

# 59 Temple Place



Submitted to:  
**Boston Redevelopment Authority**  
One City Hall Square  
Boston, MA 02201

Prepared by:  
**Epsilon Associates, Inc.**  
3 Clock Tower Place, Suite 250  
Maynard, MA 01754

Submitted by:  
**Walton Oxford Temple Owner, LLC**  
350 West Hubbard Street, Suite 440  
Chicago, IL 60654

In Association with:  
Gettys  
Goodwin Procter, LLP  
Howard/Stein-Hudson Associates, Inc.  
Exclusive Real Estate

October 19, 2012

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Expanded Project Notification Form  
*Submitted Pursuant to Article 80 of the Boston Zoning Code*

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## Table of Contents

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# Table of Contents

---

<b>1.0</b>	<b>GENERAL INFORMATION</b>	<b>1-1</b>
1.1	Introduction	1-1
1.2	Project Identification and Team	1-1
1.3	Project Summary	1-4
1.3.1	Project Site	1-4
1.3.2	Proposed Development	1-4
1.3.3	Schedule	1-11
1.3.4	Description of Alternatives Considered/Project History	1-11
1.4	Public Benefits	1-11
1.5	Consistency with Zoning	1-13
1.5.1	Large Project Review	1-13
1.5.2	Zoning	1-14
1.5.3	Building Dimensions	1-15
1.6	Consistency with Planning	1-15
1.6.1	Downtown Crossing Economic Improvement Initiative	1-15
1.6.2	MetroFuture	1-15
1.7	Community Outreach and Public Participation	1-16
1.8	Legal Information	1-16
1.8.1	Legal Judgments Adverse to the Proposed Project	1-16
1.8.2	History of Tax Arrears on Property	1-16
1.8.3	Evidence of Site Control/Nature of Public Easements	1-17
1.8.4	Nature and Extent of Any and All Public Easements	1-17
1.9	Anticipated Permits and Approvals	1-17
<b>2.0</b>	<b>TRANSPORTATION COMPONENT</b>	<b>3-1</b>
2.1	Introduction	3-1
2.1.1	Project Description	3-1
2.1.2	Study Area	3-3
2.1.3	Methodology	3-3
2.2	Existing Transportation Conditions	3-5
2.2.1	Existing Roadway Conditions	3-5
2.2.2	Intersection Conditions	3-6
2.2.2.1	Signalized Intersections	3-6
2.2.2.2	Unsignalized Intersections	3-7
2.2.3	Existing Traffic Conditions	3-7
2.2.4	Existing Traffic Operations	3-7
2.2.5	Existing Parking and Curb Use	3-10
2.2.5.1	Existing Off-street Parking	3-10
2.2.5.2	Existing On-street Parking and Curb Use	3-13

## Table of Contents (Continued)

2.2.6	Existing Public Transportation	3-17
2.2.6.1	MBTA Subway and Bus rapid Transit	3-17
2.2.6.2	Commuter Rail and Bus	3-19
2.2.6.3	MBTA Bus Service	3-19
2.2.7	Existing Pedestrian Conditions	3-20
2.2.8	Bicycle Conditions	3-22
2.2.9	Bicycle and Car Sharing	3-22
2.2.10	Loading and Service	3-25
2.3	Evaluation of Long-term Impacts	3-25
2.3.1	No-Build Conditions	3-25
2.3.1.1	No-Build Traffic Volumes	3-25
2.3.1.2	No-Build Capacity Analysis	3-28
2.3.2	Build Conditions	3-30
2.3.2.1	Site Access and Circulation	3-30
2.3.2.2	Trip Generation	3-31
2.3.2.3	Pass-by Trips	3-34
2.3.2.4	Mode Split	3-35
2.3.2.5	Vehicle Trip Generation	3-35
2.3.2.6	Trip Distribution	3-37
2.3.2.7	Modifications to Curb Use on Washington Street	3-37
2.3.2.8	Build Conditions Capacity Analysis	3-40
2.3.2.9	Parking Demand	3-42
2.3.2.10	Public Transportation	3-43
2.3.2.11	Pedestrians	3-44
2.3.2.12	Bicycle Accommodations	3-44
2.3.2.13	Loading and Service Accommodations	3-44
2.4	Transportation Mitigation Measures	3-45
2.4.1	Transit Mitigation	3-46
2.4.2	Pedestrian Mitigation	3-46
2.4.3	Transportation Infrastructure Mitigation	3-46
2.5	Transportation Demand Management	3-46
2.6	Evaluation of Short-term Construction Impacts	3-47
<b>3.0</b>	<b>ENVIRONMENTAL COMPONENT</b>	<b>3-1</b>
3.1	Wind, Shadow, Daylight and Solar Glare	3-1
3.2	Air Quality	3-1
3.2.1	Mesoscale	3-1
3.2.2	Microscale	3-2
3.2.3	Stationary Sources	3-2
3.2.3.1	Heating Equipment	3-2
3.2.3.2	Emergency Generators	3-3

## Table of Contents (Continued)

---

3.3	Flood Hazard Zones/Wetlands	3-3
3.4	Solid and Hazardous Wastes	3-3
3.4.1	Existing Hazardous Waste Conditions	3-3
3.4.2	Operational Solid and Hazardous Wastes	3-4
3.5	Noise	3-4
3.6	Construction Impacts	3-4
3.6.1	Construction Methodology/Public Safety	3-5
3.6.2	Construction Schedule	3-5
3.6.3	Construction Staging/Access	3-5
3.6.4	Construction Mitigation	3-6
3.6.5	Construction Employment and Worker Transportation	3-6
3.6.6	Construction Truck Routes and Deliveries	3-6
3.6.7	Construction Air Quality	3-7
3.6.8	Construction Noise	3-7
3.6.9	Construction Waste Management	3-8
3.6.10	Construction Waste	3-8
3.6.11	Protection of Utilities	3-8
3.7	Rodent Control	3-9
3.8	Wildlife Habitat	3-9
3.9	Urban Design	3-9
3.10	Sustainable Design	3-11
3.11	Historic and Archaeological Resources	3-16
3.11.1	Historic Resources within the Project Site	3-16
3.11.2	Historic Resources in the Vicinity of the Project Site	3-16
3.11.3	Archaeological Resources on the Project Site	3-19
3.11.4	Impacts to Historic Resources	3-19
3.11.5	Massachusetts Historical Commission State Register Review	3-19
3.12	Infrastructure Systems	3-20
3.12.1	Introduction	3-20
3.12.2	Wastewater	3-20
3.12.2.1	Existing Sanitary Sewer System	3-20
3.12.2.2	Project-Generated Sanitary Sewer Flow	3-22
3.12.2.3	Sanitary Sewer Connection	3-22
3.12.2.4	Effluent quality	3-23
3.12.2.5	Sewer system mitigation	3-23
3.12.3	Water system	3-23
3.12.3.1	Existing Water Service	3-23
3.12.3.2	Anticipated Water Consumption	3-25
3.12.3.3	Proposed Water Service	3-25
3.12.3.4	Water Supply/Sewage Generation Conservation and Mitigation Measures	3-25

## Table of Contents (Continued)

---

3.12.4	Storm Drainage System	3-25
3.12.4.1	Existing Storm Drainage System	3-25
3.12.4.2	Proposed Storm Water System	3-26
3.12.5	Electrical Service	3-26
3.12.6	Telecommunications Systems	3-27
3.12.7	Gas Systems	3-27
3.12.8	Steam Systems	3-27
3.12.9	Utility Protection during Construction	3-27
<b>4.0</b>	<b>COORDINATION WITH OTHER GOVERNMENTAL AGENCIES</b>	<b>4-1</b>
4.1	Architectural Access Board Requirements	4-1
4.2	Massachusetts Historical Commission State Register Review	4-1
4.3	Massachusetts Environmental Policy Act (MEPA)	4-1
4.4	Other Permits and Approvals	4-1
<b>5.0</b>	<b>PROJECT CERTIFICATION</b>	<b>5-1</b>

## List of Figures

---

Figure 1-1	Aerial Locus Map	1-3
Figure 1-2	Existing Conditions – Washington Street	1-5
Figure 1-3	Existing Conditions – West Street	1-6
Figure 1-4	Existing Conditions – Corner of Temple Place and Washington Street	1-7
Figure 1-5	Floor Plan – Ground Floor	1-8
Figure 1-6	Floor Plan – Typical Lower Level	1-9
Figure 1-7	Floor Plan – Typical Upper Level	1-10
Figure 1-8	Site Survey	1-18
Figure 2-1	Locus Map	2-2
Figure 2-2	Study Area Intersections	2-4
Figure 2-3	Existing Conditions (2012) Vehicle Volumes	2-8
Figure 2-4	Off-street Parking	2-12
Figure 2-5	On-street Parking	2-14
Figure 2-6	Curbside Inventory Adjacent to the Site	2-15
Figure 2-7	Existing Public Transportation	2-18
Figure 2-8	Existing Conditions (2012) Pedestrian Volumes, Weekday Peak Hours	2-21
Figure 2-9	Existing Conditions (2012) Bicycle Volumes, Weekday Peak Hours	2-23
Figure 2-10	Bicycle Sharing and Car Sharing Locations	2-24
Figure 2-11	Area Development Projects	2-26
Figure 2-12	No-Build Conditions (2017) Traffic Volumes	2-29
Figure 2-13	Site Plan	2-32

## List of Figures (Continued)

---

Figure 2-14	Estimated Project Curbside Demand	2-33
Figure 2-15	Vehicle Trip Distribution	2-38
Figure 2-16	Net New Project-generated Trips, Weekday Peak Hours	2-39
Figure 2-17	Build Conditions (2017) Traffic Volumes	2-41
Figure 3-1	Proposed Rendering Looking South	3-10
Figure 3-2	Historic Resources	3-18
Figure 3-3	Sanitary Sewer System Located in the Vicinity of the Project Site is Owned and Maintained by BWSC	3-21
Figure 3-4	Water Distribution System in the Vicinity of the Project Site is Owned and Maintained by BWSC	3-24

## List of Tables

---

Table 1-1	Project Program	1-4
Table 1-2	Building Dimensions	1-15
Table 1-3	Anticipated Permits and Approvals	1-17
Table 2-1	Proposed Development Program	2-1
Table 2-2	Intersection Level of Service Criteria (HCM excerpt)	2-9
Table 2-3	Existing Conditions (2012) Capacity Analysis Summary, a.m. Peak Hour	2-9
Table 2-4	Existing Conditions (2012) Capacity Analysis Summary, p.m. Peak Hour	2-10
Table 2-5	Off-street Parking	2-11
Table 2-6	Curbside Parking Turnover Analysis	2-16
Table 2-7	2010 MBTA Ridership and Service Statistics	2-17
Table 2-8	Local and Regional MBTA Bus Service in the Study Area	2-19
Table 2-9	No-Build Conditions (2017) Capacity Analysis Summary, a.m. Peak Hour	2-28
Table 2-10	No-Build Conditions (2017) Capacity Analysis Summary, p.m. Peak Hour	2-30
Table 2-11	Mode Split Assumptions	2-35
Table 2-12	Existing Site Vehicle Trip Generation (if fully occupied)	2-36
Table 2-13	Future Project Vehicle Trip Generation	2-36
Table 2-14	Net New Project Vehicle Trip Generation	2-36
Table 2-15	Build Conditions (2017) Capacity Analysis Summary, a.m. Peak Hour	2-40
Table 2-16	Build Conditions (2017) Capacity Analysis Summary, p.m. Peak Hour	2-42
Table 2-17	Transit Trip Generation	2-43
Table 2-18	Pedestrian Trip Generation	2-44
Table 2-19	Delivery Activity	2-45



## List of Tables (Continued)

---

Table 3-1	State and National Register-Listed Properties	3-17
Table 3-2	Existing Sanitary Sewer Flows	3-22
Table 3-3	Projected Sanitary Sewer Flows	3-22

## List of Appendices

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Appendix A	LEED Checklist
Appendix B	Transportation Appendix

**Chapter 1.0**

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**General Information and Project Description**

## 1.0 GENERAL INFORMATION

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### 1.1 Introduction

Walton Oxford Temple Owner, LLC., (the Proponent), proposes the redevelopment of the site at 59-63 Temple Place and 501-507 Washington Street (the Project) located in the Downtown Crossing neighborhood of Boston (See Figure 1-1). The Project will consist of the rehabilitation of two buildings and the change of uses from office and retail to a boutique hotel with ground floor retail and restaurant space along both Washington Street and Temple Place. The Project will add to the increasing vitality of the surrounding area, restore an aging historic asset, and result in a greatly improved pedestrian environment.

This Project Notification Form (PNF) is being submitted to the Boston Redevelopment Authority (BRA) to initiate review of the Project under Article 80B, Large Project Review, of the Boston Zoning Code.

### 1.2 Project Identification and Team

Project Name:	59 Temple Place
Location:	The intersection of Temple Place and Washington Street in the Downtown Crossing neighborhood of Boston located at 59-63 Temple Place and 501-507 Washington Street.
Proponent:	Walton Oxford Temple Owner, LLC. 350 W. Hubbard, Suite 440 Chicago, IL 60654 (312) 755-9500 John Rutledge Brad Mulvihill
Design Consultant:	Gettys 1 East Erie Street, Suite 400 Chicago, IL 60611 (312) 836 – 1111 Mike Maurer

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Transportation Consultant  
and Civil Engineer: Howard/Stein-Hudson Associates, Inc.  
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Development Consultant: Exclusive Real Estate  
10 Derne Street  
Boston, MA 02114  
(617) 263-1157  
Harry Collings



59 Temple Place Boston, Massachusetts

1.3 Project Summary

1.3.1 Project Site

The proposed Project will be located on an approximately 13,925 square foot parcel of land at 59 Temple Place in the Downtown Crossing area of Boston (the Project Site). The Project Site is bounded by Temple Place to the north, West Street to the south and Washington Street to the east. Figures 1-2 through Figure 1-4 show the existing streetscape around the Project Site. It is immediately adjacent to office, commercial, and residential uses, and has excellent access to public transit.

The Project Site contains two buildings: the Amory Building (501-507 Washington Street) and the Blake Building (59-63 Temple Place). Together the buildings contain approximately 135,500 square feet of retail and office space.

1.3.2 Proposed Development

The Project includes the redevelopment of the existing eleven-story Blake Building and six-story Amory Building into an upscale boutique lifestyle hotel with approximately 243 rooms. As part of this redevelopment, the exterior of both buildings will be fully renovated in their respective styles, including the reconstruction of the first two floors of the facades and the addition of a gracious sidewalk canopy at the entry to the hotel lobby on Washington Street. The interiors will be completely reconstructed, with the exception of the existing ornate elevator lobby at 59 Temple Place which will be restored for reuse by hotel guests. Of the existing approximately 135,500 square feet of space in the building, about 4,800 square feet will initially be dedicated to a restaurant at the corner of Washington and West Streets and about 2,800 square feet will initially be dedicated for a retail establishment at the corner of Washington Street and Temple Place (See Figure 1-5). The remainder will be dedicated to hotel use (See Figure 1-6 and Figure 1-7). There will be no on-site parking. The hotel will partner with a local valet company for guest parking.

Table 1-1 Project Program

Project Element	Approximate Dimension
Hotel	127,900 sf (243 rooms)
Restaurant	4,800 sf
Retail	2,800 sf
<b>Total Square Footage</b>	<b>135,500 sf</b>

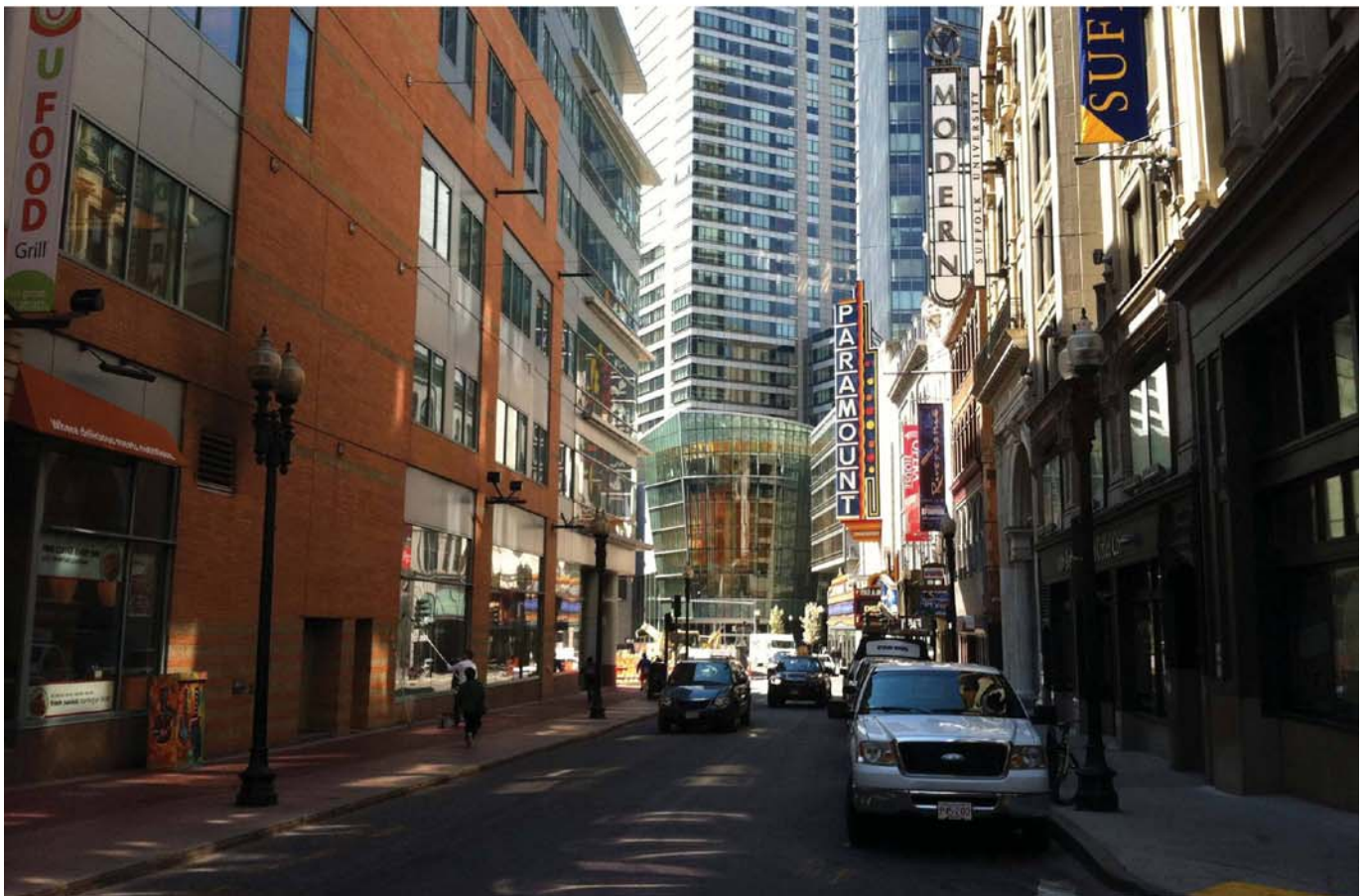


59 Temple Place Boston, Massachusetts

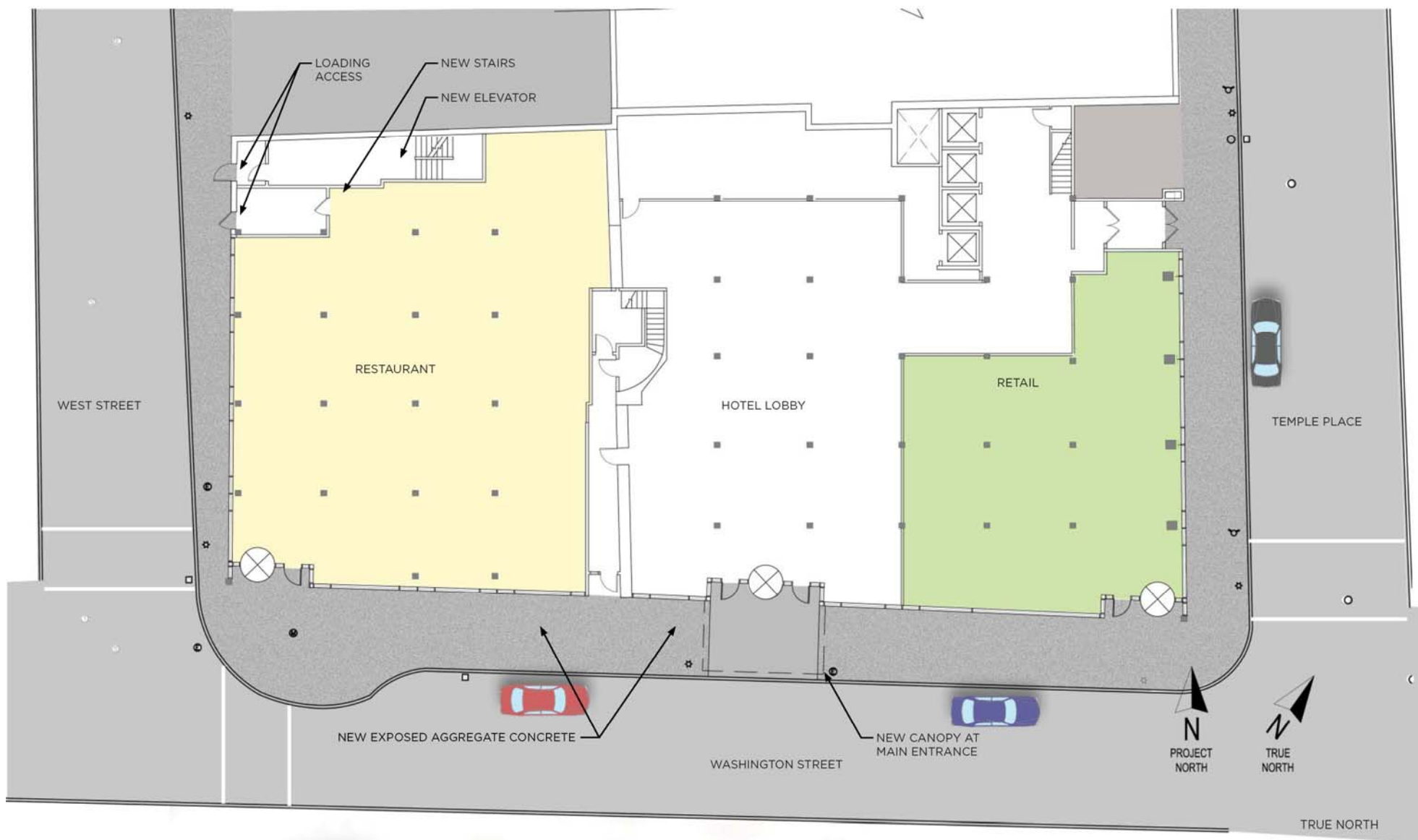


59 Temple Place Boston, Massachusetts

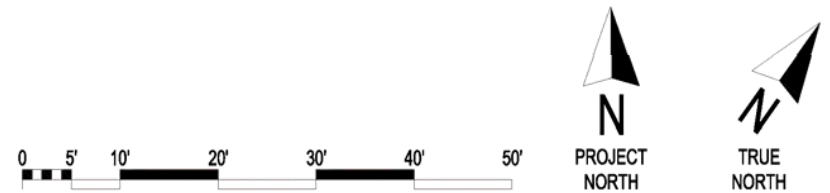
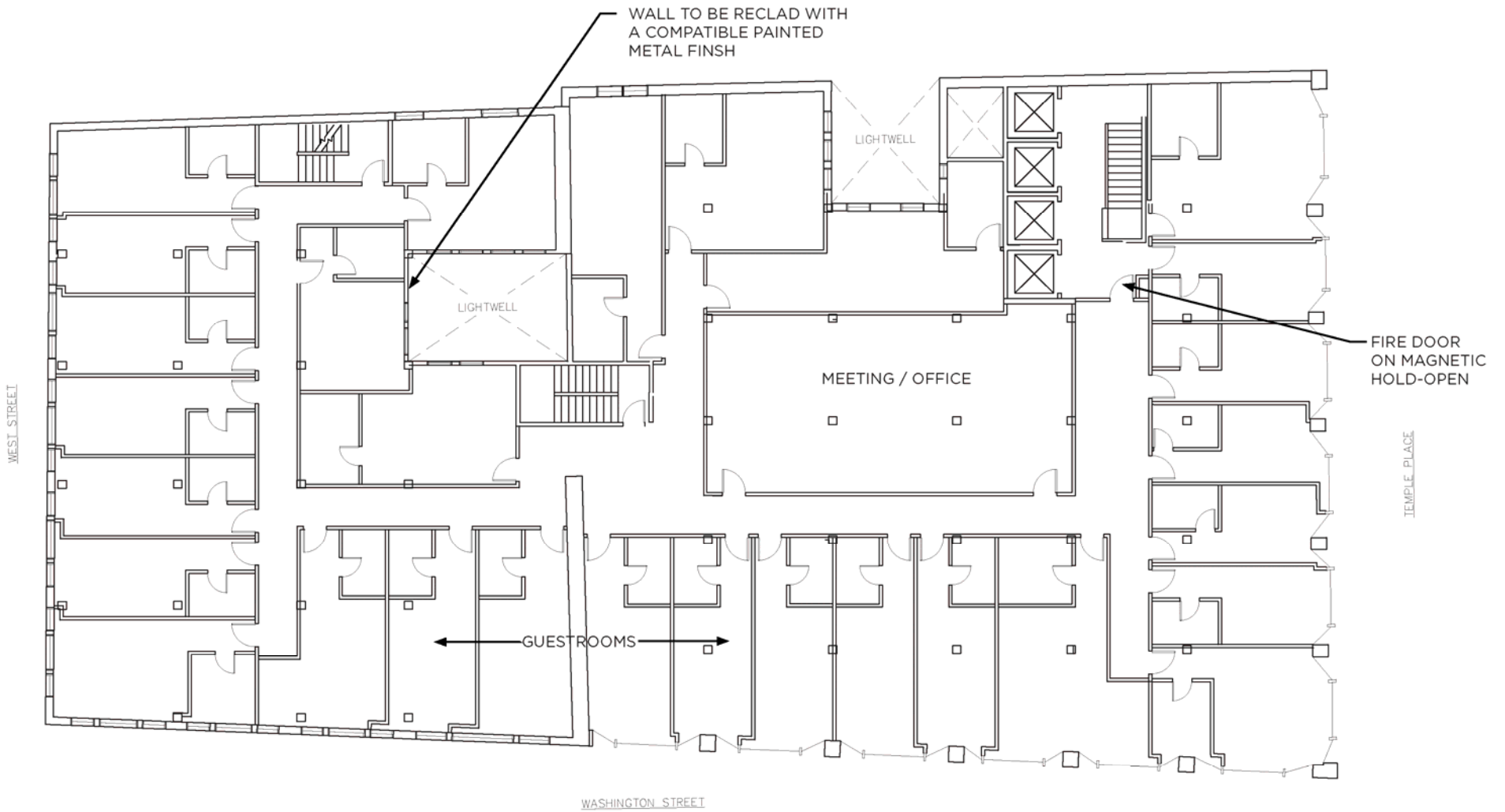




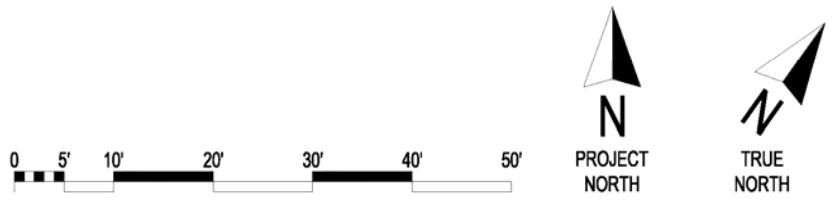
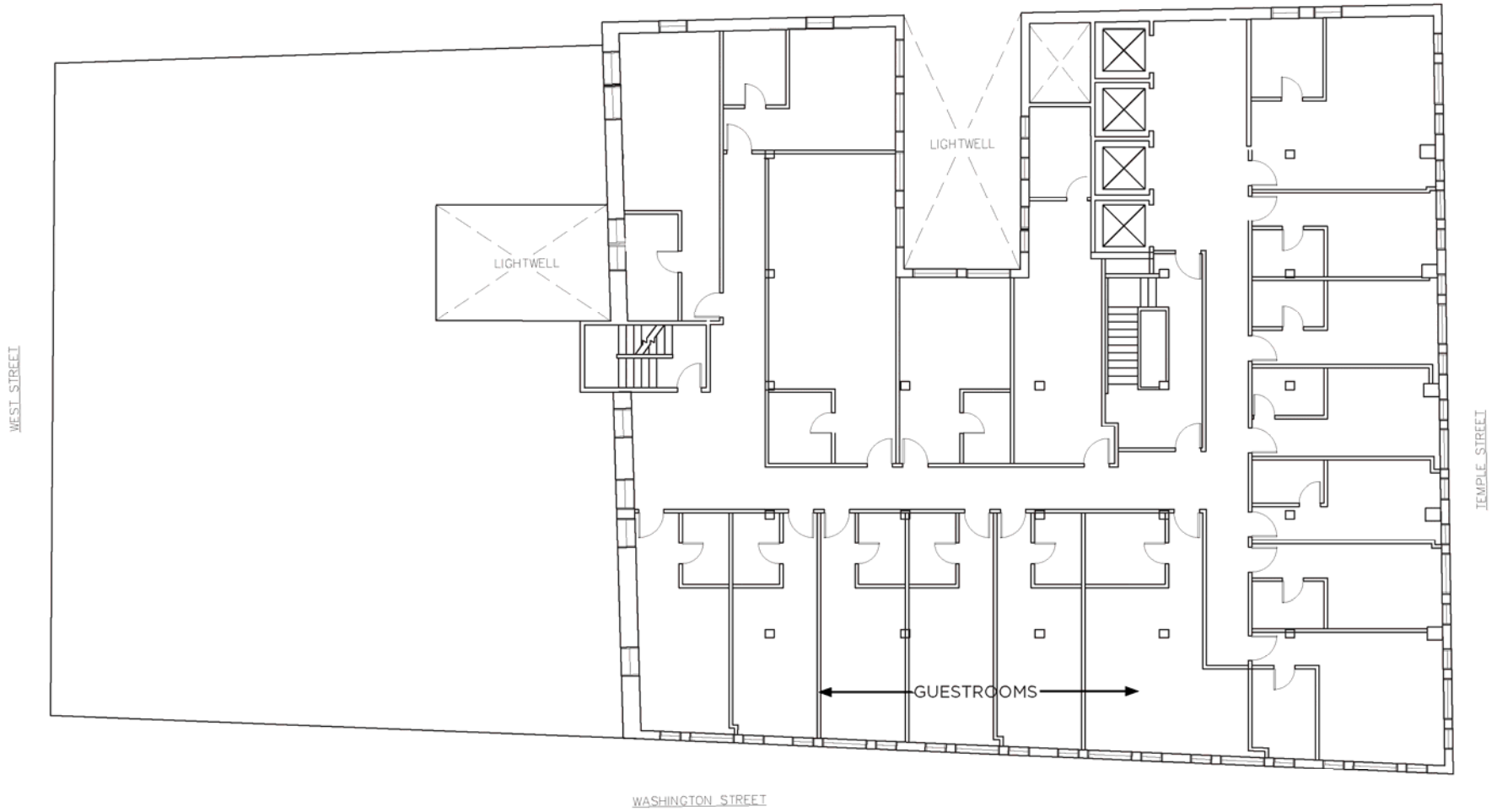
59 Temple Place Boston, Massachusetts



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59 Temple Place Boston, Massachusetts



59 Temple Place Boston, Massachusetts

**Figure 1-7**  
Floor Plan – Typical Upper Level

### **1.3.3**      *Schedule*

Construction of the Project is estimated to last approximately 14 months, with initial site work expected to begin in the fall of 2013, and completion in the fall of 2014.

### **1.3.4**      *Description of Alternatives Considered/Project History*

The Proponent is a dedicated supporter of historic preservation and has successfully developed several preservation projects in other areas of the country. Although the development of a new building was considered, the Proponent felt strongly that this building provides a unique opportunity to preserve a piece of Boston's architectural heritage while simultaneously enriching the local urban fabric with renewed vibrancy from the restoration of the existing buildings.

The Proponent also considered uses other than hotel for the property including office and residential uses. However, after further analysis of the market, surrounding community and planning goals of the City, the site appeared to be best suited for the development of a boutique hotel.

## **1.4**      **Public Benefits**

The Project provides a number of public benefits to the City of Boston and will substantially contribute to revitalizing Downtown Crossing, preserving and rehabilitating two architecturally significant buildings, improving pedestrian and retail vitality, and enhancing the urban design and architectural character of the Mid-Town Cultural District. The mix of uses will energize and enliven the area, helping to restore Downtown Crossing as a destination for Bostonians and visitors alike. Specific benefits are described below.

### *Increased Activity*

The Project will bring approximately 243 hotel rooms into Downtown Crossing and provide increased activity to the area. The Project will promote the vibrant mix of uses that the City envisions for transforming this area into a 24-hour neighborhood.

### *Smart Growth/Transit-Oriented Development*

The redevelopment of the Project Site into an attractive mixed-use development will help to promote a thriving urban community in the Downtown Crossing area. With approximately 243 hotel rooms located downtown, the Project Site is ideal for promoting walking as a means of transport to and from work or local attractions. As a mixed-use development within close proximity to the MBTA's Red, Orange, Green, Blue, and Silver lines, the Project embodies the major tenets of a transit-oriented development.

### ***Improved Street and Pedestrian Environment***

With new and active retail/restaurant space, a hotel with a street level lounge, and streetscape and sidewalk improvements, the Project will encourage increased pedestrian activity and contribute to the vitality of the area 24 hours per day, seven days per week. The Project's design will allow for transparency along the ground floor, engaging pedestrians and creating a more interesting and hospitable space. The surrounding streetscape will be improved through the addition of exposed aggregate concrete, granite curbing and a sidewalk canopy at the Hotel's main entrance. Also, subject to discussions with the MBTA exterior improvements including enhanced lighting may be made to the existing MBTA entrance which abuts the property along Temple Place.

### ***Sustainable Design/ Green Building***

The Project will meet the requirements of Article 37 of the Code and will be certifiable under the U.S. Green Council's Leadership in Energy and Environmental Design (LEED) system. Section 3.10 of the Expanded PNF includes more detailed information regarding sustainability as well as preliminary LEED checklists indicating the measures proposed and under consideration.

### ***Downtown Crossing Economic Improvement Initiative***

In November 2004, Mayor Menino announced the Downtown Crossing Economic Improvement Initiative. This initiative is a private/public partnership that envisions Downtown Crossing becoming a more vibrant, unified District with a greater variety in the types of retailers, which will promote increased economic vitality. As part of the initiative, high priority has been given to the physical upgrade of the Downtown Crossing area.

The Project will help achieve the Mayor's goals set forth in the Downtown Crossing Economic Improvement Initiative. The addition of a new hotel and retail/restaurant space will enhance the vibrancy and activity within the area. The proposed improvements to pedestrian environments will provide an important contribution to the physical upgrade of Downtown Crossing and add new visitors to support the surrounding retail and restaurants.

### ***Historic Preservation***

The Project includes the renovation and reuse of the former Amory and Blake Buildings, which like much of the area, have experienced disinvestment and marked deferred maintenance in the past several decades. The Proponent will undertake a certified rehabilitation of the property, utilizing state and federal historic tax credits. The Project will preserve and protect two historic downtown Boston commercial structures.

### ***Increased Employment***

The Project is expected to create approximately 90 construction jobs and approximately 100 permanent jobs. The permanent jobs will result from the proposed hotel, building maintenance, and the new retail and restaurant space.

### ***New Property Tax Revenue***

The new development is expected to generate approximately \$1.5 million in annual property taxes and approximately \$2.6 million annually in room occupancy excise, of which approximately \$1.4 million will go to the City of Boston and \$1.2 million will go to the State based on current City/State allocations.

### ***Business Improvement District***

The Project will further support the revitalization of the Downtown Crossing neighborhood by actively participating in the newly formed Business Improvement District (BID). The BID will play a large role in the redevelopment of the surrounding area and the Proponent is excited for an opportunity to help the area reach its full potential as a thriving 24-hour neighborhood.

## **1.5 Consistency with Zoning**

### ***1.5.1 Large Project Review***

According to Section 80B-2(c) of the Zoning Code, a Project located in Downtown, which includes the Midtown Cultural District as described in the Boston Zoning Code (Article 3, Appendix A) is subject to Large Project Review under Article 80 of the Zoning Code if it involves the change in use of 100,000 square feet or more of gross floor area. Because the Project involves the conversion of more than 100,000 square feet of existing office and retail space to hotel use, the Project is subject to Large Project Review under Article 80. However, as discussed below, the Project does not require Zoning Relief as defined under Section 2A-1 of the Zoning Code and, therefore, the Project is not subject to the Development Impact Project Exactions under Section 80B-7 of the Zoning Code. Since under Section 80B-7 of the Zoning Code, Development Impact Project Exactions are imposed as a condition of Zoning Relief, no such Exactions are applicable to the Project. Since the Project is subject to Large Project Review, it is subject to the requirements of Article 37 of the Zoning Code (Green Buildings). Zoning Code, Section 37-3 applies Article 37 to projects subject to Large Project Review.

The Project is also subject to review by the Boston Civic Design Commission (“BCDC”) under Article 28 of the Zoning Code. According to Section 28-5 of the Zoning Code, the BCDC has jurisdiction over “Large Scale Development Projects,” which are defined to include projects which propose to substantially rehabilitate a building or structure having a

gross floor area of more than 100,000 square feet. (Zoning Code, Section 28-4). As included in the Zoning Code, Article 2A (definition of “substantially rehabilitate”) the term “substantially rehabilitate” is defined to mean:

*to cause alterations or repairs to be made to a structure or structures within any period of twelve (12) months, if such alterations or repairs cost more than fifty percent (50%) of the physical value of the structure or structures. Physical value shall be based on the assessed value, as recorded on the assessment rolls of the City as of the January 1 preceding the date of the filing of a Project Notification Form for Large Project Review, pursuant to Section 80D-5.1.*

It is anticipated that the cost of the Project’s alterations to the existing structures will exceed 50% of their assessed value. Accordingly, the Project is subject to review by the BCDC under Article 28 of the Zoning Code.

### **1.5.2 Zoning**

The Project Site is located in the Ladder Blocks and Washington Street Theater Protection Area of the Midtown Cultural District, as well as the Restricted Parking Overlay District. The use regulations applicable to the Project Site are found in Article 38 of the Zoning Code. According to section 38-18(5)(d) of the Zoning Code, hotel use is allowed by right within the Midtown Cultural District, subject only to the requirements set forth in Section 38-18 and Section 38-21 of the Zoning Code. Section 38-18 places a restriction upon ground level uses within the Ladder Blocks and Washington Street Theater Protection Area, but allows hotel lobby uses (as proposed for the Project), retail and restaurant uses as of right on the ground level. Section 38-21 imposes restrictions on the change of use or occupancy of theaters and, therefore, does not apply to the Project.

The building located on the Project Site predates the Zoning Code. According to Section 13-3 of the Zoning Code, a building existing on the effective date of the Zoning Code and not conforming to the applicable dimensional requirements specified in the Zoning Code may nevertheless be altered or enlarged, provided that such nonconformity is not increased and that any enlargement itself conforms to such dimensional requirements. The building currently complies with the maximum height limitation of 125 feet, but exceeds the maximum floor area ratio (“FAR”) of 8.0, under Section 38-5(4) of the Zoning Code. However, the Project will not result in an increase in the existing FAR and will not otherwise alter the dimensions of the building. Therefore, no Zoning Relief is required for the Project.



### 1.5.3 *Building Dimensions*

**Table 1-2 Building Dimensions**

<b>Dimension</b>	<b>Existing</b>	<b>Proposed</b>
Maximum Building Height	124 feet	124 feet
Floor Area Ratio	9.73	9.73
Setbacks	None	None
Off-street Parking	None	None
Loading Spaces	None	To be determined via Article 80 Review – per Section 38-24 of Zoning Code

## 1.6 Consistency with Planning

### 1.6.1 *Downtown Crossing Economic Improvement Initiative*

In 2004, the City of Boston implemented the Downtown Crossing Economic Improvement Initiative as part of a plan to revitalize the Downtown Crossing neighborhood. The plan focuses on revitalizing the district through such measures as street improvements, branding efforts, and instilling a more vibrant lifestyle into the area. The Project complements the City's vision for Downtown Crossing by adding approximately 243 hotel rooms along with new retail and restaurant space to the immediate area. These uses will result in increased vibrancy and extend activity in Downtown Crossing past the 9 to 5 hours currently supported by the surrounding office uses. In addition to the influx of hotel patrons, the Project will also contribute to the City's vision by improving the streetscape along the Project's edges and restoring the facades of the existing buildings on site. These improvements will further contribute to the overall revitalization of the neighborhood and result in a more pleasing environment for workers, residents and visitors alike.

### 1.6.2 *MetroFuture*

The Metropolitan Area Planning Council (MAPC) announced its latest regional plan for the Boston metropolitan area, MetroFuture, in 2009. The plan establishes a vision for the region with regard to land use and development. The plan provides 65 goals in six categories: Sustainable Growth Patterns, Housing Choices, Community Vitality, Prosperity, Getting Around, and Energy, Air, Water and Wildlife. The Project furthers many of these

goals by renovating existing structures in Boston, enhancing the pedestrian environment, developing a LEED certifiable project, and locating proximate to existing transportation infrastructure.

## 1.7 Community Outreach and Public Participation

The Proponent is committed to an open and inclusive public process, and as the Article 80 process progresses, the Proponent will continue to seek input from community representatives, neighbors and stakeholders, as well as public and elected officials. As part of their efforts thus far, the Proponent has met with or plans to meet with the following organizations.

- ◆ BRA staff including Urban Design Team
- ◆ Boston Transportation Department
- ◆ Mayor's Office of Neighborhood Services
- ◆ Boston City Councilor Bill Linnihan
- ◆ Boston Landmarks Commission
- ◆ Downtown Crossing Business Improvement District
- ◆ Chinatown Neighborhood Council
- ◆ Chinatown Safety Committee
- ◆ Midtown Park Plaza Neighborhood Association
- ◆ Property owner's abutting the site

The Proponent will also meet with other organizations who express an interest in meeting.

## 1.8 Legal Information

### *1.8.1 Legal Judgments Adverse to the Proposed Project*

The Proponent is not aware of any legal judgments in effect or legal actions pending which involve the Project or Project Site.

### *1.8.2 History of Tax Arrears on Property*

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

**1.8.3 Evidence of Site Control/Nature of Public Easements**

The Proponent owns the Project Site as evidenced in the deed recorded with the Suffolk County Registry of Deeds at Book 49896, Page 166.

**1.8.4 Nature and Extent of Any and All Public Easements**

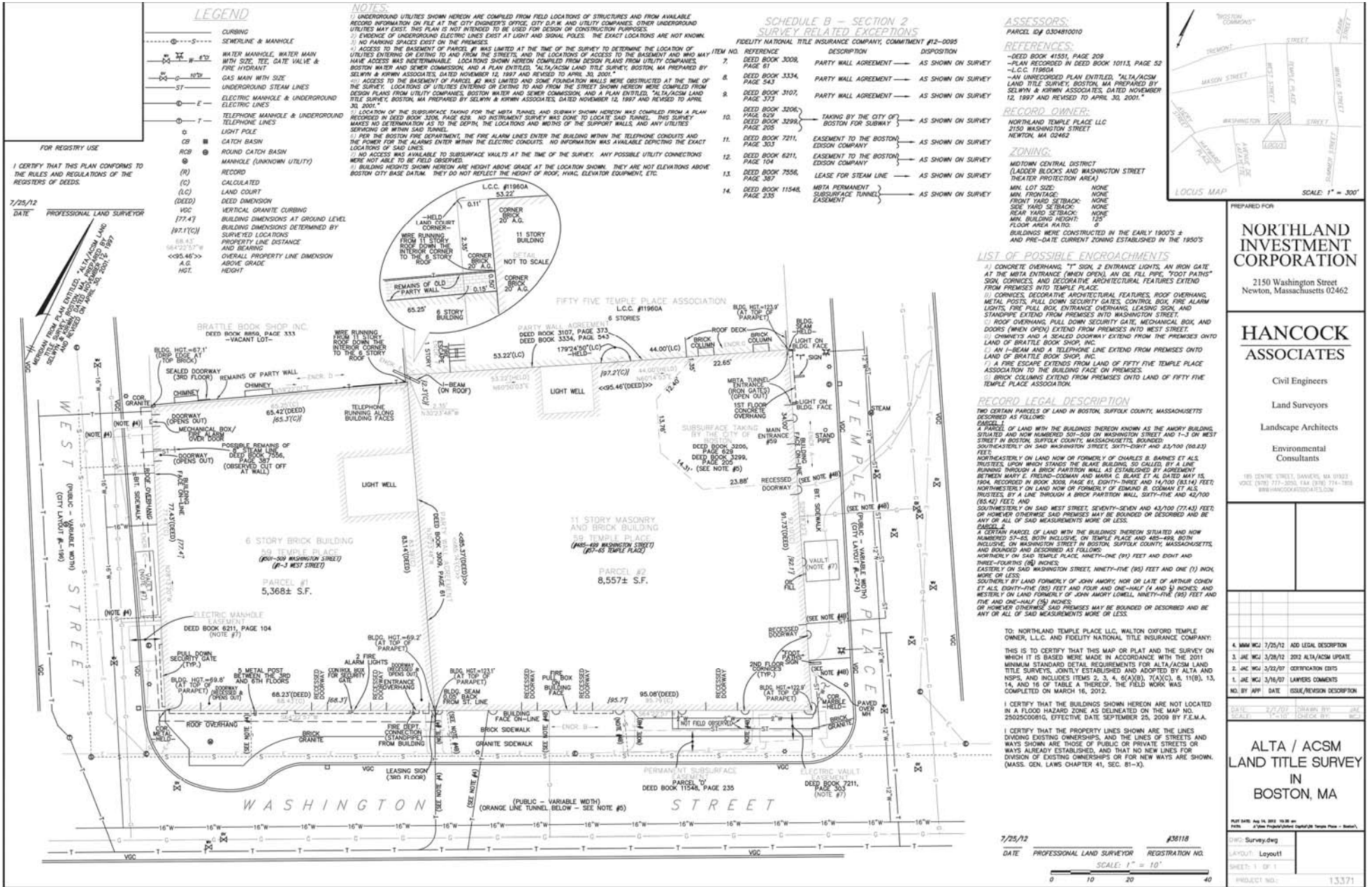
The Project Site is not subject to any public easements; however, a portion of the subsurface of the Project Site has been taken by the City of Boston (see Suffolk County Registry of Deeds at Book 3206, Page 629 and Book 3299, Page 205), an electric manhole easement exists to the west of the Project Site along West Street (see Suffolk County Registry of Deeds at Book 6211, Page 104); a permanent subsurface easement exists to the south of the Project Site along Washington Street (see Suffolk County Registry of Deeds at Book 11548, Page 235), and an electric vault easement exists near the southeastern corner of the Project Site along Washington Street (see Suffolk County Registry of Deeds at Book 7211, Page 303). These easements are shown on the Site Survey, Figure 1-8.

**1.9 Anticipated Permits and Approvals**

Table 1-3 presents a preliminary list of federal, state, and local permits and approvals that may be required for the Project, based on currently available information. It is possible that only some of these permits or actions will be required, or that additional permits or actions will be required. At this time it is not anticipated that the Project will require any state permits.

**Table 1-3 Anticipated Permits and Approvals**

Agency Name	Permit or Action
<b>State</b>	
Massachusetts Department of Environmental Protection, Division of Water Pollution Control	Sewer Connection Compliance Certificate
Massachusetts Department of Environmental Protection, Division of Air Quality Control	Fossil Fuel Permit, if necessary; Notice of Commencement of Demolition and Construction; Notice of Asbestos Removal, if necessary
Massachusetts Historical Commission	Historic Review under 950 CMR 71.00
<b>Local</b>	
Boston Redevelopment Authority	Article 80 Large Project Review and Certificate of Compliance; Cooperation Agreement and other Article 80 Agreements, as necessary
Boston Civic Design Commission	Design Review under Article 28 of the Boston Zoning Code
Boston Transportation Department	Transportation Access Plan Agreement; Construction Management Plan
Boston Water and Sewer Commission	Approval for Sewer and Water Connections
Boston Department of Public Works (including Public Improvements Commission)	Curb Cuts or Other Work in Streets
Boston Fire Department	Approval of Fire Safety Equipment
Boston Department of Inspectional Services	Demolition and Building Permits; Certificates of Occupancy



59 Temple Place Boston, Massachusetts

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Chapter 2.0  
Transportation

## 2.0 TRANSPORTATION COMPONENT

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### 2.1 Introduction

This chapter presents the transportation impacts associated with the proposed Project. Figure 2-1 shows the Project Site and surrounding area. The Project Site is bounded by Temple Place to the north, Washington Street to the east, and West Street to the south.

#### 2.1.1 *Project Description*

The Project proposes the redevelopment of 59-63 Temple Place and 501-507 Washington Street in Boston's Downtown Crossing area. The existing Project Site consists of two buildings, a six-story and an 11-story building, comprised mostly of office space totaling approximately 135,500 square feet (sf) which includes approximately 12,500 sf of ground floor retail. The Project includes the rehabilitation of the two buildings, the Blake and Amory Buildings, to provide approximately 243 hotel rooms (127,900 sf) with a new restaurant (4,800 sf) and partial retention of the ground floor retail (2,800 sf). The Project will contribute to the increasing vitality of the Downtown Crossing area and result in a greatly improved pedestrian environment. The main entrance to the building is proposed along Washington Street with secondary frontages on West Street and Temple Place.

Subject to discussions with the Massachusetts Bay Transportation Authority, the exterior of the MBTA's Temple Place Downtown Crossing Station's entrance/exit may be updated as part of this Project. On-site parking will not be provided, but the Project is located near excellent access to public transportation with the Red, Orange, Silver and Green lines in close proximity. Several large public parking facilities are also located near the Project Site. Table 2-1 summarizes the land use assumptions used in the transportation analysis.

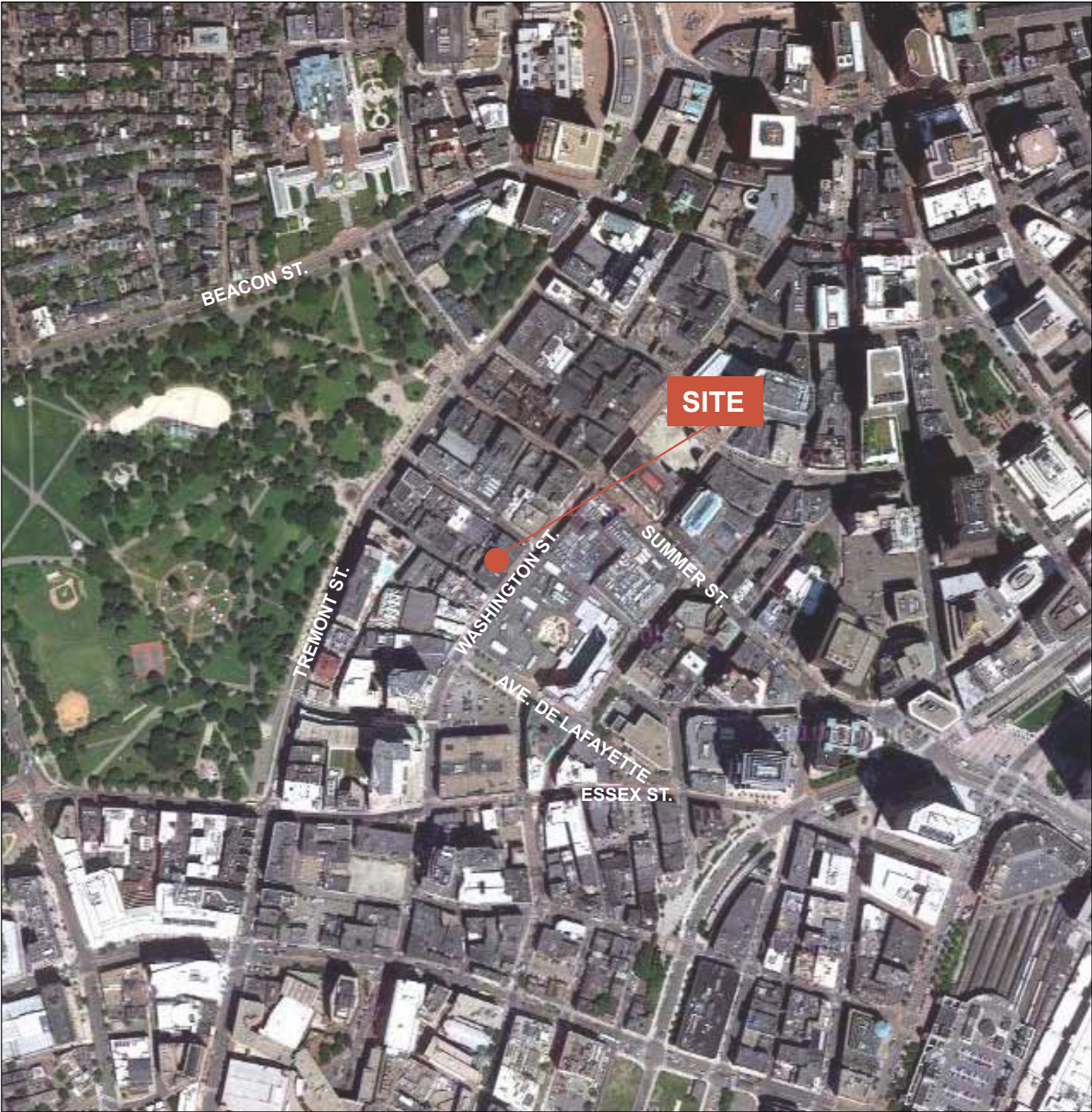
**Table 2-1 Proposed Development Program**

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<b>Land Use</b>	<b>Development Program (approximate)</b>
Hotel	243 rooms
Retail	2,800 sf
Restaurant	4,800 sf
Parking Spaces	0

---

Valet and transportation access to the Project Site is proposed along the entire curb frontage on Washington Street for hotel and restaurant pick-up/drop-off activity and all building servicing and loading demands. The main pedestrian entry for the hotel will be on Washington Street, with primary access to retail uses through separate entrances on Washington Street. Secondary access will be provided from West Street and Temple Place.



Not to scale.

59 Temple Place Boston, Massachusetts

### **2.1.2 Study Area**

The study area determined in consultation with BTM and BRA is generally bounded by Washington Street to the east, Temple Place to the north, Avenue de Lafayette to the south, and Tremont Street to the west. As shown in Figure 2-2, this Project includes the following five intersections:

- ◆ Temple Place/Tremont Street;
- ◆ West Street/Tremont Street;
- ◆ Avenue de Lafayette/Washington Street;
- ◆ Temple Place/Washington Street; and
- ◆ West Street/Washington Street.

### **2.1.3 Methodology**

The transportation study and supporting analysis was conducted in accordance with BTM guidelines and is described below.

The existing conditions analysis includes an inventory of the existing (2012) transportation conditions, including roadway capacities, parking and curb use, transit, pedestrian circulation, loading, and Site conditions.

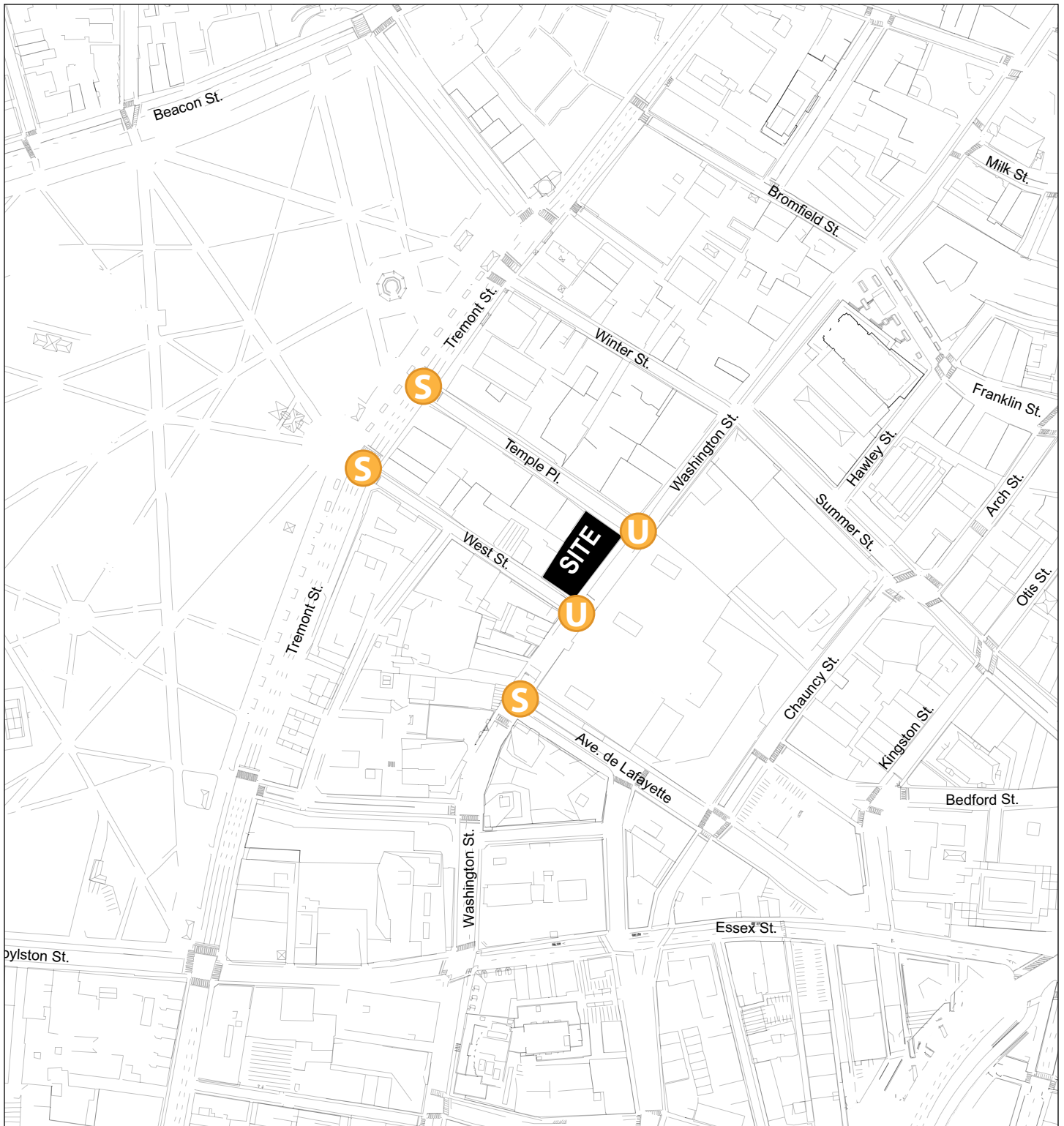
The future transportation conditions analysis evaluates potential transportation impacts associated with the Project. Long-term impacts are evaluated for the year 2017, based on a five-year horizon from the existing year (2012). Expected roadway, parking, transit, pedestrian, and loading capacities and deficiencies are identified. This section includes the following scenarios:

- ◆ The No-Build Scenario (2017) includes general background growth and additional vehicular and pedestrian traffic associated with specific planned developments in the vicinity of the Project Site as well as planned transportation improvements by others.
- ◆ The Build Scenario (2017) includes specific trip generation and operational impacts for the Project.

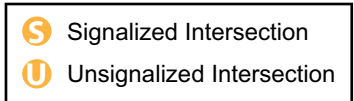
The final section identifies measures to mitigate Project-related impacts identified in the Build Conditions analysis.

An evaluation of short-term traffic impacts associated with construction activities is also provided.





Not to scale.



59 Temple Place Boston, Massachusetts

## 2.2 Existing Transportation Conditions

This section includes descriptions of existing study area roadway geometries, intersection traffic control, peak-hour vehicular and pedestrian volumes, average daily traffic volumes, transit availability, parking and curb use, and loading conditions.

### 2.2.1 Existing Roadway Conditions

The following roadway descriptions reflect functional classifications by the Massachusetts Department of Transportation, Highway Division's (MassDOT's) Office of Transportation Planning.

**Washington Street**, an urban principal arterial, connects downtown Boston through the South End and points farther south. To the north of Kneeland Street in Boston, Washington Street becomes a one-way street, northbound with two travel lanes. Through the Downtown Crossing shopping area, Washington Street is an auto restricted zone. There is commercial on-street parking provided on the west side of Washington Street, located north of Avenue de Lafayette, however, there is no general on-street parking allowed within the Project area. Sidewalks are provided on both sides of the roadway.

**Tremont Street**, an urban principal arterial, begins at Cambridge Street in downtown Boston and runs one-way southbound to Oak Street, where it turns to converge with Charles Street and becomes a two-way street through the South End into Roxbury. Four southbound lanes are provided between Winter Street and Stuart Street. Sidewalks are located on both sides of Tremont Street. In the vicinity of the Project, no on-street parking is allowed. Tremont Street was recently resurfaced and restriped.

**Avenue De Lafayette** is classified as a local street and runs from Washington Street to Kingston Street. The roadway is a two-way street with one lane in each direction between Washington Street and Harrison Avenue Extension. Along the two-way section, no on-street parking is provided. Avenue de Lafayette is one-way westbound from Kingston Street to the Harrison Avenue Extension, with limited on-street, metered parking on both sides of the street. Hotel curbside activity is provided along the north side between Chauncy Street and Harrison Avenue Extension. Sidewalks are provided on both sides of Avenue de Lafayette.

**West Street** is a minor arterial connecting Washington Street to Tremont Street. West Street is one-way westbound with one travel lane. Commercial parking is permitted on the south side of the street. West Street is approximately 20-feet wide, with six-foot sidewalks on both sides of the street.

**Temple Place** is classified as a minor arterial connecting Washington Street to Tremont Street. Temple Place is one-way with one westbound travel lane. Some areas of commercial parking are permitted on the south side of the street. The north side of the road

provides MBTA bus pick-up/drop off for the Silver Line along with handicap parking spaces and some commercial parking permitted. Temple Place is approximately 25.5 feet wide, with 11-foot sidewalks on both sides of the street. Temple Place was recently resurfaced.

### **2.2.2 Intersection Conditions**

The following descriptions of the study area intersections, which were identified in consultation with BTM, include geometry, pedestrian facilities, and intersection traffic control. Note that in these descriptions, an *exclusive pedestrian phase* refers to a phase where all vehicular traffic is stopped and pedestrians in all crosswalks can proceed. A *concurrent pedestrian phase* permits some pedestrian crossings to occur concurrently with vehicular movements.

#### **2.2.2.1 Signalized Intersections**

***Temple Place/Tremont Street.*** At this T-intersection, the Temple Place westbound approach has a single left-turn travel lane. The Tremont Street southbound approach has four through travel lanes. Crosswalks and handicapped ramps are provided across Temple Place, and there is a crosswalk across the north side of Tremont Street. Pedestrian pushbuttons and indications are provided for the two crosswalks. Pedestrian phases are concurrent with vehicular movements. Tremont Street and Temple Place were both resurfaced and restriped recently.

***West Street/Tremont Street*** is a T-intersection and the West Street westbound approach has a single left-turn travel lane. The Tremont Street southbound approach has four through travel lanes, which were recently resurfaced and restriped. Crosswalks and handicapped ramps are provided across West Street and across both the northern and southern legs on Tremont Street. Based on field observations there was no crosswalk along the southern leg of Tremont Street before the resurfacing and striping. Pedestrian pushbuttons and indications are provided for only two crosswalks, the northern crosswalk on Tremont, and the West Street crosswalk. Pedestrian phases are concurrent with vehicular movements.

***Avenue de Lafayette/Washington Street*** is a signalized T-intersection. The Avenue de Lafayette westbound approach offers one travel lane for vehicles turning right onto Washington Street. The Washington Street northbound approach consists of two general, unstriped travel lanes for through and right-turning movements. Although vehicles form two lanes on the Washington Street northbound approach, they must merge into one lane north of the intersection. Pedestrians are offered an exclusive walk phase at this intersection; however, pedestrians regularly cross Avenue de Lafayette when Washington Street is given the green light.

### 2.2.2.2 Unsignalized Intersections

*Temple Place/Washington Street* is an unsignalized T intersection. Both the Temple Place westbound and Washington Street northbound approaches are one-way and have one travel lane. The Washington Street north leg has “Do Not Enter” signs for traffic and is for pedestrians only during the day. Commercial vehicles and taxis are permitted in the north leg of Washington Street during the evening hours for pick-up/drop off and loading. Crosswalks and handicapped ramps are provided across Temple Place and the northern side of Washington Street.

*West Street/Washington Street* is an unsignalized T intersection. Both the West Street westbound and Washington Street northbound approaches are one-way and have one travel lane. Commercial vehicles and taxis are permitted during the designated hours for pick-up/drop off and loading along the entire western side of Washington Street and the southern side of West Street. Crosswalks and handicapped ramps are provided across West Street and the northern side of Washington Street.

### 2.2.3 Existing Traffic Conditions

Vehicular, bicycle, and pedestrian counts were conducted at the study area intersections on August 15, 2012. It is standard practice to adjust count data to account for seasonality to obtain average annual volumes. Based on a review of MassDOT average monthly traffic volume data at continuous count stations in the area, traffic volumes during the month of August are 9% higher than the average month. Because application of a seasonal factor would have lowered the traffic volumes, the study team conservatively chose not to apply a seasonal adjustment factor and to use the higher count data for analysis. The weekday, peak period vehicle turning movements, bicycle, and pedestrian volumes were collected from 7:00 to 9:00 a.m. and from 4:00 to 6:00 p.m. Based on the vehicle counts, the weekday morning and evening peak hours were identified as 8:00 to 9:00 a.m. and 5:00 to 6:00 p.m., respectively. The existing peak hour volumes are shown in Figure 2-3. Traffic count data are provided in the Transportation Appendix.

### 2.2.4 Existing Traffic Operations

The primary criterion for evaluating traffic operations is Level of Service (LOS). LOS is determined by assessing average delay incurred by vehicles at intersections and along intersection approaches. The study team calculated average delay and associated LOS at study intersections using Trafficware’s Synchro 6 software, which also evaluates the impact on traffic operations from closely-spaced intersections. This software is based on the traffic operational analysis methodology of the Transportation Research Board’s 2010 *Highway Capacity Manual* (HCM). LOS and delay (in seconds) are determined based on intersection geometry and available traffic data for each intersection. BTD provided the intersection signal timing and phasing used in this analysis. Table 2-2 summarizes the delay and LOS



Not to scale.

AM (PM)

59 Temple Place Boston, Massachusetts

thresholds for signalized and unsignalized intersections, as defined in the HCM. LOS A defines the most favorable condition, with minimum traffic delay. LOS F represents the worst condition, with significant traffic delay. The threshold at LOS E/ LOS F indicates that the intersection, approach, or lane group is theoretically at capacity. LOS D is generally considered acceptable in an urban environment, such as the Project study area, and below theoretical operating capacity.

**Table 2-2 Intersection Level of Service Criteria (HCM excerpt)**

Level of Service	Average Stopped Delay (sec./veh.)	
	Signalized Intersection	Unsignalized Intersection
A	≤10	≤10
B	> 10 and ≤20	> 10 and ≤15
C	> 20 and ≤35	> 15 and ≤25
D	> 35 and ≤55	> 25 and ≤35
E	> 55 and ≤80	> 35 and ≤50
F	> 80	> 50

Table 2-3 and Table 2-4 present the Existing Conditions capacity analysis summaries for study area intersections for the weekday a.m. and weekday p.m. peak hours, respectively. Detailed Synchro reports are provided in the Transportation Appendix.

**Table 2-3 Existing Conditions (2012) Capacity Analysis Summary, a.m. Peak Hour**

Intersection	LOS	Delay (sec.)	V/C Ratio	95 <sup>th</sup> Percentile Queue Length (feet)
<i>Signalized Intersections</i>				
<b>Temple Place/Tremont Street</b>	<b>A</b>	<b>4.8</b>	-	-
Temple Place WB left	A	4.2	0.18	4
Tremont Street SB thru	A	4.9	0.35	36
<b>West Street/Tremont Street</b>	<b>A</b>	<b>6.7</b>		
West Street WB left	A	4.9	0.26	29
Tremont Street SB thru	A	7.2	0.46	36
<b>Avenue de Lafayette/Washington Street</b>	<b>B</b>	<b>18.2</b>	-	-
Avenue de Lafayette WB right	D	49.7	0.62	96
Washington Street NB thru	B	11.6	0.25	91
Washington Street NB right	A	3.6	0.20	13
<i>Unsignalized Intersections</i>				
<b>Temple Place/Washington Street</b>				
Washington NB left	A	4.4	0.07	6
<b>West Street/Washington Street</b>				
Washington NB left/thru	A	4.8	0.16	14

# = 95th percentile volume exceeds capacity. Queue may be longer. Queue shown is the maximum after 2 cycles.  
m = Volume for 95th percentile queue is metered by an upstream signal.

**Table 2-4 Existing Conditions (2012) Capacity Analysis Summary, p.m. Peak Hour**

Intersection	LOS	Delay (sec.)	V/C Ratio	95 <sup>th</sup> Percentile Queue Length (feet)
<i>Signalized Intersections</i>				
<b>Temple Place/Tremont Street</b>	<b>A</b>	<b>5.3</b>	<b>-</b>	<b>-</b>
Temple Place WB left	B	13.7	0.15	m65
Tremont Street SB thru	A	4.5	0.44	72
<b>West Street/Tremont Street</b>	<b>B</b>	<b>10.9</b>		
West Street WB left	C	31.8	0.42	227
Tremont Street SB thru	A	5.5	0.50	33
<b>Avenue de Lafayette/Washington Street</b>	<b>C</b>	<b>21.7</b>		
Avenue de Lafayette WB right	E	57.9	0.70	146
Washington Street NB thru	B	15.1	0.32	166
Washington Street NB right	A	4.4	0.22	m29
<i>Unsignalized Intersections</i>				
<b>Temple Place/Washington Street</b>				
Washington NB left	A	9.0	0.14	12
<b>West Street/Washington Street</b>				
Washington NB left/thru	B	13.1	0.48	65

# = 95th percentile volume exceeds capacity. Queue may be longer. Queue shown is the maximum after 2 cycles.  
m = Volume for 95th percentile queue is metered by an upstream signal.

During weekday morning and evening peak hours, all intersections operate at an acceptable overall LOS (LOS D or better). The Avenue de Lafayette westbound approach at the intersection of Avenue de Lafayette/Washington Street operates at LOS E during the p.m. peak hour.

### **2.2.5 Existing Parking and Curb Use**

This section documents the existing off-street and on-street parking as well as curbside inventory and operations in the study area.

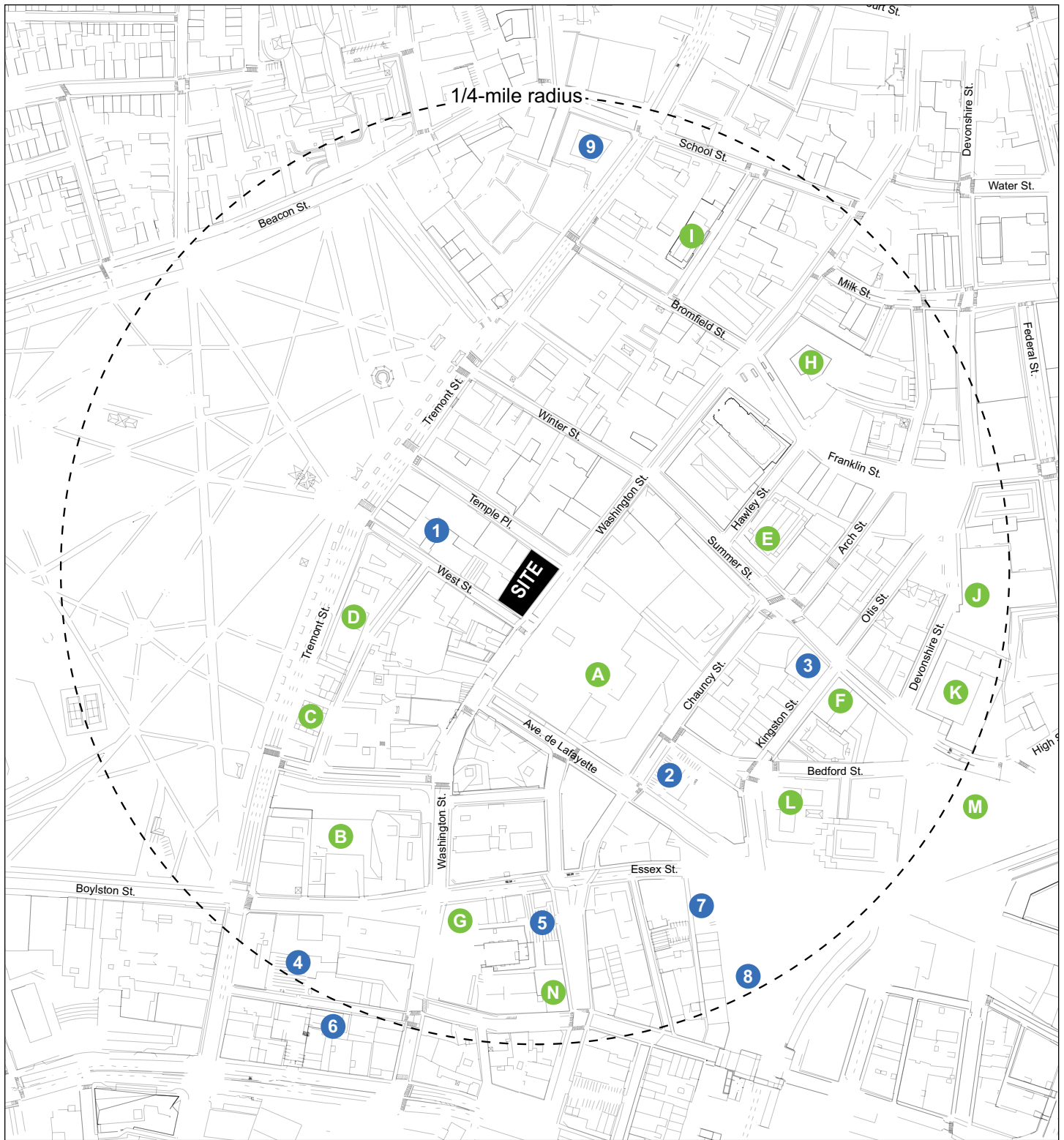
#### **2.2.5.1 Existing Off-street Parking**

Currently, more than 5,589 public parking spaces are within one-quarter mile, or a five-minute walk, from the Project Site. Of these, approximately 324 are found in parking lots and 5,265 are in parking garages. These spaces are available on an hourly basis at market rates. Public surface lots and garages within a quarter-mile of the Project Site are shown in Table 2-5 and Figure 2-4.

**Table 2-5 Off-street Parking**

Map ID	Facility	Public Spaces	Private Spaces
<i>Parking Garages</i>			
A	Lafayette Place Garage	1,276	0
B	Millennium Place Garage	563	850
C	Park Side	0	23
D	Tremont on Common	200	125
E	101 Arch Street	0	52
F	99 Summer Street	0	120
G	Archstone	177	314
H	33 Arch Street	900	0
I	45 Province Street	184	110
J	Winthrop Square	1,125	0
K	100 Summer Street	0	109
L	One Lincoln	265	635
M	125 Summer Street	75	275
N	40 Beach Street	500	0
	Total Garage Spaces	5,265	2,613
<i>Parking Lots</i>			
1	Allright Parking (West Street)	15	0
2	Bradford Lot	10	0
3	23 Kingston Street	15	0
4	47-55 LaGrange Street	50	0
5	Stanhope Garage (Essex Street)	52	0
6	41-47 LaGrange Street	89	0
7	P & J's Auto Park	50	0
8	22 Edinboro Street	19	0
9	Allright Parking (Beacon Street)	24	0
	Total Lot Spaces	324	0
	Total Off-street Parking	5,589	2,613





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#	Parking Lot
X	Parking Garage

**59 Temple Place Boston, Massachusetts**

### 2.2.5.2 Existing On-street Parking and Curb Use

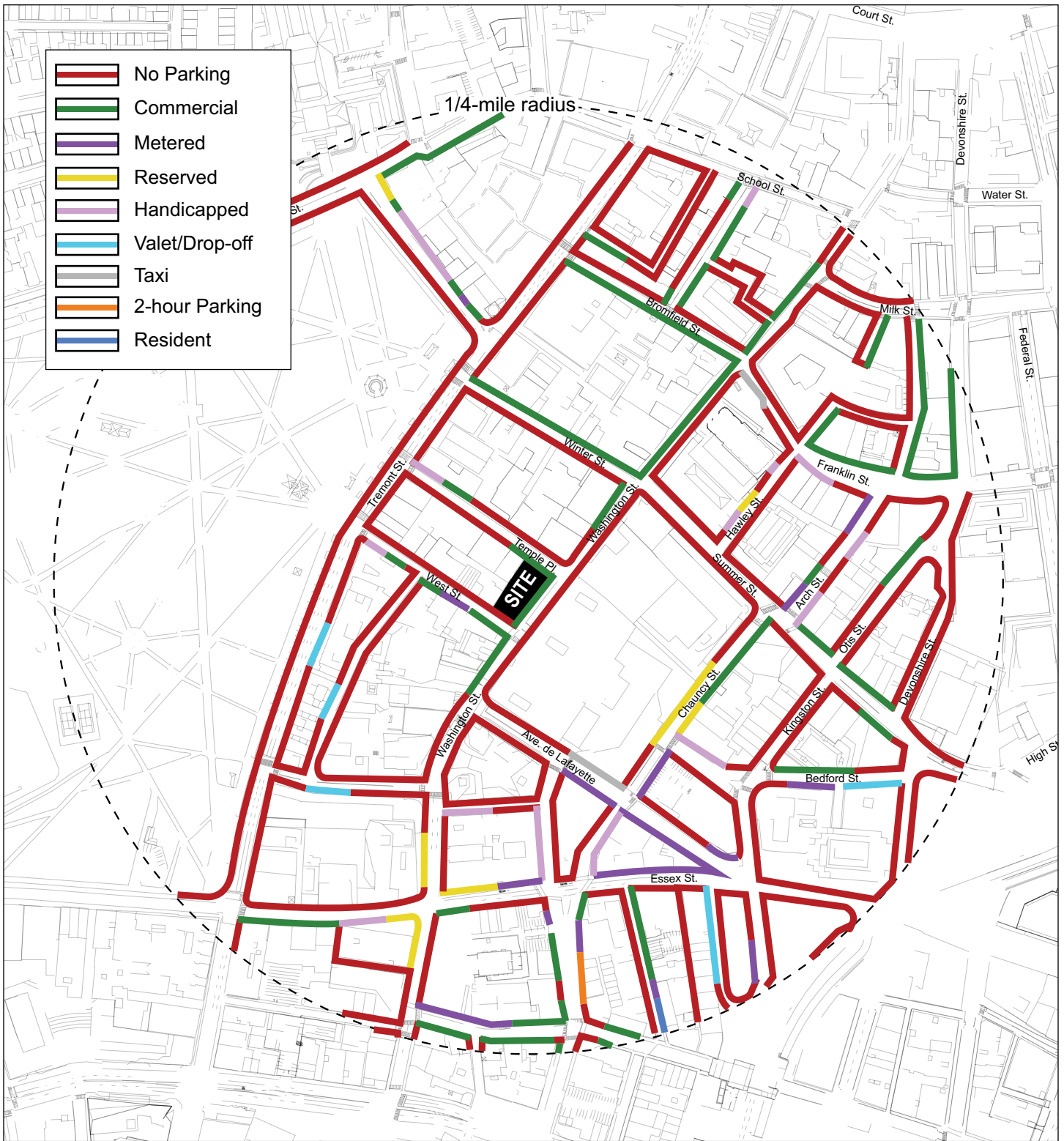
Figure 2-5 illustrates the on-street parking regulations within one-quarter mile, or a five-minute walk, of the Project Site. Most on-street parking in the study area is designated for commercial vehicles or handicapped parking.

The Project is situated on a block that has extremely limited curbside access for the general public. General traffic is currently prohibited from the entire curb surrounding the Site, including Washington Street, Temple Place, and West Street. Washington Street at the Project Site is comprised of six commercial parking spaces restricted to a 30-minute limit between the hours of 7:00 a.m. and 7:00 p.m. every day, except Sundays. The intent of the Project is to establish the Washington Street curb at the Project Site as valet in order to serve hotel guests and restaurant patrons. The curb would be managed by the valet to also allow loading and building servicing to the various uses at the Project Site.

In order to determine if the Project could modify the curb use along Washington Street, several studies were conducted. Field inventories were conducted on August 13, 2012, to collect data regarding a curbside use inventory in the blocks adjacent to the Site. Figure 2-6 presents an inventory of existing curb use and parking restrictions in the blocks bordered by Washington Street, West Street, Temple Place, and Tremont Street in the immediate vicinity of the Site.

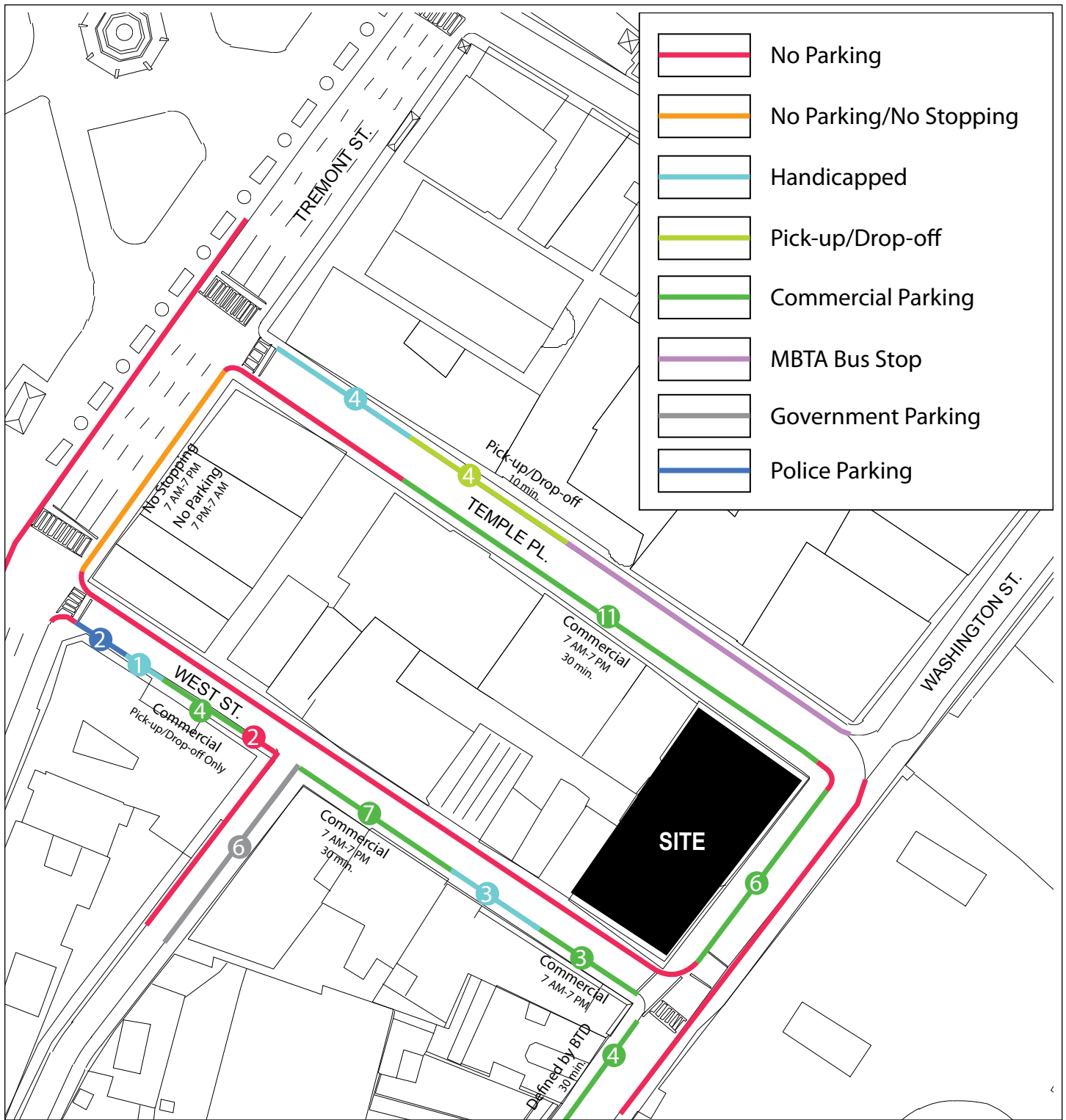
A curbside turnover analysis for West Street, Temple Place, Washington Street, Tremont Street, and Mason Street was conducted on August 14, 2012. The survey was conducted between 7:00 a.m. and 7:00 p.m. and the license plate of each vehicle parking in each curbside parking spot was recorded every 15-minutes. The data is provided in the Transportation Appendix.

Table 2-6 presents the summary analysis of the data collected. The curbside turnover analysis indicates that all commercial parking in the area surveyed averages below 50% occupancy throughout the day with peak occupancies between 80% and 90%. The analysis also shows that commercial parking well exceeds the 30-minute limit during all time periods with the exception of the West Street mid-day period. Should the 30-minute limit be enforced, both the average and peak occupancy rates would be much lower, particularly on Washington Street at the Project Site where average dwell time per space is twice the 30-minute limit during the morning and mid-day periods, and three times the limit during the evening period.



Not to scale.

**59 Temple Place Boston, Massachusetts**



Not to scale.

**59 Temple Place Boston, Massachusetts**

**Table 2-6 Curbside Parking Turnover Analysis**

					Average Turnover Rate (veh/min/space)		
Street Name	Parking Regulation	Number of Spaces	Curb Occupancy		Morning (7:00 a.m. to 10:00 a.m.)	Mid-day (10:00 a.m. to 4:00 p.m.)	Evening (4:00 p.m. to 7:00 p.m.)
			Average	Peak			
West Street	Handicap	4					
	30-min	14	50%	50%	30 min	18 min	30 min
	Police	2	43%	79%	64 min	17 min	103 min
	No Stopping/ No Parking	2	0%	0%	0	0	0
		31	3%	6%	3 min	2 min	2 min
Temple Place	Handicap	4	75%	100%	38 min	28 min	38 min
	10-min	4	50%	50%	30 min	45 min	75 min
	30-min	11	45%	91%	46 min	58 min	82 min
	No Stopping/ No Parking	43	2%	9%	7 min	4 min	6 min
Washington Street	30 - min	10	50%	80%	66 min	54 min	84 min
	No Stopping/ No Parking	23	0%	4%	1 min	1 min	1 min
Tremont Street	No Stopping/ No Parking	24	0%	13%	0	1 min	0
Mason Street	Government	7	86%	100%	39 min	17 min	34 min
	No Stopping/ No Parking	6	0%	0%	0	2 min	0

Several deliveries were in larger vehicles which occupied more than one space. These were recorded as occupying two spaces in the data collection and data summary. The Washington Street curb directly in front of the Project Site (six spaces) exhibited similar characteristics in terms of usage as the entire Washington Street curb surveyed (10 spaces). At the Project Site the following observations were made:

- ◆ Only one vehicle parked on the curb from 2:00 p.m. until 6:00 p.m.;
- ◆ Eight vehicles throughout the day took up two spaces (trucks);
- ◆ Five vehicles parked for one-hour (30 minute zone)
- ◆ Four vehicles parked for over an hour
- ◆ One of these was parked for approximately four hours.

## 2.2.6 Existing Public Transportation

This section highlights the transportation routes, schedules, and capacity of public transportation within the study area.

### 2.2.6.1 MBTA Subway and Bus rapid Transit

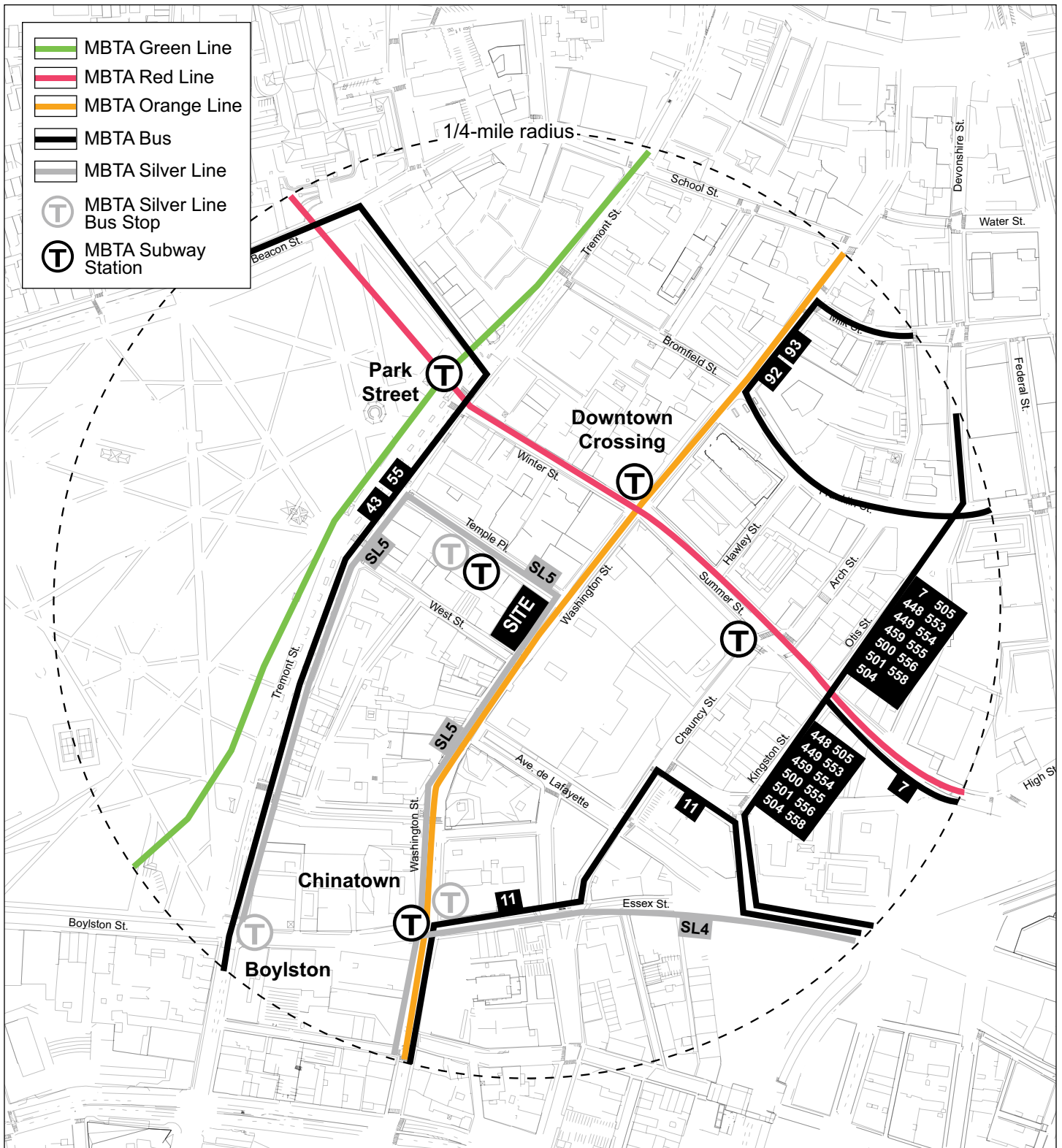
The Project Site is located above the MBTA Downtown Crossing Station and contains one connecting stairway between the street level and the underground station platforms. Downtown Crossing Station provides direct connections to the Red and Orange lines. Underground walkways in Downtown Crossing Station connect to the Green Line at Park Street Station and directly into the 101 Arch Street building. The Silver Line 4 (SL4) stops at Washington Street/Essex Street. The SL5 stops at Washington Street/Essex Street as well as on Temple Place across from the Project Site. MBTA subway line peak hour headway and weekday averages for daily boarding obtained from 2010 MBTA Ridership and Service Statistics is shown in Table 2-7. Existing public transportation is shown in Figure 2-7.

In addition to Downtown Crossing Station, Park Street Station, Chinatown Station, and Boylston Station are each located within a quarter mile of the Project Site. As shown in Figure 2-7, Park Street Station provides connections to the Green and Red lines, Chinatown Station provides connections to the Orange Line, and Boylston Station provides connections to the Green Line. Weekday subway service is provided between approximately 5:00 a.m. and 1:00 a.m. Actual train service times vary by line.

**Table 2-7 2010 MBTA Ridership and Service Statistics**

Description	Peak Hour Headway (in Minutes)*	Weekday Average Daily Boarding
Downtown Crossing Station	-	22,880
Red Line	8-9	-
Orange Line	4-5	-
Park Street Station	-	19,900
Red Line	8-9	-
Green Line	5-7	-
Chinatown Station	-	5,100
Orange Line	4-5	-
Boylston Station	-	7,600
Green Line	5-7	-
Temple Place	-	2,590
Silver Line- SL5	15	-

\*Headway is the scheduled time between trains.



Not to scale.

**59 Temple Place Boston, Massachusetts**

### 2.2.6.2 Commuter Rail and Bus

The Project Site is located just over one-quarter mile (a five-minute walk) from South Station, a transportation hub that provides access to seven commuter rail branches as well as the Silver Line to the South Boston Seaport and Boston International Airport. Commuter rail trains from South Station serve Plymouth, Kingston, Greenbush, Readville, Middleborough/Lakeville, Stoughton, Providence, Forge Park-495, Needham Heights, and Worcester. South Station is also the terminus for Amtrak train service along the Northeast Corridor. Greyhound and Peter Pan bus lines provide regional and commuter bus service from South Station.

Commuter rail service to communities north of Boston operates out of North Station, located about one mile from the Project Site. Five commuter rail lines operate from North Station, including Rockport, Newburyport, Haverhill, Lowell, and Fitchburg. While North Station is approximately a fifteen-minute walk from the Project Site, the Orange Line also provides a direct transit connection from Downtown Crossing Station to North Station.

### 2.2.6.3 MBTA Bus Service

Many local and express bus routes operate near the Project Site. Table 2-8 lists the route numbers, origin-destination of the route, and peak hour frequency. Major stops for the routes listed are on Franklin Street between Hawley Street and Washington Street, at the corner of Summer and Otis streets, and at the corner of Franklin and Devonshire streets.

**Table 2-8 Local and Regional MBTA Bus Service in the Study Area**

Bus Route	Origin–Destination	Rush-hour Frequency (min)
<i>Local Routes</i>		
7	City Point–Otis and Summer streets	4-6
11	City Point–Downtown	7–10
43	Ruggles Station–Park and Tremont streets	12-13
55	Queensbury Street–Park and Tremont streets	16-17
92	Assembly Square–Franklin and Arch streets	15-25
93	Sullivan Station–Franklin and Arch streets	7
<i>Express Routes</i>		
448	Marblehead–Downtown Crossing	—
449	Marblehead–Downtown Crossing	—
459	Salem Depot–Downtown Crossing	55-65
500	Riverside Station–Federal and Franklin streets	20
501	Brighton Center–Federal and Franklin streets	5-12
504	Watertown Square–Federal and Franklin streets	8-10
505	Waltham Center–Federal and Franklin streets	8-16
553	Roberts–Federal and Franklin streets	60



**Table 2-8 Local and Regional MBTA Bus Service in the Study Area (Continued)**

Bus Route	Origin–Destination	Rush-hour Frequency (min)
<i>Express Routes</i>		
554	Waverly Square–Federal and Franklin streets	60
556	Waltham Highlands–Federal and Franklin streets	30-60
558	Riverside–Downtown Boston	25-65

### **2.2.7 Existing Pedestrian Conditions**

The Project Site is located adjacent to the Downtown Crossing auto-restricted zone implemented in 1978. Adjacent to the Project Site, general-purpose traffic is prohibited on Washington Street north of Temple Place. Within the larger Downtown Crossing auto-restricted zone, commercial vehicles are allowed during specific times, and emergency vehicles always have authorized access. Sidewalks are provided on all streets within the study area.

Pedestrian counts were conducted at the study area intersections on August 15, 2012, from 7:00 to 9:00 a.m. and from 4:00 to 6:00 p.m. Existing a.m. and p.m. peak hour pedestrian volumes appear in Figure 2-8. These figures also note jaywalking at intersections without crosswalks.

Sidewalk locations and conditions throughout the study area are summarized below.

**Tremont Street** has sidewalks ranging in width from seven to 22 feet on the east side and from 11 to 14 feet on the west side. A part of the Freedom Trail is located on the west side of Tremont Street between West Street and Temple Place. Handicapped ramps and crosswalks are provided at the intersection of Tremont Street/West Street and Tremont Street/Temple Place but are in poor condition. Exclusive pedestrian phases are included at Tremont Street/West Street; concurrent pedestrian phases are included at Tremont Street/Temple Place. The sidewalks along Tremont Street are in good condition.

**West Street** has sidewalks approximately seven feet wide. Crosswalks are provided at the intersections with Tremont Street and Washington Street, along with handicapped ramps. This is an unsignalized T-intersection and therefore has no pedestrian signal phasing. The sidewalks along West Street are in poor condition.

**Temple Place** has sidewalks approximately 11-feet wide. Crosswalks are provided at the intersections with Washington Street and Tremont Street, along with handicapped ramps. This is an unsignalized T-intersection and therefore has no pedestrian signal phasing. The sidewalks along Temple Place are in poor condition.



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Not to scale.

**59 Temple Place Boston, Massachusetts**

**Washington Street** is a busy roadway with a high volume of pedestrian traffic, due to its location near several businesses, residences, parking facilities, schools, theaters, and Downtown Crossing and State Street stations. Within the study area, Washington Street's sidewalks are approximately 10 to 15 feet wide. At the intersection of Avenue de Lafayette/Washington Street, concurrent pedestrian phases are provided. At the intersections of Temple Place/Washington Street and West Street/Washington Street, there are no traffic signals and therefore no pedestrian signal phasing. The sidewalks along Washington Street are in good condition.

### **2.2.8 Bicycle Conditions**

Washington and Tremont streets are designated intermediate-level bike routes-suitable for users with some on-road experience, according to the *Boston's Bikemap*, published by Rubel Bike Maps of Cambridge, Massachusetts. Currently, the roadways adjacent to the Project Site have no designated bicycle lanes or markings. Boston Common, with its various bicycle paths, is less than a quarter-mile from the Project Site.

There are three bicycle racks on the northeast corner of the intersection of Temple Place/Washington Street and one on the northwest corner of the intersection of West Street/Washington Street, both adjacent to the Project Site.

The existing a.m. and p.m. peak hour bicycle turning movement counts appear in Figure 2-9. Bicycle counts are also included as part of the traffic count data in the Transportation Appendix.

### **2.2.9 Bicycle and Car Sharing**

Hubway is a bicycle sharing system in Metro Boston, which was launched in July 2011 in Boston with 60 stations and 600 bicycles. Near the Project Site there is a Hubway Station at the corner of West Street/Tremont Street that has 14 bicycles. There are also two other Hubway stations within a quarter-mile from the Site at Boylston Street/Washington Street, and Summer Street/Arch Street.

Car sharing, predominately provided by Zipcar in the Boston area, supplies easy access to vehicular transportation for those who do not own cars. Vehicles are rented hourly or daily with all vehicle costs (gas, maintenance, insurance, and parking) included in the rental fee. Vehicles are checked out for a specific time period and returned to their designated location. A total of 18 Zipcars are located at four locations close to the Project Site.

Figure 2-10 presents both Hubway and Zipcar facilities within walking distance to the Project Site.



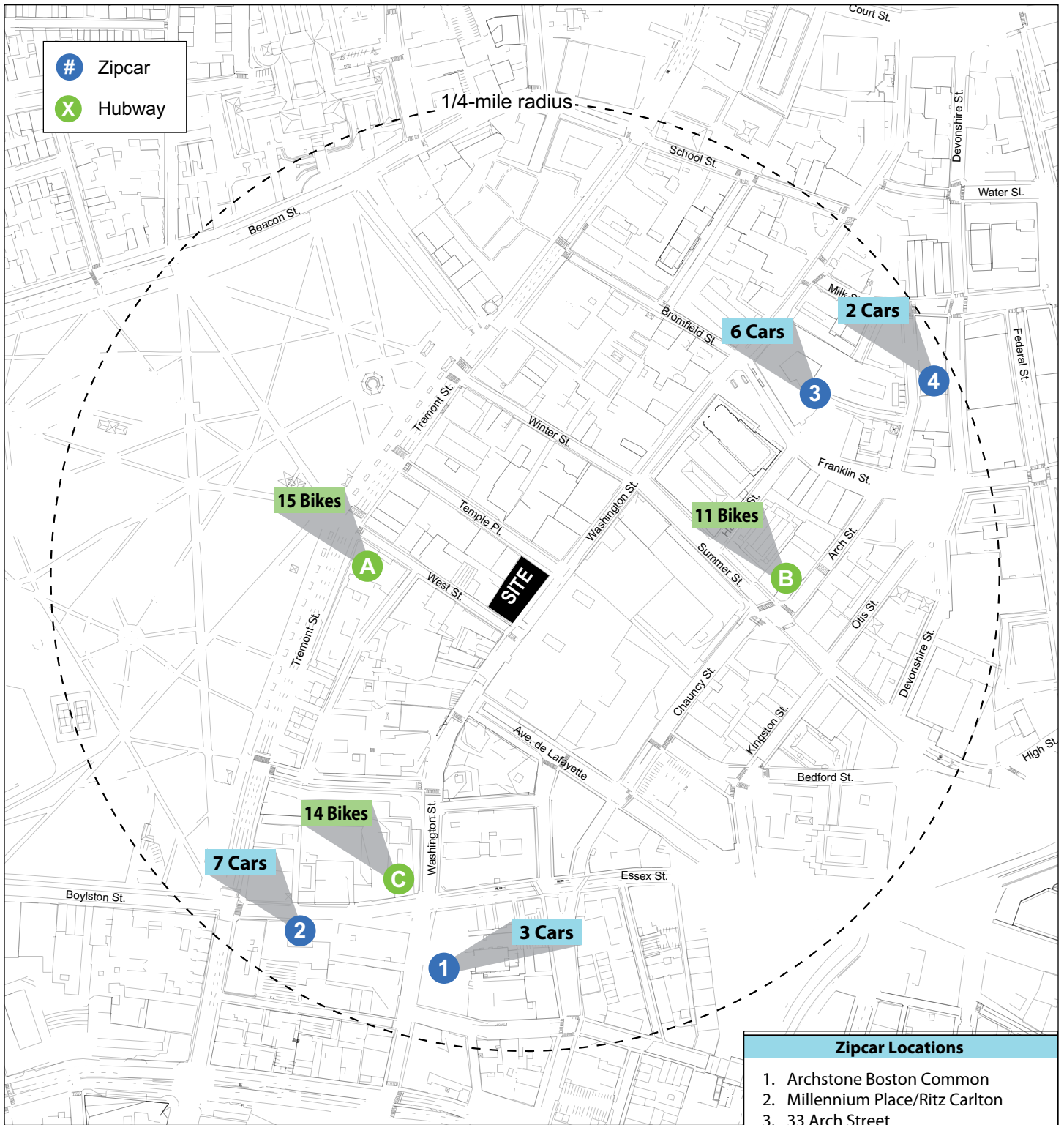
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59 Temple Place Boston, Massachusetts



Zipcar Locations	
1.	Archstone Boston Common
2.	Millennium Place/Ritz Carlton
3.	33 Arch Street
4.	One Federal Street

Hubway Locations	
A.	Tremont Street/West Street
B.	Summer Street/Arch Street
C.	Boylston Street/Washington Street



Not to scale.

**59 Temple Place Boston, Massachusetts**

### **2.2.10 Loading and Service**

Loading and building services for the existing uses on-site currently occur in the six 30-minute commercial parking spaces (allowed from 7 a.m. to 7 p.m.) along the east side of Washington Street adjacent to the Project Site.

## **2.3 Evaluation of Long-term Impacts**

This section presents a description and evaluation of the 2017 No-Build and Build Conditions.

### **2.3.1 No-Build Conditions**

#### **2.3.1.1 No-Build Traffic Volumes**

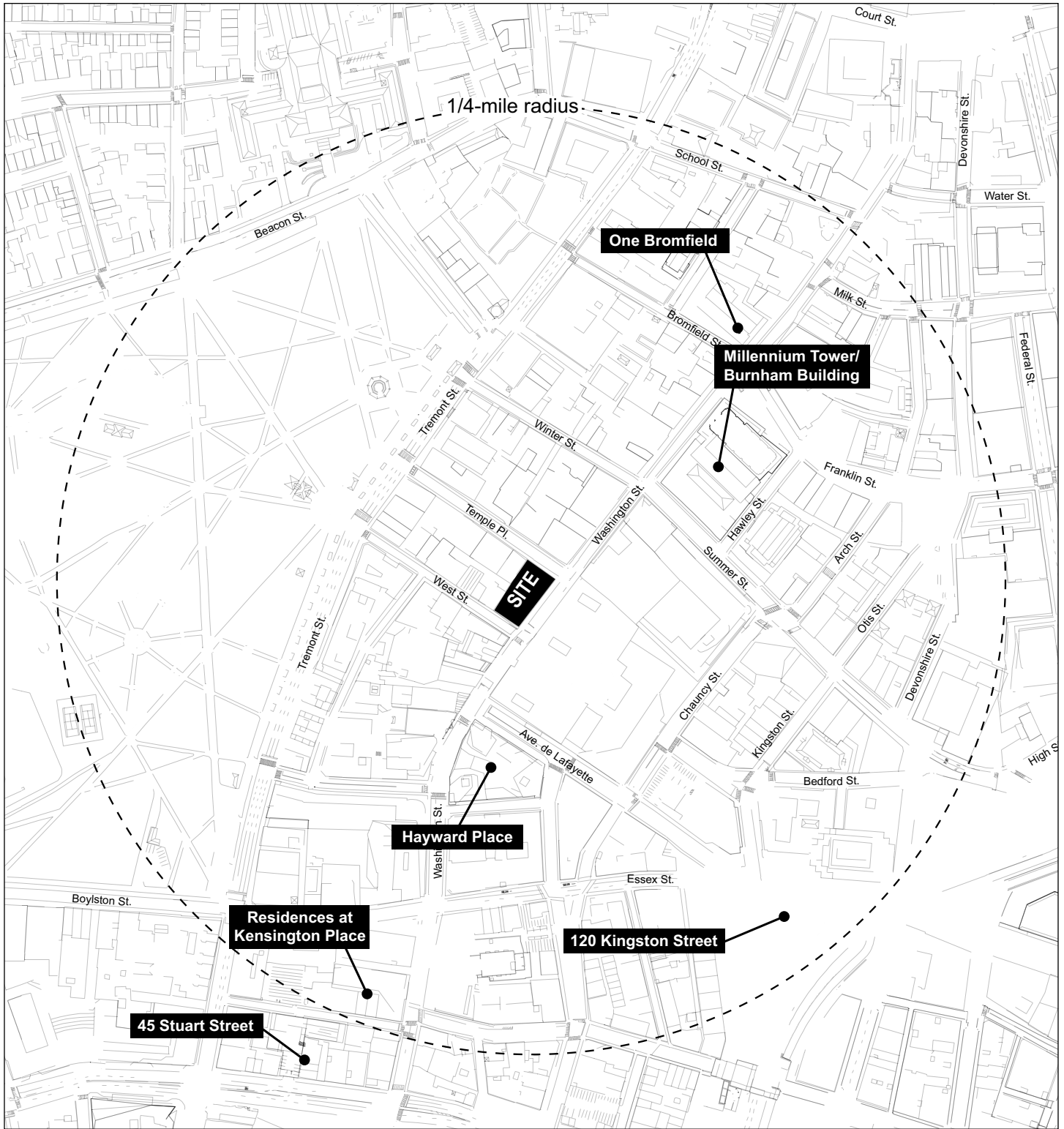
No-Build traffic conditions are those that would occur independent of the proposed Project. The traffic volumes include existing traffic volumes with a general background growth factor applied to account for general population changes, after which any new traffic resulting from identified development projects in the area are added.

Two procedures are used to determine No Build volumes. The first method of determining No-Build volumes is to apply a general growth rate to account for changes in demographics, auto usage, and ownership. Based on an assessment of 2007 – 2011 traffic volume data at downtown intersections, traffic volumes have remained relatively constant in recent years. However to provide a conservative estimate, this analysis assumes a general background growth rate of one-half percent per year.

The second method is to estimate and distribute specific traffic volumes generated by planned new major developments. Additional traffic generated by the following projects, depicted in Figure 2-11, was included in this background analysis:

**The Residences at Kensington Place** — The proposed Residences at Kensington Place will provide approximately 324 residential units, 7,000 sf of retail space, and 330 parking spaces in a below-grade garage. This project is located adjacent to the intersection of Washington Street and LaGrange Street in Boston’s Chinatown. Trip generation and distribution were obtained from the transportation component of The Residences at Kensington Place Draft Project Impact Report, prepared by Howard/Stein-Hudson Associates in July 2002.

**Millennium Tower and Burnham Building (formerly One Franklin)** – The previously approved One Franklin Project was updated and is now called Millennium Tower and Burnham Building. The new project includes the preservation of, and renovations to, the Burnham Building and the development of a new mixed use residential building, the Tower. The Burnham Building will contain approximately 122,000 - 231,000 sf of retail



Not to scale.

**59 Temple Place Boston, Massachusetts**

space on the ground floor and first basement level, and at least one upper floor. Above the retail floors will be approximately 125,000 - 218,000 sf of office space. The parking garage will extend below the entire Project Site, including the use of two existing basement floors beneath the Burnham Building. The Tower will contain approximately 600 residential units. The project is currently undergoing an extensive review by the BRA, Boston Civic Design Commission (BCDC), Boston Landmarks Commission, and other interested parties. Trip generation and distribution were obtained from the transportation component of Millennium Tower & Burnham Building Notice of Project Change, prepared by Howard/Stein-Hudson Associates in August 2012.

**45 Stuart Street** – The 45 Stuart Street project includes construction of a new 29-story residential building, in place of the existing surface parking lot, with approximately 404 apartment units. Parking for approximately 198 vehicles will be provided within an on-site valet-managed parking garage, including retention of the existing 89 commercial spaces and 109 additional spaces to support the residential units. Trip generation and distribution were obtained from 45 Stuart Street Residencies Expanded Project Notification Form, prepared by Howard/Stein-Hudson Associates in August 2011.

**One Bromfield** – The One Bromfield project will include demolition of existing buildings and the construction of a 407,000 sf structure containing 28 stories for the provision of retail, 276 rental units, and 200 parking spaces. Trip generation and distribution were obtained from One Bromfield Street Project Notification Form, prepared by Howard/Stein-Hudson Associates in October 2008.

**Hayward Place** – Hayward Place includes development of a mixed-use building on Washington Street. The proposed building will contain 300 residential units, 30,000 sf of ground floor retail space, and 271 parking spaces. This project will replace the existing 165-space surface parking lot. Trip generation and distribution were obtained from the Hayward Place Draft Project Impact Report, prepared by Howard/Stein-Hudson Associates in March 2005.

**120 Kingston Street** – The 120 Kingston Street project includes the redevelopment of the Textile District building located on the block bounded by Essex Street, Surface Road, and Kingston Street. The redevelopment will contain approximately 180 residential condominium units and approximately 3,700 sf of ground-floor retail. Additionally, a valet-managed garage will be constructed for parking up to 160 vehicles. Trip generation and distribution information was obtained from the 120 Kingston Street Project Notification Form, prepared by Howard/Stein-Hudson Associates in March 2007.



### 2.3.1.2 No-Build Capacity Analysis

The 2017 No-Build capacity analysis uses the same analysis methodology described in Section 2.2.4 for Existing Conditions. No-Build traffic volumes are shown in Figure 2-12 for the a.m. and p.m. peak hours. The resulting capacity analysis summaries are shown in Table 2-9 and Table 2-10. Complete Synchro reports are provided in the Transportation Appendix.

**Table 2-9 No-Build Conditions (2017) Capacity Analysis Summary, a.m. Peak Hour**

Intersection	LOS	Delay (sec.)	V/C Ratio	95th Percentile Queue Length (feet)
<i>Signalized Intersections</i>				
<b>Temple Place/Tremont Street</b>	<b>A</b>	<b>5.3</b>	—	—
Temple Place WB left	A	5.3	0.19	10
Tremont Street SB thru	A	5.3	0.37	39
<b>West Street/Tremont Street</b>	<b>A</b>	<b>7.1</b>	—	—
West Street WB left	A	5.5	0.27	34
Tremont Street SB thru	A	7.5	0.47	41
<b>Avenue de Lafayette/Washington Street</b>	<b>B</b>	<b>18.9</b>	—	—
Avenue de Lafayette WB right	D	49.9	0.64	101
Washington Street NB thru	B	12.0	0.26	100
Washington Street NB right	A	3.7	0.20	13
<i>Unsignalized Intersections</i>				
<b>Temple Place/Washington Street</b>	—	—	—	—
Washington NB left	A	4.5	0.07	6
<b>West Street/Washington Street</b>	—	—	—	—
Washington NB left/thru	A	4.9	0.16	15

# = 95th percentile volume exceeds capacity. Queue may be longer. Queue shown is the maximum after 2 cycles.  
m = Volume for 95th percentile queue is metered by an upstream signal.



Not to scale.

AM (PM)

59 Temple Place Boston, Massachusetts

**Table 2-10 No-Build Conditions (2017) Capacity Analysis Summary, p.m. Peak Hour**

Intersection	LOS	Delay (sec.)	V/C Ratio	95th Percentile Queue Length (feet)
<i>Signalized Intersections</i>				
<b>Temple Place/Tremont Street</b>	<b>A</b>	<b>5.5</b>	—	—
Temple Place WB left	B	14.5	0.15	m66
Tremont Street SB thru	A	4.7	0.47	78
<b>West Street/Tremont Street</b>	<b>B</b>	<b>11.1</b>	—	—
West Street WB left	C	31.8	0.43	283
Tremont Street SB thru	A	5.8	0.52	33
<b>Avenue de Lafayette/Washington Street</b>	<b>C</b>	<b>22.2</b>	—	—
Avenue de Lafayette WB right	E	58.1	0.71	150
Washington Street NB thru	B	15.2	0.32	168
Washington Street NB right	A	4.4	0.22	m29
<i>Unsignalized Intersections</i>				
<b>Temple Place/Washington Street</b>	—	—	—	—
Washington NB left	A	9.1	0.14	12
<b>West Street/Washington Street</b>	—	—	—	—
Washington NB left/thru	B	13.5	0.50	69

# = 95th percentile volume exceeds capacity. Queue may be longer. Queue shown is the maximum after 2 cycles.  
m = Volume for 95th percentile queue is metered by an upstream signal.

Under Year 2017 No-Build Conditions, all intersections continue to operate at the same level of service as under Existing Conditions.

### **2.3.2 Build Conditions**

As summarized in Section 2.1.1 Project Description, the Project will retain a total of approximately 2,800 sf of retail and approximately 4,800 sf of restaurant use, and will provide a new approximately 243-room hotel. The year 2017 Build Scenario traffic impacts associated with the Project are presented in this section.

#### **2.3.2.1 Site Access and Circulation**

##### ***Vehicular Access***

The Project requires a pick-up/drop off curb primarily to serve hotel guests who arrive by either taxi or private vehicles that require valet parking service. The optimal location for pick-up/drop off activity is the curb along Washington Street between West Street and Temple Place at the hotel front entrance, as shown on the Site Plan in Figure 2-13. This curb will also serve pick-up/drop off activity generated by the restaurant and retail uses in addition to the hotel. The Project’s loading and unloading are also proposed to take place along the same Washington Street curb.

The curbside turnover analysis presented in Section 2.2.5.2 indicates that commercial curbside parking in the surveyed area has, on average, excess capacity. Enforcement of the 30-minute limit for commercial parking would increase curbside capacity for this area function substantially. The assessment indicates that the demand for the six commercial parking spaces along the Washington Street curb in front of the Project Site can be absorbed within the available area capacity, particularly since building servicing and loading for the Project Site would continue at this location and not be displaced.

A graphic representation of curb demand from the Project along the proposed Washington Street controlled curb is presented in Figure 2-14. This assessment assumes that all vehicular traffic associated with the Project – pick-up/drop-off activity, valet parking, and building servicing and loading – is destined for the Washington Street curb in front of the Project Site. Based on discussions with, and observations at, area hotels, the average dwell time for valet drop-off is four minutes with the average valet pick-up at five minutes. The average taxi dwell time for drop-off is three minutes. The average delivery dwell time is 22-minutes with an assumption that half of deliveries may occur in a vehicle that requires two spaces. The assessment indicates that the Project demand for curbside use can be managed at the six spaces along Washington Street in front of the Project Site. This is important since maintaining unimpeded traffic flow along Washington Street is critical to the operations of the MBTA Silver Line which passes by the Project Site with its terminus on Temple Place.

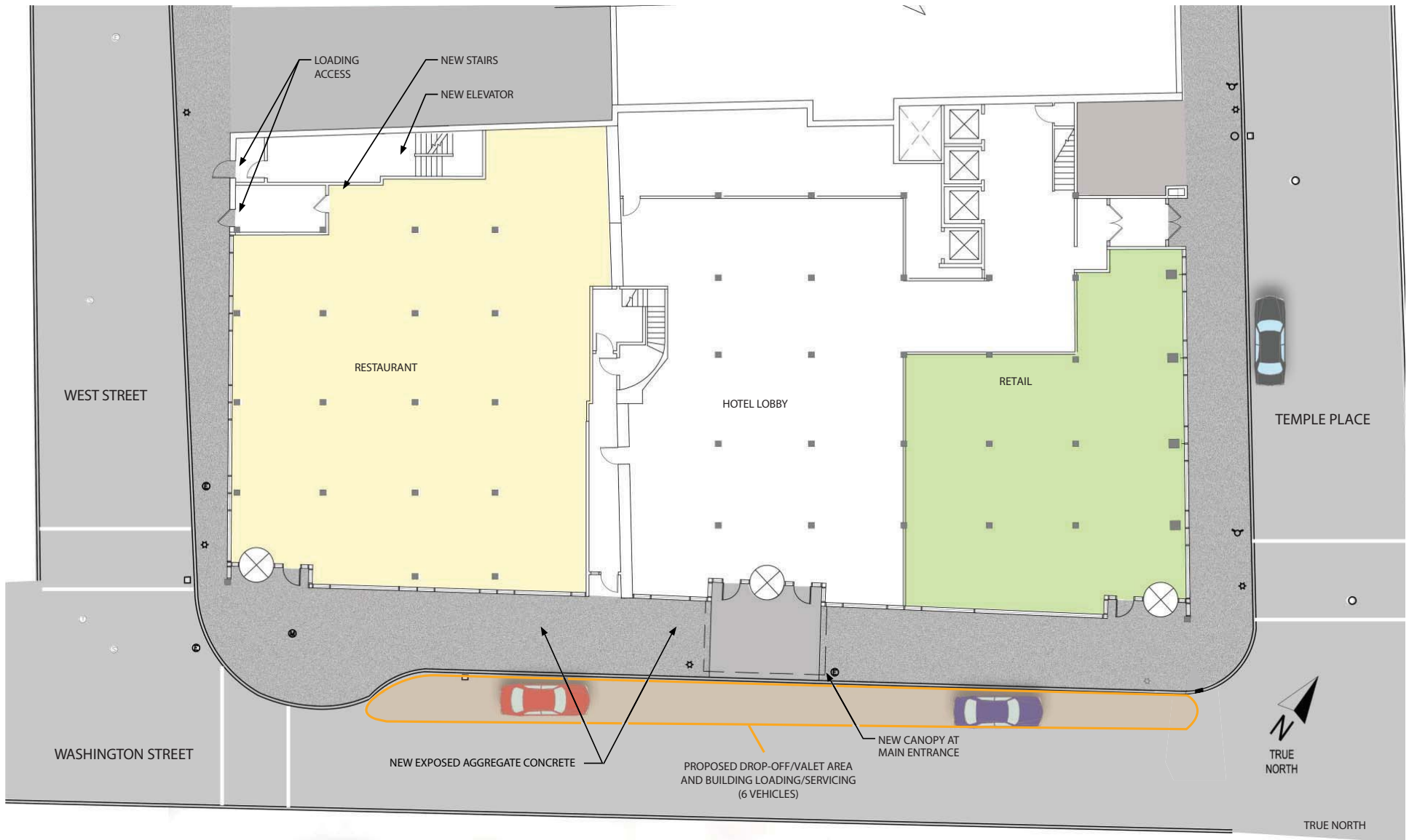
### **Pedestrian Access**

The main entrance doors to the hotel, restaurant, and retail will be located on Washington Street. Secondary pedestrian access to the hotel will occur Temple Place and on West Street for building servicing and loading.

#### **2.3.2.2 Trip Generation**

Trip generation is a multi-step process that produces an estimate of vehicle trips, transit trips, walk trips, and bicycle trips associated with a specific land use program. The Project's location and proximity to alternative travel modes determine how people access the Site.

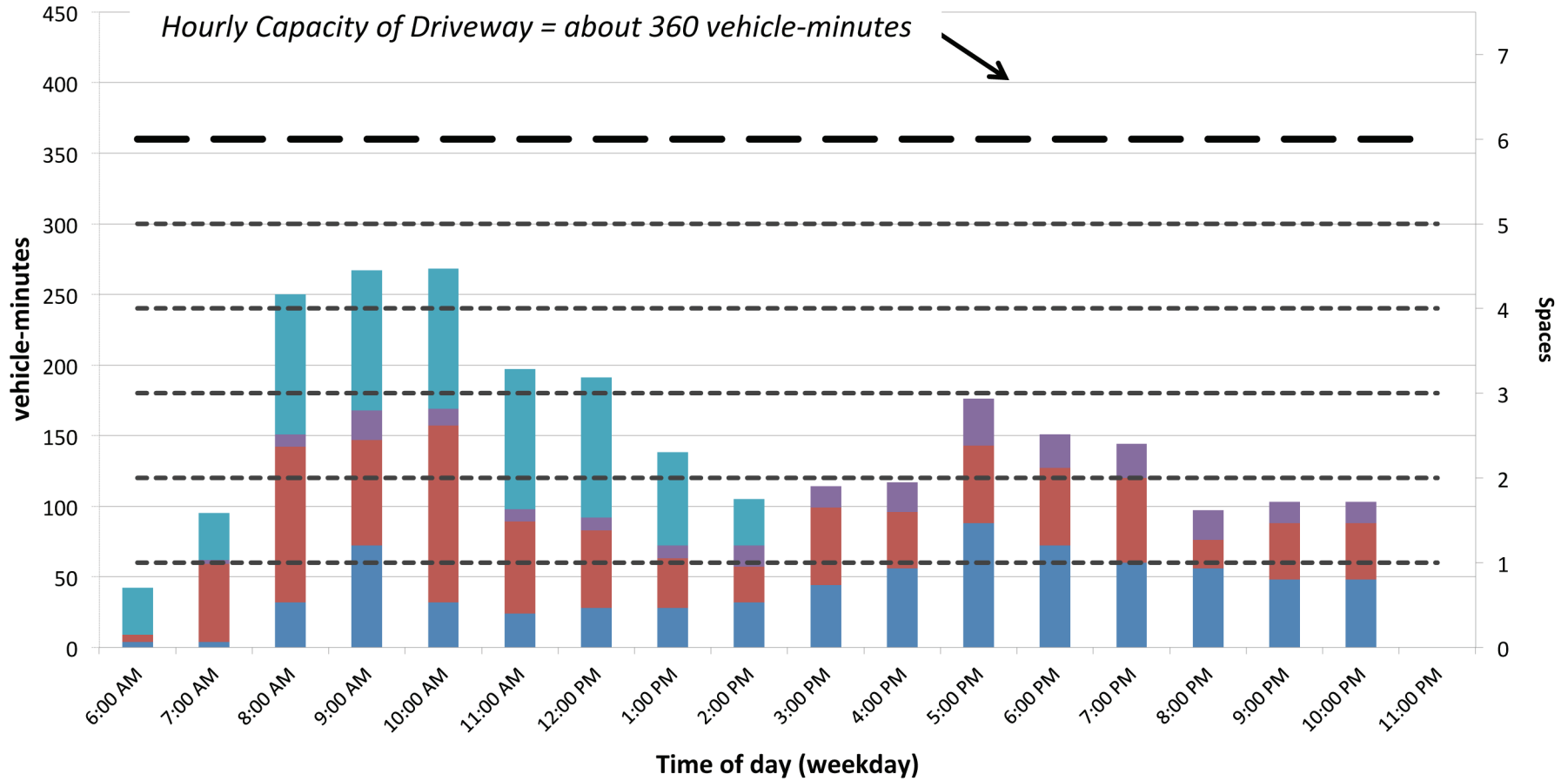
Vehicle trip generation estimates for the Project use rates derived from ITE's *Trip Generation* (8<sup>th</sup> Edition, 2008) fitted curve equations and average trip rates. The ITE vehicle trip generation rates presented below identify the number of "unadjusted" vehicle trips associated with the Project. In an urban setting well-served by transit, these "unadjusted" vehicle trips need to be "adjusted" to account for other travel mode shares. Several interim steps further refine trip generation estimates to reflect the particular characteristics of the development program and building Site. These interim steps account for pass-by trips and internal trips between land uses on-site.



59 Temple Place Boston, Massachusetts

# Washington Street Valet/Taxi Curb Spaces

Vehicle activity by time of day (average per hour)



**Assumptions:**

Six curbside spaces.

Average delivery dwell time = 22 min

Half of deliveries may occupy 2 spaces (due to vehicle length).

Average taxicab dwell time = 3 min. for drop-off.

Average hotel valet dwell times = 4 min. for drop-off and 5 min. for pick-up.

- Deliveries
- Taxicabs
- Departing Hotel Vehicles (delivered by valet)
- Arriving Hotel Vehicles (to be parked by valet)
- Number of spaces

59 Temple Place Boston, Massachusetts

The following ITE land use codes (LUCs) were used to develop trip generation estimates for the both existing uses on-site and new project-related trips for the Project:

**LUC 710 - General Office.** A general office building houses multiple tenants. An office building typically contains a mixture of professional services. Calculations of the number of trips use ITE's average rate per 1,000 sf.

**LUC 310 — Hotel.** This land use code is defined as a place of lodging that provides sleeping accommodations and supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention centers, limited recreational facilities (e.g., pool, fitness room), and/or other retail services or shops. Calculation of the number of vehicle trips uses ITE's fitted equation per room.

**LUC 820 — Retail/Shopping Center.** A shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. A shopping center's composition is related to its market area in terms of size, location, and type of store. Due to the Project's Downtown location, the retail activity is expected to exhibit the trip generation characteristics of a portion of a shopping district. Therefore, LUC 820 is the most comparable category for trip generation. Calculations of the number of vehicle trips use ITE's average rate per 1,000 sf.

**LUC 931 — Quality Restaurant.** This land use consists of high quality, full-service eating establishment with typical turnover rates of at least one hour or longer. Quality restaurants generally do not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant usually requires reservations and is generally not part of a chain. Patrons commonly wait to be seated, are served by a waiter/waitress, order from menus and pay for meals after they eat. Calculations of the number of vehicle trips use ITE's average rate per 1,000 sf.

#### **2.3.2.3 Pass-by Trips**

A portion of trips to the Project will be pass-by trips. Pass-by trips are trips that are already in the transportation network and not specifically destined to the proposed uses. ITE defines pass-by trips as trips "made as intermediate stops on the way from an origin to a primary destination without a route diversion." This accounts for trips generated by people already in the area, as in common shopping districts or dense urban areas.

ITE provides data for pass-by trips. These rates are applied to the "unadjusted" vehicle trips. For the daily peak-hour trip generation estimate, a pass-by rate of 25% was applied to the retail, and restaurant uses. During the a.m. and p.m. peak hours, a pass-by rate of 50% was applied to the retail, and restaurant uses. These rates were based on ITE data and the nature of the area around the Project Site.

A detailed presentation of the pass-by and person trips is shown in the Transportation Appendix.

#### 2.3.2.4 Mode Split

The Boston Transportation Department provides vehicle, transit, and walking mode split rates for different areas of Boston. The Project is located within designated Area 2. The “unadjusted” person trips were distributed to different modes according to the mode shares shown in Table 2-11.

**Table 2-11 Mode Split Assumptions**

Time Period		Walk Share	Transit Share	Auto Share	Vehicle Occupancy Rate (VOR)
<i>Daily</i>					
Hotel	In	41%	35%	24%	1.67
	Out	41%	35%	24%	1.67
Retail/Restaurant	In	41%	35%	24%	1.78
	Out	41%	35%	24%	1.78
<i>a.m. Peak Hour</i>					
Hotel	In	5%	62%	33%	1.67
	Out	46%	15%	39%	1.67
Retail/Restaurant	In	5%	62%	33%	1.78
	Out	46%	15%	39%	1.78
<i>p.m. Peak Hour</i>					
Hotel	In	46%	15%	39%	1.67
	Out	5%	62%	33%	1.67
Retail/Restaurant	In	46%	15%	39%	1.78
	Out	5%	62%	33%	1.78

#### 2.3.2.5 Vehicle Trip Generation

The trip generation process described above yields the “adjusted” vehicle trips associated with the Project. Table 2-12 presents potential vehicle trips generated by the Site if it were at full occupancy. Vehicle trips generated by land uses proposed for Project are presented in Table 2-13. The net new vehicle trips – future vehicle trips minus existing vehicle trips – are presented in Table 2-14. Detailed trip generation work sheets are presented in the Transportation Appendix.



**Table 2-12 Existing Site Vehicle Trip Generation (if fully occupied)**

Time Period	Office	Retail	Total
<b>Daily</b>	<b>408</b>	<b>96</b>	<b>504</b>
In	204	48	252
Out	204	48	252
<b>a.m. Peak Hour</b>	<b>77</b>	<b>2</b>	<b>79</b>
In	62	1	63
Out	15	1	16
<b>p.m. Peak Hour</b>	<b>80</b>	<b>8</b>	<b>88</b>
In	21	4	25
Out	59	4	63

**Table 2-13 Future Project Vehicle Trip Generation**

Time Period	Hotel	Retail	Restaurant	Total
<b>Daily</b>	<b>520</b>	<b>22</b>	<b>78</b>	<b>620</b>
In	260	11	39	310
Out	260	11	39	310
<b>a.m. Peak Hour</b>	<b>57</b>	<b>2</b>	<b>1</b>	<b>60</b>
In	31	1	1	33
Out	26	1	0	27
<b>p.m. Peak Hour</b>	<b>61</b>	<b>2</b>	<b>6</b>	<b>69</b>
In	32	1	4	37
Out	29	1	2	32

**Table 2-14 Net New Project Vehicle Trip Generation**

Time Period	Direction	Existing	Future	Net New
Daily	In	252	310	58
	Out	<u>252</u>	<u>310</u>	<u>58</u>
	Total	504	620	116
a.m. Peak Hour	In	63	33	-30
	Out	<u>16</u>	<u>27</u>	<u>11</u>
	Total	79	60	-19
p.m. Peak Hour	In	25	37	12
	Out	<u>63</u>	<u>32</u>	<u>-31</u>
	Total	88	69	-19

While peak-hour vehicle trips associated with the Project may be lower overall, traffic immediately in and around the Site is expected to increase with the addition of curbside hotel/restaurant activity. Although the net changes in traffic volumes associated with the Project are not expected to cause any adverse traffic impacts, a full evaluation of traffic impacts to locations adjacent to the Project are included in this study.

#### **2.3.2.6 Trip Distribution**

The trip distribution identifies the various travel paths for vehicles arriving at either the proposed Washington Street pick-up/drop-off curb or nearby parking facilities and the corresponding departure travel path. The study team developed vehicle trip distribution based on BTD's origin-destination data for Area 2. Figure 2-15 shows the distribution of these trips and travel routes into and out of the study area.

The Project is replacing an existing 135,500 sf mixed-use building consisting mostly of office space and approximately 12,400 sf of retail space, although as of August 2012, only about 50% of the office space and 60% of the retail space were rented. The vehicle trips associated with only the occupied space were removed from the 2017 No-Build network, and the new trips associated with the Project were added to the 2017 No-Build network to create a 2017 Build scenario.

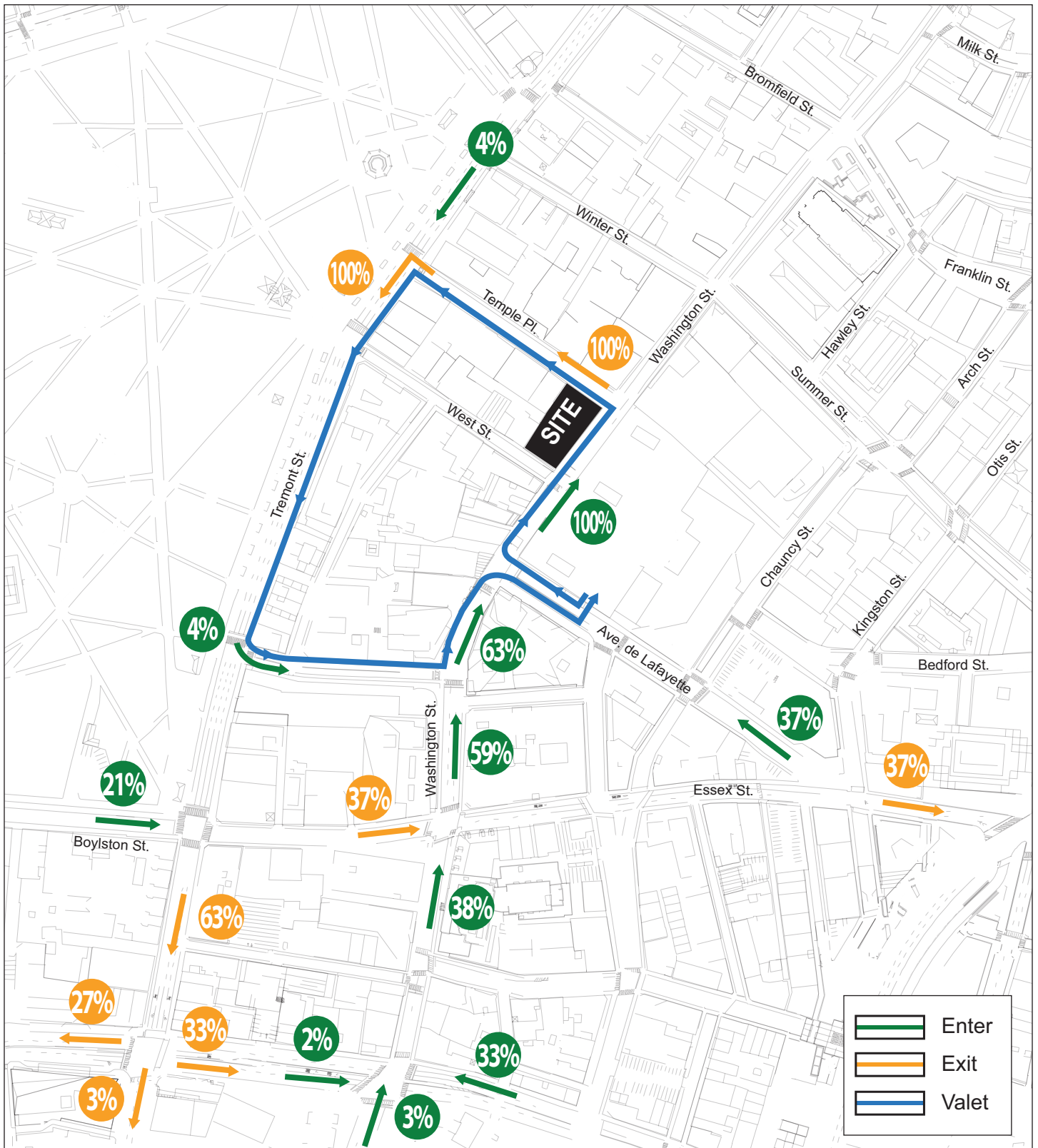
The 2017 Build scenario also incorporates vehicles maneuvers associated with valet activity destined to and from the Washington Street curb and an off-site parking facility. As a worst-case condition, all vehicle trips associated with the hotel and restaurant are assumed to use valet parking, although some drivers will choose to park themselves.

The valet travel path between the Project Site and the nearby Lafayette Place public garage, a potential option for off-site valet parking, is also shown in Figure 2-15.

The resulting net new vehicle trips generated by the Project are shown in Figure 2-16 for the a.m. and p.m. peak hours.

#### **2.3.2.7 Modifications to Curb Use on Washington Street**

Washington Street, between West Street and Temple Place is currently restricted to commercial parking as documented in Section 2.3.2.1. In order to properly manage both the pick-up/drop-off and valet activity associated with the hotel and restaurant as well as all building related servicing and loading, while maintaining unimpeded traffic flow along Washington Street, the curb in front of the Project Site will need to be controlled by the Proponent. Maintaining Washington Street traffic flow is critical to the operations of the MBTA Silver Line which passes by the Project Site with its terminus on Temple Place. Curb use along Washington Street between West Street and Temple Place is therefore proposed



59 Temple Place Boston, Massachusetts



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59 Temple Place Boston, Massachusetts

to be under valet control by the Proponent. The valet would manage the entire curb under the direction of building management to allow for all uses associated with the Project Site, similar in manner to the successful management operations at the Ames Hotel on Court Street.

### 2.3.2.8 Build Conditions Capacity Analysis

Year 2017 Build Conditions traffic volumes are shown in Figure 2-17 for the a.m. and p.m. peak hours. The associated Build Conditions traffic operations are presented in Table 2-15 and Table 2-16 for the a.m. and p.m. peak hours, respectively. Complete Synchro reports are provided in the Transportation Appendix.

**Table 2-15 Build Conditions (2017) Capacity Analysis Summary, a.m. Peak Hour**

Intersection	LOS	Delay (sec.)	V/C Ratio	95th Percentile Queue Length (feet)
<i>Signalized Intersections</i>				
<b>Temple Place/Tremont Street</b>	<b>A</b>	<b>6.3</b>	—	—
Temple Place WB left	A	9.9	0.34	40
Tremont Street SB thru	A	5.3	0.37	39
<b>West Street/Tremont Street</b>	<b>A</b>	<b>9.6</b>	—	—
West Street WB left	A	7.1	0.27	54
Tremont Street SB thru	B	10.2	0.51	60
<b>Avenue de Lafayette/Washington Street</b>	<b>C</b>	<b>22.3</b>	—	—
Avenue de Lafayette WB right	D	51.0	0.72	123
Washington Street NB thru	B	15.4	0.32	154
Washington Street NB right	A	4.3	0.24	13
<i>Unsignalized Intersections</i>				
<b>Temple Place/Washington Street</b>	—	—	—	—
Washington NB left	A	5.9	0.13	11
<b>West Street/Washington Street</b>	—	—	—	—
Washington NB left/thru	A	4.3	0.16	14

# = 95th percentile volume exceeds capacity. Queue may be longer. Queue shown is the maximum after 2 cycles.

m = Volume for 95th percentile queue is metered by an upstream signal.

Cell shading indicates that LOS has worsened from No-Build Conditions.



AM (PM)

**59 Temple Place Boston, Massachusetts**

**Table 2-16 Build Conditions (2017) Capacity Analysis Summary, p.m. Peak Hour**

Intersection	LOS	Delay (sec.)	V/C Ratio	95th Percentile Queue Length (feet)
<i>Signalized Intersections</i>				
<b>Temple Place/Tremont Street</b>	<b>A</b>	<b>6.2</b>	—	—
Temple Place WB left	B	17.0	0.25	m111
Tremont Street SB thru	A	4.7	0.47	78
<b>West Street/Tremont Street</b>	<b>B</b>	<b>12.4</b>	—	—
West Street WB left	C	30.5	0.41	m276
Tremont Street SB thru	A	8.1	0.54	48
<b>Avenue de Lafayette/Washington Street</b>	<b>C</b>	<b>23.1</b>	—	—
Avenue de Lafayette WB right	E	58.4	0.74	165
Washington Street NB thru	B	17.3	0.37	187
Washington Street NB right	A	4.6	0.26	33
<i>Unsignalized Intersections</i>				
<b>Temple Place/Washington Street</b>	—	—	—	—
Washington NB left	B	10.4	0.23	22
<b>West Street/Washington Street</b>	—	—	—	—
Washington NB left/thru	B	12.3	0.47	63

# = 95th percentile volume exceeds capacity. Queue may be longer. Queue shown is the maximum after 2 cycles.

m = Volume for 95th percentile queue is metered by an upstream signal.

Cell shading indicates that LOS has worsened from No-Build Conditions.

Under Build Conditions, all intersections operate at acceptable levels of service during the a.m. and p.m. peak periods with one exception. The Avenue de Lafayette westbound approach at the intersection of Avenue de Lafayette/Washington Street operates at LOS E during the p.m. peak hour. The LOS at this intersection, however, does not change with the proposed Project in Place. One intersection and two approaches worsen in LOS between No-Build and Build scenarios. In the a.m. peak hour, the Avenue de Lafayette/Washington Street intersection decreases in LOS from LOS B to LOS C. Also, in the a.m. peak hour, the Tremont Street southbound through movements at Tremont Street/West Street decreases in LOS from LOS A to LOS B. In the p.m. peak-hour the Washington Street northbound left turns at Temple Place decrease from LOS A to LOS B. All remain above LOS D for the overall intersection, which is considered acceptable in an urban environment.

### 2.3.2.9 Parking Demand

The Project will not provide on-site parking. Parking for hotel guests and employees and retail/restaurant patrons and employees will rely on local area parking garages. The hotel is expected to enter into an agreement with one (or more) of the several large parking garages in proximity to the Site, most likely the Lafayette Garage and/or the Millennium Garage. An

agreement between the Proponent and either a valet company or a garage will be a requirement of the Transportation Access Plan Agreement (TAPA) between the Proponent and BTD.

Hotel parking demand will be highest overnight, decrease in the morning, and steadily rise throughout the day. Valet parking for hotel guests will be provided by prior arrangement to off-site garages as previously mentioned. Restaurant parking activity tends to increase into the evening. Parking for restaurant patrons who valet park rather than self-park or walk to the Site, will be provided along the Washington Street curb at the same valet location and by the same vendor and agreement as hotel valet guest parking services. It is anticipated that all hotel guest and restaurant patron self-parking activity will occur at local garages.

BTB has established parking space guidelines throughout the City to ensure that the proper parking capacity is provided with new developments. The Project Site, however, cannot accommodate new parking. The recommended BTB parking ratio for hotels is 0.40 parking spaces per room. However, the current trends for downtown Boston hotels show that actual parking demand is closer to about 0.25 spaces per room, or 61 spaces. It should be noted the parking demand is associated with 100% hotel occupancy rates, which rarely occur. Sufficient capacity exists at local garages to meet the parking demand of this Project.

### 2.3.2.10 Public Transportation

Based on trip generation calculations, the Project will generate 119 transit trips (102 boarding and 17 alighting) during the morning peak hour and 124 transit trips (25 boarding and 99 alighting) in the evening peak hour, as shown in Table 2-17. These trips will be dispersed on the various inbound and outbound transit lines in the area.

**Table 2-17 Transit Trip Generation**

Time Period	Hotel	Retail	Restaurant	Total
<b>Daily</b>	<b>1,267</b>	<b>56</b>	<b>202</b>	<b>1,526</b>
In	634	28	101	763
Out	634	28	101	763
<b>a.m. Peak Hour</b>	<b>116</b>	<b>1</b>	<b>2</b>	<b>119</b>
In	99	1	2	102
Out	17	0	0	17
<b>p.m. Peak Hour</b>	<b>111</b>	<b>3</b>	<b>10</b>	<b>124</b>
In	21	1	3	25
Out	90	2	7	99



### 2.3.2.11 Pedestrians

The Project is expected to generate 1,788 daily walk trips, as shown in Table 2-18. There will be 61 pedestrian trips during the morning peak hour and 84 pedestrian trips in the evening peak hour. This averages fewer than two additional pedestrian trips per minute during the peak hours.

**Table 2-18 Pedestrian Trip Generation**

Time Period	Hotel	Retail	Restaurant	Total
<b>Daily</b>	<b>1,486</b>	<b>66</b>	<b>236</b>	<b>1,788</b>
In	743	33	118	894
Out	743	33	118	894
<b>a.m. Peak Hour</b>	<b>60</b>	<b>1</b>	<b>0</b>	<b>61</b>
In	8	0	0	8
Out	52	1	0	53
<b>p.m. Peak Hour</b>	<b>71</b>	<b>2</b>	<b>11</b>	<b>84</b>
In	64	2	10	76
Out	7	0	1	8

### 2.3.2.12 Bicycle Accommodations

BTD has established guidelines requiring projects subject to Transportation Access Plan Agreements to provide secure bicycle parking for employees and short-term bicycle racks for visitors. Based on BTD guidelines, the Project will supply a minimum of ten secure bicycle parking/storage spaces within the building for its expected 100 employees. Bicycle racks for up to six bicycles will be placed around the Site near public entrances for use by visitors to the Site.

### 2.3.2.13 Loading and Service Accommodations

As previously shown in the Site Plan in Figure 2-13, the proposed Project will utilize the same loading/ service area located along West Street. Deliveries will occur curbside as they do today. The proposed valet controlled curb along Washington Street will be managed to allow all on-site deliveries for the hotel, restaurant, and retail uses as well as all passenger pick-up/drop-off activities. All building loading and service activities will occur during off-peak hours in order to properly manage the pick-up/drop-off activity along the same shared curb space. Building management will manage all building service and loading operations through the valet operator.

A summary of anticipated loading/service activity by land use is presented in Table 2-19; the sources the assumptions are presented below.

**Table 2-19 Delivery Activity**

Use	Number of Deliveries			General Delivery Times
	<i>SU 30 or smaller</i>	<i>Larger than SU30</i>	<i>Total</i>	
Hotel/Restaurant <sup>1 2</sup>	19	1	20	10% before 7:00 a.m. 70% between 7:00 a.m. and 1:00 p.m. 20% after 1:00 p.m.
Retail	2	0	2	100% between 7:00 a.m. and 1:00 p.m.
<i>Total for Project</i>				
<b>Total</b>	<b>21</b>	<b>1</b>	<b>22</b>	

<sup>1</sup> Incorporates reduction for shared-use deliveries.

<sup>2</sup> Includes destination restaurant and lounge.

**Hotel/Restaurant Use.** Hotel delivery trip estimates were based on observations at the Nine Zero Hotel in Boston in January 2007. As with the hotel for the 59 Temple Place, Nine Zero includes a destination restaurant and lounge.

**Retail Use.** Different types of retailers—major vs. “storefront” types—have different delivery trip generation rates. Delivery trip estimates were based on National Cooperative Highway Research Program (NCHRP) data for Boston.

The Project is expected to generate approximately 22 deliveries per day. It is anticipated that 72% of these deliveries will occur between 7:00 a.m. and 1:00 p.m., or, on average, about four deliveries per hour during this period. Based on observations of deliveries at other Boston mixed-use developments, the average duration of a delivery is about 15 to 20 minutes.

Note that trash truck trips are not included in these numbers. In downtown Boston for this type of development, trash truck trips generally occur between 5:00 a.m. and 7:00 a.m. and do not coincide with the regular delivery activities.

## 2.4 Transportation Mitigation Measures

The Proponent has developed a physical design and management program for the Project that emphasizes transit, walking, and bicycle connections in order to reduce auto dependency. The Proponent is committed to continuing to work with the City to foster sustainable development that balances the needs of the various transportation modes and to implement infrastructure and management improvements that will mitigate the impact of development on the surrounding transportation system.

### **2.4.1 Transit Mitigation**

An MBTA entrance/exit to the Orange Line/Downtown Crossing Station abuts the Project Site. Subject to discussions with the MBTA, the Project may include improvements to the exterior of this MBTA entrance. The Proponent will work with the MBTA to maintain access and egress throughout the construction period.

### **2.4.2 Pedestrian Mitigation**

The Project will include design and streetscape improvements such as the addition of new aggregate concrete, granite curbing, and a sidewalk canopy. This design is presented in Section 3.9. The design will enhance the pedestrian environment along Washington Street, Temple Place, and West Street and provide improved and ADA-compliant pedestrian crosswalks at the West Street/Washington Street intersection and the Temple Place/Washington Street intersection.

### **2.4.3 Transportation Infrastructure Mitigation**

The Proponent will work with BTM on techniques to minimize vehicular and pedestrian conflicts or any other adverse conditions identified. The Proponent will work with BTM to develop an appropriate program that will be codified in the TAPA.

## **2.5 Transportation Demand Management**

The Project proponent is committed to implementing Travel Demand Management (TDM) measures to reduce parking demand and dependence on vehicular travel. The TDM program will be facilitated by the nature and location of the proposed uses within the proposed Project. The Site's proximity to shopping and transit will contribute to reduced auto use by guests, diners, and shoppers. This reflects the Project's commitment to the City's efforts to reduce dependency on the automobile by encouraging travelers to use alternatives to driving alone, especially during peak time periods.

The Proponent is prepared to take advantage of the Site's pedestrian and transit access in marketing to future retail and restaurant tenants and hotel guests. On-site management will provide transit information (schedules, maps, fare information) available upon request by building tenants and hotel guests. On-site management will also work with the Transportation Management Association ("TMA") to assist tenants to raise awareness of public transportation alternatives available and to encourage the use of ridesharing, bicycling, and walking.

The Proponent will work with the City to develop a TDM program appropriate to the Project and consistent with its level of impact. TDM measures for the Project may include, but are not limited to, the following:

- ◆ TMA participation;
- ◆ Cooperation with TMA to disseminate Rideshare/Carpool information;
- ◆ Participation in transit pass programs for employees through the TMA;
- ◆ Participation in TMA-sponsored newsletter and “Transportation Day”;
- ◆ Secure bicycle parking for building employee/tenants; and
- ◆ Bicycle parking on sidewalks and near main building entrances where possible.

The TAPA to be executed with the City as part of the Article 80 approvals will document the TDM and other mitigation measures proposed to be implemented by the Project Proponent.

## **2.6 Evaluation of Short-term Construction Impacts**

Construction impacts are discussed in detail in Section 3.6.

Most construction activities will be accommodated within the current Site boundaries. Details of the overall construction schedule, working hours, number of construction workers, worker transportation, and parking, number of construction vehicles, and routes will be addressed in detail in a Construction Management Plan (CMP) to be filed with BTM in accordance with the City’s transportation maintenance plan requirements.

To minimize transportation impacts during the construction period, the following measures will be considered for the CMP:

- ◆ No construction worker parking on-site;
- ◆ Encouraging worker carpooling;
- ◆ Considering a subsidy for MBTA passes for full-time employees; and
- ◆ Providing secure spaces on-site for workers' supplies and tools so they do not have to be brought to the Site each day.

The CMP to be executed with the City prior commencement of construction will document all committed measures.

Chapter 3.0

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Environmental Component

## 3.0 ENVIRONMENTAL COMPONENT

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This chapter describes the Project's expected environmental impacts and the mitigation measures that will be undertaken to avoid and minimize those impacts to the greatest extent practicable. Overall, because the Project consists of the revitalization of an existing building, minimal impact is expected.

### 3.1 Wind, Shadow, Daylight and Solar Glare

The Project calls for interior renovation to an existing building as well as restoration work for the structure's historic façade. Because no significant changes are proposed to the building's height or massing, it is expected that there will be no new wind, shadow, daylight obstruction or solar glare impacts as a result of the proposed Project.

### 3.2 Air Quality

The Boston Redevelopment Authority requires that project-induced impacts to ambient air quality be addressed.

A mesoscale analysis is often performed to determine whether and to what extent the Project will increase the amount of ozone precursors in the area, as well as to determine if the Project is consistent with the Massachusetts State Implementation Plan (SIP). A microscale analysis is typically performed to evaluate the potential air quality impacts of carbon monoxide (CO) due to traffic flow around the Project area. In addition, for stationary sources (i.e. combustion source stacks, and garage vents), United States Environmental Protection Agency (EPA) approved air dispersion models are often used to estimate project-generated ambient concentrations of nitrogen oxides (NO<sub>x</sub>), particulate matter (PM-10 and PM-2.5), and sulfur dioxide (SO<sub>2</sub>), in addition to CO.

#### *3.2.1 Mesoscale*

The BRA requires a mesoscale analysis when a project will generate more than 10,000 vehicle trips per day. The analysis compares the future build condition to the no-build condition and, if emissions are greater for the build condition, evaluates reasonable and feasible mitigation measures. Methods and parameters for the mesoscale analysis follow those approved by the Massachusetts Department of Environmental Protection (MassDEP). A mesoscale analysis predicts the change in regional ozone precursor emissions of oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOC) due to the Project. Since the proposed Project does not generate more than 10,000 trips per day, a mesoscale analysis is not needed.

### **3.2.2        *Microscale***

A microscale analysis is used to determine the effect on air quality of the increase in traffic generated by the Project. Under certain circumstances, a proponent may be required to analyze local effects of the potential increase in traffic on ambient air quality near specific intersections. This microscale analysis may be required for a Project at intersections where 1) project traffic would impact intersections or roadway links currently operating at Level of Service (LOS) D, E, or F or would cause LOS to decline to D, E, or F; 2) project traffic would increase traffic volumes on nearby roadways by 10% or more (unless the increase in traffic volume is less than 100 vehicles per hour); or, 3) the project will generate 3,000 or more new average daily trips (ADT) on roadways providing access to a single location.<sup>1</sup> The microscale analysis involves modeling of carbon monoxide (CO) emissions from vehicles idling at and traveling through signalized intersections. Predicted ambient concentrations of CO for the Build and No-Build cases are compared with federal and state ambient air quality standards for CO.

The Project does not generate 3,000 ADT, nor does it increase traffic volumes by 10% or 100 vehicles per hour. Although the Project does generate a small increase (17 new trips for AM peak hour) in traffic, the affected intersections are currently operating at LOS C or better. Therefore, no quantitative analysis is required. Given the generally well-operating intersections, and the small increases in volume at the worst intersections, it is expected that there would be no violations of the NAAQS for CO at any intersections associated with Project-related traffic.

### **3.2.3        *Stationary Sources***

Stationary sources expected to be included in the Project include small boilers for heating and hot water, and emergency generators for power generation. This equipment may be subject to additional air quality permitting requirements as regulated in 310 CMR 7.00. Any formal analysis of emissions from these sources would be performed as part of obtaining an air quality permit from MassDEP. Any changes to stationary sources will likely be an upgrade over existing sources given the buildings' ages and the improvements in technology of more modern equipment.

#### **3.2.3.1        Heating Equipment**

All heating and hot water boilers are expected to be either within or well below the requirements of MassDEP's Environmental Results Program (ERP), since individual estimated heat inputs will be within or below the 10 to 40 mmBtu/hour ERP range. Boilers within this range will be required to meet applicable emissions limits and register in MassDEP's ERP program. The program includes notification requirements to provide

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<sup>1</sup> BRA, Development Review Guidelines, 2006.

MassDEP with boiler specifications, fuel usage, and related information. Any boilers below the ERP limit of 10 mmBtu/hour would not be required to register in MassDEP's ERP program. Boilers larger than 40 mmBtu/hour would be subject to the requirements of MassDEP's Major or Non-Major Comprehensive Plan Approval process for preconstruction permits of fuel combusting sources.

### **3.2.3.2 Emergency Generators**

It is anticipated that the Project will include emergency power units that will provide life safety and standby emergency power to the buildings. These units are typically diesel-fired and it is anticipated to be located in the basement of a building. The generators will be designed such that exhaust stacks extend at least 10 feet above the individual building roof height.

Typically, generators will operate for approximately one hour each month for testing and general maintenance. The ERP regulation applies to new emergency generators greater than 37 kW. The regulation is similar to the boiler ERP in that new engines are subject to emission standards, recordkeeping, certification, and compliance with the MassDEP noise policy. If the generator maximum rating capacity is greater than the ERP limit of 37 kW, it will be subject to the ERP program. Under the ERP, the generator owner will limit operation of the generator to less than 300 hours per year and submit a certification form to MassDEP within 60 days of installation.

## **3.3 Flood Hazard Zones/Wetlands**

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the Project Site located in the City of Boston - Community Panel Number 25025C0081G indicates the FEMA Flood Zone Designations for the site area. The map shows that the Project is outside of the 500-year flood zone.

The site is developed and does not contain wetlands.

## **3.4 Solid and Hazardous Wastes**

### ***3.4.1 Existing Hazardous Waste Conditions***

A Phase 1 assessment of the Project Site has been performed. The assessment did not identify evidence of recognized environmental conditions (RECs) at the property. There was suspect Asbestos Containing Materials (ACM) observed but these appeared to be undamaged, and in good condition. Based on the condition of the suspect ACMs, these materials are not an immediate environmental concern to the occupants of the Site. Additional analysis may be necessary should construction or renovation activities be anticipated for these areas of the property in order to confirm the presence of ACMs. Additional sampling, removal, and disposal arrangements will be made prior to



construction or renovation activities. If ACMs are found to be present, the Proponent and their Construction Manager will comply with all applicable regulations for the removal of ACMs.

### **3.4.2**            *Operational Solid and Hazardous Wastes*

The Project will generate solid waste typical of other hotel/mixed-use projects. Solid waste generated by the Project will be approximately 220 tons per year, based on the number of hotel rooms proposed at a generation rate of four pounds (lbs) per bedroom per day and commercial, retail, and restaurant space proposed at a generation rate of 5.5 tons per 1,000 square feet per year. Other than typical wastes generated by such projects (e.g., paint, detergents, etc.), no hazardous wastes are anticipated to be generated by the Project.

The Proponent's waste diversion program will focus on diverting as many materials from landfills as possible. Single stream recycling will be in place throughout the hotel. Attractive, in-room recycling bins will be provided in each guest room and all public areas of the building.

## **3.5**    **Noise**

New noise associated with development projects are most commonly due to mechanical equipment required for the operation of the building. Minimal noise impacts are anticipated as the extent and general location of mechanical equipment will be similar to the mechanical equipment for the existing building. Noise impacts may actually experience a reduction over current levels as any new equipment is likely to have a more efficient design resulting in lower noise levels.

An emergency generator will be located in the structure's basement, which will limit any noise impacts. The generator's exhaust will be routed to the rooftop with the appropriate attenuation measures if required to ensure that any reasonably expected noise impacts are mitigated.

Construction period noise impacts and mitigation are discussed below in Section 3.6.8.

## **3.6**    **Construction Impacts**

The proximity of city streets and abutting commercial properties to the site will require careful scheduling of material removal and delivery. Throughout Project construction, a secure perimeter will be maintained to protect the public from construction activities. Planning with the City and neighborhood will be essential to the successful development of the Project.

A Construction Management Plan will be submitted to the BTD for review and approval prior to issuance of a building permit. The CMP will define truck routes which will help in minimizing the impact of trucks on local streets.

During the construction phase of the Project, the Proponent will provide the name, telephone number and address of a contact person to communicate with on issues related to the construction.

### ***3.6.1 Construction Methodology/Public Safety***

Construction methodologies that ensure public safety and protect nearby tenants will be employed. Techniques such as barricades, walkways, painted lines, and signage will be used as necessary. Construction management and scheduling—including plans for construction worker commuting and parking, routing plans and scheduling for trucking and deliveries, protection of existing utilities, maintenance of fire access, and control of noise and dust— will minimize impacts on the surrounding environment.

It may be necessary to occasionally occupy pedestrian walkways and portions of the surrounding streets. As the design of the Project progresses, the Proponent will meet with BTM to discuss the specific location of barricades, the need for lane closures, pedestrian walkways, and truck queuing areas. Secure fencing, signage, and covered walkways may be employed to ensure the safety and efficiency of all pedestrian and vehicular traffic flows. In addition, sidewalk areas and walkways near construction activities will be well marked and lighted to protect pedestrians and ensure their safety. Public safety for pedestrians on abutting sidewalks will also include covered pedestrian walkways when appropriate. If required by BTM and the Boston Police Department, police details will be provided to facilitate traffic flow. These measures will be incorporated into the CMP which will be submitted to BTM for approval prior to the commencement of construction work.

### ***3.6.2 Construction Schedule***

It is anticipated that construction will commence in September of 2013 with completion expected in November of 2014.

Typical construction hours will be from 7:00 a.m. to 6:00 p.m., Monday through Friday. Certain finish work done inside the building may be conducted on Saturdays. No substantial sound-generating activity will occur before 7:00 a.m. If longer hours, additional shifts, or Saturday work is required, the construction manager will place a work permit request to the Boston Air Pollution Control Commission and BTM in advance. It is noted that some activities such as finishing activities could run beyond 6:00 p.m. to ensure the structural integrity of the finished product.

### ***3.6.3 Construction Staging/Access***

Access to the site and construction staging areas will be as provided in the CMP.

Although specific construction and staging details have not been finalized, the Proponent and its construction management consultant will work to ensure that staging areas will be located to minimize impacts to pedestrian and vehicular flow. Secure fencing and

barricades will be used to isolate construction areas from pedestrian traffic adjacent to the site. Construction procedures will be designed to meet all Occupational Safety and Health Administration (OSHA) safety standards for specific site construction activities.

#### **3.6.4 Construction Mitigation**

The Proponent will follow City and MassDEP guidelines which will direct the evaluation and mitigation of construction impacts. As part of this process, the Proponent and construction team will evaluate the Commonwealth's Clean Air Construction Initiative.

The CMP will include detailed information on specific construction mitigation measures and construction methodologies to minimize impacts to abutters and the local community. The CMP will also define truck routes which will help in minimizing the impact of trucks on City and neighborhood streets.

"Don't Dump - Drains to Boston Harbor" plaques will be installed at storm drains that are replaced or installed as part of the Project.

#### **3.6.5 Construction Employment and Worker Transportation**

The number of workers required during the construction period will vary. It is anticipated that approximately 90 construction jobs will be created over the length of construction. The Proponent will make reasonable good-faith efforts to have at least 50% of the total employee work hours be for Boston residents, at least 25% of total employee work hours be for minorities and at least 10% of the total employee work hours be for women. The Proponent will enter into a jobs agreement with the City of Boston.

To reduce vehicle trips to and from the construction site, minimal construction worker parking will be available at the site and all workers will be strongly encouraged to use public transportation and ridesharing options. The general contractor will work aggressively to ensure that construction workers are well informed of the public transportation options serving the area. Space on-site will be made available for workers' supplies and tools so they do not have to be brought to the site each day.

#### **3.6.6 Construction Truck Routes and Deliveries**

Truck traffic will vary throughout the construction period, depending on the activity. The construction team will manage deliveries to the site during morning and afternoon peak hours in a manner that minimizes disruption to traffic flow on adjacent streets. Construction truck routes to and from the site for contractor personnel, supplies, materials, and removal of excavations required for the development will be coordinated with BTM. Traffic logistics and routing will be planned to minimize community impacts. Truck access during construction will be determined by the BTM as part of the CMP. These routes will

be mandated as a part of all subcontractors' contracts for the development. The construction team will provide subcontractors and vendors with Construction Vehicle & Delivery Truck Route Brochures in advance of construction activity.

"No Idling" signs will be included at the loading, delivery, pick-up and drop-off areas.

### **3.6.7 Construction Air Quality**

Short-term air quality impacts from fugitive dust may be expected during demolition and the early phases of construction but are expected to be minimal given that most construction will take place inside the existing building's structure. Plans for controlling fugitive dust include mechanical street sweeping and careful removal of debris by covered trucks. The construction contract will provide for a number of strictly enforced measures to be used by contractors to reduce potential emissions and minimize impacts. These measures are expected to include:

- ◆ Using covered trucks;
- ◆ Minimizing spoils on the construction site;
- ◆ Monitoring of actual construction practices to ensure that unnecessary transfers and mechanical disturbances of loose materials are minimized;
- ◆ Minimizing storage of debris on the site; and
- ◆ Periodic street and sidewalk cleaning with water to minimize dust accumulations.

### **3.6.8 Construction Noise**

The Proponent is committed to mitigating noise impacts from the construction of the Project. Increased community sound levels, however, are an inherent consequence of construction activities. Construction work will comply with the requirements of the City of Boston Noise Ordinance. Every reasonable effort will be made to minimize the noise impact of construction activities.

Mitigation measures are expected to include:

- ◆ Instituting a proactive program to ensure compliance with the City of Boston noise limitation policy;
- ◆ Using appropriate mufflers on all equipment and ongoing maintenance of intake and exhaust mufflers;
- ◆ Muffling enclosures on continuously running equipment, such as air compressors and welding generators;

- ◆ Replacing specific construction operations and techniques by less noisy ones where feasible;
- ◆ Selecting the quietest of alternative items of equipment where feasible;
- ◆ Scheduling equipment operations to keep average noise levels low, to synchronize the noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels;
- ◆ Turning off idling equipment; and
- ◆ Locating noisy equipment at locations that protect sensitive locations by shielding or distance.

### ***3.6.9 Construction Waste Management***

The Proponent will reuse or recycle demolition and construction materials to the greatest extent practicable. Construction procedures will allow for the segregation, reuse, and recycling of materials. Materials that cannot be reused or recycled will be transported in covered trucks by a contract hauler to a licensed facility.

### ***3.6.10 Construction Waste***

The Proponent will take an active role with regard to the reprocessing and recycling of construction waste. The disposal contract will include specific requirements that will ensure that construction procedures allow for the necessary segregation, reprocessing, reuse and recycling of materials when possible. For those materials that cannot be recycled, solid waste will be transported in covered trucks to an approved solid waste facility, per MassDEP Regulations for Solid Waste Facilities, 310 CMR 16.00. This requirement will be specified in the disposal contract. Construction will be conducted so that materials that may be recycled are segregated from those materials not recyclable to enable disposal at an approved solid waste facility.

### ***3.6.11 Protection of Utilities***

Existing public and private infrastructure located within the public right-of-way will be protected during construction. The installation of proposed utilities within the public way will be in accordance with the MWRA, BWSC, Boston Public Works, Dig Safe, and the governing utility company requirements, as applicable. All necessary permits will be obtained before the commencement of the specific utility installation. Specific methods for constructing proposed utilities where they are near to, or connect with, existing water, sewer and drain facilities will be reviewed by BWSC as part of its site plan review process.

### **3.7 Rodent Control**

A rodent extermination certificate will be filed with the building permit application to the City. Rodent inspection monitoring and treatment will be carried out before, during, and at the completion of all construction work for the proposed Project, in compliance with the City's requirements. Rodent extermination prior to work start-up will consist of treatment of areas throughout the site.

### **3.8 Wildlife Habitat**

The site is currently developed and within a fully developed urban area and, as such, the proposed Project will not impact wildlife habitats as shown on the National Heritage and Endangered Species Priority Habitats of Rare Species and Estimated Habitats of Rare Wildlife.

### **3.9 Urban Design**

The Project will respect the present and enhance the future environment of its Downtown Crossing location in both demographics and architecture. The hotel is designed to be attractive to a range of guests that reflect the local population and traffic at its site: business travelers, leisure guests, City residents and tourists. The buildings will be sensitively renovated in a manner reflecting their early 20th-Century character and neighborhood. As shown in Figure 3-1, the facade of the first and second floors will be replaced with a glazing design typical of the period of the buildings' construction, recreating or simulating, to the extent practical, the original glazing patterns and facade materials. Additional exterior lighting may be incorporated to embellish the historic nature of the buildings. The public areas of the hotel will provide multiple amenities to the neighborhood and City, including dining, meeting and lodging facilities. Improvements to the buildings façade as well as streetscape improvements such as the addition of new exposed aggregate concrete, granite curbing, and a sidewalk canopy will result in an enhanced pedestrian environment. Sidewalk improvements will be designed in coordination with the BRA's development of streetscape standards for the area. Subject to discussions with the MBTA, exterior improvements including enhanced lighting may be made to the existing MBTA entrance which abuts the property along Temple Place.

The Project will continue to undergo BRA design review as the Project design progresses.



59 Temple Place Boston, Massachusetts

### 3.10 Sustainable Design

The Proponent is committed to developing an environmentally friendly building. To that end, the redevelopment of 59 Temple Place will be designed to meet the LEED certification requirements of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system for Commercial Interiors. The preliminary credits targeted are outlined below, including pre-requisite credits under the various categories as outlined in the LEED checklist provided. The assessment of achievable credits will be on-going as the design progresses. The credits that are still being studied are italicized.

#### *Sustainable Sites (SS)*

##### SS Credit 2 – Development Density/Community Connectivity

The Project is located in a high density area. The density of the surrounding area, including the site, is greater than 60,000 sf per acre.

##### SS Credit 3.1 – Alternative Transportation - Public Transportation Access

The Project Site is located directly on top of the MBTA Downtown Crossing station which serves the Red and Orange lines, and is one block away from the MBTA Park Street station, which serves the Red and Green lines, as well as several bus stops in the immediate area.

##### SS Credit 3.2 – Alternative Transportation - Bike Storage/Changing Room

Secure bicycle storage will be provided along with showers and a changing room for the guests and staff of 59 Temple Place.

##### SS Credit 3.3 – Alternative Transportation – Parking Availability

The Project does not include parking.

#### Water Efficiency (WE)

##### WE Prerequisite 1 – Water Use Reduction – 20% Reduction

The Project is anticipated to use low-flow water closets and showerheads. Lavatories are expected to have aerated faucets to reduce water usage.

#### Energy and Atmosphere (EA)

##### EA Prerequisite 1 – Fundamental Building Systems Commissioning

The Proponent will contract with a qualified firm to perform the commissioning. The basis of design will be reviewed and the appropriate reports will be completed.



#### EA Prerequisite 2 – Minimum Energy Performance

The Project design will incorporate a highly efficient mechanical system design in order to comply with the stringent Stretch Code provisions of the Massachusetts Building Code as well as the LEED requirements.

#### EA Prerequisite 3 – Fundamental Refrigerant Management

The engineer of record responsible for the mechanical design for the Project will select HVAC equipment with refrigerants that meet the LEED prerequisite thresholds regarding refrigerant types.

#### EA Credit 1.3 – Optimize Energy Performance - HVAC

The 59 Temple Place design will incorporate a highly efficient mechanical system design in order to comply with the stringent Stretch Code provisions of the Massachusetts Building Code as well as the LEED requirements.

#### *EA Credit 1.4 – Optimize Energy Performance – Equipment and Appliances*

*The use of Energy Star labeled equipment and appliances will be studied as the design progresses.*

#### EA Credit 2 – Enhanced Commissioning

The Proponent will contract with a qualified firm to perform the commissioning. The basis of design will be reviewed and the appropriate reports will be completed.

#### Materials and Resources (MR)

#### MR Prerequisite 1 – Storage and Collection of Recyclables

The Project design has dedicated space for storage and collection rooms for recyclables of the appropriate square footage on the ground floor and in the basement. The rooms are adequately sized based on the building square footage and are easily accessible.

#### MR Credit 1.1 – Tenant Space – Long-Term Commitment

In order to reduce the amount of materials that are used in successive tenant fit-outs and to give their tenants a greater incentive to make longer-payback upgrades for greater energy and water efficiency, the Proponent expects to sign leases with a minimum of 10 years for the tenant space in the Project.

## MR Credit 2 – Construction Waste Management

The general contractor will be required to provide a construction waste management plan that will ensure that 75% of all waste and debris is directed to be recycled. The construction disposal contract will include specific requirements that will ensure that construction procedures allow for the necessary segregation, reprocessing, reuse and recycling of materials when possible.

## MR Credit 4 – Recycled Content

The Project architect will specify enough products with high recycled content to obtain the 10% threshold. The goal is to drive towards greater than 20% of the materials to contain the appropriate amount of recycled material.

## Credit 5 - Regional Materials: 1 point

Depending on design development, the Project will assess any potential for suitable materials which can be sourced (with respect to extraction, harvesting, recovery and manufacture) within a 500-mile radius of the Project Site. The realistic target would be 10% regional materials based on cost compared to total material value.

## MR Credit 7 – Certified Wood

The architect will specify wood products that meet the 50% Forest Stewardship Council (FSC) threshold in construction documentation.

## Indoor Environmental Quality (EQ)

### EQ Prerequisite 1 – Minimum IAQ Performance

The MEP design engineer of record will design a ventilation system that uses energy recovery units on the roof to supply air to all areas of the building. The design will meet ASHRAE 62.1-2007.

### EQ Prerequisite 2 – Environmental Tobacco Smoke

The Project will be a hotel and therefore will be a non-smoking building. The dedicated smoking area will be located adjacent to the building away from any outdoor air intakes.

### EQ Credit 3.1 – Construction IAQ Management Plan - During Construction

The contractor will be required to develop and implement an indoor air quality (IAQ) management plan for the construction phases of the Project. This will include the proper storage of absorptive materials to prevent moisture damage. Air handlers used during construction will have MERV 8 filtration media that will be replaced before occupancy. The SMACNA sheet metal guides concerning IAQ will be strictly adhered to.

### EQ Credit 4.1 to 4.5 – Low Emitting Materials

The Project architect will specify all adhesives, sealants, paints, coatings, flooring systems, and composite wood in such a manner that the LEED requirements are met with regard to off-gassing, VOC contents, formaldehydes, etc.

### EQ Credit 5 – Indoor Chemical and Pollutant Source Control

The following design elements are being incorporated to address this credit: 1) all trash/recycle rooms will have exhaust; 2) All equipment supplying outdoor air will have MERV 13 filtration; and 3) Walk-off mats will be installed at entry ways.

### EQ Credit 7.1 – Thermal Comfort - Design

The MEP design engineer of record will design the HVAC system to meet ASHRAE 55-2004.

### *EQ Credit 7.2 – Thermal Comfort - Verification*

*The Proponent will consider distributing a survey to employees and tenants in the building within 6 to 18 months of occupancy to collect opinions on thermal comfort. If adjustments to the system is required to meet the needs of employees and tenants, the Proponent will make adjustments to the HVAC system.*

### EQ Credit 8.2 – Views for Seated Spaces

It is anticipated that building occupants in 90% of the regularly occupied areas will have a direct line of site outdoors.

### Innovation and Design Process (ID)

#### ID Credit 1.1 - Green Cleaning Program

The Proponent intends to engage in a green housekeeping policy wherein all cleaners used in common areas will comply with the Green Seal standard GS-37.

#### ID Credit 1.2 – Green Pest Program

The Proponent intends to engage in a green pest control program using least-toxic chemical pesticides, minimize use of chemicals, use only in targeted locations, and use only for targeted species. Additionally, all cleaning products included in the integrated pest management policy will meet the applicable IEQ requirements.

#### ID Credit 1.3 - Development Density/Community Connectivity

The Project is located in a high density area. The density of the surrounding area, including the site, is greater than 120,000 sf per acre.

#### ID Credit 1.4 - Alternative Transportation - Public Transportation Access

The Project includes a comprehensive transportation demand management program. The Proponent is prepared to take advantage of the site's pedestrian and transit access in marketing to future tenants and hotel guests. On-site management will keep a supply of transit information (schedules, maps, fare information) in the building available upon request by building tenants and hotel guests. On-site management will also work with the Transportation Management Association to assist tenants to raise awareness of public transportation alternatives available and to encourage the use of ridesharing, bicycling, and walking.

The Proponent will work with the City to develop a TDM program appropriate to the Project and consistent with its level of impact.

#### *ID Credit 1.5 - Construction Waste Management – Exemplary Performance*

*As stated above, the Construction Manager will implement a waste management plan that will seek to divert at least 75% of construction and demolition waste material removed from the Project Site from landfills through recycling and salvaging. This credit may be pursued aggressively in an opportunity to gain an exemplary performance credit of 95% construction waste recycling.*

#### ID Credit 2 - LEED Accredited Professional

The Project team includes at least one LEED Accredited Professional.

#### Regional Priority Credits

Regional Priority Credits (RPC) are LEED credits identified by the U.S. Green Building Council as having environmental importance for a geographic area of the country. The Project will achieve the credit for Sustainable Sites Credit 3.2.

A LEED checklist representative of the Projects current design is included in Appendix A.

### 3.11 Historic and Archaeological Resources

This section identifies historic resources within the vicinity of the Project. A review of the State and National Registers of Historic Places and the survey files of the Massachusetts Historical Commission (MHC) and Boston Landmarks Commission (BLC), as well as a field review of the areas in the vicinity of the Project, were undertaken to identify historic resources.

#### ***3.11.1 Historic Resources within the Project Site***

The building commonly referred to as 59 Temple Place is comprised of two buildings, the former Blake Building at 485-499 Washington Street (MHC No. BOS.2144) and the former Amory Building at 501-509 Washington Street (MHC No. BOS.2145). The Blake Building, designed by Boston architect Arthur Bowditch and constructed in 1908, is a good example of early twentieth-century terra cotta commercial architecture, notable for its curtain wall appearance, large expanses of windows, and Gothic decorative vocabulary. The Blake Building, constructed in 1904 and also designed by Arthur Bowditch, is noted for its cast metal window detailing.

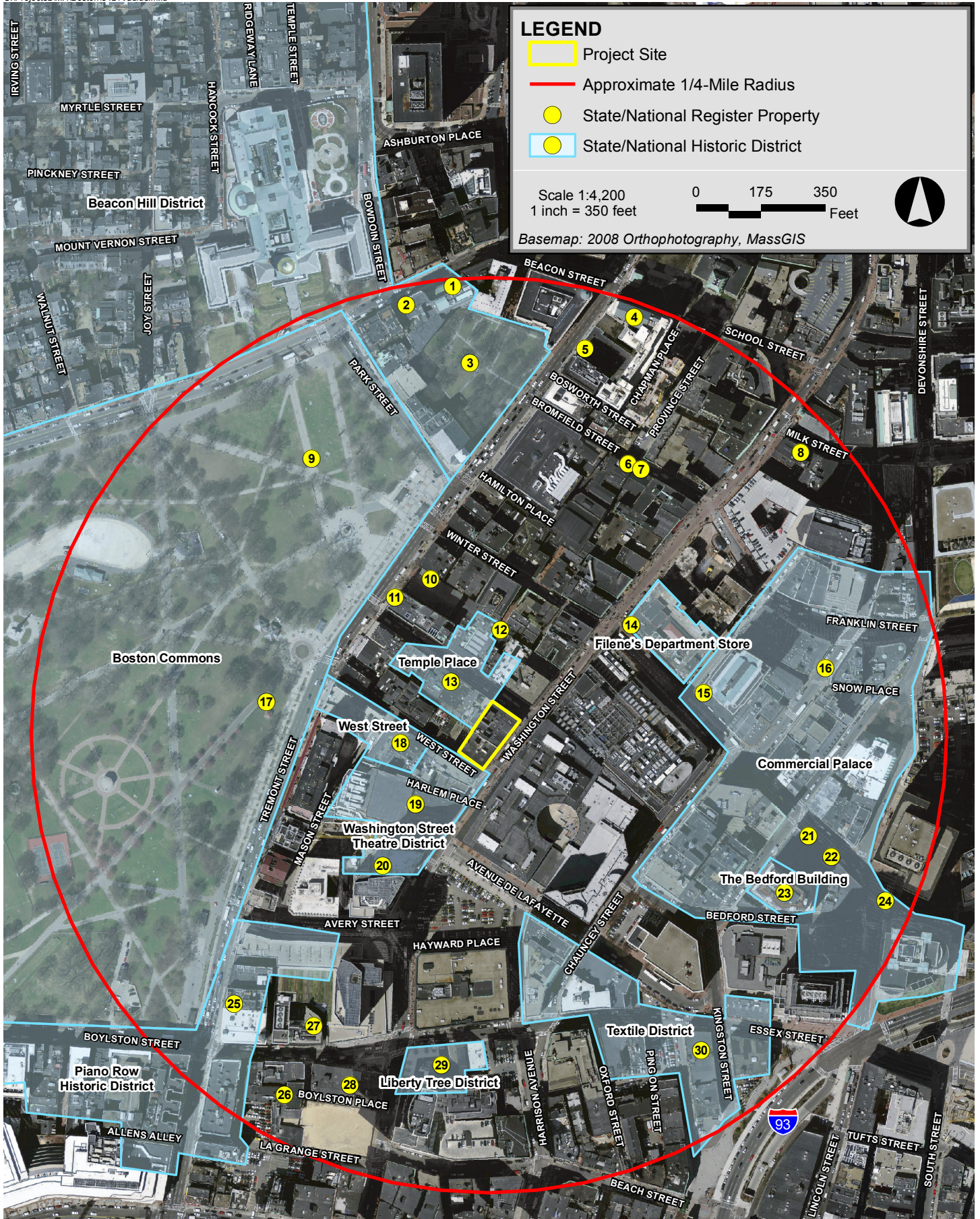
Both of the buildings are included in the Inventory of Historic and Archaeological Assets of the Commonwealth. In addition, the BLC's 1980 architectural survey of the properties identify the buildings as potentially eligible for the National Register of Historic Places as part of a "Pre-Fire Mercantile Historic District." The Proponent proposes to have the buildings individually listed on the National Register of Historic Places in order to utilize federal historic tax credits for the proposed rehabilitation project.

#### ***3.11.2 Historic Resources in the Vicinity of the Project Site***

Numerous historic resources exist in the vicinity of the Project. Notable resources include the Washington Street Theater District located to the south of the Project Site and the West Street, Temple Place Historic District and the Boston Common, all located to the west of the site. These and other State and National Register-listed properties within a quarter-mile radius of the Project Site, are listed in Table 3-1 and identified in Figure 3-2

**Table 3-1 State and National Register-Listed Properties**

<b>Historic Resource</b>	<b>Address</b>
1. Boston Athenaeum	10½ Beacon Street
2. Chester Harding House	16 Beacon Street
3. Beacon Hill Historic District	Roughly bounded by Beacon St., Embankment Rd, Storrow Dr., Cambridge and Bowdoin Streets
4. Parker House	56-72 School Street
5. Tremont Temple Baptist Church	76-88 Tremont Street
6. Wesleyan Association Building	32-38 Bromfield Street
7. 20-30 Bromfield Street	23-30 Bromfield Street
8. Newspaper Row	322-328 Washington St., 5-23 Milk St., and 11 Hawley St.
9. Boston Common	Beacon, Park, Tremont and Charles Streets
10. Saint Paul's Church	136 Tremont Street
11. R.H. Stearns Building	76-78 Warrenton Street
12. Locke-Ober Restaurant	3-4 Winter Place
13. Temple Place Historic District	11-55 and 26-58 Temple Place
14. Filene's Department Store	426 Washington Street
15. Kennedy's Building	26-38 Summer Street
16. Commercial Palace Historic District	Roughly bounded by Bedford, Summer, Franklin, Hawley, and Chauncy Streets
17. Tremont Street Subway	Tremont Street at Boston Common
18. West Street Historic District	West and Tremont Streets
19. Washington Street Theatre District	511-559 Washington Street
20. Paramount Theatre	549-563 Washington Street
21. 83-87 Summer Street	83-87 Summer Street
22. 89-95 Summer Street	89-95 Summer Street
23. The Bedford Building	89-103 Bedford Street
24. Church Green Buildings Historic District	101-113 Summer Street
25. Piano Row Historic District	Park Sq. to Avery St. along Boylston and Tremont Streets
26. Boston Young Men's Christian Association Building	48 Boylston Street
27. Boston Edison Electric Illuminating Company	25-39 Boylston Street
28. Boylston Building (China Trade)	2-22 Boylston Street and 651-657 Washington Street
29. Liberty Tree Building and District	Essex and Washington Streets
30. Textile District	Roughly Essex St. from Phillips Sq. to Columbia St. and Chauncy St. from Phillips Sq. to Rowe Place



59 Temple Place Boston, MA

### ***3.11.3 Archaeological Resources on the Project Site***

There are no known archaeological resources listed in the State and National Registers of Historic Places or included in the Inventory of Historic and Archaeological Assets of the Commonwealth within the Project Site. In addition, the Project Site is a previously developed urban site and the existing buildings are proposed to be retained and reused; therefore, it is unlikely that the Project will affect previously unidentified archaeological resources.

### ***3.11.4 Impacts to Historic Resources***

The Project will have a major positive impact on historic resources in the City through the preservation and reuse of two historically significant downtown Boston commercial structures. As previously noted, the Proponent proposes to undertake a certified rehabilitation of the property, utilizing federal and state historic tax credits. The exterior of both buildings will be renovated. The masonry will be carefully repaired, including replacement of missing or damaged terra cotta units. The existing replacement storefronts will be removed and rebuilt with new, historically appropriate storefronts. The existing one-over-one replacement windows will be replaced with historically appropriate, custom-manufactured aluminum units. The interior will be renovated, preserving the ornate elevator lobby and decorative stair at the Temple Place entrance. The interior has been designed to allow for the expression of the historic double-loaded plan with hotel rooms along the perimeter.

The proposed Project has been designed to meet the Secretary of the Interior's Standards for Rehabilitation. Plans and specifications for the proposed work will be subject to review by the MHC through the Massachusetts Historic Rehabilitation Tax Credit program and by the National Park Service through the federal historic tax credit program.

Given the scope of the proposed work, which consists of reuse of two existing buildings, impacts to historic resources in the vicinity of the Project Site are not anticipated, including wind, shadow, and geotechnical impacts.

### ***3.11.5 Massachusetts Historical Commission State Register Review***

The MHC has review authority over projects requiring state funding, licensing, permitting, and/or approvals that have the potential to have direct or indirect impacts to properties listed in the State Register of Historic Places, in accordance with M.G.L., Chapter 9, Sec. 26-27c, as amended by Chapter 254 of the Acts of 1988 (950 CMR 71.00). Because no state permits are anticipated, the State Register Review process with MHC will likely not be required; however, the Proponent will consult with MHC as part of the Massachusetts Historic Rehabilitation Tax Credit program.



## 3.12 Infrastructure Systems

### 3.12.1 *Introduction*

The existing infrastructure surrounding the site of 59 Temple Place is expected to have adequate capacity to service the needs of the Project. The following sections describe the existing sanitary sewer, water, and storm drain systems surrounding the site and explain how these systems will service the Project. The analysis also discusses any anticipated Project-related impacts on the utilities and identifies mitigation measures to address these potential impacts.

The Project is moving into the Design Development phase where a detailed infrastructure analysis will be performed. The Project's team will coordinate with the appropriate utilities to address the capacity of the area utilities to provide services for the new building. A Boston Water and Sewer Commission (BWSC) Site Plan and General Service Application is required for the proposed new water, sanitary sewer, and storm drain connections.

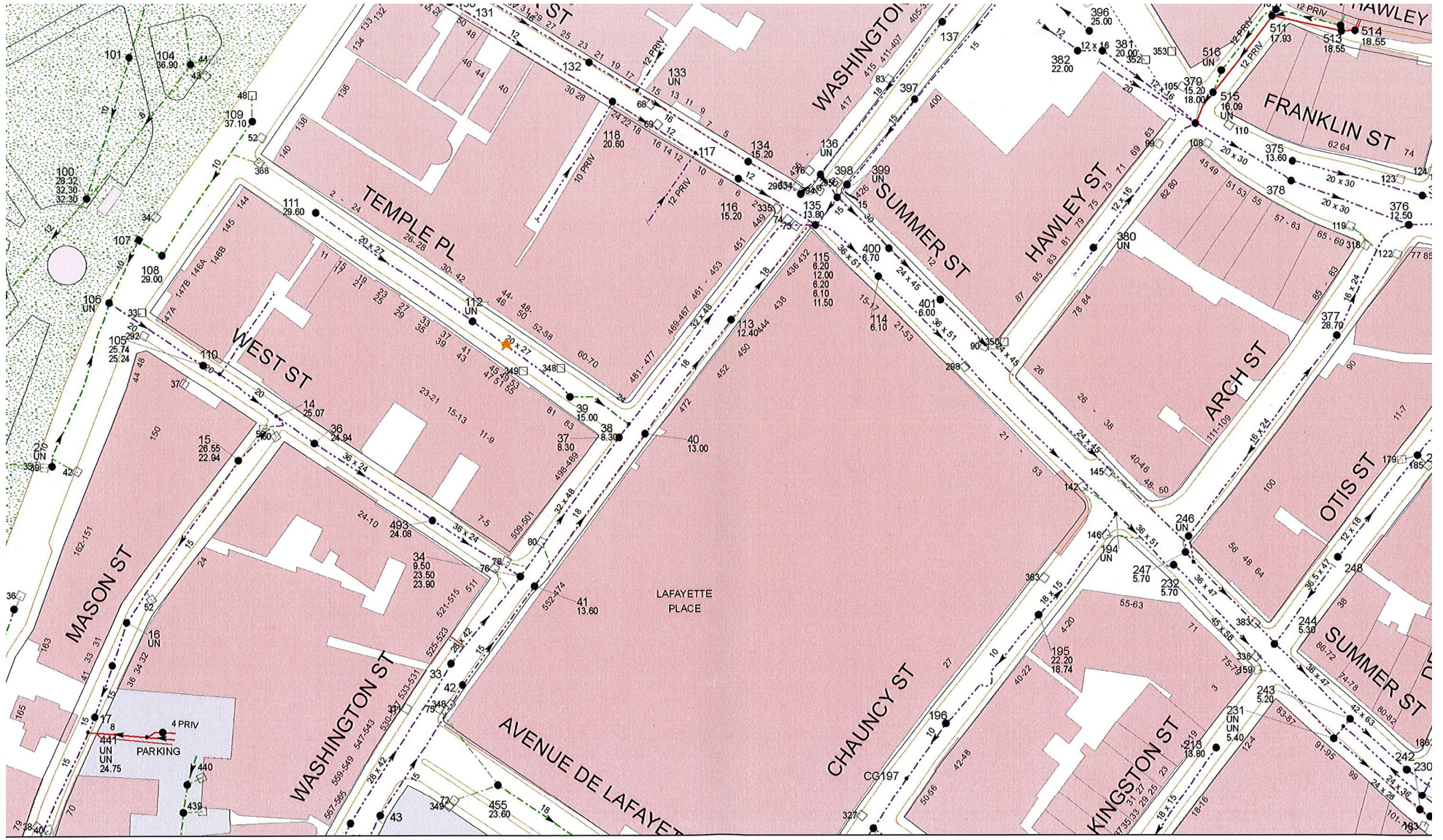
A Drainage Discharge Permit Application will be submitted to the BWSC for any required construction dewatering. The appropriate approvals from the Massachusetts Department of Environmental Protection (MassDEP) and the U.S. Environmental Protection Agency (EPA) will also be sought.

### 3.12.2 *Wastewater*

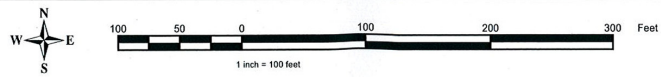
#### 3.12.2.1 Existing Sanitary Sewer System

The sanitary sewer system in the vicinity of the Project Site is owned, operated, and maintained by BWSC (see Figure 3-3). There is an existing 36-inch by 24-inch combined sewer culvert located in West Street to the west of the Project Site and an existing 20-inch by 27-inch combined sewer culvert located in Temple Place to the east of the Project Site. There is an existing 32-inch by 48-inch combined sewer culvert and an 18-inch combined sewer culvert located in Washington Street to the south of the Project Site. The lines from both West Street and Temple Place eventually discharge into the 32-inch by 48-inch culvert in Washington Street.

The total sewer flow from the existing building is estimated at 9,825 gallons per day (gpd) based on the existing building uses and design sewer flows provided in 314 CMR 7.00- Sewer System Extension and Connection Permit Program as summarized in Table 3-2.



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**59 Temple Place Boston, Massachusetts**

**Table 3-2 Existing Sanitary Sewer Flows**

Use	Quantity	Unit Flow Rate	Estimated Maximum Daily Flow (gpd)
Retail	12,500 sf	50 gpd/1,000 sf	600 gpd
Office Space	123,000 sf	75 gpd/1,000 sf	9,225 gpd
<b>Total</b>			<b>9,825 gpd</b>

**3.12.2.2 Project-Generated Sanitary Sewer Flow**

The Project will generate an estimated 32,120 gallons per day (gpd) based on design sewer flows provided in 314 CMR 7.00-Sewer System Extension and Connection Permit Program as summarized in Table 3-3. This is a net increase of 22,267 gpd over the estimated flows from the existing buildings.

**Table 3-3 Projected Sanitary Sewer Flows**

Use	Quantity	Unit Flow Rate	Estimated Maximum Daily Flow (gpd)
Hotel	243 rooms	110 gpd/room	26,730 gpd
Retail	2,800 sf	50 gpd/1,000 sf	140 gpd
Restaurant	150 seats (4,800 sf)	35 gpd/seat	5,250 gpd
<b>Total</b>			<b>32,120 gpd</b>

**3.12.2.3 Sanitary Sewer Connection**

It is anticipated that the sanitary services for the Project will tie into either the BWSC 36-inch by 24-inch combined sewer main in West Street or the 32-inch by 48-inch combined sewer main in Washington Street . All existing building services will be cut and capped at the main if the wyes are not reused.

The flow full capacity of the 32-inch by 48-inch combined sewer located along the southerly side of the Project Site in Washington Street is 88.52 cubic feet per second (cfs) (57.2 million gallons per day (MGD)). The projected maximum daily sewer flow for the Project is 0.032 MGD, which is less than 0.1% of this line’s capacity.

The Proponent will submit a Site Plan to the BWSC for review and approval. Based on the proposed estimated sanitary flow, a Compliance Certification will be required. This Certification will be submitted to BWSC for review and approval prior to submitting to the Massachusetts Department of Environmental Protection (“MassDEP”).

#### **3.12.2.4 Effluent quality**

The Project is not expected to generate industrial wastes.

#### **3.12.2.5 Sewer system mitigation**

To help conserve water and reduce the amount of wastewater generated by the Project, and to meet Leadership in Energy and Environmental Design (LEED) requirements, the Proponent will use of water conservation devices such as low-flow toilets and flow-restricting faucets.

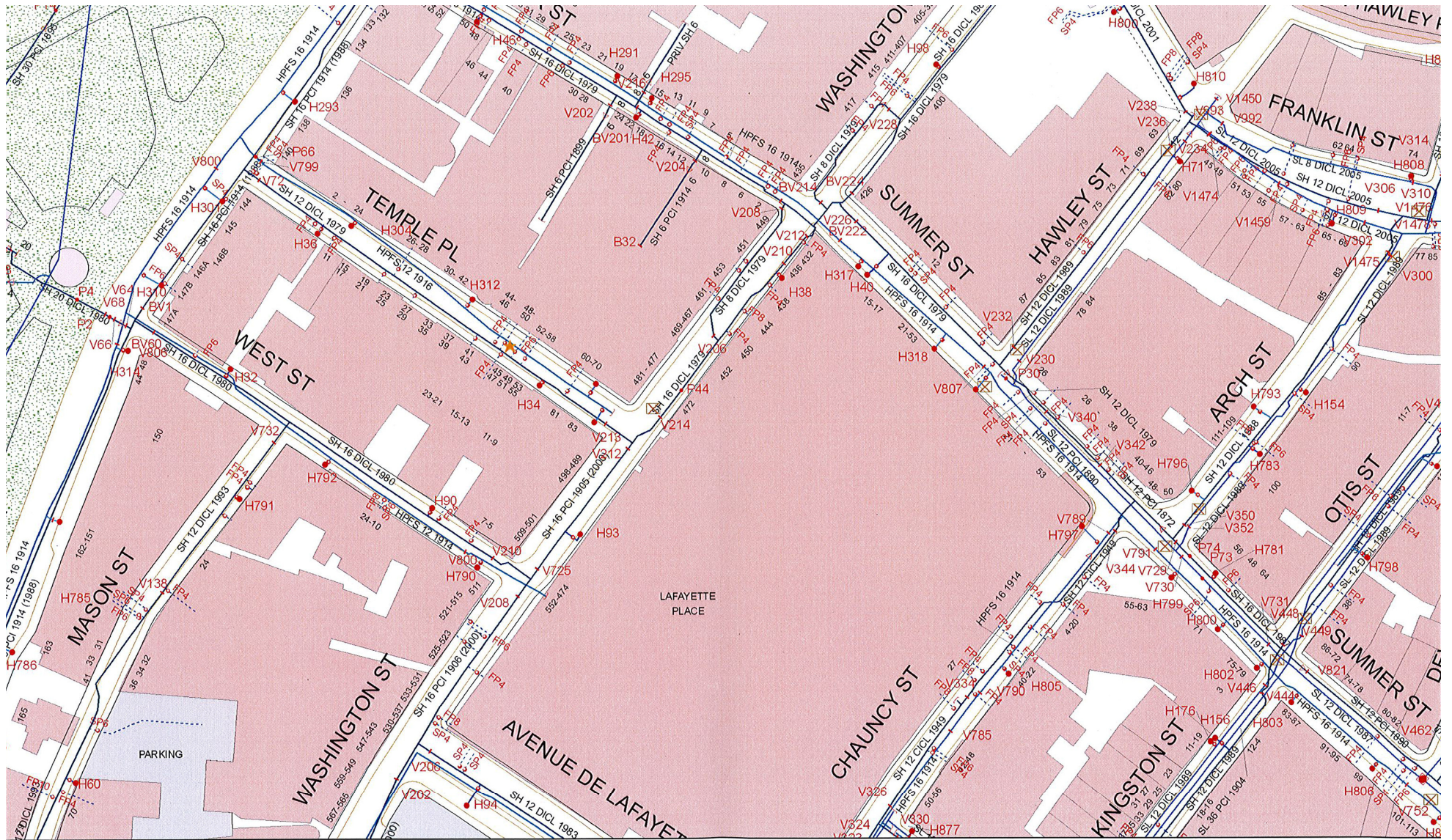
### ***3.12.3 Water system***

#### **3.12.3.1 Existing Water Service**

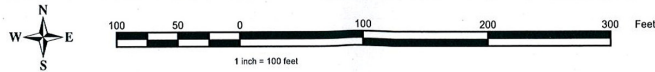
The water distribution system in the vicinity of the Project Site is owned and maintained by BWSC (see Figure 3-4). There is a 16-inch cement-lined ductile iron (CLDI) distribution line located in West Street that is part of BWSC's Southern High service network. Also, there is a 12-inch high pressure fire system line in West Street that was installed in 1914. There is a 16-inch pit cast iron distribution line located in Washington Street that is part of BWSC's Southern High service network. Originally, installed in 1905, it was cleaned and cement-lined in 2000. There is a 12-inch CLDI distribution line located in Temple Place that is part of the BWSC's Southern High service network and was installed in 1979. Also, there is a 12-inch high pressure fire system line in Temple Place that was installed in 1916.

According to BWSC records, the existing building has four existing water services; a three-inch fire protection service, four-inch fire protection service, ¾-inch domestic water service, and a three-inch domestic water service. The ¾-inch domestic water service and the four-inch fire protection service connect to the 16-inch (Southern High) water main in West Street. The three-inch domestic water service and the three-inch fire protection service connect to the 12-inch (Southern High) water main in Temple Place. The locations of the existing water services will be confirmed as the Project moves to the Design Development phase.

There are six fire hydrants located in the vicinity of the Project Site. There are two hydrants on West Street, one hydrant on Washington Street, and three hydrants on Temple Place. It appears that these hydrants will provide sufficient coverage for the Project. The Proponent will confirm this with BWSC and the Boston Fire Department during the detailed design phase.



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**59 Temple Place Boston, Massachusetts**

### **3.12.3.2 Anticipated Water Consumption**

The maximum daily water demand is estimated to be 35,350 gpd based on the sewage flow estimate and an added factor for system losses including the average requirements for the Project's cooling system. More detailed water use and meter sizing calculations will be submitted to BWSC as part of the Site Plan approval process.

### **3.12.3.3 Proposed Water Service**

Separate services will be provided for domestic use and fire protection. It is anticipated that two domestic water services and two fire protection services will be needed to serve the development. The services will tie into either the 16-inch (Southern High) water main in West Street or the 12-inch (Southern High) water main in Temple Place with tapping sleeves and valve connections. Water meters will be of a type approved by BWSC and tied into the BWSC's Automatic Meter Reading system.

Irrigation is currently not proposed for the Project. If it is added to the Project, the Proponent will provide BWSC an estimate of the water usage.

It is anticipated that the existing water services will be abandoned and cut and capped at the main with the valve box, frame and cover removed. Fire protection service removal will be coordinated with BWSC, BFD, and Inspectional Services Department. A Termination Verification Approval Form for Demolition will be submitted for approval by BWSC prior to demolition of any existing structures. The Contractor will obtain a Hydrant Meter Permit from BWSC if hydrant use is required during construction.

### **3.12.3.4 Water Supply/Sewage Generation Conservation and Mitigation Measures**

The Proponent will use low-flow plumbing fixtures in compliance with LEED requirements. It is expected that low-flow water closets and showers will be used. Lavatories are expected to have aerated faucets to reduce water usage.

## **3.12.4 Storm Drainage System**

### **3.12.4.1 Existing Storm Drainage System**

The storm drain system in the vicinity of the Project Site is owned and maintained by BWSC (see Figure 3-3). There is an existing 36-inch by 24-inch combined sewer culvert located in West Street to the west of the Project Site and an existing 20-inch by 27-inch combined sewer culvert located in Temple Place to the east of the Project Site. In addition, there is an existing 32-inch by 48-inch combined sewer culvert and an 18-inch combined sewer culvert located in Washington Street to the south of the Project Site. The lines from both West Street and Temple Place eventually discharge into the 32-inch by 48-inch culvert in Washington Street.

The existing buildings occupy the entire Project Site. Rooftop runoff from the existing buildings is conveyed by building service pipes to the surrounding municipal storm drain systems. Runoff from paved surfaces around the property is generally captured in catch basins. The stormwater runoff from the Project Site eventually discharges to the 32-inch by 48-inch combined sewer culvert in Washington Street. There are no existing stormwater management systems that would attenuate peak flows and the Project Site provides little opportunity for recharge. Very little water quality treatment is realized before these areas are drained to the municipal storm drain system.

#### **3.12.4.2 Proposed Storm Water System**

The existing buildings occupy the entire Project Site and provide little opportunity to infiltrate stormwater. The Proponent will investigate if it is possible to install any stormwater infiltration system within the Project Site. The proposed stormwater management system will be designed to improve existing conditions. A stormwater infiltration system will assist in reducing the peak rate of runoff from the Project Site as well as increasing groundwater recharge. An overflow pipe will be designed to convey runoff from larger storm events to the surrounding municipal system.

After construction, the Project Site will continue to consist primarily of impervious surfaces, associated with building roofs and the paved sidewalks surrounding the Project Site. The existing drainage patterns will not change significantly as the runoff will continue to drain to surrounding municipal storm drain systems.

All storm drain system improvements will be designed in accordance with BWSC's design standards and the BWSC "Requirements for Site Plans." A Site Plan will be submitted for BWSC approval and a General Service Application will be completed prior to any off-site storm drain work. Any storm drain connections terminated as a result of construction will be cut and capped at the storm drain in the street in accordance with BWSC standards.

Erosion and sediment controls will be used during construction to protect adjacent properties and the municipal storm drain system. An operation and maintenance plan will be developed to support the long-term functionality of the proposed stormwater management system.

#### **3.12.5 Electrical Service**

NSTAR owns and maintains the electrical transmission system located in West Street, Washington Street, and Temple Place. The actual size and location of the proposed building services will be coordinated with NSTAR during the detailed design phase. It is anticipated that a transformer vault will be provided in the basement of the proposed building.

The Proponent is investigating energy conservation measures, including high efficiency lighting.

### **3.12.6      *Telecommunications Systems***

Verizon owns and maintains infrastructure in the vicinity of the Project site. It is anticipated Verizon will supply telephone and high-speed internet service to the proposed building. The actual size and location of the proposed building services will be coordinated with Verizon during the detailed design phase.

### **3.12.7      *Gas Systems***

National Grid owns and maintains a 10-inch low pressure gas main in West Street, a 20-inch low pressure gas main in Washington Street, and a six-inch low pressure gas main in Temple Place. The existing building is serviced by two two-inch gas services coming from the 6-inch gas main in Temple Place. The Project is expected to use natural gas for heating and domestic hot water. The actual size and location of the building services will be coordinated with National Grid during the detailed design phase.

### **3.12.8      *Steam Systems***

Veolia Energy owns and maintains the steam transmission system located in the vicinity of the Project site. There is an 8-inch steam main in West Street off the westerly side of the site. Also, there is an 8-inch steam main in Temple Place that runs along the easterly side of the site. The location of existing steam services will be confirmed as the Project moves to the Design Development phase. The actual size and location of the proposed building services will be coordinated with Veolia Energy during the detailed design phase.

### **3.12.9      *Utility Protection during Construction***

The Project's Contractor will notify utility companies and call "Dig Safe" prior to excavation. During construction, infrastructure will be protected using sheeting and shoring, temporary relocations, and construction staging as required. The Construction Contractor will be required to coordinate all protection measures, temporary supports, and temporary shutdowns of all utilities with the appropriate utility owners and/or agencies. The Construction Contractor will also be required to provide adequate notification to the utility owner prior to any work commencing on their utility. Also, in the event a utility cannot be maintained in service during switch over to a temporary or permanent system, the Construction Contractor will be required to coordinate the shutdown with the utility owners and Project abutters to minimize impacts and inconveniences.



**Chapter 4.0**  
**Coordination**

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## **4.0 COORDINATION WITH OTHER GOVERNMENTAL AGENCIES**

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### **4.1 Architectural Access Board Requirements**

The Project will comply with the requirements of the Massachusetts Architectural Access Board and the standards of the Americans with Disabilities Act.

### **4.2 Massachusetts Historical Commission State Register Review**

The MHC has review authority over projects requiring state funding, licensing, permitting, and/or approvals that have the potential to have direct or indirect impacts to properties listed in the State Register of Historic Places, in accordance with M.G.L., Chapter 9, Sec. 26-27c, as amended by Chapter 254 of the Acts of 1988 (950 CMR 71.00). Because no state permits are anticipated, the State Register Review process with MHC will likely not be required; however, the Proponent will consult with MHC as part of the state and federal historic tax credit programs.

### **4.3 Massachusetts Environmental Policy Act (MEPA)**

MEPA review is not expected to be required.

### **4.4 Other Permits and Approvals**

Section 1.9 of this PNF provides an anticipated list of agencies from which permits and approvals for the Project will be sought.

Chapter 5.0

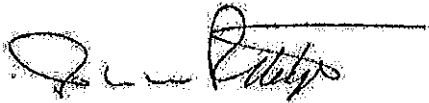
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Project Certification

**5.0 PROJECT CERTIFICATION**

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This form has been submitted to the Boston Redevelopment Authority as required by the Boston Zoning Code, Article 80.



Signature of Proponent's Representative

John Rutledge

Walton Oxford Temple Owner, LLC.  
350 W. Hubbard, Suite 440  
Chicago, IL 60654



Signature of Preparer

Cindy Schlessinger

Epsilon Associates, Inc.  
3 Clock Tower Place, Suite 250  
Maynard, MA 01754

10/16/12

Date

10/16/12

Date

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**Appendix A**  
**LEED Checklist**



# LEED 2009 for Commercial Interiors

59 Temple Place, Boston

9.13.12

## Project Checklist

### 16 5 Sustainable Sites Possible Points: 21

Y	?	N			
			5	Credit 1	Site Selection 1 to 5
6				Credit 2	Development Density and Community Connectivity 6
6				Credit 3.1	Alternative Transportation—Public Transportation Access 6
2				Credit 3.2	Alternative Transportation—Bicycle Storage and Changing Rooms 2
2				Credit 3.3	Alternative Transportation—Parking Availability 2

### 11 Water Efficiency Possible Points: 11

Y				Prereq 1	Water Use Reduction—20% Reduction
			11	Credit 1	Water Use Reduction 6 to 11

### 10 1 26 Energy and Atmosphere Possible Points: 37

Y				Prereq 1	Fundamental Commissioning of Building Energy Systems
Y				Prereq 2	Minimum Energy Performance
Y				Prereq 3	Fundamental Refrigerant Management
			5	Credit 1.1	Optimize Energy Performance—Lighting Power 1 to 5
			3	Credit 1.2	Optimize Energy Performance—Lighting Controls 1 to 3
5			5	Credit 1.3	Optimize Energy Performance—HVAC 5 to 10
	1		3	Credit 1.4	Optimize Energy Performance—Equipment and Appliances 1 to 4
5				Credit 2	Enhanced Commissioning 5
			5	Credit 3	Measurement and Verification 2 to 5
			5	Credit 4	Green Power 5

### 6 1 7 Materials and Resources Possible Points: 14

Y				Prereq 1	Storage and Collection of Recyclables
1				Credit 1.1	Tenant Space—Long-Term Commitment 1
			2	Credit 1.2	Building Reuse 1 to 2
2				Credit 2	Construction Waste Management 1 to 2
			2	Credit 3.1	Materials Reuse 1 to 2
			1	Credit 3.2	Materials Reuse—Furniture and Furnishings 1
1	1			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

### 11 1 5 Indoor Environmental Quality Possible Points: 17

Y	?	N			
Y				Prereq 1	Minimum IAQ 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 4.5	Low-Emitting Materials—Systems Furniture and Seating 1
1				Credit 5	Indoor Chemical & 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
			2	Credit 8.1	Daylight and Views—Daylight 1 to 2
1				Credit 8.2	Daylight and Views—Views for Seated Spaces 1

### 5 1 Innovation and Design Process Possible Points: 6

1				Credit 1.1	Innovation in Design: Green Cleaning Program 1
1				Credit 1.2	Innovation in Design: Green Pest program 1
1				Credit 1.3	Innovation in Design: Development Density and Community Connectivity 1
1				Credit 1.4	Innovation in Design: Alternative Transportation-Public Transportation 1
			1	Credit 1.5	Innovation in Design: Construction Waste Management 1
1				Credit 2	LEED Accredited Professional 1

### 1 3 Regional Priority Credits Possible Points: 4

1				Credit 1.1	Regional Priority: SS Credit 3.2 1
			1	Credit 1.2	Regional Priority: Specific Credit 1
			1	Credit 1.3	Regional Priority: Specific Credit 1
			1	Credit 1.4	Regional Priority: Specific Credit 1

### 49 4 57 Total Possible Points: 110

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

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**Appendix B**  
**Transportation**



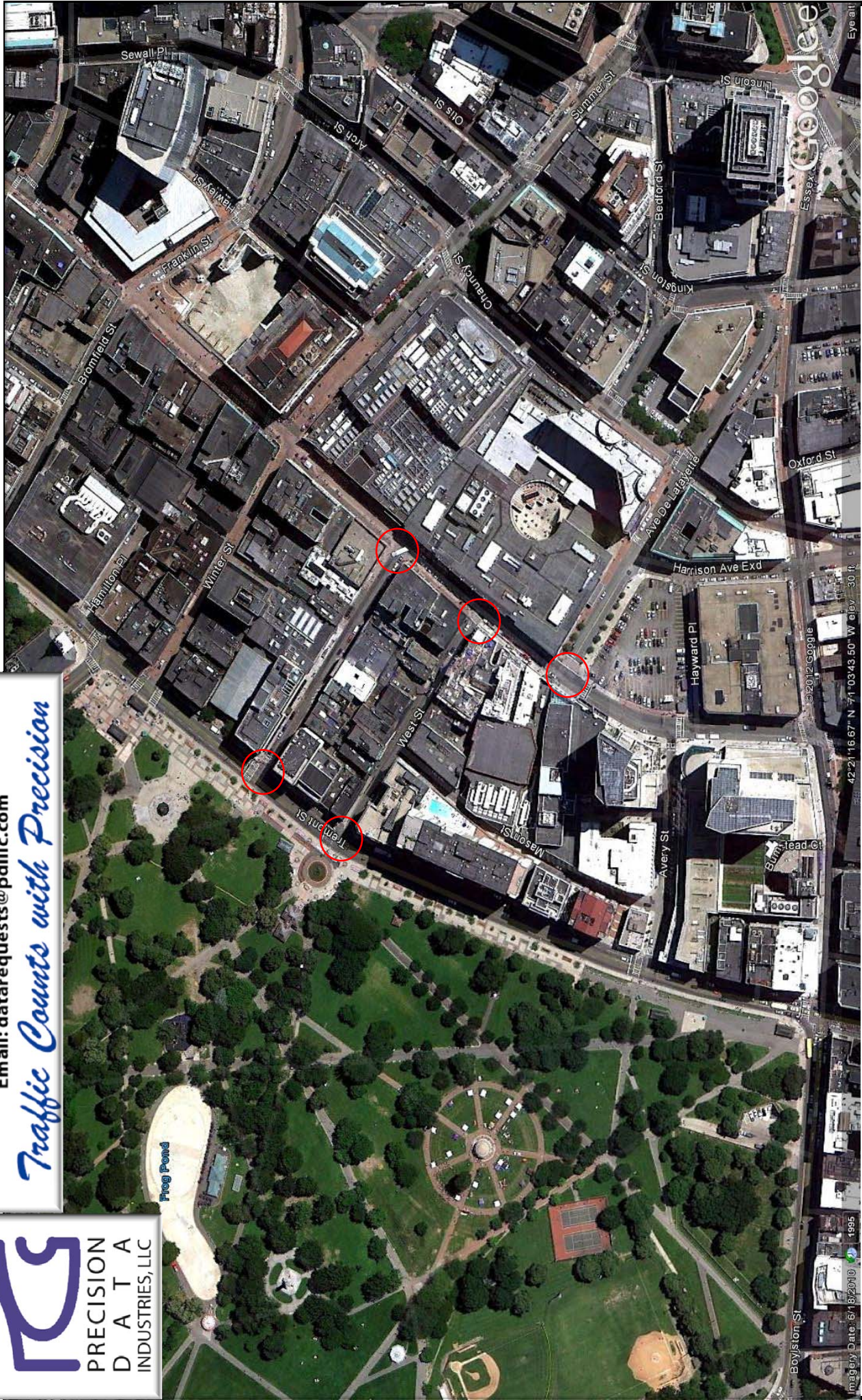
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Email: [datarequests@pdillc.com](mailto:datarequests@pdillc.com)

*Traffic Counts with Precision*



Imagery Date: 6/18/2010 © 1995

42°21'16.67" N 71°03'43.50" W Elev: 30 ft

Eye alt

**Client:**  
Howard Stein-Hudson

**Engineer:**  
K. Chronley

**Site Code:**  
2012074

**Date:**  
Wednesday 8/15/12

**PDI Job Number:**  
123011

**City, State:**  
Boston, MA





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File Name : 123011 A  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Tremont Street  
E: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars - Heavy Vehicles

Start Time	Tremont Street From North			Temple Place From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
07:00 AM	120	0	0	0	11	0	0	0	0	131
07:15 AM	130	0	0	0	7	0	0	0	0	137
07:30 AM	153	0	0	0	12	0	0	0	0	165
07:45 AM	151	0	0	0	12	0	0	0	0	163
Total	554	0	0	0	42	0	0	0	0	596
08:00 AM	154	0	0	0	10	0	0	0	0	164
08:15 AM	177	0	0	0	10	0	0	0	0	187
08:30 AM	203	0	0	0	32	0	0	0	0	235
08:45 AM	154	0	0	0	16	0	0	0	0	170
Total	688	0	0	0	68	0	0	0	0	756
Grand Total	1242	0	0	0	110	0	0	0	0	1352
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	91.9	0	0	0	8.1	0	0	0	0	
Cars	1111	0	0	0	83	0	0	0	0	1194
% Cars	89.5	0	0	0	75.5	0	0	0	0	88.3
Heavy Vehicles	131	0	0	0	27	0	0	0	0	158
% Heavy Vehicles	10.5	0	0	0	24.5	0	0	0	0	11.7

Start Time	Tremont Street From North				Temple Place From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. 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	154	0	0	154	0	10	0	10	0	0	0	0	164
08:15 AM	177	0	0	177	0	10	0	10	0	0	0	0	187
08:30 AM	<b>203</b>	0	0	<b>203</b>	0	<b>32</b>	0	<b>32</b>	0	0	0	0	<b>235</b>
08:45 AM	154	0	0	154	0	16	0	16	0	0	0	0	170
Total Volume	688	0	0	688	0	68	0	68	0	0	0	0	756
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.847	.000	.000	.847	.000	.531	.000	.531	.000	.000	.000	.000	.804
Cars	616	0	0	616	0	56	0	56	0	0	0	0	672
% Cars	89.5	0	0	89.5	0	82.4	0	82.4	0	0	0	0	88.9
Heavy Vehicles	72	0	0	72	0	12	0	12	0	0	0	0	84
% Heavy Vehicles	10.5	0	0	10.5	0	17.6	0	17.6	0	0	0	0	11.1



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N/S: Tremont Street  
E: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars

Start Time	Tremont Street From North			Temple Place From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
07:00 AM	105	0	0	0	9	0	0	0	0	114
07:15 AM	116	0	0	0	3	0	0	0	0	119
07:30 AM	135	0	0	0	6	0	0	0	0	141
07:45 AM	139	0	0	0	9	0	0	0	0	148
Total	495	0	0	0	27	0	0	0	0	522
08:00 AM	140	0	0	0	7	0	0	0	0	147
08:15 AM	156	0	0	0	8	0	0	0	0	164
08:30 AM	179	0	0	0	30	0	0	0	0	209
08:45 AM	141	0	0	0	11	0	0	0	0	152
Total	616	0	0	0	56	0	0	0	0	672
Grand Total	1111	0	0	0	83	0	0	0	0	1194
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	93	0	0	0	7	0	0	0	0	

Start Time	Tremont Street From North				Temple Place From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. 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	140	0	0	140	0	7	0	7	0	0	0	0	147
08:15 AM	156	0	0	156	0	8	0	8	0	0	0	0	164
08:30 AM	179	0	0	179	0	30	0	30	0	0	0	0	209
08:45 AM	141	0	0	141	0	11	0	11	0	0	0	0	152
Total Volume	616	0	0	616	0	56	0	56	0	0	0	0	672
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.860	.000	.000	.860	.000	.467	.000	.467	.000	.000	.000	.000	.804



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N/S: Tremont Street  
E: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Heavy Vehicles

Start Time	Tremont Street From North			Temple Place From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
07:00 AM	15	0	0	0	2	0	0	0	0	17
07:15 AM	14	0	0	0	4	0	0	0	0	18
07:30 AM	18	0	0	0	6	0	0	0	0	24
07:45 AM	12	0	0	0	3	0	0	0	0	15
Total	59	0	0	0	15	0	0	0	0	74
08:00 AM	14	0	0	0	3	0	0	0	0	17
08:15 AM	21	0	0	0	2	0	0	0	0	23
08:30 AM	24	0	0	0	2	0	0	0	0	26
08:45 AM	13	0	0	0	5	0	0	0	0	18
Total	72	0	0	0	12	0	0	0	0	84
Grand Total	131	0	0	0	27	0	0	0	0	158
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	82.9	0	0	0	17.1	0	0	0	0	

Start Time	Tremont Street From North				Temple Place From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. 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	14	0	0	14	0	3	0	3	0	0	0	0	17
08:15 AM	21	0	0	21	0	2	0	2	0	0	0	0	23
08:30 AM	<b>24</b>	0	0	<b>24</b>	0	2	0	<b>2</b>	0	0	0	0	<b>26</b>
08:45 AM	13	0	0	13	0	<b>5</b>	0	<b>5</b>	0	0	0	0	18
Total Volume	72	0	0	72	0	12	0	12	0	0	0	0	84
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.750	.000	.000	.750	.000	.600	.000	.600	.000	.000	.000	.000	.808



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E: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Peds and Bikes

Start Time	Tremont Street From North			Temple Place From East			Tremont Street From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	0	0	18	0	0	36	0	0	1	55
07:15 AM	2	0	20	0	0	58	0	0	0	80
07:30 AM	6	0	36	0	0	79	0	0	2	123
07:45 AM	2	0	47	0	2	91	0	0	4	146
<b>Total</b>	<b>10</b>	<b>0</b>	<b>121</b>	<b>0</b>	<b>2</b>	<b>264</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>404</b>
08:00 AM	2	0	13	0	3	116	0	0	4	138
08:15 AM	0	0	13	0	0	94	0	0	2	109
08:30 AM	1	0	8	0	0	76	0	0	0	85
08:45 AM	0	1	10	0	0	82	0	0	3	96
<b>Total</b>	<b>3</b>	<b>1</b>	<b>44</b>	<b>0</b>	<b>3</b>	<b>368</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>428</b>
<b>Grand Total</b>	<b>13</b>	<b>1</b>	<b>165</b>	<b>0</b>	<b>5</b>	<b>632</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>832</b>
Apprch %	7.3	0.6	92.2	0	0.8	99.2	0	0	100	
Total %	1.6	0.1	19.8	0	0.6	76	0	0	1.9	

Start Time	Tremont Street From North				Temple Place From East				Tremont Street From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. 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	<b>6</b>	0	36	42	0	0	79	79	0	0	2	2	123
07:45 AM	2	0	<b>47</b>	<b>49</b>	0	2	91	93	0	0	<b>4</b>	<b>4</b>	<b>146</b>
08:00 AM	2	0	13	15	0	<b>3</b>	<b>116</b>	<b>119</b>	0	0	4	4	138
08:15 AM	0	0	13	13	0	0	94	94	0	0	2	2	109
<b>Total Volume</b>	<b>10</b>	<b>0</b>	<b>109</b>	<b>119</b>	<b>0</b>	<b>5</b>	<b>380</b>	<b>385</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>12</b>	<b>516</b>
<b>% App. Total</b>	<b>8.4</b>	<b>0</b>	<b>91.6</b>		<b>0</b>	<b>1.3</b>	<b>98.7</b>		<b>0</b>	<b>0</b>	<b>100</b>		
PHF	.417	.000	.580	.607	.000	.417	.819	.809	.000	.000	.750	.750	.884



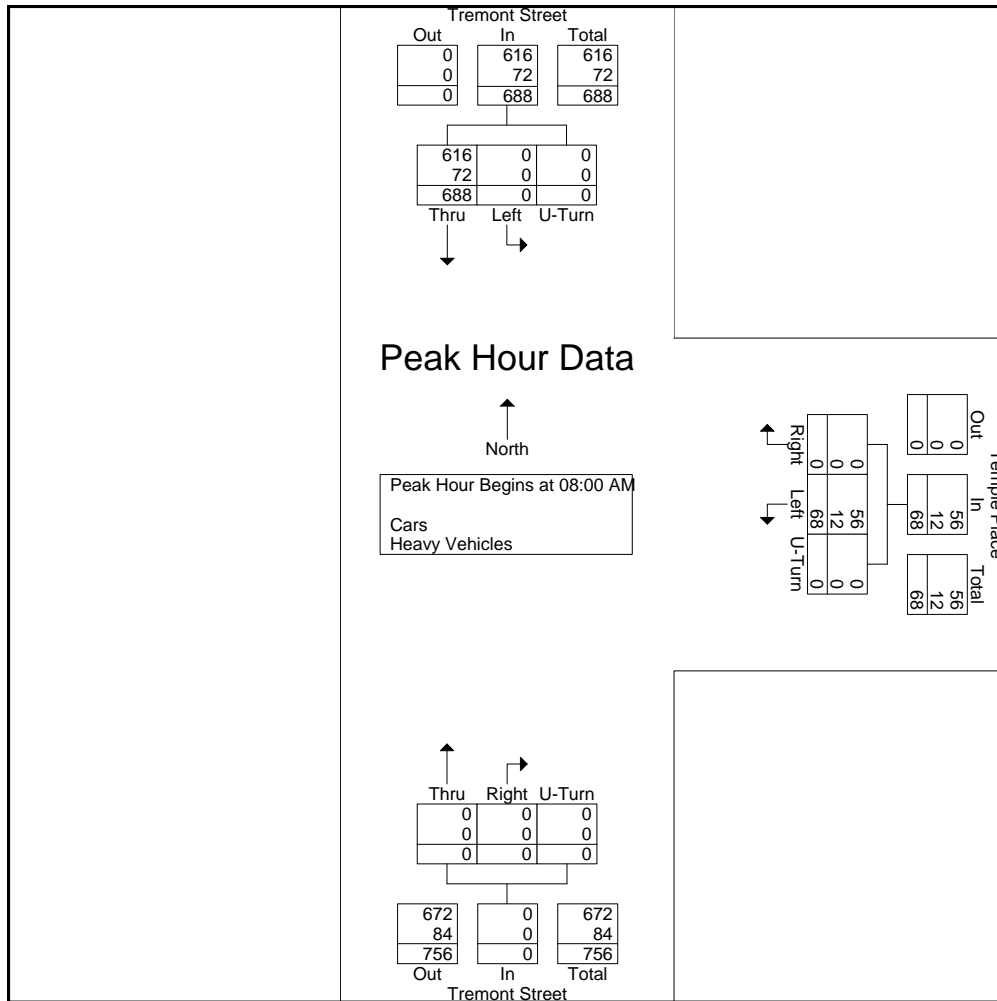
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N/S: Tremont Street  
E: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Start Time	Tremont Street From North				Temple Place From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. 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	154	0	0	154	0	10	0	10	0	0	0	0	164
08:15 AM	177	0	0	177	0	10	0	10	0	0	0	0	187
08:30 AM	<b>203</b>	0	0	<b>203</b>	0	<b>32</b>	0	<b>32</b>	0	0	0	0	<b>235</b>
08:45 AM	154	0	0	154	0	16	0	16	0	0	0	0	170
Total Volume	688	0	0	688	0	68	0	68	0	0	0	0	756
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.847	.000	.000	.847	.000	.531	.000	.531	.000	.000	.000	.000	.804
Cars	616	0	0	616	0	56	0	56	0	0	0	0	672
% Cars	89.5	0	0	89.5	0	82.4	0	82.4	0	0	0	0	88.9
Heavy Vehicles	72	0	0	72	0	12	0	12	0	0	0	0	84
% Heavy Vehicles	10.5	0	0	10.5	0	17.6	0	17.6	0	0	0	0	11.1





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Page No : 1

N/S: Tremont Street  
E: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars - Heavy Vehicles

Start Time	Tremont Street From North			Temple Place From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
04:00 PM	236	0	0	0	32	0	0	0	0	268
04:15 PM	250	0	0	0	25	0	0	0	0	275
04:30 PM	233	0	0	0	37	0	0	0	0	270
04:45 PM	250	0	0	0	17	0	0	0	0	267
<b>Total</b>	<b>969</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>111</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1080</b>
05:00 PM	279	0	0	0	25	0	0	0	0	304
05:15 PM	281	0	0	0	25	0	0	0	0	306
05:30 PM	293	0	0	0	19	0	0	0	0	312
05:45 PM	292	0	0	0	18	0	0	0	0	310
<b>Total</b>	<b>1145</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>87</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1232</b>
<b>Grand Total</b>	<b>2114</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>198</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2312</b>
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	91.4	0	0	0	8.6	0	0	0	0	
Cars	2009	0	0	0	175	0	0	0	0	2184
% Cars	95	0	0	0	88.4	0	0	0	0	94.5
Heavy Vehicles	105	0	0	0	23	0	0	0	0	128
% Heavy Vehicles	5	0	0	0	11.6	0	0	0	0	5.5

Start Time	Tremont Street From North				Temple Place From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	279	0	0	279	0	25	0	25	0	0	0	0	304
05:15 PM	281	0	0	281	0	25	0	25	0	0	0	0	306
05:30 PM	293	0	0	293	0	19	0	19	0	0	0	0	312
05:45 PM	292	0	0	292	0	18	0	18	0	0	0	0	310
Total Volume	1145	0	0	1145	0	87	0	87	0	0	0	0	1232
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.977	.000	.000	.977	.000	.870	.000	.870	.000	.000	.000	.000	.987
Cars	1096	0	0	1096	0	79	0	79	0	0	0	0	1175
% Cars	95.7	0	0	95.7	0	90.8	0	90.8	0	0	0	0	95.4
Heavy Vehicles	49	0	0	49	0	8	0	8	0	0	0	0	57
% Heavy Vehicles	4.3	0	0	4.3	0	9.2	0	9.2	0	0	0	0	4.6



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Start Date : 8/15/2012  
Page No : 1

N/S: Tremont Street  
E: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars

Start Time	Tremont Street From North			Temple Place From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
04:00 PM	219	0	0	0	28	0	0	0	0	247
04:15 PM	238	0	0	0	21	0	0	0	0	259
04:30 PM	218	0	0	0	32	0	0	0	0	250
04:45 PM	238	0	0	0	15	0	0	0	0	253
Total	913	0	0	0	96	0	0	0	0	1009
05:00 PM	265	0	0	0	23	0	0	0	0	288
05:15 PM	267	0	0	0	24	0	0	0	0	291
05:30 PM	281	0	0	0	14	0	0	0	0	295
05:45 PM	283	0	0	0	18	0	0	0	0	301
Total	1096	0	0	0	79	0	0	0	0	1175
Grand Total	2009	0	0	0	175	0	0	0	0	2184
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	92	0	0	0	8	0	0	0	0	

Start Time	Tremont Street From North				Temple Place From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	265	0	0	265	0	23	0	23	0	0	0	0	288
05:15 PM	267	0	0	267	0	24	0	24	0	0	0	0	291
05:30 PM	281	0	0	281	0	14	0	14	0	0	0	0	295
05:45 PM	283	0	0	283	0	18	0	18	0	0	0	0	301
Total Volume	1096	0	0	1096	0	79	0	79	0	0	0	0	1175
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.968	.000	.000	.968	.000	.823	.000	.823	.000	.000	.000	.000	.976



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INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503  
Office: 508.481.3999 Fax: 508.545.1234  
Email: datarequests@pdillc.com

File Name : 123011 AA  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Tremont Street  
E: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Heavy Vehicles

Start Time	Tremont Street From North			Temple Place From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
04:00 PM	17	0	0	0	4	0	0	0	0	21
04:15 PM	12	0	0	0	4	0	0	0	0	16
04:30 PM	15	0	0	0	5	0	0	0	0	20
04:45 PM	12	0	0	0	2	0	0	0	0	14
<b>Total</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>71</b>
05:00 PM	14	0	0	0	2	0	0	0	0	16
05:15 PM	14	0	0	0	1	0	0	0	0	15
05:30 PM	12	0	0	0	5	0	0	0	0	17
05:45 PM	9	0	0	0	0	0	0	0	0	9
<b>Total</b>	<b>49</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>57</b>
<b>Grand Total</b>	<b>105</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>128</b>
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	82	0	0	0	18	0	0	0	0	

Start Time	Tremont Street From North				Temple Place From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	17	0	0	17	0	4	0	4	0	0	0	0	21
04:15 PM	12	0	0	12	0	4	0	4	0	0	0	0	16
04:30 PM	15	0	0	15	0	5	0	5	0	0	0	0	20
04:45 PM	12	0	0	12	0	2	0	2	0	0	0	0	14
<b>Total Volume</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>56</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>71</b>
<b>% App. Total</b>	<b>100</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>100</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>		
PHF	.824	.000	.000	.824	.000	.750	.000	.750	.000	.000	.000	.000	.845





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N/S: Tremont Street  
E: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Peds and Bikes

Start Time	Tremont Street From North			Temple Place From East			Tremont Street From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	8	0	61	0	1	215	0	0	12	297
04:15 PM	9	0	67	0	1	193	0	0	8	278
04:30 PM	8	0	74	0	1	177	0	0	10	270
04:45 PM	13	0	59	0	0	198	0	0	5	275
<b>Total</b>	<b>38</b>	<b>0</b>	<b>261</b>	<b>0</b>	<b>3</b>	<b>783</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>1120</b>
05:00 PM	17	0	81	0	3	269	0	0	7	377
05:15 PM	12	0	69	0	3	264	0	0	5	353
05:30 PM	9	0	103	0	3	319	0	0	12	446
05:45 PM	14	0	67	0	3	244	0	0	4	332
<b>Total</b>	<b>52</b>	<b>0</b>	<b>320</b>	<b>0</b>	<b>12</b>	<b>1096</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>1508</b>
<b>Grand Total</b>	<b>90</b>	<b>0</b>	<b>581</b>	<b>0</b>	<b>15</b>	<b>1879</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>2628</b>
Apprch %	13.4	0	86.6	0	0.8	99.2	0	0	100	
Total %	3.4	0	22.1	0	0.6	71.5	0	0	2.4	

Start Time	Tremont Street From North				Temple Place From East				Tremont Street From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. 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	81	98	0	3	269	272	0	0	7	7	377
05:15 PM	12	0	69	81	0	3	264	267	0	0	5	5	353
05:30 PM	9	0	103	112	0	3	319	322	0	0	12	12	446
05:45 PM	14	0	67	81	0	3	244	247	0	0	4	4	332
<b>Total Volume</b>	<b>52</b>	<b>0</b>	<b>320</b>	<b>372</b>	<b>0</b>	<b>12</b>	<b>1096</b>	<b>1108</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>28</b>	<b>1508</b>
% App. Total	14	0	86		0	1.1	98.9		0	0	100		
PHF	.765	.000	.777	.830	.000	1.00	.859	.860	.000	.000	.583	.583	.845



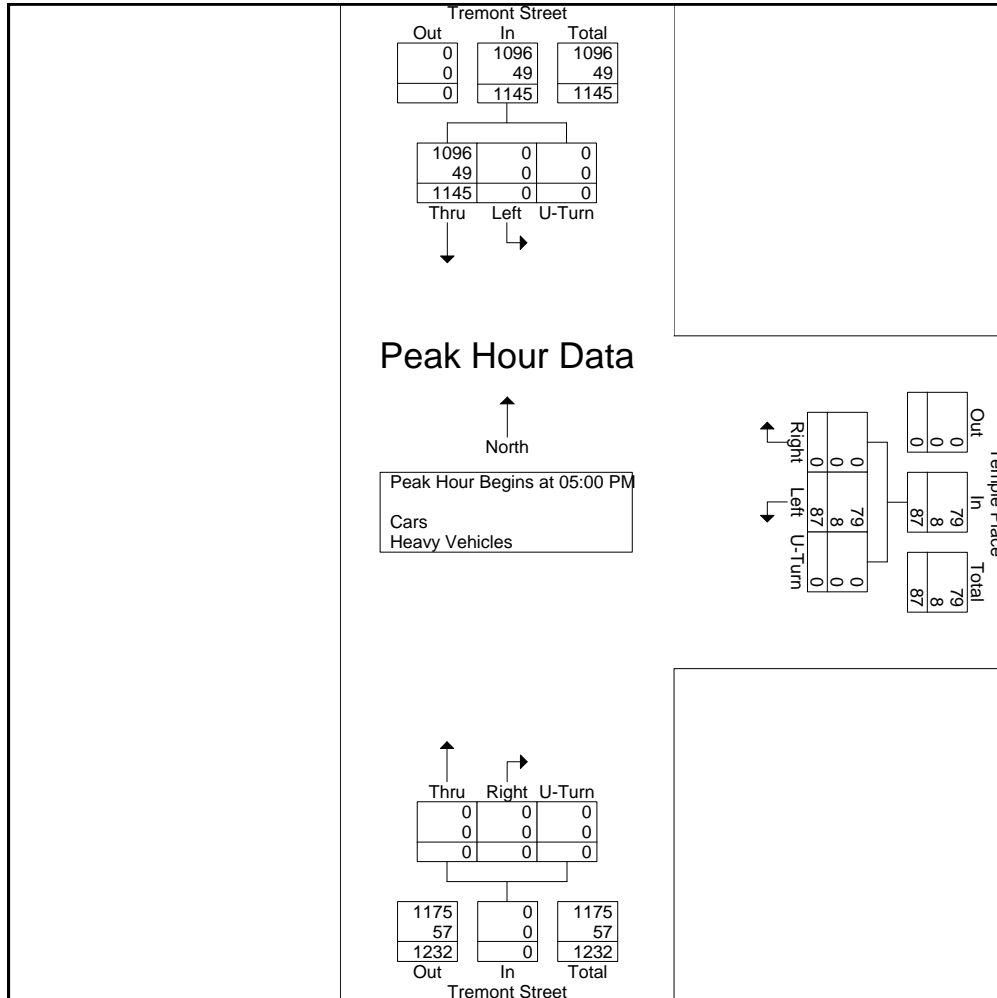
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City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Start Time	Tremont Street From North				Temple Place From East				Tremont Street From South				Int. Total	
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 05:00 PM														
05:00 PM	279	0	0	279	0	25	0	25	0	0	0	0	0	304
05:15 PM	281	0	0	281	0	25	0	25	0	0	0	0	0	306
05:30 PM	293	0	0	293	0	19	0	19	0	0	0	0	0	312
05:45 PM	292	0	0	292	0	18	0	18	0	0	0	0	0	310
Total Volume	1145	0	0	1145	0	87	0	87	0	0	0	0	0	1232
% App. Total	100	0	0		0	100	0		0	0	0	0		
PHF	.977	.000	.000	.977	.000	.870	.000	.870	.000	.000	.000	.000	.000	.987
Cars	1096	0	0	1096	0	79	0	79	0	0	0	0	0	1175
% Cars	95.7	0	0	95.7	0	90.8	0	90.8	0	0	0	0	0	95.4
Heavy Vehicles	49	0	0	49	0	8	0	8	0	0	0	0	0	57
% Heavy Vehicles	4.3	0	0	4.3	0	9.2	0	9.2	0	0	0	0	0	4.6





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Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Tremont Street  
E: West Street  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars - Heavy Vehicles

Start Time	Tremont Street From North			West Street From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
07:00 AM	132	0	0	0	22	0	0	0	0	154
07:15 AM	142	0	0	0	18	0	0	0	0	160
07:30 AM	163	0	0	0	35	0	0	0	0	198
07:45 AM	162	0	0	0	35	0	0	0	0	197
Total	599	0	0	0	110	0	0	0	0	709
08:00 AM	166	0	0	0	41	0	0	0	0	207
08:15 AM	184	0	0	0	45	0	0	0	0	229
08:30 AM	226	0	0	0	27	0	0	0	0	253
08:45 AM	180	0	0	0	53	0	0	0	0	233
Total	756	0	0	0	166	0	0	0	0	922
Grand Total	1355	0	0	0	276	0	0	0	0	1631
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	83.1	0	0	0	16.9	0	0	0	0	
Cars	1194	0	0	0	254	0	0	0	0	1448
% Cars	88.1	0	0	0	92	0	0	0	0	88.8
Heavy Vehicles	161	0	0	0	22	0	0	0	0	183
% Heavy Vehicles	11.9	0	0	0	8	0	0	0	0	11.2

Start Time	Tremont Street From North				West Street From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. 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	166	0	0	166	0	41	0	41	0	0	0	0	207
08:15 AM	184	0	0	184	0	45	0	45	0	0	0	0	229
08:30 AM	<b>226</b>	0	0	<b>226</b>	0	27	0	27	0	0	0	0	<b>253</b>
08:45 AM	180	0	0	180	0	<b>53</b>	0	<b>53</b>	0	0	0	0	233
Total Volume	756	0	0	756	0	166	0	166	0	0	0	0	922
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.836	.000	.000	.836	.000	.783	.000	.783	.000	.000	.000	.000	.911
Cars	668	0	0	668	0	153	0	153	0	0	0	0	821
% Cars	88.4	0	0	88.4	0	92.2	0	92.2	0	0	0	0	89.0
Heavy Vehicles	88	0	0	88	0	13	0	13	0	0	0	0	101
% Heavy Vehicles	11.6	0	0	11.6	0	7.8	0	7.8	0	0	0	0	11.0



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N/S: Tremont Street  
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Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars

Start Time	Tremont Street From North			West Street From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
07:00 AM	115	0	0	0	21	0	0	0	0	136
07:15 AM	123	0	0	0	16	0	0	0	0	139
07:30 AM	141	0	0	0	34	0	0	0	0	175
07:45 AM	147	0	0	0	30	0	0	0	0	177
Total	526	0	0	0	101	0	0	0	0	627
08:00 AM	146	0	0	0	38	0	0	0	0	184
08:15 AM	161	0	0	0	41	0	0	0	0	202
08:30 AM	199	0	0	0	25	0	0	0	0	224
08:45 AM	162	0	0	0	49	0	0	0	0	211
Total	668	0	0	0	153	0	0	0	0	821
Grand Total	1194	0	0	0	254	0	0	0	0	1448
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	82.5	0	0	0	17.5	0	0	0	0	

Start Time	Tremont Street From North				West Street From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. 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	146	0	0	146	0	38	0	38	0	0	0	0	184
08:15 AM	161	0	0	161	0	41	0	41	0	0	0	0	202
08:30 AM	<b>199</b>	0	0	<b>199</b>	0	25	0	25	0	0	0	0	<b>224</b>
08:45 AM	162	0	0	162	0	<b>49</b>	0	<b>49</b>	0	0	0	0	211
Total Volume	668	0	0	668	0	153	0	153	0	0	0	0	821
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.839	.000	.000	.839	.000	.781	.000	.781	.000	.000	.000	.000	.916



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N/S: Tremont Street  
E: West Street  
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Groups Printed- Heavy Vehicles

Start Time	Tremont Street From North			West Street From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
07:00 AM	17	0	0	0	1	0	0	0	0	18
07:15 AM	19	0	0	0	2	0	0	0	0	21
07:30 AM	22	0	0	0	1	0	0	0	0	23
07:45 AM	15	0	0	0	5	0	0	0	0	20
<b>Total</b>	<b>73</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>82</b>
08:00 AM	20	0	0	0	3	0	0	0	0	23
08:15 AM	23	0	0	0	4	0	0	0	0	27
08:30 AM	27	0	0	0	2	0	0	0	0	29
08:45 AM	18	0	0	0	4	0	0	0	0	22
<b>Total</b>	<b>88</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>101</b>
<b>Grand Total</b>	<b>161</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>183</b>
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	88	0	0	0	12	0	0	0	0	

Start Time	Tremont Street From North				West Street From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. 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	20	0	0	20	0	3	0	3	0	0	0	0	23
08:15 AM	23	0	0	23	0	4	0	4	0	0	0	0	27
08:30 AM	27	0	0	27	0	2	0	2	0	0	0	0	29
08:45 AM	18	0	0	18	0	4	0	4	0	0	0	0	22
<b>Total Volume</b>	<b>88</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>101</b>
<b>% App. Total</b>	<b>100</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>100</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>		
PHF	.815	.000	.000	.815	.000	.813	.000	.813	.000	.000	.000	.000	.871



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Groups Printed- Peds and Bikes

Start Time	Tremont Street From North			West Street From East			Tremont Street From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	0	0	19	0	1	34	0	0	2	56
07:15 AM	2	0	25	0	1	50	0	0	10	88
07:30 AM	3	0	14	0	0	60	0	0	10	87
07:45 AM	1	0	51	0	2	93	0	0	12	159
<b>Total</b>	<b>6</b>	<b>0</b>	<b>109</b>	<b>0</b>	<b>4</b>	<b>237</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>390</b>
08:00 AM	4	0	50	0	0	107	0	0	5	166
08:15 AM	0	0	40	0	0	75	0	0	8	123
08:30 AM	2	0	39	0	0	52	0	0	2	95
08:45 AM	0	0	36	0	0	67	0	0	3	106
<b>Total</b>	<b>6</b>	<b>0</b>	<b>165</b>	<b>0</b>	<b>0</b>	<b>301</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>490</b>
<b>Grand Total</b>	<b>12</b>	<b>0</b>	<b>274</b>	<b>0</b>	<b>4</b>	<b>538</b>	<b>0</b>	<b>0</b>	<b>52</b>	<b>880</b>
Apprch %	4.2	0	95.8	0	0.7	99.3	0	0	100	
Total %	1.4	0	31.1	0	0.5	61.1	0	0	5.9	

Start Time	Tremont Street From North				West Street From East				Tremont Street From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. 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	0	<b>51</b>	52	0	<b>2</b>	93	95	0	0	<b>12</b>	<b>12</b>	159
08:00 AM	<b>4</b>	0	50	<b>54</b>	0	0	<b>107</b>	<b>107</b>	0	0	5	5	<b>166</b>
08:15 AM	0	0	40	40	0	0	75	75	0	0	8	8	123
08:30 AM	2	0	39	41	0	0	52	52	0	0	2	2	95
<b>Total Volume</b>	<b>7</b>	<b>0</b>	<b>180</b>	<b>187</b>	<b>0</b>	<b>2</b>	<b>327</b>	<b>329</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>27</b>	<b>543</b>
<b>% App. Total</b>	<b>3.7</b>	<b>0</b>	<b>96.3</b>		<b>0</b>	<b>0.6</b>	<b>99.4</b>		<b>0</b>	<b>0</b>	<b>100</b>		
PHF	.438	.000	.882	.866	.000	.250	.764	.769	.000	.000	.563	.563	.818



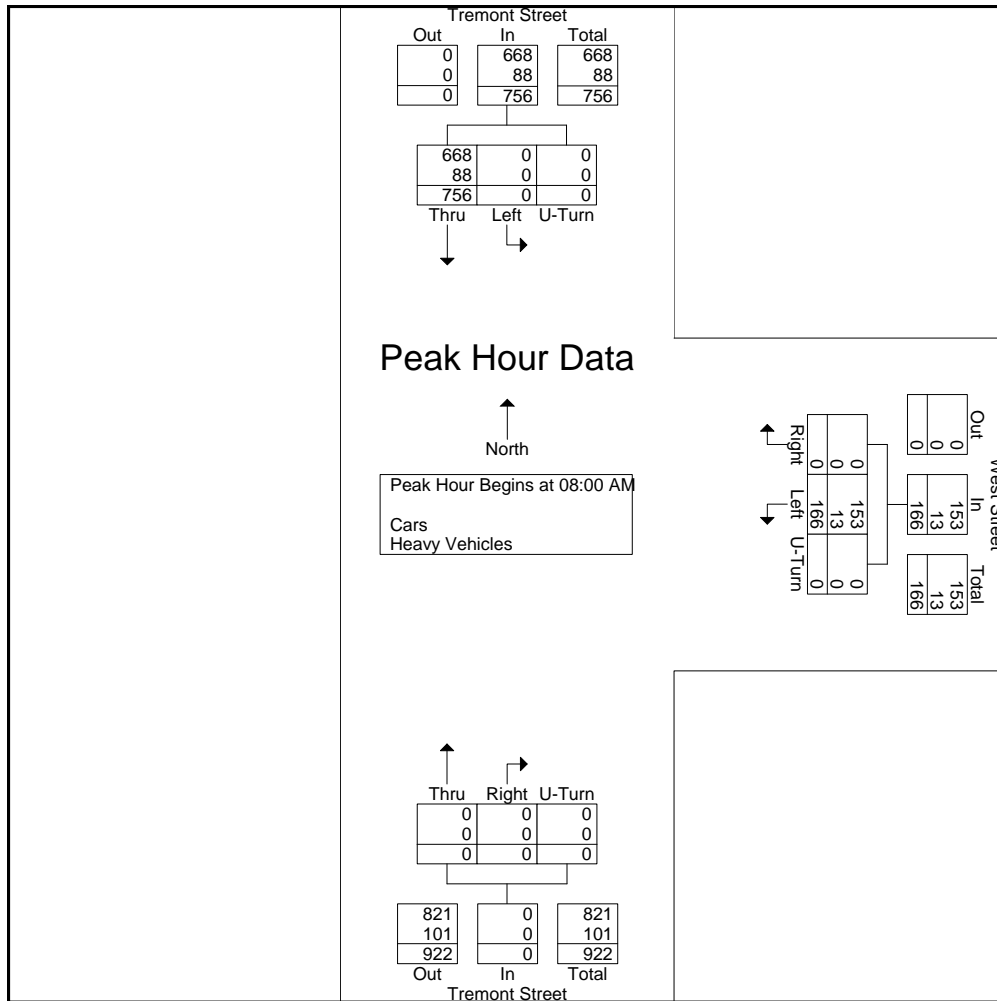
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Start Time	Tremont Street From North				West Street From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	166	0	0	166	0	41	0	41	0	0	0	0	207
08:15 AM	184	0	0	184	0	45	0	45	0	0	0	0	229
08:30 AM	<b>226</b>	0	0	<b>226</b>	0	27	0	27	0	0	0	0	<b>253</b>
08:45 AM	180	0	0	180	0	<b>53</b>	0	<b>53</b>	0	0	0	0	233
Total Volume	756	0	0	756	0	166	0	166	0	0	0	0	922
% App. Total	100	0	0		0	100	0		0	0	0	0	
PHF	.836	.000	.000	.836	.000	.783	.000	.783	.000	.000	.000	.000	.911
Cars	668	0	0	668	0	153	0	153	0	0	0	0	821
% Cars	88.4	0	0	88.4	0	92.2	0	92.2	0	0	0	0	89.0
Heavy Vehicles	88	0	0	88	0	13	0	13	0	0	0	0	101
% Heavy Vehicles	11.6	0	0	11.6	0	7.8	0	7.8	0	0	0	0	11.0





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Email: datarequests@pdillc.com

File Name : 123011 BB  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Tremont Street  
E: West Street  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars - Heavy Vehicles

Start Time	Tremont Street From North			West Street From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
04:00 PM	265	0	0	0	56	0	0	0	0	321
04:15 PM	278	0	0	0	46	0	0	0	0	324
04:30 PM	267	0	0	0	63	0	0	0	0	330
04:45 PM	264	0	0	0	55	0	0	0	0	319
<b>Total</b>	<b>1074</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>220</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1294</b>
05:00 PM	306	0	0	0	79	0	0	0	0	385
05:15 PM	310	0	0	0	81	0	0	0	0	391
05:30 PM	305	0	0	0	60	0	0	0	0	365
05:45 PM	311	0	0	0	68	0	0	0	0	379
<b>Total</b>	<b>1232</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>288</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1520</b>
<b>Grand Total</b>	<b>2306</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>508</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2814</b>
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	81.9	0	0	0	18.1	0	0	0	0	
Cars	2178	0	0	0	504	0	0	0	0	2682
% Cars	94.4	0	0	0	99.2	0	0	0	0	95.3
Heavy Vehicles	128	0	0	0	4	0	0	0	0	132
% Heavy Vehicles	5.6	0	0	0	0.8	0	0	0	0	4.7

Start Time	Tremont Street From North				West Street From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	306	0	0	306	0	79	0	79	0	0	0	0	385
05:15 PM	310	0	0	310	0	<b>81</b>	0	<b>81</b>	0	0	0	0	<b>391</b>
05:30 PM	305	0	0	305	0	60	0	60	0	0	0	0	365
05:45 PM	<b>311</b>	0	0	<b>311</b>	0	68	0	68	0	0	0	0	379
Total Volume	1232	0	0	1232	0	288	0	288	0	0	0	0	1520
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.990	.000	.000	.990	.000	.889	.000	.889	.000	.000	.000	.000	.972
Cars	1175	0	0	1175	0	286	0	286	0	0	0	0	1461
% Cars	95.4	0	0	95.4	0	99.3	0	99.3	0	0	0	0	96.1
Heavy Vehicles	57	0	0	57	0	2	0	2	0	0	0	0	59
% Heavy Vehicles	4.6	0	0	4.6	0	0.7	0	0.7	0	0	0	0	3.9





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File Name : 123011 BB  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Tremont Street  
E: West Street  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars

Start Time	Tremont Street From North			West Street From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
04:00 PM	246	0	0	0	56	0	0	0	0	302
04:15 PM	258	0	0	0	46	0	0	0	0	304
04:30 PM	248	0	0	0	62	0	0	0	0	310
04:45 PM	251	0	0	0	54	0	0	0	0	305
Total	1003	0	0	0	218	0	0	0	0	1221
05:00 PM	290	0	0	0	77	0	0	0	0	367
05:15 PM	295	0	0	0	81	0	0	0	0	376
05:30 PM	289	0	0	0	60	0	0	0	0	349
05:45 PM	301	0	0	0	68	0	0	0	0	369
Total	1175	0	0	0	286	0	0	0	0	1461
Grand Total	2178	0	0	0	504	0	0	0	0	2682
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	81.2	0	0	0	18.8	0	0	0	0	

Start Time	Tremont Street From North				West Street From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	290	0	0	290	0	77	0	77	0	0	0	0	367
05:15 PM	295	0	0	295	0	81	0	81	0	0	0	0	376
05:30 PM	289	0	0	289	0	60	0	60	0	0	0	0	349
05:45 PM	301	0	0	301	0	68	0	68	0	0	0	0	369
Total Volume	1175	0	0	1175	0	286	0	286	0	0	0	0	1461
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.976	.000	.000	.976	.000	.883	.000	.883	.000	.000	.000	.000	.971



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Page No : 1

N/S: Tremont Street  
E: West Street  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Heavy Vehicles

Start Time	Tremont Street From North			West Street From East			Tremont Street From South			Int. Total
	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	
04:00 PM	19	0	0	0	0	0	0	0	0	19
04:15 PM	20	0	0	0	0	0	0	0	0	20
04:30 PM	19	0	0	0	1	0	0	0	0	20
04:45 PM	13	0	0	0	1	0	0	0	0	14
Total	71	0	0	0	2	0	0	0	0	73
05:00 PM	16	0	0	0	2	0	0	0	0	18
05:15 PM	15	0	0	0	0	0	0	0	0	15
05:30 PM	16	0	0	0	0	0	0	0	0	16
05:45 PM	10	0	0	0	0	0	0	0	0	10
Total	57	0	0	0	2	0	0	0	0	59
Grand Total	128	0	0	0	4	0	0	0	0	132
Apprch %	100	0	0	0	100	0	0	0	0	
Total %	97	0	0	0	3	0	0	0	0	

Start Time	Tremont Street From North				West Street From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	19	0	0	19	0	0	0	0	0	0	0	0	19
04:15 PM	<b>20</b>	0	0	<b>20</b>	0	0	0	0	0	0	0	0	<b>20</b>
04:30 PM	19	0	0	19	0	1	0	1	0	0	0	0	20
04:45 PM	13	0	0	13	0	1	0	1	0	0	0	0	14
Total Volume	71	0	0	71	0	2	0	2	0	0	0	0	73
% App. Total	100	0	0		0	100	0		0	0	0		
PHF	.888	.000	.000	.888	.000	.500	.000	.500	.000	.000	.000	.000	.913



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File Name : 123011 BB  
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Start Date : 8/15/2012  
Page No : 1

N/S: Tremont Street  
E: West Street  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Peds and Bikes

Start Time	Tremont Street From North			West Street From East			Tremont Street From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	12	0	102	0	3	155	0	1	23	296
04:15 PM	10	0	108	0	3	163	0	0	33	317
04:30 PM	12	0	95	0	1	162	0	0	43	313
04:45 PM	14	0	125	0	4	161	0	0	33	337
Total	48	0	430	0	11	641	0	1	132	1263
05:00 PM	18	0	110	0	1	179	0	0	36	344
05:15 PM	12	0	114	0	2	182	0	0	39	349
05:30 PM	9	0	148	0	1	281	0	0	31	470
05:45 PM	15	0	100	0	6	206	0	0	43	370
Total	54	0	472	0	10	848	0	0	149	1533
Grand Total	102	0	902	0	21	1489	0	1	281	2796
Apprch %	10.2	0	89.8	0	1.4	98.6	0	0.4	99.6	
Total %	3.6	0	32.3	0	0.8	53.3	0	0	10.1	

Start Time	Tremont Street From North				West Street From East				Tremont Street From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. 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	<b>18</b>	0	110	128	0	1	179	180	0	0	36	36	344
05:15 PM	12	0	114	126	0	2	182	184	0	0	39	39	349
05:30 PM	9	0	<b>148</b>	<b>157</b>	0	1	<b>281</b>	<b>282</b>	0	0	31	31	<b>470</b>
05:45 PM	15	0	100	115	0	<b>6</b>	206	212	0	0	<b>43</b>	<b>43</b>	370
Total Volume	54	0	472	526	0	10	848	858	0	0	149	149	1533
% App. Total	10.3	0	89.7		0	1.2	98.8		0	0	100		
PHF	.750	.000	.797	.838	.000	.417	.754	.761	.000	.000	.866	.866	.815



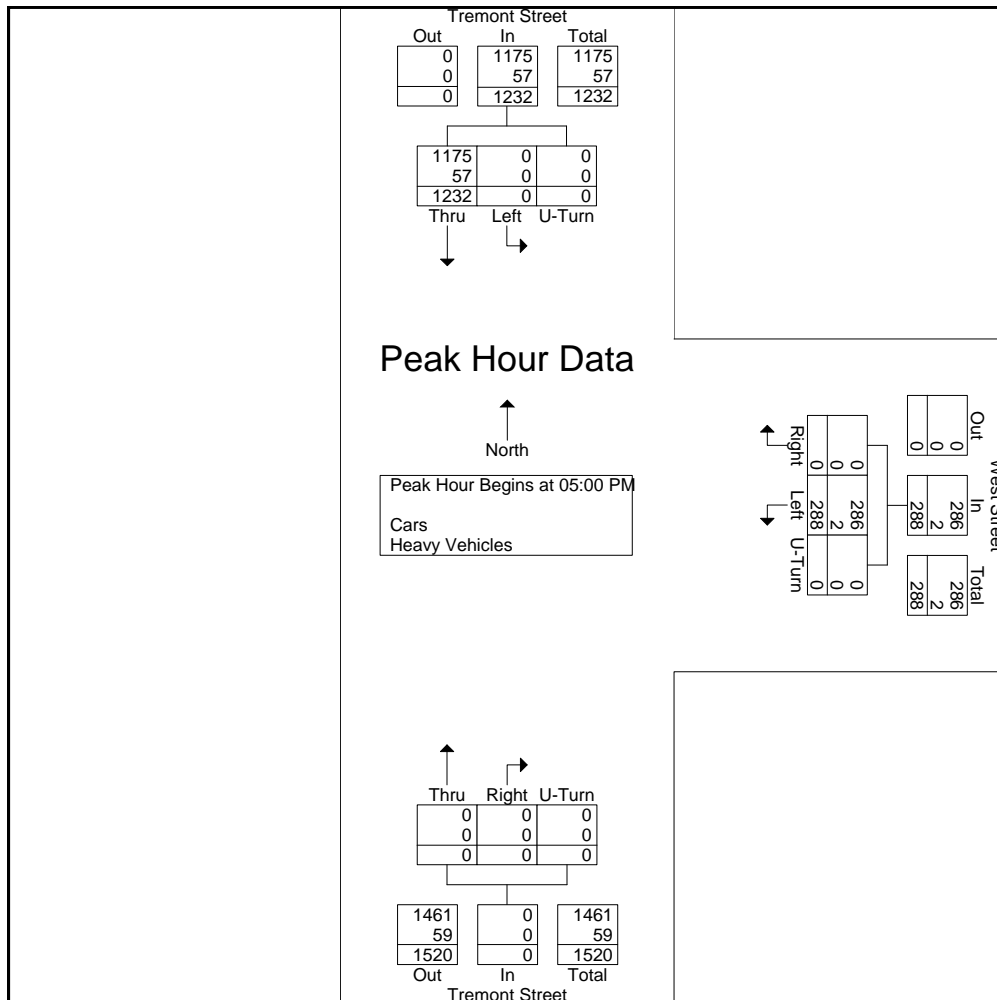
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File Name : 123011 BB  
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Start Date : 8/15/2012  
Page No : 1

N/S: Tremont Street  
E: West Street  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Start Time	Tremont Street From North				West Street From East				Tremont Street From South				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	306	0	0	306	0	79	0	79	0	0	0	0	385
05:15 PM	310	0	0	310	0	81	0	81	0	0	0	0	391
05:30 PM	305	0	0	305	0	60	0	60	0	0	0	0	365
05:45 PM	311	0	0	311	0	68	0	68	0	0	0	0	379
Total Volume	1232	0	0	1232	0	288	0	288	0	0	0	0	1520
% App. Total	100	0	0		0	100	0		0	0	0	0	
PHF	.990	.000	.000	.990	.000	.889	.000	.889	.000	.000	.000	.000	.972
Cars	1175	0	0	1175	0	286	0	286	0	0	0	0	1461
% Cars	95.4	0	0	95.4	0	99.3	0	99.3	0	0	0	0	96.1
Heavy Vehicles	57	0	0	57	0	2	0	2	0	0	0	0	59
% Heavy Vehicles	4.6	0	0	4.6	0	0.7	0	0.7	0	0	0	0	3.9





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File Name : 123011 E  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
E: Avenue de Lafayette  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars - Heavy Vehicles

Start Time	Washington Street From North				Avenue de Lafayette From East				Washington Street From South				Sidewalk From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	0	0	0	0	14	0	0	0	20	31	0	0	0	0	0	0	65
07:15 AM	0	0	0	0	13	0	0	0	21	27	0	0	0	0	0	0	61
07:30 AM	0	0	0	0	10	0	0	0	24	41	0	0	0	0	0	0	75
07:45 AM	0	0	0	0	13	0	0	0	28	49	0	0	0	0	0	0	90
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>93</b>	<b>148</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>291</b>
08:00 AM	0	0	0	0	26	0	0	0	18	40	0	0	0	0	0	0	84
08:15 AM	0	0	0	0	13	0	0	0	35	43	0	0	0	0	0	0	91
08:30 AM	0	0	0	0	30	0	0	0	27	49	0	0	0	0	0	0	106
08:45 AM	0	0	0	0	24	0	0	0	42	49	0	0	0	0	0	0	115
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>93</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>122</b>	<b>181</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>396</b>
Grand Total	0	0	0	0	143	0	0	0	215	329	0	0	0	0	0	0	687
Apprch %	0	0	0	0	100	0	0	0	39.5	60.5	0	0	0	0	0	0	
Total %	0	0	0	0	20.8	0	0	0	31.3	47.9	0	0	0	0	0	0	
Cars	0	0	0	0	130	0	0	0	201	263	0	0	0	0	0	0	594
% Cars	0	0	0	0	90.9	0	0	0	93.5	79.9	0	0	0	0	0	0	86.5
Heavy Vehicles	0	0	0	0	13	0	0	0	14	66	0	0	0	0	0	0	93
% Heavy Vehicles	0	0	0	0	9.1	0	0	0	6.5	20.1	0	0	0	0	0	0	13.5

Start Time	Washington Street From North					Avenue de Lafayette From East					Washington Street From South					Sidewalk From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
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	26	0	0	0	26	18	40	0	0	58	0	0	0	0	0	84
08:15 AM	0	0	0	0	0	13	0	0	0	13	35	43	0	0	78	0	0	0	0	0	91
08:30 AM	0	0	0	0	0	<b>30</b>	0	0	0	<b>30</b>	<b>27</b>	<b>49</b>	0	0	<b>76</b>	0	0	0	0	0	106
08:45 AM	0	0	0	0	0	24	0	0	0	24	<b>42</b>	<b>49</b>	0	0	<b>91</b>	0	0	0	0	0	115
Total Volume	0	0	0	0	0	93	0	0	0	93	122	181	0	0	303	0	0	0	0	0	396
% App. Total	0	0	0	0	0	100	0	0	0	100	40.3	59.7	0	0	100	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.775	.000	.000	.000	.775	.726	.923	.000	.000	.832	.000	.000	.000	.000	.000	.861
Cars	0	0	0	0	0	85	0	0	0	85	115	150	0	0	265	0	0	0	0	0	350
% Cars	0	0	0	0	0	91.4	0	0	0	91.4	94.3	82.9	0	0	87.5	0	0	0	0	0	88.4
Heavy Vehicles	0	0	0	0	0	8	0	0	0	8	7	31	0	0	38	0	0	0	0	0	46
% Heavy Vehicles	0	0	0	0	0	8.6	0	0	0	8.6	5.7	17.1	0	0	12.5	0	0	0	0	0	11.6



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N/S: Washington Street  
E: Avenue de Lafayette  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 E  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Cars

Start Time	Washington Street From North				Avenue de Lafayette From East				Washington Street From South				Sidewalk From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	0	0	0	0	13	0	0	0	18	24	0	0	0	0	0	0	55
07:15 AM	0	0	0	0	11	0	0	0	21	19	0	0	0	0	0	0	51
07:30 AM	0	0	0	0	10	0	0	0	22	32	0	0	0	0	0	0	64
07:45 AM	0	0	0	0	11	0	0	0	25	38	0	0	0	0	0	0	74
Total	0	0	0	0	45	0	0	0	86	113	0	0	0	0	0	0	244
08:00 AM	0	0	0	0	23	0	0	0	17	32	0	0	0	0	0	0	72
08:15 AM	0	0	0	0	13	0	0	0	32	38	0	0	0	0	0	0	83
08:30 AM	0	0	0	0	26	0	0	0	25	37	0	0	0	0	0	0	88
08:45 AM	0	0	0	0	23	0	0	0	41	43	0	0	0	0	0	0	107
Total	0	0	0	0	85	0	0	0	115	150	0	0	0	0	0	0	350
Grand Total	0	0	0	0	130	0	0	0	201	263	0	0	0	0	0	0	594
Apprch %	0	0	0	0	100	0	0	0	43.3	56.7	0	0	0	0	0	0	
Total %	0	0	0	0	21.9	0	0	0	33.8	44.3	0	0	0	0	0	0	

Start Time	Washington Street From North					Avenue de Lafayette From East					Washington Street From South					Sidewalk From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
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	23	0	0	0	23	17	32	0	0	49	0	0	0	0	0	72
08:15 AM	0	0	0	0	0	13	0	0	0	13	32	38	0	0	70	0	0	0	0	0	83
08:30 AM	0	0	0	0	0	26	0	0	0	26	25	37	0	0	62	0	0	0	0	0	88
08:45 AM	0	0	0	0	0	23	0	0	0	23	41	43	0	0	84	0	0	0	0	0	107
Total Volume	0	0	0	0	0	85	0	0	0	85	115	150	0	0	265	0	0	0	0	0	350
% App. Total	0	0	0	0	0	100	0	0	0	100	43.4	56.6	0	0	100	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.817	.000	.000	.000	.817	.701	.872	.000	.000	.789	.000	.000	.000	.000	.000	.818



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N/S: Washington Street  
E: Avenue de Lafayette  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 E  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Washington Street From North				Avenue de Lafayette From East				Washington Street From South				Sidewalk From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	0	0	0	0	1	0	0	0	2	7	0	0	0	0	0	0	10
07:15 AM	0	0	0	0	2	0	0	0	0	8	0	0	0	0	0	0	10
07:30 AM	0	0	0	0	0	0	0	0	2	9	0	0	0	0	0	0	11
07:45 AM	0	0	0	0	2	0	0	0	3	11	0	0	0	0	0	0	16
<b>Total</b>	0	0	0	0	5	0	0	0	7	35	0	0	0	0	0	0	47
08:00 AM	0	0	0	0	3	0	0	0	1	8	0	0	0	0	0	0	12
08:15 AM	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	0	8
08:30 AM	0	0	0	0	4	0	0	0	2	12	0	0	0	0	0	0	18
08:45 AM	0	0	0	0	1	0	0	0	1	6	0	0	0	0	0	0	8
<b>Total</b>	0	0	0	0	8	0	0	0	7	31	0	0	0	0	0	0	46
<b>Grand Total</b>	0	0	0	0	13	0	0	0	14	66	0	0	0	0	0	0	93
Apprch %	0	0	0	0	100	0	0	0	17.5	82.5	0	0	0	0	0	0	
Total %	0	0	0	0	14	0	0	0	15.1	71	0	0	0	0	0	0	

Start Time	Washington Street From North					Avenue de Lafayette From East					Washington Street From South					Sidewalk From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	2	0	0	0	2	3	11	0	0	14	0	0	0	0	0	16
08:00 AM	0	0	0	0	0	3	0	0	0	3	1	8	0	0	9	0	0	0	0	0	12
08:15 AM	0	0	0	0	0	0	0	0	0	0	3	5	0	0	8	0	0	0	0	0	8
08:30 AM	0	0	0	0	0	4	0	0	0	4		12	0	0	14	0	0	0	0	0	18
Total Volume	0	0	0	0	0	9	0	0	0	9	9	36	0	0	45	0	0	0	0	0	54
% App. Total	0	0	0	0	0	100	0	0	0	0	20	80	0	0	0	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.563	.000	.000	.000	.563	.750	.750	.000	.000	.804	.000	.000	.000	.000	.000	.750



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File Name : 123011 E  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
E: Avenue de Lafayette  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Peds and Bikes

Start Time	Washington Street From North				Avenue de Lafayette From East				Washington Street From South				Sidewalk From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	0	0	8	0	0	0	33	1	3	0	12	0	0	0	50	107
07:15 AM	0	3	0	14	1	0	0	38	1	5	0	14	0	0	0	39	115
07:30 AM	0	1	0	7	0	0	0	50	3	9	0	22	0	0	0	48	140
07:45 AM	0	0	0	21	2	0	0	86	2	13	0	21	0	0	0	57	202
Total	0	4	0	50	3	0	0	207	7	30	0	69	0	0	0	194	564
08:00 AM	0	0	0	21	0	0	0	80	2	15	0	23	0	0	0	63	204
08:15 AM	0	0	0	10	1	0	0	70	0	6	0	20	0	0	0	46	153
08:30 AM	0	0	0	13	0	0	0	73	0	6	0	13	0	0	0	36	141
08:45 AM	0	0	0	13	0	0	0	57	0	6	0	9	0	0	0	51	136
Total	0	0	0	57	1	0	0	280	2	33	0	65	0	0	0	196	634
Grand Total	0	4	0	107	4	0	0	487	9	63	0	134	0	0	0	390	1198
Apprch %	0	3.6	0	96.4	0.8	0	0	99.2	4.4	30.6	0	65	0	0	0	100	
Total %	0	0.3	0	8.9	0.3	0	0	40.7	0.8	5.3	0	11.2	0	0	0	32.6	

Start Time	Washington Street From North					Avenue de Lafayette From East					Washington Street From South					Sidewalk From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	21	21	2	0	0	86	88	2	13	0	21	36	0	0	0	57	57	202
08:00 AM	0	0	0	21	21	0	0	0	80	80	2	15	0	23	40	0	0	0	63	63	204
08:15 AM	0	0	0	10	10	1	0	0	70	71	0	6	0	20	26	0	0	0	46	46	153
08:30 AM	0	0	0	13	13	0	0	0	73	73	0	6	0	13	19	0	0	0	36	36	141
Total Volume	0	0	0	65	65	3	0	0	309	312	4	40	0	77	121	0	0	0	202	202	700
% App. Total	0	0	0	100		1	0	0	99		3.3	33.1	0	63.6		0	0	0	100		
PHF	.000	.000	.000	.774	.774	.375	.000	.000	.898	.886	.500	.667	.000	.837	.756	.000	.000	.000	.802	.802	.858





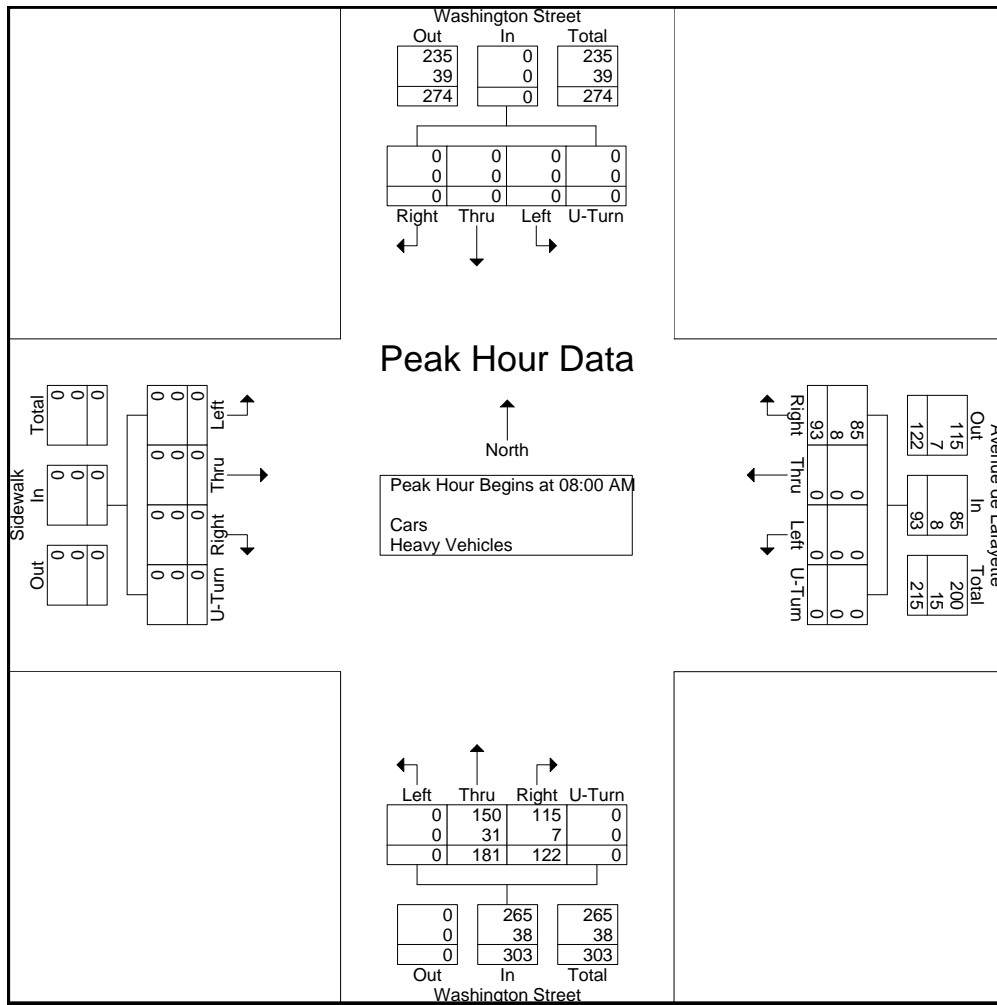
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File Name : 123011 E  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
E: Avenue de Lafayette  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Start Time	Washington Street From North					Avenue de Lafayette From East					Washington Street From South					Sidewalk From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
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	26	0	0	0	26	18	40	0	0	58	0	0	0	0	0	84
08:15 AM	0	0	0	0	0	13	0	0	0	13	35	43	0	0	78	0	0	0	0	0	91
08:30 AM	0	0	0	0	0	<b>30</b>	0	0	0	<b>30</b>	<b>27</b>	<b>49</b>	0	0	<b>76</b>	0	0	0	0	0	106
08:45 AM	0	0	0	0	0	24	0	0	0	24	<b>42</b>				<b>91</b>	0	0	0	0	0	<b>115</b>
Total Volume	0	0	0	0	0	93	0	0	0	93	122	181	0	0	303	0	0	0	0	0	396
% App. Total	0	0	0	0	0	100	0	0	0	0	40.3	59.7	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.775	.000	.000	.000	.775	.726	.923	.000	.000	.832	.000	.000	.000	.000	.000	.861
Cars	0	0	0	0	0	85	0	0	0	85	115	150	0	0	265	0	0	0	0	0	350
% Cars	0	0	0	0	0	91.4	0	0	0	91.4	94.3	82.9	0	0	87.5	0	0	0	0	0	88.4
Heavy Vehicles	0	0	0	0	0	8	0	0	0	8	7	31	0	0	38	0	0	0	0	0	46
% Heavy Vehicles	0	0	0	0	0	8.6	0	0	0	8.6	5.7	17.1	0	0	12.5	0	0	0	0	0	11.6





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File Name : 123011 EE  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
E: Avenue de Lafayette  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars - Heavy Vehicles

Start Time	Washington Street From North				Avenue de Lafayette From East				Washington Street From South				Sidewalk From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	0	0	0	17	0	0	0	18	78	0	0	0	0	0	0	113
04:15 PM	0	1	0	0	16	0	0	0	24	46	0	0	0	0	0	0	87
04:30 PM	0	0	0	0	25	0	0	0	27	76	0	0	0	0	0	0	128
04:45 PM	0	0	0	0	21	0	0	0	38	54	0	0	0	0	0	0	113
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>79</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>107</b>	<b>254</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>441</b>
05:00 PM	0	0	0	0	35	0	0	0	35	74	0	0	0	0	0	0	144
05:15 PM	0	0	0	0	31	0	0	0	40	65	0	0	0	0	0	0	136
05:30 PM	0	0	0	0	36	0	0	0	44	52	0	0	0	0	0	0	132
05:45 PM	0	0	0	0	33	0	0	0	48	59	0	0	0	0	0	0	140
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>135</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>167</b>	<b>250</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>552</b>
<b>Grand Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>214</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>274</b>	<b>504</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>993</b>
Apprch %	0	100	0	0	100	0	0	0	35.2	64.8	0	0	0	0	0	0	
Total %	0	0.1	0	0	21.6	0	0	0	27.6	50.8	0	0	0	0	0	0	
Cars	0	1	0	0	211	0	0	0	269	474	0	0	0	0	0	0	955
% Cars	0	100	0	0	98.6	0	0	0	98.2	94	0	0	0	0	0	0	96.2
Heavy Vehicles	0	0	0	0	3	0	0	0	5	30	0	0	0	0	0	0	38
% Heavy Vehicles	0	0	0	0	1.4	0	0	0	1.8	6	0	0	0	0	0	0	3.8

Start Time	Washington Street From North					Avenue de Lafayette From East					Washington Street From South					Sidewalk From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
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	35	0	0	0	35	35	74	0	0	109	0	0	0	0	0	144
05:15 PM	0	0	0	0	0	31	0	0	0	31	40	65	0	0	105	0	0	0	0	0	136
05:30 PM	0	0	0	0	0	36	0	0	0	36	44	52	0	0	96	0	0	0	0	0	132
05:45 PM	0	0	0	0	0	33	0	0	0	33	48	59	0	0	107	0	0	0	0	0	140
Total Volume	0	0	0	0	0	135	0	0	0	135	167	250	0	0	417	0	0	0	0	0	552
% App. Total	0	0	0	0	0	100	0	0	0	100	40	60	0	0	100	0	0	0	0	0	100
PHF	.000	.000	.000	.000	.000	.938	.000	.000	.000	.938	.870	.845	.000	.000	.956	.000	.000	.000	.000	.000	.958
Cars	0	0	0	0	0	133	0	0	0	133	165	239	0	0	404	0	0	0	0	0	537
% Cars	0	0	0	0	0	98.5	0	0	0	98.5	98.8	95.6	0	0	96.9	0	0	0	0	0	97.3
Heavy Vehicles	0	0	0	0	0	2	0	0	0	2	2	11	0	0	13	0	0	0	0	0	15
% Heavy Vehicles	0	0	0	0	0	1.5	0	0	0	1.5	1.2	4.4	0	0	3.1	0	0	0	0	0	2.7





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N/S: Washington Street  
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City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Heavy Vehicles

Start Time	Washington Street From North				Avenue de Lafayette From East				Washington Street From South				Sidewalk From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	0	0	0	1	0	0	0	1	7	0	0	0	0	0	0	9
04:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	1	7	0	0	0	0	0	0	8
04:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
<b>Total</b>	0	0	0	0	1	0	0	0	3	19	0	0	0	0	0	0	23
05:00 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	6
05:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	1	0	0	0	0	3	0	0	0	0	0	0	4
<b>Total</b>	0	0	0	0	2	0	0	0	2	11	0	0	0	0	0	0	15
<b>Grand Total</b>	0	0	0	0	3	0	0	0	5	30	0	0	0	0	0	0	38
Apprch %	0	0	0	0	100	0	0	0	14.3	85.7	0	0	0	0	0	0	
Total %	0	0	0	0	7.9	0	0	0	13.2	78.9	0	0	0	0	0	0	

Start Time	Washington Street From North					Avenue de Lafayette From East					Washington Street From South					Sidewalk From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	1	0	0	0	1	1	7	0	0	8	0	0	0	0	0	9
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	8
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
Total Volume	0	0	0	0	0	1	0	0	0	1	3	19	0	0	22	0	0	0	0	0	23
% App. Total	0	0	0	0	0	100	0	0	0	0	13.6	86.4	0	0	0	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.750	.679	.000	.000	.688	.000	.000	.000	.000	.000	.639



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File Name : 123011 EE  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Peds and Bikes

Start Time	Washington Street From North				Avenue de Lafayette From East				Washington Street From South				Sidewalk From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	0	4	0	38	0	0	0	188	0	12	0	44	0	0	0	171	457
04:15 PM	0	3	1	53	2	0	3	134	0	6	0	36	0	0	0	191	429
04:30 PM	0	0	0	48	1	0	2	180	1	7	0	45	0	0	0	198	482
04:45 PM	0	0	0	36	3	0	2	140	0	6	0	40	0	0	0	176	403
Total	0	7	1	175	6	0	7	642	1	31	0	165	0	0	0	736	1771
05:00 PM	0	0	0	60	2	0	0	181	2	10	0	42	0	0	0	216	513
05:15 PM	0	0	0	87	6	0	0	159	0	3	0	61	0	0	0	253	569
05:30 PM	0	0	0	68	2	0	0	199	0	9	0	69	0	0	0	215	562
05:45 PM	0	0	0	74	7	0	0	165	1	3	0	51	0	0	0	257	558
Total	0	0	0	289	17	0	0	704	3	25	0	223	0	0	0	941	2202
Grand Total	0	7	1	464	23	0	7	1346	4	56	0	388	0	0	0	1677	3973
Apprch %	0	1.5	0.2	98.3	1.7	0	0.5	97.8	0.9	12.5	0	86.6	0	0	0	100	
Total %	0	0.2	0	11.7	0.6	0	0.2	33.9	0.1	1.4	0	9.8	0	0	0	42.2	

Start Time	Washington Street From North					Avenue de Lafayette From East					Washington Street From South					Sidewalk From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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	60	60	2	0	0	181	183	2	10	0	42	54	0	0	0	216	216	513
05:15 PM	0	0	0	87	87	6	0	0	159	165	0	3	0	61	64	0	0	0	253	253	569
05:30 PM	0	0	0	68	68	2	0	0	199	201	0	9	0	69	78	0	0	0	215	215	562
05:45 PM	0	0	0	74	74	7	0	0	165	172	1	3	0	51	55	0	0	0	257	257	
Total Volume	0	0	0	289	289	17	0	0	704	721	3	25	0	223	251	0	0	0	941	941	2202
% App. Total	0	0	0	100		2.4	0	0	97.6		1.2	10	0	88.8		0	0	0	100		
PHF	.000	.000	.000	.830	.830	.607	.000	.000	.884	.897	.375	.625	.000	.808	.804	.000	.000	.000	.915	.915	.967



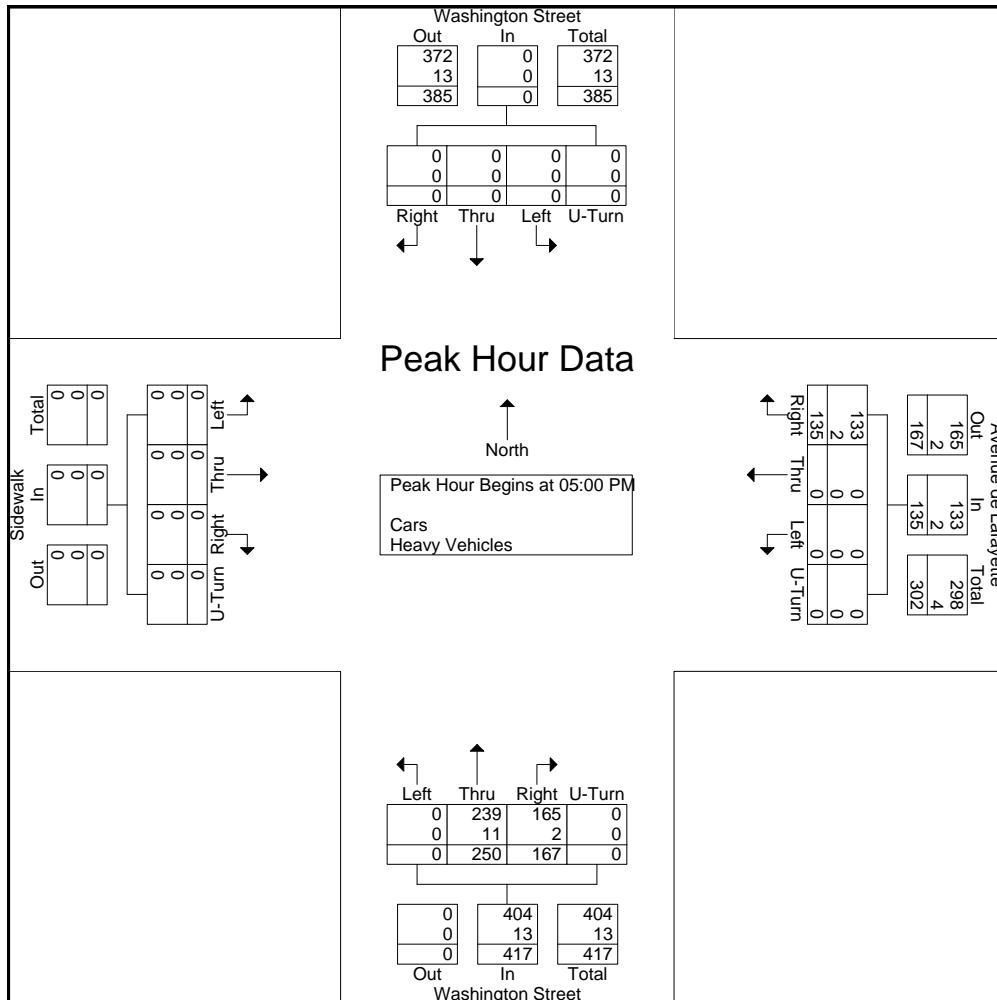
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File Name : 123011 EE  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
E: Avenue de Lafayette  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Start Time	Washington Street From North					Avenue de Lafayette From East					Washington Street From South					Sidewalk From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
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	35	0	0	0	35	35	74	0	0	109	0	0	0	0	0	144
05:15 PM	0	0	0	0	0	31	0	0	0	31	40	65	0	0	105	0	0	0	0	0	136
05:30 PM	0	0	0	0	0	36	0	0	0	36	44	52	0	0	96	0	0	0	0	0	132
05:45 PM	0	0	0	0	0	33	0	0	0	33	48	59	0	0	107	0	0	0	0	0	140
Total Volume	0	0	0	0	0	135	0	0	0	135	167	250	0	0	417	0	0	0	0	0	552
% App. Total	0	0	0	0	0	100	0	0	0	100	40	60	0	0	100	0	0	0	0	0	100
PHF	.000	.000	.000	.000	.000	.938	.000	.000	.000	.938	.870	.845	.000	.000	.956	.000	.000	.000	.000	.000	.958
Cars	0	0	0	0	0	133	0	0	0	133	165	239	0	0	404	0	0	0	0	0	537
% Cars	0	0	0	0	0	98.5	0	0	0	98.5	98.8	95.6	0	0	96.9	0	0	0	0	0	97.3
Heavy Vehicles	0	0	0	0	0	2	0	0	0	2	2	11	0	0	13	0	0	0	0	0	15
% Heavy Vehicles	0	0	0	0	0	1.5	0	0	0	1.5	1.2	4.4	0	0	3.1	0	0	0	0	0	2.7





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File Name : 123011 C  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
W: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars - Heavy Vehicles

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				Temple Place From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	0	0	0	0	0	0	0	0	0	12	11	0	0	0	0	0	23
07:15 AM	0	0	0	0	0	0	0	0	0	10	8	0	0	0	0	0	18
07:30 AM	0	0	0	0	0	0	0	0	0	13	11	0	0	0	0	0	24
07:45 AM	0	0	0	0	0	0	0	0	0	11	11	0	0	0	0	0	22
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>46</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>87</b>
08:00 AM	0	0	0	0	0	0	0	0	0	13	13	0	0	0	0	0	26
08:15 AM	0	0	0	0	0	0	0	0	0	4	10	0	0	0	0	0	14
08:30 AM	0	0	0	0	0	0	0	0	0	15	33	0	0	0	0	0	48
08:45 AM	0	0	0	0	0	0	0	0	0	14	14	0	0	0	0	0	28
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>46</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>116</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>92</b>	<b>111</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>203</b>
Apprch %	0	0	0	0	0	0	0	0	0	45.3	54.7	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	45.3	54.7	0	0	0	0	0	
Cars	0	0	0	0	0	0	0	0	0	61	81	0	0	0	0	0	142
% Cars	0	0	0	0	0	0	0	0	0	66.3	73	0	0	0	0	0	70
Heavy Vehicles	0	0	0	0	0	0	0	0	0	31	30	0	0	0	0	0	61
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	33.7	27	0	0	0	0	0	30

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					Temple Place From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	13	13	0	26	0	0	0	0	0	26
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	10	0	14	0	0	0	0	0	14
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	15	33	0	48	0	0	0	0	0	48
<b>08:45 AM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>28</b>
Total Volume	0	0	0	0	0	0	0	0	0	0	0	46	70	0	116	0	0	0	0	0	116
% App. Total	0	0	0	0	0	0	0	0	0	0	0	39.7	60.3	0		0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.767	.530	.000	.604	.000	.000	.000	.000	.000	.604
Cars	0	0	0	0	0	0	0	0	0	0	0	32	56	0	88	0	0	0	0	0	88
% Cars	0	0	0	0	0	0	0	0	0	0	0	69.6	80.0	0	75.9	0	0	0	0	0	75.9
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	28
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	30.4	20.0	0	24.1	0	0	0	0	0	24.1



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File Name : 123011 C  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
W: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				Temple Place From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	0	0	0	0	0	0	0	0	0	8	7	0	0	0	0	0	15
07:15 AM	0	0	0	0	0	0	0	0	0	5	4	0	0	0	0	0	9
07:30 AM	0	0	0	0	0	0	0	0	0	9	6	0	0	0	0	0	15
07:45 AM	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	15
Total	0	0	0	0	0	0	0	0	0	29	25	0	0	0	0	0	54
08:00 AM	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	18
08:15 AM	0	0	0	0	0	0	0	0	0	3	8	0	0	0	0	0	11
08:30 AM	0	0	0	0	0	0	0	0	0	8	30	0	0	0	0	0	38
08:45 AM	0	0	0	0	0	0	0	0	0	12	9	0	0	0	0	0	21
Total	0	0	0	0	0	0	0	0	0	32	56	0	0	0	0	0	88
Grand Total	0	0	0	0	0	0	0	0	0	61	81	0	0	0	0	0	142
Apprch %	0	0	0	0	0	0	0	0	0	43	57	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	43	57	0	0	0	0	0	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					Temple Place From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	9	9	0	18	0	0	0	0	0	18
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	8	0	11	0	0	0	0	0	11
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	8	30	0	38	0	0	0	0	0	38
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	12	9	0	21	0	0	0	0	0	21
Total Volume	0	0	0	0	0	0	0	0	0	0	0	32	56	0	88	0	0	0	0	0	88
% App. Total	0	0	0	0	0	0	0	0	0	0	0	36.4	63.6	0		0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.667	.467	.000	.579	.000	.000	.000	.000	.000	.579





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N/S: Washington Street  
W: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 C  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				Temple Place From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	8
07:15 AM	0	0	0	0	0	0	0	0	0	5	4	0	0	0	0	0	9
07:30 AM	0	0	0	0	0	0	0	0	0	4	5	0	0	0	0	0	9
07:45 AM	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	7
Total	0	0	0	0	0	0	0	0	0	17	16	0	0	0	0	0	33
08:00 AM	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	8
08:15 AM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	7	3	0	0	0	0	0	10
08:45 AM	0	0	0	0	0	0	0	0	0	2	5	0	0	0	0	0	7
Total	0	0	0	0	0	0	0	0	0	14	14	0	0	0	0	0	28
Grand Total	0	0	0	0	0	0	0	0	0	31	30	0	0	0	0	0	61
Apprch %	0	0	0	0	0	0	0	0	0	50.8	49.2	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	50.8	49.2	0	0	0	0	0	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					Temple Place From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	4	0	8	0	0	0	0	0	8
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	5	4	0	9	0	0	0	0	0	9
<b>07:30 AM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	3	0	7	0	0	0	0	0	7
Total Volume	0	0	0	0	0	0	0	0	0	0	0	17	16	0	33	0	0	0	0	0	33
% App. Total	0	0	0	0	0	0	0	0	0	0	0	51.5	48.5	0	.917	0	0	0	0	0	.917
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.850	.800	.000	.917	.000	.000	.000	.000	.000	.917



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File Name : 123011 C  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
W: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Peds and Bikes

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				Temple Place From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	1	0	26	0	0	0	38	0	3	0	1	0	0	0	35	104
07:15 AM	1	2	0	19	0	0	0	32	0	5	0	1	0	0	0	25	85
07:30 AM	0	2	0	36	0	0	0	39	0	11	0	5	0	0	0	47	140
07:45 AM	1	1	0	40	0	0	0	72	0	11	0	5	0	0	0	48	178
Total	2	6	0	121	0	0	0	181	0	30	0	12	0	0	0	155	507
08:00 AM	0	0	0	57	0	0	0	83	0	14	2	12	0	0	0	60	228
08:15 AM	0	0	0	42	0	0	0	71	0	7	0	8	0	0	1	46	175
08:30 AM	1	0	0	34	0	0	0	97	0	6	0	7	0	0	0	29	174
08:45 AM	0	0	0	45	0	0	0	72	0	5	0	8	0	0	0	27	157
Total	1	0	0	178	0	0	0	323	0	32	2	35	0	0	1	162	734
Grand Total	3	6	0	299	0	0	0	504	0	62	2	47	0	0	1	317	1241
Apprch %	1	1.9	0	97.1	0	0	0	100	0	55.9	1.8	42.3	0	0	0.3	99.7	
Total %	0.2	0.5	0	24.1	0	0	0	40.6	0	5	0.2	3.8	0	0	0.1	25.5	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					Temple Place From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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	1	0	40	42	0	0	0	72	72	0	11	0	5	16	0	0	0	48	48	178
08:00 AM	0	0	0	57	57	0	0	0	83	83	0	14	2	12	28	0	0	0	60	60	228
08:15 AM	0	0	0	42	42	0	0	0	71	71	0	7	0	8	15	0	0	1	46	47	175
08:30 AM	1	0	0	34	35	0	0	0	97	97											
Total Volume	2	1	0	173	176	0	0	0	323	323	0	38	2	32	72	0	0	1	183	184	755
% App. Total	1.1	0.6	0	98.3		0	0	0	100		0	52.8	2.8	44.4		0	0	0.5	99.5		
PHF	.500	.250	.000	.759	.772	.000	.000	.000	.832	.832	.000	.679	.250	.667	.643	.000	.000	.250	.763	.767	.828



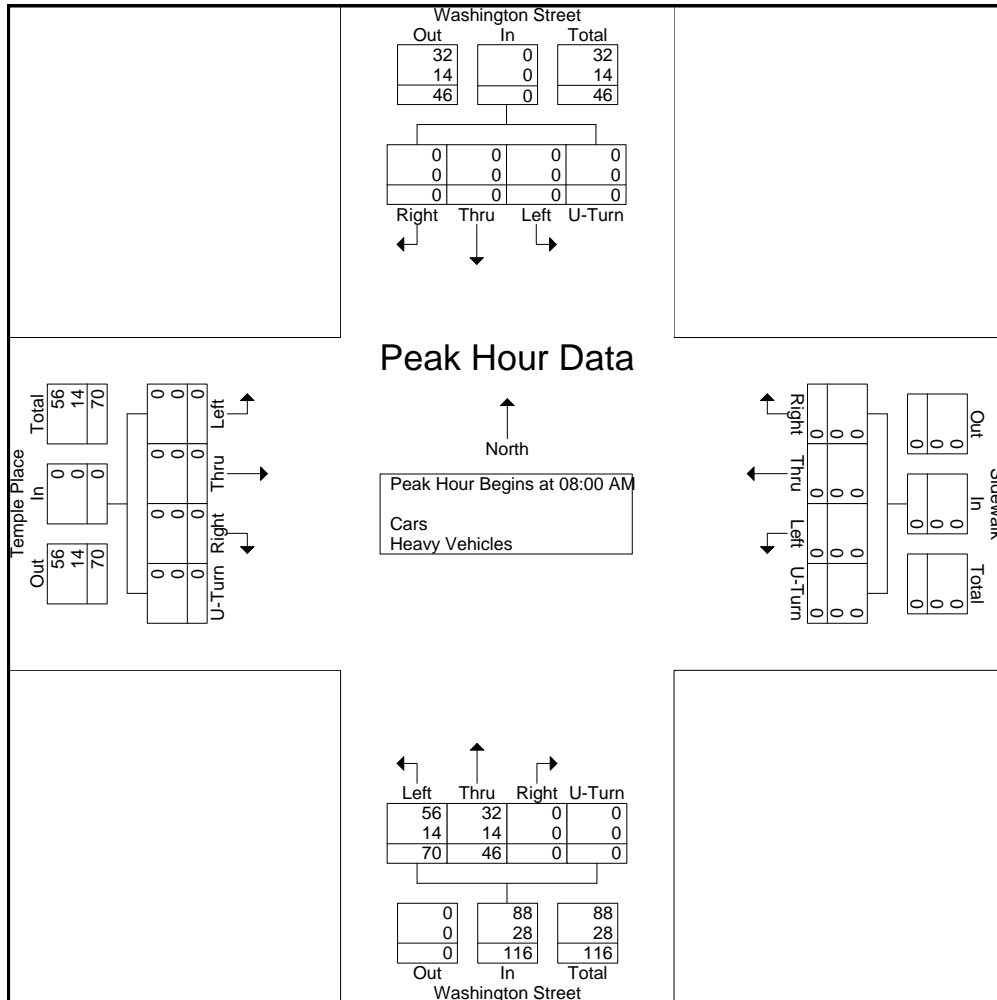
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N/S: Washington Street  
W: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 C  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					Temple Place From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	13	13	0	26	0	0	0	0	0	26
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	10	0	14	0	0	0	0	0	14
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	15	33	0	48	0	0	0	0	0	48
<b>08:45 AM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>28</b>
Total Volume	0	0	0	0	0	0	0	0	0	0	0	46	70	0	116	0	0	0	0	0	116
% App. Total	0	0	0	0	0	0	0	0	0	0	0	39.7	60.3	0		0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.767	.530	.000	.604	.000	.000	.000	.000	.000	.604
Cars	0	0	0	0	0	0	0	0	0	0	0	32	56	0	88	0	0	0	0	0	88
% Cars	0	0	0	0	0	0	0	0	0	0	0	69.6	80.0	0	75.9	0	0	0	0	0	75.9
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	28
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	30.4	20.0	0	24.1	0	0	0	0	0	24.1





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

File Name : 123011 CC  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
W: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars - Heavy Vehicles

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				Temple Place From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	0	0	0	0	0	0	0	0	3	32	0	0	0	0	0	35
04:15 PM	0	0	0	0	0	0	0	0	0	1	22	0	0	0	0	0	23
04:30 PM	1	0	0	0	0	0	0	0	0	4	39	0	0	0	0	0	44
04:45 PM	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	14
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>107</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>116</b>
05:00 PM	1	0	0	0	0	0	0	0	0	6	25	0	0	0	0	0	32
05:15 PM	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	25
05:30 PM	0	0	0	0	0	0	0	0	0	1	18	0	0	0	0	0	19
05:45 PM	0	0	0	0	0	0	0	0	0	2	24	0	0	0	0	0	26
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>92</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>102</b>
<b>Grand Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>199</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>218</b>
Apprch %	100	0	0	0	0	0	0	0	0	7.9	92.1	0	0	0	0	0	
Total %	0.9	0	0	0	0	0	0	0	0	7.8	91.3	0	0	0	0	0	
Cars	2	0	0	0	0	0	0	0	0	10	174	0	0	0	0	0	186
% Cars	100	0	0	0	0	0	0	0	0	58.8	87.4	0	0	0	0	0	85.3
Heavy Vehicles	0	0	0	0	0	0	0	0	0	7	25	0	0	0	0	0	32
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	41.2	12.6	0	0	0	0	0	14.7

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					Temple Place From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	32	0	35	0	0	0	0	0	35
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	22	0	23	0	0	0	0	0	23
04:30 PM	1	0	0	0	1	0	0	0	0	0	0	4	39	0	43	0	0	0	0	0	44
<b>04:45 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>
Total Volume	1	0	0	0	1	0	0	0	0	0	0	8	107	0	115	0	0	0	0	0	116
% App. Total	100	0	0	0		0	0	0	0		0	7	93	0		0	0	0	0		
PHF	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.500	.686	.000	.669	.000	.000	.000	.000	.000	.659
Cars	1	0	0	0	1	0	0	0	0	0	0	3	92	0	95	0	0	0	0	0	96
% Cars	100	0	0	0	100	0	0	0	0	0	0	37.5	86.0	0	82.6	0	0	0	0	0	82.8
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	5	15	0	20	0	0	0	0	0	20
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	62.5	14.0	0	17.4	0	0	0	0	0	17.2



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INDUSTRIES, LLC

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File Name : 123011 CC  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
W: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Cars

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				Temple Place From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	0	0	0	0	0	0	0	0	1	26	0	0	0	0	0	27
04:15 PM	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21
04:30 PM	1	0	0	0	0	0	0	0	0	2	33	0	0	0	0	0	36
04:45 PM	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>92</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>96</b>
05:00 PM	1	0	0	0	0	0	0	0	0	4	24	0	0	0	0	0	29
05:15 PM	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	22
05:30 PM	0	0	0	0	0	0	0	0	0	1	15	0	0	0	0	0	16
05:45 PM	0	0	0	0	0	0	0	0	0	2	21	0	0	0	0	0	23
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>82</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>90</b>
<b>Grand Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>174</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>186</b>
Apprch %	100	0	0	0	0	0	0	0	0	5.4	94.6	0	0	0	0	0	
Total %	1.1	0	0	0	0	0	0	0	0	5.4	93.5	0	0	0	0	0	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					Temple Place From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
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	1	0	0	0	1	0	0	0	0	0	0	2	33	0	35	0	0	0	0	0	36
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	12	0	12	0	0	0	0	0	12
05:00 PM	1	0	0	0	1	0	0	0	0	0	0	4	24	0	28	0	0	0	0	0	29
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	22	0	22	0	0	0	0	0	22
Total Volume	2	0	0	0	2	0	0	0	0	0	0	6	91	0	97	0	0	0	0	0	99
% App. Total	100	0	0	0		0	0	0	0		0	6.2	93.8	0		0	0	0	0		
PHF	.500	.000	.000	.000	.500	.000	.000	.000	.000	.000	.000	.375	.689	.000	.693	.000	.000	.000	.000	.000	.688



PRECISION  
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INDUSTRIES, LLC

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File Name : 123011 CC  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
W: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Heavy Vehicles

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				Temple Place From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	0	0	0	0	0	0	0	0	2	6	0	0	0	0	0	8
04:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	2	6	0	0	0	0	0	8
04:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
<b>Total</b>	0	0	0	0	0	0	0	0	0	5	15	0	0	0	0	0	20
05:00 PM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
<b>Total</b>	0	0	0	0	0	0	0	0	0	2	10	0	0	0	0	0	12
<b>Grand Total</b>	0	0	0	0	0	0	0	0	0	7	25	0	0	0	0	0	32
Apprch %	0	0	0	0	0	0	0	0	0	21.9	78.1	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	21.9	78.1	0	0	0	0	0	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					Temple Place From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	6	0	8	0	0	0	0	0	8
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	6	0	8	0	0	0	0	0	8
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	5	15	0	20	0	0	0	0	0	20
% App. Total	0	0	0	0	0	0	0	0	0	0	0	25	75	0	100	0	0	0	0	0	100
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625	.625	.000	.625	.000	.000	.000	.000	.000	.625



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File Name : 123011 CC  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

N/S: Washington Street  
W: Temple Place  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

Groups Printed- Peds and Bikes

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				Temple Place From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	1	3	0	66	0	0	0	324	0	9	0	20	1	0	1	196	621
04:15 PM	0	5	0	46	0	0	0	226	0	4	0	15	0	0	1	221	518
04:30 PM	1	0	0	66	0	0	0	234	0	6	1	32	0	0	2	171	513
04:45 PM	3	2	0	44	0	0	0	186	0	6	0	27	0	0	1	170	439
Total	5	10	0	222	0	0	0	970	0	25	1	94	1	0	5	758	2091
05:00 PM	4	4	0	107	0	0	0	288	0	9	0	13	0	0	0	214	639
05:15 PM	4	0	0	83	0	0	0	264	0	6	2	6	1	0	0	249	615
05:30 PM	3	0	0	74	0	0	0	223	0	6	0	9	0	0	1	223	539
05:45 PM	4	3	0	73	0	0	0	220	0	6	0	7	0	0	0	214	527
Total	15	7	0	337	0	0	0	995	0	27	2	35	1	0	1	900	2320
Grand Total	20	17	0	559	0	0	0	1965	0	52	3	129	2	0	6	1658	4411
Apprch %	3.4	2.9	0	93.8	0	0	0	100	0	28.3	1.6	70.1	0.1	0	0.4	99.5	
Total %	0.5	0.4	0	12.7	0	0	0	44.5	0	1.2	0.1	2.9	0	0	0.1	37.6	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					Temple Place From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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	0	107	115	0	0	0	288	288	0	9	0	13	22	0	0	0	214	214	639
05:15 PM	4	0	0	83	87	0	0	0	264	264	0	6	2	6	14	1	0	0	249	250	615
05:30 PM	3	0	0	74	77	0	0	0	223	223	0	6	0	9	15	0	0	1	223	224	539
05:45 PM	4	3	0	73	80	0	0	0	220	220	0	6	0	7	13	0	0	0	214	214	527
Total Volume	15	7	0	337	359	0	0	0	995	995	0	27	2	35	64	1	0	1	900	902	2320
% App. Total	4.2	1.9	0	93.9		0	0	0	100		0	42.2	3.1	54.7		0.1	0	0.1	99.8		
PHF	.938	.438	.000	.787	.780	.000	.000	.000	.864	.864	.000	.750	.250	.673	.727	.250	.000	.250	.904	.902	.908



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N/S: Washington Street  
W: West Street  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 D  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				West Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	0	0	0	0	0	0	0	0	0	24	20	0	0	0	0	0	44
07:15 AM	0	0	0	0	0	0	0	0	0	18	19	0	0	0	0	0	37
07:30 AM	0	0	0	0	0	0	0	0	0	23	32	0	0	0	0	0	55
07:45 AM	0	0	0	0	0	0	0	0	0	23	35	0	0	0	0	0	58
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>106</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>194</b>
08:00 AM	0	0	0	0	0	0	0	0	0	25	42	0	0	0	0	0	67
08:15 AM	0	0	0	0	0	0	0	0	0	14	46	0	0	0	0	0	60
08:30 AM	0	0	0	0	0	0	0	0	0	52	38	0	0	0	0	0	90
08:45 AM	0	0	0	0	0	0	0	0	0	22	52	0	0	0	0	0	74
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>113</b>	<b>178</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>291</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>201</b>	<b>284</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>485</b>
Apprch %	0	0	0	0	0	0	0	0	0	41.4	58.6	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	41.4	58.6	0	0	0	0	0	
Cars	0	0	0	0	0	0	0	0	0	141	263	0	0	0	0	0	404
% Cars	0	0	0	0	0	0	0	0	0	70.1	92.6	0	0	0	0	0	83.3
Heavy Vehicles	0	0	0	0	0	0	0	0	0	60	21	0	0	0	0	0	81
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	29.9	7.4	0	0	0	0	0	16.7

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					West Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	25	42	0	67	0	0	0	0	0	67
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	14	46	0	60	0	0	0	0	0	60
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	52	38	0	90	0	0	0	0	0	90
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	22	52	0	74	0	0	0	0	0	74
Total Volume	0	0	0	0	0	0	0	0	0	0	0	113	178	0	291	0	0	0	0	0	291
% App. Total	0	0	0	0	0	0	0	0	0	0	0	38.8	61.2	0		0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.543	.856	.000	.808	.000	.000	.000	.000	.000	.808
Cars	0	0	0	0	0	0	0	0	0	0	0	86	167	0	253	0	0	0	0	0	253
% Cars	0	0	0	0	0	0	0	0	0	0	0	76.1	93.8	0	86.9	0	0	0	0	0	86.9
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	27	11	0	38	0	0	0	0	0	38
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	23.9	6.2	0	13.1	0	0	0	0	0	13.1





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N/S: Washington Street  
W: West Street  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 D  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Cars

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				West Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	0	0	0	0	0	0	0	0	0	16	19	0	0	0	0	0	35
07:15 AM	0	0	0	0	0	0	0	0	0	10	17	0	0	0	0	0	27
07:30 AM	0	0	0	0	0	0	0	0	0	14	31	0	0	0	0	0	45
07:45 AM	0	0	0	0	0	0	0	0	0	15	29	0	0	0	0	0	44
Total	0	0	0	0	0	0	0	0	0	55	96	0	0	0	0	0	151
08:00 AM	0	0	0	0	0	0	0	0	0	17	38	0	0	0	0	0	55
08:15 AM	0	0	0	0	0	0	0	0	0	11	43	0	0	0	0	0	54
08:30 AM	0	0	0	0	0	0	0	0	0	41	35	0	0	0	0	0	76
08:45 AM	0	0	0	0	0	0	0	0	0	17	51	0	0	0	0	0	68
Total	0	0	0	0	0	0	0	0	0	86	167	0	0	0	0	0	253
Grand Total	0	0	0	0	0	0	0	0	0	141	263	0	0	0	0	0	404
Apprch %	0	0	0	0	0	0	0	0	0	34.9	65.1	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	34.9	65.1	0	0	0	0	0	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					West Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	17	38	0	55	0	0	0	0	0	55
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	11	43	0	54	0	0	0	0	0	54
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	41	35	0	76	0	0	0	0	0	76
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	17	51	0	68	0	0	0	0	0	68
Total Volume	0	0	0	0	0	0	0	0	0	0	0	86	167	0	253	0	0	0	0	0	253
% App. Total	0	0	0	0	0	0	0	0	0	0	0	34	66	0		0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.524	.819	.000	.832	.000	.000	.000	.000	.000	.832



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City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 D  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				West Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
07:00 AM	0	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9
07:15 AM	0	0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	10
07:30 AM	0	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10
07:45 AM	0	0	0	0	0	0	0	0	0	8	6	0	0	0	0	0	14
Total	0	0	0	0	0	0	0	0	0	33	10	0	0	0	0	0	43
08:00 AM	0	0	0	0	0	0	0	0	0	8	4	0	0	0	0	0	12
08:15 AM	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	6
08:30 AM	0	0	0	0	0	0	0	0	0	11	3	0	0	0	0	0	14
08:45 AM	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	0	27	11	0	0	0	0	0	38
Grand Total	0	0	0	0	0	0	0	0	0	60	21	0	0	0	0	0	81
Apprch %	0	0	0	0	0	0	0	0	0	74.1	25.9	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	74.1	25.9	0	0	0	0	0	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					West Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	8	2	0	10	0	0	0	0	0	10
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	9	1	0	10	0	0	0	0	0	10
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	8	6	0	14	0	0	0	0	0	14
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	8	4	0	12	0	0	0	0	0	12
Total Volume	0	0	0	0	0	0	0	0	0	0	0	33	13	0	46	0	0	0	0	0	46
% App. Total	0	0	0	0	0	0	0	0	0	0	0	71.7	28.3	0		0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.917	.542	.000	.821	.000	.000	.000	.000	.000	.821



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Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 D  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Peds and Bikes

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				West Street From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	1	0	5	0	0	0	29	0	3	1	6	0	0	0	35	80
07:15 AM	1	2	0	10	0	0	0	26	0	6	1	0	0	0	0	30	76
07:30 AM	0	1	0	13	0	0	0	28	0	10	0	5	0	0	1	54	112
07:45 AM	1	0	0	13	0	0	0	46	0	11	2	6	0	0	0	59	138
Total	2	4	0	41	0	0	0	129	0	30	4	17	0	0	1	178	406
08:00 AM	0	0	0	12	0	0	0	28	0	18	0	3	0	0	0	67	128
08:15 AM	0	0	0	10	0	0	0	34	0	6	1	8	0	0	1	59	119
08:30 AM	0	0	0	18	0	0	0	25	0	6	0	0	0	0	0	51	100
08:45 AM	0	0	0	16	0	0	0	29	0	6	0	0	0	0	0	44	95
Total	0	0	0	56	0	0	0	116	0	36	1	11	0	0	1	221	442
Grand Total	2	4	0	97	0	0	0	245	0	66	5	28	0	0	2	399	848
Apprch %	1.9	3.9	0	94.2	0	0	0	100	0	66.7	5.1	28.3	0	0	0.5	99.5	
Total %	0.2	0.5	0	11.4	0	0	0	28.9	0	7.8	0.6	3.3	0	0	0.2	47.1	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					West Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	1	0	13	14	0	0	0	28	28	0	10	0	5	15	0	0	1	54	55	112
07:45 AM	1	0	0	13	14	0	0	0	46	46	0	11	2	6	19	0	0	0	59	59	138
08:00 AM	0	0	0	12	12	0	0	0	28	28	0	18	0	3	21	0	0	0	67	67	128
08:15 AM	0	0	0	10	10	0	0	0	34	34	0	6	1	8	15	0	0	1	59	60	119
Total Volume	1	1	0	48	50	0	0	0	136	136	0	45	3	22	70	0	0	2	239	241	497
% App. Total	2	2	0	96		0	0	0	100		0	64.3	4.3	31.4		0	0	0.8	99.2		
PHF	.250	.250	.000	.923	.893	.000	.000	.000	.739	.739	.000	.625	.375	.688	.833	.000	.000	.500	.892	.899	.900



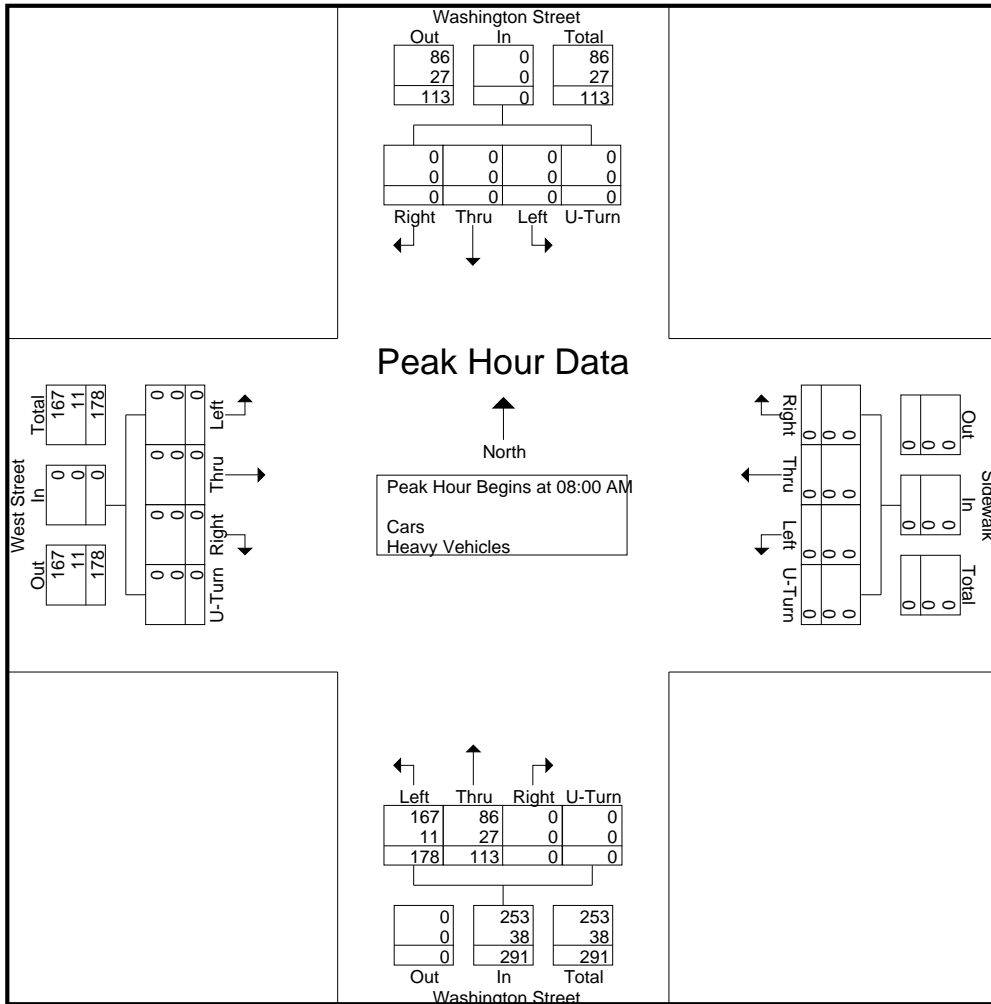
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City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 D  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					West Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	25	42	0	67	0	0	0	0	0	67
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	14	46	0	60	0	0	0	0	0	60
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	52	38	0	90	0	0	0	0	0	90
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	22	52	0	74	0	0	0	0	0	74
Total Volume	0	0	0	0	0	0	0	0	0	0	0	113	178	0	291	0	0	0	0	0	291
% App. Total	0	0	0	0	0	0	0	0	0	0	0	38.8	61.2	0		0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.543	.856	.000	.808	.000	.000	.000	.000	.000	.808
Cars	0	0	0	0	0	0	0	0	0	0	0	86	167	0	253	0	0	0	0	0	253
% Cars	0	0	0	0	0	0	0	0	0	0	0	76.1	93.8	0	86.9	0	0	0	0	0	86.9
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	27	11	0	38	0	0	0	0	0	38
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	23.9	6.2	0	13.1	0	0	0	0	0	13.1





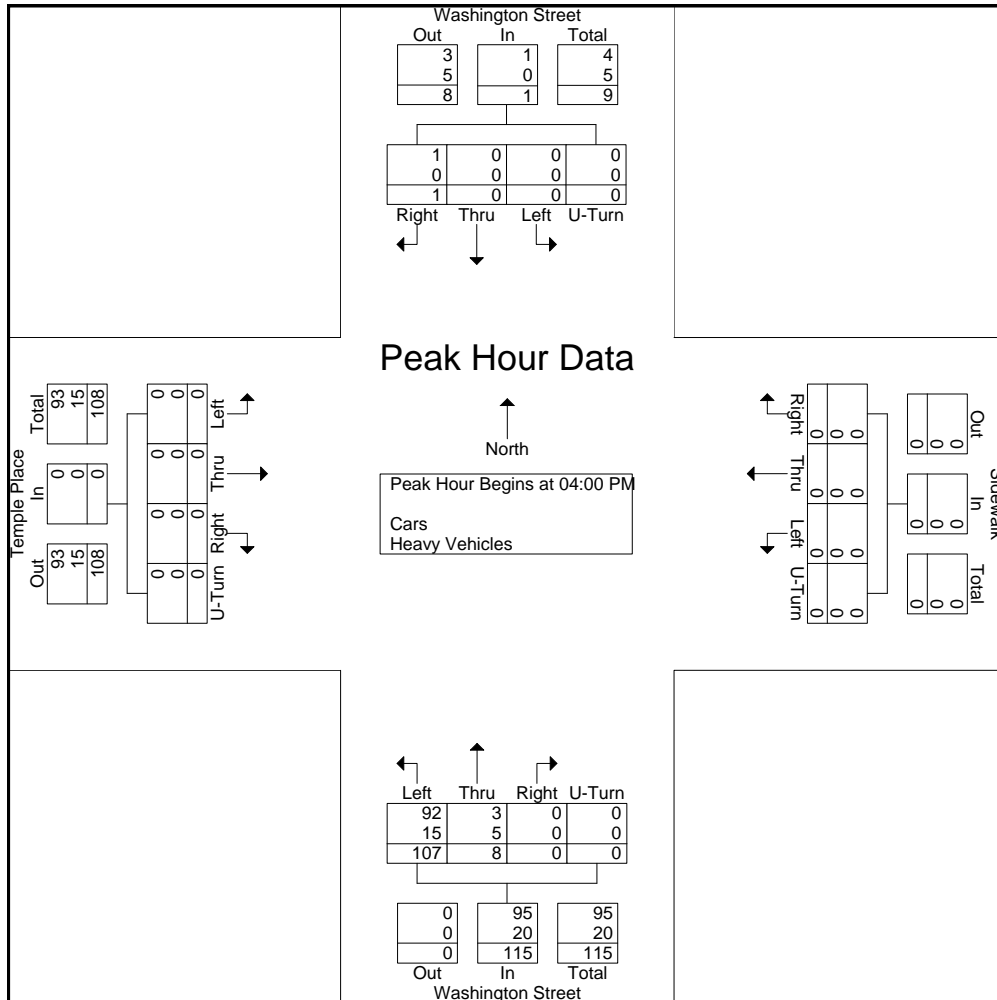
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City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 CC  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					Temple Place From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	32	0	35	0	0	0	0	0	35
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	22	0	23	0	0	0	0	0	23
04:30 PM	1	0	0	0	1	0	0	0	0	0	0	4	39	0	43	0	0	0	0	0	44
<b>04:45 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>
Total Volume	1	0	0	0	1	0	0	0	0	0	0	8	107	0	115	0	0	0	0	0	116
% App. Total	100	0	0	0		0	0	0	0		0	7	93	0		0	0	0	0		
PHF	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.500	.686	.000	.669	.000	.000	.000	.000	.000	.659
Cars	1	0	0	0	1	0	0	0	0	0	0	3	92	0	95	0	0	0	0	0	96
% Cars	100	0	0	0	100	0	0	0	0	0	0	37.5	86.0	0	82.6	0	0	0	0	0	82.8
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	5	15	0	20	0	0	0	0	0	20
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	62.5	14.0	0	17.4	0	0	0	0	0	17.2





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Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 DD  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Cars - Heavy Vehicles

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				West Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	0	0	0	0	0	0	0	0	32	66	0	0	0	0	0	98
04:15 PM	0	0	0	0	0	0	0	0	0	24	43	0	0	0	0	0	67
04:30 PM	0	0	0	0	0	0	0	0	0	41	63	0	0	0	0	0	104
04:45 PM	0	0	0	0	0	0	0	0	0	21	48	0	0	0	0	0	69
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>118</b>	<b>220</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>338</b>
05:00 PM	0	0	0	0	0	0	0	0	0	28	82	0	0	0	0	0	110
05:15 PM	0	0	0	0	0	0	0	0	0	25	75	0	0	0	0	0	100
05:30 PM	0	0	0	0	0	0	0	0	0	19	64	0	0	0	0	0	83
05:45 PM	0	0	0	0	0	0	0	0	0	27	62	0	0	0	0	0	89
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>99</b>	<b>283</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>382</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>217</b>	<b>503</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>720</b>
Apprch %	0	0	0	0	0	0	0	0	0	30.1	69.9	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	30.1	69.9	0	0	0	0	0	
Cars	0	0	0	0	0	0	0	0	0	185	500	0	0	0	0	0	685
% Cars	0	0	0	0	0	0	0	0	0	85.3	99.4	0	0	0	0	0	95.1
Heavy Vehicles	0	0	0	0	0	0	0	0	0	32	3	0	0	0	0	0	35
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	14.7	0.6	0	0	0	0	0	4.9

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					West Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	<b>41</b>	63	0	104	0	0	0	0	0	104
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	21	48	0	69	0	0	0	0	0	69
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	28	<b>82</b>	0	<b>110</b>	0	0	0	0	0	<b>110</b>
<b>05:15 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>75</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>
Total Volume	0	0	0	0	0	0	0	0	0	0	0	115	268	0	383	0	0	0	0	0	383
% App. Total	0	0	0	0	0	0	0	0	0	0	0	30	70	0		0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.701	.817	.000	.870	.000	.000	.000	.000	.000	.870
Cars	0	0	0	0	0	0	0	0	0	0	0	98	266	0	364	0	0	0	0	0	364
% Cars	0	0	0	0	0	0	0	0	0	0	0	85.2	99.3	0	95.0	0	0	0	0	0	95.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	17	2	0	19	0	0	0	0	0	19
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	14.8	0.7	0	5.0	0	0	0	0	0	5.0



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Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 DD  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Cars

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				West Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	0	0	0	0	0	0	0	0	24	65	0	0	0	0	0	89
04:15 PM	0	0	0	0	0	0	0	0	0	22	43	0	0	0	0	0	65
04:30 PM	0	0	0	0	0	0	0	0	0	33	63	0	0	0	0	0	96
04:45 PM	0	0	0	0	0	0	0	0	0	18	47	0	0	0	0	0	65
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>97</b>	<b>218</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>315</b>
05:00 PM	0	0	0	0	0	0	0	0	0	25	81	0	0	0	0	0	106
05:15 PM	0	0	0	0	0	0	0	0	0	22	75	0	0	0	0	0	97
05:30 PM	0	0	0	0	0	0	0	0	0	16	64	0	0	0	0	0	80
05:45 PM	0	0	0	0	0	0	0	0	0	25	62	0	0	0	0	0	87
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>282</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>370</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>185</b>	<b>500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>685</b>
Apprch %	0	0	0	0	0	0	0	0	0	27	73	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	27	73	0	0	0	0	0	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					West Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
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	25	81	0	106	0	0	0	0	0	106
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	22	75	0	97	0	0	0	0	0	97
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	16	64	0	80	0	0	0	0	0	80
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	25	62	0	87	0	0	0	0	0	87
Total Volume	0	0	0	0	0	0	0	0	0	0	0	88	282	0	370	0	0	0	0	0	370
% App. Total	0	0	0	0	0	0	0	0	0	0	0	23.8	76.2	0		0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.880	.870	.000	.873	.000	.000	.000	.000	.000	.873



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N/S: Washington Street  
W: West Street  
City, State: Boston, MA  
Client: Howard Stein-Hudson/ K. Chronley

File Name : 123011 DD  
Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				West Street From West				Int. Total
	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
04:00 PM	0	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
04:45 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4
<b>Total</b>	0	0	0	0	0	0	0	0	0	21	2	0	0	0	0	0	23
05:00 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
<b>Total</b>	0	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	12
<b>Grand Total</b>	0	0	0	0	0	0	0	0	0	32	3	0	0	0	0	0	35
Apprch %	0	0	0	0	0	0	0	0	0	91.4	8.6	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	91.4	8.6	0	0	0	0	0	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					West Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	8	1	0	9	0	0	0	0	0	9
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	8
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	4
Total Volume	0	0	0	0	0	0	0	0	0	0	0	21	2	0	23	0	0	0	0	0	23
% App. Total	0	0	0	0	0	0	0	0	0	0	0	91.3	8.7	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.656	.500	.000	.639	.000	.000	.000	.000	.000	.639





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Client: Howard Stein-Hudson/ K. Chronley

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Site Code : 2012074  
Start Date : 8/15/2012  
Page No : 1

Groups Printed- Peds and Bikes

Start Time	Washington Street From North				Sidewalk From East				Washington Street From South				West Street From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	0	5	0	38	0	0	0	205	0	9	1	11	0	0	2	166	437
04:15 PM	1	6	0	28	0	0	0	135	0	3	2	8	0	0	0	166	349
04:30 PM	0	0	0	43	0	0	0	172	0	7	2	5	0	0	1	190	420
04:45 PM	0	0	0	39	0	0	0	166	0	6	5	13	1	0	0	151	381
Total	1	11	0	148	0	0	0	678	0	25	10	37	1	0	3	673	1587
05:00 PM	0	0	0	32	0	0	0	156	0	9	3	22	0	0	3	252	477
05:15 PM	0	0	0	54	0	0	0	194	0	6	3	19	0	0	1	282	559
05:30 PM	0	0	0	41	0	0	0	143	0	7	3	39	0	0	0	237	470
05:45 PM	0	0	0	36	0	0	0	147	0	6	8	17	0	0	2	252	468
Total	0	0	0	163	0	0	0	640	0	28	17	97	0	0	6	1023	1974
Grand Total	1	11	0	311	0	0	0	1318	0	53	27	134	1	0	9	1696	3561
Apprch %	0.3	3.4	0	96.3	0	0	0	100	0	24.8	12.6	62.6	0.1	0	0.5	99.4	
Total %	0	0.3	0	8.7	0	0	0	37	0	1.5	0.8	3.8	0	0	0.3	47.6	

Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					West Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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	32	32	0	0	0	156	156	0	9	3	22	34	0	0	3	252	255	477
05:15 PM	0	0	0	54	54	0	0	0	194	194	0	6	3	19	28	0	0	1	282	283	559
05:30 PM	0	0	0	41	41	0	0	0	143	143	0	7	3	39	49	0	0	0	237	237	470
05:45 PM	0	0	0	36	36	0	0	0	147	147	0	6	8	17	24	0	0	2	252	252	468
Total Volume	0	0	0	163	163	0	0	0	640	640	0	28	17	97	142	0	0	6	1023	1029	1974
% App. Total	0	0	0	100	100	0	0	0	100	100	0	19.7	12	68.3	100	0	0	0.6	99.4	99.4	99.4
PHF	.000	.000	.000	.755	.755	.000	.000	.000	.825	.825	.000	.778	.531	.622	.724	.000	.000	.500	.907	.909	.883



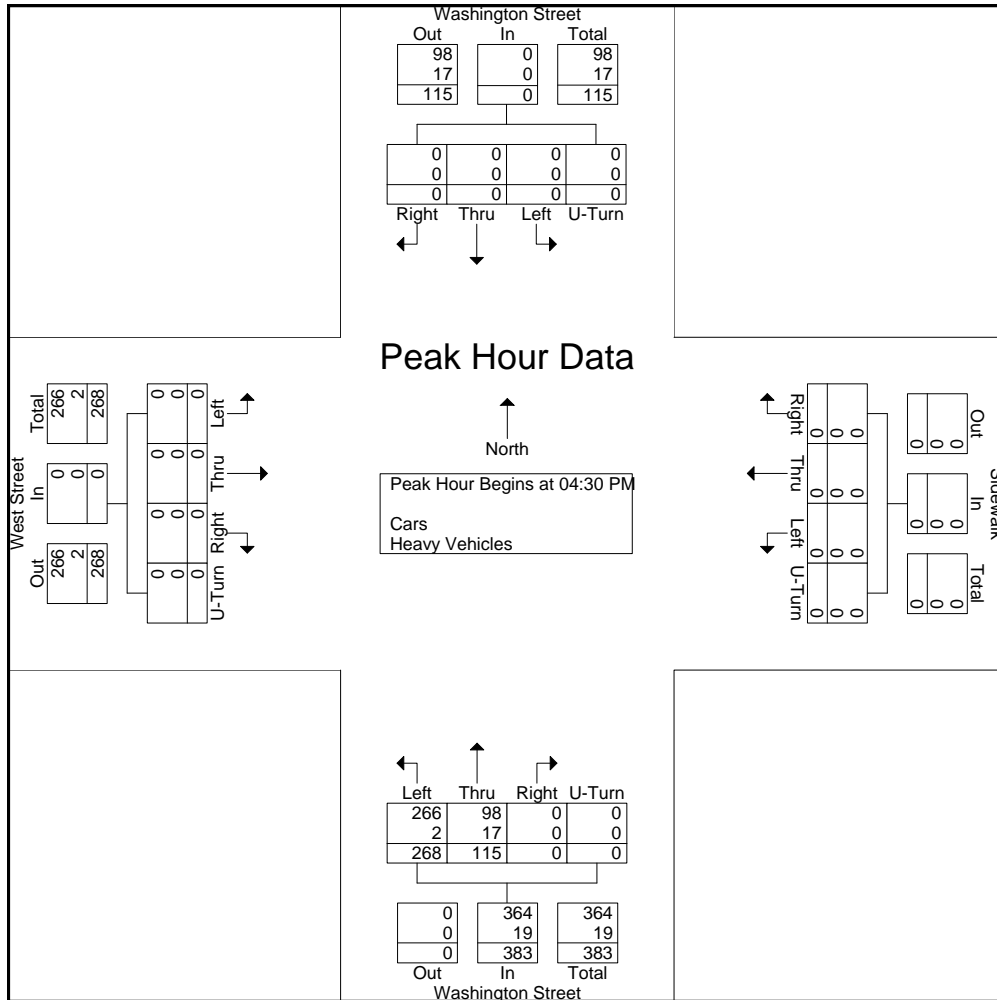
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Start Time	Washington Street From North					Sidewalk From East					Washington Street From South					West Street From West					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	41	63	0	104	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	21	48	0	69	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	28	82	0	110	0	0	0	0	0	0
<b>05:15 PM</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>75</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total Volume	0	0	0	0	0	0	0	0	0	0	0	115	268	0	383	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	30	70	0	87.0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.701	.817	.000	.870	.000	.000	.000	.000	.000	.870
Cars	0	0	0	0	0	0	0	0	0	0	0	98	266	0	364	0	0	0	0	0	0
% Cars	0	0	0	0	0	0	0	0	0	0	0	85.2	99.3	0	95.0	0	0	0	0	0	0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	17	2	0	19	0	0	0	0	0	0
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	14.8	0.7	0	5.0	0	0	0	0	0	0





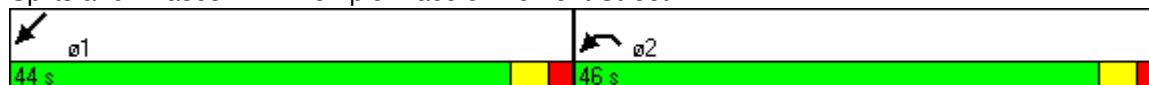
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.99					
Fr <sub>t</sub>						
Flt Protected	0.950					
Satd. Flow (prot)	1404	0	0	0	0	5169
Flt Permitted	0.950					
Satd. Flow (perm)	1387	0	0	0	0	5169
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	97					
Headway Factor	1.12	1.14	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	539		216			292
Travel Time (s)	14.7		5.9			8.0
Volume (vph)	68	0	0	0	0	688
Confl. Peds. (#/hr)	9					
Peak Hour Factor	0.53	0.92	0.92	0.92	0.92	0.85
Heavy Vehicles (%)	18%	2%	2%	2%	2%	10%
Parking (#/hr)	0					
Adj. Flow (vph)	128	0	0	0	0	809
Lane Group Flow (vph)	128	0	0	0	0	809
Turn Type						
Protected Phases	2					1
Permitted Phases						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	46.0	0.0	0.0	0.0	0.0	44.0
Total Split (%)	51.1%	0.0%	0.0%	0.0%	0.0%	48.9%
Maximum Green (s)	41.0					39.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	84					195
Act Effct Green (s)	42.0					40.0
Actuated g/C Ratio	0.47					0.44
v/c Ratio	0.18					0.35
Control Delay	4.2					4.9



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Queue Delay	0.0					0.0
Total Delay	4.2					4.9
LOS	A					A
Approach Delay	4.2					4.9
Approach LOS	A					A

Intersection Summary	
Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	23 (26%), Referenced to phase 1:SWT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.35
Intersection Signal Delay:	4.8
Intersection LOS:	A
Intersection Capacity Utilization	49.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 1: Temple Place & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶					↑↑↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.98					
<b>Fr</b>						
Flt Protected	0.950					
Satd. Flow (prot)	1534	0	0	0	0	5077
Flt Permitted	0.950					
Satd. Flow (perm)	1497	0	0	0	0	5077
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	49					
Headway Factor	1.12	1.14	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	548		699			216
Travel Time (s)	14.9		19.1			5.9
Volume (vph)	166	0	0	0	0	756
Confl. Peds. (#/hr)	18					
Peak Hour Factor	0.78	0.92	0.92	0.92	0.92	0.84
Heavy Vehicles (%)	8%	0%	0%	0%	0%	12%
Parking (#/hr)	0					
Adj. Flow (vph)	213	0	0	0	0	900
Lane Group Flow (vph)	213	0	0	0	0	900
<b>Turn Type</b>						
Protected Phases	2					1
<b>Permitted Phases</b>						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	51.0	0.0	0.0	0.0	0.0	39.0
Total Split (%)	56.7%	0.0%	0.0%	0.0%	0.0%	43.3%
Maximum Green (s)	46.0					34.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
<b>Lead/Lag</b>						
<b>Lead-Lag Optimize?</b>						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	109					146
Act Effct Green (s)	47.0					35.0
Actuated g/C Ratio	0.52					0.39
v/c Ratio	0.26					0.46
Control Delay	4.9					7.0



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0					0.2
Total Delay	4.9					7.2
LOS	A					A
Approach Delay	4.9					7.2
Approach LOS	A					A

**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	25 (28%), Referenced to phase 1:SBT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	6.7
Intersection LOS:	A
Intersection Capacity Utilization	49.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 2: West Street & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations		↖	↖	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	10	11	12	12	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)		50	50	50			
Trailing Detector (ft)		0	0	0			
Turning Speed (mph)	15	9		9	15		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.865		0.850			
Flt Protected							
Satd. Flow (prot)	0	1312	1364	1326	0	0	
Flt Permitted							
Satd. Flow (perm)	0	1312	1364	1326	0	0	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)				167			
Headway Factor	1.14	1.19	1.25	1.19	1.14	1.14	
Link Speed (mph)	25		25			25	
Link Distance (ft)	491		237			220	
Travel Time (s)	13.4		6.5			6.0	
Volume (vph)	0	93	181	122	0	0	
Peak Hour Factor	0.92	0.78	0.92	0.73	0.92	0.92	
Heavy Vehicles (%)	0%	9%	17%	6%	0%	0%	
Adj. Flow (vph)	0	119	197	167	0	0	
Lane Group Flow (vph)	0	119	197	167	0	0	
Turn Type		custom		Perm			
Protected Phases		5	1				2
Permitted Phases		5		1			
Detector Phases		5	1	1			
Minimum Initial (s)		8.0	8.0	8.0			4.0
Minimum Split (s)		13.0	13.0	13.0			19.0
Total Split (s)	0.0	34.0	37.0	37.0	0.0	0.0	19.0
Total Split (%)	0.0%	37.8%	41.1%	41.1%	0.0%	0.0%	21%
Maximum Green (s)		29.0	32.0	32.0			15.0
Yellow Time (s)		3.0	3.0	3.0			3.0
All-Red Time (s)		2.0	2.0	2.0			1.0
Lead/Lag			Lead	Lead			Lag
Lead-Lag Optimize?							
Vehicle Extension (s)		2.0	2.0	2.0			3.0
Recall Mode		None	C-Max	C-Max			None
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							500
Act Effct Green (s)		13.1	52.5	52.5			
Actuated g/C Ratio		0.15	0.58	0.58			
v/c Ratio		0.62	0.25	0.20			
Control Delay		49.7	10.8	3.2			
Queue Delay		0.0	0.8	0.5			
Total Delay		49.7	11.6	3.6			
LOS		D	B	A			

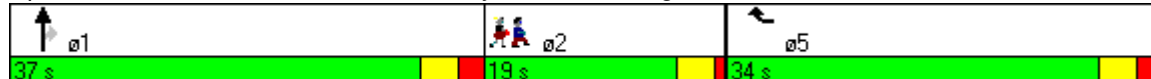


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Approach Delay			7.9				
Approach LOS			A				

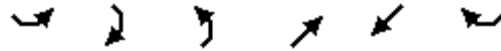
**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	86 (96%), Referenced to phase 1:NBT, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	18.2
Intersection LOS:	B
Intersection Capacity Utilization	23.9%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 3: Avenue de Lafayette & Washington Street







Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	70	46	0	0
Peak Hour Factor	0.92	0.92	0.77	0.53	0.92	0.92
Hourly flow rate (vph)	0	0	91	87	0	0
Pedestrians	162			35	178	
Lane Width (ft)	0.0			15.0	0.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			4	0	
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				428	853	
pX, platoon unblocked						
vC, conflicting volume	609	197	162			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	609	197	162			
tC, single (s)	6.4	6.2	4.4			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.5			
p0 queue free %	100	100	93			
cM capacity (veh/h)	429	818	1263			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	178					
Volume Left	91					
Volume Right	0					
cSH	1263					
Volume to Capacity	0.07					
Queue Length 95th (ft)	6					
Control Delay (s)	4.4					
Lane LOS	A					
Approach Delay (s)	4.4					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay	4.4					
Intersection Capacity Utilization	49.0%		ICU Level of Service		A	
Analysis Period (min)	15					



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	178	113	0	0
Peak Hour Factor	0.92	0.92	0.86	0.54	0.92	0.92
Hourly flow rate (vph)	0	0	207	209	0	0
Pedestrians	221			11	56	
Lane Width (ft)	0.0			16.0	0.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			1	0	
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				220	1061	
pX, platoon unblocked	0.96					
vC, conflicting volume	900	232	221			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	896	232	221			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	100	100	84			
cM capacity (veh/h)	253	802	1325			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	416					
Volume Left	207					
Volume Right	0					
cSH	1325					
Volume to Capacity	0.16					
Queue Length 95th (ft)	14					
Control Delay (s)	4.8					
Lane LOS	A					
Approach Delay (s)	4.8					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay	4.8					
Intersection Capacity Utilization	49.7%		ICU Level of Service		A	
Analysis Period (min)	15					



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↶					↑↑↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	14	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.96					
Fr <sub>t</sub>						
Fl <sub>t</sub> Protected	0.950					
Satd. Flow (prot)	1520	0	0	0	0	5468
Fl <sub>t</sub> Permitted	0.950					
Satd. Flow (perm)	1456	0	0	0	0	5468
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	44					
Headway Factor	1.12	1.05	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	539		216			292
Travel Time (s)	14.7		5.9			8.0
Volume (vph)	87	0	0	0	0	1145
Confl. Peds. (#/hr)	28					
Peak Hour Factor	0.87	0.92	0.92	0.92	0.92	0.98
Heavy Vehicles (%)	9%	0%	0%	0%	0%	4%
Parking (#/hr)	0					
Adj. Flow (vph)	100	0	0	0	0	1168
Lane Group Flow (vph)	100	0	0	0	0	1168
Turn Type						
Protected Phases	2					1
Permitted Phases						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	47.0	0.0	0.0	0.0	0.0	53.0
Total Split (%)	47.0%	0.0%	0.0%	0.0%	0.0%	53.0%
Maximum Green (s)	42.0					48.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	91					195
Act Effct Green (s)	43.0					49.0
Actuated g/C Ratio	0.43					0.49
v/c Ratio	0.15					0.44
Control Delay	13.7					4.3



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Queue Delay	0.0			0.2		
Total Delay	13.7			4.5		
LOS	B			A		
Approach Delay	13.7			4.5		
Approach LOS	B			A		

**Intersection Summary**

Area Type:	CBD
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	75 (75%), Referenced to phase 1:SWT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.44
Intersection Signal Delay:	5.3
Intersection LOS:	A
Intersection Capacity Utilization	49.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 1: Temple Place & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶					↶↶↶
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.78					
<b>Fr</b>						
Flt Protected	0.950					
Satd. Flow (prot)	1641	0	0	0	0	5416
Flt Permitted	0.950					
Satd. Flow (perm)	1274	0	0	0	0	5416
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	28					
Headway Factor	1.12	1.14	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	548		699			216
Travel Time (s)	14.9		19.1			5.9
Volume (vph)	288	0	0	0	0	1232
Confl. Peds. (#/hr)	149					
Peak Hour Factor	0.89	0.92	0.92	0.92	0.92	0.99
Heavy Vehicles (%)	1%	0%	0%	0%	0%	5%
Parking (#/hr)	0					
Adj. Flow (vph)	324	0	0	0	0	1244
Lane Group Flow (vph)	324	0	0	0	0	1244
<b>Turn Type</b>						
Protected Phases	2					1
<b>Permitted Phases</b>						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	50.0	0.0	0.0	0.0	0.0	50.0
Total Split (%)	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%
Maximum Green (s)	45.0					45.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
<b>Lead/Lag</b>						
<b>Lead-Lag Optimize?</b>						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	164					275
Act Effct Green (s)	46.0					46.0
Actuated g/C Ratio	0.46					0.46
v/c Ratio	0.42					0.50
Control Delay	31.8					5.4

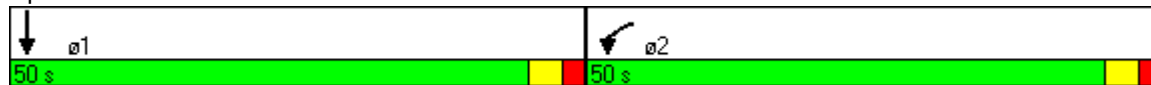


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0					0.1
Total Delay	31.8					5.5
LOS	C					A
Approach Delay	31.8					5.5
Approach LOS	C					A

**Intersection Summary**

Area Type:	CBD					
Cycle Length:	100					
Actuated Cycle Length:	100					
Offset:	81 (81%), Referenced to phase 1:SBT, Start of Green					
Natural Cycle:	45					
Control Type:	Actuated-Coordinated					
Maximum v/c Ratio:	0.50					
Intersection Signal Delay:	10.9			Intersection LOS: B		
Intersection Capacity Utilization	51.4%			ICU Level of Service A		
Analysis Period (min)	15					

**Splits and Phases: 2: West Street & Tremont Street**





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations		↖	↖	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	10	11	12	12	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)		50	50	50			
Trailing Detector (ft)		0	0	0			
Turning Speed (mph)	15	9		9	15		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.865		0.850			
Flt Protected							
Satd. Flow (prot)	0	1416	1535	1391	0	0	
Flt Permitted							
Satd. Flow (perm)	0	1416	1535	1391	0	0	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)				192			
Headway Factor	1.14	1.19	1.25	1.19	1.14	1.14	
Link Speed (mph)	25		25			25	
Link Distance (ft)	491		237			220	
Travel Time (s)	13.4		6.5			6.0	
Volume (vph)	0	133	239	165	0	0	
Peak Hour Factor	0.92	0.92	0.83	0.86	0.92	0.92	
Heavy Vehicles (%)	0%	1%	4%	1%	0%	0%	
Adj. Flow (vph)	0	145	288	192	0	0	
Lane Group Flow (vph)	0	145	288	192	0	0	
Turn Type		custom		Perm			
Protected Phases		5	1				2
Permitted Phases		5		1			
Detector Phases		5	1	1			
Minimum Initial (s)		8.0	8.0	8.0			4.0
Minimum Split (s)		13.0	13.0	13.0			19.0
Total Split (s)	0.0	41.0	40.0	40.0	0.0	0.0	19.0
Total Split (%)	0.0%	41.0%	40.0%	40.0%	0.0%	0.0%	19%
Maximum Green (s)		36.0	35.0	35.0			15.0
Yellow Time (s)		3.0	3.0	3.0			3.0
All-Red Time (s)		2.0	2.0	2.0			1.0
Lead/Lag			Lead	Lead			Lag
Lead-Lag Optimize?							
Vehicle Extension (s)		2.0	2.0	2.0			3.0
Recall Mode		None	C-Max	C-Max			None
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							500
Act Effct Green (s)		14.6	58.4	58.4			
Actuated g/C Ratio		0.15	0.58	0.58			
v/c Ratio		0.70	0.32	0.22			
Control Delay		57.9	13.4	3.7			
Queue Delay		0.0	1.7	0.7			
Total Delay		57.9	15.1	4.4			
LOS		E	B	A			

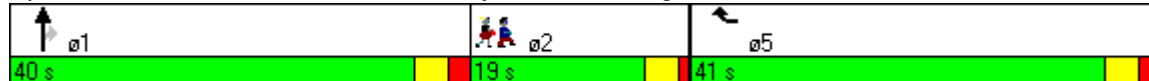


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Approach Delay			10.8				
Approach LOS			B				

**Intersection Summary**

Area Type:	CBD
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	3 (3%), Referenced to phase 1:NBT, Start of Green
Natural Cycle:	55
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	21.7
Intersection LOS:	C
Intersection Capacity Utilization	29.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 3: Avenue de Lafayette & Washington Street







Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	92	9	0	0
Peak Hour Factor	0.92	0.92	0.92	0.38	0.92	0.92
Hourly flow rate (vph)	0	0	100	24	0	0
Pedestrians	900					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				428	853	
pX, platoon unblocked						
vC, conflicting volume	1124	900	900			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1124	900	900			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	100	100	86			
cM capacity (veh/h)	197	340	719			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	124					
Volume Left	100					
Volume Right	0					
cSH	719					
Volume to Capacity	0.14					
Queue Length 95th (ft)	12					
Control Delay (s)	9.0					
Lane LOS	A					
Approach Delay (s)	9.0					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay			9.0			
Intersection Capacity Utilization	49.0%		ICU Level of Service		A	
Analysis Period (min)	15					



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	283	99	0	0
Peak Hour Factor	0.92	0.92	0.86	0.88	0.92	0.92
Hourly flow rate (vph)	0	0	329	112	0	0
Pedestrians	1023					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				220	1061	
pX, platoon unblocked	0.92					
vC, conflicting volume	1794	1023	1023			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1865	1023	1023			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	52			
cM capacity (veh/h)	39	289	686			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	442					
Volume Left	329					
Volume Right	0					
cSH	686					
Volume to Capacity	0.48					
Queue Length 95th (ft)	65					
Control Delay (s)	13.1					
Lane LOS	B					
Approach Delay (s)	13.1					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay	13.1					
Intersection Capacity Utilization	51.4%		ICU Level of Service		A	
Analysis Period (min)	15					



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↶					↑↑↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.99					
Fr <sub>t</sub>						
Flt Protected	0.950					
Satd. Flow (prot)	1404	0	0	0	0	5169
Flt Permitted	0.950					
Satd. Flow (perm)	1387	0	0	0	0	5169
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	84					
Headway Factor	1.12	1.14	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	539		216			292
Travel Time (s)	14.7		5.9			8.0
Volume (vph)	70	0	0	0	0	727
Confl. Peds. (#/hr)	9					
Peak Hour Factor	0.53	0.92	0.92	0.92	0.92	0.85
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	18%	2%	2%	2%	2%	10%
Parking (#/hr)	0					
Adj. Flow (vph)	132	0	0	0	0	855
Lane Group Flow (vph)	132	0	0	0	0	855
Turn Type						
Protected Phases	2					1
Permitted Phases						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	46.0	0.0	0.0	0.0	0.0	44.0
Total Split (%)	51.1%	0.0%	0.0%	0.0%	0.0%	48.9%
Maximum Green (s)	41.0					39.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	84					195
Act Effct Green (s)	42.0					40.0
Actuated g/C Ratio	0.47					0.44
v/c Ratio	0.19					0.37

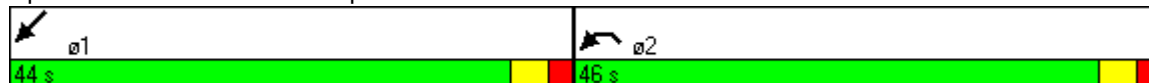


Lane Group	NWL	NWR	NET	NER	SWL	SWT
Control Delay	5.3			5.3		
Queue Delay	0.0			0.0		
Total Delay	5.3			5.3		
LOS	A			A		
Approach Delay	5.3			5.3		
Approach LOS	A			A		

**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	23 (26%), Referenced to phase 1:SWT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.37
Intersection Signal Delay:	5.3
Intersection LOS:	A
Intersection Capacity Utilization	49.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 1: Temple Place & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶					↑↑↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.98					
<b>Fr</b>						
Flt Protected	0.950					
Satd. Flow (prot)	1534	0	0	0	0	5077
Flt Permitted	0.950					
Satd. Flow (perm)	1497	0	0	0	0	5077
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	44					
Headway Factor	1.12	1.14	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	548		699			216
Travel Time (s)	14.9		19.1			5.9
Volume (vph)	175	0	0	0	0	781
Confl. Peds. (#/hr)	18					
Peak Hour Factor	0.78	0.92	0.92	0.92	0.92	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	0%	0%	0%	0%	12%
Parking (#/hr)	0					
Adj. Flow (vph)	224	0	0	0	0	930
Lane Group Flow (vph)	224	0	0	0	0	930
<b>Turn Type</b>						
Protected Phases	2					1
<b>Permitted Phases</b>						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	51.0	0.0	0.0	0.0	0.0	39.0
Total Split (%)	56.7%	0.0%	0.0%	0.0%	0.0%	43.3%
Maximum Green (s)	46.0					34.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
<b>Lead/Lag</b>						
<b>Lead-Lag Optimize?</b>						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	109					146
Act Effct Green (s)	47.0					35.0
Actuated g/C Ratio	0.52					0.39
v/c Ratio	0.27					0.47



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay	5.5					7.3
Queue Delay	0.0					0.2
Total Delay	5.5					7.5
LOS	A					A
Approach Delay	5.5					7.5
Approach LOS	A					A

**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	25 (28%), Referenced to phase 1:SBT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	7.1
Intersection Capacity Utilization	49.7%
Analysis Period (min)	15
Intersection LOS:	A
ICU Level of Service	A

Splits and Phases: 2: West Street & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations		↖	↑	↗		↙	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	10	11	12	12	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)		50	50	50			
Trailing Detector (ft)		0	0	0			
Turning Speed (mph)	15	9		9	15		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.865		0.850			
Flt Protected							
Satd. Flow (prot)	0	1312	1364	1326	0	0	
Flt Permitted							
Satd. Flow (perm)	0	1312	1364	1326	0	0	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)				171			
Headway Factor	1.14	1.19	1.25	1.19	1.14	1.14	
Link Speed (mph)	25		25			25	
Link Distance (ft)	491		237			220	
Travel Time (s)	13.4		6.5			6.0	
Volume (vph)	0	100	186	125	0	0	
Peak Hour Factor	0.92	0.78	0.92	0.73	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	9%	17%	6%	0%	0%	
Adj. Flow (vph)	0	128	202	171	0	0	
Lane Group Flow (vph)	0	128	202	171	0	0	
Turn Type		custom		Perm			
Protected Phases		5	1				2
Permitted Phases		5		1			
Detector Phases		5	1	1			
Minimum Initial (s)		8.0	8.0	8.0			4.0
Minimum Split (s)		13.0	13.0	13.0			19.0
Total Split (s)	0.0	34.0	37.0	37.0	0.0	0.0	19.0
Total Split (%)	0.0%	37.8%	41.1%	41.1%	0.0%	0.0%	21%
Maximum Green (s)		29.0	32.0	32.0			15.0
Yellow Time (s)		3.0	3.0	3.0			3.0
All-Red Time (s)		2.0	2.0	2.0			1.0
Lead/Lag			Lead	Lead			Lag
Lead-Lag Optimize?							
Vehicle Extension (s)		2.0	2.0	2.0			3.0
Recall Mode		None	C-Max	C-Max			None
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							500
Act Effct Green (s)		13.7	51.9	51.9			
Actuated g/C Ratio		0.15	0.58	0.58			
v/c Ratio		0.64	0.26	0.20			
Control Delay		49.9	11.2	3.3			
Queue Delay		0.0	0.8	0.4			
Total Delay		49.9	12.0	3.7			

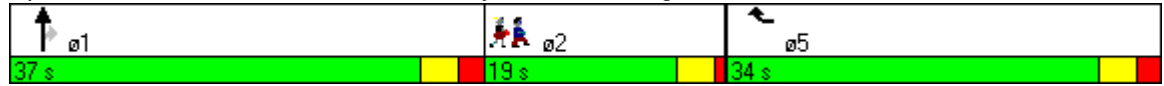


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
LOS		D	B	A			
Approach Delay			8.2				
Approach LOS			A				

**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	86 (96%), Referenced to phase 1:NBT, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	18.9
Intersection LOS:	B
Intersection Capacity Utilization	24.4%
ICU Level of Service	A
Analysis Period (min)	15

**Splits and Phases: 3: Avenue de Lafayette & Washington Street**







Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	72	46	0	0
Peak Hour Factor	0.92	0.92	0.77	0.53	0.92	0.92
Hourly flow rate (vph)	0	0	94	87	0	0
Pedestrians	162			35	178	
Lane Width (ft)	0.0			15.0	0.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			4	0	
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				428	853	
pX, platoon unblocked						
vC, conflicting volume	614	197	162			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	614	197	162			
tC, single (s)	6.4	6.2	4.4			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.5			
p0 queue free %	100	100	93			
cM capacity (veh/h)	425	818	1263			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	180					
Volume Left	94					
Volume Right	0					
cSH	1263					
Volume to Capacity	0.07					
Queue Length 95th (ft)	6					
Control Delay (s)	4.5					
Lane LOS	A					
Approach Delay (s)	4.5					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay	4.5					
Intersection Capacity Utilization	49.0%		ICU Level of Service		A	
Analysis Period (min)	15					



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	187	116	0	0
Peak Hour Factor	0.92	0.92	0.86	0.54	0.92	0.92
Hourly flow rate (vph)	0	0	217	215	0	0
Pedestrians	221			11	56	
Lane Width (ft)	0.0			16.0	0.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			1	0	
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				220	1061	
pX, platoon unblocked	0.95					
vC, conflicting volume	927	232	221			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	923	232	221			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	100	100	84			
cM capacity (veh/h)	241	802	1325			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	432					
Volume Left	217					
Volume Right	0					
cSH	1325					
Volume to Capacity	0.16					
Queue Length 95th (ft)	15					
Control Delay (s)	4.9					
Lane LOS	A					
Approach Delay (s)	4.9					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay			4.9			
Intersection Capacity Utilization	49.7%		ICU Level of Service		A	
Analysis Period (min)	15					



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	14	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.96					
Fr						
Flt Protected	0.950					
Satd. Flow (prot)	1520	0	0	0	0	5468
Flt Permitted	0.950					
Satd. Flow (perm)	1456	0	0	0	0	5468
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	35					
Headway Factor	1.12	1.05	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	539		216			292
Travel Time (s)	14.7		5.9			8.0
Volume (vph)	89	0	0	0	0	1223
Confl. Peds. (#/hr)	28					
Peak Hour Factor	0.87	0.92	0.92	0.92	0.92	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	0%	0%	0%	0%	4%
Parking (#/hr)	0					
Adj. Flow (vph)	102	0	0	0	0	1248
Lane Group Flow (vph)	102	0	0	0	0	1248
Turn Type						
Protected Phases	2					1
Permitted Phases						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	47.0	0.0	0.0	0.0	0.0	53.0
Total Split (%)	47.0%	0.0%	0.0%	0.0%	0.0%	53.0%
Maximum Green (s)	42.0					48.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	91					195
Act Effct Green (s)	43.0					49.0
Actuated g/C Ratio	0.43					0.49
v/c Ratio	0.15					0.47



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Control Delay	14.5					4.5
Queue Delay	0.0					0.2
Total Delay	14.5					4.7
LOS	B					A
Approach Delay	14.5					4.7
Approach LOS	B					A

**Intersection Summary**

Area Type:	CBD
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	75 (75%), Referenced to phase 1:SWT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	5.5
Intersection LOS:	A
Intersection Capacity Utilization	49.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 1: Temple Place & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶					↶↶↶
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.78					
<b>Fr</b>						
Flt Protected	0.950					
Satd. Flow (prot)	1641	0	0	0	0	5416
Flt Permitted	0.950					
Satd. Flow (perm)	1274	0	0	0	0	5416
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	25					
Headway Factor	1.12	1.14	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	548		699			216
Travel Time (s)	14.9		19.1			5.9
Volume (vph)	295	0	0	0	0	1270
Confl. Peds. (#/hr)	149					
Peak Hour Factor	0.89	0.92	0.92	0.92	0.92	0.99
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	5%
Parking (#/hr)	0					
Adj. Flow (vph)	331	0	0	0	0	1283
Lane Group Flow (vph)	331	0	0	0	0	1283
<b>Turn Type</b>						
Protected Phases	2					1
<b>Permitted Phases</b>						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	50.0	0.0	0.0	0.0	0.0	50.0
Total Split (%)	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%
Maximum Green (s)	45.0					45.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
<b>Lead/Lag</b>						
<b>Lead-Lag Optimize?</b>						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	164					275
Act Effct Green (s)	46.0					46.0
Actuated g/C Ratio	0.46					0.46
v/c Ratio	0.43					0.52

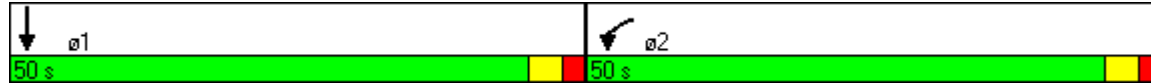


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay	31.8					5.8
Queue Delay	0.0					0.1
Total Delay	31.8					5.8
LOS	C					A
Approach Delay	31.8					5.8
Approach LOS	C					A

**Intersection Summary**

Area Type:	CBD
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	81 (81%), Referenced to phase 1:SBT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.52
Intersection Signal Delay:	11.1
Intersection LOS:	B
Intersection Capacity Utilization	52.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 2: West Street & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations		↗	↑	↖			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	10	11	12	12	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)		50	50	50			
Trailing Detector (ft)		0	0	0			
Turning Speed (mph)	15	9		9	15		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.865		0.850			
Flt Protected							
Satd. Flow (prot)	0	1416	1535	1391	0	0	
Flt Permitted							
Satd. Flow (perm)	0	1416	1535	1391	0	0	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)				192			
Headway Factor	1.14	1.19	1.25	1.19	1.14	1.14	
Link Speed (mph)	25		25			25	
Link Distance (ft)	491		237			220	
Travel Time (s)	13.4		6.5			6.0	
Volume (vph)	0	139	239	165	0	0	
Peak Hour Factor	0.92	0.92	0.83	0.86	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	1%	4%	1%	0%	0%	
Adj. Flow (vph)	0	151	288	192	0	0	
Lane Group Flow (vph)	0	151	288	192	0	0	
Turn Type		custom		Perm			
Protected Phases		5	1				2
Permitted Phases		5		1			
Detector Phases		5	1	1			
Minimum Initial (s)		8.0	8.0	8.0			4.0
Minimum Split (s)		13.0	13.0	13.0			19.0
Total Split (s)	0.0	41.0	40.0	40.0	0.0	0.0	19.0
Total Split (%)	0.0%	41.0%	40.0%	40.0%	0.0%	0.0%	19%
Maximum Green (s)		36.0	35.0	35.0			15.0
Yellow Time (s)		3.0	3.0	3.0			3.0
All-Red Time (s)		2.0	2.0	2.0			1.0
Lead/Lag			Lead	Lead			Lag
Lead-Lag Optimize?							
Vehicle Extension (s)		2.0	2.0	2.0			3.0
Recall Mode		None	C-Max	C-Max			None
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							500
Act Effct Green (s)		15.0	58.0	58.0			
Actuated g/C Ratio		0.15	0.58	0.58			
v/c Ratio		0.71	0.32	0.22			
Control Delay		58.1	13.5	3.7			
Queue Delay		0.0	1.7	0.7			
Total Delay		58.1	15.2	4.4			

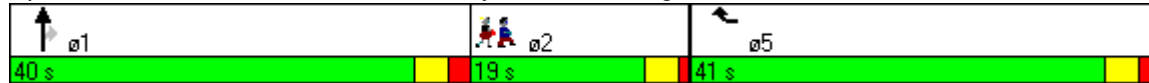


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
LOS		E	B	A			
Approach Delay			10.9				
Approach LOS			B				

**Intersection Summary**

Area Type:	CBD
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	3 (3%), Referenced to phase 1:NBT, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	22.2
Intersection LOS:	C
Intersection Capacity Utilization	30.2%
ICU Level of Service	A
Analysis Period (min)	15

**Splits and Phases: 3: Avenue de Lafayette & Washington Street**







Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	94	9	0	0
Peak Hour Factor	0.92	0.92	0.92	0.38	0.92	0.92
Hourly flow rate (vph)	0	0	102	24	0	0
Pedestrians	900					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				428	853	
pX, platoon unblocked						
vC, conflicting volume	1128	900	900			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1128	900	900			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	100	100	86			
cM capacity (veh/h)	196	340	719			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	126					
Volume Left	102					
Volume Right	0					
cSH	719					
Volume to Capacity	0.14					
Queue Length 95th (ft)	12					
Control Delay (s)	9.1					
Lane LOS	A					
Approach Delay (s)	9.1					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay	9.1					
Intersection Capacity Utilization	49.0%		ICU Level of Service		A	
Analysis Period (min)	15					



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	293	101	0	0
Peak Hour Factor	0.92	0.92	0.86	0.88	0.92	0.92
Hourly flow rate (vph)	0	0	341	115	0	0
Pedestrians	1023					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				220	1061	
pX, platoon unblocked	0.92					
vC, conflicting volume	1819	1023	1023			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1894	1023	1023			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	50			
cM capacity (veh/h)	36	289	686			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	455					
Volume Left	341					
Volume Right	0					
cSH	686					
Volume to Capacity	0.50					
Queue Length 95th (ft)	69					
Control Delay (s)	13.5					
Lane LOS	B					
Approach Delay (s)	13.5					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay	13.5					
Intersection Capacity Utilization	52.1%		ICU Level of Service		A	
Analysis Period (min)	15					



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↶					↑↑↑↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.99					
<b>Fr</b>						
Flt Protected	0.950					
Satd. Flow (prot)	1404	0	0	0	0	5169
Flt Permitted	0.950					
Satd. Flow (perm)	1387	0	0	0	0	5169
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	84					
Headway Factor	1.12	1.14	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	539		216			292
Travel Time (s)	14.7		5.9			8.0
Volume (vph)	127	0	0	0	0	727
Confl. Peds. (#/hr)	9					
Peak Hour Factor	0.53	0.92	0.92	0.92	0.92	0.85
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	18%	2%	2%	2%	2%	10%
Parking (#/hr)	0					
Adj. Flow (vph)	240	0	0	0	0	855
Lane Group Flow (vph)	240	0	0	0	0	855
<b>Turn Type</b>						
Protected Phases	2					1
<b>Permitted Phases</b>						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	46.0	0.0	0.0	0.0	0.0	44.0
Total Split (%)	51.1%	0.0%	0.0%	0.0%	0.0%	48.9%
Maximum Green (s)	41.0					39.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
<b>Lead/Lag</b>						
<b>Lead-Lag Optimize?</b>						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	84					195
Act Effct Green (s)	42.0					40.0
Actuated g/C Ratio	0.47					0.44
v/c Ratio	0.34					0.37

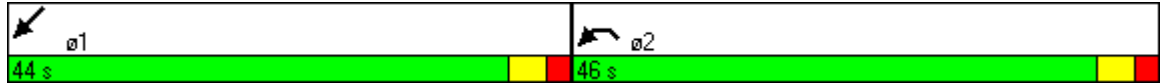


Lane Group	NWL	NWR	NET	NER	SWL	SWT
Control Delay	9.9			5.3		
Queue Delay	0.0			0.0		
Total Delay	9.9			5.3		
LOS	A			A		
Approach Delay	9.9			5.3		
Approach LOS	A			A		

**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	23 (26%), Referenced to phase 1:SWT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.37
Intersection Signal Delay:	6.3
Intersection LOS:	A
Intersection Capacity Utilization:	49.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 1: Temple Place & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶					↑↑↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.98					
<b>Fr</b>						
Flt Protected	0.950					
Satd. Flow (prot)	1534	0	0	0	0	5077
Flt Permitted	0.950					
Satd. Flow (perm)	1497	0	0	0	0	5077
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	34					
Headway Factor	1.12	1.14	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	548		699			216
Travel Time (s)	14.9		19.1			5.9
Volume (vph)	171	0	0	0	0	838
Confl. Peds. (#/hr)	18					
Peak Hour Factor	0.78	0.92	0.92	0.92	0.92	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	0%	0%	0%	0%	12%
Parking (#/hr)	0					
Adj. Flow (vph)	219	0	0	0	0	998
Lane Group Flow (vph)	219	0	0	0	0	998
<b>Turn Type</b>						
Protected Phases	2					1
<b>Permitted Phases</b>						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	51.0	0.0	0.0	0.0	0.0	39.0
Total Split (%)	56.7%	0.0%	0.0%	0.0%	0.0%	43.3%
Maximum Green (s)	46.0					34.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
<b>Lead/Lag</b>						
<b>Lead-Lag Optimize?</b>						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	109					146
Act Effct Green (s)	47.0					35.0
Actuated g/C Ratio	0.52					0.39
v/c Ratio	0.27					0.51



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay	7.1					9.9
Queue Delay	0.0					0.3
Total Delay	7.1					10.2
LOS	A					B
Approach Delay	7.1					10.2
Approach LOS	A					B

**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	25 (28%), Referenced to phase 1:SBT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	9.6
Intersection LOS:	A
Intersection Capacity Utilization	49.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 2: West Street & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations		↗	↗	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	10	11	12	12	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)		50	50	50			
Trailing Detector (ft)		0	0	0			
Turning Speed (mph)	15	9		9	15		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.865		0.850			
Flt Protected							
Satd. Flow (prot)	0	1312	1364	1326	0	0	
Flt Permitted							
Satd. Flow (perm)	0	1312	1364	1326	0	0	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)				186			
Headway Factor	1.14	1.19	1.25	1.19	1.14	1.14	
Link Speed (mph)	25		25			25	
Link Distance (ft)	491		237			220	
Travel Time (s)	13.4		6.5			6.0	
Volume (vph)	0	133	207	136	0	0	
Peak Hour Factor	0.92	0.78	0.92	0.73	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	9%	17%	6%	0%	0%	
Adj. Flow (vph)	0	171	225	186	0	0	
Lane Group Flow (vph)	0	171	225	186	0	0	
Turn Type		custom		Perm			
Protected Phases		5	1				2
Permitted Phases		5		1			
Detector Phases		5	1	1			
Minimum Initial (s)		8.0	8.0	8.0			4.0
Minimum Split (s)		13.0	13.0	13.0			19.0
Total Split (s)	0.0	34.0	37.0	37.0	0.0	0.0	19.0
Total Split (%)	0.0%	37.8%	41.1%	41.1%	0.0%	0.0%	21%
Maximum Green (s)		29.0	32.0	32.0			15.0
Yellow Time (s)		3.0	3.0	3.0			3.0
All-Red Time (s)		2.0	2.0	2.0			1.0
Lead/Lag			Lead	Lead			Lag
Lead-Lag Optimize?							
Vehicle Extension (s)		2.0	2.0	2.0			3.0
Recall Mode		None	C-Max	C-Max			None
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							500
Act Effct Green (s)		16.2	46.8	46.8			
Actuated g/C Ratio		0.18	0.52	0.52			
v/c Ratio		0.72	0.32	0.24			
Control Delay		51.0	14.2	3.7			
Queue Delay		0.0	1.2	0.6			
Total Delay		51.0	15.4	4.3			

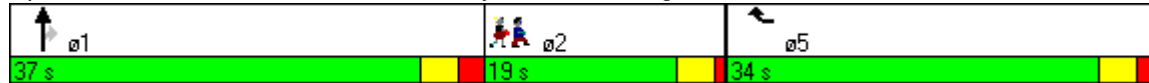


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
LOS		D	B	A			
Approach Delay			10.4				
Approach LOS			B				

**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	86 (96%), Referenced to phase 1:NBT, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	22.3
Intersection LOS:	C
Intersection Capacity Utilization	27.9%
ICU Level of Service	A
Analysis Period (min)	15

**Splits and Phases: 3: Avenue de Lafayette & Washington Street**







Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	129	46	0	0
Peak Hour Factor	0.92	0.92	0.77	0.53	0.92	0.92
Hourly flow rate (vph)	0	0	168	87	0	0
Pedestrians	162			35	178	
Lane Width (ft)	0.0			15.0	0.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			4	0	
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				428	853	
pX, platoon unblocked						
vC, conflicting volume	762	197	162			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	762	197	162			
tC, single (s)	6.4	6.2	4.4			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.5			
p0 queue free %	100	100	87			
cM capacity (veh/h)	326	818	1263			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	254					
Volume Left	168					
Volume Right	0					
cSH	1263					
Volume to Capacity	0.13					
Queue Length 95th (ft)	11					
Control Delay (s)	5.9					
Lane LOS	A					
Approach Delay (s)	5.9					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay	5.9					
Intersection Capacity Utilization	49.0%		ICU Level of Service		A	
Analysis Period (min)	15					



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	183	173	0	0
Peak Hour Factor	0.92	0.92	0.86	0.54	0.92	0.92
Hourly flow rate (vph)	0	0	213	320	0	0
Pedestrians	221			11	56	
Lane Width (ft)	0.0			16.0	0.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	0			1	0	
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				220	1061	
pX, platoon unblocked	0.93					
vC, conflicting volume	1023	232	221			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1025	232	221			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	100	100	84			
cM capacity (veh/h)	206	802	1325			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	533					
Volume Left	213					
Volume Right	0					
cSH	1325					
Volume to Capacity	0.16					
Queue Length 95th (ft)	14					
Control Delay (s)	4.3					
Lane LOS	A					
Approach Delay (s)	4.3					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay	4.3					
Intersection Capacity Utilization	49.7%		ICU Level of Service		A	
Analysis Period (min)	15					



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↶					↑↑↑↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	14	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.96					
<b>Fr</b>						
Flt Protected	0.950					
Satd. Flow (prot)	1520	0	0	0	0	5468
Flt Permitted	0.950					
Satd. Flow (perm)	1456	0	0	0	0	5468
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	35					
Headway Factor	1.12	1.05	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	539		216			292
Travel Time (s)	14.7		5.9			8.0
Volume (vph)	148	0	0	0	0	1224
Confl. Peds. (#/hr)	28					
Peak Hour Factor	0.87	0.92	0.92	0.92	0.92	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	0%	0%	0%	0%	4%
Parking (#/hr)	0					
Adj. Flow (vph)	170	0	0	0	0	1249
Lane Group Flow (vph)	170	0	0	0	0	1249
<b>Turn Type</b>						
Protected Phases	2					1
<b>Permitted Phases</b>						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	47.0	0.0	0.0	0.0	0.0	53.0
Total Split (%)	47.0%	0.0%	0.0%	0.0%	0.0%	53.0%
Maximum Green (s)	42.0					48.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
<b>Lead/Lag</b>						
<b>Lead-Lag Optimize?</b>						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	91					195
Act Effct Green (s)	43.0					49.0
Actuated g/C Ratio	0.43					0.49
v/c Ratio	0.25					0.47



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Control Delay	17.0					4.5
Queue Delay	0.0					0.2
Total Delay	17.0					4.7
LOS	B					A
Approach Delay	17.0					4.7
Approach LOS	B					A

**Intersection Summary**

Area Type:	CBD
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	75 (75%), Referenced to phase 1:SWT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	6.2
Intersection LOS:	A
Intersection Capacity Utilization	49.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 1: Temple Place & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↵					↑↑↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	12	11	11
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50					50
Trailing Detector (ft)	0					0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.86
Ped Bike Factor	0.78					
<b>Frt</b>						
Flt Protected	0.950					
Satd. Flow (prot)	1641	0	0	0	0	5416
Flt Permitted	0.950					
Satd. Flow (perm)	1274	0	0	0	0	5416
Right Turn on Red	Yes	Yes		Yes		
Satd. Flow (RTOR)	21					
Headway Factor	1.12	1.14	1.14	1.14	1.19	1.19
Link Speed (mph)	25		25			25
Link Distance (ft)	548		699			216
Travel Time (s)	14.9		19.1			5.9
Volume (vph)	279	0	0	0	0	1330
Confl. Peds. (#/hr)	149					
Peak Hour Factor	0.89	0.92	0.92	0.92	0.92	0.99
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	5%
Parking (#/hr)	0					
Adj. Flow (vph)	313	0	0	0	0	1343
Lane Group Flow (vph)	313	0	0	0	0	1343
<b>Turn Type</b>						
Protected Phases	2					1
<b>Permitted Phases</b>						
Detector Phases	2					1
Minimum Initial (s)	12.0					8.0
Minimum Split (s)	25.0					18.0
Total Split (s)	50.0	0.0	0.0	0.0	0.0	50.0
Total Split (%)	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%
Maximum Green (s)	45.0					45.0
Yellow Time (s)	3.0					3.0
All-Red Time (s)	2.0					2.0
<b>Lead/Lag</b>						
<b>Lead-Lag Optimize?</b>						
Vehicle Extension (s)	2.0					2.0
Recall Mode	Max					C-Max
Walk Time (s)	12.0					8.0
Flash Dont Walk (s)	8.0					5.0
Pedestrian Calls (#/hr)	164					275
Act Effct Green (s)	46.0					46.0
Actuated g/C Ratio	0.46					0.46
v/c Ratio	0.41					0.54

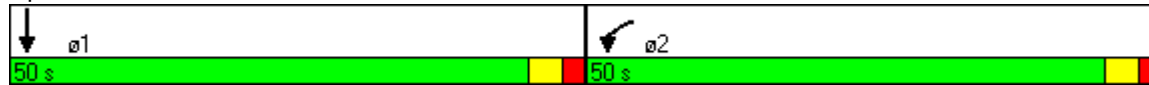


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay	30.5					8.1
Queue Delay	0.0					0.1
Total Delay	30.5					8.1
LOS	C					A
Approach Delay	30.5					8.1
Approach LOS	C					A

**Intersection Summary**

Area Type:	CBD
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	81 (81%), Referenced to phase 1:SBT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.54
Intersection Signal Delay:	12.4
Intersection LOS:	B
Intersection Capacity Utilization	54.6%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 2: West Street & Tremont Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations		↗	↑	↖			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	10	11	12	12	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)		50	50	50			
Trailing Detector (ft)		0	0	0			
Turning Speed (mph)	15	9		9	15		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.865		0.850			
Flt Protected							
Satd. Flow (prot)	0	1416	1535	1391	0	0	
Flt Permitted							
Satd. Flow (perm)	0	1416	1535	1391	0	0	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)				227			
Headway Factor	1.14	1.19	1.25	1.19	1.14	1.14	
Link Speed (mph)	25		25			25	
Link Distance (ft)	491		237			220	
Travel Time (s)	13.4		6.5			6.0	
Volume (vph)	0	158	268	195	0	0	
Peak Hour Factor	0.92	0.92	0.83	0.86	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	1%	4%	1%	0%	0%	
Adj. Flow (vph)	0	172	323	227	0	0	
Lane Group Flow (vph)	0	172	323	227	0	0	
Turn Type		custom		Perm			
Protected Phases		5	1				2
Permitted Phases		5		1			
Detector Phases		5	1	1			
Minimum Initial (s)		8.0	8.0	8.0			4.0
Minimum Split (s)		13.0	13.0	13.0			19.0
Total Split (s)	0.0	41.0	40.0	40.0	0.0	0.0	19.0
Total Split (%)	0.0%	41.0%	40.0%	40.0%	0.0%	0.0%	19%
Maximum Green (s)		36.0	35.0	35.0			15.0
Yellow Time (s)		3.0	3.0	3.0			3.0
All-Red Time (s)		2.0	2.0	2.0			1.0
Lead/Lag			Lead	Lead			Lag
Lead-Lag Optimize?							
Vehicle Extension (s)		2.0	2.0	2.0			3.0
Recall Mode		None	C-Max	C-Max			None
Walk Time (s)							7.0
Flash Dont Walk (s)							8.0
Pedestrian Calls (#/hr)							500
Act Effct Green (s)		16.3	56.7	56.7			
Actuated g/C Ratio		0.16	0.57	0.57			
v/c Ratio		0.74	0.37	0.26			
Control Delay		58.4	15.2	3.9			
Queue Delay		0.0	2.1	0.7			
Total Delay		58.4	17.3	4.6			

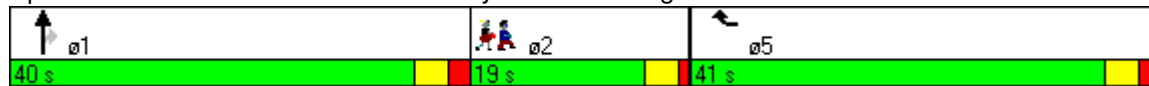


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
LOS		E	B	A			
Approach Delay			12.0				
Approach LOS			B				

**Intersection Summary**

Area Type:	CBD
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	3 (3%), Referenced to phase 1:NBT, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	23.1
Intersection LOS:	C
Intersection Capacity Utilization	33.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 3: Avenue de Lafayette & Washington Street







Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	153	9	0	0
Peak Hour Factor	0.92	0.92	0.92	0.38	0.92	0.92
Hourly flow rate (vph)	0	0	166	24	0	0
Pedestrians	900					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				428	853	
pX, platoon unblocked						
vC, conflicting volume	1256	900	900			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1256	900	900			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	100	100	77			
cM capacity (veh/h)	147	340	719			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	190					
Volume Left	166					
Volume Right	0					
cSH	719					
Volume to Capacity	0.23					
Queue Length 95th (ft)	22					
Control Delay (s)	10.4					
Lane LOS	B					
Approach Delay (s)	10.4					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay	10.4					
Intersection Capacity Utilization	49.0%		ICU Level of Service		A	
Analysis Period (min)	15					



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				4		
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	277	160	0	0
Peak Hour Factor	0.92	0.92	0.86	0.88	0.92	0.92
Hourly flow rate (vph)	0	0	322	182	0	0
Pedestrians	1023					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)				220	1061	
pX, platoon unblocked	0.90					
vC, conflicting volume	1849	1023	1023			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1946	1023	1023			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	53			
cM capacity (veh/h)	34	289	686			
<b>Direction, Lane #</b>	<b>NE 1</b>					
Volume Total	504					
Volume Left	322					
Volume Right	0					
cSH	686					
Volume to Capacity	0.47					
Queue Length 95th (ft)	63					
Control Delay (s)	12.3					
Lane LOS	B					
Approach Delay (s)	12.3					
Approach LOS						
<b>Intersection Summary</b>						
Average Delay	12.3					
Intersection Capacity Utilization	54.6%		ICU Level of Service		A	
Analysis Period (min)	15					

End Side

Table with columns for time slots (7:00 AM to 6:45 PM) and rows for various street segments (Temple Street, Temple Street - From Tenth Street to Washington Street, Washington Street, Washington Street - From Howard Street to Coddington Street).

Washington Street

Table with columns for time slots (7:00 AM to 6:45 PM) and rows for various street segments (Temple Street, Temple Street - From Tenth Street to Washington Street, Washington Street, Washington Street - From Howard Street to Coddington Street).

Washington Street - From Howard Street to Coddington Street

Table with columns for time slots (7:00 AM to 6:45 PM) and rows for various street segments (Temple Street, Temple Street - From Tenth Street to Washington Street, Washington Street, Washington Street - From Howard Street to Coddington Street).

Table with columns for duration and occupancy metrics (Duration, Limit, Overlap, Spots #1-4, # of vehicles parked, # of intervals parked, sum, Duration, sum, # of vehicles parked, # of intervals parked, sum, Duration, sum, # of vehicles parked, # of intervals parked, sum, Duration, sum) and rows for various street segments.

Summary table with columns: Average, Max, Min, 10, 5, 3, 2, 1, 0.

Summary table with columns: Average, Max, Min, 10, 5, 3, 2, 1, 0.

43

43

38

46

36







Duration (hrs)	0	hr
Duration (min)	0	min
Space #47		
Nr (# of vehicles parked)	0	0
x (# of intervals parked)	0	0
l	0	0
i	0.25	0.25
sum (N(x))	0	0
Nt	0	0
Duration (hrs)	0	hr
Duration (min)	0	min
Space #48		
Nr (# of vehicles parked)	0	0
x (# of intervals parked)	0	0
l	0	0
i	0.25	0.25
sum (N(x))	0	0
Nt	1	1
Duration (hrs)	0.25	hr
Duration (min)	15	min
Space #49		
Nr (# of vehicles parked)	0	0
x (# of intervals parked)	0	0
l	0	0
i	0.25	0.25
sum (N(x))	0.5	0.5
Nt	2	2
Duration (hrs)	0.25	hr
Duration (min)	15	min
Space #50		
Nr (# of vehicles parked)	0	0
x (# of intervals parked)	0	0
l	0	0
i	0.25	0.25
sum (N(x))	0.25	0.25
Nt	1	1
Duration (hrs)	0.25	hr
Duration (min)	15	min
Space #51		
Nr (# of vehicles parked)	0	0
x (# of intervals parked)	0	0
l	0	0
i	0.25	0.25
sum (N(x))	27.5	27.5
Nt	22	22
Duration (hrs)	1.25	hr
Duration (min)	75	min
Space #52		
Nr (# of vehicles parked)	0	0
x (# of intervals parked)	0	0
l	0	0
i	0.25	0.25
sum (N(x))	35.5	35.5
Nt	24	24
Duration (hrs)	1.968333	hr
Duration (min)	83.75	min
Space #53		
Nr (# of vehicles parked)	1	1
x (# of intervals parked)	0.25	0.25
l	0	0
i	0.25	0.25
sum (N(x))	21.5	21.5
Nt	22	22
Duration (hrs)	0.9772727	hr
Duration (min)	58.636364	min
Space #54		
Nr (# of vehicles parked)	1	1
x (# of intervals parked)	0.25	0.25
l	2	2
i	0.25	0.25
sum (N(x))	42	42
Nt	30	30
Duration (hrs)	1.4	hr
Duration (min)	84	min
Space #55		
Nr (# of vehicles parked)	1	1
x (# of intervals parked)	0.25	0.25
l	2	2
i	0.25	0.25
sum (N(x))	33.75	33.75
Nt	25	25
Duration (hrs)	1.35	hr
Duration (min)	81	min
Space #56		
Nr (# of vehicles parked)	1	1
x (# of intervals parked)	0.25	0.25
l	0	0
i	0.25	0.25
sum (N(x))	6.5	6.5
Nt	14	14
Duration (hrs)	0.4642857	hr
Duration (min)	27.857143	min
Space #57		
Nr (# of vehicles parked)	1	1
x (# of intervals parked)	0.25	0.25
l	0	0
i	0.25	0.25
sum (N(x))	17.25	17.25
Nt	13	13
Duration (hrs)	0.9948776	hr
Duration (min)	35.889655	min
Space #58		
Nr (# of vehicles parked)	0	0
x (# of intervals parked)	0.25	0.25
l	0	0
i	0.25	0.25
sum (N(x))	11.75	11.75
Nt	11	11
Duration (hrs)	0.5595238	hr
Duration (min)	33.571429	min
Space #59		
Nr (# of vehicles parked)	0	0
x (# of intervals parked)	0.25	0.25
l	0	0
i	0.25	0.25
sum (N(x))	11	11
Nt	22	22
Duration (hrs)	0.5	hr
Duration (min)	30	min
Space #60		
Nr (# of vehicles parked)	1	1
x (# of intervals parked)	0.25	0.25
l	0	0
i	0.25	0.25

















West Street

West Side

Table with columns for time slots (7:00 AM to 6:45 PM) and rows for various street segments (e.g., West Street - from Washington Street to Transit Street, West Street - from Transit Street to Washington Street).

East Side

Table with columns for time slots (7:00 AM to 6:45 PM) and rows for various street segments (e.g., West Street - from Washington Street to Transit Street, West Street - from Transit Street to Washington Street).

Transit

Table with columns for time slots (7:00 AM to 6:45 PM) and rows for Transit Street.

Summary table for West Street East Occupancy with columns for time slots and rows for Handicap, 30-min, Illegal, Police, and min/hr.

Summary table for Spots #1 with columns for time slots and rows for vehicle counts and duration.

Summary table for Spots #2 with columns for time slots and rows for vehicle counts and duration.

Summary table for Spots #3 with columns for time slots and rows for vehicle counts and duration.

Summary table for Spots #4 with columns for time slots and rows for vehicle counts and duration.

Summary table for Spots #5 with columns for time slots and rows for vehicle counts and duration.

Summary table for Spots #6 with columns for time slots and rows for vehicle counts and duration.

Average and Max summary table with columns for Average and Max and rows for Handicap, 30-min, Illegal, Police, and min/hr.

Small empty table with 2 columns and 2 rows.







Spico #34
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #35
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #36
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #37
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #38
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #39
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #40
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #41
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #42
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #43
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #44
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #45
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #46
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)

Spico #47
Nr (# of vehicles parked)
I (# of intervals parked)
sum (Nk000)
Duration (hrs)
Duration (min)









**59 Temple Place**  
**Parking Summary**

<b>Tuesday, August 14, 2012</b>										
	7:00 AM	7:15 AM	7:30 AM	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM
Zone 1 - West Street	(51 spaces)									
Occupancy	8	7	7	6	6	7	10	15	13	13
% Occupied	16%	14%	14%	12%	12%	14%	20%	29%	25%	25%
Zone 2 - Temple Place	(62 spaces)									
Occupancy	10	10	16	14	8	9	8	8	5	5
% Occupied	16%	16%	26%	23%	13%	15%	13%	13%	8%	8%
Zone 3 - Washington Street	(33 spaces)									
Occupancy	2	5	4	4	3	6	2	4	3	5
% Occupied	6%	15%	12%	12%	9%	18%	6%	12%	9%	15%
Zone 4- Tremont Street	(24 spaces)									
Occupancy	0	0	0	0	0	0	0	0	0	0
% Occupied	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Zone 5 - Mason Street	(13 spaces)									
Occupancy	5	5	5	5	5	5	5	5	6	6
% Occupied	38%	38%	38%	38%	38%	38%	38%	38%	46%	46%
TOTAL	(183 spaces)									
Occupancy	25	27	32	29	22	27	25	32	27	29
% Occupied	14%	15%	17%	16%	12%	15%	14%	17%	15%	16%

9:30 AM	9:45 AM	10:00 AM	10:15 AM	10:30 AM	10:45 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	12:00 PM	12:15 PM	12:30 PM
12 24%	12 24%	10 20%	13 25%	9 18%	10 20%	11 22%	10 20%	10 20%	14 27%	9 18%	10 20%	9 18%
9 15%	13 21%	15 24%	13 21%	10 16%	8 13%	13 21%	6 10%	9 15%	11 18%	13 21%	13 21%	11 18%
4 12%	4 12%	0 0%	3 9%	3 9%	7 21%	7 21%	7 21%	7 21%	3 9%	7 21%	5 15%	5 15%
0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 8%	1 4%	0 0%	0 0%	0 0%	0 0%
7 54%	7 54%	7 54%	7 54%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%
32 17%	36 20%	32 17%	36 20%	28 15%	31 17%	37 20%	31 17%	33 18%	34 19%	35 19%	34 19%	31 17%



12:45 PM	1:00 PM	1:15 PM	1:30 PM	1:45 PM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM
12 24%	10 20%	11 22%	9 18%	8 16%	6 12%	9 18%	8 16%	6 12%	7 14%	9 18%	7 14%	8 16%
10 16%	14 23%	15 24%	15 24%	14 23%	20 32%	11 18%	13 21%	11 18%	11 18%	10 16%	14 23%	8 13%
6 18%	6 18%	7 21%	9 27%	7 21%	6 18%	7 21%	6 18%	8 24%	6 18%	5 15%	5 15%	8 24%
0 0%	2 8%	0 0%	0 0%	3 13%	1 4%	1 4%	1 4%	1 4%	0 0%	0 0%	0 0%	1 4%
7 54%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%
35 19%	38 21%	39 21%	39 21%	38 21%	39 21%	34 19%	34 19%	32 17%	30 16%	30 16%	32 17%	31 17%

4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
10 20%	9 18%	9 18%	7 14%	12 24%	13 25%	11 22%	11 22%	12 24%	8 16%	10 20%	11 22%
11 18%	7 11%	9 15%	11 18%	12 19%	13 21%	11 18%	10 16%	9 15%	11 18%	11 18%	13 21%
9 27%	6 18%	6 18%	7 21%	7 21%	6 18%	5 15%	6 18%	6 18%	5 15%	5 15%	5 15%
1 4%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	6 46%	7 54%	7 54%	7 54%
37 20%	28 15%	30 16%	31 17%	37 20%	38 21%	33 18%	33 18%	33 18%	31 17%	33 18%	36 20%

**59 Temple Place  
Parking Summary**

Zone	Regulation	# Spaces		Average Weekday Occupancy	Average Occupancy Duration
West Street	Handicap	4		2	4.0 hrs
	30-min	14		6	1.4 hrs
	Police	2		0	0.0 hrs
	No parking	31		1	0.2 hrs
	<b>TOTAL</b>	<b>51</b>		<b>9</b>	
Temple Place	Handicap	4		3	6.2 hrs
	10-min	4		2	1.3 hrs
	30-min	11		5	0.9 hrs
	No parking	43		1	0.1 hrs
	<b>TOTAL</b>	<b>62</b>		<b>11</b>	
Washington Street	30 - min	10		5	0.9 hrs
	No parking	23		0	0.0 hrs
	<b>TOTAL</b>	<b>33</b>		<b>5</b>	
Tremont Street	Illegal	24		0	0.1 hrs
	<b>TOTAL</b>	<b>24</b>		<b>0</b>	
Mason Street	Government	7		6	5.9 hrs
	No parking	6		0	0.0 hrs
	<b>TOTAL</b>	<b>13</b>		<b>6</b>	

**TOTAL 183**

Peak	Time	% of Total
2		
11		
0		
2		
<b>15</b>	<b>8:45 AM</b>	<b>29%</b>
4		
2		
10		
4		
<b>20</b>	<b>2:00 PM</b>	<b>32%</b>
8		
1		
<b>9</b>	<b>4:00 PM</b>	<b>27%</b>
3		
<b>3</b>	<b>1:45 PM</b>	<b>13%</b>
7		
0		
<b>7</b>	<b>9:30 AM</b>	<b>54%</b>

**26 14%**

					Average Turnover Rate (veh/min/space)		
Street Name	Parking Regulation	Number of Spaces	Peak Occupancy		Morning (7:00 a.m. to 10:00 a.m.)	Mid-day (10:00 a.m. to 4:00 p.m.)	Evening (4:00 p.m. to 7:00 p.m.)
			AVG	PEAK			
West Street	Handicap	4	50%	50%	30	18	30
	30-min	14	43%	79%	64	17	103
	Police	2	0%	0%	0	0	0
	No Stopping/ No Parking	31	3%	6%	3	2	2
Temple Place	Handicap	4	75%	100%	38	28	38
	10-min	4	50%	50%	30	45	75
	30-min	11	45%	91%	46	58	82
	No Stopping/ No Parking	43	2%	9%	7	4	6
Washington Street	30 - min	10	50%	80%	66	54	84
	No Stopping/ No Parking	23	0%	4%	1	1	1
Tremont Street	No Stopping/ No Parking	24	0%	13%	0	1	0
Mason Street	Government	7	86%	100%	39	17	34
	No Stopping/ No Parking	6	0%	0%	0	2	0

Zone	Parking Restriction	# Spaces Available	Peak Occupancy	Average Turnover Rate (veh/hr/space)		
				Morning (7:00 a.m. to 10:00 a.m.)	Mid-day (10:00 a.m. to 4:00 p.m.)	Evening (4:00 p.m. to 7:00 p.m.)
West Street	Handicap	4	50%	0.50	0.29	0.50
	30-min	14	79%	1.07	0.29	1.71
	Police	2	0%	0.00	0.00	0.00
	No parking	31	6%	0.05	0.03	0.03
	<b>TOTAL</b>	<b>51</b>	<b>29%</b>	<b>0.36</b>	<b>0.12</b>	<b>0.53</b>
Temple Place	Handicap	4	100%	0.63	0.46	0.63
	10-min	4	50%	0.50	0.75	1.25
	30-min	11	91%	0.77	0.97	1.36
	No parking	43	9%	0.12	0.07	0.09
	<b>TOTAL</b>	<b>62</b>	<b>32%</b>	<b>0.29</b>	<b>0.30</b>	<b>0.43</b>
Washington Street	30 - min	10	80%	1.10	0.90	1.40
	No parking	23	4%	0.02	0.02	0.02
	<b>TOTAL</b>	<b>33</b>	<b>27%</b>	<b>0.35</b>	<b>0.29</b>	<b>0.44</b>
Tremont Street	No parking	24	13%	0.00	0.01	0.00
	<b>TOTAL</b>	<b>24</b>	<b>13%</b>	<b>0.00</b>	<b>1.47</b>	<b>1.29</b>
Mason Street	Government	7	100%	0.64	0.29	0.57
	No parking	6	0%	0.00	0.03	0.00
	<b>TOTAL</b>	<b>13</b>	<b>54%</b>	<b>0.35</b>	<b>0.17</b>	<b>0.31</b>

# 59 Temple Place, Boston, MA

## Trip Generation Estimation - Existing Use

Howard/Stein-Hudson Associates

September 6, 2012

Land Use	Size	Category	Trip Rates (Trips/ksf or unit)	Unadjusted Vehicle Trips	Internal trips <sup>1</sup>	Pass-by %	Less capture trips	Assumed national vehicle occupancy rate <sup>2</sup>	Converted to Person trips	Transit Share <sup>3</sup>	Transit Trips	Walk/Bike/ Other Share <sup>3</sup>	Walk/ Bike/ Other Trips	Vehicle Share <sup>3</sup>	Vehicle Person Trips	Assumed local vehicle occupancy rate <sup>4</sup>	Total Adjusted Vehicle Trips
<b>Daily Trip Generation</b>																	
<b>Retail<sup>5</sup></b>																	
	12.5	Total	42.94	537		25%	403	1.78	717	35%	251	41%	294	24%	172	1.78	97
	KSF	In	21.47	268		25%	201	1.78	358	35%	125	41%	147	24%	86	1.78	48
		Out	21.47	268		25%	201	1.78	359	35%	126	41%	147	24%	86	1.78	48
<b>Office<sup>6</sup></b>																	
	123.0	Total	12.72	1,565		0%	1,565	1.13	1,768	43%	760	31%	548	26%	460	1.13	407
	KSF	In	6.37	783		0%	783	1.13	885	43%	381	31%	274	26%	230	1.13	204
		Out	6.35	782		0%	782	1.13	883	43%	380	31%	274	26%	230	1.13	204
<b>Total</b>																	
		Total		2,102					2,485		1,011		842				504
		In		1,051					1,243		506		421				252
		Out		1,050					1,242		506		421				252
<b>AM Peak Hour Trip Generation</b>																	
<b>Retail<sup>5</sup></b>																	
	12.5	Total	1.00	13		50%	7	1.78	12		5		2		4	1.78	2
	KSF	In	0.61	8		50%	4	1.78	7	62%	4	5%	0	33%	2	1.78	1
		Out	0.39	5		50%	3	1.78	5	15%	1	46%	2	39%	2	1.78	1
<b>Office<sup>6</sup></b>																	
	123.0	Total	1.80	221		0%	221	1.13	250		144		19		87	1.13	77
	KSF	In	1.58	194		0%	194	1.13	219	63%	138	5%	11	32%	70	1.13	62
		Out	0.22	27		0%	27	1.13	31	18%	6	26%	8	56%	17	1.13	15
<b>Total</b>																	
		Total		234					262		149		21				79
		In		202					226		142		11				63
		Out		32					36		7		10				16
<b>PM Peak Hour Trip Generation</b>																	
<b>Retail<sup>5</sup></b>																	
	12.5	Total	3.73	47		50%	24	1.78	43		17		11		15	1.78	8
	KSF	In	1.83	23		50%	12	1.78	21	15%	3	46%	10	39%	8	1.78	4
		Out	1.90	24		50%	12	1.78	22	62%	14	5%	1	33%	7	1.78	4
<b>Office<sup>6</sup></b>																	
	123.0	Total	1.76	217		0%	217	1.13	245		136		21		91	1.13	81
	KSF	In	0.30	37		0%	37	1.13	42	18%	8	26%	11	56%	24	1.13	21
		Out	1.46	180		0%	180	1.13	203	63%	128	5%	10	33%	67	1.13	59
<b>Total</b>																	
		Total		264					288		153		32				89
		In		60					63		11		21				25
		Out		204					225		142		11				63

**Notes:**

1. Internal trips based on ITE Trip Generation Handbook, 2nd Edition, Multi-Use Development
2. 2009 National vehicle occupancy rates - 1.13: Home to work; 1.78: Retail
3. Mode shares based on 2000 Census data and BTD Data for Area 2
4. 2009 National vehicle occupancy rates - 1.13: Home to work; 1.78: Retail
5. ITE Trip Generation Equation, 8th Edition, LUC 820 (Shopping Center), average rate
6. ITE Trip Generation Equation, 8th Edition, LUC 710 (General Office), equation

# 59 Temple Place, Boston, MA

## Trip Generation Estimation - Proposed Use

Howard/Stein-Hudson Associates  
September 6, 2012

Land Use	Size	Category	Trip Rates (Trips/ksf or unit)	Unadjusted Vehicle Trips	Internal trips <sup>1</sup>	Pass-by %	Less capture trips	Assumed national vehicle occupancy rate <sup>2</sup>	Converted to Person trips	Transit Share <sup>3</sup>	Transit Trips	Walk/Bike/ Other <sup>4</sup>	Walk/ Bike/ Other Trips	Vehicle Share <sup>5</sup>	Vehicle Person Trips	Assumed local vehicle occupancy rate <sup>6</sup>	Total Adjusted Vehicle Trips
<b>Daily Trip Generation</b>																	
<b>Hotel<sup>5</sup></b>	243.0	Total	8.92	2,168		0%	2,168	1.67	<b>3,621</b>	35%	<b>1,267</b>	41%	<b>1,485</b>	24%	869	1.67	<b>520</b>
	Rooms	In	4.46	1,084		0%	1,084	1.67	<b>1,810</b>	35%	<b>634</b>	41%	<b>742</b>	24%	434	1.67	<b>260</b>
		Out	4.46	1,084		0%	1,084	1.67	<b>1,811</b>	35%	<b>634</b>	41%	<b>743</b>	24%	435	1.67	<b>260</b>
<b>Retail<sup>6</sup></b>	2.8	Total	42.94	120		25%	90	1.78	<b>160</b>	35%	<b>56</b>	41%	<b>66</b>	24%	38	1.78	<b>21</b>
	KSF	In	21.47	60		25%	45	1.78	<b>80</b>	35%	<b>28</b>	41%	<b>33</b>	24%	19	1.78	<b>11</b>
		Out	21.47	60		25%	45	1.78	<b>80</b>	35%	<b>28</b>	41%	<b>33</b>	24%	19	1.78	<b>11</b>
<b>Quality Restaurant<sup>7</sup></b>	4.8	Total	89.95	432		25%	324	1.78	<b>577</b>	35%	<b>202</b>	41%	<b>237</b>	24%	138	1.78	<b>78</b>
	KSF	In	44.98	216		25%	162	1.78	<b>288</b>	35%	<b>101</b>	41%	<b>118</b>	24%	69	1.78	<b>39</b>
		Out	44.97	216		25%	162	1.78	<b>289</b>	35%	<b>101</b>	41%	<b>118</b>	24%	69	1.78	<b>39</b>
<b>Total</b>		Total		2,720					<b>4,358</b>		<b>1,525</b>		<b>1,788</b>				<b>619</b>
		In		1,360					<b>2,178</b>		<b>763</b>		<b>893</b>				<b>310</b>
		Out		1,360					<b>2,180</b>		<b>763</b>		<b>894</b>				<b>310</b>
<b>AM Peak Hr Trip Generation</b>																	
<b>Hotel<sup>5</sup></b>	243.0	Total	0.67	163		0%	163	1.67	<b>272</b>		<b>116</b>		<b>60</b>		96	1.67	<b>57</b>
	Rooms	In	0.39	95		0%	95	1.67	<b>159</b>	62%	<b>99</b>	5%	<b>8</b>	33%	52	1.67	<b>31</b>
		Out	0.28	68		0%	68	1.67	<b>113</b>	15%	<b>17</b>	46%	<b>52</b>	39%	44	1.67	<b>26</b>
<b>Retail<sup>6</sup></b>	2.8	Total	1.00	3		50%	2	1.78	<b>4</b>		<b>1</b>		<b>1</b>		2	1.78	<b>1</b>
	KSF	In	0.61	2		50%	1	1.78	<b>2</b>	62%	<b>1</b>	5%	<b>0</b>	33%	1	1.78	<b>1</b>
		Out	0.39	1		50%	1	1.78	<b>2</b>	15%	<b>0</b>	46%	<b>1</b>	39%	1	1.78	<b>1</b>
<b>Quality Restaurant<sup>7</sup></b>	4.8	Total	0.81	4		50%	2	1.78	<b>4</b>		<b>2</b>		<b>0</b>		1	1.78	<b>1</b>
	KSF	In	0.66	3		50%	2	1.78	<b>4</b>	62%	<b>2</b>	5%	<b>0</b>	33%	1	1.78	<b>1</b>
		Out	0.15	1		50%	1	1.78	<b>0</b>	15%	<b>0</b>	46%	<b>0</b>	39%	0	1.78	<b>0</b>
<b>Total</b>		Total		170					<b>280</b>		<b>119</b>		<b>61</b>				<b>59</b>
		In		100					<b>165</b>		<b>102</b>		<b>8</b>				<b>33</b>
		Out		70					<b>115</b>		<b>17</b>		<b>53</b>				<b>27</b>
<b>PM Peak Hr Trip Generation</b>																	
<b>Hotel<sup>5</sup></b>	243.0	Total	0.70	170		0%	170	1.67	<b>284</b>		<b>111</b>		<b>71</b>		102	1.67	<b>61</b>
	Rooms	In	0.34	83		0%	83	1.67	<b>139</b>	15%	<b>21</b>	46%	<b>64</b>	39%	54	1.67	<b>32</b>
		Out	0.36	87		0%	87	1.67	<b>145</b>	62%	<b>90</b>	5%	<b>7</b>	33%	48	1.67	<b>29</b>
<b>Retail<sup>6</sup></b>	2.8	Total	3.73	10		50%	5	1.78	<b>9</b>		<b>3</b>		<b>2</b>		3	1.78	<b>2</b>
	KSF	In	1.83	5		50%	3	1.78	<b>5</b>	15%	<b>1</b>	46%	<b>2</b>	39%	2	1.78	<b>1</b>
		Out	1.90	5		50%	3	1.78	<b>4</b>	62%	<b>2</b>	5%	<b>0</b>	33%	1	1.78	<b>1</b>
<b>Quality Restaurant<sup>7</sup></b>	4.8	Total	7.49	36		50%	18	1.78	<b>32</b>		<b>10</b>		<b>11</b>		12	1.78	<b>7</b>
	KSF	In	5.02	24		50%	12	1.78	<b>21</b>	15%	<b>3</b>	46%	<b>10</b>	39%	8	1.78	<b>4</b>
		Out	2.47	12		50%	6	1.78	<b>11</b>	62%	<b>7</b>	5%	<b>1</b>	33%	4	1.78	<b>2</b>
<b>Total</b>		Total		216					<b>325</b>		<b>124</b>		<b>84</b>				<b>70</b>
		In		112					<b>165</b>		<b>25</b>		<b>76</b>				<b>37</b>
		Out		104					<b>160</b>		<b>99</b>		<b>8</b>				<b>32</b>

Notes:

- Internal trips based on ITE Trip Generation Handbook, 2nd Edition, Multi-Use Development
- 2009 National vehicle occupancy rates - 1.67 Hotel, 1.78 Retail and Restaurant
- Mode shares based on 2000 Census data and BTD Data for Area 2
- Local vehicle occupancy rates based on 2000 Census data.
- ITE Trip Generation Equation, 8th Edition, LUC 310 (Hotel), average rate
- ITE Trip Generation Equation, 8th Edition, LUC 820 (Shopping Center), average rate
- ITE Trip Generation Equation, 8th Edition, LUC 931 (Quality Restaurant), average rate
- Directional distribution of Quality Restaurant AM Peak Hour taken from AM Peak Hour of Generator