5697.0    5535.4    5747.6 *     306.    80. AG   1350.   0.0   1.0 66.0
      31. West/Ever S         *   5236.3    5680.7    5158.2    5443.1 *     250.   198. AG    795.   0.0   1.0 54.0
      32. West/Ever W         *   5233.5    5697.0    4823.3    5637.1 *     415.   262. AG   1345.   0.0   1.0 60.0
      33. Ever/Rt20 N         *   4192.8    2443.9    4258.3    2688.4 *     253.    15. AG    620.   0.0   1.0 42.0
      34. Ever/Rt20 E         *   4192.8    2443.9    4427.9    2396.0 *     240.   102. AG   1340.   0.0   1.0 54.0
      35. Ever/Rt20 W         *   4192.8    2443.9    3904.9    2491.9 *     292.   279. AG   1270.   0.0   1.0 54.0
      36. Birm/Linc N-SB      *   1998.6    4296.0    2178.7    4628.9 *     378.    28. AG   1040.   0.0   1.0 54.0
      37. Birm/Linc N NB      *   2048.6    4265.6    2230.3    4606.5 *     386.    28. AG   1160.   0.0   1.0 54.0
      38. Birm/Linc E         *   2048.6    4272.0    2312.0    4209.5 *     271.   103. AG    340.   0.0   1.0 42.0
      39. Birm/Linc S         *   2043.8    4251.5    1930.5    4004.1 *     272.   205. AG   1935.   0.0   1.0 66.0
      40. Birm/Linc W-EB      *   2011.4    4253.5    1764.6    4138.7 *     272.   245. AG    220.   0.0   1.0 42.0
      41. Birm/Linc W-WB      *   1974.5    4286.0    1744.8    4182.6 *     252.   246. AG    460.   0.0   1.0 42.0
      42. Camb/Linc N         *   7068.0    3604.4    6989.0    3770.3 *     184.   335. AG    480.   0.0   1.0 60.0
      43. Camb/Linc E         *   7068.0    3604.4    7289.3    3709.9 *     245.    65. AG   3070.   0.0   1.0 ****
      44. Camb/Linc S         *   7111.5    3599.6    7116.3    3391.9 *     208.   179. AG     10.   0.0   1.0 42.0
♀                                                                                                            PAGE  2
      JOB: Skating Club of Boston                          RUN: 2013EX
```



```
      DATE :  8/22/13
      TIME : 21:55:48

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*---------------------------------------*---------------------------------------------------
----
      45. Camb/Linc W         *   7068.0    3604.4    6777.8    3466.0 *     321.   244. AG   2970.   0.0   1.0 ****
♀                                                                                                            PAGE  3
      JOB: Skating Club of Boston                          RUN: 2013EX

      DATE :  8/22/13
      TIME : 21:55:48

       1. Soldier/Jug SB LTR  *      69       45       3.0       200       1600       0.05      1        3
       2. Soldier/Jug WB TT   *      69       24       3.0      1505       1600       0.05      1        3
       3. Soldier/Jug NB LTR  *      69       45       3.0       245       1600       0.05      1        3
       4. Soldiers/Jug EB TTR *      69       24       3.0      1255       1600       0.05      1        3
       5. Western/Ever SB LTR *      90       63       3.0       240       1600       0.05      1        3
       6. Western/Ever WB LTR *      90       55       3.0       730       1600       0.05      1        3
       7. West/Ever NB LTR    *      90       63       3.0       320       1600       0.05      1        3
       8. West/Ever EB LTR    *      90       55       3.0       685       1600       0.05      1        3
       9. Ever/Rt20 SB LR     *     119       80       3.0       365       1600       0.05      1        3
      10. Ever/Rt20 WB TR     *     119       55       3.0       565       1600       0.05      1        3
      11. Ever/Rt20 EB LTT    *     119       55       3.0       685       1600       0.05      1        3
      12. Camb/Linc SB LR     *     110       89       3.0       215       1600       0.05      1        3
      13. Camb/Linc WB L      *     110       91       3.0         5       1600       0.05      1        3
      14. Camb/Linc WB TTR    *     110       40       3.0      1425       1600       0.05      1        3
      15. Camb/Linc NB LTR    *     110       89       3.0         5       1600       0.05      1        3
      16. Camb/Linc EB L      *     110       91       3.0       140       1600       0.05      1        3
      17. Camb/Linc EB TTTR   *     110       40       3.0      1485       1600       0.05      1        3
      18. Birm/Linc SB R      *      90       20       3.0       180       1600       0.05      1        3
      19. Birm/Linc SB TT     *      90       37       3.0       855       1600       0.05      1        3
      20. Birm/Linc WB LTR    *      90       70       3.0       340       1600       0.05      1        3
      21. Birm/Linc NB LTT    *      90       37       3.0      1035       1600       0.05      1        3
      22. Birm/Linc EB LLTR   *      90       73       3.0       220       1600       0.05      1        3

       RECEPTOR LOCATIONS
       ------------------
                              *       COORDINATES (FT)        *
         RECEPTOR             *      X          Y         Z   *
      ------------------------*-------------------------------*
       1. Birm/Linc NE1       *     2174.4     4423.1      6.0   *
       2. Birm/Linc NE2       *     2139.2     4356.9      6.0   *
       3. Birm/Linc NE3       *     2103.9     4290.7      6.0   *
       4. Birm/Linc NE4       *     2176.9     4273.4      6.0   *
       5. Birm/Linc NE5       *     2249.9     4256.1      6.0   *
       6. Birm/Linc SE1       *     2228.1     4197.6      6.0   *
       7. Birm/Linc SE2       *     2130.7     4220.7      6.0   *
       8. Birm/Linc SE3       *     2082.2     4232.2      6.0   *
       9. Birm/Linc SE4       *     2051.0     4164.0      6.0   *
      10. Birm/Linc SE5       *     2019.8     4095.8      6.0   *
      11. Birm/Linc SW1       *     1911.3     4065.4      6.0   *
      12. Birm/Linc SW2       *     1942.5     4133.5      6.0   *
      13. Birm/Linc SW3       *     1973.7     4201.7      6.0   *
      14. Birm/Linc SW4       *     1905.7     4170.1      6.0   *
      15. Birm/Linc SW5       *     1837.7     4138.5      6.0   *
      16. Birm/Linc NW1       *     1831.2     4255.5      6.0   *
      17. Birm/Linc NW2       *     1899.6     4286.3      6.0   *
      18. Birm/Linc NW3       *     1968.0     4317.1      6.0   *
      19. Birm/Linc NW4       *     2003.6     4383.1      6.0   *
      20. Birm/Linc NW5       *     2039.3     4449.0      6.0   *
      21. Camb/Linc NE1       *     7013.4     3812.1      6.0   *
      22. Camb/Linc NE2       *     7045.6     3744.4      6.0   *
      23. Camb/Linc NE3       *     7077.9     3676.7      6.0   *
      24. Camb/Linc NE4       *     7145.6     3709.0      6.0   *
      25. Camb/Linc NE5       *     7213.3     3741.2      6.0   *
      26. Camb/Linc SE1       *     7278.5     3637.2      6.0   *
      27. Camb/Linc SE2       *     7210.8     3604.9      6.0   *
      28. Camb/Linc SE3       *     7143.1     3572.7      6.0   *
      29. Camb/Linc SE4       *     7144.9     3497.7      6.0   *
♀                                                                                                            PAGE  4
      JOB: Skating Club of Boston                          RUN: 2013EX

      DATE :  8/22/13
      TIME : 21:55:48


       RECEPTOR LOCATIONS
       ------------------
                              *       COORDINATES (FT)        *
         RECEPTOR             *      X          Y         Z   *
      ------------------------*-------------------------------*
      30. Camb/Linc SE5       *     7146.6     3422.7      6.0   *
      31. Camb/Linc SW1       *     7085.3     3393.5      6.0   *
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32. Camb/Linc SW2	*	7083.5	3468.5	6.0	*
33. Camb/Linc SW3	*	7081.8	3543.4	6.0	*
34. Camb/Linc SW4	*	7014.1	3511.1	6.0	*
35. Camb/Linc SW5	*	6946.4	3478.8	6.0	*
36. Camb/Linc NW1	*	6870.3	3577.7	6.0	*
37. Camb/Linc NW2	*	6938.0	3610.0	6.0	*
38. Camb/Linc NW3	*	7005.6	3642.3	6.0	*
39. Camb/Linc NW4	*	6973.4	3710.0	6.0	*
40. Camb/Linc NW5	*	6941.2	3777.7	6.0	*

♀ PAGE 5

JOB: Skating Club of Boston RUN: 2013EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	1.	1.	1.	0.	0.	0.	1.	1.	2.	2.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
10. *	1.	1.	1.	0.	0.	0.	1.	1.	2.	2.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.
20. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.
30. *	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	2.	1.	1.	0.	0.	1.	1.	0.
40. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	2.	1.	1.	1.	1.	0.	0.	1.	1.	1.
50. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	2.	2.	2.	1.	1.	0.	1.	1.	1.	1.
60. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	2.	1.	1.	1.	1.	1.	1.	1.	1.
70. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	2.	1.	1.	1.	1.	1.	1.	1.	1.
80. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
90. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
100. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
110. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
120. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
130. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
140. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
150. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
160. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	2.
170. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	0.	1.	1.	1.	1.
180. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	1.	1.	1.	1.
190. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	1.	1.	1.
200. *	1.	1.	1.	0.	0.	0.	0.	1.	0.	0.	0.	1.	1.	0.	0.	0.	0.	1.	1.	1.
210. *	1.	1.	1.	1.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
220. *	1.	1.	2.	1.	0.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
230. *	1.	1.	1.	1.	0.	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
240. *	1.	1.	1.	1.	1.	0.	1.	1.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
250. *	1.	1.	1.	1.	1.	0.	1.	1.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
260. *	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
270. *	1.	1.	1.	1.	1.	0.	1.	1.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
280. *	1.	1.	1.	1.	1.	1.	1.	1.	2.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
290. *	1.	1.	1.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
300. *	1.	1.	1.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.

310. *	1.	1.	1.	1.	0.	1.	1.	1.	2.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
320. *	1.	1.	1.	1.	0.	1.	1.	1.	1.	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
330. *	1.	1.	1.	0.	0.	1.	1.	1.	1.	2.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
340. *	1.	1.	1.	1.	0.	1.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
350. *	1.	1.	1.	1.	0.	0.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
360. *	1.	1.	1.	0.	0.	0.	1.	1.	2.	2.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
MAX *	1.	1.	2.	1.	1.	1.	1.	2.	2.	2.	2.	2.	2.	1.	1.	1.	1.	1.	1.	2.
DEGR. *	240	240	220	240	260	300	340	220	290	0	40	50	50	40	50	120	140	50	60	160

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JOB: Skating Club of Boston RUN: 2013EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0. *	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.
10. *	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.	1.	1.	2.	2.	2.	0.	0.	1.	0.	0.
20. *	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.	1.	1.	2.	2.	2.	0.	0.	1.	0.	0.
30. *	0.	0.	0.	0.	0.	0.	1.	2.	1.	0.	0.	1.	2.	2.	3.	0.	0.	1.	0.	0.
40. *	0.	0.	0.	0.	0.	0.	1.	2.	0.	0.	0.	1.	2.	2.	3.	0.	0.	1.	0.	0.
50. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	2.	2.	2.	0.	0.	1.	0.	0.
60. *	0.	0.	1.	0.	0.	0.	1.	1.	0.	0.	0.	0.	1.	1.	2.	1.	1.	1.	0.	0.
70. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	2.	2.	0.	0.
80. *	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
90. *	0.	0.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
100. *	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
110. *	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.
120. *	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.
130. *	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.
140. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
150. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
160. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
170. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
180. *	1.	2.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
190. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
200. *	1.	2.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
210. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
220. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.
230. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	0.	0.
240. *	0.	0.	2.	2.	2.	1.	1.	1.	0.	0.	0.	0.	1.	1.	0.	1.	1.	1.	0.	0.
250. *	0.	0.	1.	1.	1.	2.	2.	2.	0.	0.	0.	0.	2.	1.	1.	0.	0.	1.		

```
0.    0.
 260.  *    0.    0.    1.    0.    0.    2.    2.    2.    0.    0.    0.    0.    2.    2.    1.    0.    0.    0.
0.    0.
 270.  *    0.    0.    1.    0.    0.    2.    2.    2.    1.    0.    0.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 280.  *    0.    0.    1.    0.    0.    2.    2.    2.    1.    0.    0.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 290.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    0.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 300.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 310.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    1.    0.    0.    0.
0.    0.
 320.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    1.    0.    0.    0.
0.    0.
 330.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 340.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 350.  *    0.    0.    0.    0.    0.    1.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 360.  *    0.    0.    0.    0.    0.    1.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.

------*--------------------------------------------------------------------------------------------------------------
-------
 MAX   *    1.    2.    2.    2.    2.    2.    2.    2.    1.    1.    1.    1.    2.    2.    3.    2.    2.    2.
2.    1.
 DEGR. *  180   200   220   210   230   270   260   260   320   350   340   340   270    20    40    90    90    80
120   140

 THE HIGHEST CONCENTRATION OF      3. ug/m**3 OCCURRED AT RECEPTOR REC35.
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2018 No-Build
Microscale Output Files
(Particulate Matter 2.5 (PM2.5))

```
♀                   CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221                        PAGE  1

      JOB: Skating Club of Boston                               RUN: 2018NB

      DATE :  8/22/13
      TIME : 21:57: 7

         The MODE flag has been set to P for calculating PM averages.

       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =   0.0 CM/S       VD =   0.0 CM/S       Z0 = 175. CM
        U =  1.0 M/S         CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =  0.0 ug/m**3

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*--------------------------------------*-------------------------------------------------------
----
       1. Soldier/Jug SB LTR  *   5198.9    6311.7    5198.3    6338.8 *      27.   359. AG      0. 100.0   1.0 20.0
0.25   1.4
       2. Soldier/Jug WB TT   *   5228.8    6294.1    5339.5    6355.9 *     127.    61. AG      0. 100.0   1.0 20.0
0.86   6.4
       3. Soldier/Jug NB LTR  *   5237.6    6215.9    5236.1    6148.0 *      68.   181. AG      0. 100.0   1.0 10.0
0.63   3.5
       4. Soldiers/Jug EB TTR *   5191.9    6230.9    5106.8    6191.2 *      94.   245. AG      0. 100.0   1.0 20.0
0.77   4.8
       5. Western/Ever SB LTR *   5231.8    5725.2    5233.9    5815.8 *      91.     1. AG      0. 100.0   1.0 10.0
0.67   4.6
       6. Western/Ever WB LTR *   5264.9    5714.2    8769.8    6311.1 *    3555.    80. AG      0. 100.0   1.0 10.0
1.59 180.6
       7. West/Ever NB LTR    *   5233.9    5654.6    5211.8    5589.3 *      69.   199. AG      0. 100.0   1.0 20.0
0.51   3.5
       8. West/Ever EB LTR    *   5190.3    5675.7    5072.2    5661.6 *     119.   263. AG      0. 100.0   1.0 20.0
0.74   6.0
       9. Ever/Rt20 SB LR     *   4193.6    2489.0    4252.1    2691.0 *     210.    16. AG      0. 100.0   1.0 10.0
0.89  10.7
      10. Ever/Rt20 WB TR     *   4221.0    2443.1    4336.8    2419.4 *     118.   102. AG      0. 100.0   1.0 20.0
0.50   6.0
      11. Ever/Rt20 EB LTT    *   4155.5    2436.3    3976.7    2468.0 *     182.   280. AG      0. 100.0   1.0 20.0
0.76   9.2
      12. Camb/Linc SB LR     *   7036.1    3650.1    7012.7    3698.2 *      54.   334. AG      0. 100.0   1.0 20.0
0.47   2.7
      13. Camb/Linc WB L      *   7113.8    3630.4    7116.0    3631.5 *       2.    63. AG      0. 100.0   1.0 10.0
0.02   0.1
      14. Camb/Linc WB TTR    *   7096.3    3646.8    7280.3    3741.2 *     207.    63. AG      0. 100.0   1.0 20.0
0.88  10.5
      15. Camb/Linc NB LTR    *   7116.0    3570.3    7116.2    3567.9 *       2.   175. AG      0. 100.0   1.0 10.0
0.02   0.1
      16. Camb/Linc EB L      *   7032.9    3580.1    6963.7    3546.9 *      77.   244. AG      0. 100.0   1.0 10.0
0.71   3.9
      17. Camb/Linc EB TTTR   *   7047.4    3560.7    6922.6    3501.2 *     138.   245. AG      0. 100.0   1.0 30.0
0.67   7.0
      18. Birm/Linc SB R      *   2027.5    4361.0    2037.6    4379.2 *      21.    29. AG      0. 100.0   1.0 10.0
0.16   1.1
      19. Birm/Linc SB TT     *   2045.2    4353.0    2092.7    4437.9 *      97.    29. AG      0. 100.0   1.0 20.0
0.56   4.9
      20. Birm/Linc WB LTR    *   2100.9    4264.2    2178.0    4247.2 *      79.   102. AG      0. 100.0   1.0 20.0
0.72   4.0
      21. Birm/Linc NB LTT    *   2029.7    4188.8    1974.9    4074.0 *     127.   205. AG      0. 100.0   1.0 20.0
0.74   6.5
      22. Birm/Linc EB LLTR   *   1966.7    4229.9    1922.2    4210.0 *      49.   246. AG      0. 100.0   1.0 20.0
0.57   2.5
      23. Soldier/Jug N       *   5199.2    6279.5    5199.2    6392.5 *     113.   360. AG    220.   0.0   1.0 42.0
      24. Soldier/Jug E-N     *   5199.2    6277.6    5400.6    6380.6 *     226.    63. AG   1597.   0.0   1.0 42.0
      25. Soldier/Jug E-S     *   5219.3    6237.5    5420.9    6345.5 *     229.    62. AG   1595.   0.0   1.0 42.0
      26. Soldier/Jug S       *   5235.5    6245.2    5234.6    6031.1 *     214.   180. AG    513.   0.0   1.0 42.0
      27. Soldier/Jug W-S     *   5214.5    6245.3    4975.3    6130.9 *     265.   244. AG   1431.   0.0   1.0 42.0
      28. Soldier/Jug W-N     *   5200.4    6278.0    4964.5    6172.3 *     258.   246. AG   1692.   0.0   1.0 42.0
      29. West/Ever N         *   5233.5    5697.0    5238.2    5899.5 *     203.     1. AG    515.   0.0   1.0 42.0
      30. West/Ever E         *   5233.5    5697.0    5535.4    5747.6 *     306.    80. AG   1612.   0.0   1.0 66.0
      31. West/Ever S         *   5236.3    5680.7    5158.2    5443.1 *     250.   198. AG    940.   0.0   1.0 54.0
      32. West/Ever W         *   5233.5    5697.0    4823.3    5637.1 *     415.   262. AG   1527.   0.0   1.0 60.0
      33. Ever/Rt20 N         *   4192.8    2443.9    4258.3    2688.4 *     253.    15. AG    744.   0.0   1.0 42.0
      34. Ever/Rt20 E         *   4192.8    2443.9    4427.9    2396.0 *     240.   102. AG   2038.   0.0   1.0 54.0
      35. Ever/Rt20 W         *   4192.8    2443.9    3904.9    2491.9 *     292.   279. AG   2018.   0.0   1.0 54.0
      36. Birm/Linc N-SB      *   1998.6    4296.0    2178.7    4628.9 *     378.    28. AG   1152.   0.0   1.0 54.0
      37. Birm/Linc N NB      *   2048.6    4265.6    2230.3    4606.5 *     386.    28. AG   1349.   0.0   1.0 54.0
      38. Birm/Linc E         *   2048.6    4272.0    2312.0    4209.5 *     271.   103. AG    384.   0.0   1.0 42.0
      39. Birm/Linc S         *   2043.8    4251.5    1930.5    4004.1 *     272.   205. AG   2424.   0.0   1.0 66.0
      40. Birm/Linc W-EB      *   2011.4    4253.5    1764.6    4138.7 *     272.   245. AG    244.   0.0   1.0 42.0
      41. Birm/Linc W-WB      *   1974.5    4286.0    1744.8    4182.6 *     252.   246. AG    518.   0.0   1.0 42.0
      42. Camb/Linc N         *   7068.0    3604.4    6989.0    3770.3 *     184.   335. AG    528.   0.0   1.0 60.0
      43. Camb/Linc E         *   7068.0    3604.4    7289.3    3709.9 *     245.    65. AG   3728.   0.0   1.0 ****
      44. Camb/Linc S         *   7111.5    3599.6    7116.3    3391.9 *     208.   179. AG     10.   0.0   1.0 42.0
♀                                                                                                           PAGE  2
      JOB: Skating Club of Boston                               RUN: 2018NB
```



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      DATE :  8/22/13
      TIME : 21:57: 7

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*--------------------------------------*-------------------------------------------------------
----
      45. Camb/Linc W         *   7068.0    3604.4    6777.8    3466.0 *     321.   244. AG   3591.   0.0   1.0 ****
♀                                                                                                           PAGE  3
      JOB: Skating Club of Boston                               RUN: 2018NB

      DATE :  8/22/13
      TIME : 21:57: 7

       1. Soldier/Jug SB LTR  *      69        45       3.0       220       1600       0.04       1        3
       2. Soldier/Jug WB TT   *      69        24       3.0      1597       1600       0.04       1        3
       3. Soldier/Jug NB LTR  *      69        45       3.0       276       1600       0.04       1        3
       4. Soldiers/Jug EB TTR *      69        24       3.0      1431       1600       0.04       1        3
       5. Western/Ever SB LTR *      90        63       3.0       263       1600       0.04       1        3
       6. Western/Ever WB LTR *      90        55       3.0       850       1600       0.04       1        3
       7. West/Ever NB LTR    *      90        63       3.0       400       1600       0.04       1        3
       8. West/Ever EB LTR    *      90        55       3.0       784       1600       0.04       1        3
       9. Ever/Rt20 SB LR     *     119        80       3.0       406       1600       0.04       1        3
      10. Ever/Rt20 WB TR     *     119        55       3.0       786       1600       0.04       1        3
      11. Ever/Rt20 EB LTT    *     119        55       3.0      1208       1600       0.04       1        3
      12. Camb/Linc SB LR     *     110        89       3.0       221       1600       0.04       1        3
      13. Camb/Linc WB L      *     110        91       3.0         5       1600       0.04       1        3
      14. Camb/Linc WB TTR    *     110        40       3.0      1666       1600       0.04       1        3
      15. Camb/Linc NB LTR    *     110        89       3.0         5       1600       0.04       1        3
      16. Camb/Linc EB L      *     110        91       3.0       144       1600       0.04       1        3
      17. Camb/Linc EB TTTR   *     110        40       3.0      1898       1600       0.04       1        3
      18. Birm/Linc SB R      *      90        20       3.0       190       1600       0.04       1        3
      19. Birm/Linc SB TT     *      90        37       3.0       962       1600       0.04       1        3
      20. Birm/Linc WB LTR    *      90        70       3.0       384       1600       0.04       1        3
      21. Birm/Linc NB LTT    *      90        37       3.0      1258       1600       0.04       1        3
      22. Birm/Linc EB LLTR   *      90        73       3.0       244       1600       0.04       1        3

       RECEPTOR LOCATIONS
       ------------------
                              *          COORDINATES (FT)         *
         RECEPTOR             *      X          Y          Z      *
     -------------------------*-----------------------------------*
      1. Soldiers/Jug NE1     *      5230.2     6478.3       6.0   *
      2. Soldiers/Jug NE2     *      5230.2     6403.2       6.0   *
      3. Soldiers/Jug NE3     *      5230.2     6328.3       6.0   *
      4. Soldiers/Jug NE4     *      5297.0     6362.4       6.0   *
      5. Soldiers/Jug NE5     *      5363.7     6396.6       6.0   *
      6. Soldiers/Jug SE1     *      5398.7     6298.4       6.0   *
      7. Soldiers/Jug SE2     *      5332.5     6263.0       6.0   *
      8. Soldiers/Jug SE3     *      5266.4     6227.6       6.0   *
      9. Soldiers/Jug SE4     *      5266.4     6152.6       6.0   *
     10. Soldiers/Jug SE5     *      5265.8     6077.6       6.0   *
     11. Soldiers/Jug SW1     *      5204.3     6056.0       6.0   *
     12. Soldiers/Jug SW2     *      5204.0     6131.0       6.0   *
     13. Soldiers/Jug SW3     *      5204.3     6206.0       6.0   *
     14. Soldiers/Jug SW4     *      5136.6     6173.7       6.0   *
     15. Soldiers/Jug SW5     *      5069.0     6141.4       6.0   *
     16. Soldiers/Jug NW1     *      5031.3     6236.2       6.0   *
     17. Soldiers/Jug NW2     *      5099.8     6266.9       6.0   *
     18. Soldiers/Jug NW3     *      5168.2     6297.6       6.0   *
     19. Soldiers/Jug NW4     *      5168.2     6372.6       6.0   *
     20. Soldiers/Jug NW5     *      5168.2     6447.6       6.0   *
     21. Western/Ever NE1     *      5269.1     5895.9       6.0   *
     22. Western/Ever NE2     *      5267.4     5821.0       6.0   *
     23. Western/Ever NE3     *      5265.7     5746.0       6.0   *
     24. Western/Ever NE4     *      5339.6     5758.4       6.0   *
     25. Western/Ever NE5     *      5413.6     5770.8       6.0   *
     26. Western/Ever SE1     *      5416.1     5684.0       6.0   *
     27. Western/Ever SE2     *      5342.1     5671.6       6.0   *
     28. Western/Ever SE3     *      5268.1     5659.2       6.0   *
     29. Western/Ever SE4     *      5244.7     5587.9       6.0   *
♀                                                                                                           PAGE  4
      JOB: Skating Club of Boston                               RUN: 2018NB

      DATE :  8/22/13
      TIME : 21:57: 7


       RECEPTOR LOCATIONS
       ------------------
                              *          COORDINATES (FT)         *
         RECEPTOR             *      X          Y          Z      *
     -------------------------*-----------------------------------*
     30. Western/Ever SE5     *      5221.3     5516.7       6.0   *
     31. Western/Ever SW1     *      5140.4     5507.3       6.0   *
```

32.	Western/Ever SW2	*	5163.8	5578.5	6.0	*
33.	Western/Ever SW3	*	5187.2	5649.8	6.0	*
34.	Western/Ever SW4	*	5113.0	5639.0	6.0	*
35.	Western/Ever SW5	*	5038.7	5628.1	6.0	*
36.	Western/Ever NW1	*	5054.9	5711.3	6.0	*
37.	Western/Ever NW2	*	5129.1	5722.2	6.0	*
38.	Western/Ever NW3	*	5203.4	5733.0	6.0	*
39.	Western/Ever NW4	*	5205.1	5808.0	6.0	*
40.	Western/Ever NW5	*	5206.8	5883.0	6.0	*
41.	Ever/Rt20 NE1	*	4271.6	2618.4	6.0	*
42.	Ever/Rt20 NE2	*	4252.2	2546.0	6.0	*
43.	Ever/Rt20 NE3	*	4232.8	2473.5	6.0	*
44.	Ever/Rt20 NE4	*	4306.3	2458.5	6.0	*
45.	Ever/Rt20 NE5	*	4379.8	2443.6	6.0	*
46.	Ever/Rt20 S1	*	4333.0	2377.6	6.0	*
47.	Ever/Rt20 S2	*	4259.5	2392.6	6.0	*
48.	Ever/Rt20 S3	*	4186.0	2407.5	6.0	*
49.	Ever/Rt20 S4	*	4112.0	2419.9	6.0	*
50.	Ever/Rt20 S5	*	4038.1	2432.2	6.0	*
51.	Ever/Rt20 NW1	*	4023.7	2509.6	6.0	*
52.	Ever/Rt20 NW2	*	4097.7	2497.3	6.0	*
53.	Ever/Rt20 NW3	*	4171.7	2485.0	6.0	*
54.	Ever/Rt20 NW4	*	4191.1	2557.4	6.0	*
55.	Ever/Rt20 NW5	*	4210.5	2629.8	6.0	*

♀ PAGE 5

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
10. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
20. *	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
30. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.
40. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.
50. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	1.	2.	1.	2.	0.	0.	0.	0.	0.
60. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	0.	0.
70. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.
80. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	0.	0.
90. *	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	0.	0.
100. *	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
110. *	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	1.	1.	0.
120. *	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	1.	1.	0.
130. *	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
140. *	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
150. *	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	1.	1.	0.
160. *	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
170. *	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
180. *	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
190. *	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
200. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.
210. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.
220. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
230. *	0.	0.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.		

0. 0.

WIND ANGLE (DEGR) *	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
240. *	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.
250. *	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.
260. *	0.	0.	0.	0.	0.	2.	2.	2.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.
270. *	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.
280. *	0.	0.	0.	0.	0.	2.	1.	2.	1.	0.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.
290. *	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
300. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
310. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
320. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
330. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
340. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
350. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
360. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
MAX *	1.	1.	2.	2.	2.	2.	2.	2.	1.	1.	1.	1.	2.	2.	2.	2.	2.	2.	1.	1.
DEGR. *	160	190	210	210	210	270	260	270	310	350	10	30	40	30	40	90	150	80	150	160

♀ PAGE 6

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.
10. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
20. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
30. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
40. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
50. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
60. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	2.	1.	0.	0.	0.	0.	0.
70. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	0.	0.
80. *	0.	0.	1.	0.	0.	0.	0.	1.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	0.	0.
90. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.
100. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	0.
110. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	0.
120. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	0.
130. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
140. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
150. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	0.
160. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
170. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.

180.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
190.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
200.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
210.	*	1.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
220.	*	1.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
230.	*	0.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
240.	*	0.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
250.	*	0.	0.	1.	1.	1.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
260.	*	0.	0.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.	0.	0.	1.	1.	0.	0.
270.	*	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
280.	*	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
290.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
300.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
310.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
320.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
330.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
340.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
350.	*	0.	1.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
360.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.
MAX	*	1.	1.	1.	1.	1.	1.	1.	2.	1.	1.	1.	1.	1.	2.	1.	1.	1.	1.	1.	1.
DEGR.	*	200	200	210	240	250	270	280	280	340	0	30	50	70	60	60	110	140	100	130	160

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (ug/m**3) REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
10.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
20.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
30.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	0.
40.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	1.	0.
50.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	1.	0.
60.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	1.	1.
70.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	2.	0.	0.	0.	1.	1.
80.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	2.	0.	0.	0.	0.	0.
90.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	2.	0.	0.	0.	0.	0.
100.	*	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.
110.	*	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
120.	*	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.
130.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.
140.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.
150.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
160.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
170.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
180.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
190.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
200.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
210.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
220.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
230.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
240.	*	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
250.	*	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
260.	*	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
270.	*	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.

280.	*	0.	0.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.	0.
290.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
300.	*	0.	0.	0.	0.	0.	2.	1.	1.	1.	1.	0.	0.	0.	0.	0.
310.	*	0.	0.	0.	0.	0.	2.	1.	1.	1.	1.	0.	0.	0.	0.	0.
320.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
330.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
340.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
350.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
360.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
MAX	*	1.	1.	2.	2.	2.	2.	1.	1.	2.	2.	1.	2.	2.	1.	1.
DEGR.	*	230	240	260	260	270	310	300	20	50	80	120	120	120	140	160

THE HIGHEST CONCENTRATION OF 2. ug/m**3 OCCURRED AT RECEPTOR REC4 .

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♀                    CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221                    PAGE  1

      JOB: Skating Club of Boston                             RUN: 2018NB

      DATE :  8/22/13
      TIME : 21:56:11

         The MODE flag has been set to P for calculating PM averages.

       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =   0.0 CM/S       VD =   0.0 CM/S       Z0 = 175. CM
        U =  1.0 M/S         CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =  0.0 ug/m**3

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*--------------------------------------*-------------------------------------------------
----
       1. Soldier/Jug SB LTR  *   5198.9    6311.7    5198.3    6338.8 *      27.   359. AG      0. 100.0   1.0 20.0
0.25   1.4
       2. Soldier/Jug WB TT   *   5228.8    6294.1    5339.5    6355.9 *     127.    61. AG      0. 100.0   1.0 20.0
0.86   6.4
       3. Soldier/Jug NB LTR  *   5237.6    6215.9    5236.1    6148.0 *      68.   181. AG      0. 100.0   1.0 10.0
0.63   3.5
       4. Soldiers/Jug EB TTR *   5191.9    6230.9    5106.8    6191.2 *      94.   245. AG      0. 100.0   1.0 20.0
0.77   4.8
       5. Western/Ever SB LTR *   5231.8    5725.2    5233.9    5815.8 *      91.     1. AG      0. 100.0   1.0 10.0
0.67   4.6
       6. Western/Ever WB LTR *   5264.9    5714.2    8769.8    6311.1 *    3555.    80. AG      0. 100.0   1.0 10.0
1.59 180.6
       7. West/Ever NB LTR    *   5233.9    5654.6    5211.8    5589.3 *      69.   199. AG      0. 100.0   1.0 20.0
0.51   3.5
       8. West/Ever EB LTR    *   5190.3    5675.7    5072.2    5661.6 *     119.   263. AG      0. 100.0   1.0 20.0
0.74   6.0
       9. Ever/Rt20 SB LR     *   4193.6    2489.0    4252.1    2691.0 *     210.    16. AG      0. 100.0   1.0 10.0
0.89  10.7
      10. Ever/Rt20 WB TR     *   4221.0    2443.1    4336.8    2419.4 *     118.   102. AG      0. 100.0   1.0 20.0
0.50   6.0
      11. Ever/Rt20 EB LTT    *   4155.5    2436.3    3976.7    2468.0 *     182.   280. AG      0. 100.0   1.0 20.0
0.76   9.2
      12. Camb/Linc SB LR     *   7036.1    3650.1    7012.7    3698.2 *      54.   334. AG      0. 100.0   1.0 20.0
0.47   2.7
      13. Camb/Linc WB L      *   7113.8    3630.4    7116.0    3631.5 *       2.    63. AG      0. 100.0   1.0 10.0
0.02   0.1
      14. Camb/Linc WB TTR    *   7096.3    3646.8    7280.3    3741.2 *     207.    63. AG      0. 100.0   1.0 20.0
0.88  10.5
      15. Camb/Linc NB LTR    *   7116.0    3570.3    7116.2    3567.9 *       2.   175. AG      0. 100.0   1.0 10.0
0.02   0.1
      16. Camb/Linc EB L      *   7032.9    3580.1    6963.7    3546.9 *      77.   244. AG      0. 100.0   1.0 10.0
0.71   3.9
      17. Camb/Linc EB TTTR   *   7047.4    3560.7    6922.6    3501.2 *     138.   245. AG      0. 100.0   1.0 30.0
0.67   7.0
      18. Birm/Linc SB R      *   2027.5    4361.0    2037.6    4379.2 *      21.    29. AG      0. 100.0   1.0 10.0
0.16   1.1
      19. Birm/Linc SB TT     *   2045.2    4353.0    2092.7    4437.9 *      97.    29. AG      0. 100.0   1.0 20.0
0.56   4.9
      20. Birm/Linc WB LTR    *   2100.9    4264.2    2178.0    4247.2 *      79.   102. AG      0. 100.0   1.0 20.0
0.72   4.0
      21. Birm/Linc NB LTT    *   2029.7    4188.8    1974.9    4074.0 *     127.   205. AG      0. 100.0   1.0 20.0
0.74   6.5
      22. Birm/Linc EB LLTR   *   1966.7    4229.9    1922.2    4210.0 *      49.   246. AG      0. 100.0   1.0 20.0
0.57   2.5
      23. Soldier/Jug N       *   5199.2    6279.5    5199.2    6392.5 *     113.   360. AG    220.    0.0   1.0 42.0
      24. Soldier/Jug E-N     *   5199.2    6277.6    5400.6    6380.6 *     226.    63. AG   1597.    0.0   1.0 42.0
      25. Soldier/Jug E-S     *   5219.3    6237.5    5420.9    6345.5 *     229.    62. AG   1595.    0.0   1.0 42.0
      26. Soldier/Jug S       *   5235.5    6245.2    5234.6    6031.1 *     214.   180. AG    513.    0.0   1.0 42.0
      27. Soldier/Jug W-S     *   5214.5    6245.3    4975.3    6130.9 *     265.   244. AG   1431.    0.0   1.0 42.0
      28. Soldier/Jug W-N     *   5200.4    6278.0    4964.5    6172.3 *     258.   246. AG   1692.    0.0   1.0 42.0
      29. West/Ever N         *   5233.5    5697.0    5238.2    5899.5 *     203.     1. AG    515.    0.0   1.0 42.0
      30. West/Ever E         *   5233.5    5697.0    5535.4    5747.6 *     306.    80. AG   1612.    0.0   1.0 66.0
      31. West/Ever S         *   5236.3    5680.7    5158.2    5443.1 *     250.   198. AG    940.    0.0   1.0 54.0
      32. West/Ever W         *   5233.5    5697.0    4823.3    5637.1 *     415.   262. AG   1527.    0.0   1.0 60.0
      33. Ever/Rt20 N         *   4192.8    2443.9    4258.3    2688.4 *     253.    15. AG    744.    0.0   1.0 42.0
      34. Ever/Rt20 E         *   4192.8    2443.9    4427.9    2396.0 *     240.   102. AG   2038.    0.0   1.0 54.0
      35. Ever/Rt20 W         *   4192.8    2443.9    3904.9    2491.9 *     292.   279. AG   2018.    0.0   1.0 54.0
      36. Birm/Linc N-SB      *   1998.6    4296.0    2178.7    4628.9 *     378.    28. AG   1152.    0.0   1.0 54.0
      37. Birm/Linc N NB      *   2048.6    4265.6    2230.3    4606.5 *     386.    28. AG   1349.    0.0   1.0 54.0
      38. Birm/Linc E         *   2048.6    4272.0    2312.0    4209.5 *     271.   103. AG    384.    0.0   1.0 42.0
      39. Birm/Linc S         *   2043.8    4251.5    1930.5    4004.1 *     272.   205. AG   2424.    0.0   1.0 66.0
      40. Birm/Linc W-EB      *   2011.4    4253.5    1764.6    4138.7 *     272.   245. AG    244.    0.0   1.0 42.0
      41. Birm/Linc W-WB      *   1974.5    4286.0    1744.8    4182.6 *     252.   246. AG    518.    0.0   1.0 42.0
      42. Camb/Linc N         *   7068.0    3604.4    6989.0    3770.3 *     184.   335. AG    528.    0.0   1.0 60.0
      43. Camb/Linc E         *   7068.0    3604.4    7289.3    3709.9 *     245.    65. AG   3728.    0.0   1.0 ****
      44. Camb/Linc S         *   7111.5    3599.6    7116.3    3391.9 *     208.   179. AG     10.    0.0   1.0 42.0
♀                                                                                                        PAGE  2
      JOB: Skating Club of Boston                             RUN: 2018NB
```


2018NB_2_PM25.out

```
      DATE :  8/22/13
      TIME : 21:56:11

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*--------------------------------------*-------------------------------------------------
----
      45. Camb/Linc W         *   7068.0    3604.4    6777.8    3466.0 *     321.   244. AG   3591.    0.0   1.0 ****
♀                                                                                                        PAGE  3
      JOB: Skating Club of Boston                             RUN: 2018NB

      DATE :  8/22/13
      TIME : 21:56:11

       1. Soldier/Jug SB LTR  *      69        45       3.0       220       1600       0.04      1        3
       2. Soldier/Jug WB TT   *      69        24       3.0      1597       1600       0.04      1        3
       3. Soldier/Jug NB LTR  *      69        45       3.0       276       1600       0.04      1        3
       4. Soldiers/Jug EB TTR *      69        24       3.0      1431       1600       0.04      1        3
       5. Western/Ever SB LTR *      90        63       3.0       263       1600       0.04      1        3
       6. Western/Ever WB LTR *      90        55       3.0       850       1600       0.04      1        3
       7. West/Ever NB LTR    *      90        63       3.0       400       1600       0.04      1        3
       8. West/Ever EB LTR    *      90        55       3.0       784       1600       0.04      1        3
       9. Ever/Rt20 SB LR     *     119        80       3.0       406       1600       0.04      1        3
      10. Ever/Rt20 WB TR     *     119        55       3.0       786       1600       0.04      1        3
      11. Ever/Rt20 EB LTT    *     119        55       3.0      1208       1600       0.04      1        3
      12. Camb/Linc SB LR     *     110        89       3.0       221       1600       0.04      1        3
      13. Camb/Linc WB L      *     110        91       3.0         5       1600       0.04      1        3
      14. Camb/Linc WB TTR    *     110        40       3.0      1666       1600       0.04      1        3
      15. Camb/Linc NB LTR    *     110        89       3.0         5       1600       0.04      1        3
      16. Camb/Linc EB L      *     110        91       3.0       144       1600       0.04      1        3
      17. Camb/Linc EB TTTR   *     110        40       3.0      1898       1600       0.04      1        3
      18. Birm/Linc SB R      *      90        20       3.0       190       1600       0.04      1        3
      19. Birm/Linc SB TT     *      90        37       3.0       962       1600       0.04      1        3
      20. Birm/Linc WB LTR    *      90        70       3.0       384       1600       0.04      1        3
      21. Birm/Linc NB LTT    *      90        37       3.0      1258       1600       0.04      1        3
      22. Birm/Linc EB LLTR   *      90        73       3.0       244       1600       0.04      1        3

       RECEPTOR LOCATIONS
       ------------------
                              *       COORDINATES (FT)          *
         RECEPTOR             *      X          Y         Z     *
     -------------------------*---------------------------------*
      1. Birm/Linc NE1        *      2174.4     4423.1       6.0   *
      2. Birm/Linc NE2        *      2139.2     4356.9       6.0   *
      3. Birm/Linc NE3        *      2103.9     4290.7       6.0   *
      4. Birm/Linc NE4        *      2176.9     4273.4       6.0   *
      5. Birm/Linc NE5        *      2249.9     4256.1       6.0   *
      6. Birm/Linc SE1        *      2228.1     4197.6       6.0   *
      7. Birm/Linc SE2        *      2130.7     4220.7       6.0   *
      8. Birm/Linc SE3        *      2082.2     4232.2       6.0   *
      9. Birm/Linc SE4        *      2051.0     4164.0       6.0   *
     10. Birm/Linc SE5        *      2019.8     4095.8       6.0   *
     11. Birm/Linc SW1        *      1911.3     4065.4       6.0   *
     12. Birm/Linc SW2        *      1942.5     4133.5       6.0   *
     13. Birm/Linc SW3        *      1973.7     4201.7       6.0   *
     14. Birm/Linc SW4        *      1905.7     4170.1       6.0   *
     15. Birm/Linc SW5        *      1837.7     4138.5       6.0   *
     16. Birm/Linc NW1        *      1831.2     4255.5       6.0   *
     17. Birm/Linc NW2        *      1899.6     4286.3       6.0   *
     18. Birm/Linc NW3        *      1968.0     4317.1       6.0   *
     19. Birm/Linc NW4        *      2003.6     4383.1       6.0   *
     20. Birm/Linc NW5        *      2039.3     4449.0       6.0   *
     21. Camb/Linc NE1        *      7013.4     3812.1       6.0   *
     22. Camb/Linc NE2        *      7045.6     3744.4       6.0   *
     23. Camb/Linc NE3        *      7077.9     3676.7       6.0   *
     24. Camb/Linc NE4        *      7145.6     3709.0       6.0   *
     25. Camb/Linc NE5        *      7213.3     3741.2       6.0   *
     26. Camb/Linc SE1        *      7278.5     3637.2       6.0   *
     27. Camb/Linc SE2        *      7210.8     3604.9       6.0   *
     28. Camb/Linc SE3        *      7143.1     3572.7       6.0   *
     29. Camb/Linc SE4        *      7144.9     3497.7       6.0   *
♀                                                                                                        PAGE  4
      JOB: Skating Club of Boston                             RUN: 2018NB

      DATE :  8/22/13
      TIME : 21:56:11


       RECEPTOR LOCATIONS
       ------------------
                              *       COORDINATES (FT)          *
         RECEPTOR             *      X          Y         Z     *
     -------------------------*---------------------------------*
     30. Camb/Linc SE5        *      7146.6     3422.7       6.0   *
     31. Camb/Linc SW1        *      7085.3     3393.5       6.0   *
```

32. Camb/Linc SW2	*	7083.5	3468.5	6.0	*
33. Camb/Linc SW3	*	7081.8	3543.4	6.0	*
34. Camb/Linc SW4	*	7014.1	3511.1	6.0	*
35. Camb/Linc SW5	*	6946.4	3478.8	6.0	*
36. Camb/Linc NW1	*	6870.3	3577.7	6.0	*
37. Camb/Linc NW2	*	6938.0	3610.0	6.0	*
38. Camb/Linc NW3	*	7005.6	3642.3	6.0	*
39. Camb/Linc NW4	*	6973.4	3710.0	6.0	*
40. Camb/Linc NW5	*	6941.2	3777.7	6.0	*

♀ PAGE 5

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	2.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.
20. *	0.	1.	1.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.
30. *	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.	0.
40. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	1.	1.	1.	1.	0.	0.	1.	1.	1.
50. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	1.	1.	1.	0.	0.	1.	1.	1.
60. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	1.	1.	1.	0.	1.	1.	1.	1.
70. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
80. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	0.	0.	1.	1.	1.
90. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
100. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
110. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
120. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
130. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
140. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	0.	1.	1.
150. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
160. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.
170. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	0.	1.	1.	1.	1.
180. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	1.	1.	1.
190. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	1.	1.	1.
200. *	1.	1.	1.	1.	0.	0.	0.	1.	0.	0.	0.	0.	1.	0.	0.	0.	0.	1.	1.	1.
210. *	1.	1.	1.	1.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
220. *	1.	1.	2.	1.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
230. *	1.	1.	1.	1.	0.	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
240. *	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
250. *	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
260. *	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
270. *	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
280. *	1.	1.	1.	1.	1.	1.	1.	1.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
290. *	1.	1.	1.	0.	0.	1.	1.	1.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
300. *	1.	1.	1.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
310. *	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
320. *	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
330. *	1.	1.	1.	0.	0.	1.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
340. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
350. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
360. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX *	1.	1.	2.	1.	1.	1.	1.	2.	2.	2.	2.	2.	1.	1.	1.	1.	1.	1.	1.	1.
DEGR. *	230	0	220	230	270	300	340	230	230	0	40	50	40	40	40	110	140	60	60	160

♀ PAGE 6

JOB: Skating Club of Boston RUN: 2018NB

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0. *	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.
10. *	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.	1.	1.	2.	2.	2.	0.	0.	1.	0.	0.
20. *	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.	1.	1.	2.	2.	2.	0.	0.	1.	0.	0.
30. *	0.	0.	0.	0.	0.	0.	1.	2.	1.	0.	0.	1.	2.	2.	2.	0.	0.	1.	0.	0.
40. *	0.	0.	0.	0.	0.	0.	1.	2.	0.	0.	0.	1.	2.	2.	2.	0.	0.	1.	0.	0.
50. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	1.	2.	2.	0.	0.	1.	0.	0.
60. *	0.	0.	1.	0.	0.	0.	1.	1.	0.	0.	0.	0.	1.	1.	2.	1.	1.	1.	0.	0.
70. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	2.	2.	0.	0.
80. *	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	0.	0.
90. *	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
100. *	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
110. *	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
120. *	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
130. *	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
140. *	1.	1.	1.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
150. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
160. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
170. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.
180. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.
190. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
200. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.
210. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.
220. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	0.	0.
230. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	0.	0.
240. *	0.	0.	2.	2.	2.	1.	1.	1.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	0.	0.
250. *	0.	0.	1.	1.	1.	2.	2.	1.	0.	0.	0.	0.	1.	1.	1.	0.	0.	0.		

```
0.    0.
 260.  *    0.    0.    1.    0.    0.    2.    2.    2.    0.    0.    0.    0.    2.    2.    1.    0.    0.    0.
0.    0.
 270.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    0.    0.    1.    2.    2.    1.    0.    0.    0.
0.    0.
 280.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    0.    0.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 290.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    0.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 300.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 310.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    1.    2.    1.    0.    0.    0.
0.    0.
 320.  *    0.    0.    0.    0.    0.    1.    1.    2.    1.    1.    1.    1.    1.    2.    2.    0.    0.    0.
0.    0.
 330.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 340.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 350.  *    0.    0.    0.    0.    0.    1.    1.    1.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 360.  *    0.    0.    0.    0.    0.    1.    1.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.

------*--------------------------------------------------------------------------------------------------------------
-------
 MAX   *    1.    1.    2.    2.    2.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    2.    2.    2.
1.    1.
 DEGR. *  180   190   220   220   230   270   260   270     0   320   340   340   270    10    30    90    80    80
110   130

 THE HIGHEST CONCENTRATION OF      2. ug/m**3 OCCURRED AT RECEPTOR REC35.
```

2018 Build
Microscale Output Files
(Particulate Matter 2.5 (PM2.5))

```
♀                     CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221                          PAGE  1

      JOB: Skating Club of Boston                            RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:56:59

         The MODE flag has been set to P for calculating PM averages.

       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =   0.0 CM/S       VD =   0.0 CM/S       Z0 = 175. CM
        U =  1.0 M/S         CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =  0.0 ug/m**3

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*---------------------------------------*---------------------------------------------------
----
       1. Soldier/Jug SB LTR  *   5198.9    6311.7    5198.2    6339.8 *      28.   359. AG      0. 100.0   1.0 20.0
0.26   1.4
       2. Soldier/Jug WB TT   *   5228.8    6294.1    5339.5    6355.9 *     127.    61. AG      0. 100.0   1.0 20.0
0.86   6.4
       3. Soldier/Jug NB LTR  *   5237.6    6215.9    5236.1    6146.8 *      69.   181. AG      0. 100.0   1.0 10.0
0.64   3.5
       4. Soldiers/Jug EB TTR *   5191.9    6230.9    5106.8    6191.2 *      94.   245. AG      0. 100.0   1.0 20.0
0.77   4.8
       5. Western/Ever SB LTR *   5231.8    5725.2    5234.0    5819.6 *      94.     1. AG      0. 100.0   1.0 10.0
0.69   4.8
       6. Western/Ever WB LTR *   5264.9    5714.2    8820.8    6319.8 *    3607.    80. AG      0. 100.0   1.0 10.0
1.60 183.2
       7. West/Ever NB LTR    *   5233.9    5654.6    5211.1    5587.3 *      71.   199. AG      0. 100.0   1.0 20.0
0.53   3.6
       8. West/Ever EB LTR    *   5190.3    5675.7    5069.7    5661.3 *     121.   263. AG      0. 100.0   1.0 20.0
0.74   6.2
       9. Ever/Rt20 SB LR     *   4193.6    2489.0    4257.1    2708.2 *     228.    16. AG      0. 100.0   1.0 10.0
0.92  11.6
      10. Ever/Rt20 WB TR     *   4221.0    2443.1    4338.6    2419.1 *     120.   102. AG      0. 100.0   1.0 20.0
0.50   6.1
      11. Ever/Rt20 EB LTT    *   4155.5    2436.3    3975.8    2468.1 *     183.   280. AG      0. 100.0   1.0 20.0
0.77   9.3
      12. Camb/Linc SB LR     *   7036.1    3650.1    7007.1    3709.6 *      66.   334. AG      0. 100.0   1.0 20.0
0.59   3.4
      13. Camb/Linc WB L      *   7113.8    3630.4    7116.0    3631.5 *       2.    63. AG      0. 100.0   1.0 10.0
0.02   0.1
      14. Camb/Linc WB TTR    *   7096.3    3646.8    7311.7    3757.2 *     242.    63. AG      0. 100.0   1.0 20.0
0.92  12.3
      15. Camb/Linc NB LTR    *   7116.0    3570.3    7116.2    3567.9 *       2.   175. AG      0. 100.0   1.0 10.0
0.02   0.1
      16. Camb/Linc EB L      *   7032.9    3580.1    6963.7    3546.9 *      77.   244. AG      0. 100.0   1.0 10.0
0.71   3.9
      17. Camb/Linc EB TTTR   *   7047.4    3560.7    6922.6    3501.2 *     138.   245. AG      0. 100.0   1.0 30.0
0.67   7.0
      18. Birm/Linc SB R      *   2027.5    4361.0    2037.6    4379.2 *      21.    29. AG      0. 100.0   1.0 10.0
0.16   1.1
      19. Birm/Linc SB TT     *   2045.2    4353.0    2092.7    4437.9 *      97.    29. AG      0. 100.0   1.0 20.0
0.56   4.9
      20. Birm/Linc WB LTR    *   2100.9    4264.2    2178.0    4247.2 *      79.   102. AG      0. 100.0   1.0 20.0
0.72   4.0
      21. Birm/Linc NB LTT    *   2029.7    4188.8    1974.9    4074.0 *     127.   205. AG      0. 100.0   1.0 20.0
0.74   6.5
      22. Birm/Linc EB LLTR   *   1966.7    4229.9    1921.8    4209.9 *      49.   246. AG      0. 100.0   1.0 20.0
0.58   2.5
      23. Soldier/Jug N       *   5199.2    6279.5    5199.2    6392.5 *     113.   360. AG    228.    0.0   1.0 42.0
      24. Soldier/Jug E-N     *   5199.2    6277.6    5400.6    6380.6 *     226.    63. AG   1597.    0.0   1.0 42.0
      25. Soldier/Jug E-S     *   5219.3    6237.5    5420.9    6345.5 *     229.    62. AG   1600.    0.0   1.0 42.0
      26. Soldier/Jug S       *   5235.5    6245.2    5234.6    6031.1 *     214.   180. AG    526.    0.0   1.0 42.0
      27. Soldier/Jug W-S     *   5214.5    6245.3    4975.3    6130.9 *     265.   244. AG   1431.    0.0   1.0 42.0
      28. Soldier/Jug W-N     *   5200.4    6278.0    4964.5    6172.3 *     258.   246. AG   1692.    0.0   1.0 42.0
      29. West/Ever N         *   5233.5    5697.0    5238.2    5899.5 *     203.     1. AG    524.    0.0   1.0 42.0
      30. West/Ever E         *   5233.5    5697.0    5535.4    5747.6 *     306.    80. AG   1620.    0.0   1.0 66.0
      31. West/Ever S         *   5236.3    5680.7    5158.2    5443.1 *     250.   198. AG    975.    0.0   1.0 54.0
      32. West/Ever W         *   5233.5    5697.0    4823.3    5637.1 *     415.   262. AG   1542.    0.0   1.0 60.0
      33. Ever/Rt20 N         *   4192.8    2443.9    4258.3    2688.4 *     253.    15. AG    776.    0.0   1.0 42.0
      34. Ever/Rt20 E         *   4192.8    2443.9    4427.9    2396.0 *     240.   102. AG   2060.    0.0   1.0 54.0
      35. Ever/Rt20 W         *   4192.8    2443.9    3904.9    2491.9 *     292.   279. AG   2028.    0.0   1.0 54.0
      36. Birm/Linc N-SB      *   1998.6    4296.0    2178.7    4628.9 *     378.    28. AG   1152.    0.0   1.0 54.0
      37. Birm/Linc N NB      *   2048.6    4265.6    2230.3    4606.5 *     386.    28. AG   1352.    0.0   1.0 54.0
      38. Birm/Linc E         *   2048.6    4272.0    2312.0    4209.5 *     271.   103. AG    385.    0.0   1.0 42.0
      39. Birm/Linc S         *   2043.8    4251.5    1930.5    4004.1 *     272.   205. AG   2426.    0.0   1.0 66.0
      40. Birm/Linc W-EB      *   2011.4    4253.5    1764.6    4138.7 *     272.   245. AG    246.    0.0   1.0 42.0
      41. Birm/Linc W-WB      *   1974.5    4286.0    1744.8    4182.6 *     252.   246. AG    518.    0.0   1.0 42.0
      42. Camb/Linc N         *   7068.0    3604.4    6989.0    3770.3 *     184.   335. AG    657.    0.0   1.0 60.0
      43. Camb/Linc E         *   7068.0    3604.4    7289.3    3709.9 *     245.    65. AG   3857.    0.0   1.0 ****
      44. Camb/Linc S         *   7111.5    3599.6    7116.3    3391.9 *     208.   179. AG     10.    0.0   1.0 42.0
♀                                                                                                               PAGE  2
      JOB: Skating Club of Boston                            RUN: 2018BD
```



```
      DATE :  8/22/13
      TIME : 21:56:59

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*---------------------------------------*---------------------------------------------------
----
      45. Camb/Linc W         *   7068.0    3604.4    6777.8    3466.0 *     321.   244. AG   3591.    0.0   1.0 ****
♀                                                                                                               PAGE  3
      JOB: Skating Club of Boston                            RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:56:59

       1. Soldier/Jug SB LTR  *       69        45       3.0       228       1600       0.04       1        3
       2. Soldier/Jug WB TT   *       69        24       3.0      1597       1600       0.04       1        3
       3. Soldier/Jug NB LTR  *       69        45       3.0       281       1600       0.04       1        3
       4. Soldiers/Jug EB TTR *       69        24       3.0      1431       1600       0.04       1        3
       5. Western/Ever SB LTR *       90        63       3.0       271       1600       0.04       1        3
       6. Western/Ever WB LTR *       90        55       3.0       855       1600       0.04       1        3
       7. West/Ever NB LTR    *       90        63       3.0       412       1600       0.04       1        3
       8. West/Ever EB LTR    *       90        55       3.0       794       1600       0.04       1        3
       9. Ever/Rt20 SB LR     *      119        80       3.0       419       1600       0.04       1        3
      10. Ever/Rt20 WB TR     *      119        55       3.0       799       1600       0.04       1        3
      11. Ever/Rt20 EB LTT    *      119        55       3.0      1214       1600       0.04       1        3
      12. Camb/Linc SB LR     *      110        89       3.0       272       1600       0.04       1        3
      13. Camb/Linc WB L      *      110        91       3.0         5       1600       0.04       1        3
      14. Camb/Linc WB TTR    *      110        40       3.0      1744       1600       0.04       1        3
      15. Camb/Linc NB LTR    *      110        89       3.0         5       1600       0.04       1        3
      16. Camb/Linc EB L      *      110        91       3.0       144       1600       0.04       1        3
      17. Camb/Linc EB TTTR   *      110        40       3.0      1898       1600       0.04       1        3
      18. Birm/Linc SB R      *       90        20       3.0       190       1600       0.04       1        3
      19. Birm/Linc SB TT     *       90        37       3.0       962       1600       0.04       1        3
      20. Birm/Linc WB LTR    *       90        70       3.0       385       1600       0.04       1        3
      21. Birm/Linc NB LTT    *       90        37       3.0      1259       1600       0.04       1        3
      22. Birm/Linc EB LLTR   *       90        73       3.0       246       1600       0.04       1        3

       RECEPTOR LOCATIONS
       ------------------
                              *           COORDINATES (FT)           *
         RECEPTOR             *      X          Y           Z        *
     -------------------------*--------------------------------------*
       1. Soldiers/Jug NE1    *      5230.2     6478.3        6.0    *
       2. Soldiers/Jug NE2    *      5230.2     6403.2        6.0    *
       3. Soldiers/Jug NE3    *      5230.2     6328.3        6.0    *
       4. Soldiers/Jug NE4    *      5297.0     6362.4        6.0    *
       5. Soldiers/Jug NE5    *      5363.7     6396.6        6.0    *
       6. Soldiers/Jug SE1    *      5398.7     6298.4        6.0    *
       7. Soldiers/Jug SE2    *      5332.5     6263.0        6.0    *
       8. Soldiers/Jug SE3    *      5266.4     6227.6        6.0    *
       9. Soldiers/Jug SE4    *      5266.4     6152.6        6.0    *
      10. Soldiers/Jug SE5    *      5265.8     6077.6        6.0    *
      11. Soldiers/Jug SW1    *      5204.3     6056.0        6.0    *
      12. Soldiers/Jug SW2    *      5204.0     6131.0        6.0    *
      13. Soldiers/Jug SW3    *      5204.3     6206.0        6.0    *
      14. Soldiers/Jug SW4    *      5136.6     6173.7        6.0    *
      15. Soldiers/Jug SW5    *      5069.0     6141.4        6.0    *
      16. Soldiers/Jug NW1    *      5031.3     6236.2        6.0    *
      17. Soldiers/Jug NW2    *      5099.8     6266.9        6.0    *
      18. Soldiers/Jug NW3    *      5168.2     6297.6        6.0    *
      19. Soldiers/Jug NW4    *      5168.2     6372.6        6.0    *
      20. Soldiers/Jug NW5    *      5168.2     6447.6        6.0    *
      21. Western/Ever NE1    *      5269.1     5895.9        6.0    *
      22. Western/Ever NE2    *      5267.4     5821.0        6.0    *
      23. Western/Ever NE3    *      5265.7     5746.0        6.0    *
      24. Western/Ever NE4    *      5339.6     5758.4        6.0    *
      25. Western/Ever NE5    *      5413.6     5770.8        6.0    *
      26. Western/Ever SE1    *      5416.1     5684.0        6.0    *
      27. Western/Ever SE2    *      5342.1     5671.6        6.0    *
      28. Western/Ever SE3    *      5268.1     5659.2        6.0    *
      29. Western/Ever SE4    *      5244.7     5587.9        6.0    *
♀                                                                                                               PAGE  4
      JOB: Skating Club of Boston                            RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:56:59


       RECEPTOR LOCATIONS
       ------------------
                              *           COORDINATES (FT)           *
         RECEPTOR             *      X          Y           Z        *
     -------------------------*--------------------------------------*
      30. Western/Ever SE5    *      5221.3     5516.7        6.0    *
      31. Western/Ever SW1    *      5140.4     5507.3        6.0    *
```

32.	Western/Ever SW2	*	5163.8	5578.5	6.0 *
33.	Western/Ever SW3	*	5187.2	5649.8	6.0 *
34.	Western/Ever SW4	*	5113.0	5639.0	6.0 *
35.	Western/Ever SW5	*	5038.7	5628.1	6.0 *
36.	Western/Ever NW1	*	5054.9	5711.3	6.0 *
37.	Western/Ever NW2	*	5129.1	5722.2	6.0 *
38.	Western/Ever NW3	*	5203.4	5733.0	6.0 *
39.	Western/Ever NW4	*	5205.1	5808.0	6.0 *
40.	Western/Ever NW5	*	5206.8	5883.0	6.0 *
41.	Ever/Rt20 NE1	*	4271.6	2618.4	6.0 *
42.	Ever/Rt20 NE2	*	4252.2	2546.0	6.0 *
43.	Ever/Rt20 NE3	*	4232.8	2473.5	6.0 *
44.	Ever/Rt20 NE4	*	4306.3	2458.5	6.0 *
45.	Ever/Rt20 NE5	*	4379.8	2443.6	6.0 *
46.	Ever/Rt20 S1	*	4333.0	2377.6	6.0 *
47.	Ever/Rt20 S2	*	4259.5	2392.6	6.0 *
48.	Ever/Rt20 S3	*	4186.0	2407.5	6.0 *
49.	Ever/Rt20 S4	*	4112.0	2419.9	6.0 *
50.	Ever/Rt20 S5	*	4038.1	2432.2	6.0 *
51.	Ever/Rt20 NW1	*	4023.7	2509.6	6.0 *
52.	Ever/Rt20 NW2	*	4097.7	2497.3	6.0 *
53.	Ever/Rt20 NW3	*	4171.7	2485.0	6.0 *
54.	Ever/Rt20 NW4	*	4191.1	2557.4	6.0 *
55.	Ever/Rt20 NW5	*	4210.5	2629.8	6.0 *

♀ PAGE 5

JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
10. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
20. *	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
30. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.
40. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.
50. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.
60. *	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.
70. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.
80. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	0.	0.
90. *	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	0.	0.
100. *	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
110. *	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	1.	1.	0.
120. *	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	1.	1.	0.
130. *	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
140. *	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
150. *	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	1.	1.	0.
160. *	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
170. *	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
180. *	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
190. *	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
200. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.
210. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.
220. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
230. *	0.	0.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.

2018BD_PM25.out

WIND ANGLE (DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
240. *	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.
250. *	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.
260. *	0.	0.	0.	0.	0.	2.	2.	2.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.
270. *	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.
280. *	0.	0.	0.	0.	0.	2.	1.	2.	1.	0.	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.
290. *	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
300. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
310. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
320. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
330. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
340. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
350. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
360. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
MAX *	1.	1.	2.	2.	2.	2.	2.	2.	1.	1.	1.	1.	2.	2.	2.	2.	2.	2.	1.	1.
DEGR. *	160	190	210	210	210	270	260	270	310	350	10	20	40	50	40	90	150	80	150	160

♀ PAGE 6

JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.
10. *	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.
20. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
30. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
40. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
50. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
60. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	1.	2.	1.	0.	0.	0.	0.	0.
70. *	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	1.	1.	2.	1.	1.	0.	1.	1.	0.	0.
80. *	0.	0.	1.	0.	0.	0.	0.	1.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	0.	0.
90. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	0.	0.
100. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	0.
110. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	0.
120. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	0.
130. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
140. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
150. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
160. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.
170. *	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.

180.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
190.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
200.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
210.	*	1.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
220.	*	1.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
230.	*	0.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
240.	*	0.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
250.	*	0.	0.	1.	1.	1.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
260.	*	0.	0.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.	0.	0.	1.	1.	0.	0.
270.	*	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
280.	*	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
290.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
300.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
310.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
320.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
330.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
340.	*	0.	0.	1.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.
350.	*	0.	1.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
360.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.
MAX	*	1.	1.	1.	1.	1.	1.	1.	2.	2.	1.	1.	1.	2.	2.	1.	1.	1.	1.	1.	1.
DEGR.	*	200	200	200	240	250	280	280	280	340	0	30	50	70	60	60	110	100	100	130	160

JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (ug/m**3) REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
10.	*	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.
20.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
30.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	1.	0.
40.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	1.	0.
50.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	1.	1.
60.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	1.	1.
70.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	2.	0.	0.	0.	1.	1.
80.	*	0.	0.	0.	0.	0.	1.	1.	1.	2.	2.	0.	0.	1.	1.	0.
90.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	2.	0.	0.	0.	0.	0.
100.	*	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	0.
110.	*	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	1.	2.	1.	0.
120.	*	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.
130.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.
140.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.
150.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
160.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
170.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
180.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
190.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
200.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
210.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
220.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
230.	*	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
240.	*	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.
250.	*	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
260.	*	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.
270.	*	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.

280.	*	0.	0.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.	0.
290.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
300.	*	0.	0.	0.	0.	0.	2.	1.	1.	2.	1.	0.	0.	0.	0.	0.
310.	*	0.	0.	0.	0.	0.	2.	1.	1.	1.	1.	0.	0.	0.	0.	0.
320.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
330.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
340.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
350.	*	0.	0.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
360.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
MAX	*	1.	1.	2.	2.	2.	2.	1.	2.	2.	2.	1.	2.	2.	1.	1.
DEGR.	*	220	240	260	260	270	310	300	10	50	80	120	120	120	140	160

THE HIGHEST CONCENTRATION OF 2. ug/m**3 OCCURRED AT RECEPTOR REC4 .

```
♀                   CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221                         PAGE  1

      JOB: Skating Club of Boston                           RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:58:15

         The MODE flag has been set to P for calculating PM averages.

       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =   0.0 CM/S       VD =   0.0 CM/S       Z0 = 175. CM
        U =  1.0 M/S        CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =  0.0 ug/m**3

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*--------------------------------------*-----------------------------------------------------
----
       1. Soldier/Jug SB LTR  *   5198.9    6311.7    5198.2    6339.8 *      28.    359. AG      0. 100.0   1.0 20.0
0.26   1.4
       2. Soldier/Jug WB TT   *   5228.8    6294.1    5339.5    6355.9 *     127.     61. AG      0. 100.0   1.0 20.0
0.86   6.4
       3. Soldier/Jug NB LTR  *   5237.6    6215.9    5236.1    6146.8 *      69.    181. AG      0. 100.0   1.0 10.0
0.64   3.5
       4. Soldiers/Jug EB TTR *   5191.9    6230.9    5106.8    6191.2 *      94.    245. AG      0. 100.0   1.0 20.0
0.77   4.8
       5. Western/Ever SB LTR *   5231.8    5725.2    5234.0    5819.6 *      94.      1. AG      0. 100.0   1.0 10.0
0.69   4.8
       6. Western/Ever WB LTR *   5264.9    5714.2    8820.8    6319.8 *    3607.     80. AG      0. 100.0   1.0 10.0
1.60 183.2
       7. West/Ever NB LTR    *   5233.9    5654.6    5211.1    5587.3 *      71.    199. AG      0. 100.0   1.0 20.0
0.53   3.6
       8. West/Ever EB LTR    *   5190.3    5675.7    5069.7    5661.3 *     121.    263. AG      0. 100.0   1.0 20.0
0.74   6.2
       9. Ever/Rt20 SB LR     *   4193.6    2489.0    4257.1    2708.2 *     228.     16. AG      0. 100.0   1.0 10.0
0.92  11.6
      10. Ever/Rt20 WB TR     *   4221.0    2443.1    4338.6    2419.1 *     120.    102. AG      0. 100.0   1.0 20.0
0.50   6.1
      11. Ever/Rt20 EB LTT    *   4155.5    2436.3    3975.8    2468.1 *     183.    280. AG      0. 100.0   1.0 20.0
0.77   9.3
      12. Camb/Linc SB LR     *   7036.1    3650.1    7007.1    3709.6 *      66.    334. AG      0. 100.0   1.0 20.0
0.59   3.4
      13. Camb/Linc WB L      *   7113.8    3630.4    7116.0    3631.5 *       2.     63. AG      0. 100.0   1.0 10.0
0.02   0.1
      14. Camb/Linc WB TTR    *   7096.3    3646.8    7311.7    3757.2 *     242.     63. AG      0. 100.0   1.0 20.0
0.92  12.3
      15. Camb/Linc NB LTR    *   7116.0    3570.3    7116.2    3567.9 *       2.    175. AG      0. 100.0   1.0 10.0
0.02   0.1
      16. Camb/Linc EB L      *   7032.9    3580.1    6963.7    3546.9 *      77.    244. AG      0. 100.0   1.0 10.0
0.71   3.9
      17. Camb/Linc EB TTTR   *   7047.4    3560.7    6922.6    3501.2 *     138.    245. AG      0. 100.0   1.0 30.0
0.67   7.0
      18. Birm/Linc SB R      *   2027.5    4361.0    2037.6    4379.2 *      21.     29. AG      0. 100.0   1.0 10.0
0.16   1.1
      19. Birm/Linc SB TT     *   2045.2    4353.0    2092.7    4437.9 *      97.     29. AG      0. 100.0   1.0 20.0
0.56   4.9
      20. Birm/Linc WB LTR    *   2100.9    4264.2    2178.0    4247.2 *      79.    102. AG      0. 100.0   1.0 20.0
0.72   4.0
      21. Birm/Linc NB LTT    *   2029.7    4188.8    1974.9    4074.0 *     127.    205. AG      0. 100.0   1.0 20.0
0.74   6.5
      22. Birm/Linc EB LLTR   *   1966.7    4229.9    1921.8    4209.9 *      49.    246. AG      0. 100.0   1.0 20.0
0.58   2.5
      23. Soldier/Jug N       *   5199.2    6279.5    5199.2    6392.5 *     113.    360. AG    228.    0.0   1.0 42.0
      24. Soldier/Jug E-N     *   5199.2    6277.6    5400.6    6380.6 *     226.     63. AG   1597.    0.0   1.0 42.0
      25. Soldier/Jug E-S     *   5219.3    6237.5    5420.9    6345.5 *     229.     62. AG   1600.    0.0   1.0 42.0
      26. Soldier/Jug S       *   5235.5    6245.2    5234.6    6031.1 *     214.    180. AG    526.    0.0   1.0 42.0
      27. Soldier/Jug W-S     *   5214.5    6245.3    4975.3    6130.9 *     265.    244. AG   1431.    0.0   1.0 42.0
      28. Soldier/Jug W-N     *   5200.4    6278.0    4964.5    6172.3 *     258.    246. AG   1692.    0.0   1.0 42.0
      29. West/Ever N         *   5233.5    5697.0    5238.2    5899.5 *     203.      1. AG    524.    0.0   1.0 42.0
      30. West/Ever E         *   5233.5    5697.0    5535.4    5747.6 *     306.     80. AG   1620.    0.0   1.0 66.0
      31. West/Ever S         *   5236.3    5680.7    5158.2    5443.1 *     250.    198. AG    975.    0.0   1.0 54.0
      32. West/Ever W         *   5233.5    5697.0    4823.3    5637.1 *     415.    262. AG   1542.    0.0   1.0 60.0
      33. Ever/Rt20 N         *   4192.8    2443.9    4258.3    2688.4 *     253.     15. AG    776.    0.0   1.0 42.0
      34. Ever/Rt20 E         *   4192.8    2443.9    4427.9    2396.0 *     240.    102. AG   2060.    0.0   1.0 54.0
      35. Ever/Rt20 W         *   4192.8    2443.9    3904.9    2491.9 *     292.    279. AG   2028.    0.0   1.0 54.0
      36. Birm/Linc N-SB      *   1998.6    4296.0    2178.7    4628.9 *     378.     28. AG   1152.    0.0   1.0 54.0
      37. Birm/Linc N NB      *   2048.6    4265.6    2230.3    4606.5 *     386.     28. AG   1352.    0.0   1.0 54.0
      38. Birm/Linc E         *   2048.6    4272.0    2312.0    4209.5 *     271.    103. AG    385.    0.0   1.0 42.0
      39. Birm/Linc S         *   2043.8    4251.5    1930.5    4004.1 *     272.    205. AG   2426.    0.0   1.0 66.0
      40. Birm/Linc W-EB      *   2011.4    4253.5    1764.6    4138.7 *     272.    245. AG    246.    0.0   1.0 42.0
      41. Birm/Linc W-WB      *   1974.5    4286.0    1744.8    4182.6 *     252.    246. AG    518.    0.0   1.0 42.0
      42. Camb/Linc N         *   7068.0    3604.4    6989.0    3770.3 *     184.    335. AG    657.    0.0   1.0 60.0
      43. Camb/Linc E         *   7068.0    3604.4    7289.3    3709.9 *     245.     65. AG   3857.    0.0   1.0 ****
      44. Camb/Linc S         *   7111.5    3599.6    7116.3    3391.9 *     208.    179. AG     10.    0.0   1.0 42.0
♀                                                                                                            PAGE  2
      JOB: Skating Club of Boston                           RUN: 2018BD
```



```
      DATE :  8/22/13
      TIME : 21:58:15

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H   W
V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)  (FT) (FT)
   (VEH)

------------------------*--------------------------------------*-----------------------------------------------------
----
      45. Camb/Linc W         *   7068.0    3604.4    6777.8    3466.0 *     321.    244. AG   3591.    0.0   1.0 ****
♀                                                                                                            PAGE  3
      JOB: Skating Club of Boston                           RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:58:15

       1. Soldier/Jug SB LTR  *      69       45       3.0       228       1600       0.04      1        3
       2. Soldier/Jug WB TT   *      69       24       3.0      1597       1600       0.04      1        3
       3. Soldier/Jug NB LTR  *      69       45       3.0       281       1600       0.04      1        3
       4. Soldiers/Jug EB TTR *      69       24       3.0      1431       1600       0.04      1        3
       5. Western/Ever SB LTR *      90       63       3.0       271       1600       0.04      1        3
       6. Western/Ever WB LTR *      90       55       3.0       855       1600       0.04      1        3
       7. West/Ever NB LTR    *      90       63       3.0       412       1600       0.04      1        3
       8. West/Ever EB LTR    *      90       55       3.0       794       1600       0.04      1        3
       9. Ever/Rt20 SB LR     *     119       80       3.0       419       1600       0.04      1        3
      10. Ever/Rt20 WB TR     *     119       55       3.0       799       1600       0.04      1        3
      11. Ever/Rt20 EB LTT    *     119       55       3.0      1214       1600       0.04      1        3
      12. Camb/Linc SB LR     *     110       89       3.0       272       1600       0.04      1        3
      13. Camb/Linc WB L      *     110       91       3.0         5       1600       0.04      1        3
      14. Camb/Linc WB TTR    *     110       40       3.0      1744       1600       0.04      1        3
      15. Camb/Linc NB LTR    *     110       89       3.0         5       1600       0.04      1        3
      16. Camb/Linc EB L      *     110       91       3.0       144       1600       0.04      1        3
      17. Camb/Linc EB TTTR   *     110       40       3.0      1898       1600       0.04      1        3
      18. Birm/Linc SB R      *      90       20       3.0       190       1600       0.04      1        3
      19. Birm/Linc SB TT     *      90       37       3.0       962       1600       0.04      1        3
      20. Birm/Linc WB LTR    *      90       70       3.0       385       1600       0.04      1        3
      21. Birm/Linc NB LTT    *      90       37       3.0      1259       1600       0.04      1        3
      22. Birm/Linc EB LLTR   *      90       73       3.0       246       1600       0.04      1        3

       RECEPTOR LOCATIONS
       ------------------
                              *           COORDINATES (FT)           *
         RECEPTOR             *      X          Y           Z        *
     -------------------------*--------------------------------------*
       1. Birm/Linc NE1       *      2174.4     4423.1        6.0    *
       2. Birm/Linc NE2       *      2139.2     4356.9        6.0    *
       3. Birm/Linc NE3       *      2103.9     4290.7        6.0    *
       4. Birm/Linc NE4       *      2176.9     4273.4        6.0    *
       5. Birm/Linc NE5       *      2249.9     4256.1        6.0    *
       6. Birm/Linc SE1       *      2228.1     4197.6        6.0    *
       7. Birm/Linc SE2       *      2130.7     4220.7        6.0    *
       8. Birm/Linc SE3       *      2082.2     4232.2        6.0    *
       9. Birm/Linc SE4       *      2051.0     4164.0        6.0    *
      10. Birm/Linc SE5       *      2019.8     4095.8        6.0    *
      11. Birm/Linc SW1       *      1911.3     4065.4        6.0    *
      12. Birm/Linc SW2       *      1942.5     4133.5        6.0    *
      13. Birm/Linc SW3       *      1973.7     4201.7        6.0    *
      14. Birm/Linc SW4       *      1905.7     4170.1        6.0    *
      15. Birm/Linc SW5       *      1837.7     4138.5        6.0    *
      16. Birm/Linc NW1       *      1831.2     4255.5        6.0    *
      17. Birm/Linc NW2       *      1899.6     4286.3        6.0    *
      18. Birm/Linc NW3       *      1968.0     4317.1        6.0    *
      19. Birm/Linc NW4       *      2003.6     4383.1        6.0    *
      20. Birm/Linc NW5       *      2039.3     4449.0        6.0    *
      21. Camb/Linc NE1       *      7013.4     3812.1        6.0    *
      22. Camb/Linc NE2       *      7045.6     3744.4        6.0    *
      23. Camb/Linc NE3       *      7077.9     3676.7        6.0    *
      24. Camb/Linc NE4       *      7145.6     3709.0        6.0    *
      25. Camb/Linc NE5       *      7213.3     3741.2        6.0    *
      26. Camb/Linc SE1       *      7278.5     3637.2        6.0    *
      27. Camb/Linc SE2       *      7210.8     3604.9        6.0    *
      28. Camb/Linc SE3       *      7143.1     3572.7        6.0    *
      29. Camb/Linc SE4       *      7144.9     3497.7        6.0    *
♀                                                                                                            PAGE  4
      JOB: Skating Club of Boston                           RUN: 2018BD

      DATE :  8/22/13
      TIME : 21:58:15


       RECEPTOR LOCATIONS
       ------------------
                              *           COORDINATES (FT)           *
         RECEPTOR             *      X          Y           Z        *
     -------------------------*--------------------------------------*
      30. Camb/Linc SE5       *      7146.6     3422.7        6.0    *
      31. Camb/Linc SW1       *      7085.3     3393.5        6.0    *
```

32. Camb/Linc SW2	*	7083.5	3468.5	6.0 *
33. Camb/Linc SW3	*	7081.8	3543.4	6.0 *
34. Camb/Linc SW4	*	7014.1	3511.1	6.0 *
35. Camb/Linc SW5	*	6946.4	3478.8	6.0 *
36. Camb/Linc NW1	*	6870.3	3577.7	6.0 *
37. Camb/Linc NW2	*	6938.0	3610.0	6.0 *
38. Camb/Linc NW3	*	7005.6	3642.3	6.0 *
39. Camb/Linc NW4	*	6973.4	3710.0	6.0 *
40. Camb/Linc NW5	*	6941.2	3777.7	6.0 *

♀ PAGE 5

JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	2.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.
20. *	0.	1.	1.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.
30. *	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	0.	0.	0.	1.	0.	0.
40. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	1.	1.	1.	1.	0.	0.	1.	1.	1.
50. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	1.	1.	1.	0.	0.	1.	1.	1.
60. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	1.	1.	1.	0.	1.	1.	1.	1.
70. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
80. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	0.	0.	1.	1.	1.
90. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
100. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
110. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
120. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
130. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
140. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	0.	1.	1.
150. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.
160. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.
170. *	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	0.	1.	1.	1.	1.
180. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	1.	1.	1.
190. *	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	1.	1.	1.
200. *	1.	1.	1.	1.	0.	0.	0.	1.	0.	0.	0.	0.	1.	0.	0.	0.	0.	1.	1.	1.
210. *	1.	1.	1.	1.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
220. *	1.	1.	2.	1.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
230. *	1.	1.	1.	1.	0.	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
240. *	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
250. *	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
260. *	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
270. *	1.	1.	1.	1.	1.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
280. *	1.	1.	1.	1.	1.	1.	1.	1.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
290. *	1.	1.	1.	0.	0.	1.	1.	1.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
300. *	1.	1.	1.	0.	0.	1.	1.	1.	2.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
310. *	1.	1.	1.	0.	0.	1.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
320. *	1.	1.	1.	1.	0.	1.	1.	1.	1.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
330. *	1.	1.	1.	0.	0.	1.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
340. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
350. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
360. *	1.	1.	1.	0.	0.	0.	1.	1.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MAX *	1.	1.	2.	1.	1.	1.	1.	2.	2.	2.	2.	2.	1.	1.	1.	1.	1.	1.	1.	1.
DEGR. *	230	0	220	230	270	300	340	230	230	0	40	50	40	40	40	110	140	60	60	160

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JOB: Skating Club of Boston RUN: 2018BD

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (ug/m**3)

(DEGR)*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0. *	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.
10. *	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.	1.	1.	2.	2.	2.	0.	0.	1.	0.	0.
20. *	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.	1.	1.	2.	2.	2.	0.	0.	1.	0.	0.
30. *	0.	0.	0.	0.	0.	0.	1.	2.	1.	0.	0.	1.	2.	2.	2.	0.	0.	1.	0.	0.
40. *	0.	0.	0.	0.	0.	0.	1.	2.	0.	0.	0.	1.	2.	2.	2.	0.	0.	1.	0.	0.
50. *	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	2.	2.	2.	0.	0.	1.	0.	0.
60. *	0.	0.	1.	0.	0.	0.	1.	1.	0.	0.	0.	0.	1.	1.	2.	1.	1.	1.	0.	0.
70. *	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	2.	2.	0.	0.
80. *	0.	0.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
90. *	0.	0.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	0.
100. *	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.
110. *	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.
120. *	1.	1.	2.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	2.	1.
130. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
140. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
150. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.
160. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
170. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.
180. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	1.	1.
190. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	1.
200. *	1.	2.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.
210. *	1.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.
220. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	2.	0.	0.
230. *	0.	1.	2.	2.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	0.	0.
240. *	0.	0.	2.	2.	2.	1.	1.	1.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	0.	0.
250. *	0.	0.	1.	1.	1.	2.	2.	1.	0.	0.	0.	0.	1.	1.	1.	0.	0.	0.		

```
0.    0.
 260.  *    0.    0.    1.    0.    0.    2.    2.    2.    0.    0.    0.    0.    2.    2.    1.    0.    0.    0.
0.    0.
 270.  *    0.    0.    1.    0.    0.    2.    2.    2.    1.    0.    0.    1.    2.    2.    1.    0.    0.    0.
0.    0.
 280.  *    0.    0.    1.    0.    0.    2.    2.    2.    1.    0.    0.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 290.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    0.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 300.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 310.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    1.    0.    0.    0.
0.    0.
 320.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 330.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 340.  *    0.    0.    0.    0.    0.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 350.  *    0.    0.    0.    0.    0.    1.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.
 360.  *    0.    0.    0.    0.    0.    1.    2.    2.    1.    1.    1.    1.    2.    2.    2.    0.    0.    0.
0.    0.

------*-----------------------------------------------------------------------------------------------------------------
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 MAX   *    1.    2.    2.    2.    2.    2.    2.    2.    1.    1.    1.    1.    2.    2.    2.    2.    2.    2.
2.    1.
 DEGR. *  180   200   220   220   230   270   270   270   320   350   340   340   270    10    30    90    80    80
120   120
```

THE HIGHEST CONCENTRATION OF   2. ug/m**3 OCCURRED AT RECEPTOR REC35.

Microscale Results

11903.00 Skating Club of Boston, Allston MA

Pollutant	Time Period	Background Concentration	Persistence Factor
Carbon Monoxide (CO)	1-hour	3.0	-
	8-hour	2.1	0.7
Particulate Matter 10 (PM10)	24-Hour	39.3	0.4
Particulate Matter 2.5 (PM2.5)	Annual	9.2	0.08
	24-Hour	20.7	0.4

		EVENING PEAK HOUR																							
Intersection	Receptor	1-Hour CO Raw			1-Hour CO Total			8-Hour CO Total			1-Hour PM10 Raw			24-Hour PM10 Total			1-Hour PM2.5 Raw			24-Hour PM2.5 Total			Annual Hour PM2.5 Total		
		Existing	No Build	Build	Existing	No Build	Build	Existing	No Build	Build	Existing	No Build	Build	Existing	No Build	Build	Existing	No Build	Build	Existing	No Build	Build	Existing	No Build	Build
Soldiers Field Road at Everett Street and Jughandle	NE1	0.3	0.3	0.3	3.3	3.3	3.3	2.3	2.3	2.3	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NE2	0.6	0.5	0.6	3.6	3.5	3.6	2.5	2.5	2.5	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NE3	1.0	1.0	1.0	4.0	4.0	4.0	2.8	2.8	2.8	4.0	3.0	3.0	40.9	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NE4	1.1	1.0	1.0	4.1	4.0	4.0	2.9	2.8	2.8	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NE5	1.0	1.1	1.1	4.0	4.1	4.1	2.8	2.9	2.9	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE1	0.9	0.9	0.9	3.9	3.9	3.9	2.7	2.7	2.7	4.0	3.0	3.0	40.9	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE2	0.9	0.8	0.9	3.9	3.8	3.9	2.7	2.7	2.7	4.0	3.0	3.0	40.9	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE3	1.0	1.0	1.0	4.0	4.0	4.0	2.8	2.8	2.8	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE4	0.8	0.7	0.7	3.8	3.7	3.7	2.7	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SE5	0.7	0.7	0.7	3.7	3.7	3.7	2.6	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SW1	0.5	0.5	0.5	3.5	3.5	3.5	2.5	2.5	2.5	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SW2	0.7	0.7	0.7	3.7	3.7	3.7	2.6	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SW3	1.0	1.0	1.0	4.0	4.0	4.0	2.8	2.8	2.8	4.0	3.0	4.0	40.9	40.5	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SW4	1.1	1.1	1.1	4.1	4.1	4.1	2.9	2.9	2.9	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SW5	0.9	1.0	1.0	3.9	4.0	4.0	2.7	2.8	2.8	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NW1	1.1	1.0	1.0	4.1	4.0	4.0	2.9	2.8	2.8	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NW2	1.0	0.9	0.9	4.0	3.9	3.9	2.8	2.7	2.7	4.0	3.0	3.0	40.9	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NW3	1.1	1.1	1.1	4.1	4.1	4.1	2.9	2.9	2.9	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NW4	0.7	0.7	0.7	3.7	3.7	3.7	2.6	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NW5	0.4	0.4	0.4	3.4	3.4	3.4	2.4	2.4	2.4	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
Western Avenue at Everett Street	NE1	0.6	0.5	0.6	3.6	3.5	3.6	2.5	2.5	2.5	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NE2	0.8	0.7	0.7	3.8	3.7	3.7	2.7	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NE3	0.9	0.9	0.9	3.9	3.9	3.9	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	1.0	21.5	21.1	21.1	9.4	9.3	9.3
	NE4	0.8	0.8	0.8	3.8	3.8	3.8	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	1.0	21.5	21.1	21.1	9.4	9.3	9.3
	NE5	0.8	0.9	0.9	3.8	3.9	3.9	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	1.0	21.5	21.1	21.1	9.4	9.3	9.3
	SE1	0.6	0.6	0.7	3.6	3.6	3.7	2.5	2.5	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SE2	0.8	0.8	0.8	3.8	3.8	3.8	2.7	2.7	2.7	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SE3	1.0	1.0	1.0	4.0	4.0	4.0	2.8	2.8	2.8	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE4	0.9	1.0	1.0	3.9	4.0	4.0	2.7	2.8	2.8	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	2.0	21.5	21.1	21.5	9.4	9.3	9.4
	SE5	0.6	0.7	0.7	3.6	3.7	3.7	2.5	2.6	2.6	3.0	2.0	2.0	40.5	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SW1	0.6	0.6	0.6	3.6	3.6	3.6	2.5	2.5	2.5	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SW2	0.7	0.9	0.9	3.7	3.9	3.9	2.6	2.7	2.7	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SW3	1.0	1.0	1.0	4.0	4.0	4.0	2.8	2.8	2.8	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	2.0	21.5	21.1	21.5	9.4	9.3	9.4
	SW4	1.1	1.0	1.0	4.1	4.0	4.0	2.9	2.8	2.8	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SW5	0.9	0.9	0.9	3.9	3.9	3.9	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	1.0	21.5	21.1	21.1	9.4	9.3	9.3
	NW1	0.9	0.9	0.9	3.9	3.9	3.9	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	1.0	21.5	21.1	21.1	9.4	9.3	9.3
	NW2	0.8	0.8	0.8	3.8	3.8	3.8	2.7	2.7	2.7	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NW3	0.9	0.9	0.9	3.9	3.9	3.9	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	1.0	21.5	21.1	21.1	9.4	9.3	9.3
	NW4	0.6	0.6	0.6	3.6	3.6	3.6	2.5	2.5	2.5	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NW5	0.5	0.5	0.5	3.5	3.5	3.5	2.5	2.5	2.5	1.0	1.0	2.0	39.7	39.7	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3

N. Beacon Street/Route 20 at Everett Street Extension	NE1	0.6	0.6	0.6	3.6	3.6	3.6	2.5	2.5	2.5	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NE2	0.6	0.7	0.7	3.6	3.7	3.7	2.5	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NE3	0.8	1.0	1.0	3.8	4.0	4.0	2.7	2.8	2.8	3.0	3.0	4.0	40.5	40.5	40.9	1.0	2.0	2.0	21.1	21.5	21.5	9.3	9.4	9.4
	NE4	0.9	1.0	1.1	3.9	4.0	4.1	2.7	2.8	2.9	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NE5	0.7	1.0	1.0	3.7	4.0	4.0	2.6	2.8	2.8	2.0	3.0	3.0	40.1	40.5	40.5	1.0	2.0	2.0	21.1	21.5	21.5	9.3	9.4	9.4
	S1	0.8	1.0	1.0	3.8	4.0	4.0	2.7	2.8	2.8	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	S2	0.8	1.0	1.0	3.8	4.0	4.0	2.7	2.8	2.8	2.0	3.0	3.0	40.1	40.5	40.5	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	S3	0.8	1.0	1.0	3.8	4.0	4.0	2.7	2.8	2.8	2.0	3.0	3.0	40.1	40.5	40.5	1.0	1.0	2.0	21.1	21.1	21.5	9.3	9.3	9.4
	S4	0.9	1.0	1.0	3.9	4.0	4.0	2.7	2.8	2.8	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	S5	1.0	1.1	1.1	4.0	4.1	4.1	2.8	2.9	2.9	3.0	4.0	4.0	40.5	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NW1	0.7	0.9	0.9	3.7	3.9	3.9	2.6	2.7	2.7	2.0	3.0	3.0	40.1	40.5	40.5	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NW2	0.6	0.9	0.9	3.6	3.9	3.9	2.5	2.7	2.7	2.0	3.0	3.0	40.1	40.5	40.5	1.0	2.0	2.0	21.1	21.5	21.5	9.3	9.4	9.4
	NW3	0.9	1.1	1.1	3.9	4.1	4.1	2.7	2.9	2.9	3.0	4.0	4.0	40.5	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NW4	0.7	0.8	0.8	3.7	3.8	3.8	2.6	2.7	2.7	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NW5	0.6	0.7	0.7	3.6	3.7	3.7	2.5	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
Birmingham Parkway at Lincoln Street and Market Street	NE1	0.7	0.7	0.7	3.7	3.7	3.7	2.6	2.6	2.6	2.0	3.0	3.0	40.1	40.5	40.5	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NE2	0.6	0.7	0.7	3.6	3.7	3.7	2.5	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NE3	0.8	0.8	0.8	3.8	3.8	3.8	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NE4	1.1	1.0	1.0	4.1	4.0	4.0	2.9	2.8	2.8	3.0	3.0	3.0	40.5	40.5	40.5	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NE5	0.4	0.5	0.5	3.4	3.5	3.5	2.4	2.5	2.5	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SE1	0.5	0.5	0.5	3.5	3.5	3.5	2.5	2.5	2.5	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SE2	0.9	0.8	0.8	3.9	3.8	3.8	2.7	2.7	2.7	3.0	2.0	2.0	40.5	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SE3	0.8	0.9	0.9	3.8	3.9	3.9	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE4	0.9	1.0	1.0	3.9	4.0	4.0	2.7	2.8	2.8	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE5	1.0	1.0	1.0	4.0	4.0	4.0	2.8	2.8	2.8	3.0	4.0	4.0	40.5	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SW1	0.8	0.9	0.9	3.8	3.9	3.9	2.7	2.7	2.7	3.0	4.0	4.0	40.5	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SW2	0.9	0.9	0.9	3.9	3.9	3.9	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SW3	0.8	0.8	0.8	3.8	3.8	3.8	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	1.0	21.5	21.1	21.1	9.4	9.3	9.3
	SW4	0.7	0.8	0.8	3.7	3.8	3.8	2.6	2.7	2.7	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SW5	0.5	0.5	0.5	3.5	3.5	3.5	2.5	2.5	2.5	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NW1	0.5	0.5	0.5	3.5	3.5	3.5	2.5	2.5	2.5	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NW2	0.6	0.7	0.7	3.6	3.7	3.7	2.5	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NW3	0.7	0.7	0.7	3.7	3.7	3.7	2.6	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NW4	0.7	0.7	0.7	3.7	3.7	3.7	2.6	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NW5	0.8	0.8	0.8	3.8	3.8	3.8	2.7	2.7	2.7	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	1.0	21.5	21.1	21.1	9.4	9.3	9.3
Cambridge Street at Lincoln Street	NE1	0.6	0.6	0.7	3.6	3.6	3.7	2.5	2.5	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	NE2	1.0	0.9	1.1	4.0	3.9	4.1	2.8	2.7	2.9	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	2.0	21.5	21.1	21.5	9.4	9.3	9.4
	NE3	1.3	1.4	1.4	4.3	4.4	4.4	3.0	3.1	3.1	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NE4	1.2	1.3	1.3	4.2	4.3	4.3	2.9	3.0	3.0	4.0	5.0	5.0	40.9	41.3	41.3	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NE5	1.4	1.4	1.4	4.4	4.4	4.4	3.1	3.1	3.1	5.0	5.0	5.0	41.3	41.3	41.3	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE1	1.1	1.2	1.2	4.1	4.2	4.2	2.9	2.9	2.9	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE2	1.1	1.2	1.2	4.1	4.2	4.2	2.9	2.9	2.9	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE3	1.2	1.2	1.2	4.2	4.2	4.2	2.9	2.9	2.9	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SE4	0.7	0.7	0.7	3.7	3.7	3.7	2.6	2.6	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SE5	0.4	0.4	0.4	3.4	3.4	3.4	2.4	2.4	2.4	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SW1	0.4	0.4	0.4	3.4	3.4	3.4	2.4	2.4	2.4	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SW2	0.8	0.8	0.8	3.8	3.8	3.8	2.7	2.7	2.7	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3
	SW3	1.4	1.4	1.4	4.4	4.4	4.4	3.1	3.1	3.1	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SW4	1.5	1.5	1.5	4.5	4.5	4.5	3.2	3.2	3.2	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	SW5	1.5	1.6	1.7	4.5	4.6	4.7	3.2	3.2	3.3	5.0	5.0	5.0	41.3	41.3	41.3	3.0	2.0	2.0	21.9	21.5	21.5	9.4	9.4	9.4
	NW1	1.1	1.2	1.2	4.1	4.2	4.2	2.9	2.9	2.9	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NW2	1.0	1.2	1.2	4.0	4.2	4.2	2.8	2.9	2.9	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NW3	1.2	1.2	1.3	4.2	4.2	4.3	2.9	2.9	3.0	4.0	4.0	4.0	40.9	40.9	40.9	2.0	2.0	2.0	21.5	21.5	21.5	9.4	9.4	9.4
	NW4	1.0	0.9	1.1	4.0	3.9	4.1	2.8	2.7	2.9	3.0	3.0	3.0	40.5	40.5	40.5	2.0	1.0	2.0	21.5	21.1	21.5	9.4	9.3	9.4
	NW5	0.5	0.6	0.7	3.5	3.6	3.7	2.5	2.5	2.6	2.0	2.0	2.0	40.1	40.1	40.1	1.0	1.0	1.0	21.1	21.1	21.1	9.3	9.3	9.3

Appendix D
Noise Analysis

- **Monitoring Data**
  - Existing Sound Levels
- **Results of Analysis**
  - Daytime Results
  - Nighttime Results
- **Sound Level Data**
  - Transformer 2500 KWA
  - Generator C9 300 kW
  - Return Fan
  - Supply Fan
  - AHU

Monitoring Data

Existing Sound Levels

Monitoring Data - Ambient Sound Levels (dBA)			
Location		MD1	MD2
Description		Adamson Street at Everett Street	31 Antwerp Street
Existing Sound Levels	L90	48.6	49.7

Results of Analysis

Daytime Results

Receptor Descriptions

	REC1	REC2	REC3	REC4	REC5	REC6
Description	35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
Nearest Reference [#]	2	1	1	1	2	1

Noise Source Descriptions

		NS1	NS2	NS3	NS4	NS5	NS6	NS7	NS8	NS9	NS10	NS11	NS12	NS13
	Noise Source Descriptions	Transformer 2500 KWA	C9 300 kW		Return Fan	Supply Fan		DAHU-2	DAHU-3	AHU 1	AHU 2	AHU 3	AHU-4	MAU-1
Noise Sources														
Unit 1	Source Description	Building	Building		Building	Building		Roof	Roof	Roof	Roof	Roof	Roof	Roof
	Noise Level [dBA]	47	83		83	81		86	86	86	86	86	86	86
	Reference distance [ft]	5	3		5	5		5	5	5	5	5	5	5
	# units [#]	1	1		1	1		1	1	1	1	1	1	1
	Required Attenuation [-dBA]													
		47	83		83	81		86	86	86	86	86	86	86
	Total Noise Source Sound Level [dBA]	**47**	**83**	**0**	**83**	**81**	**0**	**86**	**86**	**86**	**86**	**86**	**86**	**86**
	Reference distance [ft]	**5**	**3.3**	**0**	**5**	**5**	**0**	**5**	**5**	**5**	**5**	**5**	**5**	**5**

Ground Type Between Receptors and Noise Sources

		REC1	REC2	REC3	REC4	REC5	REC6
		35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
NS1	Transformer 2500 KWA	H	H	H	H	H	H
NS2	C9 300 kW	H	H	H	H	H	H
NS3							
NS4	Return Fan	H	H	H	H	H	H
NS5	Supply Fan	H	H	H	H	H	H
NS6							
NS7	DAHU-2	H	H	H	H	H	H
NS8	DAHU-3	H	H	H	H	H	H
NS9	AHU 1	H	H	H	H	H	H
NS10	AHU 2	H	H	H	H	H	H
NS11	AHU 3	H	H	H	H	H	H
NS12	AHU-4	H	H	H	H	H	H
NS13	MAU-1	H	H	H	H	H	H

Distances from RECEPTOR TO NOISE SOURCE (in feet)

		REC1	REC2	REC3	REC4	REC5	REC6
		35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
NS1	Transformer 2500 KWA	288	413	414	439	150	204
NS2	C9 300 kW	288	413	414	439	150	204
NS3							
NS4	Return Fan	423.4	380.12	390.47	449.83	223	449.83
NS5	Supply Fan	423.4	380.12	390.47	449.83	223	449.83
NS6							
NS7	DAHU-2	402	466	500	570	271	570
NS8	DAHU-3	472	237	329	379	335	379
NS9	AHU 1	305	410	413	439	214	439
NS10	AHU 2	397	317	322	361	277	361
NS11	AHU 3	494	319	277	459	332	459
NS12	AHU-4	473	370	425	510	314	510
NS13	MAU-1	358	436	477	538	241	538

Receptor Level Attenuation

		REC1	REC2	REC3	REC4	REC5	REC6
		35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
NS1	Transformer 2500 KWA	-15	-10	-10	-10	-10	-10
NS2	C9 300 kW	-15	-10	-10	-10	-10	-10
NS3							
NS4	Return Fan	-15	-10	-10	-10	-10	-10
NS5	Supply Fan	-15	-10	-10	-10	-10	-10
NS6							
NS7	DAHU-2	-15	-10	-10	-10	-10	-10
NS8	DAHU-3	-15	-10	-10	-10	-10	-10
NS9	AHU 1	-15	-10	-10	-10	-10	-10
NS10	AHU 2	-15	-10	-10	-10	-10	-10
NS11	AHU 3	-15	-10	-10	-10	-10	-10
NS12	AHU-4	-15	-10	-10	-10	-10	-10
NS13	MAU-1	-15	-10	-10	-10	-10	-10

Noise Propogation Calculator

		REC1	REC2	REC3	REC4	REC5	REC6
		35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
NS1	Transformer 2500 KWA	0	0	0	0	7	5
NS2	C9 300 kW	29	31	31	31	40	37
NS3		0	0	0	0	0	0
NS4	Return Fan	30	36	35	34	40	34
NS5	Supply Fan	27	33	33	32	38	32
NS6		0	0	0	0	0	0
NS7	DAHU-2	33	37	36	35	41	35
NS8	DAHU-3	32	42	40	38	39	38
NS9	AHU 1	35	38	38	37	43	37
NS10	AHU 2	33	40	40	39	41	39
NS11	AHU 3	31	40	41	37	40	37
NS12	AHU-4	31	39	37	36	40	36
NS13	MAU-1	34	37	36	35	42	35
	TOTAL	**42**	**48**	**48**	**46**	**51**	**46**

Resultant Noise Levels at Receptor Locations [dBA]						
	REC1	REC2	REC3	REC4	REC5	REC6
Description	35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
Noise Monitoring Data [dBA]	50	49	49	49	50	49
Noise Source [dBA]	42	48	48	46	51	46
Calculated Noise Level [dBA]	**50**	**51**	**51**	**51**	**53**	**51**
Difference	1	3	3	2	4	2

Results of Analysis

Nighttime Results

Receptor Descriptions

	REC1	REC2	REC3	REC4	REC5	REC6
Description	35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
Nearest Reference [#]	2	1	1	1	2	1

Noise Source Descriptions

		NS1	NS2	NS3	NS4	NS5	NS6	NS7	NS8	NS9	NS10	NS11	NS12	NS13
	Noise Source Descriptions	Transformer 2500 KWA	C9 300 kW		Return Fan	Supply Fan		DAHU-2	DAHU-3	AHU 1	AHU 2	AHU 3	AHU-4	MAU-1
Noise Sources														
Unit 1	Source Description	Building	Building		Building	Building		Roof	Roof	Roof	Roof	Roof	Roof	Roof
	Noise Level [dBA]	44	80		80	78		83	83	83	83	83	83	83
	Reference distance [ft]	5	3		5	5		5	5	5	5	5	5	5
	# units [#]	1	1		1	1		1	1	1	1	1	1	1
	Required Attenuation [-dBA]													
		44	80		80	78		83	83	83	83	83	83	83
	Total Noise Source Sound Level [dBA]	**44**	**80**	**0**	**80**	**78**	**0**	**83**	**83**	**83**	**83**	**83**	**83**	**83**
	Reference distance [ft]	**5**	**3.3**	**0**	**5**	**5**	**0**	**5**	**5**	**5**	**5**	**5**	**5**	**5**

Ground Type Between Receptors and Noise Sources

		REC1	REC2	REC3	REC4	REC5	REC6
		35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
NS1	Transformer 2500 KWA	H	H	H	H	H	H
NS2	C9 300 kW	H	H	H	H	H	H
NS3							
NS4	Return Fan	H	H	H	H	H	H
NS5	Supply Fan	H	H	H	H	H	H
NS6							
NS7	DAHU-2	H	H	H	H	H	H
NS8	DAHU-3	H	H	H	H	H	H
NS9	AHU 1	H	H	H	H	H	H
NS10	AHU 2	H	H	H	H	H	H
NS11	AHU 3	H	H	H	H	H	H
NS12	AHU-4	H	H	H	H	H	H
NS13	MAU-1	H	H	H	H	H	H

Distances from RECEPTOR TO NOISE SOURCE (in feet)

		REC1	REC2	REC3	REC4	REC5	REC6
		35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
NS1	Transformer 2500 KWA	288	413	414	439	150	204
NS2	C9 300 kW	288	413	414	439	150	204
NS3							
NS4	Return Fan	423.4	380.12	390.47	449.83	223	449.83
NS5	Supply Fan	423.4	380.12	390.47	449.83	223	449.83
NS6							
NS7	DAHU-2	402	466	500	570	271	570
NS8	DAHU-3	472	237	329	379	335	379
NS9	AHU 1	305	410	413	439	214	439
NS10	AHU 2	397	317	322	361	277	361
NS11	AHU 3	494	319	277	459	332	459
NS12	AHU-4	473	370	425	510	314	510
NS13	MAU-1	358	436	477	538	241	538

Receptor Level Attenuation

		REC1	REC2	REC3	REC4	REC5	REC6
		35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
NS1	Transformer 2500 KWA	-15	-10	-10	-10	-10	-10
NS2	C9 300 kW	-15	-10	-10	-10	-10	-10
NS3							
NS4	Return Fan	-15	-10	-10	-10	-10	-10
NS5	Supply Fan	-15	-10	-10	-10	-10	-10
NS6							
NS7	DAHU-2	-15	-10	-10	-10	-10	-10
NS8	DAHU-3	-15	-10	-10	-10	-10	-10
NS9	AHU 1	-15	-10	-10	-10	-10	-10
NS10	AHU 2	-15	-10	-10	-10	-10	-10
NS11	AHU 3	-15	-10	-10	-10	-10	-10
NS12	AHU-4	-15	-10	-10	-10	-10	-10
NS13	MAU-1	-15	-10	-10	-10	-10	-10

Noise Propogation Calculator

		REC1	REC2	REC3	REC4	REC5	REC6
		35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
NS1	Transformer 2500 KWA	0	0	0	0	4	2
NS2	C9 300 kW	26	28	28	28	37	34
NS3		0	0	0	0	0	0
NS4	Return Fan	26	32	32	31	37	31
NS5	Supply Fan	24	30	30	29	35	29
NS6		0	0	0	0	0	0
NS7	DAHU-2	30	34	33	32	38	32
NS8	DAHU-3	29	39	37	35	36	35
NS9	AHU 1	32	35	35	34	40	34
NS10	AHU 2	30	37	37	36	38	36
NS11	AHU 3	28	37	38	34	37	34
NS12	AHU-4	28	36	34	33	37	33
NS13	MAU-1	31	34	33	32	39	32
	TOTAL	**39**	**45**	**45**	**43**	**48**	**43**

Resultant Noise Levels at Receptor Locations [dBA]

	REC1	REC2	REC3	REC4	REC5	REC6
Description	35-37 Antwerp Street (West)	1 Adamson Street (East)	165 Everett Street (East)	173-175 Everett Street (East)	37-39 Antwerp Street (Industrial)	100 Holton Street (Business)
Noise Monitoring Data [dBA]	50	49	49	49	50	49
Noise Source [dBA]	39	45	45	43	48	43
Calculated Noise Level [dBA]	**50**	**50**	**50**	50	**52**	50
Difference	0	2	1	1	2	1

*Assumes a 3 dBA of all mechanical equipment due to nighttime load

Sound Level Data

Transformer 2500 KWA
Generator C9 300 kW
Return Fan
Supply Fan
AHU

TABLE 1
Three-Phase Ratings

Three-Phase 50 or 60 Hz
kVA Available[1]: 45, 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000, 2500, 3000, 3750, 5000, 7500, 10000, 12000

[1]Transformers are available in the standard ratings and configurations shown or can be customized to meet specific needs.

TABLE 2
Audible Sound Levels

Self-Cooled, Two Winding kVA Rating	NEMA TR-1 Average Decibels (dB)
45-500	56
501-700	57
701-1000	58
1001-1500	60
1501-2000	61
2001-2500	62
2501-3000	63
3001-4000	64
4001-5000	65
5001-6000	66
6001-7500	67
7501-12000	68

TABLE 3
Insulation Test Levels

KV Class	Induced Test 180 or 400 Hz 7200 Cycle	kV BIL Distribution	Applied Test 60 Hz (kV)
1.2	TWICE RATED VOLTAGE	30	10
2.5		45	15
5		60	19
8.7		75	26
15		95	34
25 (grd Y Only)		125	40
25		150	50
34.5 (grd Y Only)		125	40
34.5		150	70
46		200	95

TABLE 4
Temperature Rise Ratings 0-3300 Feet (0-1000 meters)

	Standard	Optional
Unit Rating (Temperature Rise Winding)	65 °C	55 °C, 55/65 °C, 75 °C
Ambient Temperature Max	40 °C	50 °C
Ambient Temperature 24 Hour Average	30 °C	40 °C
Temperature Rise Hotspot	80 °C	65 °C

PACKAGE DATA

Feature Code:	C09DE03	**Rating Type:**	STANDBY	**Sales model Package:**	PGS300
Engine Sales Model:	C9	**Engine Arrangement Number:**	2531644	**Hertz:**	60
EKW W/F:	300.0	**Noise Reduction:**	0 dBA	**Back Pressure:**	0.0 inH2O

Package Sound Information

SA Canopy Sound Data

Distance: 3.3 Feet

EKW W/F	% LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
300.0	100.0	83.3	92.1	89.0	85.3	79.7	76.1	73.2	72.3	69.5
225.0	75.0	82.6	90.9	87.6	85.0	79.9	75.1	72.5	70.0	67.3
150.0	50.0	81.6	88.8	85.5	84.4	79.7	74.3	71.9	67.3	64.3
75.0	25.0	81.1	87.3	83.9	83.8	79.2	74.1	71.6	66.2	62.5

Distance: 23.0 Feet

EKW W/F	% LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
300.0	100.0	72.0	83.4	78.9	78.9	75.5	69.9	58.4	57.9	53.5
225.0	75.0	70.8	81.9	77.4	74.7	68.3	61.8	57.4	55.9	50.9
150.0	50.0	69.5	79.8	75.2	73.7	66.9	56.2	53.2	53.6	47.5
75.0	25.0	69.0	78.6	73.7	73.3	66.5	61.3	55.6	52.5	45.5

Distance: 49.2 Feet

EKW W/F	% LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
300.0	100.0	66.0	77.4	72.9	69.5	63.9	56.3	52.4	51.9	74.5
225.0	75.0	64.8	75.9	71.4	68.7	62.3	55.8	51.4	49.9	44.9
150.0	50.0	63.5	73.8	69.2	67.7	60.9	55.3	50.2	47.6	41.5
75.0	25.0	63.0	72.6	67.7	67.3	60.5	55.3	49.6	46.5	39.5

Twin City Fan & Blower
A Twin City Fan Company
5959 Trenton Lane · Minneapolis, MN 55442-3238
Phone (763) 551-7600 · Fax (763) 551-7601 · www.tcf.com
ISO 9001 CERTIFIED

Customer:
Job Name:
Job ID:

July 17, 2013

Fan tag: N/A CFM: 30,000 SP (in.wg): 1.3
Temperature (°F): 70 Altitude (ft): 0 Density (lb/ft³): 0.075

#	Type	Size	Cl.	% dia	% wid	% peak	Drive	RPM	Max RPM	Std. BHP	Op. BHP	OV	S.E.	M.E.	FanSelectionID	Price
1	EPFN	365	I	100	100	24.95	BD	1096	1151	13.70	13.70	N/A	44.74	44.74	14	2882.0

Sound Power Levels
Octave Bands

#	Octave Bands	1	2	3	4	5	6	7	8	LWA
1	Level at Inlet	84	97	92	83	84	84	80	69	91
1	Level at Outlet	92	103	100	94	92	91	84	74	98

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

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5959 Trenton Lane · Minneapolis, MN 55442-3238
Phone (763) 551-7600 · Fax (763) 551-7601 · www.tcf.com

ISO 9001 CERTIFIED

Customer:
Job Name:
Job ID:

July 17, 2013

Fan tag: N/A CFM: 30,000 SP (in.wg): 3.9
Temperature (°F): 70 Altitude (ft): 0 Density (lb/ft³): 0.075

#	Type	Size	Cl.	% dia	% wid	% peak	Drive	RPM	Max RPM	Std. BHP	Op. BHP	OV	S.E.	M.E.	FanSelectionID	Price
1	EPFN	365	II	100	100	55.48	BD	1273	1465	26.95	26.95	N/A	68.23	68.23	14	3348.0

Sound Power Levels
Octave Bands

#	Octave Bands	1	2	3	4	5	6	7	8	LWA
1	Level at Inlet	92	99	97	85	85	83	75	69	93
1	Level at Outlet	91	98	97	92	92	88	81	74	96

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

Kevin Hogaboom

From: Jeff Ritchie [mailto:jeffr@htseng.com]
Sent: Thursday, July 18, 2013 11:51 AM
To: Kevin Hogaboom
Subject:

Yes. The radiated sound for this unit would be as follows:

Band	Db
1	76
2	86
3	75
4	63
5	51
6	41
7	34

Jeff Ritchie
President | jeffr@htseng.com |

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