

SUBMITTED TO
Boston Redevelopment Authority

PROONENT
ND Acquisitions LLC

PREPARED BY 

IN ASSOCIATION WITH
The McCormack Firm
Elkus Manfredi Architects
Copley Wolff Design Group
GZA GeoEnvironmental, Inc.

AC Hotel South End

Expanded Project Notification Form

APRIL 2015





April 3, 2015

Ref: 10995.04

Director Brian P. Golden
Boston Redevelopment Authority
One City Hall Square, 9th Floor
Boston, MA 02201

**Re: "Expanded" Project Notification Form
AC Hotel South End
223-237 Albany Street, Boston**

Dear Director Golden:

On behalf of ND Acquisitions LLC (the "Proponent"), Vanasse Hangen Brustlin, Inc. (VHB) is pleased to submit the enclosed "expanded" Project Notification Form (PNF) for the proposed AC Hotel South End project, which includes construction of a new approximately 95,000-square foot, 6-story hotel (the "Project"). The Project is located at 223-237 Albany Street at the northeastern edge of the South End neighborhood bordering both the Chinatown and South Boston neighborhoods (the "Project Site"). The enclosed Project Notification Form (PNF) is being filed to initiate the Article 80B, Large Project Review process required by the Boston Zoning Code and Enabling Act.

The Project Site consists of two lots totaling approximately 0.69 acres (30,100 square feet) each of which is developed with a 2-story brick building and surface parking. The Project Site is bounded by a mixed use residential and commercial redevelopment project called Ink Block South End to the west and south, the Transit Realty Company property to the north, and Albany Street to the east. Directly to the east of Albany Street lies the elevated (by approximately 30 feet) Southeast Expressway (Interstate-93/Route 3, or I-93), which runs north-south.

The Project consists of a 200-room European-style "select-service" hotel, which is a new concept in the United States. The hotel will be distinguished by cosmopolitan design that aims to attract travelers seeking to experience the unique local flavor of the South End. The proposed use is intended to meet the goals of the BRA Harrison-Albany Corridor Strategic Plan by continuing to transform the northeast quadrant of the South End from an industrial area into a vibrant mixed use urban community. The Project also complies with the dimensional regulations set forth in Article 64.

Overall, the Project will generate numerous benefits to the neighborhood by revitalizing an underutilized urban site, activating the public realm, improving traffic circulation along Albany Street, and upgrading stormwater treatment. Also, the City and region as a whole will benefit from job creation and tax revenues. In addition to complying with Article 37 – Green Buildings, the Proponent intends to strive for a



Silver rating (at minimum) under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) Green Building Rating System for Design and Construction.

The enclosed "expanded" PNF presents details about the Project and provides an analysis of transportation/traffic, potential environmental impacts, infrastructure needs, and historic resources in order to inform state and city agencies and neighborhood residents about the Project, its potential impacts as well as the mitigation measures proposed to address those potential impacts. Based on a comprehensive approach to addressing potential impacts and mitigation similar to the level of information normally presented in a Draft Project Impact Report under Article 80B, it is the desire of the Proponent that the BRA, after reviewing public and agency comments as well as any further responses to comments made by the Proponent, will issue a Scoping Determination Waiving Further Review pursuant to the Article 80B process.

We look forward to working collaboratively with you and your staff, other city agencies, and members of the community to develop the best redevelopment plan for this location. We anticipate that the BRA will publish notice of the receipt of the PNF within five days, as required by Section 80A-2(3). Requests for copies of the PNF should be directed to me at 617-607-0091 or via e-mail at ldevoe@vhab.com.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

A handwritten signature in blue ink, appearing to read "Lauren DeVoe", written over a faint, light blue circular stamp.

Lauren DeVoe, AICP, LEED AP BD+C
Senior Environmental Planner

Enclosure

cc: Ted Tye, Managing Partner, National Development
Sherry Clancy, Project Manager, National Development
Mary-Elise Connolly, Esq., The McCormack Firm



Expanded Project Notification Form

AC Hotel South End

Boston,
Massachusetts

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

Proponent **ND Acquisitions LLC**
2310 Washington Street
Newton Lower Falls, MA 02462

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April 2015



Table of Contents

Chapter 1: Project Description and General Information

Introduction	1-1
Site Context and Existing Conditions	1-1
Project Description	1-2
Project Schedule	1-3
Summary of Public Benefits	1-4
Regulatory Context	1-6
Harrison-Albany Street Corridor Strategic Plan Zoning	1-6
Anticipated Permits and Approvals	1-6
Local Planning and Regulatory Controls	1-7
Massachusetts Environmental Policy Act	1-10
Agency Coordination and Community Outreach	1-10
Development Team	1-12
Legal Information	1-13
Legal Judgments or Actions Pending	1-13
History of Tax Arrears	1-13
Site Control/Public Easements	1-13

Chapter 2: Urban Design

Introduction	2-1
Key Findings and Benefits	2-1
Neighborhood Context	2-2
Planning Principles and Design Goals	2-2
Height and Massing	2-3
Character and Exterior Materials	2-3
The Public Realm Improvements	2-4
Site Landscaping	2-5
Signage	2-5

Chapter 3: Transportation and Parking

Introduction	3-1
Key Findings and Benefits	3-1
Methodology	3-2
Proposed Development Program	3-3



Consistency with Area-Wide Planning	3-3
Existing Conditions	3-4
Roadways	3-4
Study Area Intersections	3-5
Vehicular Traffic	3-7
Pedestrians	3-9
Bicycles	3-10
Public Transportation	3-10
Existing Parking	3-11
Crash Analysis	3-11
Future Condition	3-14
No-Build Condition	3-14
Build Condition	3-16
Project-Generated Trips	3-18
Parking Supply	3-20
Traffic Operations Analysis	3-20
Signalized Capacity Analysis	3-21
Unsignalized Capacity Analysis	3-25
Transportation Demand Management	3-28

Chapter 4: Environmental Protection

Introduction	4-1
Key Findings and Benefits	4-2
Shadow	4-3
Summary of Key Findings	4-4
Regulatory Context	4-4
Methodology	4-4
Potential Effects	4-4
Daylight	4-6
Methodology	4-6
Daylight Existing/No-Build Conditions	4-7
Daylight Build Conditions	4-7
Solar Glare	4-8
Air Quality Microscale Analysis	4-8
Background	4-8
Air Quality Standards	4-9
Boston Redevelopment Authority Development Review	
Guidelines	4-10
Microscale ("Hot Spot") Analysis Methodology	4-10
Microscale Results	4-12
Summary of Findings	4-15



Water Quality	4-16
Flood Hazard	4-16
Noise.....	4-17
Noise Analysis Background	4-17
City of Boston Noise Impact Criteria	4-19
Noise Analysis Methodology	4-20
Existing Noise Conditions	4-21
Future Noise Conditions	4-21
Conclusion of Noise Impact Assessment.....	4-23
Solid and Hazardous Wastes	4-23
Groundwater	4-24
Geotechnical.....	4-24
Construction.....	4-25
Site Preparation and Construction Staging.....	4-25
Construction Air Quality	4-26
Construction Noise.....	4-26
Construction Traffic and Parking.....	4-26
Construction Hazardous Materials and Solid Waste.....	4-28
Rodent Control During Construction	4-28
Public Safety During Construction	4-28
Post-Construction Rodent Control	4-29
Sustainable Design/Green Building	4-29
Regulatory Context	4-30
Approach to Sustainability/Compliance with Article 37	4-32
Climate Change Preparedness and Resiliency	4-36
Addressing Sea Level Rise.....	4-37
Building Resiliency.....	4-38
Addressing Extreme Weather Conditions	4-38

Chapter 5: Infrastructure

Introduction	5-1
Key Findings and Benefits	5-1
Regulatory Context.....	5-2
Stormwater Management	5-3
Existing Drainage Conditions.....	5-3
Proposed Drainage Conditions.....	5-3
Compliance with Boston Zoning Code Article 32: Groundwater Conservation Overlay District.....	5-3
Sanitary Sewage.....	5-4
Existing Sewer System	5-4
Proposed Sewage Flow and Connection.....	5-4



Domestic Water and Fire Protection	5-5
Existing Water Supply System	5-5
Proposed Water Demand and Connection	5-5
Other Utilities	5-6
Natural Gas Service	5-6
Electrical Service	5-7
Telephone and Telecommunications	5-7
Protection of Utilities During Construction	5-7

Chapter 6: Historic Resources

Introduction	6-1
Key Findings and Benefits	6-1
Historic Context	6-2
Historic Resources	6-3
South End Landmark District	6-4
South End Landmark Protection Area	6-5
Properties in Chinatown	6-6
On-site Resources	6-9
Evaluation of Significance of On-site Buildings	6-13
Potential Impacts to Historic Resources	6-15
General Standards and Criteria of the Protection Area	6-15

Chapter 7: Project Certification

APPENDICES

A: Letter of Intent

B: Transportation Supporting Documentation

C: BRA Checklists

D: Air Quality Supporting Documentation

E: Noise Supporting Documentation

F: MassHistoric Correspondence



List of Tables

Table	Description	Page
Table 1-1	Proposed Development Program.....	1-3
Table 1-2	Anticipated Project Permits and Approvals.....	1-7
Table 1-3	Zoning Code Dimensional Regulations vs. Proposed Project Dimensions.....	1-8
Table 3-1	Existing Traffic Volume Summary.....	3-8
Table 3-2	MBTA Service.....	3-11
Table 3-3	Vehicular Crash Summary (2008-2012)	3-13
Table 3-4	Project Trip Generation, Total Project- Related Trips by Mode	3-19
Table 3-5	Geographic Trip Distribution	3-20
Table 3-6	Level of Service Criteria.....	3-21
Table 3-7	Signalized Intersection Level of Service Summary.....	3-22
Table 3-8	Unsignalized Intersection Level of Service Summary.....	3-26
Table 4-1	National Ambient Air Quality Standards	4-9
Table 4-2	Carbon Monoxide Emission Factors.....	4-12
Table 4-3	Predicted Maximum 1-Hour CO Concentrations.....	4-14
Table 4-4	Predicted Maximum 8-Hour CO Concentrations.....	4-15
Table 4-5	Common Outdoor and Indoor Sound Levels	4-18
Table 4-6	City of Boston Noise Standards by Zoning District	4-19
Table 4-7	Existing Measured Sound Levels.....	4-21
Table 4-8	Project-Related Sounds Levels	4-22
Table 5-1	Existing and Future Sewer Generation	5-5
Table 6-1	Massachusetts Historical Commission Inventoried and Listed Resources.....	6-4

List of Figures

***Note: All supporting graphics are provided at the end of each chapter.**

Figure No. Description

1.1	Locus Map
1.2	Project Site Context
1.3	Existing Conditions
1.4	Existing Site Photographs
1.5	Proposed Conditions
2.1a	Project Floorplans - First Floor Plan
2.1b	Project Floorplans - Typical Hotel Floor Plan
2.1c	Project Floorplans - Basement Floor Plan
2.2a	Project Elevations - East Elevation Along Albany Street
2.2b	Project Elevations - South Elevation
2.2c	Project Elevations - West Elevation
2.2d	Project Elevations - North Elevation
2.3a-b	Building Sections
2.4	Perspective View
2.5	Proposed Exterior Signage
3.1	Traffic Study Area
3.2	Existing Site Access and Circulation
3.3	2015 Existing Conditions Weekday Morning
3.4	2015 Existing Conditions Weekday Evening
3.5	2015 Existing Conditions Saturday Midday
3.6	Existing Conditions Weekday Morning - Peak Pedestrian
3.7	Existing Conditions Weekday Evening - Peak Pedestrian
3.8	Existing Conditions Saturday Midday - Peak Pedestrian
3.9	Existing Conditions Weekday Morning - Peak Bicycle
3.10.	Existing Conditions Weekday Evening - Peak Bicycle
3.11	Existing Conditions Saturday Midday - Peak Bicycle
3.12	Existing Transportation
3.13	Summary of Existing On-Street Parking
3.14	2022 No-Build Conditions Weekday Morning



3.15	2022 No-Build Conditions Weekday Evening
3.16	2022 No-Build Conditions Saturday Midday
3.17	2022 Build Conditions Weekday Morning
3.18	2022 Build Conditions Weekday Evening
3.19	2022 Build Conditions Saturday Midday
3.20.	Proposed Site Transportation Access and Circulation
4.1a	Shadow Impact Studies - March 21
4.1b	Shadow Studies - June 21
4.1c	Shadow Studies - September 21
4.1d	Shadow Studies - December 21
4.2	Daylight Analysis – Albany Street
4.3	Microscale Air Quality
4.4	Noise Monitoring Locations
4.5	Draft LEED Scorecard
5.1	Existing Utilities
5.2	Proposed Utilities
6.1	Historic Districts and Resources
6.2	Site Photos Key
6.3a-g	Site Photos

Project Description and General Information

Introduction

ND Acquisitions LLC (the “Proponent”) submits this “expanded” Project Notification Form (PNF) to the Boston Redevelopment Authority (the “BRA”) to initiate the Article 80B, Large Project Review process required by the Boston Zoning Code and Enabling Act for construction of a new 200-room hotel located on Albany Street between Herald and Traveler Streets in the South End neighborhood of Boston (the “Project”). The Project will continue to transform the area from an underutilized industrial area into a vibrant mixed use urban community consistent with the planning goals of the BRA Harrison-Albany Corridor Strategic Plan for the project area.

The following chapter provides an overview of the existing site conditions and describes the Project and its public benefits as well as identifies the anticipated required permits and approvals. This chapter also describes how the Project is consistent with applicable plans and policies.

Site Context and Existing Conditions

The site area consists of approximately 0.69 acres (30,100 square feet) comprised of two parcels located at 223 and 237 Albany Street at the northeastern edge of the South End neighborhood bordering both the Chinatown and South Boston neighborhoods (the “Project Site”). Refer to Figure 1.1 for a site locus map. The Project Site is bounded by a mixed use residential and commercial redevelopment project called Ink Block South End to the west and south, the property of the Transit Realty Company to the north, and Albany Street to the east. Directly to the east of Albany Street lies the



elevated (by approximately 30 feet) Southeast Expressway (Interstate-93/Route 3, or I-93), which runs north-south. Surrounding neighborhoods include the Chinatown and Downtown neighborhoods north of the Project Site across I-90, the Fort Point Channel and South Boston neighborhoods east of the Site across I-93, and the South End and Back Bay neighborhoods immediately southwest and west, respectively. Refer to Figure 1.2 for the site context.

In general, the area surrounding the Project Site has been historically industrial in nature with mostly one- to two-story light manufacturing (storage and warehousing) land uses with surface parking consistent with the 1950's Urban Renewal Plan for this section of the South End. However, more recent redevelopment of surrounding properties, such as the Troy Boston residential project at 275 Albany Street and the Ink Block mixed use redevelopment of the former Boston Herald Building on Harrison Avenue has resulted in greater density with taller and varying building heights and sizes. Refer to Chapter 2, *Urban Design* of this PNF for a more detailed description on neighborhood context.

Figure 1.3 shows the existing conditions site plan and Figure 1.4 presents photographs of the Project Site and its immediate surroundings. The Project Site currently contains two vacant 2-story brick buildings formerly occupied by F.W. Webb Plumbing Supply and the Independent Taxi Operators Association. As discussed further below, the entire Project Site is located within a designated Economic Development Area of the South End Neighborhood District (the "South End EDA/North").

The Project Site is currently well served by existing infrastructure, some of which was recently upgraded as part of the recent development adjacent to the Project Site. The Project Site is in close proximity to public transit, including the MBTA Silver Line, the Red Line Broadway Station, and multiple bus routes. Refer to Chapter 3, *Transportation and Parking* of this PNF for further details.

Project Description

The Project includes demolition of the two vacant existing buildings to clear the site for the new hotel. The proposed approximately 95,000-square foot, 6-story (69 feet tall) hotel will consist of 200 rooms with amenities on the ground floor. Table 1-1 below presents the proposed development program and Figure 1.5 presents the proposed conditions plan.

The Project is a European-style "select-service" hotel, which is a new concept in the United States. The hotel will be distinguished by cosmopolitan design that aims to attract travelers seeking to experience the unique local flavor of the South End. The proposed use is intended to meet the goals of the BRA Harrison-Albany Corridor Strategic Plan (the "Strategic Plan") by continuing to transform the northeast



quadrant of the South End from an industrial area into a vibrant mixed use urban community. The Project also complies with the dimensional regulations set forth in Article 64.

Table 1-1 Proposed Development Program

Use	Size	Quantity
Hotel Rooms (Floors 2-6)	82,042 gross square feet	200 rooms
Amenities/Administrative ¹ (Floor 1)	13,428 gross square feet	NA
Parking	NA	64 spaces
TOTAL	95,470 gsf	

¹ Includes lobby/front desk, general office, bar/lounge area, dining area with kitchen, meeting rooms and fitness center with an indoor swimming pool.

The approximately 13,500-square foot ground-floor will consist of the hotel lobby and common spaces, such as a light food service dining area, bar/lounge area, conference rooms and a fitness center with indoor pool. The remaining five stories will consist of hotel rooms. Refer to Chapter 2, *Urban Design* of this PNF for detailed hotel floor plans, elevations, and building sections.

Parking for the Project will be provided on-site consisting of approximately 63 tandem valet-only surface parking spaces and one (1) accessible van parking space. Guest parking will be entirely handled through a valet operation with arriving guests leaving and picking up their vehicles at the front entrance of the building located on the south side of the building. Another primary hotel entry will be located on Albany Street for access to guest pick-up and drop-off.

As described further in Chapter 2, the Project building will be designed in keeping with the context of the adjacent Ink Block redevelopment. Site improvements, such as landscaping and hardscape treatments will be consistent with the rest of the city block. Pedestrian activity and vehicular connections will be accommodated through the city block and across the Project Site through the adjacent Ink Block property as well as from Albany Street. Refer to Figure 3.20 of Chapter 3, *Transportation and Parking* for an illustration of pedestrian and vehicular access. An active streetscape will be created along the hotel's frontage on Albany Street by allowing interior hotel uses to be visible behind a glass curtain wall.

Project Schedule

Construction of the Project will be completed in a single phase. Demolition is anticipated to begin in June of 2015 followed by construction of the hotel building and site improvements in August of 2015. The hotel is anticipated to be fully constructed and in operation by November 2016.



Summary of Public Benefits

Project-related benefits include significant urban design, public realm, and traffic circulation improvements, job creation, and additional tax revenues. The following summarizes the Project-related public benefits.

Public Realm and Design

- The Project will continue to transform the northeast quadrant of the South End from an industrial area into a vibrant mixed use urban community consistent with the planning goals of the Strategic Plan for the project area.
- The Project provides a complementary use and building design that fits within the overall context the recent mixed use redevelopment within the city block.
- The Project encourages pedestrian activity between the South End, Chinatown, and South Boston through sidewalk upgrades and an activated streetscape with visible hotel uses behind a glass curtain wall along Albany Street.
- The Project reinforces the pedestrian and vehicular connections that transverse the block from Albany Street to Traveler and Harrison Streets.
- Adequate service facilities for parking and loading will be appropriately integrated and designed within the context of the city block in consideration of adjacent uses.

Transportation

- Improved traffic circulation on the roadway network by reducing the number of curbs cuts on Albany Street, a State Highway, and eliminating vehicular turning movements on a heavily congested route.
- No new driveways will be constructed as part of the Project; the Proponent will obtain an easement from the adjacent Ink Block development to utilize the existing access ways.
- The Project will utilize the extensive existing transportation infrastructure currently serving the Project Site, including infrastructure for alternative modes (nearby MBTA facilities, and bicycle and pedestrian facilities, including on-street bike lanes, cycle tracks, sidewalks, crosswalks and multi-use pathways).
- Secure on-site bicycle storage facility for employees, and exterior at-grade short-term bike parking for guests will be provided, in compliance with the City of Boston bicycle parking guidelines.

Environmental/Sustainability

- Sustainability is integrated throughout the Project as it revitalizes an underutilized urban site, uses land efficiently by increasing density in proximity



to public transportation and a major regional employment center that is Downtown Boston, encourages pedestrian activity and improves water quality.

- A number of sustainable building and site elements will be incorporated into the design, construction, and operation of the Project.
- In accordance with Article 37 of the Boston Zoning Code relative to the City's Green Building policies and procedures, the Proponent intends to incorporate state-of-the-art sustainable features so that the Project could achieve a Silver level rating (at minimum) under the U.S. Green Building Council (USGBC) Leadership in Environmental and Energy Design (LEED®) Green Building Rating System for Design and Construction, or "LEED-NC Silver certifiable."
- Regarding solid waste during operations, the building will include recycling facilities for collection of recyclable materials, and the hotel will utilize disposal services that recycle waste off-site.
- The Project will improve the quality and quantity of site stormwater runoff compared to existing conditions, including providing for groundwater recharge in accordance with the GCOD.
- Groundwater levels are not expected to be impacted/lowered as a result of the Project.
- The Project considers potential vulnerability to flooding in combination with projected sea level rise as well as extreme weather events.

Historic Resources

- The demolition of the existing on-site buildings will not result in an adverse impact on these buildings as they are not considered to be significant historic resources.
- The Project would not impact the South End Landmark District as it meets the goals of the South End Landmark District Protection Area due to its compatible height, massing, and setback, and complementary design to recent redevelopment.

Social and Economic

- The Project will contribute to the economic health of the City through the creation of:
 - Over 100 construction jobs in all trades and approximately 70 permanent jobs (10 full-time and 60 part-time) for a range of skills and wages;
 - Approximately \$900,000 in new annual local real estate tax revenue;
 - Approximately \$860,000 in new annual in local hotel tax revenue; and



- Approximately \$400,000 in annual Convention Center Financing Fees revenue.

Regulatory Context

This section describes how the Project is consistent with local (City of Boston) land use plans and policies.

Harrison-Albany Street Corridor Strategic Plan Zoning

In April 2009, the BRA began a planning study of the Harrison-Albany Corridor Strategic Plan Initiative. The desired outcome of the planning study was the Strategic Plan, which guides future development within the study area so that the area maintains its diversity of land uses. Upon completion of its planning review, the Advisory Group (AG) set forth a strategic plan wherein recommendations for new zoning were outlined. The completion and adoption of the Strategic Plan was achieved in November 2011. The new zoning reflected in the Strategic Plan was approved on January 18, 2012.

The Project is located in the New York Street subarea of the study area and, therefore, it aims to address the development goals articulated by the AG for this subarea. Specifically, the Project will increase the density of development at the Project Site and introduce a new hotel use that will activate the ground floor along Albany Street. This is consistent with other recent nearby redevelopment projects. The Project will enhance the pedestrian experience along Albany Street through an improved sidewalk and lighting along the site frontage.

Anticipated Permits and Approvals

Table 1-2 lists the anticipated permits and approvals from state and local governmental agencies, which are presently expected to be required for the Project, based on information currently available. It is possible that not all of these permits or actions will be required, or that additional permits or actions may be needed.



Table 1-2 Anticipated Project Permits and Approvals

Agency/Department	Permit/Approval/Action
Commonwealth of Massachusetts	
Massachusetts Department of Transportation	Access Permit Curb Cut (closure) Permits
Massachusetts Historical Commission	Project review in compliance with MGL Chapter 9, sections 26-27C (Chapter 254)
Massachusetts Department of Environmental Protection, Division of Air Quality Control	Demolition Notice
Massachusetts Division of Labor and Workforce Development	Notice of Asbestos Removal
City of Boston	
Boston Redevelopment Authority	Article 80B, Large Project Review Article 37 – Green Building Review Comprehensive Sign Design Approval
Boston Civic Design Commission	Design Review
Boston Zoning Board of Appeals	Conditional Use Permits for non-residential accessory parking within the Restricted Parking Overlay District (RPOD) and Groundwater Conservation Overlay District (GCOD) applicability
Boston Transportation Department	Transportation Access Plan Agreement Construction Management Plan
Boston Water and Sewer Commission	Site Plan Review and Approval General Service Application
Boston Air Pollution Control Commission	Exemption from Parking Freeze
South End Landmarks Commission	Certificate of Appropriateness Application for Demolition in the South End Landmark District Protection Area
Boston Inspectional Services Department	Demolition Permit Building Permit Certificates of Occupancy
Boston Fire Department	Permits for demolition, construction, and fire alarm

Local Planning and Regulatory Controls

City of Boston Zoning

The Project is located within the South End Neighborhood District, as established by Article 64 of the Code and, more specifically, the Site is located within a designated Economic Development Area of the South End Neighborhood District (the “South End/EDA North”), pursuant to Article 64-14 of the Code. The Restricted Parking Overlay District (RPOD), established by Section 3-1A[c] of the Code, also affects the



Site as does the Groundwater Conservation Overlay District (GCOD), established by Article 32 of the Code, as amended.

Uses

The Project consists of approximately 95,000 square feet of hotel use (a total of 200 rooms) with accessory valet parking for approximately 63 vehicles (one additional accessible parking space will also be provided) and service amenities. Pursuant to Article 64, Table C of the Code, hotel use along with accessory services for hotel residents is an “allowed” use in the South End/ EDA North Subdistrict. The Project requires Conditional Use permits because:

- It is located within the Restricted Parking Overlay District (RPOD) and includes non-residential off-street parking spaces; and
- It is located within the Groundwater Conservation Overlay District (GCOD), pursuant to Article 32-5(1).

Dimensional Requirements

The Project includes the construction of a hotel with six stories above grade measuring approximately 69 feet in height. The proposed total square footage, in accordance with the Code, is approximately 95,000 square feet, and the Project’s floor area ratio (FAR) will be approximately 3.2. A breakdown of the dimensional zoning requirements applicable to the Project Site is included in Table 1-3 below.

Table 1-3 Zoning Code Dimensional Regulations vs. Proposed Project Dimensions

Dimensional Requirements	South End EDA/North	Project
Max. Floor Area Ratio	4.0	3.2
Max. Building Height (Feet)	100	69’ 11”
Front Yard Minimum Depth (Feet)	None	5.3’
Rear Yard Minimum Depth (Feet)	20	33’

There are no dimensional requirements applicable to the Project Site with respect to: Lot size, Lot width, Front Yard, Side Yard, Frontage, and Open Space. No dimensional relief is required for the building height, FAR, or rear yard setback. With an approximately 2-foot wide canopy overhang, the front yard between the building and the property line along Albany Street will be approximately 3.3 feet wide.



Zoning Approvals

The Project will need the following relief from the Boston Board of Appeal:

- Conditional Use permit for nonresidential off-street parking at the Project within the Restricted Parking Overlay District, pursuant to Article 6-3A of the Code; and
- Groundwater Conservation Overlay District Conditional Use permit, pursuant to Article 32 of the Code.

City of Boston Zoning Code Article 80 – Large Project Review

The Project exceeds the threshold of 50,000 square feet of development, which requires Large Project Review by the BRA pursuant to Article 80B of the Zoning Code. The Proponent initiated Large Project Review by filing a Letter of Intent (LOI) with the BRA on March 9, 2015. The LOI, a copy of which is provided in Appendix A, indicated the Proponent's intent to file an "expanded" PNF in connection with the Project.

This expanded PNF aims to meet the City of Boston Article 80B, Large Project Review by presenting details about the Project and providing detailed impact analysis of transportation, environmental protection, infrastructure, and other components of the Project in order to inform city agencies and neighborhood residents about the Project, its potential impacts and mitigation proposed to address potential impacts. Based on a comprehensive approach to address potential impacts similar to the level of information normally presented in a Draft Project Impact Report, the Proponent requests that the BRA, after reviewing public and agency comments on this PNF and any further responses to comments made by the Proponent, issue a Scoping Determination Waiving Further Review pursuant to the Article 80B process.

Development Impact Project

The Project is not a Development Impact Project as defined in Article 80B-7 of the Code. The Project is only constructing approximately 95,000 square feet of "gross floor area" devoted to hotel use – a Development Impact Use as defined in Article 80B-7(c) of the Code, and therefore does not meet the 100,000 square foot threshold required for a Development Impact Project.



Boston Landmarks Commission and South End Landmarks District Commission

The Project Site is located within the Protection Area of the South End Landmark District and, therefore, the South End Landmark Commission is required to review the significance of the on-site buildings in light of their proposed demolition. When a project occurs within the Protection Area, only certain types of work or project elements are subject to review, including demolition, land coverage, height of structures, landscaping, and topography. The goals of the Protection Area are to protect views of the adjacent Landmark District, to ensure that new development within the Protection Area and adjacent to the Landmark District is architecturally compatible in massing, setback, and height, and protects light and air circulation within the Landmark District. As discussed in Chapter 6, *Historic Resources* of this PNF the demolition of the existing on-site buildings will not have an adverse impact as they are not considered to be significant historic resources. And, the Project would not impact the South End Landmark District as it meets the goals of the South End Landmark District Protection Area due to its compatible height, massing, and setback, and complementary design to recent development around it.

Massachusetts Environmental Policy Act

The Project is not subject to environmental review by the Secretary of the Executive Office of Energy and Environmental Affairs. While the Project requires an Access Permit from the Massachusetts Department of Transportation (MassDOT) it does not meet or exceed any of the MEPA review thresholds set forth in 301 CMR 11.03.

Agency Coordination and Community Outreach

As part of the Article 80 review process, the Proponent is committed to maintaining an open dialogue with all interested parties. The public will have the opportunity to review this PNF, which has been distributed to various city departments and agencies by the BRA and is available upon request. The Proponent has reached out to (either has met with or intends to meet with) a broad range of elected officials, government agencies, and neighborhood association groups to solicit feedback and input on the Project. Previously, the Proponent was actively involved in the AG and intends to incorporate as many of the goals, visions and ideas of the Strategic Plan into the Project, where feasible.

An Impact Advisory Group (IAG) has been developed for the Project. IAGs do not replace the role of the greater community in the development review process. The IAG is an overlay to the existing process that allows for greater understanding by the



BRA of local concerns, and greater public insight into the thinking of the BRA and other public agencies involved in the development review process.

Prior to filing this PNF or holding any required IAG meetings, the Proponent engaged in outreach efforts with neighborhood groups, and elected officials and/or their staff. The following is a list of those contacted:

- Old Dover Neighborhood Association;
- Washington Gateway Main Street;
- Pine Street Inn;
- State Senator Sonia Chang-Diaz;
- State Representative Aaron M. Michelwitz;
- Bill Linehan, City Council District 2; and
- The following Boston City Council at large councillors:
 - Stephen Murphy
 - Ayanna Presley
 - Michelle Wu
 - Michael Flaherty

The Proponent has also begun coordinating directly with city departments and state agencies. The following pre-filing meetings were held on the Project:

- Boston Redevelopment Authority (various meetings);
- Boston Environment Department on February 23, 2015;
- Boston Air Pollution Control Commission on February 23, 2015;
- Boston Water and Sewer Commission on March 2, 2015;
- South End Landmarks Commission on March 10, 2015; and
- MassDOT on March 10, 2015.



Development Team

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Legal Information

Legal Judgments or Actions Pending Concerning the Proposed Project

None. There are no legal judgments or legal actions pending concerning the proposed Project.

History of Tax Arrears on Property Owned in Boston by the Proponent

None. There is no history of tax arrears on property owned by the Proponent in the City of Boston.

Site Control/Public Easements

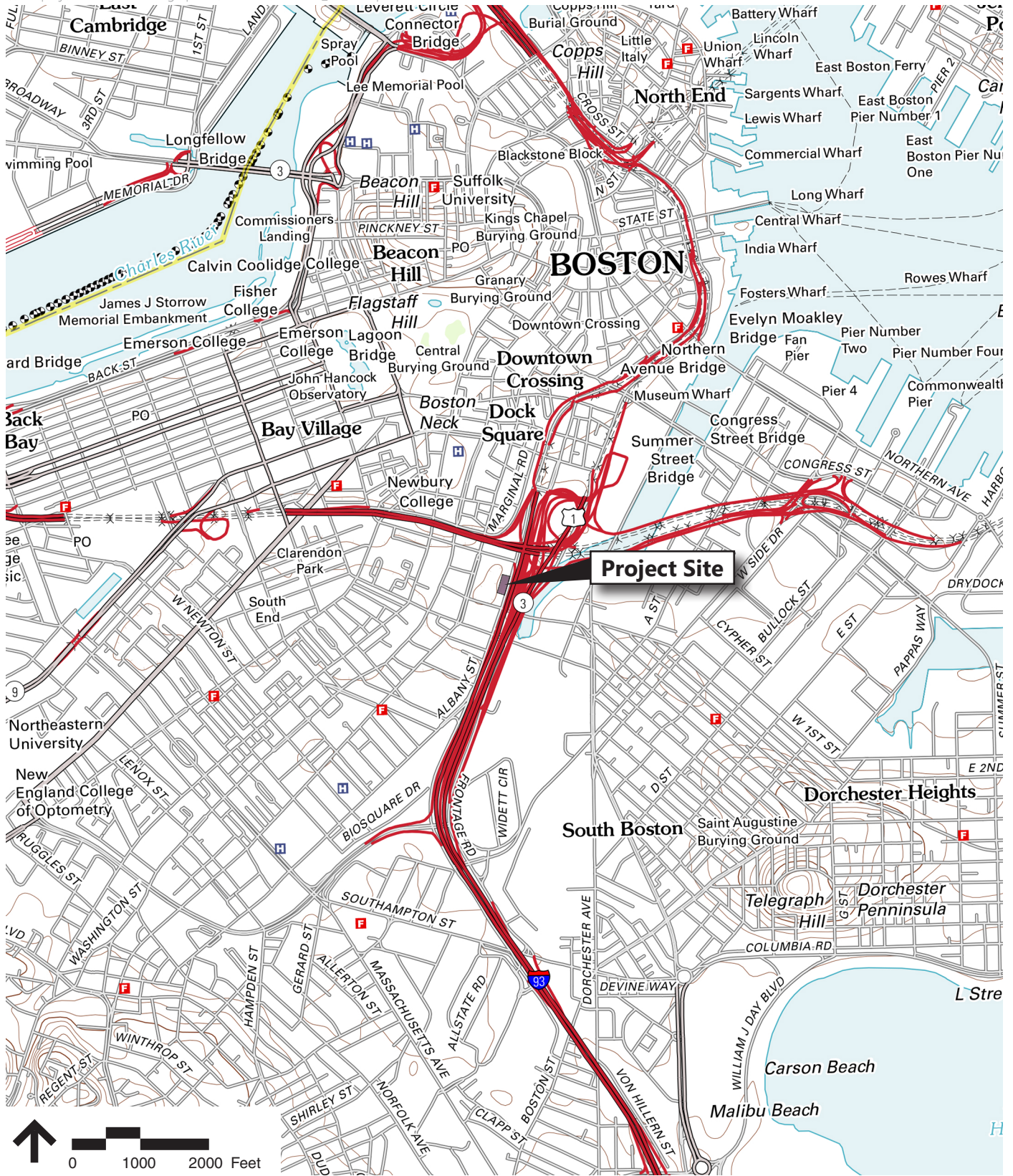
As shown on Figure 1.3, the Project Site includes the following two parcels:

- Parcel 1 - a 0.45-acre parcel previously developed with the F.W. Webb Building and surface parking at 237 Albany Street; and
- Parcel 2 - a 0.24-acre parcel previously developed with the Independent Taxi Operators' Association Building at 223 Albany Street.

Collectively, the Project Site totals approximately 0.69 acres (30,100 square feet).

Parcel 1 is owned by South End Hotel I LLC (acquired in August 2013) and Parcel 2 is owned by South End Hotel II LLC (acquired in September 2014).

The property is not subject to any public easements.



Source: MassGIS 2012 USGS Imagery



Figure 1.1
Locus Map

**AC Hotel South End
Boston, MA**



Source: MassGIS 15cm Aerial Imagery



Figure 1.2
Project Site Context

**AC Hotel South End
Boston, MA**

 Project Site

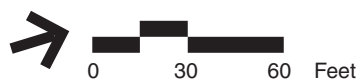


Figure 1.3
Existing Conditions

**AC Hotel South End
Boston, MA**



West Elevation



On-Site facing North



Albany Street facing Northwest



Albany Street facing North



Albany Street facing Northeast



Albany Street facing South



Figure 1.4
Existing Site Photos

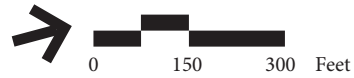


Figure 1.5
Proposed Conditions
Site Plan
**AC Hotel South End
Boston, MA**

Urban Design

Introduction

The following chapter describes the existing urban context of the Project Site, and discusses the planning principles and design goals for the Project. This section describes the proposed conditions urban design characteristics (i.e., height and massing) and public realm improvements, including proposed landscaping. Supporting graphics provided at the end of the chapter include building floorplans, building elevations, building sections and view perspectives. Refer to Figure 1.5 for the proposed conditions site plan.

Key Findings and Benefits

Key findings and benefits related to urban design include:

- Continuing to transform the northeast quadrant of the South End from an industrial area into a vibrant mixed use urban community consistent with the planning goals of the BRA Harrison-Albany Corridor Strategic Plan.
- Compliance with the dimensional regulations set forth in Article 64.
- Creating a complementary use and building design that fits within the overall context the recent mixed use redevelopment within the city block.
- Encouraging pedestrian activity between the South End, Chinatown and South Boston through sidewalk upgrades and activation of the streetscape with visible hotel uses behind a glass curtain wall along Albany Street.
- Reinforcing the pedestrian and vehicular connections that transverse the city block from Albany Street to Traveler Street and Harrison Avenue.



- Providing adequate service facilities for parking and loading appropriately integrated and designed within the context of the city block in consideration of adjacent uses.

Neighborhood Context

The Project Site is located on Albany Street between Herald and Traveler Streets in the northeast quadrant of the South End (Figure 1.2). The Chinatown and Downtown neighborhoods are located to the north of the Project Site across I-90, the Fort Point Channel and South Boston neighborhood are located to the east of the Project Site across I-93, and the South End and Back Bay neighborhoods are located immediately southwest and west of the Project Site, respectively. As described further in Chapter 3, *Transportation and Parking* and shown on Figure 3.12, the Project Site is well served (located within a 5-minute walk) by multiple MBTA bus lines and three MBTA subway stations (two Silver Line stations and an Orange Line station).

In general, the area surrounding the Project Site is industrial in nature consisting of light manufacturing and warehousing uses. However, more recently, there has been an influx of mixed use/residential developments that are transforming the area. The block south of the Project Site consists of Quinzani's Bakery and Ho Kong Bean Sprout Company—both of which front Harrison Avenue. This block also includes the new 380-unit Troy Boston residential project currently under construction at the corner of Traveler and Albany Streets. Directly to the west of the Project Site is the new Ink Block mixed use project containing a Whole Foods and other ground floor retail with residential units on the upper levels. The Sepia luxury condominium building, currently under construction at the corner of Harrison Avenue and Traveler Street, is also located in the block west of the Project Site. The redevelopment of this block (the former Boston Herald site) provides a vital link between the South End and Chinatown neighborhoods.

There are three public parks located approximately ¼-mile from the Project Site, including Peter's Park and Rotch Playground in the South End and Rolling Bridge Park, which is located on the Fort Point Channel. Rotch Field, a soccer facility owned and maintained by the Eastern Massachusetts Women's Soccer League non-profit organization, is also located within the vicinity of the Project Site.

Planning Principles and Design Goals

On-site buildings include the former F.W. Webb plumbing supply and the now vacant Independent Taxi Operators' Association dispatch building. The Project will replace a pair of out dated 2-story brick buildings with a new 200-room European-



style “select service” hotel, including a light food service, a bar/lounge/meeting area, meeting rooms, and a fitness center with an indoor pool. The proposed use is intended to meet the goals of the BRA Harrison-Albany Corridor Strategic Plan by continuing to transform the northeast quadrant of the South End from an industrial area into a vibrant mixed use urban community. The Project also complies with the dimensional regulations set forth in Article 64.

By upgrading and activating the public realm along Albany Street, the Project aims to support and encourage pedestrian traffic. Also, the Project will reinforce pedestrian and vehicular connections that transverse the block from Albany Street to Traveler Street and Harrison Avenue.

Height and Massing

The Project Site is currently zoned for up to a base as-of-right height of 100 feet with incentive height up to 200 feet utilizing a PDA approach under zoning; however, because the overall site area is less than an acre a PDA is not applicable.

The proposed hotel building is planned to be Type III-B construction with five (5) levels of wood frame construction over a first floor podium built from steel and concrete filled composite metal deck. Refer to Figures 2.1a-c for the building floorplans.

The proposed hotel building will be 69 feet and 11 inches tall, as defined by the Massachusetts State Building Code. The massing of the Project is determined by its program and is 60 feet wide to accommodate the guest room module. The length of the proposed hotel building is a function of the number of guest keys to be accommodated and the guest room module.

To animate the short ends of the upper five (5) guest room levels, blocks of rooms have been oriented to each end so that these end walls will not be blank solid walls, but instead, will have guest room windows that afford dramatic views of the Downtown skyline from the north facing rooms and of the South End from the south facing rooms.

Character and Exterior Materials

The proposed hotel building configuration closely relates to the residential building scale of other nearby South End projects, such as Ink Block, Sepia, Project Place, Wilkes Passage and Rollins Square, which include 4- to 6-story buildings.



Figures 2.2a-d present the building elevation plans and Figure 2.3a-b show the building sections. The upper five (5) floors of the building block, which are the guest room floors are proposed to be clad with alternating bays of standing seam zinc panels and flat seam zinc panels to differentiate one bay from the next. These bays along the long east and west elevations of the building are further differentiated by slightly angling them in plan so that the bays with the standing seam panels tip to the south to enhance shade and shadow and the bays with the flat seams panels tip to the north (Figures 2.2a and 2.2c).

Large-punched windows in the guest rooms, which incorporate a casement operator, will be articulated with projected edge panning on all four side of the opening and this panning varies in depth on the south elevation in a random pattern to afford interest (Figure 2.2b).

The north elevation is proposed to have five (5) floors of curtain wall glazing using both vision glass and spandrel glass to provide a striking view of the building as seen when driving down Albany Street or driving south bound on I-93 (Figure 2.2d).

The first floor of the building, which contains all of the guest common area functions of the hotel, such as main entry, reception, lobby, lounge, restaurant, bar, meeting rooms, fitness and pool is clad in full height glass at these common spaces and a dark iron spot brick at the back-of-house spaces. Full height brick walls are also used at the north end of the floor to screen covered tandem parking from view from Albany Street.

The hotel base is reinforced with a canopy that marks the entries, provides shelter for the hotel drop-off and support for hotel signage (described further below). Refer to Figures 2.4 for a view perspective/rendering of the Project.

The Public Realm Improvements

The transformation of the project area from industrial to mixed use with residential has started generating pedestrian activity in and around the Project Site by way of the residents who live in the apartments and condominiums as well as the retail shoppers that walk from other parts of the neighborhood. Pedestrian activity between the South End, Chinatown, and South Boston will be further encouraged and accommodated by the Project by creating a new/active use along Albany Street as well as an improved sidewalk and other site improvements. The hotel's frontage on Albany Street will be activated by allowing interior hotel uses (lounge space, internal circulation, and the fitness/pool area) to be visible behind a glass curtain wall. Pedestrian circulation is also supported through and across the Project Site by an accessible pedestrian walkway that will link Albany Street to Traveler Street and Harrison Avenue.



Site Landscaping

The pedestrian hardscape surrounding the Project is a composition of a vehicular drop-off/pick-up area with a special paving treatment surrounded by bollards at the main hotel entrance (facing south), concrete curb ramps with detectable warning panels at the site driveway, and a concrete sidewalk and a second hotel entrance along Albany Street.

Site improvements include post top LED lighting fixtures, planting zones contained within low curbing adjacent to the hotel entry, trees in tree grates, and trees in planters with bench seating. Site planting consists of a variety of native and adapted deciduous trees in tree pits and planters, evergreen and deciduous shrub masses, and a mix of low-drought tolerant ornamental grasses and groundcovers for multi-seasonal interest.

Signage

Mounted signage is proposed above the hotel entry at the south end of the building and at the top of the building on the north facing end. Refer to Figure 2.5 for the hotel signage locations and height, size and style.

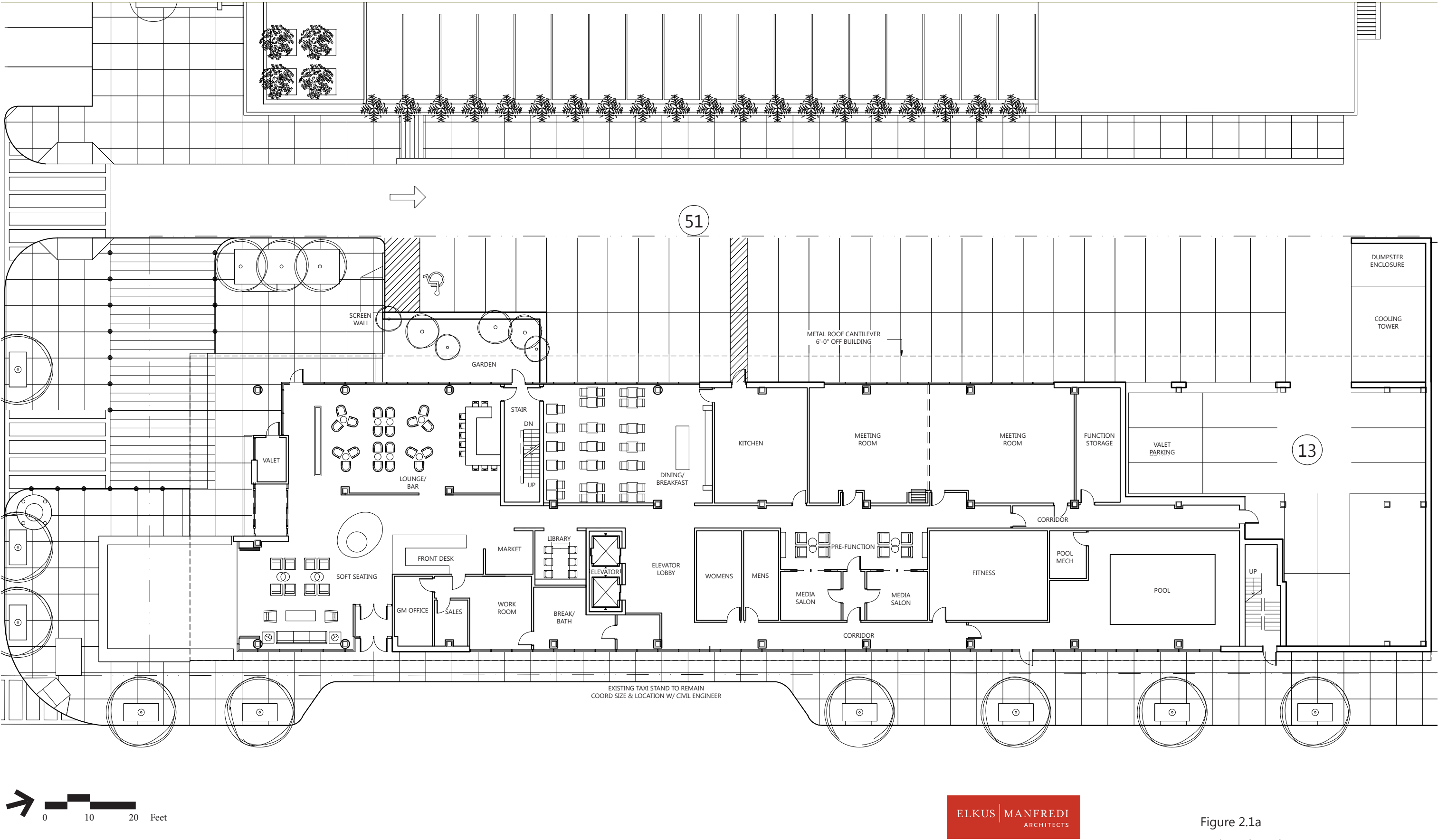


Figure 2.1a
Project Floorplans
First Floor Plan
**AC Hotel South End
Boston, MA**

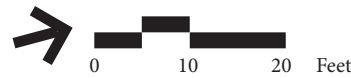


Figure 2.1b
Project Floorplans
Typical Hotel Floor Plan
**AC Hotel South End
Boston, MA**

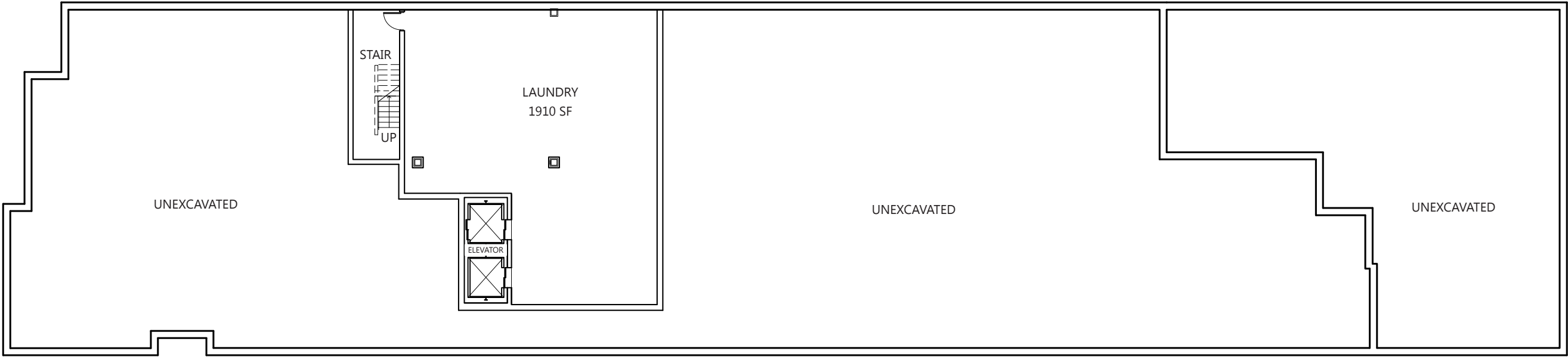


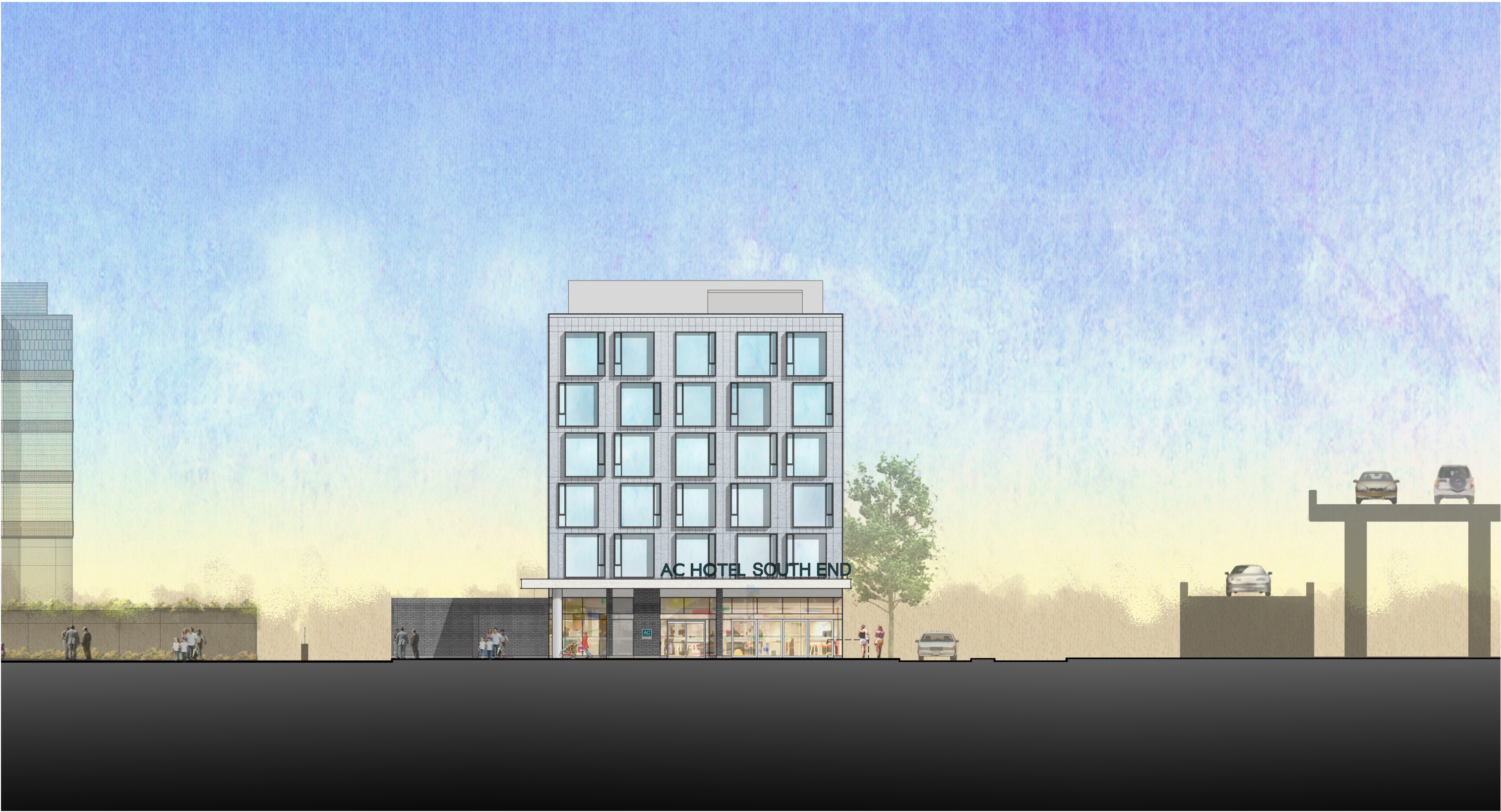
Figure 2.1c
Project Floorplans
Basement Floor Plan
**AC Hotel South End
Boston, MA**



0 10 20 Feet

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ARCHITECTS

Figure 2.2a
Project Elevations
East Elevation Along Albany Street
**AC Hotel South End
Boston, MA**



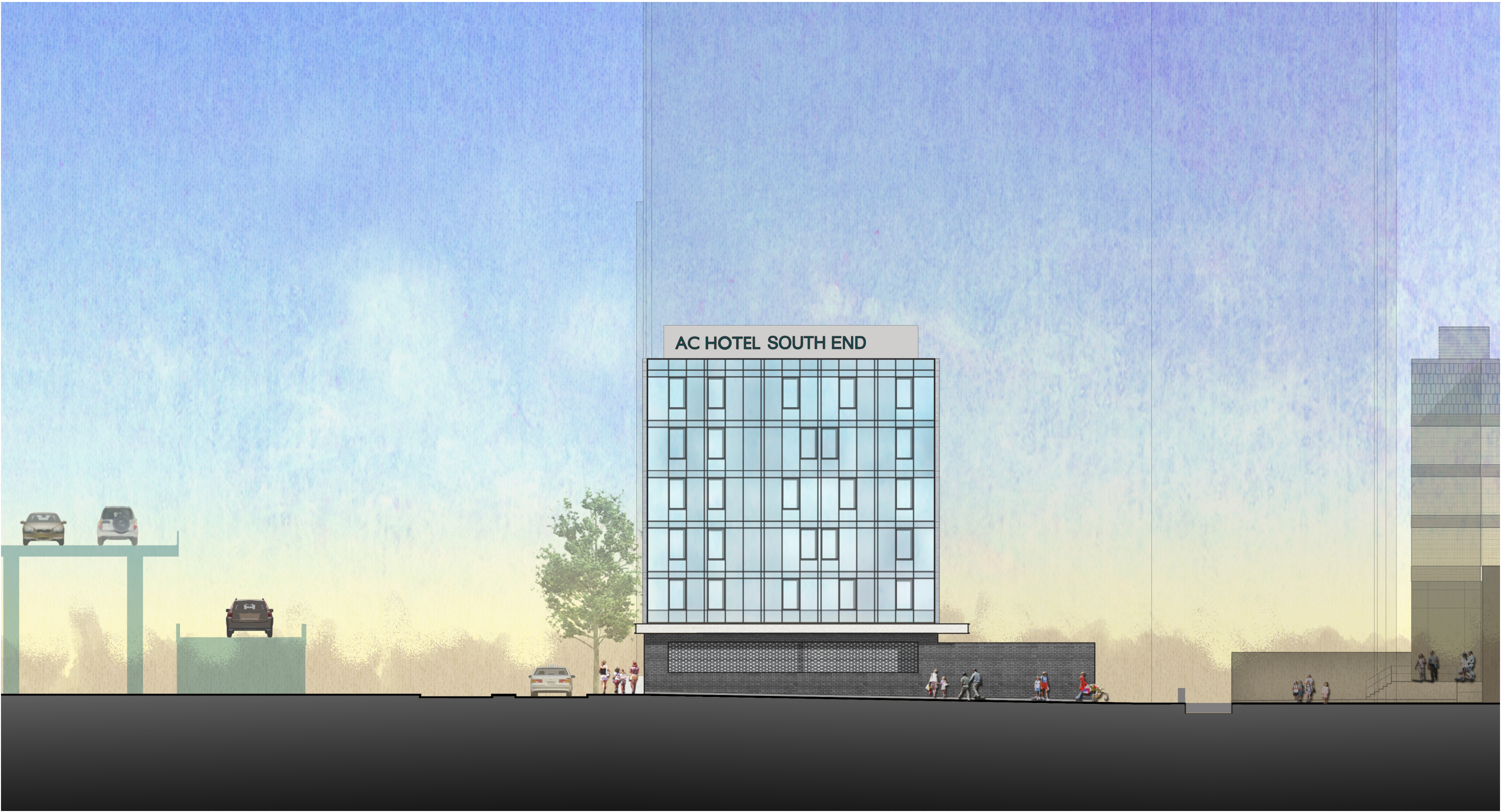
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Figure 2.2b
Project Elevations
South Elevation
**AC Hotel South End
Boston, MA**



Figure 2.2c
Project Elevations
West Elevation
**AC Hotel South End
Boston, MA**



AC HOTEL SOUTH END

0 10 20 Feet



Figure 2.2d
Project Elevations
North Elevation
**AC Hotel South End
Boston, MA**

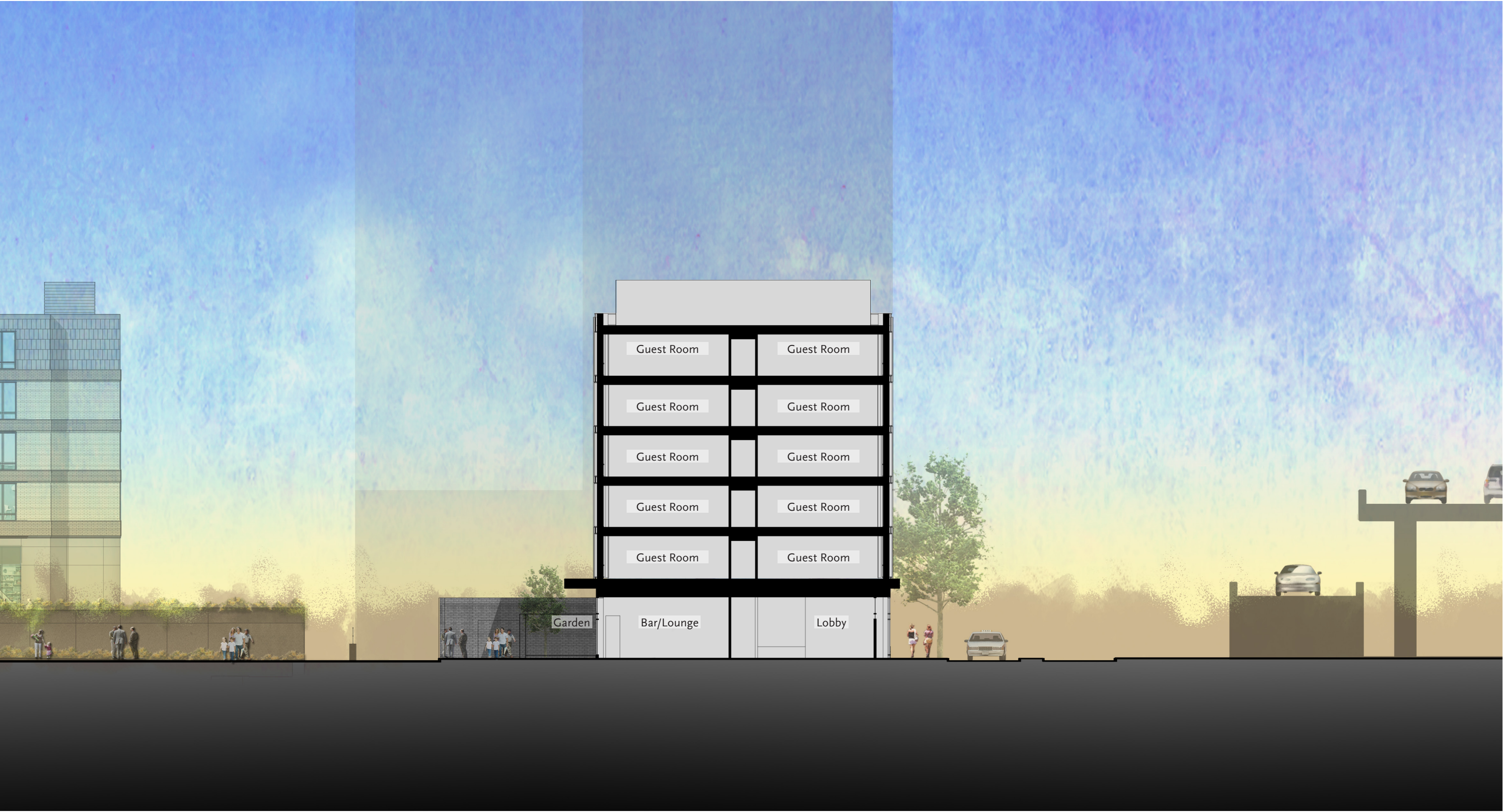
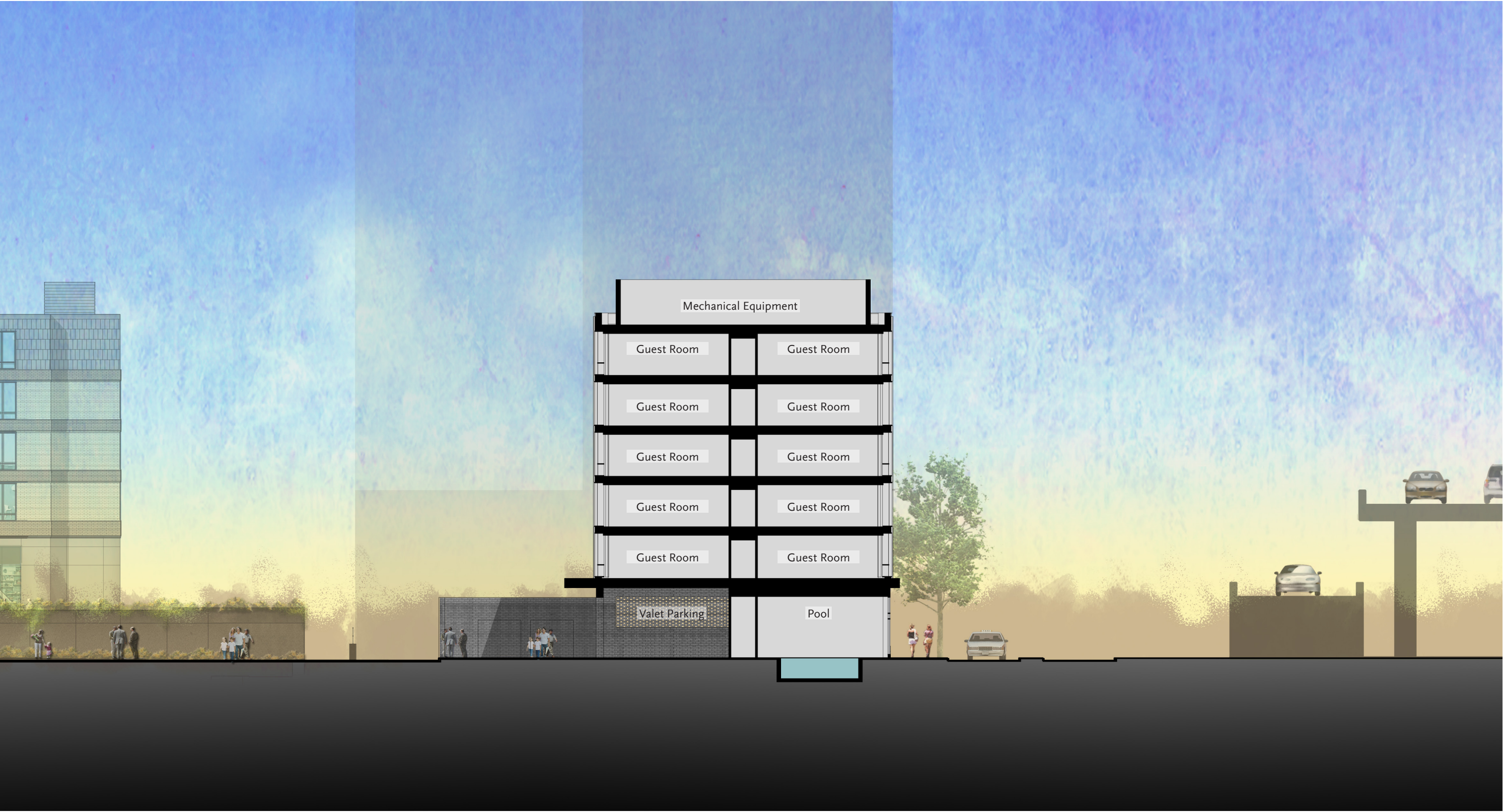


Figure 2.3a
Building Sections

**AC Hotel South End
Boston, MA**



0 10 20 Feet



Figure 2.3b
Building Sections

AC Hotel South End
Boston, MA



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Figure 2.4
Perspective View

**AC Hotel South End
Boston, MA**

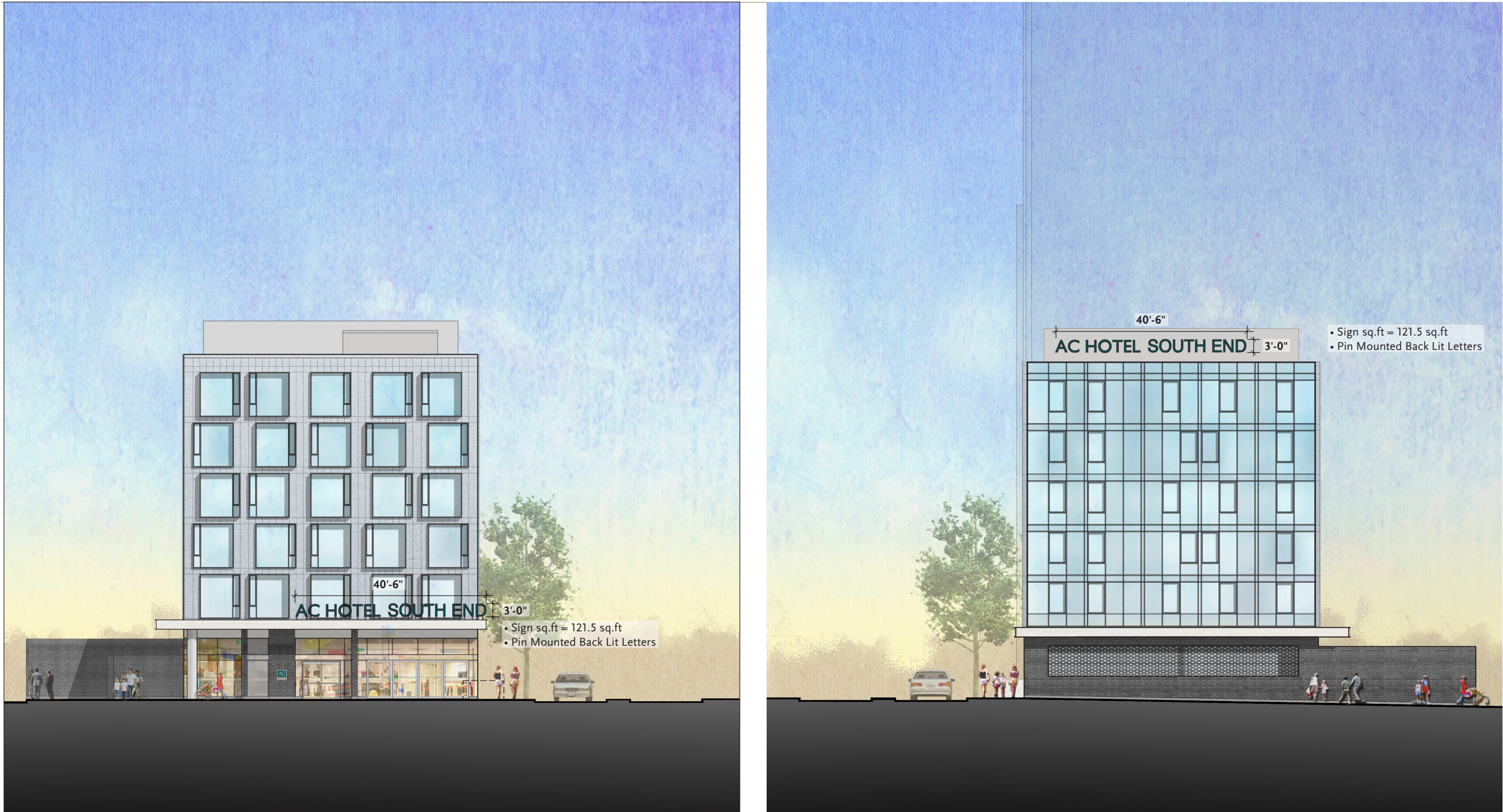


Figure 2.5
Proposed Conditions
Exterior Signage
**AC Hotel South End
Boston, MA**

Transportation and Parking

Introduction

This chapter provides a detailed and comprehensive evaluation of the existing and proposed transportation conditions, and identifies traffic impacts as a result of the Project. The analysis captures in detail the operational characteristics of the Project, and provides a basis for determining to what extent, if any, Project-related traffic is likely to affect the wider transportation network.

Key Findings and Benefits

The following are key findings and benefits related to transportation:

- Improve traffic circulation on the roadway network by reducing the number of curbs cuts on Albany Street, a State Highway, and eliminating vehicular turning movements on a heavily congested route.
- No new driveways will be constructed as part of this Project; the Proponent will be obtaining an easement from the adjacent Ink Block development to utilize existing access ways.
- The Project is projected to generate 800 and 930 vehicle trips on a typical weekday and Saturday. During the respective weekday morning and evening peak hours the Project will generate 53 and 59 trips, respectively, and 84 trips during the Saturday midday peak hour.
- A parking supply of approximately 64 spaces will be provided. Guest parking will be entirely handled through a valet operation with arriving guests leaving and picking up their vehicles at the front entrance of the building.
- The Project will utilize the extensive existing transportation infrastructure currently serving the Project Site, including infrastructure for alternative modes



(nearby MBTA facilities, and bicycle and pedestrian facilities, including on-street bike lanes, cycle tracks, sidewalks, crosswalks and multi-use pathways).

- Secure on-site bicycle storage facility for employees, and exterior at-grade short-term bike parking for guests will be provided, in compliance with the City of Boston bicycle parking guidelines.

Methodology

The following transportation analysis has been performed in conformance with the Massachusetts Executive Office of Environmental Affairs (EEA)/Executive Office of Transportation (EOT) guidelines. It also follows standard BTM methodologies, including the projection of Project-related trips based on Institute of Transportation Engineers (ITE) trip rates and the application of local travel characteristics established through the *Access Boston 2000-2010* initiative. *Synchro 8* software was used to facilitate the evaluation of traffic operations based on Highway Capacity Manual¹ (HCM) methodologies.

Based on a review of traffic studies prepared for other nearby development projects and familiarity with the surrounding area, vehicular traffic associated with the Project should be widely dispersed throughout the nearby street network. Considering these and other factors, the following intersections, as shown in Figure 3.1, were included in the study area for the Traffic Impact and Access Study as it is anticipated that Project-related traffic could potentially impact traffic operations:

- Albany Street/Herald Street
- Albany Street at site driveway/Route I-93 Southbound on-ramp
- Albany Street/Traveler Street
- Harrison Avenue/Herald Street
- Harrison Avenue/Traveler Street

The transportation analysis considers the following primary analysis scenarios:

- **2015 Existing Conditions** – based on traffic data collection conducted within the study area in February 2011 and September 2013.
- **2022 No-Build Conditions** – Future conditions for a seven-year time horizon as expected to occur if the Project was not constructed.



¹ Highway Capacity Manual; Transportation Research Board; Washington D.C.; 2000.



- **2022 Build Conditions** – Future conditions for a seven-year time horizon assuming the construction of the Project.

Proposed Development Program

As described previously in Chapter 1, *Project Description*, the Project involves the redevelopment of a 0.69-acre site with two existing buildings into a new 200-room hotel. The approximately 95,000 square foot hotel will be six (6) stories high and will provide approximately 64 parking spaces. Guest parking will be entirely handled through a valet operation with arriving guests leaving and picking up their vehicles at the front entrance at the south end of the hotel.

Consistency with Area-Wide Planning

Following a recent BRA planning initiative, the area surrounding the Project Site has been transforming from a general manufacturing/warehousing environment to one that is predominantly mixed-use and residentially oriented. Through this change there should continue to be an increase in pedestrian and bicyclists in the study area. The Project is highly consistent with this trend in that a more pedestrian-friendly environment will be provided along the Project Site's Albany Street frontage through the closure of curb cuts and improved sidewalk and lighting amenities. The Project also will reinforce pedestrian connectivity between Albany Street, the new adjacent Ink Block development, and Harrison Avenue.

As discussed later in this Chapter, MassDOT is planning to develop land underneath Route I-93 opposite the Project Site. Similar to the existing I-93 parking lots to the south of Traveler Street, this area will include approximately 176 parking spaces. However, new public amenities also will be provided in the form of park and recreation space, and new pathway connecting Albany Street to Broadway Bridge. In conjunction with that work MassDOT will be installing a new crosswalk across Albany Street across the northerly leg of its intersection with Traveler Street. With these new amenities there will be improved accommodations for the increased pedestrian activity that is expected in this area consistent with the City's goals.

With the proposed 64-space parking supply the Project will be providing on-site parking that is consistent with BTM's desired parking ratios for this area. The existing dilapidated buildings and poorly-defined, unattractive surface parking of the Project Site will be replaced with a new valet-only parking area that will not be visible to Albany Street traffic.

Existing Conditions

This section describes existing transportation conditions, including an overview of roadway conditions, transit, pedestrian and bicycle facilities, and general site conditions. A discussion of the existing on-street parking supply is also provided. Figure 3.2 shows the existing site access and circulation.

Roadways

Albany Street

Albany Street borders the Project Site to the east and functions as a one-way southbound frontage road running parallel to Interstate 93 southbound. In the vicinity of the Project Site, Albany Street provides three travel lanes. Generally on-street parking is prohibited on Albany Street, with the exception of a small segment adjacent to the Project Site where parking is allowed with a 30-minute limit on Monday through Saturday from 6 AM to 5 PM. Sidewalks are provided on both sides of the street. The sidewalk along the easterly side of Albany Street is located underneath the Route I-93 South on-ramp infrastructure.

Harrison Avenue

Harrison Avenue is located approximately 375 feet to the west of the Project Site adjacent to the Ink Block development that abuts the Project Site. Harrison Avenue connects Chinatown to the north with the South End neighborhood to the south. Harrison Avenue currently is a four-lane median-divided roadway with intermittent unrestricted on-street parking on both sides. Pedestrian amenities along Harrison Avenue include sidewalks along both sides of the roadway and crosswalks at key intersections. Discussion regarding planned improvements to this roadway by the Boston Department of Public Works is provided in the Future Conditions section of this chapter.

Herald Street

Herald Street is located approximately 200 feet to the north of the Project Site and runs one-way in an eastbound direction from Tremont Street to Albany Street. Herald Street provides three travel lanes with parking prohibited on both sides of the roadway. Sidewalks are provided along both sides of Herald Street.



Traveler Street

Traveler Street is located approximately 175 feet to the south of the Project Site and this roadway currently provides single travel lanes in both directions. To the west of Harrison Avenue Traveler Street provides one-way travel in the westbound direction. Parking currently is prohibited on both sides of Traveler Street to the east of Harrison Avenue. However, in conjunction with the Ink Block development currently under construction, on-street parking will be allowed along the northerly side of the road with room for approximately fourteen vehicles. Sidewalks are provided along both sides of Traveler Street and crosswalks are provided at its intersections with Harrison Avenue and Albany Street.

Study Area Intersections

Intersection geometry and physical characteristics are presented below. Traffic operations and level of service (LOS) analysis are presented later in this chapter.

Albany Street/Herald Street

Herald Street intersects Albany Street from the west to form this signalized “T”-type intersection. Herald Street operates as a one-way eastbound roadway consisting of three right-turn only lanes. Albany Street operates as a one-way southbound roadway consisting of three through lanes. Parking is prohibited on both sides of Albany Street and Herald Street. Pedestrians are accommodated with concurrent pedestrian phases under which pedestrians can cross either street unopposed during the signal phase in which the other roadway traffic is moving. Crosswalks are provided across the Herald Street and Albany Street approaches to the intersection.

Albany Street/I-93 On-Ramp/Ink Block Driveway

The intersection of Albany Street with the Route I-93 South On-Ramp and the Ink Block driveway is unsignalized. The Ink Block driveway was modified as part of that site’s construction so that only exiting right-turn movements are allowed. Previously, when the Boston Herald was in operation at the adjacent site, entering right-turns also were allowed. Opposite this driveway location, the Route I-93 South on-ramp diverges from Albany Street. Additional striping and signing improvements were required as part of the Ink Block project to help prevent exiting traffic from traveling directly from the site to access the ramp. Albany Street operates as a one-way southbound roadway with three general purpose lanes past this location. Parking is prohibited on both sides of Albany Street and Route I-93 on-ramp at this location. There is a sidewalk along the westerly side of Albany Street with the sidewalk on the



opposite side of the road extending underneath Route I-93 immediately to the east of the ramp infrastructure.

Albany Street/Traveler Street

Albany Street/Traveler Street is a four-way signalized intersection with two one-way approaches – Albany Street from the north and Traveler Street from the west. The Albany Street approach consists of an exclusive left-turn lane, a shared left/through lane, and a shared through/right lane. The Traveler Street approach provides one general travel lane which currently is wide enough to operate as two lanes when vehicle demands are present. Parking is prohibited on both sides of Albany Street and Traveler Street in the immediate vicinity of the intersection. Pedestrians are accommodated with an exclusive pedestrian phase. Crosswalks are provided across the southern leg of Albany Street and across both approaches of Traveler Street. As noted later in this chapter, a new crosswalk also will be provided across the southbound Albany Street leg of the intersection in conjunction with planned signal improvements at this location by MassDOT.

Harrison Avenue/Herald Street

Harrison Avenue/Herald Street is a four-way signalized intersection. Harrison Avenue is a north-south running roadway that provides two-way operations to the south of Herald Street and one-way southbound travel to the north. The northbound approach consists of two right-turn only lanes while the southbound direction provides an exclusive left-turn lane and two through lanes. Harrison Avenue is median-divided to the south of the intersection. This roadway will be reconfigured to provide single lanes in each direction with new bicycle and pedestrian amenities as part of a planned Boston Department of Public Works improvement project.

Herald Street runs in a one-way eastbound direction and provides two exclusive through lanes and a shared through/right-turn lane. Parking is prohibited on both sides of Herald Street and Harrison Avenue to the north of the intersection. On-street parking is permitted along the east side of Harrison Avenue to the south of the intersection. Pedestrians are accommodated with an exclusive pedestrian phase. Crosswalks are provided across northbound approach of Harrison Avenue and across both approaches of Herald Street.

Traveler Street/Harrison Avenue

Traveler Street/Harrison Avenue is a four-way signalized intersection. Traveler Street operates as a westbound one-way roadway to the west of the intersection, and as a two way roadway to the east. Both Harrison Avenue approaches to the intersection



provide a shared left/through lane and a shared through/right lane. The westbound Traveler Street approach to the intersection has a single lane. However there is sufficient shoulder room to allow for right-turn movements to readily bypass vehicles waiting to turn left or continue through on Traveler Street. Currently, unrestricted parking is provided on both sides on Harrison Avenue in the vicinity of the intersection. Tour bus on-street parking previously has been allowed on Traveler Street to the west of the intersection but is now being replaced with metered on-street parking. Pedestrians are accommodated with an exclusive pedestrian phase. Crosswalks are provided across all approaches to the intersection. In conjunction with the Boston Department of Public Works project noted earlier, changes will be made to this intersection involving the removal of the median and reduction of the number of travel lanes.

Vehicular Traffic

For consistency with prior recent traffic studies in this area, the existing conditions traffic data from those reports were utilized for this assessment. To estimate the existing operational conditions at the study area intersections, a review of existing condition traffic volumes was conducted. Daily traffic volume data was collected along Harrison Avenue and Albany Street in March 2011. The observed traffic volume data is summarized in Table 3-1.

As shown in Table 3-1, Harrison Avenue carries approximately 6,190 and 6,160 vehicles on a typical weekday and Saturday, respectively. Within the peak weekday morning commuter peak period, traffic volumes peak between 8 AM and 9 AM with volumes slowly increasing over the rest of the morning to a slightly higher midday peak hour volume of approximately 410 vehicles. The weekday evening peak hour occurs within the typical weekday evening peak period between 4:30 PM and 5:30 PM. Throughout the day the predominant flow of traffic on Harrison Avenue is in the southbound direction mostly due to the one-way southbound direction of Harrison Avenue as it intersects Herald Street further to the north.



Table 3-1 Existing Traffic Volume Summary

Location	Peak Hour										
	Daily		Weekday Morning			Weekday Evening			Saturday Midday		
	Weekday (vpd) ¹	Saturday (vpd) ¹	Vol. (vph) ²	"K" Factor ³	Directional Flow	Vol. (vph) ²	"K" Factor	Directional Flow	Vol. (vph) ²	"K" Factor	Directional Flow
Harrison Avenue - south of Herald Street	6,190	6,160	360	5.8	79% SB	605	9.8	74% NB	415	6.7	80% SB
Albany Street – north of Traveler Street	23,600	18,020	1,585	6.7	100% SB	1,955	8.3	100% SB	1,155	6.4	100% SB

Source: Automatic Traffic Recorder (ATR) counts conducted by VHB in March 2011.

Notes: EB = eastbound, WB = westbound, SB = southbound, NB = northbound. Peak hours do not necessarily coincide with the peak hours of the turning movement counts.

1 Daily traffic expressed in vehicles per day.

2 Peak hour volumes expressed in vehicles per hour.

3 Percent of daily traffic, which occurs during the peak hour.

Albany Street was observed to carry considerably higher volumes with 23,600 and 18,020 vehicles observed on the weekday and Saturday, respectively. As these counts were conducted just north of Traveler Street volumes on Albany Street are even higher further to the north before the point where southbound Albany Street traffic turns onto the Route I-93 South on-ramp. Traffic on Albany Street follows typical commuter-oriented patterns with distinct peaks occurring between the 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM peak periods. Traffic volumes on Saturdays were observed to be notably lower with a peak hour volume of 1,155 vehicles observed during the midday lunchtime hours.

In addition to the automatic traffic recorder counts summarized above, manual turning movement counts (TMCs) were conducted in February 2011 and September 2013 at the study area intersections. Counts were conducted during the weekday commuter peak periods of 7:00 - 9:00 AM and 4:00 - 6:00 PM and during the Saturday midday peak period of 11:00 AM – 2:00 PM. Pedestrian crossing movements and bicycle volumes were also counted during these periods. The raw count data are included Appendix D.

Seasonality of Count Data

From the turning movement counts, the study area's traffic peak hours were determined to be 8:00 to 9:00 AM for both the 2011 and 2013 weekday morning peak, 5:00 to 6:00 PM for the 2011 evening peak and 4:45 – 5:45 PM for the 2013 evening peak. The Saturday midday peak hour was found to be 12:00 to 1:00 PM for 2011 counts and 12:15 – 1:15 PM for the 2013 counts.



To evaluate the potential for seasonal fluctuation of traffic volumes on roadways near the Project Site, the MassDOT's 2011 Weekday Seasonal Factors, based on MassDOT's statewide traffic data inventory, indicates that traffic volumes in February and September vary based upon the roadway classification. February traffic volumes are typically one-percent lower than the yearly-average conditions and September traffic volumes are approximately seven-percent higher than the yearly-average.

To present a conservative analysis, a seasonal adjustment factor of one-percent was applied to the study area intersections counted in February and no seasonal adjustments were made to the study area intersections counted in September.

While the previously conducted traffic data in this area is being reused for consistency purposes, the counts still require adjustment to reflect growth that may have occurred since that time. Therefore, in addition to seasonal adjustments, a yearly growth rate of half-a-percent per year was applied to both the 2011 and 2013 traffic data to develop 2015 existing volumes. The 2015 Existing peak-hour traffic volumes are shown in Figures 3.3, 3.4, and 3.5 for the weekday morning, weekday evening and Saturday midday peak hours, respectively.

Pedestrians

Sidewalks along the roadway network near the Project Site are in varying condition with striped crosswalks and pedestrian signals provided at the signalized intersections within the study area. Moderate levels of pedestrians were observed on the roadways near the Project Site, with much of the pedestrian traffic being oriented to and from the MBTA bus stops noted above. Refer to Figures 3.6 through 3.8 for pedestrian intersection crossing volumes during the peak hours.

At the signalized intersections of Washington Street/Herald Street, Herald Street/Albany Street, Traveler Street/Frontage Road, East Berkeley Street/Albany Street, and East Berkeley Street/Frontage Road pedestrians are accommodated in concurrent walk phases. This allows pedestrians to cross while the parallel traffic direction is still moving through the intersection, reducing overall vehicle and pedestrian delays. Pedestrian storage space on the sidewalks and observed pedestrian delays appear to be reasonable at most crosswalk locations during typical peak-hour conditions. As described later in this chapter, the Traveler Street sidewalks on the northerly side of the road in the vicinity of the Project Site will be reconstructed as part of the nearby Ink Block project construction. The associated improvements will include new street trees and lighting to provide for an enhanced pedestrian environment.

Bicycles

Currently observed bicycle volumes throughout the traffic study area are highlighted in Figures 3.9 through 3.11 for the weekday morning, weekday evening and Saturday midday peak hours, respectively. While nominal bicycling activity was observed during the study area, there is an increased amount of attention in providing improved bicycle amenities within this area. As part of city-wide efforts to promote biking, the City of Boston created the “Boston Bikes” program in 2007 to focus on improvements in engineering, enforcement, education, encouragement and evaluation of biking. Through this program the city has categorized most of the roadways within the traffic study area as being suitable for intermediate to advanced bicyclists. Specifically, both Herald Street and Albany Street are considered suitable for advanced bikers only due to the higher-volume, one-way roadway configuration, and lack of defined bicycle accommodations.

The City of Boston is also advancing a city-wide bike-sharing program known as “Hubway”, under which there are currently 140 bike-sharing stations provided within the city for over 1,300 bicycles. This program began operating in July 2011 and the ultimate goal is for it to expand to the greater Boston region with accommodations for over 5,000 bikes at 300 bike sharing stations.

As part of the proposed Harrison Avenue roadway improvement project, bicycle lanes will be installed on Harrison Avenue in the vicinity of the Project. The bicycle amenities proposed as part of the various projects within this area could be particularly attractive given the Project Site’s proximity to the South Bay Harbor Trail. The Project is also located adjacent to Traveler Street, which has been designated as a “Primary Green Corridor” by the BRA. The South Bay Harbor Trail is currently under development and, upon completion, will extend from Lower Roxbury to Fan Pier to the north. Construction of this bike path is being funded through a combination of federal and private sources. This bicycle/pedestrian path will connect multiple neighborhoods to each other and to Boston Harbor. The route is over three miles long traveling along roadways, bridges and through both public and private property. With its location near the middle portion of the South Bay Harbor Trail, the bike-sharing station as part of the proposed on-site Mobility Hub could be particularly attractive.

Public Transportation

The Project Site is currently well served by the Massachusetts Bay Transportation Authority’s (MBTA) public transportation services, as shown in Figure 3.12. Access to the Red Line’s Broadway Station is a short walk to the east across the Traveler Street Bridge. The Orange Line’s Tufts Medical Center Station is located to the north, over the Washington Street Bridge. Both of these rapid transit rail stations are located



within a half mile from the Project Site. Four local bus routes serve the study area, including the Silver Line SL4 and SL5 rapid bus routes. Peak period frequencies/headways for MBTA services are summarized in Table 3-2.

Table 3-2 MBTA Service

Service	Origin / Destination	Peak-hour Frequency (minutes)
Red Line – Broadway Station	Alewife – Braintree/Ashmont	9
Orange Line – Tufts Medical Center Station	Oak Grove – Forest Hills	5
Route 9	City Point – Copley Square	5-10
Route 11	City Point – Downtown Bayview	7-22
Silver Line - SL 4	Dudley Station – South Station	5-15
Silver Line - SL 5	Dudley Station – Downtown Crossing	4-12

Source: MBTA

Existing Parking

The Project Site currently contains a limited, poorly defined parking area capable of accommodating up to forty vehicles (approximately twenty vehicles per existing building). Exiting on-street parking within the traffic study area is shown in Figure 3.13. This parking currently serves the various commercial uses in the area. Within the study area, on-street parking is almost entirely restricted along Herald Street and Albany Street with the exception of the area immediately next to the Project Site where there is room for approximately five parked vehicles. Signs posted in this area indicated that parking is allowed with a thirty-minute limit from 6 AM to 5 PM on Monday through Saturday.

To the south of the Project Site, parking currently is not allowed on Traveler Street adjacent to the Project Site. However, in conjunction with the ongoing Ink Block development construction parking for approximately fourteen vehicles will be provided along the northerly side of the roadway. MassDOT also recently constructed new parking areas underneath Route I-93 to the south of Traveler Street as part of its “Understory” project. To date, over 230 parking spaces have been constructed in two lots underneath Route I-3 between the Albany Street connector to Traveler Street to the north. In 2015 MassDOT also is planning on constructing an approximately 175-space parking area with associated public amenities underneath Route I-93 to the north of Traveler Street opposite the Project Site.

Crash Analysis

A detailed crash analysis was conducted to identify potential vehicle accident trends and/or roadway deficiencies in the traffic study area. The most current vehicle accident data for the traffic study area intersections were obtained from MassDOT for



the years 2008 to 2012. A summary of the study intersections vehicle accident history is presented in Table 3-3.

Crash rates are calculated based on the number of accidents at an intersection and the volume of traffic traveling through that intersection on a daily basis. Rates that exceed MassDOT's average for accidents at intersection in the district in which the town or city is located could indicate safety or geometric issues for a particular intersection. Since Boston is located in MassDOT's District 6, the calculated crash rates were compared to those of MassDOT District 6, which are 0.76 for signalized intersection and 0.58 for unsignalized intersections. These rates imply that, on average, 0.76 accidents occurred per million vehicles entering signalized intersections throughout District 6, and 0.58 accidents occurred per million vehicles entering unsignalized intersections. It should be noted that the location for some accidents cannot be precisely determined from the database. These locations typically involve interchange intersections. Additionally, some accidents may have occurred but were either not reported or not included in the database, and therefore not considered.

Review of the accident data indicates that while the intersection of Albany Street at Traveler Street is equal to the MassDOT crash rate, the remainder of the intersections are below the MassDOT crash rates for this district. The majority of crashes at Albany Street/ Traveler Street are "angle" or "sideswipe in the same direction" type accidents. Some of these crashes could be partly attributable to conflicts between traffic wishing to switch lanes at the intersection.



Table 3-3 Vehicular Crash Summary (2008-2012)

	Albany Street at:		Harrison Avenue at:	
	Herald Street	Traveler Street	Herald Street	Traveler Street
Signalized?	Yes	Yes	Yes	Yes
MassDOT Average Crash Rate	0.76	0.76	0.76	0.76
MassDOT Calculated Crash Rate	0.24	0.76	0.38	0.13
Exceeds?	No	No	No	No
Year				
2008	3	12	3	0
2009	2	4	2	1
2010	5	9	5	1
2011	4	6	3	1
<u>2012</u>	<u>1</u>	<u>6</u>	<u>3</u>	<u>0</u>
Total	15	37	16	3
Collision Type				
Angle	1	13	8	1
Head-on	0	1	0	0
Rear-end	7	0	1	0
Rear-to-rear	0	0	0	0
Sideswipe, opposite direction	0	0	0	0
Sideswipe, same direction	1	9	2	0
Single Vehicle Crash	1	2	2	0
Unknown	0	0	0	0
<u>Not Reported</u>	<u>5</u>	<u>12</u>	<u>3</u>	<u>2</u>
Total	15	37	16	3
Severity				
Fatal Injury	0	1	0	0
Non-fatal Injury	3	6	7	0
Property Only	9	21	4	1
Not Reported	3	8	5	2
<u>Unknown</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>
Total	15	37	16	3
Time of day				
Weekday, 7:00 AM-9:00 AM	2	4	0	0
Weekday, 4:00 PM – 6:00 PM	0	8	1	1
Saturday, 11:00 AM – 2:00 PM	0	1	0	0
Weekday, other time	9	15	12	2
<u>Weekend, other time</u>	<u>4</u>	<u>9</u>	<u>3</u>	<u>0</u>
Total	15	37	16	3
Pavement Conditions				
Dry	9	24	9	1
Wet	2	8	3	0
Snow	0	0	0	0
Ice	0	0	1	0
Sand, mud, dirt, oil, gravel	0	0	0	0
<u>Not Reported</u>	<u>4</u>	<u>5</u>	<u>3</u>	<u>2</u>
Total	15	37	16	3
Non-Motorist (Ped/Bike)	0	2	2	0

Source: MassDOT crash data

Future Condition

To assess future transportation conditions, the TIAS considered the following two future scenarios for a seven-year time horizon (2022) from the time of the existing conditions described earlier:

- **2022 No-Build Condition** – assumes no changes to the Project Site, but with background growth associated with other planned projects and general background regional growth, along with any planned roadway/ infrastructure improvements; and
- **2022 Build Condition** – assuming the same background growth and any planned infrastructure improvements, but including the redevelopment of the Project Site.

No-Build Condition

The 2022 No-Build Condition was developed to evaluate future transportation conditions in the traffic study area without consideration of the Project. In accordance with MassDOT guidelines, this future analysis year represents a seven-year horizon from 2015 existing conditions. The No-Build Condition provides insight to future traffic conditions as a result of regional growth as well as specific planned projects that are expected to affect the local roadway network.

A background growth rate of half-a-percent per year was applied to the traffic volumes. This growth rate is consistent with both growth rates established by the Boston Transportation Department (BTD) as well as recent traffic studies for other developments in this area.

In addition to the background growth rate, traffic projections for several specific projects were incorporated in the development of No-Build Condition. These include the following development projects:

- Kneeland Street – Parcel 24 LLC – 345 residential mixed-income units and 5,500 sf of retail space.
- Troy Boston Residential Project at 275 Albany Street – Originally proposed to be developed as two hotels with up to 408 total rooms, this site will now be developed with two residential buildings including up to 380 total units. Studies for the new development indicate that the resulting trip generation will be less than that of the former hotel scenario. Accordingly, the original hotel-traffic based volumes used in previous studies for the nearby Ink Block project also were used for this study, which results in future volumes being slightly overstated.
- Boston Medical Institutional Master Plan – Boston University Medical Center – The 2013 Boston University Medical Center Institutional Master Plan



Amendment/Large Project Review considered the expansion of various components of that facility by 2019. Specifically, the analysis included a 27,800 sf expansion to the Moakley Cancer Center and a 78,800 sf inpatient building with supporting office and facility space.

- 80 East Berkeley Street – The Druker Company, Ltd. – The proposal for this site involves the construction of 290,000 sf of office space with 18,000 sf of ground floor retail/restaurant space. The background traffic volumes associated with this project were obtained from the August 8, 2013 Expanded Environmental Notification Form.
- 477-481 Harrison Avenue – The project involves the redevelopment of an approximately 9,735 square foot land area into 18 residential units.
- Castle Square – The Castle Square project consists of a 25 unit residential building addition to an existing 500 unit residential development.
- 345 Harrison Avenue – Graybar – Based on a June 14, 2013 Letter of Intent, the development proposal for this site involves the construction of approximately 560 residential units and 33,000 square feet of retail space.
- 600 Harrison Avenue – New Atlantic Development – The redevelopment proposal for this site involves replacing the existing surface parking lot on this site with a 160-unit apartment building with 3,600 sf of supporting retail space.
- Route I-93 “Understory” – MassDOT – MassDOT plans to develop the parcels underneath Route I-93 in Boston from Herald Street extending to the south to the Albany Street connector between Albany Street and Frontage Road. In total over 400 new parking spaces will be provided in this area at the completion of the project. The trip generation and assignment projections used during the permitting of that project was utilized for this study.
- Transit Insurance Agency – the adjacent building to the north of the site at 217 Albany Street currently is for sale. No definitive plans for the potential reuse of this building are known at this time. However, traffic associated with the reuse of that property should already be accounted for in the 0.5-percent annual traffic growth rate used for this study.

The 2022 No-Build Condition peak-hour traffic volumes were developed by increasing the 2015 Existing Condition volumes to include general background traffic growth as previously described, and adding traffic volumes associated with known traffic forecasts projected for other development projects in the area.

Figures 3.14, 3.15, and 3.16 present the 2022 No-Build Condition traffic volumes for the weekday morning, weekday evening and Saturday midday peak hours, respectively.



Future Roadway Improvements

In the Proponent's meetings to date with MassDOT, BRA and BTM there is one definitive planned roadway improvements programmed to be implemented within the traffic study area in the near future. The following section describes the roadway improvements being considered in the project area.

Harrison Avenue

In connection with the adjacent Ink Block redevelopment project, design plans have been developed for roadway/ traffic improvements along Harrison Avenue between Herald Street and East Berkeley Street.

The proposed improvements along Harrison Avenue between Herald Street and East Berkeley Street include a reduced roadway cross-section and associated traffic signal modifications at three intersections. This improvement was initially considered by the Boston Redevelopment Authority (BRA) as part of its recent Harrison-Albany Corridor Study. The intent of the reduced cross-section is to provide more efficient use of the Harrison Avenue right-of-way with enhanced bicycle and pedestrian amenities, while still accommodating planned future roadway volumes.

The plan provides bicycle lanes on both sides of Harrison Avenue with bicyclists moving with the flow of traffic and a buffer zone being provided between the bike lane and adjacent on-street parking spaces. Single travel lanes would be provided in both directions along the corridor with turning lanes provided throughout the corridor as necessary. Upon completion of the city design plans, the project will be constructed by the Boston Department of Public Works.

The proposed improvements along Harrison Avenue have been incorporated into the analysis of the 2022 No-Build conditions.

Build Condition

The 2022 Build Conditions includes the demolition of two existing buildings on the Project Site and the construction of a new 200-room hotel. A parking supply of approximately 64 spaces will serve the Project in the form of on-grade parking located behind the hotel. The hotel parking will operate as valet only, with guests pulling up to the designated front drop-off/pick-up area at the south end of the hotel with valet staff handling the parking of the vehicles.



Site Access and Circulation

No new driveways will be constructed as part of this Project. Instead, the Proponent will be obtaining easements from the adjacent Ink Block development project to utilize the existing infrastructure already in place. Primary access and egress to the Project Site will be provided by two existing unsignalized Ink Block driveways on Albany Street. The southerly driveway will provide right-turn, enter-only access to the Project Site for all Project guests and employees as well as entering Ink Block traffic. The existing northerly right-turn exit only driveway from the Ink Block site also will be utilized for this Project. The one-way northbound drive aisle on that site adjacent to the Project Site is currently used only by a limited number of Ink Block employees and delivery vehicles. As part of this Project, hotel valets will use this area to drop off vehicles in the valet spaces west of and adjacent to the hotel with those spaces being accessed from the drive aisle. When guests wish to leave the site the valet will drive the vehicles from this parking area an exit onto Albany Street using the northerly driveway, before immediately returning to the hotel entrance to return the car to the hotel guests.

With the planned easements between the Project Site and the Ink Block development, hotel guests and employees will have a variety of options to access and egress the Project Site. Besides the Albany Street access/egress described above, hotel guests will be able to enter and exit the Project Site via the Ink Block site's driveway on Traveler Street. Arriving guests from Harrison Avenue will be able to use that driveway to access the site, and also will have the option of using the Ink Block driveway on Harrison Avenue. Exiting guests also will be able to use either driveway, though exiting traffic from the Harrison Avenue driveway will continue to be restricted to exiting right-turns only. With these multiple access and egress options the amount of traffic utilizing any one driveway will be minimized compared to a typical single driveway configuration found at many hotel sites.

One notable benefit of the Project is that three existing curb cuts on Albany Street will be closed as part of this Project. While both the F.W. Webb and Independent Taxi businesses on-site are no longer in operation, both were previously active uses. The taxi business in particular served as the starting and ending point for multiple taxis. As such, eliminating both that former use and driveway will help to minimize turning movements and conflicts on Albany Street. Both the reuse of the existing Ink Block driveways and the closure of these curb cuts will require the approval of the Massachusetts Highway Department (MassDOT), as Albany Street is under state highway jurisdiction. The Proponent held an initial meeting with MassDOT on March 10, 2015 at which time MassDOT did not express any notable concerns with the proposed access scheme, while reserving the right to further comment.

Project-Generated Trips

To assess the traffic impacts of the Project, trip estimates were based on standard rates from the Institute of Transportation Engineers (ITE) Trip Generation². Trip generation for the proposed 200 room hotel was estimated based on ITE Land Use Code (LUC) 310 "Hotel".

Mode Share and Vehicle Occupancy Rates

After the initial calculation of the base Project trip generation using ITE data, further adjustments were made to account for local mode share following guidelines by the Boston Transportation Department (BTD) for individual city zones. This mode-shared calculation is critical to the evaluation of overall Project-related traffic impacts as there will be a mixture of automobile travel to the Project Site, along with residents and customers that utilize public transit or walk and/or bike. While the Project Site falls within Zone 3, it is located at the corner junction of where Zones 2, 3 8 and 15 all meet. The characteristics of each of these abutting zones were reviewed and it was concluded that the Project and the study area should more closely reflect those found in the abutting Zone 15 just south of the Project Site. While use of the Zone 3 data would actually result in less vehicular traffic being projected, use of the Zone 15 data offers a more realistic estimate of the mode shares expected to be found with the use on the Project Site in this area. This same methodology was used during the permitting of the adjacent Ink Block development and is being utilized again for consistency.

Transit and bike/pedestrian activity was further evaluated by considering local vehicle occupancy rates (VOR) derived from the 2001 National Household Travel Survey based on Census Tract 712. While the Project Site actually falls within Tract 704, the data for Tract 704 were utilized for the same reasons noted above. The results of the adjusted trip generation are provided in Table 3-4.

Due to the urban neighborhood environment a portion of the Project-generated trips are expected to use the MBTA transit system, or walk and/or bike. Regardless, the majority of the trips still will be in the form of motor-vehicle trips. As shown in Table 3-4, the Project will generate 800 and 930 vehicle trips on a typical weekday and Saturday. During the respective weekday morning and evening peak hours the Project will generate 53 and 59 trips and the Project will generate 84 trips during the Saturday midday peak hour.



² Trip Generation; Ninth Edition; Institute of Transportation Engineers; Washington, D.C.; 2012.



Table 3-4 Project Trip Generation, Total Project-Related Trips by Mode

Time Period / Direction	Public Transportation	Walk/Bike/Other	Vehicle Trips
Weekday Daily			
Enter	133	203	404
<u>Exit</u>	<u>133</u>	<u>203</u>	<u>404</u>
Total	266	406	808
Weekday Morning			
Enter	13	19	34
<u>Exit</u>	<u>14</u>	<u>13</u>	<u>19</u>
Total	27	31	53
Weekday Evening			
Enter	19	18	27
<u>Exit</u>	<u>12</u>	<u>18</u>	<u>32</u>
Total	32	36	59
Saturday Daily			
Enter	152	233	465
<u>Exit</u>	<u>152</u>	<u>233</u>	<u>465</u>
Total	305	466	930
Saturday Midday			
Enter	15	23	46
<u>Exit</u>	<u>8</u>	<u>18</u>	<u>38</u>
Total	23	41	84

Source: Trip Generation, 9th Edition, Institute of Transportation Engineers, Washington D.C. (2012).

Notes: Land Use Codes (LUC) 310 (Hotel). The base trip generation estimates were subsequently categorized into transit, walk, bike or vehicular trips following LTD's guidelines for Zone 15.

Automobile Trip Distribution

While the mode-share splits are largely dependent on existing land uses within a given LTD city section, the arrival/departure patterns are more closely associated with the existing roadway infrastructure. Accordingly, Trip distribution was based on LTD's guidelines for Area 3 (where Project Site is located). These guidelines, based on 2000 census data, provide information on where area residents work and where area employees live. Using these data, vehicle trips can then be assigned to the roadway network. Trip distribution patterns were established separately for the residential and the retail/commercial uses. A summary of the primary roadways of origin of vehicles traveling to the Project is summarized in Table 3-5.



Table 3-5 Geographic Trip Distribution

Corridor	Hotel Distribution
Albany Street	47%
Herald Street	11%
Harrison Avenue – from north	10%
Harrison Avenue – from south	11%
Frontage Road	19%
East Berkeley Street	2%
Total	100%

The net-new Project-generated vehicle trips were added to the No-Build traffic networks using the distribution patterns summarized in Table 3-5 above. Traffic volume network worksheets are provided in the Appendix D. The resulting 2022 Build Condition networks are shown in Figures 3.17, 3.18, and 3.19 for the weekday morning, weekday evening and Saturday midday peak hours, respectively.

A comprehensive operational and capacity analysis of the study area intersections is presented later in this chapter. Potential improvements to area intersections are also discussed later.

Parking Supply

The anticipated parking needs associated with the proposed hotel will be satisfied through 64 at-grade parking spaces. Parking at the hotel will be valet only for guests, with a designated valet area to the west of the building. After guests pull in and park at this location, the hotel valet service will park guest vehicles in the parking lot behind the hotel following the circulation plan, as shown in Figure 3.20.

Traffic Operations Analysis

Consistent with MassDOT and BTD guidelines, Synchro 8 software was used to model level of service (LOS) operations at the study area intersections. LOS is a qualitative measure of control delay at an intersection providing an index to the operational qualities of a roadway or intersection.

LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS D is considered acceptable. LOS E indicates vehicles experience significant delay while LOS F suggests unacceptable delay for the average vehicle. LOS thresholds differ for signalized and unsignalized intersections. Longer delays at signalized intersections than at unsignalized intersections are perceived as acceptable.



Table 3-6 below presents the level of service delay threshold criteria as defined in the 2000 Highway Capacity Manual (HCM).

Table 3-6 Level of Service Criteria

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

Source: 2000 HCM

Adjustments were made to the Synchro model to include characteristics of the study area such as heavy vehicles, bus operations, parking activity, and pedestrian crossings. The capacity analysis results are summarized in the following sections.

Signalized Capacity Analysis

The LOS results of the signalized capacity analyses are summarized in Table 3-7 for the Existing, No-Build, and Build conditions. Detailed results including delay by approach, queuing and volume to capacity ratio are presented in the Appendix D, along with the detailed Synchro results.



Table 3-7 Signalized Intersection Level of Service (LOS) Summary

Location	2015 Existing Conditions					2022 No-Build Conditions					2022 Build Conditions				
	v/c ¹	Delay ²	LOS ³	Vehicle Queues		v/c	Delay	LOS	Vehicle Queues		v/c	Delay	LOS	Vehicle Queues	
				50th ⁴	95th ⁵				50th	95th				50th	95th
Harrison Avenue at Herald Street															
<u>Weekday Morning</u>															
Herald Street EB TR	0.71	34.0	C	189	236	0.67	29.9	C	194	246	0.67	29.9	C	194	246
Harrison Avenue NB R	0.02	41.6	D	0	0	0.05	42.4	D	0	0	0.05	42.4	D	0	0
Harrison Avenue SB L	0.77	41.4	D	195	#101	0.44	28.5	C	94	46	0.44	28.5	C	94	46
Harrison Avenue SB R	<u>0.14</u>	<u>15.3</u>	<u>B</u>	32	88	<u>0.33</u>	<u>17.8</u>	<u>B</u>	91	227	<u>0.33</u>	<u>17.8</u>	<u>B</u>	91	227
Overall	0.63	33.6	C			0.51	28.4	C			0.51	28.4	C		
<u>Weekday Evening</u>															
Herald Street EB TR	1.02	59.9	E	370	#456	1.01	54.7	D	410	#509	1.01	55.5	E	413	#512
Harrison Avenue NB R	0.10	42.6	D	2	7	0.26	42.7	D	0	7	0.26	42.7	D	0	8
Harrison Avenue SB L	0.47	39.0	D	~126	#222	0.26	34.4	C	56	81	0.27	34.5	C	58	84
Harrison Avenue SB R	<u>0.26</u>	<u>23.8</u>	<u>C</u>	91	118	<u>0.64</u>	<u>29.2</u>	<u>C</u>	251	#349	<u>0.64</u>	<u>29.2</u>	<u>C</u>	251	#349
Overall	0.61	52.0	D			0.75	48.3	D			0.75	48.8	D		
<u>Saturday Midday</u>															
Herald Street EB TR	0.69	23.6	C	154	212	0.73	24.6	C	180	246	0.73	24.7	C	181	247
Harrison Avenue NB R	0.03	27.5	C	0	0	0.13	28.8	C	0	0	0.13	28.8	C	0	0
Harrison Avenue SB L	0.16	20.6	C	36	79	0.08	20.0	C	18	37	0.09	20.1	C	19	38
Harrison Avenue SB R	<u>0.18</u>	<u>17.0</u>	<u>B</u>	42	75	<u>0.47</u>	<u>19.3</u>	<u>B</u>	129	213	<u>0.47</u>	<u>19.3</u>	<u>B</u>	129	213
Overall	0.37	22.6	C			0.54	23.9	C			0.54	24.0	C		
Harrison Avenue at Traveler Street															
<u>Weekday Morning</u>															
Traveler Street WB LTR	0.26	24.5	C	51	139	0.68	38.7	D	135	#345	0.68	37.8	D	138	#356
Harrison Avenue NB LTR	0.46	20.4	C	78	121			n/a					n/a		
Harrison Avenue NB L			n/a			0.43	16.0	B	41	103	0.44	16.5	B	42	103
Harrison Avenue NB TR			n/a			0.61	28.7	C	156	312	0.64	30.4	C	164	#335
Harrison Avenue SB LTR	0.42	17.2	B	84	41			n/a					n/a		
Harrison Avenue SB L			n/a			0.49	16.9	B	49	85	0.52	17.7	B	50	86
Harrison Avenue SB TR			n/a			<u>0.68</u>	<u>33.8</u>	<u>C</u>	222	#345	<u>0.69</u>	<u>35.2</u>	<u>D</u>	224	#345
Overall	0.36	19.7	B			0.62	29.1	C			0.63	29.9	C		
<u>Weekday Evening</u>															
Traveler Street WB LTR	0.07	22.6	C	15	37	0.67	40.9	D	79	139	0.67	40.2	D	83	144
Harrison Avenue NB LTR	0.32	13.4	B	54	71			n/a					n/a		
Harrison Avenue NB L			n/a			0.10	7.5	A	12	27	0.10	7.8	A	12	27
Harrison Avenue NB TR			n/a			>1.20	>120	F	~433	#535	>1.20	>120	F	~448	#548
Harrison Avenue SB LTR	0.58	14.0	B	121	m142			n/a					n/a		
Harrison Avenue SB L			n/a			0.61	16.8	B	134	266	0.62	17.4	B	137	#274
Harrison Avenue SB TR			n/a			<u>0.82</u>	<u>43.3</u>	<u>D</u>	228	#382	<u>0.82</u>	<u>43.3</u>	<u>D</u>	228	#382
Overall	0.40	14.0	B			0.89	73.9	E			0.91	78.3	E		
<u>Saturday Midday</u>															
Traveler Street WB LTR	0.43	24.7	C	16	64	1.04	93.2	F	112	#329	1.12	>120	F	~127	#364
Harrison Avenue NB LTR	0.20	7.2	A	8	52			n/a					n/a		
Harrison Avenue NB L			n/a			0.26	12.8	B	12	54	0.26	12.8	B	12	54
Harrison Avenue NB TR			n/a			0.68	23.6	C	109	#393	0.71	25.1	C	117	#420
Harrison Avenue SB LTR	0.47	12.6	B	43	158			n/a					n/a		
Harrison Avenue SB L			n/a			0.55	12.9	B	33	131	0.56	13.2	B	33	130
Harrison Avenue SB TR			n/a			<u>0.87</u>	<u>36.9</u>	<u>D</u>	157	#542	<u>0.88</u>	<u>37.4</u>	<u>D</u>	159	#546
Overall	0.37	12.2	B			0.77	41.2	D			0.79	48.6	D		



Table 3-7 Signalized Intersection Level of Service (LOS) Summary (continued)

Location	2015 Existing Conditions					2025 No-Build Conditions					2025 Build Conditions				
	v/c ¹	Delay ²	LOS ³	Vehicle Queues ⁴		v/c	Delay	LOS	Vehicle Queues ⁵		v/c	Delay	LOS	Vehicle Queues ⁶	
Albany Street at Herald Street															
<u>Weekday Morning</u>															
Herald Street EB R	0.97	47.1	D	214	#325	1.02	59.8	E	~240	#352	1.02	59.8	E	~240	#352
Albany Street SB T	0.58	13.5	B	152	194	0.79	17.7	B	248	312	0.79	17.8	B	249	313
Overall	0.73	28.0	C			0.88	33.3	C			0.88	33.3	C		
<u>Weekday Evening</u>															
Herald Street EB R	1.18	92.0	F	~579	m#571	>1.20	>120	F	~668	m#7	>1.20	>120	F	~673	m#72
Albany Street SB T	0.78	26.2	C	305	367	0.97	40.0	D	438	#564	0.97	41.5	D	445	#572
Overall	0.98	60.4	E			1.13	90.8	F			1.14	93.1	F		
<u>Saturday Midday</u>															
Herald Street EB R	0.83	27.9	C	175	232	0.86	29.4	C	210	275	0.87	29.6	C	213	279
Albany Street SB T	0.38	11.5	B	86	147	0.66	17.0	B	191	298	0.67	17.3	B	198	305
Overall	0.56	19.9	C			0.75	22.2	C			0.76	22.5	C		
Albany Street at Traveler Street															
<u>Weekday Morning</u>															
Traveler Street EB TR	0.83	67.5	E	158	187	0.82	41.5	D	325	#480	0.86	44.9	D	346	#506
Albany Street SB L	0.42	9.4	A	0	57	1.19	>120	F	~728	#986	1.18	>120	F	~719	#978
Albany Street SB TR	0.59	11.1	B	180	451	1.18	>120	F	~736	#881	1.18	>120	F	~730	#875
Lot 5 SB L			n/a			0.02	54.6	D	0	0	0.02	54.6	D	0	0
Overall	0.62	17.0	B			0.96	110.2	F			0.97	108.3	F		
<u>Weekday Evening</u>															
Traveler Street EB TR	0.74	38.2	D	233	#385	1.18	115.5	F	~575	#643	>1.20	>120	F	~616	#710
Albany Street SB L	0.81	30.4	C	197	491	>1.20	>120	F	~1020	#128	>1.20	>120	F	~1014	#1283
Albany Street SB TR	0.81	26.3	C	350	472	>1.20	>120	F	~756	#900	>1.20	>120	F	~755	#899
Lot 5 SB L			n/a			0.33	47.7	D	27	74	0.33	47.7	D	27	74
Overall	0.76	29.5	C			>1.20	>120	F			>1.20	>120	F		
<u>Saturday Midday</u>															
Traveler Street EB TR	0.70	37.5	D	66	144	>1.20	>120	F	~367	#620	>1.20	>120	F	~400	#660
Albany Street SB L	0.32	8.1	A	0	57	0.69	17.2	B	169	471	0.69	17.2	B	169	471
Albany Street SB TR	0.37	8.0	A	50	193	0.66	14.3	B	159	372	0.66	14.3	B	159	372
Lot 5 SB L			n/a			0.00	41.1	D	0	0	0.00	41.1	D	0	0
Overall	0.43	12.4	B			0.88	82.9	F			0.90	95.2	F		

- 1 volume to capacity ratio
- 2 delay
- 3 level of service
- 4 50th percentile queue
- 5 95th percentile queue
- ^ Under future conditions, high volume of southbound left-turning vehicles on Harrison dictate that the shared left-through lane is utilized as an exclusive left-turn lane in the PM peak.
- ~ Volume exceeds capacity, queue is theoretically infinite.
- # 95th percentile volume exceeds capacity, queue may be longer.
- m Volume for 95th percentile queue is metered by upstream signal.
- n/a Movement not applicable under condition

As would be expected given the urban area, several of the study area intersections operate with long delays either on some of their individual approaches or for the entire intersection. Detailed discussion regarding the operations the study area intersections highlighted in Table 3-7 is provided in the following sections.



Herald Street/Harrison Avenue

Overall, the Herald Street/Harrison Avenue intersection will operate at LOS D or better under future conditions with or without the Project in place. Furthermore, with one exception each of the intersection approaches also will operate at LOS D or better and there will not be any LOS degradation as a result of the Project. As shown in Table 3-7, during the weekday evening peak hour, the Herald Street eastbound approach will degrade from LOS D under 2022 No-Build Conditions to LOS E under 2022 Build Conditions. However, this degradation is due to an increase in volume by just five vehicles which led to an increase in delay by less than one second. Accordingly, this change in LOS is primarily due to the intersection already operating at the LOS D/E threshold as opposed to any significant impact being created by the Project.

Herald Street/Albany Street

During the weekday morning and Saturday midday peak hours the Herald Street/Albany Street intersection operates at LOS C or better and will continue to do so under future conditions. However, during the weekday evening peak hour the Herald Street eastbound right-turn movement onto Albany Street operates over theoretical capacity and at LOS F and will continue to do so under future conditions. While the capacity analysis indicates that the southbound Albany Street approach will continue to operate at LOS D or better, that approach currently experiences delays not reflected by the analysis. Specifically, queues on the Route I-93 South on-ramp regularly extend back onto Albany Street and through the Herald Street/Albany Street intersection. Because of that, while these delays are not attributable to the Herald Street/Albany Street signalized intersection operation they are still greater than suggested by the analysis. From reviewing the intersection geometry and signal operation there are no apparent capacity-enhancing measures that could be implemented to address these issues, which are primarily related to Route I-93. Regardless, depending on the given time period, the Project only will be adding 6- to 21-vehicles to either approach – less than one vehicle per every signal cycle – which should not create a perceptible impact.

Traveler Street/Harrison Avenue

During all three peak periods under 2015 existing conditions, the intersection operates at LOS B. The intersection is anticipated to operate at LOS C during the weekday morning peak hour under all future conditions. Under the 2022 No-Build condition, the intersection is anticipated to degrade to LOS E during the weekday evening peak hour and LOS D during the Saturday midday peak hour. The intersection is expected to continue to operate at these levels under the 2022 Build condition. No changes in



LOS are expected during any of the critical peak hours considered as a result of the Project.

Albany Street/Traveler Street

The overall Traveler Street/Albany Street signalized intersection operates at LOS C or better under the 2015 Existing conditions. Under 2022 No-Build and Build operations; however, the intersection is anticipated to degrade to LOS F for all peak periods. The 2022 No-Build condition reflects multiple background development projects as well as signal modifications proposed as part of MassDOT's Route I-93 "Understory" project. However, recently conducted studies for that project indicated that LOS C conditions could be expected for this location during the weekday morning and evening peak hours. As the same background traffic assumptions were considered for both studies, these same LOS C conditions reasonably should be expected for this study's 2022 No-Build condition. While this current AC Hotel study has been conducted using Synchro "8" software the Route I-93 Understory traffic evaluation was conducted using the earlier version of this software (Synchro 7). Once notable difference between these two versions of the same approved software is that current Synchro 8 version has difficulty in evaluating signalized locations with exclusive pedestrian phasing, such as the Albany Street/Traveler Street intersection. It is expected that upcoming new versions of this software may address this flaw, but there currently is not any approved methodology for addressing this condition. Accordingly, it is expected that the actual operation will be more consistent with the prior results developed using the earlier software. The Project is only expected to add between 13 and 26 vehicles to the Traveler Street eastbound intersection approach (less than one vehicle per cycle) which should not noticeably impact conditions at this location.

Unsignalized Capacity Analysis

The capacity analysis results for the unsignalized study area intersections are summarized in Table 3-8 below. While no new driveways will be provided as part of this Project, the hotel will utilize the adjacent Ink Block site to travel between that site and the surrounding roadway system. Detailed results including delay by approach, queuing and volume to capacity ratio are presented in the Appendix D, along with the detailed Synchro results.

The analytical methodologies typically used for the analysis of unsignalized intersections use conservative analysis parameters such as high critical gaps. Actual field observations indicate that drivers on minor streets and driveways generally accept smaller gaps in traffic than the default values used in the analysis procedures and therefore experience less delay than reported by the analysis software. Also, the analysis methodologies do not fully take into account the beneficial grouping or platooning effects caused by the nearby signalized intersections. The net effect of



Table 3-8 Unsignalized Intersection Level of Service (LOS) Summary

Location	Critical Side Street Movement	Peak Period	2015 Existing Conditions					2022 No-Build Conditions					2022 Build Conditions				
			Dem ¹	v/c ²	Del ³	LOS ⁴	95 th Queue ⁵	Dem	v/c	Del	LOS	95 th Queue	Dem	v/c	Del	LOS	95 th Queue
Albany Street at I-93 On-Ramp and Ink Block driveway	EB TR	Weekday Morning	20	>1.20	>120	F	Err [^]	15	0.04	11.2	B	3	20	0.05	11.3	B	4
		Weekday Evening	10	>1.20	>120	F	Err [^]	10	0.03	10.9	B	2	30	0.10	11.3	B	8
		Saturday Midday	Neg	0.17	>120	F	13	Neg	0.54	0.0	A	0	45	0.19	10.4	B	18
	SB L	Weekday Morning	545	0.36	6.7	A	43	590	0.40	7.1	A	48	590	0.40	7.1	A	48
		Weekday Evening	915	0.60	10.1	B	107	1055	0.69	12.0	B	153	1055	0.69	12.0	B	153
		Saturday Midday	645	0.42	7.6	A	54	720	0.47	8.1	A	65	720	0.47	8.1	A	65
	Traveler Street at Ink Block driveway	Weekday Morning						90	0.18	13.2	B	17	110	0.23	14.1	B	22
		Weekday Evening			n/a			100	0.21	13.8	B	20	130	0.28	15.0	C	29
		Saturday Midday						135	0.27	14.1	B	27	170	0.36	15.8	C	40
Harrison Avenue at southerly Ink Block driveway	WB R	Weekday Morning						Neg	0.00	0.0	A	0	Neg	0.00	0.0	A	0
		Weekday Evening			n/a			5	0.01	9.9	A	1	5	0.01	9.7	A	1
		Saturday Midday						10	0.02	11.1	B	1	10	0.02	1.11	B	1
	SB L	Weekday Morning						10	0.01	0.5	A	1	10	0.01	0.5	A	1
		Weekday Evening			n/a			25	0.02	0.9	A	2	25	0.02	0.9	A	2
		Saturday Midday						30	0.03	1.2	A	2	30	0.03	1.2	A	2
		Weekday Morning															
		Weekday Evening															
		Saturday Midday															

- 1 volume to capacity ratio
- 2 delay
- 3 level of service
- 4 50th percentile queue
- 5 95th percentile queue
- ^ Err output.



these analysis procedures is the over-estimation of calculated delays at unsignalized intersections in the study area. Cautious judgment should therefore be exercised when interpreting the capacity analysis results at unsignalized intersections.

Albany Street at Ink Block Driveway

When the initial traffic data collection for this assessment was conducted prior to the Ink Block being under construction, there still was some degree of activity associated with the former Boston Herald use of this site. Accordingly, those “existing conditions” area reflected under the 2015 Existing Conditions presented in Table 3-8. Under that former condition there was only minimal traffic (10 to 20 vehicles) observed to use the Albany Street site driveway to exit that site as through and right turn movements under peak hour conditions. Regardless, the LOS F designation shown for the existing condition at that driveway actually only was due to the 1 to 3 vehicles observed at that time to exit from the driveway and travel directly across Albany Street to access the Route I-93 South on-ramp. As noted earlier, that driveway has since been reconfigured as part of the adjacent Ink Block development. Under the current conditions at the time of this AC Hotel study the driveway is now restricted to exiting right-turns only. With these new restrictions in place this driveway is expected to operate at good levels of service in the future with or without the additional Project traffic turning right from this driveway.

Traveler Street Ink Block Driveway

The adjacent Ink Block site will feature a single driveway on Traveler Street roughly 200 feet to the west of Albany Street. Single entering and exiting lanes will be provided within the site driveway. As shown in Table 3-8, exiting traffic from this driveway is projected to operate at LOS C or better during all peak hours. These capacity analysis results are also conservative in that they do not account for gaps that will continue to be created by the existing Albany Street signal at Traveler Street. During the phase of the signal when Albany Street is stopped and Traveler Street westbound has a green indication, there is not any opposing traffic in the westbound direction on Traveler Street. This is due to the “No Turn on Red” restriction from Albany Street that will remain in place as part of this Project. Due to that condition, exiting traffic from this driveway may experience slightly lower delays than that reported by the analysis.

Harrison Avenue Ink Block Driveway

Under future conditions traffic using Ink Block’s southerly Harrison Avenue driveway will have full access for entering vehicles and limited egress to exiting right



turns only. Due to traffic at this driveway being restricted to right turns only, it will operate with excellent levels of service under all of the conditions studied.

Transportation Demand Management

Consistent with the City's goals to reduce auto-dependency, the Project will include Transportation Demand Management (TDM) measures to encourage alternative modes of transportation. TDM measures are most often directed at commuter travel; however, due to the mixed-use nature and nearby public transportation there are opportunities to implement TDM measure for the proposed retail and residential uses.

The following discusses the land use types for which TDM measures will be implemented. A description of the TDM elements is presented in this section along with information on how those elements aid Project users in getting to and from the Project. The Proponent is considering the following measures:

- Provide secure on-site bicycle storage for hotel guests and employees. Appropriately designed bike racks will be provided at select, highly-visible locations within the Project Site. The racks will be securely mounted and feature current designs to properly secure bikes of all kinds with the ability for them to be properly locked. These racks will be located at a centralized location to serve both the hotel guests and employees.
- The location of the Project should provide certain inherent TDM benefits, such as newly planned bicycle accommodations in the area, improved pedestrian walkways, and proximity to public transportation including several bus lines, Silver Line routes and both the MBTA Orange and Red Lines. All of these nearby amenities should help to minimize the need for vehicular travel.
- The hotel operator will be encouraged to provide employer subsidies and/or discounts to hotel employees who purchase monthly or multiple trip transit passes.
- The hotel operator will be encouraged to provide a guaranteed ride home program, in conjunction with MassRIDES, to eliminate an often-cited deterrent to carpool and vanpool participation.
- Hotel management will coordinate with the on-site Transportation Coordinator for the adjacent Ink Block development to oversee parking and loading operations as well as promote alternative transportation measures.

All TDM measures will be formalized in the Transportation Access Plan Agreement (TAPA) to be executed with BTM. With a limited number of employees, the hotel may not have the same levels of TDM opportunities as would be available with a larger



employer. Regardless, employees who work on-site will be able to take advantage of the transportation guidance and programs coordinated in this area.



Figure 3.1
Traffic Study Area

**AC Hotel South End
Boston, MA**

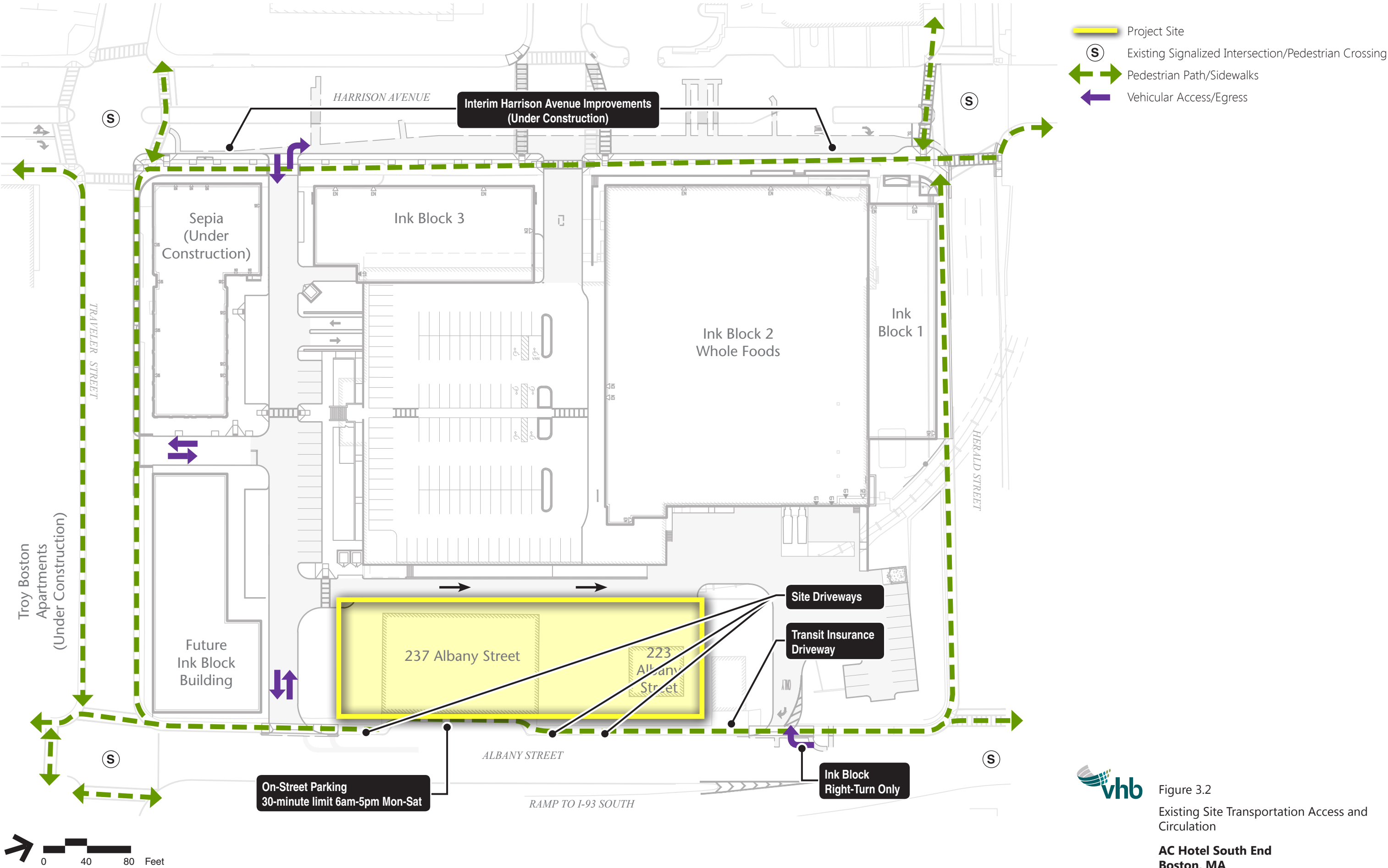
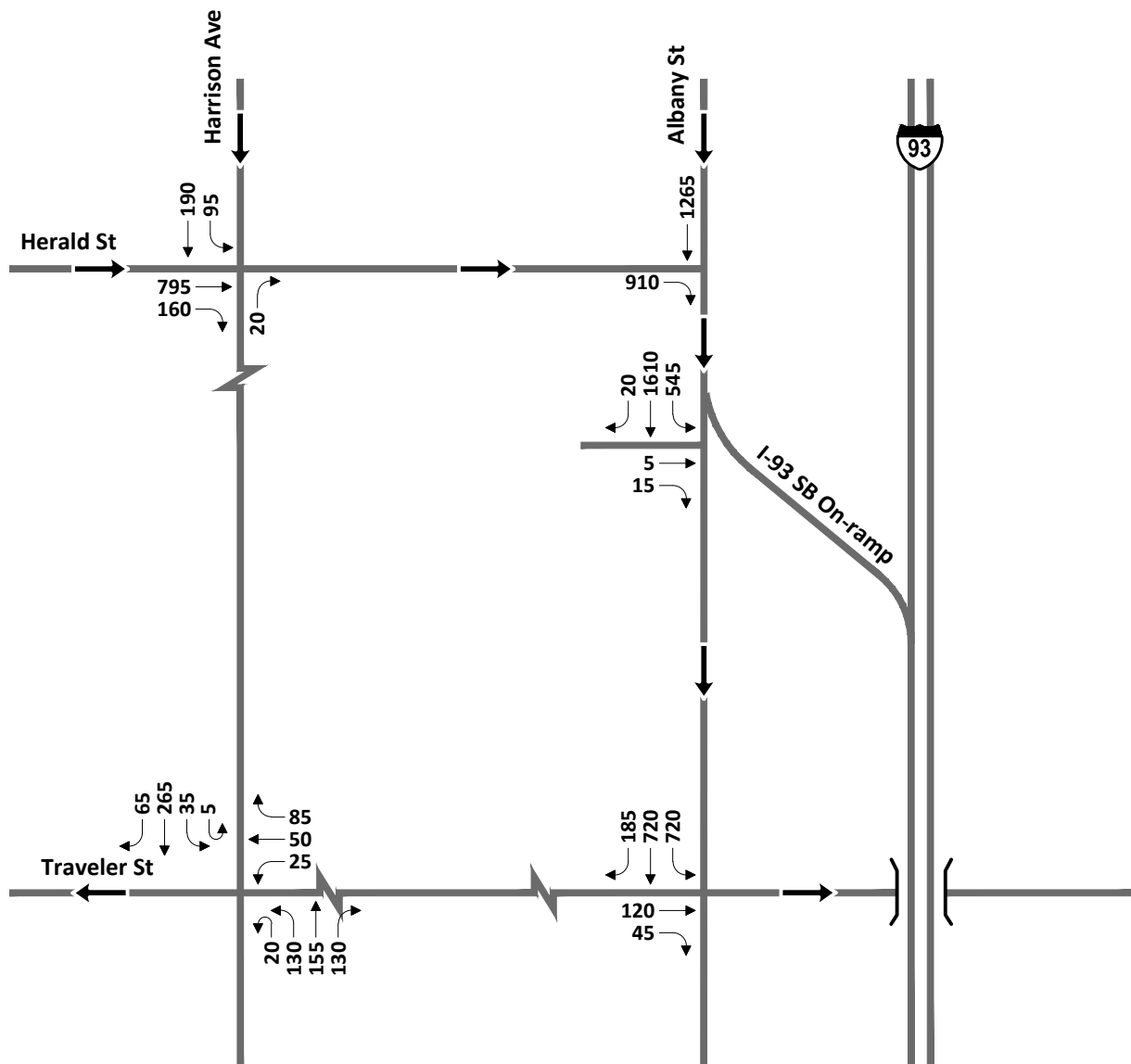


Figure 3.2
Existing Site Transportation Access and Circulation
**AC Hotel South End
Boston, MA**

Neg Negligible
* Silver Line Busses Only



↑
Not to Scale

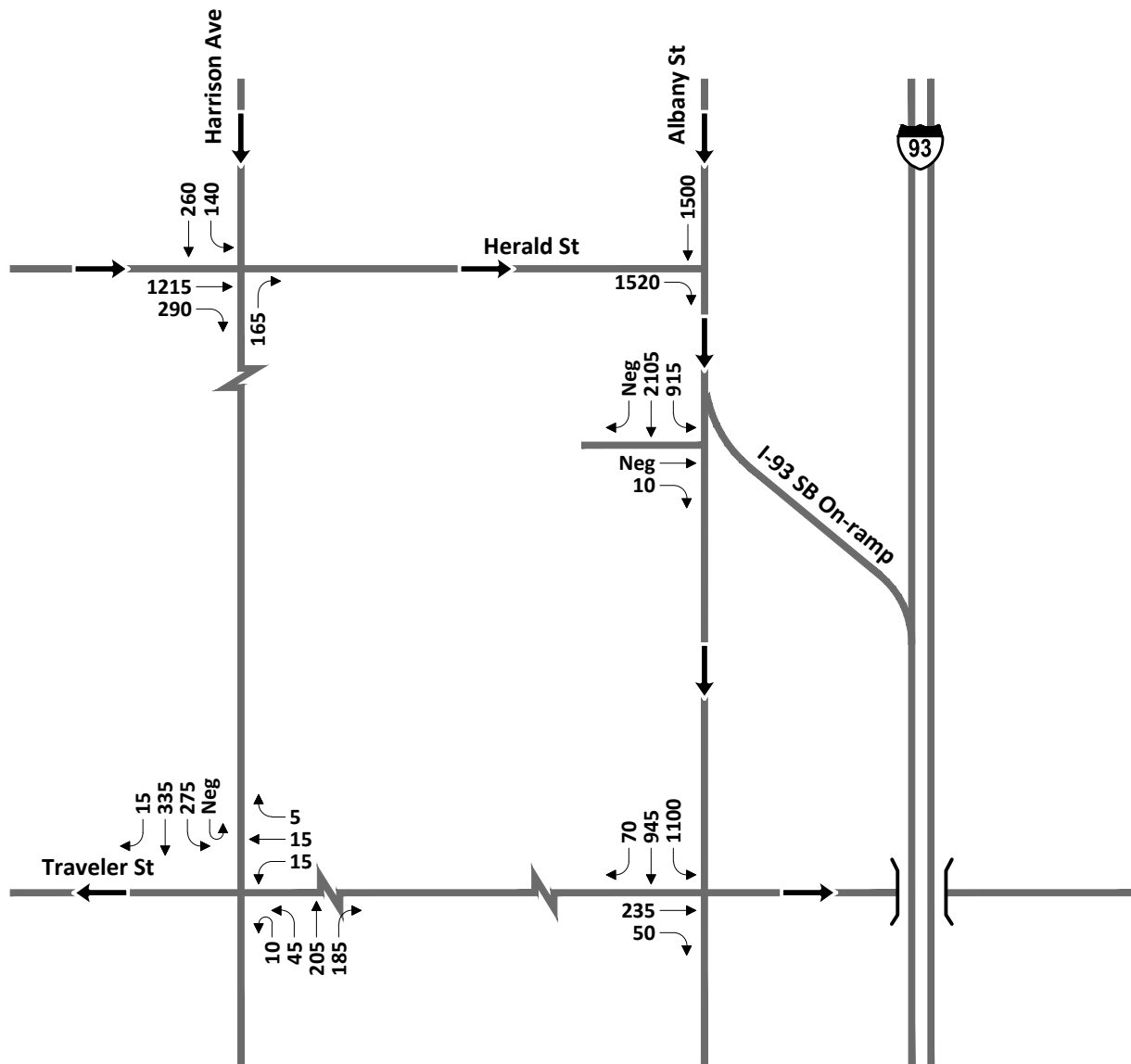


Figure 3.3

2015 Existing Conditions Weekday Morning
Peak Hour Traffic Volumes

**AC Hotel South End
Boston, MA**

Neg Negligible
* Silver Line Busses Only



↑
Not to Scale

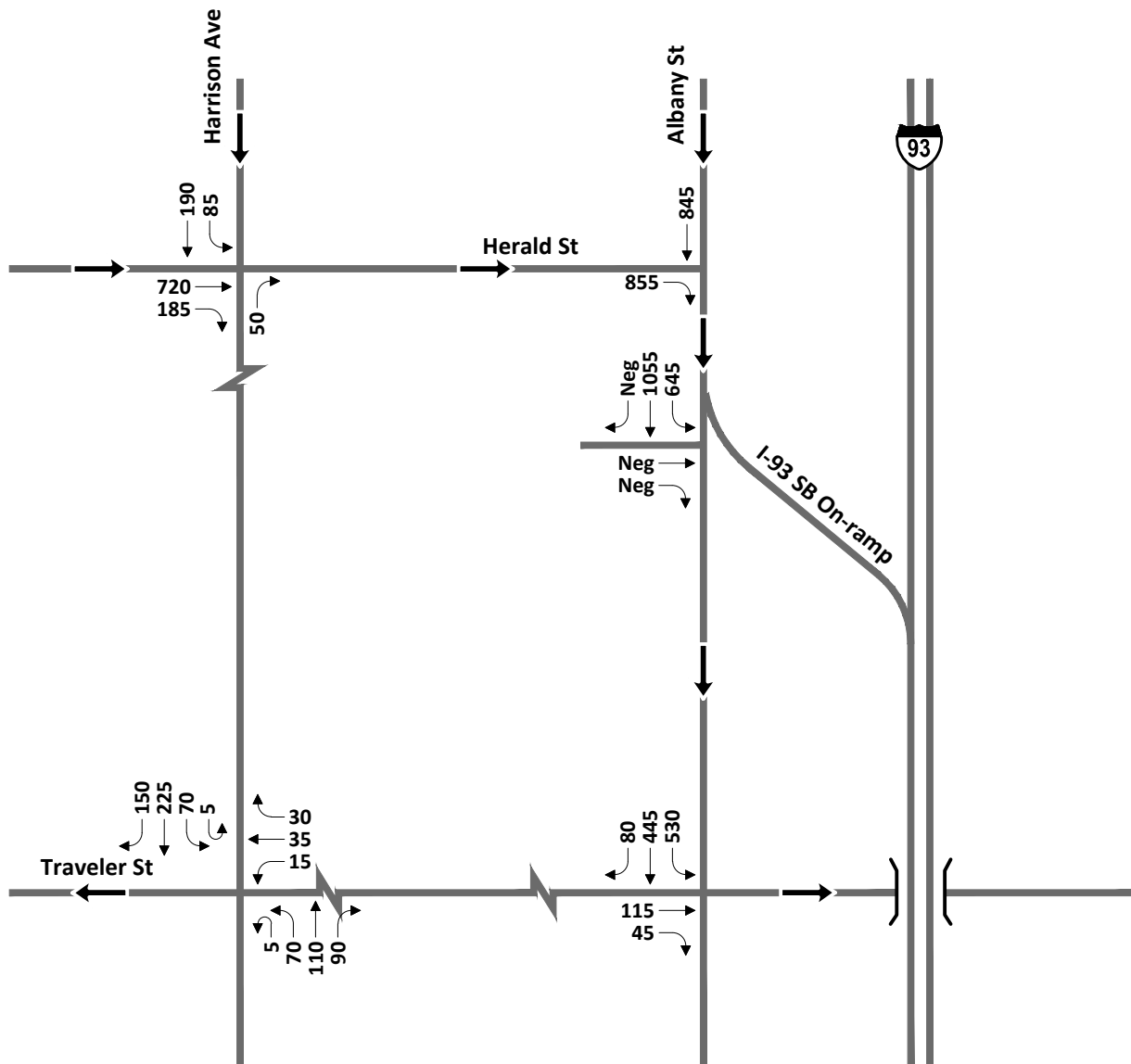


Figure 3.4

2015 Existing Conditions Weekday Evening
Peak Hour Traffic Volumes

**AC Hotel South End
Boston, MA**

Neg Negligible
* Silver Line Busses Only



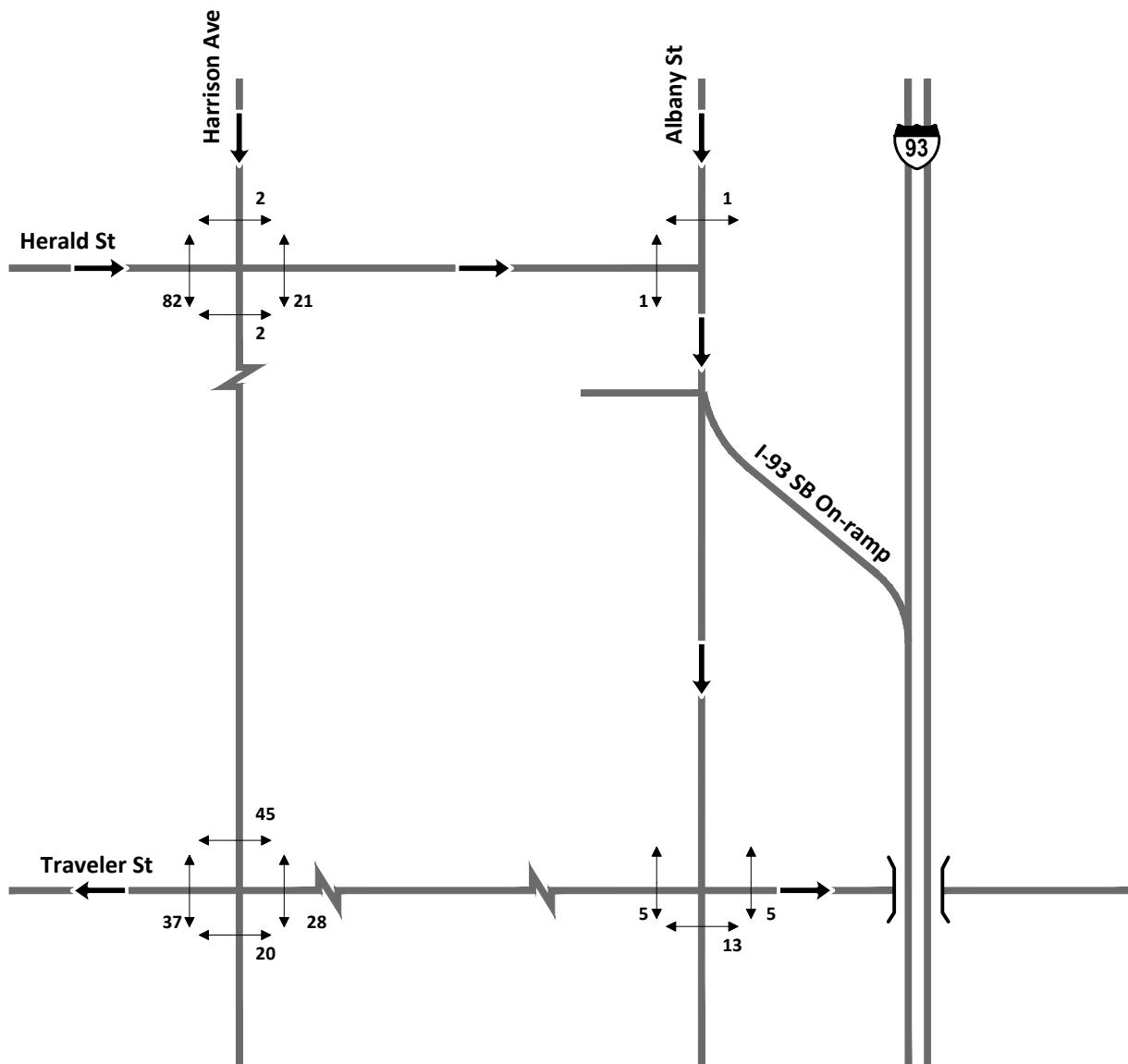
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Not to Scale



Figure 3.5

2015 Existing Conditions Saturday Midday
Peak Hour Traffic Volumes

**AC Hotel South End
Boston, MA**



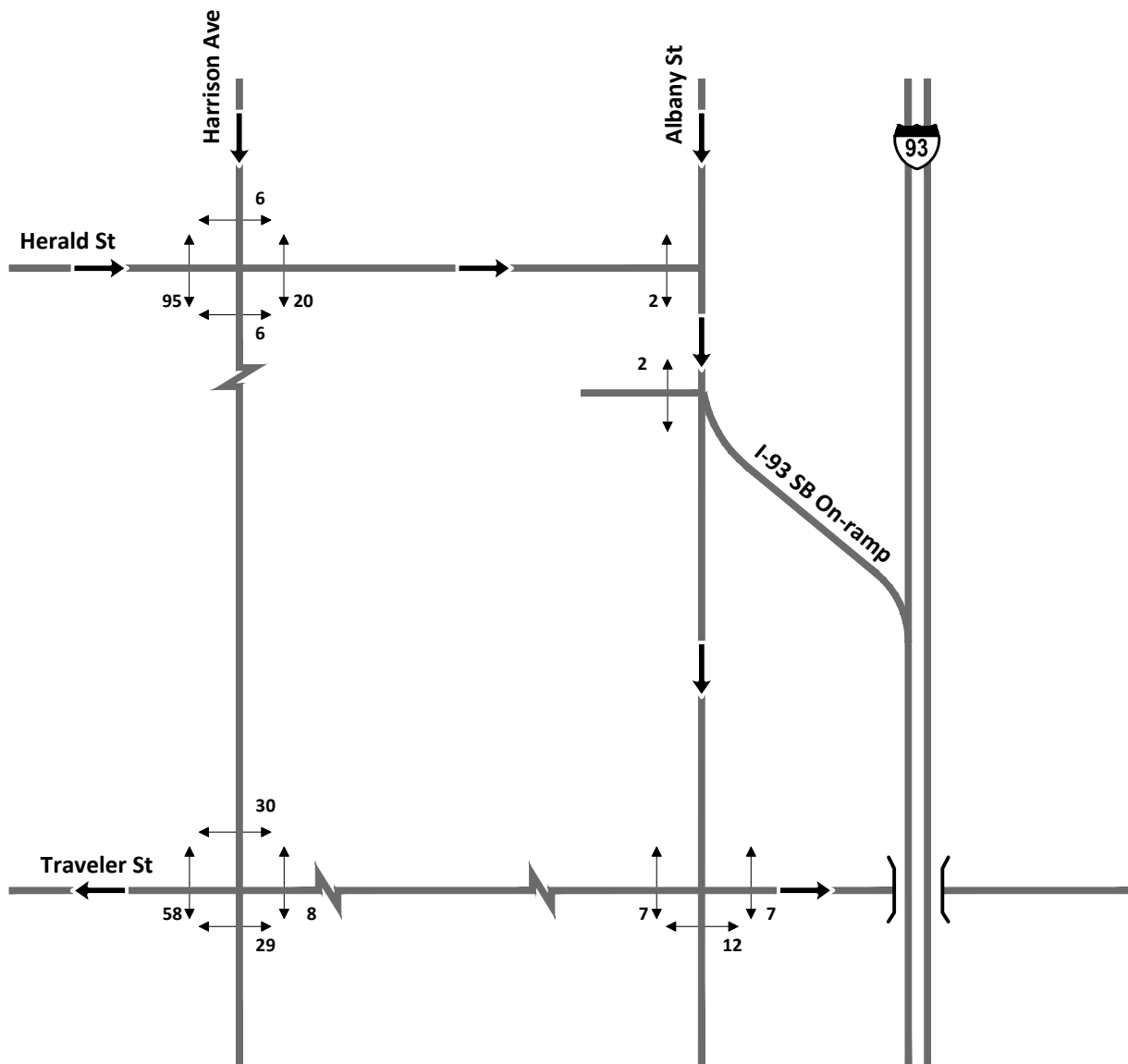
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Not to Scale



Figure 3.6

Existing Conditions Weekday Morning
Peak Hour Pedestrian Volumes

**AC Hotel South End
Boston, MA**



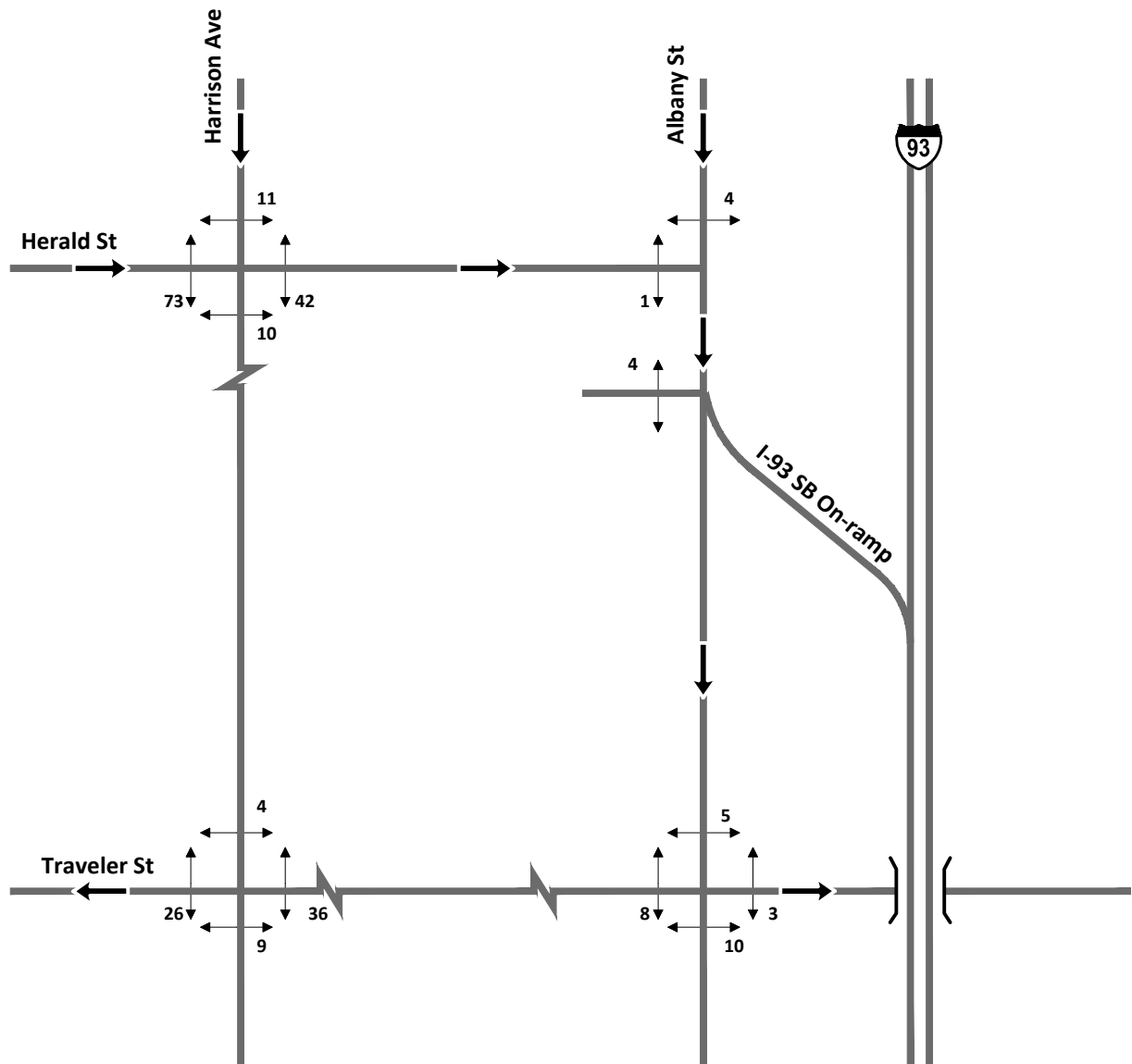
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Not to Scale



Figure 3.7

Existing Conditions Weekday Evening
Peak Hour Pedestrian Volumes

**AC Hotel South End
Boston, MA**



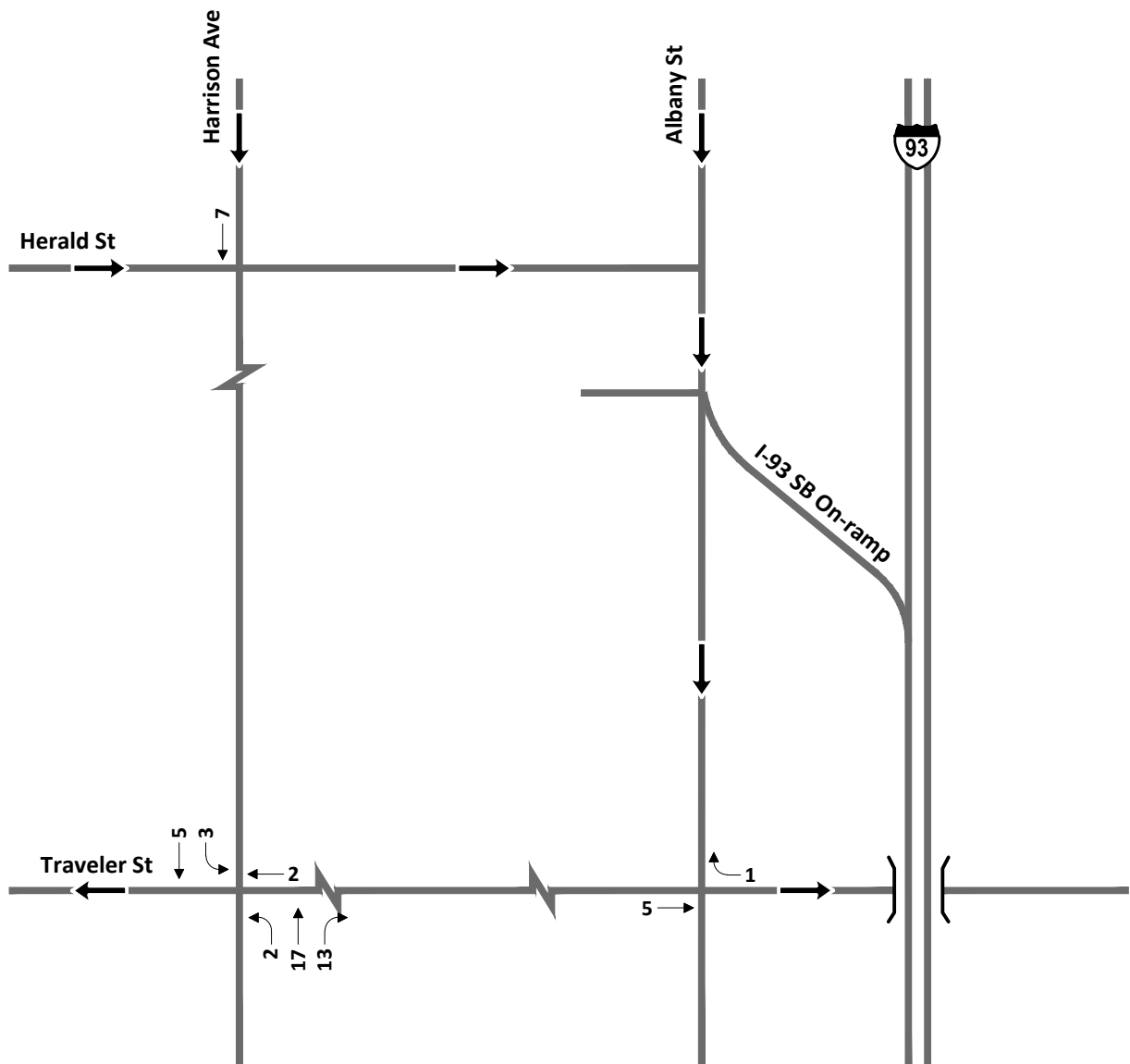
Not to Scale



Figure 3.8

Existing Conditions Saturday Midday
Peak Hour Pedestrian Volumes

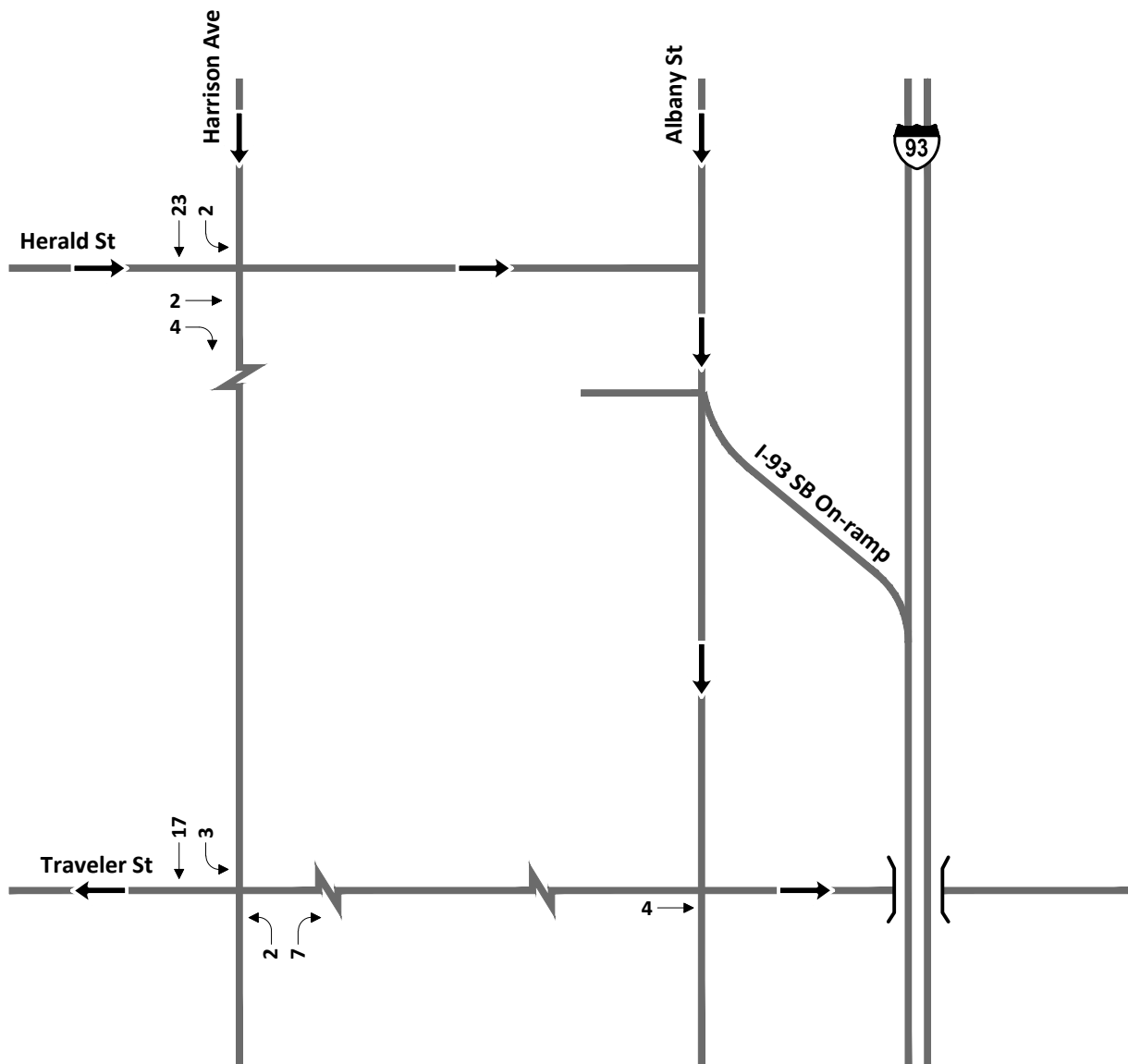
**AC Hotel South End
Boston, MA**



↑
Not to Scale



Figure 3.9
Existing Conditions Weekday Morning
Peak Hour Bicycle Volumes
**AC Hotel South End
Boston, MA**



↑
Not to Scale



Figure 3.10

Existing Conditions Weekday Evening
Peak Hour Bicycle Volumes

**AC Hotel South End
Boston, MA**

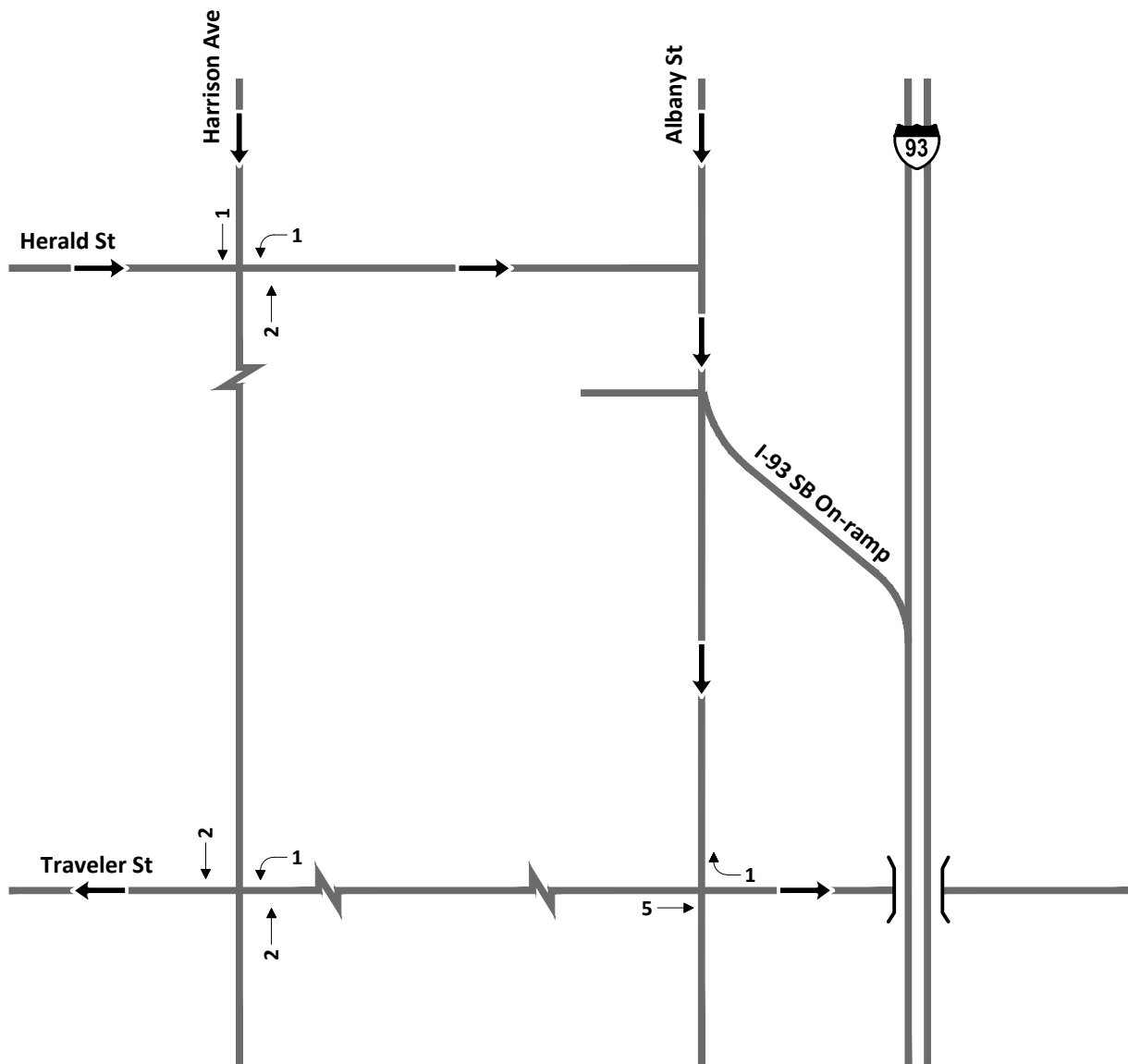


Figure 3.11

Existing Conditions Saturday Midday
Peak Hour Bicycle Volumes

**AC Hotel South End
Boston, MA**

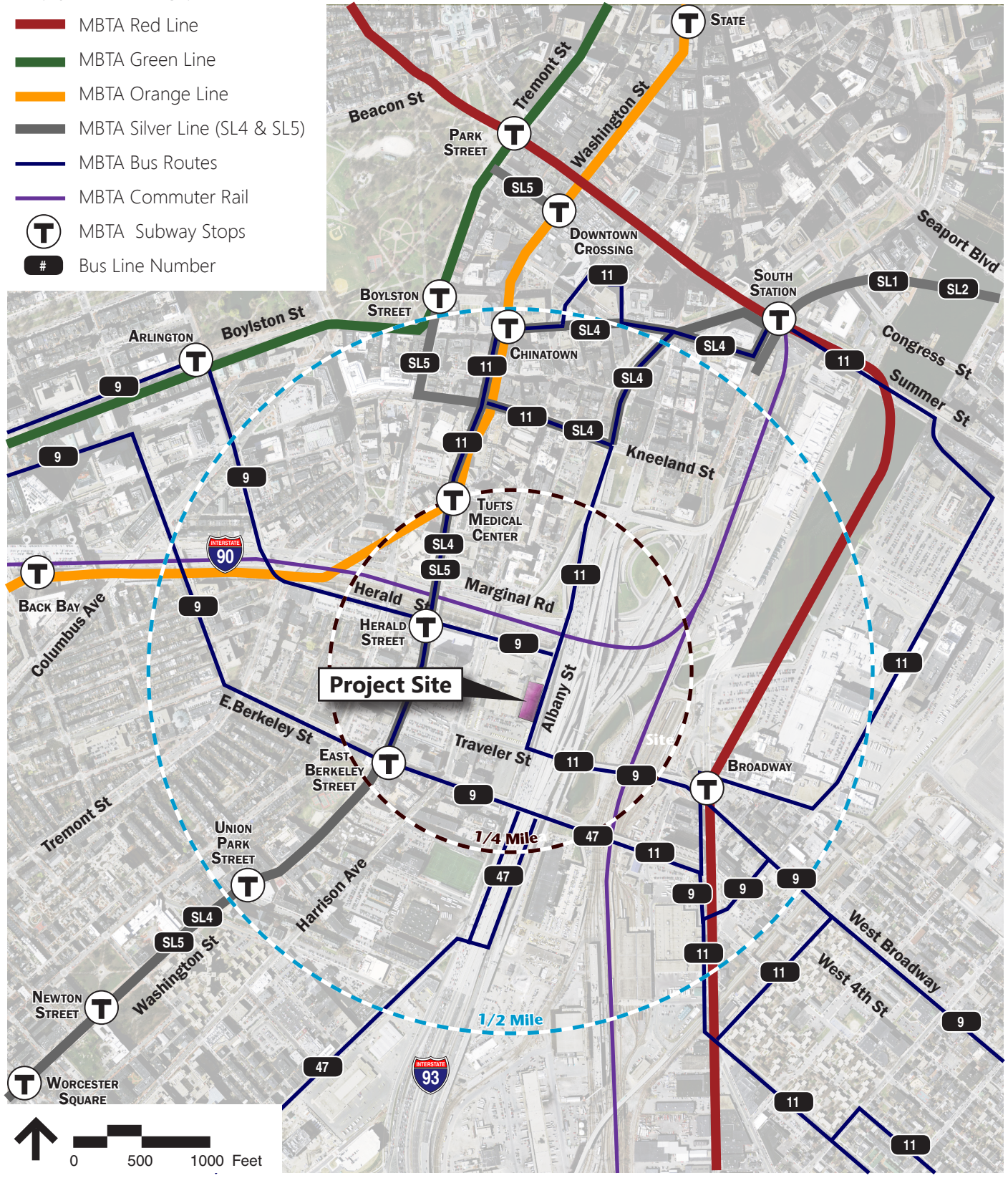


Figure 3.12
Existing Transportation

AC Hotel South End
Boston, MA

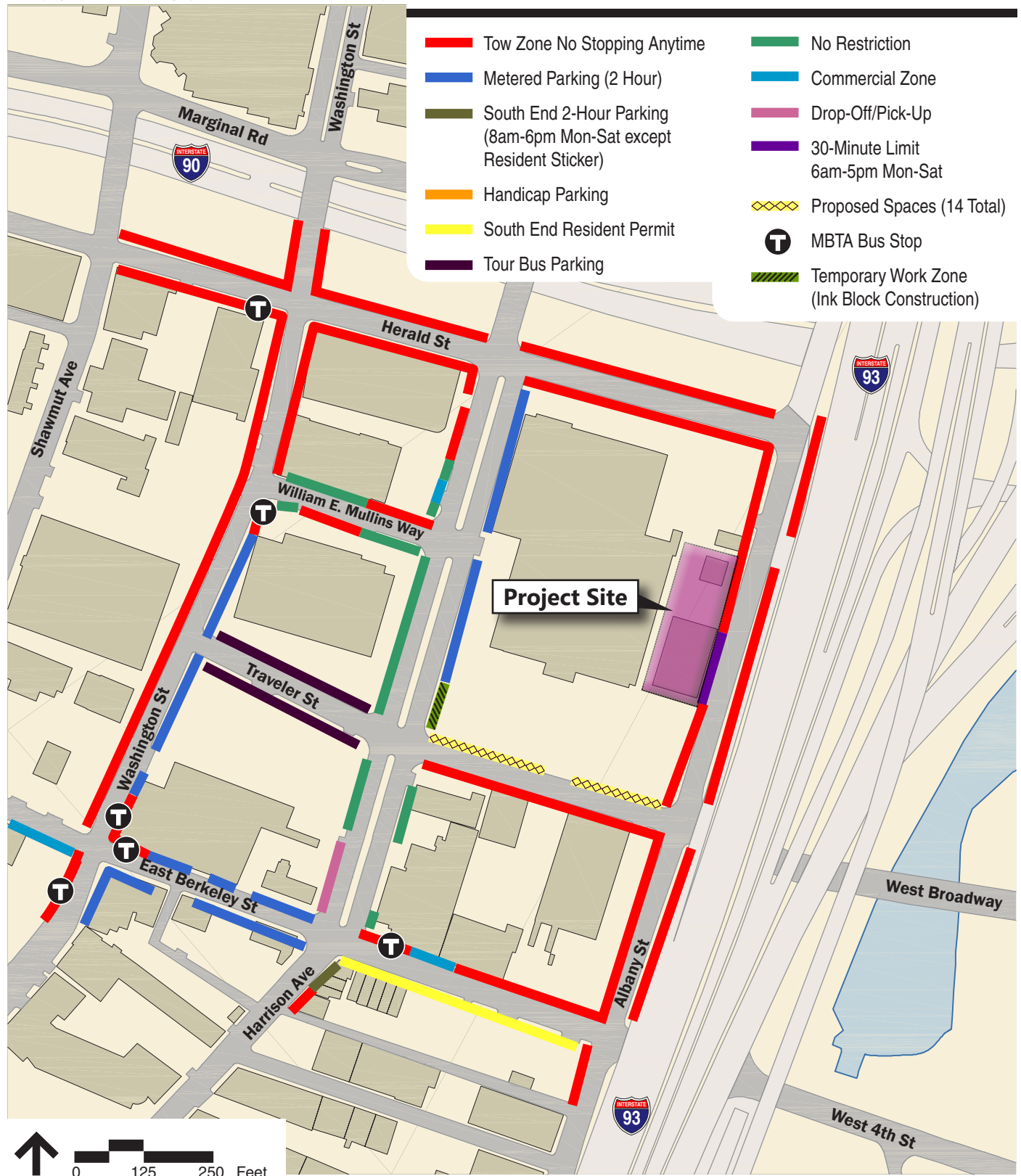
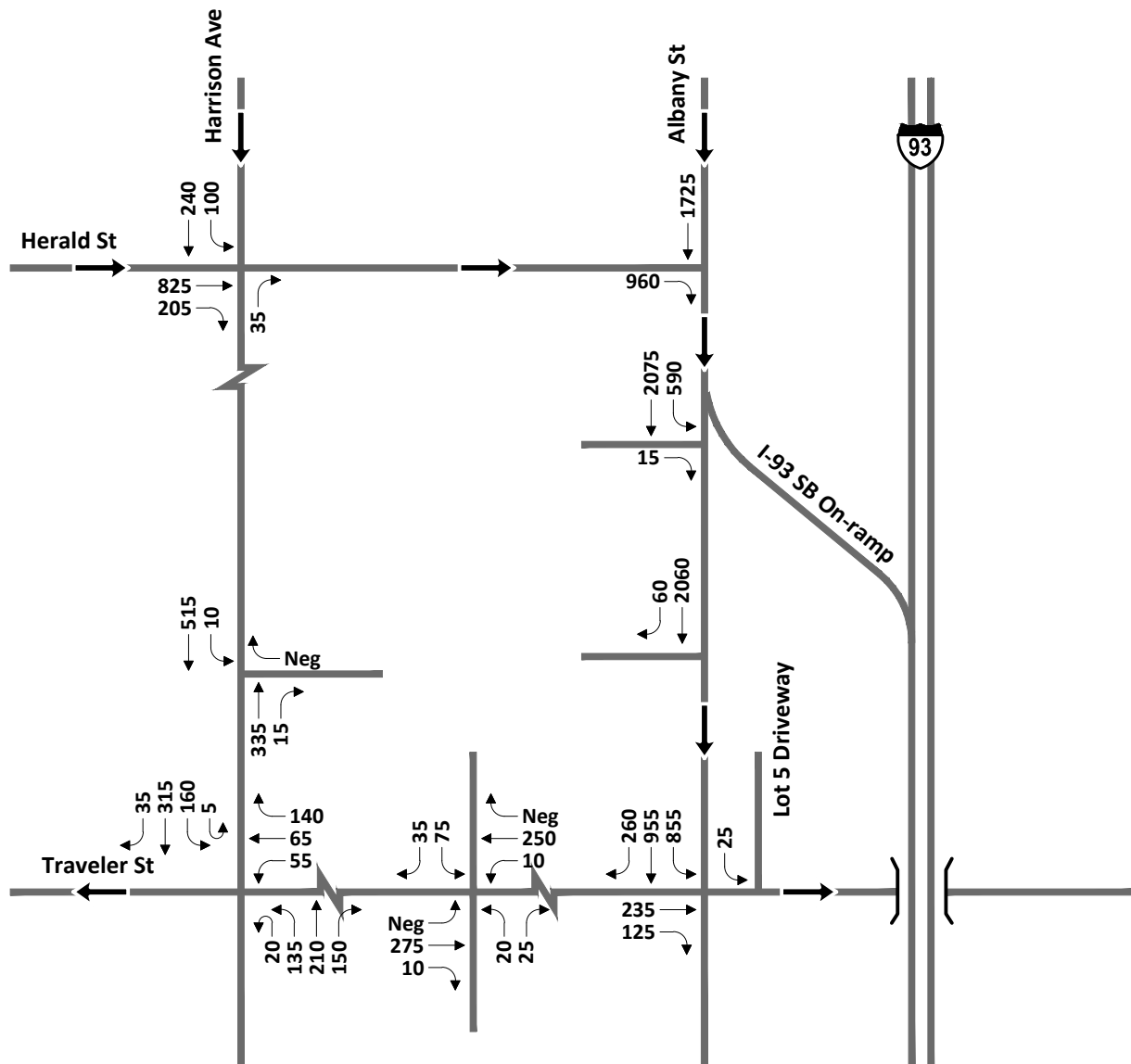


Figure 3.13
Summary of Existing On-Street Parking

**AC Hotel South End
Boston, MA**

Neg Negligible
* **Silver Line Busses Only**



Not to Scale

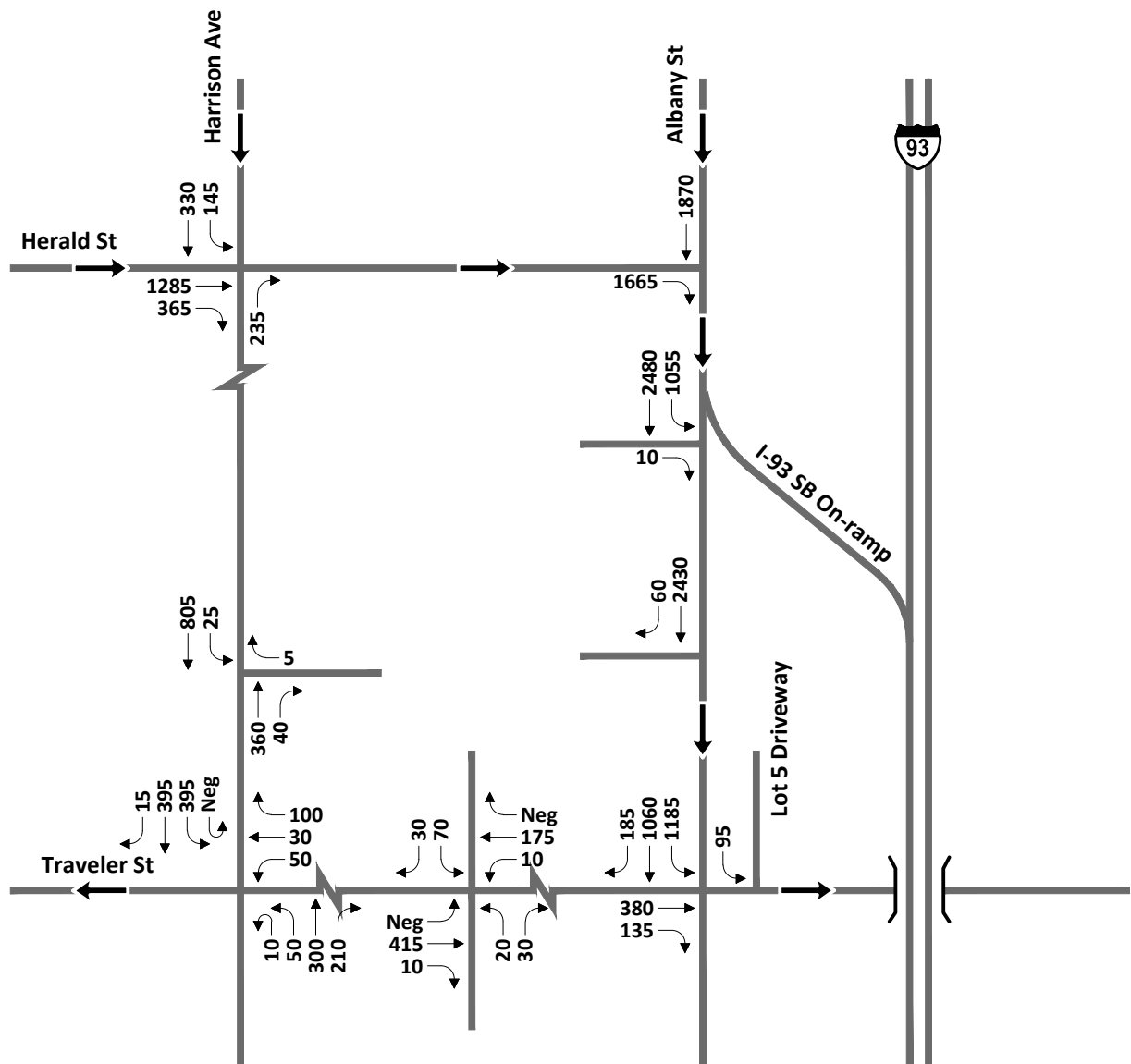


Figure 3.14

2022 No-Build Conditions Weekday Morning Peak Hour Traffic Volumes

**AC Hotel South End
Boston, MA**

Neg Negligible
* Silver Line Busses Only



↑
Not to Scale

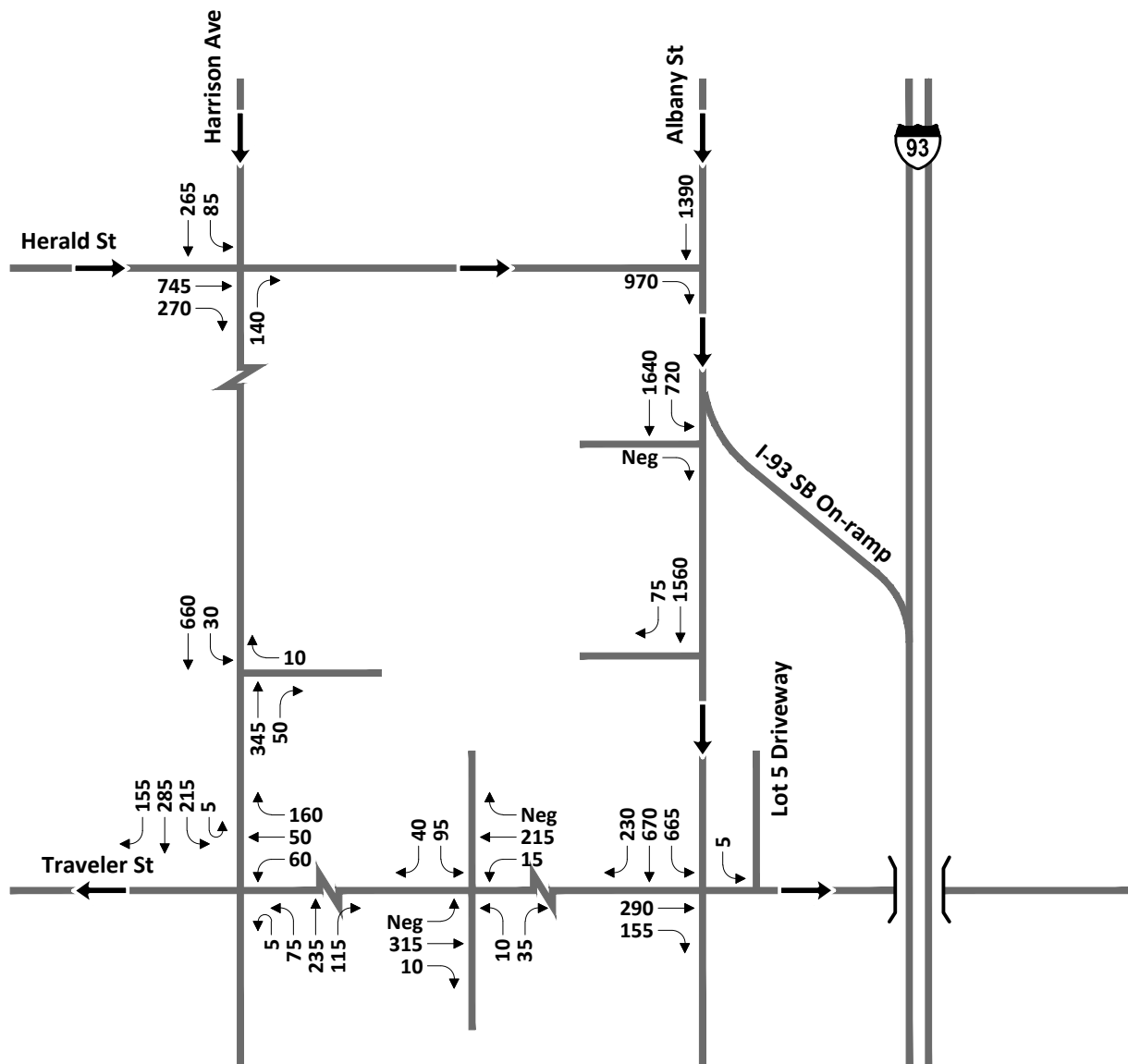


Figure 3.15

2022 No-Build Conditions Weekday Evening
Peak Hour Traffic Volumes

**AC Hotel South End
Boston, MA**

Neg Negligible
* Silver Line Busses Only



Not to Scale

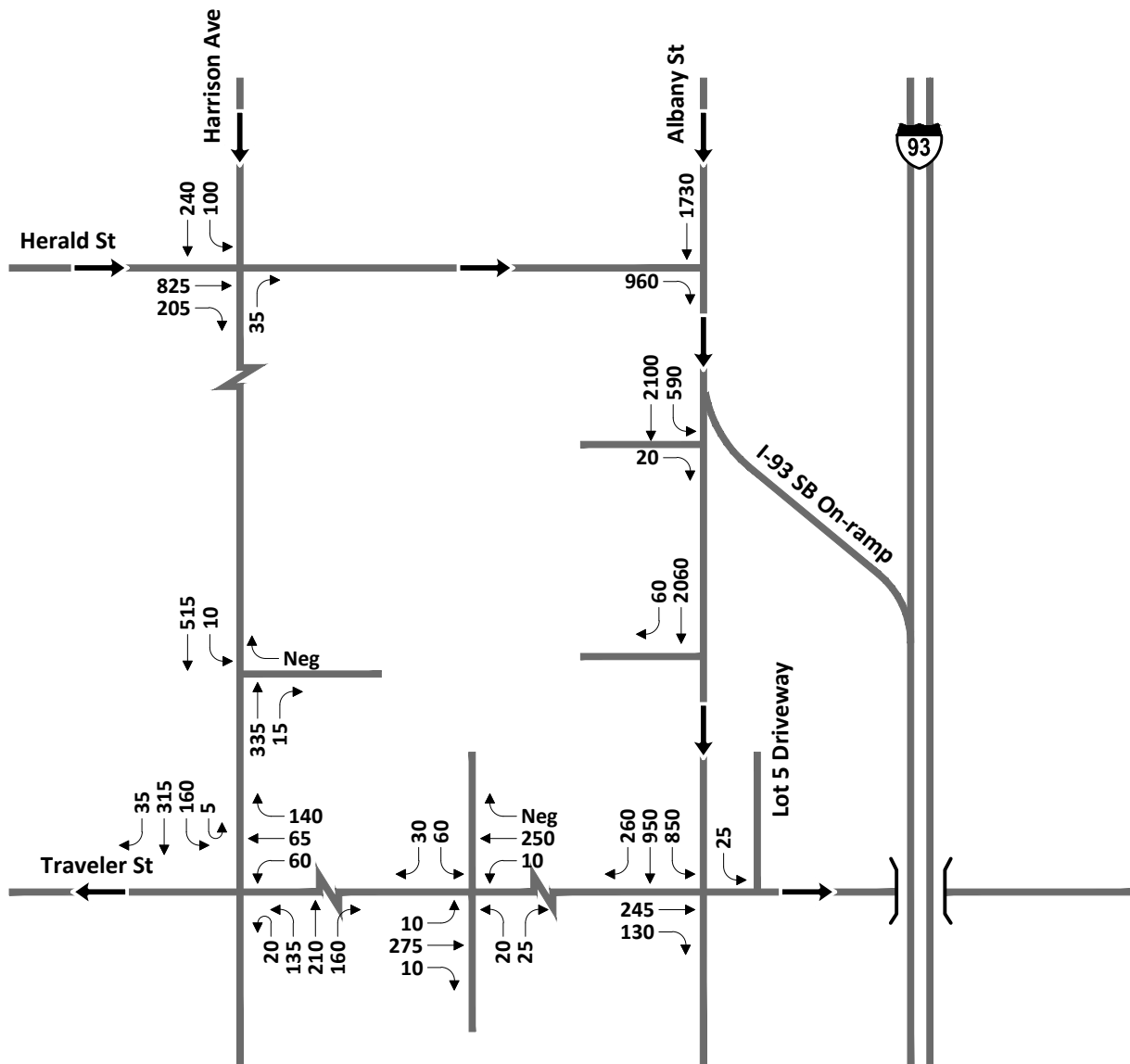


Figure 3.16

2022 No-Build Conditions Saturday Midday Peak Hour Traffic Volumes

**AC Hotel South End
Boston, MA**

Neg Negligible
* Silver Line Busses Only



Not to Scale

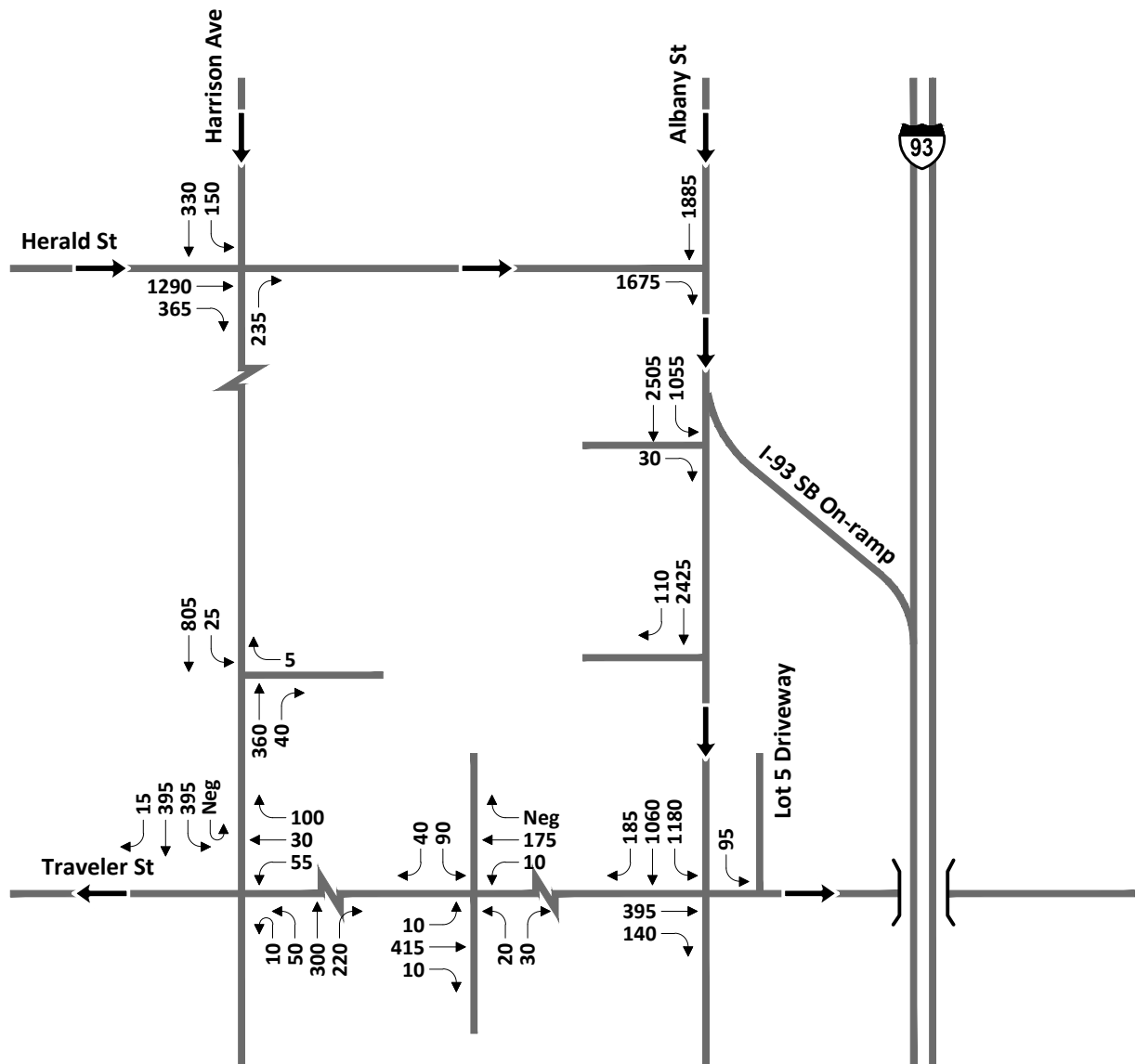


Figure 3.17

2022 Build Conditions Weekday Morning
Peak Hour Traffic Volumes

**AC Hotel South End
Boston, MA**

Neg Negligible
* Silver Line Busses Only



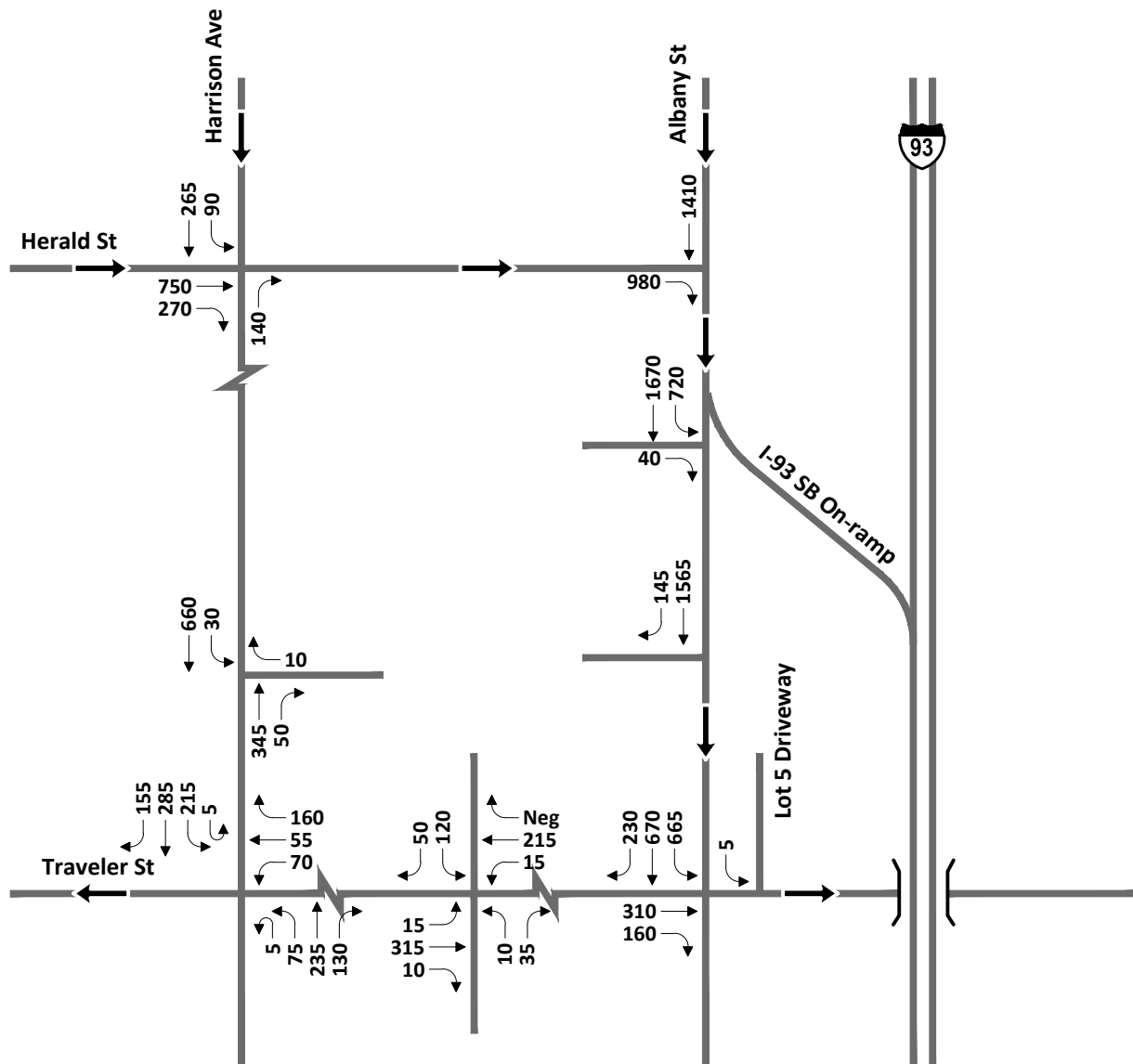
↑
Not to Scale



Figure 3.18
2022 Build Conditions Weekday Evening
Peak Hour Traffic Volumes

**AC Hotel South End
Boston, MA**

Neg Negligible
* Silver Line Busses Only



↑
Not to Scale



Figure 3.19

2022 Build Conditions Saturday Midday
Peak Hour Traffic Volumes

**AC Hotel South End
Boston, MA**

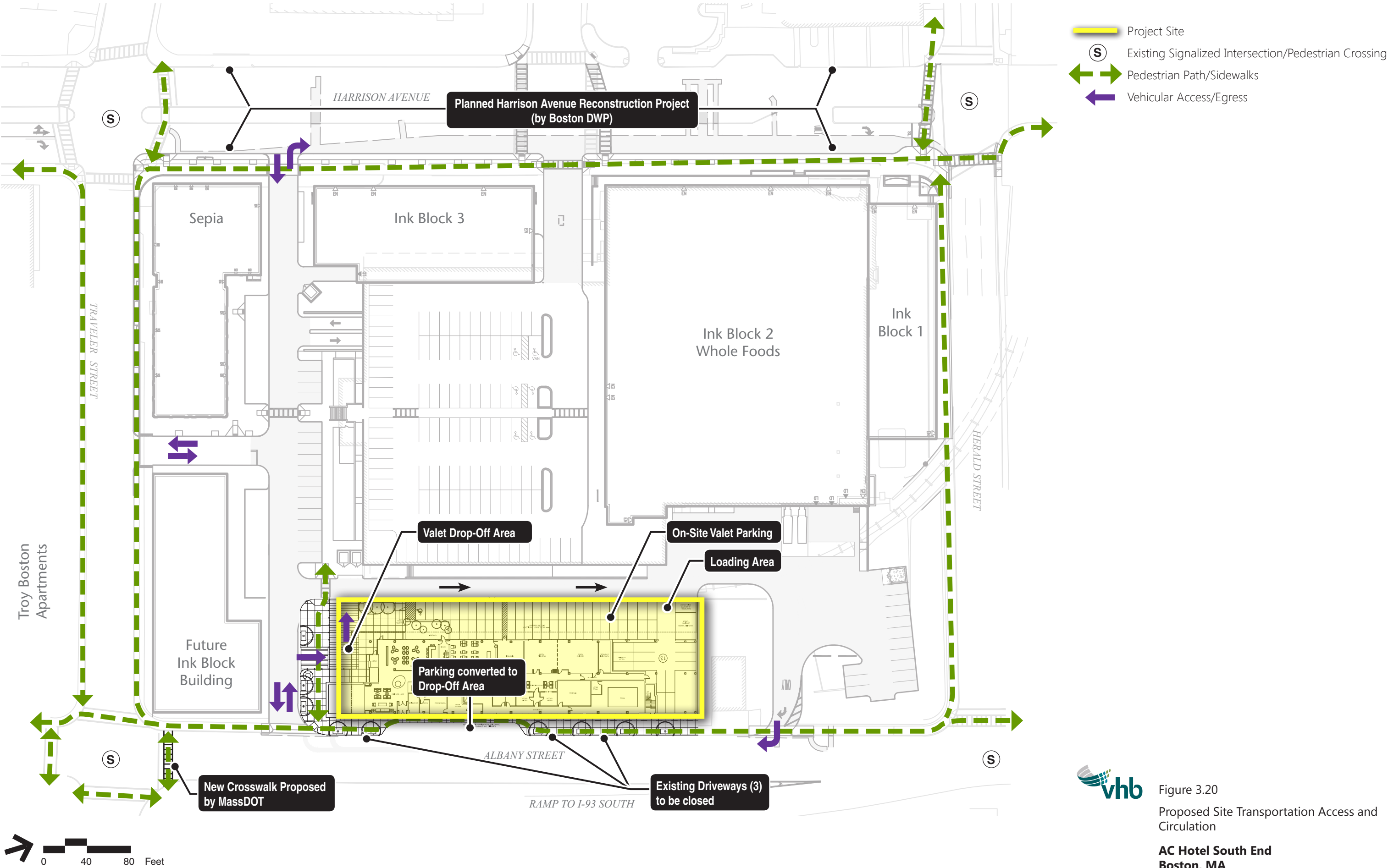


Figure 3.20
Proposed Site Transportation Access and Circulation
**AC Hotel South End
Boston, MA**

Environmental Protection

Introduction

This chapter presents information on the existing environmental conditions in the vicinity of the Project Site and the potential changes that may occur as a result of the Project. The goal of the Project is to better utilize the Project Site and build on/complement adjacent uses while avoiding or minimizing potential adverse environmental impacts to the project area to the greatest extent feasible.

As discussed in more detail below, any Project-related impacts will be mitigated by the substantial community benefits the Project will bring to the neighborhood, including the continued realization of the City's planning goals for the South End neighborhood. As demonstrated in the following sections, all identified impacts have been avoided, minimized and/or mitigated for to the extent feasible and as required by local, state, and federal regulation. Temporary construction-period impacts will be managed to minimize disruption to the surrounding neighborhood.

In accordance with Article 80 of the Boston Zoning Code, this expanded PNF considers the potential for the project impacts in the following Large Project Review categories:

- Shadow
- Daylight
- Solar Glare
- Air Quality
- Flood Hazard
- Noise
- Water Quality
- Solid and Hazardous Waste
- Groundwater
- Geotechnical
- Construction
- Post-Construction Rodent Control
- Green Building/Sustainable Design
- Climate Change Preparedness and Resiliency

Key Findings and Benefits

Key findings related to environmental protection include:

- New shadows will be limited to roads, sidewalks, and parking areas, and will not significantly impact any public green space, historic buildings, or bus stops.
- Skydome obstruction from the Albany Street viewpoint will increase (from 24.6 percent to 66.1 percent), which is to be expected when replacing low-rise, 2-story buildings with a taller 6-story building
- The air quality study demonstrates that the Project conforms to the 1990 Clean Air Act Amendments (CAAA) and the State Implementation Plan (SIP) because:
 - No violation of the National Ambient Air Quality Standards (NAAQS) would be expected to be created.
 - No increase in the frequency or severity of any existing violations (none of which are related to this development) would be anticipated to occur.
 - No delay in attainment of any NAAQS would be expected to result due to the implementation of the proposed action.
- The Project will be designed to comply with City of Boston noise regulations.
- The Project Site is not located within the limits of the effective, nor the preliminary updated, FEMA-designated 100-year or 500-year flood zone. Conversely, the Project frontage along Albany Street in the existing condition is approximately one foot below the designated 100-year flood elevation for the nearby Fort Point Channel.
- The Project Site is located within the Groundwater Conservation Overlay District (GCOD), as defined in Article 32 of the Zoning Code.
- Subsurface conditions generally consist of fill over organic soils, over silty clay over a thin (less than 5-foot-thick) layer of glacial till over bedrock. The fill, organic and clay layers are compressible and thus, the majority of the existing buildings are supported on deep foundations installed to levels below these compressible soils.
- Presently, there is no known subsurface contamination requiring notification to the MassDEP.
- Construction impacts are temporary in nature and are typically related to air (dust), noise, and runoff.

Key benefits related to environmental protection include:

- Sustainability is integrated throughout the Project as it revitalizes an underutilized urban site, uses land efficiently by increasing density in proximity



to public transportation and a major regional employment center that is Downtown Boston, encourages pedestrian activity and improves water quality.

- A number of sustainable building and site elements will be incorporated into the design, construction, and operation of the Project.
- In accordance with Article 37 of the Boston Zoning Code relative to the City's Green Building policies and procedures, the Proponent intends to incorporate state-of-the-art sustainable features so that the Project could achieve a Silver level rating (at minimum) under the U.S. Green Building Council (USGBC) Leadership in Environmental and Energy Design (LEED®) Green Building Rating System for Design and Construction, or "LEED-NC Silver certifiable."
- The Project will improve the quality and quantity of site stormwater runoff compared to existing conditions, including providing for groundwater recharge in accordance with the GCOD.
- Groundwater levels are not expected to be impacted/lowered as a result of the Project.
- Any on-site hazardous materials, including asbestos containing materials (ACM) that may be encountered during demolition of the existing on-site buildings will be handled in accordance with federal, state, and local regulations.
- Regarding solid waste during operations, the hotel building will include recycling facilities for collection of recyclable materials, and the hotel operator will utilize disposal services that recycle waste off-site.
- The Project Site offers adequate space for on-site construction staging and parking. Temporary construction impacts will be properly managed to eliminate significant impacts on the surrounding community. To manage construction truck traffic, the Proponent will work with the BTD and MassDOT to develop a site-specific Construction Management Plan (CMP).
- The Proponent has conducted a preliminary evaluation of the Project's potential vulnerability to flooding in combination with projected sea level rise as well as extreme weather events. The projected flood conditions will be considered when deciding what elevation to install critical infrastructure, such as electrical and backup generating systems, to higher floors.

Shadow

This section describes the anticipated changes to shadows in the project area as a result of the Project.



Summary of Key Findings

As is to be expected when increasing building massing from multiple two-story buildings to a single six-story structure, the Project will result in a moderate increase in new shadow impacts within the surrounding area. New impacts, however, will be limited to roads, sidewalks, and parking areas and will not significantly impact any public green space, historic buildings, or bus stops.

The presence of these new shadows is consistent with the urban environment and planning objectives of the neighborhood, and when combined with the Proponent's proposed enhancements, are not likely to discourage the use of sidewalks or public areas in the vicinity of the Project Site.

Regulatory Context

The Proponent has completed a shadow study as part of this expanded PNF to ascertain the potential new shadow impacts resulting from the Project. The shadow impact study has been conducted in accordance with Section 80B-2 of the City of Boston Zoning Code with particular emphasis on sidewalks, public plazas, and other public open spaces as well as nearby buildings of historical importance.

Methodology

The following shadow study has been prepared using methodologies consistent with accepted practices for such studies completed under Article 80 review. The analysis provides a comparison of the No-Build and Build Conditions. This is accomplished by using a three-dimensional model of the project area using data provided by the BRA, updated to include nearby foreseeable projects. The analysis is based on the BRA's 3D massing model for the South End neighborhood and includes the adjacent Ink Block buildings and Sepia building as well as the Troy Boston residential project at 275 Albany Street all of which are under construction. The study was completed using standard sun altitude and azimuth data for each study date estimated to occur at latitude and longitude of 42.345325, -71.061760. Times were adjusted for daylight savings time as appropriate. The conditions were compared for the spring and fall equinoxes, and the summer and winter solstices at 9:00 AM, 12:00 Noon and 3:00 PM. Additional shadows were estimated for summer solstice and the equinoxes at 6:00 PM.

Potential Effects

The following section describes the estimated shadows under the Build and No-Build Conditions.

March 21

March 21 is the spring equinox on which Boston experiences roughly equal length day and night. Figure 4.1a illustrates the Project-related net new shadow for this condition. On March 21 at 9:00 AM, the Project casts new shadow west over a small portion of the back corner of Ink Block Building 2 and across roughly half of the Ink Block parking area west of the Project. At 12:00 PM, the sun moves higher and to the south so that the Project no longer casts new shadow on Ink Block Building 2, but shifts slightly further northward. By 3:00 PM, the Project-related new shadow moves east shading a portion of the sidewalk along Albany Street. By 6:00 PM, the Project casts new shadow along Albany Street and along portions of I-93 Southbound.

June 21

June 21 is the summer solstice with the longest day of the year and the smallest shadows expected. Figure 4.1b illustrates the Project-related net new shadow for this condition. At 9:00 AM, the Project casts minor new shadow along a portion of Albany Street. At 12:00 PM, the sun is very high in the sky and, therefore, very limited amounts of new shadow falls northwest of the Project. By 3:00 PM, the Project-related new shadow shifts east falling along the edge of Albany Street. By 6:00 PM, new shadow fall across Albany Street and a small portion of the I-93 Southbound.

September 21

September 21 is the fall equinox where Boston again experiences roughly equal length days and nights. Figure 4.1c illustrates the Project-related net new shadow for this condition. In comparison to the spring equinox, the fall equinox shadows are somewhat shorter in the morning and somewhat longer in the afternoon at comparable times of the day.

At 9:00 AM, the sun is located in the southeast. As during the spring equinox, the Project-related new shadow casts its shadow across the back on-site surface parking area and across a small portion of the corner of Ink Block Building 2. By 12:00 PM, the sun moves higher and to the south so that the Project no longer casts a shadow on a portion of Ink Block Building 2 and the Ink Block parking area. By 3:00 PM, the Project-related new shadow moves east shading approximately half the width of Albany Street along the length of the Project Site. By 6:00 PM, the Project-related new shadow casts long shadows across Albany Street and I-93 falling just north of the already shaded South Bay Harbor Trail, and extend nearly to Fort Point Channel.

December 21

December 21 is the winter solstice and the shortest day of the year. Boston experiences long shadows throughout the day in most locations. Figure 4.1d illustrates the Project-related net new shadow for this condition. At 9:00 AM, the sun is low in the southeast sky resulting in shadows to the northwest. Under this condition, the Project casts new shadow across a portion of Ink Block Buildings 1 and 2, and a portion of the Ink Block parking area. By 12:00 PM, the Project-related new shadow casts almost due north over the adjacent property and the northeast corner of the Ink Block site, but does not reach Herald Street. At 3:00 PM, the sun is located in the southwest and low in the sky shading Albany Street and extending on to a portion of I-93 Southbound. The sun sets on December 21 at approximately 4:15 PM EST.

Daylight

The following section describes the anticipated effect on daylight coverage at the Project Site as a result of the Project. An analysis of the percentage of skydome obstructed under the Build and No-Build conditions is a requirement of the Article 80 Large Project Review as part of the Environmental Protection component (Section 80B-2(c) of the City of Boston Zoning Code). The daylight analysis was prepared using the BRA's Daylight Analysis Program (BRADA) and has been completed in accordance with the requirements of Article 80 of the City of Boston Zoning Code. The results of the analysis are presented in Figure 4.2.

Methodology

The Project was analyzed using the BRADA and by comparing the Existing/No-Build Condition and Build Condition. This section provides a description of the methodology used for the analysis.

BRADA Software

The BRADA program was developed in 1985 by the Massachusetts Institute of Technology to estimate the pedestrian's view of the skydome taking into account the massing and building materials used. The software approximates a pedestrian's view of a site based on input parameters such as: location of viewpoint, length and height of buildings and the relative reflectivity of the building facades. The model typically uses the midpoint of an adjacent right-of-way or sidewalk as the analysis viewpoint. Based on these data, the model calculates the perceived skydome obstruction and provides a graphic depicting the analysis conditions.



The model inputs used for the study presented in this PNF/EENF were taken from a combination of the BRA City model, an existing conditions survey prepared by VHB, Inc., and schematic design plans prepared by Elkus Manfredi Architects dated March 2015. As described above, the BRADA software considers the relative reflectivity of building facades when calculating perceived daylight obstruction. Highly reflective materials are thought to reduce the perceived skydome obstruction when compared to non-reflective materials. For the purposes of this daylight analysis, the building facades are considered non-reflective, resulting in a conservative estimate of daylight obstruction.

Viewpoints

The following viewpoints were used for this daylight analysis:

- **Albany Street** – This viewpoint is located on the centerline of Albany Street, centered on the eastern façade of proposed building.

The viewpoint represents building façade when viewed from the adjacent public way. Albany Street was the only view point considered as it is the only public way abutting the Project site. Additionally, the interstate highway is immediately across Albany Street to the east and east of the Project Site.

Daylight Existing/No-Build Conditions

Under the Existing/No-Build Condition, the majority of the skydome (approximately 75 percent) is visible from the selected viewpoints due to the set-back, low-rise nature of the existing building. Figure 4.2 illustrates the skydome obstruction under the Existing/No-Build scenarios for Albany Street.

Daylight Build Conditions

The Project-related daylight impacts for the viewpoints from Albany Street are presented in Figure 4.2. Under the Proposed Conditions, the viewpoint is expected to experience an increase in skydome obstruction (from approximately 25 percent to 66 percent) due to the increased height of the new building. This effect is to be expected when replacing low-rise individual buildings with a single taller building. This change is well within the expected level of view obstruction when considered in the realm of the City's planning objectives for this portion of the Albany corridor. The desired density and massing of the Project necessitates obstructing a portion of the views at the Site.



The Project will alter the view of the skydome from the adjacent streets and sidewalks. This effect cannot be avoided because the existing buildings are only two stories in height and any development of the Site consistent with the planning goals for the neighborhood (e.g., mixed-use development of higher densities than what currently exist) will necessarily create some skydome impacts.

Solar Glare

The façade materials for the proposed hotel building will include a blend of glass in painted aluminum frames, standing seam and flat seam zinc panels and masonry and glazed curtain wall at the base of the building. The matte surfaces of the zinc panels and masonry should not contribute significantly to glare. The use of a non-reflective, insulating Low-E glass in the windows and curtain wall of the proposed project will diffuse incoming solar rays, resulting in minimal solar glare impact.

Additionally, the large areas of glass; floor to floor curtain wall, which is glazed with both vision and spandrel glass, is limited to the first floor and the north elevation of the upper five (5) guest floors.

Air Quality Microscale Analysis

This section presents an overview of and the results for the air quality assessment conducted for the Project. The purpose of the air quality assessment is to demonstrate that the Project satisfies applicable local, state and federal requirements, and whether it complies with the 1990 Clean Air Act Amendments (CAAA) following the local and the U.S. Environmental Protection Agency (EPA) policies and procedures.

The air quality assessment conducted for this Project includes a localized (microscale), or “hot spot”, analysis of local carbon monoxide (CO) concentrations. The microscale analysis evaluated CO concentrations from vehicles traveling through congested intersections in the project area under the existing conditions, as well as concentrations from site-specific impacts under the future conditions. The results from this evaluation were compared to the National Ambient Air Quality Standards (NAAQS).

Background

The CAAA resulted in states being divided into attainment and non-attainment areas, with classifications based upon the severity of their air quality problems. Air quality control regions are classified and divided into one of three categories: attainment,



non-attainment and maintenance areas depending upon air quality data and ambient concentrations of pollutants. Attainment areas are regions where ambient concentrations of a pollutant are below the respective NAAQS; non-attainment areas are those where concentrations exceed the NAAQS. A maintenance area is an area that used to be non-attainment, but has demonstrated that the air quality has improved to attainment. After 20 years of clean air quality, maintenance areas can be re-designated to attainment. Projects located in maintenance areas are required to evaluate their CO concentrations on the NAAQS.

The Project is located in the City of Boston, which under the EPA designation, is a CO Maintenance area. As such, CO concentrations need to be evaluated for this Project.

Air Quality Standards

The EPA has established the NAAQS to protect the public health. Massachusetts has adopted similar standards as those set by the EPA for carbon monoxide. Table 4-1 presents the NAAQS for carbon monoxide.

Table 4-1 National Ambient Air Quality Standards

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide	9 ppm (10 mg/m ³)	8-hour ¹	None	None
	35 ppm (40 mg/m ³)	1-hour	None	None

Carbon monoxide is directly emitted by motor vehicles, and the predominant source of air pollution anticipated from typical project developments is emissions from Project-related motor vehicle traffic. A product of incomplete combustion, CO is a colorless and odorless gas that prevents the lungs from passing oxygen to the blood stream. Brief exposure to high levels of CO can also impair vision, physical coordination, and the perception of time. According to the EPA, 60 percent of CO emissions result from motor vehicle exhaust, while other sources of CO emissions include industrial processes, non-transportation fuel combustion and natural sources (i.e., wildfires). In cities, as much as 95 percent of CO emissions result from mobile sources.¹

The CO concentrations from motor vehicle traffic related to the Project will be calculated and compared to the CO concentrations (NAAQS) to demonstrate that the Project will comply with the NAAQS Standards.



¹ Environmental Protection Agency, *National Air Quality and Emissions Trends Report*, 1999, March 2001.



Boston Redevelopment Authority Development Review Guidelines

The BRA Development Review Guidelines require “a microscale analysis predicting localized carbon monoxide concentrations should be performed, including identification of any locations projected to exceed the National or Massachusetts Ambient Air Quality Standards, for projects in which:

- Project traffic would impact intersections or roadway links currently operating at Level of Service D, E, or F or would cause LOS to decline to D, E, or F; or
- Project traffic would increase traffic volumes on nearby roadways by 10 percent or more (unless the increase in traffic volume is less than 100 vehicles per hour); or
- The Project will generate 3,000 or more new average daily trips on roadways providing access to a single location.”

Microscale (“Hot Spot”) Analysis Methodology

The modeling for the microscale analysis followed the EPA’s modeling guidelines. The traffic data was evaluated and locations were selected based on the requirements listed under the BRA Development Review Guidelines and the EPA modeling guidance. Figure 4.3 shows the location of the study area receptors. Emission factors were developed using the MOVES2014 program, and were combined with the traffic data in the EPA’s Cal3QHC model to calculate the CO worst-case concentrations. The results from the analysis were then compared to the NAAQS.

The microscale analysis utilized the traffic (volumes and speeds) and emission factor data for the 2015 Existing, 2022 No-Build, and 2022 Build Conditions. These data were incorporated into air quality models to demonstrate that the Project will meet the CAAA criteria. The microscale analysis calculated CO concentrations at congested intersections near the project site under Existing, No-Build, and Build conditions. The worst-case CO concentrations were added to the background levels to determine if the proposed project’s concentrations complied with the NAAQS.

The microscale analysis calculates maximum 1-hour and 8-hour CO concentrations in the project area during the peak CO season (winter). The EPA’s computer model CAL3QHC Version 2² was used to predict CO concentrations for each intersection. Receptor locations were selected near the congested intersections based upon areas



² *User’s Guide to CAL3QHC Version 2.0: A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections*, US Environmental Protection Agency, Office of Air Quality Planning and Standards, Technical Support Division; Research Triangle Park, NC; EPA-454/R-92-005; November 1992



where the public has access. The intersection receptors were placed at the edge of the roadway, but not closer than 10 feet (3 meters) from the nearest travel lane, as required by EPA. The results calculated at these receptor locations represent the highest concentrations at each intersection (Figure 4.3). Receptor locations farther away from the intersections will have lower concentrations because of the dispersion characteristics. The receptor locations that are along other roadways in the study area are also expected to have lower concentrations than the receptor locations at the intersection. The emission rates for vehicles traveling along these roadways are much lower than the emission rates for vehicles queuing at intersections.

The air quality study evaluates the air quality impacts of the vehicular traffic associated with the Project on the environment. The vehicle traffic represents the worst-case conditions, which includes the increase in traffic volumes due to specific projects proposed for the study area, projected traffic growth over time, and future traffic associated with the development. The air quality study utilizes traffic and emissions data for the existing, future No-Build and Build Conditions. These data are incorporated into the EPA air quality models to generate air pollutant concentrations that demonstrate whether or not the Project would have air quality impacts. The scenarios modeled include:

- Existing Conditions (2015): reflects existing traffic volumes in the traffic study area.
- No-Build Condition (2022): reflects background growth associated with other planned projects and general background regional growth.
- Build Conditions (2022): assuming the 2022 No-Build Condition background growth with the Project fully constructed and in operation.

Emission Rates

All the vehicle emission factors used in the microscale analysis were obtained using the EPA's MOVES2014³ emissions model. MOVES2014 calculates CO emission factors from motor vehicles for free-flow conditions in grams per vehicle-mile and for idling in grams per vehicle hour. The emission rates used in this study were developed with the assistance of Massachusetts Department of Environmental Protection (MassDEP). The emission factors for the microscale analysis were based upon a peak hour on a typical weekday in the winter for Suffolk County. The CO emission factors were calculated for idle and free-flow conditions based upon roadway travel speeds.

An example of the CO emission factors are presented in Table 4-2 below. The CO emission factors show a decrease from Existing to No-Build because emission rates



³MOVES2014 (Motor Vehicles Emission Simulator), 2014, US EPA, Office of Mobile Sources, Ann Arbor, MI.



decrease from 2015 to 2022 due to Massachusetts and Federal programs including the statewide Inspection and Maintenance (I/M) Program, the Stage II Vapor Recovery System and the Tier 3 emission standards (which is an EPA program that sets new vehicle emissions standards, lowering the sulfur content of gasoline).

Table 4-2 Carbon Monoxide Emission Factors (ppm)

Speed	Year 2015	Year 2022
Idle	6.83	2.29
25	1.84	1.59
30	1.75	1.53
35	1.61	1.41

Traffic Data

The air quality study uses traffic data (volumes, delays, and speeds) developed for each analysis condition based upon the traffic analysis. The traffic volumes and level-of-service for the study area were evaluated, and based on the BRA Development Review Guidelines, five intersections (Figure 4.3) were selected for analysis:

- Herald Street at Albany Street
- Project Site Driveway at Albany Street
- Traveler Street at Albany Street
- Traveler Street at Harrison Avenue
- Harrison Avenue at Herald Street
- Traveler Street Driveway at Traveler Street

Microscale Results

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

The microscale analysis determined that the 1-hour CO concentrations for the 2015 Existing Condition ranged from a minimum of 3.0 parts per million (ppm) at the intersections of Traveler Street at Harrison Avenue and at Traveler Street Driveway to a maximum of 3.4 ppm at the intersection of Traveler Street at Albany Street. The corresponding maximum 8-hour CO concentrations ranged from a minimum of



2.1 ppm to a maximum of 2.4 ppm. The microscale CO results are presented in Table 4-3 and Table 4-4. All the 1-hour and 8-hour concentrations are below the CO NAAQS of 35 and 9 ppm, respectively. These values are consistent with the area's designation as a CO Maintenance area.

The CO concentrations for each intersection under the No-Build and Build Conditions are also presented in Table 4-3 and Table 4-4. The results show that there are minimal to no increases for 1-hour and 8-hour CO concentrations between the 2022 No-Build and Build conditions due to the minor traffic volume increase and minimal intersection delays experienced at the study intersections. The 1-hour CO concentrations ranged between 3.0 and 3.3 ppm, and the 8-hour CO concentrations ranged between 2.1 and 2.3 ppm for both 2022 No-Build and Build conditions. Some of the CO concentrations show a decrease from Existing to No-Build because emission rates decrease from 2015 to 2022 due to Massachusetts and Federal programs, as discussed earlier in the *Emission Rates* section. The results of the microscale analysis demonstrate that the 2022 No-Build and Build CO concentrations (both 1- and 8-hour values) for the proposed project are well below the NAAQS.



Table 4-3 Predicted Maximum 1-Hour CO Concentrations (Parts Per Million)^{1, 2}

No.	Intersection	Receptor	1-Hour CO Concentrations (ppm)		
			2015 Existing	2022 No-Build	2022 Build
1	Herald Street at Albany Street	R1 – I-93 SB On-Ramp	3.3	3.3	3.3
		R2 – Ink Block	3.3	3.3	3.3
		R3 – Railroad Tracks	3.3	3.2	3.2
2	Project Site Driveway at Albany Street	R4 – I-93 SB On-Ramp	3.2	3.3	3.3
		R5 – Transit Insurance Agency	3.2	3.2	3.2
		R6 – Ink Block	3.1	3.1	3.1
3	Traveler Street at Albany Street	R7 – I-93 SB On-Ramp	3.4	3.2	3.2
		R8 – Open Space	3.4	3.2	3.2
		R9 – Parking Lot	3.4	3.2	3.2
		R10 – Parking Lot	3.2	3.2	3.2
		R11 – Parking Lot	3.3	3.2	3.2
4	Traveler Street at Harrison Avenue	R12 – Parking Lot	3.0	3.0	3.0
		R13 – Ho Kong Beansprout	3.0	3.0	3.0
		R14 – Parking Lot	3.0	3.0	3.0
		R15 – Parking Lot	3.1	3.1	3.1
5	Herald Street at Harrison Avenue	R16 – Railroad Tracks	3.2	3.2	3.2
		R17 – Ink Block	3.2	3.2	3.2
		R18 – Parking Garage	3.2	3.2	3.2
		R19 – Railroad Tracks	3.2	3.1	3.1
6	Traveler Street Driveway at Traveler Street	R20 – Parking Lot	3.1	3.2	3.2
		R21 – Parking Lot	3.0	3.2	3.2
		R22 – Self-Storage Facility	3.0	3.1	3.1

Source: VHB, Inc.

1 See Figure 4.3 for intersection and receptor locations.

2 The concentrations are expressed in parts per million (ppm) and include a 1-hour background concentration of 3.0ppm. The 1-hour NAAQS for CO is 35 ppm. The emissions presented represent the highest emissions experienced at each intersection.



Table 4-4 Predicted Maximum 8-Hour CO Concentrations (Parts Per Million)^{1, 2}

No.	Intersection	Receptor	8-Hour CO Concentrations (ppm)		
			2015 Existing	2022 No-Build	2022 Build
1	Herald Street at Albany Street	R1 – I-93 SB On-Ramp	2.3	2.3	2.3
		R2 – Ink Block	2.3	2.3	2.3
		R3 – Railroad Tracks	2.3	2.2	2.2
2	Project Site Driveway at Albany Street	R4 – I-93 SB On-Ramp	2.2	2.3	2.3
		R5 – Transit Insurance Agency	2.2	2.2	2.2
		R6 – Ink Block	2.2	2.2	2.2
3	Traveler Street at Albany Street	R7 – I-93 SB On-Ramp	2.4	2.2	2.2
		R8 – Open Space	2.4	2.2	2.2
		R9 – Parking Lot	2.4	2.2	2.2
		R10 – Parking Lot	2.2	2.2	2.2
		R11 – Parking Lot	2.3	2.2	2.2
4	Traveler Street at Harrison Avenue	R12 – Parking Lot	2.1	2.1	2.1
		R13 – Ho Kong Beansprout	2.1	2.1	2.1
		R14 – Parking Lot	2.1	2.1	2.1
		R15 – Parking Lot	2.2	2.2	2.2
5	Herald Street at Harrison Avenue	R16 – Railroad Tracks	2.2	2.2	2.2
		R17 – Ink Block	2.2	2.2	2.2
		R18 – Parking Garage	2.2	2.2	2.2
		R19 – Railroad Tracks	2.2	2.2	2.2
6	Traveler Street Driveway at Traveler Street	R20 – Parking Lot	2.2	2.2	2.2
		R21 – Parking Lot	2.1	2.2	2.2
		R22 – Self-Storage Facility	2.1	2.2	2.2

Source: VHB, Inc.

1 See Figure 4.3 for intersection and receptor locations.

2 The concentrations are expressed in parts per million (ppm) and include an 8-hour background concentration of 2.1 ppm and a persistence factor of 0.7. The 8-hour NAAQS for CO is 9 ppm. The emissions presented represent the highest emissions experienced at each intersection.

Summary of Findings

The air quality evaluation demonstrated that the development of the proposed project would not result in adverse air quality impacts. The microscale analysis evaluated site-specific impacts from the vehicles traveling through congested intersections in the study area. This analysis demonstrates that all existing and future carbon monoxide concentrations are below the NAAQS. Specifically,

- All the one-hour CO concentrations ranged from 3.0 to 3.4 ppm and are well below the CO NAAQS of 35 ppm.



- All the eight-hour CO concentrations ranged from 2.1 to 2.4 ppm and are below the CO NAAQS of 9 ppm.

The air quality study demonstrates that the Project conforms to the CAAA and the SIP because:

- No violation of the NAAQS would be expected to be created.
- No increase in the frequency or severity of any existing violations (none of which are related to this development) would be anticipated to occur.
- No delay in attainment of any NAAQS would be expected to result due to the implementation of the proposed action.

Based upon the analysis presented herein and the conclusions summarized above, no significant adverse air quality impacts from the Project are anticipated.

Water Quality

The Project will include improved stormwater management practices, which will improve the water quality and reduce the quantity of stormwater runoff compared to the existing condition. The Project will comply with both the 2008 DEP Stormwater Management Policy and Standards and local requirements from the Boston Water and Sewer Commission (BWSC). One such requirement includes the infiltration of the first inch of stormwater over the site impervious area to supplement groundwater elevations in the Groundwater Conservation Overlay District (GCOD). As a Project located in the GCOD, as defined in Article 32 of the Zoning Code, and, therefore, site infiltration systems must be sized to promote the infiltration of the 1-inch volume over the proposed impervious area. In addition to promoting groundwater levels, the implementation of stormwater management practices will reduce the rate and quantity of stormwater entering the BWSC system and Boston Harbor. Proprietary systems will also be used to reduce the pollutant loading of the stormwater entering the proposed stormwater infrastructure from impervious areas. Refer to the 'Drainage/Stormwater Management' section of Chapter 5, *Infrastructure* for more information.

Flood Hazard

The Proponent has considered the Project's vulnerability to flooding from construction and operational standpoints. The Project Site is not located within the limits of the effective, nor the preliminary updated, FEMA-designated 100-year or 500-year flood zone. Conversely, the Project frontage along Albany Street in the existing condition is approximately one foot below the designated 100-year flood



elevation for the nearby Fort Point Channel. The Project Site may be susceptible to extreme storm events if a topographic link exists with the Fort Point Channel. Currently, it is believed that two major transportation systems (the I-93 elevated highway and railroad tracks supporting South Station) physically protect the South End from flooding in the Fort Point Channel by providing a vertical buffer from coastal flooding events. Refer to section 'Climate Change Preparedness and Resiliency' below for an assessment of the Project Site in terms of flooding in combination with projected sea level rise.

Noise

The noise impact assessment evaluated the potential noise impacts associated with the Project's activities, including mechanical equipment (e.g., HVAC units, cooling tower) and loading activities. This section discusses the noise background, noise impact criteria, noise analysis methodology, and potential noise impacts. Noise monitoring was conducted to determine existing sound levels and to help with the evaluation of future sound levels associated with Project operations.

Noise Analysis Background

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

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

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

- A 3 dB increase is a doubling of acoustic energy and is the threshold of perceptibility to the average person.
- A 10 dB increase is a tenfold increase in acoustic energy but is perceived as a doubling in loudness to the average person.



The human ear does not perceive sound levels from each frequency as equally loud. To compensate for this phenomenon in perception, a frequency filter known as A-weighted [dB(A)] is used to evaluate environmental noise levels. Table 4-5 presents a list of common outdoor and indoor sound levels.

Table 4-5 Common Outdoor and Indoor Sound Levels

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

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

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

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

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

- L90 is the sound level which is exceeded for 90 percent of the time during the time period. The L90 is generally considered to be the ambient or background sound level.



- Leq is the A-weighted sound level, which averages the background sound levels with short-term transient sound levels and provides a uniform method for comparing sound levels that vary over time.

City of Boston Noise Impact Criteria

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

Under Chapter 40, Section 21 of the General Laws of the Commonwealth of Massachusetts and the City of Boston Code, Ordinances, Title 7, Section 50, the Air Pollution Control Commission of the City of Boston has adopted Regulations for the Control of Noise in the City of Boston.⁴ These regulations establish maximum allowable sound levels based upon the land use affected by the proposed development. Table 4-6 summarizes the maximum allowable sound levels that should not be exceeded.

Table 4-6 City of Boston Noise Standards by Zoning District

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

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

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

The City of Boston's regulations on construction sound levels state that operation of any construction devices, excluding impact devices, may not exceed 86 dB(A) during any time period.



⁴ City of Boston Air Pollution Control Commission, *Regulations for the Control of Noise in the City of Boston*. (website: http://www.cityofboston.gov/Images/Documents/noise_reg_tcm3-13127.pdf)

Noise Analysis Methodology

The noise analysis evaluated the potential noise impacts associated with the Project's operations, which include the mechanical equipment and loading dock activities. The noise analysis included measurements of existing ambient background sound levels, a quantitative evaluation of potential noise impacts associated with the proposed mechanical equipment, and a qualitative assessment of potential noise impacts associated with the loading activities. The study area was evaluated and sensitive receptor locations were identified. The analysis determined the overall potential sound levels at the sensitive receptor locations with the Project's activities.

The noise analysis evaluated sound levels associated with proposed mechanical equipment, such as energy recovery units and cooling tower. The noise analysis determined the maximum potential sound levels at the sensitive receptor locations using the manufacturer's technical specifications for the mechanical equipment. The noise analysis utilized the CadnaA⁵ noise prediction software. The noise analysis projected sound levels from the mechanical equipment to the sensitive receptor locations following the International Organization for Standardization 9613 (ISO 9613) methodology. The analysis considered sound level reductions due to distance and building blockages from the surrounding buildings. The noise analysis calculated the overall maximum sound level that would be experienced at the sensitive receptor locations with the Project's activities. The sensitive receptor locations included the property line and nearby residential uses.

The noise analysis also evaluated the potential noise impact associated with loading activities from the Project. The analysis examined the site layout and building design, as it relates to the loading area and management of deliveries at the Project site.

Receptor Locations

The noise analysis included an evaluation of the study area to identify sensitive receptor locations, which typically include area that have outdoor activities and maybe sensitive to noise associated with the Project. The noise analysis identified four receptor locations in the vicinity of the Project. As shown on Figure 4.4, the receptor locations include the following:

- R1 – Project property line west side;
- R2 – Trinity Church on Shawmut Ave;
- R3 – 406 Harrison Avenue;
- R4 – Proposed 275 Albany Street Development.



⁵ Computer Aided Noise Abatement (Cadna A) software version 4.5, DataKustik GmbH.



These receptor locations, selected based on land use considerations, represent the most sensitive locations in the vicinity of the Project site.

Existing Noise Conditions

A noise monitoring program was conducted to establish existing sound levels. The existing sound levels were measured using a Type 1 sound analyzer (Larson Davis 831). Measurements were conducted during the weekday daytime period (2:00 PM to 4:00 PM) and late night period (2:30 AM to 4:00 AM) in the vicinity of the sensitive receptor locations on March 10, 2015. The measured sound levels data under existing conditions were dominated by vehicles traveling on the nearby highway system (such as Interstate 93 and Interstate 90), vehicles on local roadways, and mechanical equipment from nearby buildings.

The existing measured sound level data are presented in Table 4-7. The L₉₀ sound levels range from 55 dB(A) to 67 dB(A) during the daytime period and from 50 dB(A) to 59 dB(A) during the nighttime period. These sound levels are typical of an active urban area. The result of the noise monitoring program indicates that the sound levels within the study area currently exceed the City of Boston's daytime standard of 60 dB(A) for a Residential District as well as the nighttime standard of 50 dB(A). These sound levels are due to existing vehicular traffic along the roadways in the vicinity of the Project site and from nearby building mechanical equipment.

Table 4-7 Existing Measured Sound Levels, dB(A)

Monitoring Location	City of Boston Residential District Noise Criteria		Measured L ₉₀ Sound Levels	
	Daytime	Nighttime	Daytime	Nighttime
M1 – Project west side along Harrison Ave	60	50	60	59
M2 – Trinity Church on Shawmut Ave	60	50	55	50
M3 – 406 Harrison Avenue	60	50	59	53
M4 – Project east side along Albany Street	60	50	67	57

Source: VHB, Inc.

Note: Refer to Figure 4.4 for monitoring locations

Future Noise Conditions

The noise analysis evaluated the potential noise impacts associated with the Project's proposed mechanical equipment and loading activities. The analysis determined the potential overall maximum sound levels at the nearby sensitive receptor locations.



Mechanical Equipment

The noise sources included in the analysis were two energy recovery units and a cooling tower. The energy recovery units were assumed to be located on the rooftop of the proposed building and the cooling tower is located at ground level. The noise modeling accounted for sound propagation over terrain and the sound levels associated with the Project's mechanical equipment were added together and projected to the sensitive receptor locations. Table 4-8 presents the Project generated sound levels at the sensitive receptor locations, which range from 13 dB(A) at the Trinity Church on Shawmut Avenue to 55 dB(A) at the property line on the west side of the proposed development. These sound levels are below the existing sound levels. Because of the high existing sound levels, the Project's sound levels will not result in a noticeable increase of sound levels at any of the receptor locations. The future total sound levels will experience up to a two decibel increase over existing sound levels. As previously mentioned, sound level changes of less than three decibel is not perceivable by the human ear.

Table 4-8 Project-Related Sound Levels, dB(A)

Receptor Location	Existing Sound Levels		Project Generated Sound Levels	Total Overall Sound Level	
	Daytime	Nighttime		Daytime	Nighttime
R1 – Project Property Line West Side	60	59	55	61	61
R2 – Residential use/Trinity Church on Shawmut Ave	55	50	17	55	50
R3 – 406 Harrison Avenue	59	53	13	59	53
R4 – Proposed 275 Albany Street Development	67	57	46	67	57

Source: VHB

Note: Refer to Figure 4.4 for receptor locations.

Loading Activities

The site layout will be designed to accommodate service and loading operations to occur off-street. The loading activities will be located on the northwest side of the proposed building via an access drive right of way over the neighboring service drive. The site layout of the hotel building will shield noise to off-site sensitive receptor locations south and west of the Project Site. The loading dock activities will be managed so that service and loading operations do not impact the roadway. Since loading activities will be shielded by surround buildings and loading activities will be managed, noise impacts to the sensitive receptor locations is expected to be negligible.

Conclusion of Noise Impact Assessment

The noise analysis evaluated the sound levels associated with the Project. This analysis determined that the sensitive receptor locations in the vicinity of the Project site currently experience sound levels exceeding the City of Boston's noise criteria. The dominant noise source contributing to the existing high sound levels in the study area is traffic along I-93 and I-90. The sound levels associated with the Project's operations will not contribute to the existing background sound levels at off-site sensitive receptor locations, which currently exceed the City of Boston noise standards. The Project's operations will increase sound levels at the western property line by two decibels, which is not perceivable to human hearing.

Solid and Hazardous Wastes

Several environmental studies have been conducted at the Project Site, including Environmental Site Assessments (ESA) conducted by GZA GeoEnvironmental, Inc. (GZA) in 2013 and 2014 for the former Webb and the former ITOA properties, respectively. As part of those assessments, site history and regulatory databases were reviewed and soil and groundwater samples were collected from boreholes and monitoring wells and analyzed for certain constituents.

Presently, there is no known subsurface contamination requiring notification to MassDEP. There was a historic release of gasoline during the removal of four 5,000-gallon underground storage tanks (USTs) in 1991 from the ITOA property. MassDEP issued Release Tracking Number (RTN) RTN 3-4127 for the Site. Contaminated soil was excavated and removed from the Site in 1994. The four USTs were replaced with two 10,000 gallon tanks, which were subsequently removed in 2014. No volatile petroleum hydrocarbon (VPH) constituents were detected above MassDEP reportable concentrations in the samples collected from the sidewalls of the excavation. The underground lines associated with the fueling stations are still present.

Petroleum constituents were detected in groundwater samples collected from both the ITOA and Webb properties; however, detected levels were below applicable reporting concentrations outlined in the Massachusetts Contingency Plan (MCP). No evidence of separate phase petroleum was encountered during sampling of the wells. Various levels of polyaromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs) and metals were detected in some of the soil samples analyzed from the Site. However, except for the level of lead and certain PAHs in one soil sample, the detected concentrations were not above the MCP reporting concentrations applicable for the Site.

It is possible that contaminated soils will be encountered during construction given the previous release associated with the USTs and the presence of urban fill at the



Project Site, as is typical of most Boston properties. If potentially contaminated soils are identified during construction, they will be handled in accordance with applicable regulations. If excess soil needs to be removed from the Project Site, it will be characterized by chemical testing to assess suitable disposal/recycling options. In the event that subsurface contamination exceeding MCP reporting thresholds is encountered, DEP will be notified and the contamination managed in accordance with the MCP.

In accordance with the LEED Prerequisite for Materials and Resources (Storage and Collection of Recyclables), the building will include recycling facilities/space for all uses.

Groundwater

Groundwater levels previously measured at on-site wells indicate that groundwater is approximately 7 to 11 feet below ground surface, corresponding to an approximate elevation of 7 to 10 feet. Groundwater elevations are referenced to the Boston City Base datum.

Groundwater levels are not expected to be lowered as part of the planned construction. The building will not have a basement and thus, except for localized dewatering to construct deep utilities during construction, dewatering is not anticipated. Rather, groundwater levels in portions of the Project Site may increase due to stormwater infiltration proposed for the Project, as discussed in Chapter 5, *Infrastructure* of this PNF.

Geotechnical

Based on borings performed at the Project Site as well as at adjacent sites, subsurface conditions generally consist of between 10 to over 15 feet of fill over 10 to 23 feet of organic soils, over approximately 85 to 91 feet of silty clay over a thin (less than 5-foot-thick) layer of glacial till over bedrock. Top of the bedrock is anticipated at depths of approximately 110 to 130 feet below ground surface. The fill, organic and clay layers are compressible and thus, the majority of the existing buildings are supported on deep foundations installed to levels below these compressible soils. Based on building plans, the original portion of the F.W. Webb building at 237 Albany Street is supported by timber piles and was underpinned in the 1960s, presumably due to deteriorating piles. A loading dock addition to the south was supported on caissons and one-story additions to the west were supported on footings and sonotubes. Given the age of the ITOA building, it may also be supported by timber piles.



The Project is anticipated to be supported on driven piles installed to glacial till and/or bedrock. Pre-augering may be required in the upper soils to reduce vibrations during pile driving. Prior to pile driving the existing foundation elements (granite blocks and timber piles) will be excavated and removed to prevent damage to piles during driving. New foundations will be located such that they do not conflict with the existing concrete caissons. Timber piles can be removed where they conflict with new foundations.

Temporary lateral earth support may be required along Albany Street to protect the existing roadway and utilities during pile cap excavation. The need for lateral earth support will depend on the proximity of the pile caps to the property line and the depth of the caps.

The presence of the thick organic deposits raises the potential for settlement of pavements, sidewalks and utilities. If a raise in grade is required for the proposed parking area, a lightweight fill may be used to mitigate settlement of the parking area after construction.

Construction

Construction impacts are temporary in nature and are typically related to air (dust), noise, and runoff. The following sections describe the potential temporary impacts due to construction activities and proposed mitigation measures to reduce these impacts.

Construction of the Project will be completed in a single phase. Demolition is anticipated to begin in June of 2015 followed by construction of the hotel building and site improvements in August of 2015. The Project is anticipated to be fully constructed and in operation by November 2016.

Site Preparation and Construction Staging

The Proponent will continue to work and coordinate with the utility companies to assure compliance and integrity of the Project. A plan to control construction-related impacts including erosion, sedimentation, and other pollutant sources during construction and any land disturbance activities shall be developed and implemented, however no dewatering is anticipated.



Construction Air Quality

Retrofitted diesel construction vehicles, or vehicles that use alternate fuels, will be used. The Project will implement an outdoor construction management plan that includes provisions for wheel washing, site vacuuming, and truck covers. The Commonwealth of Massachusetts anti-idling law will be enforced during the construction phase of the Project with the installation of on-site anti-idling signage.

The Project will comply with the requirements of the Clean Construction Equipment Initiative aimed at reducing air emissions from diesel-powered construction equipment. Oxidation catalysts and catalyzed particulate filters will be utilized on all construction vehicles and equipment to reduce air quality degradation caused by emissions from heavy-duty, diesel-powered construction equipment. All pre-2007 diesel construction vehicles working on the Project will be retrofitted using retrofit technologies approved by the United States Environmental Protection Agency (EPA). Additionally, ultra-low-sulfur diesel (ULSD) fuel (15 parts per million) will be used for all off-road diesel equipment.

Construction Noise

The construction activity associated with the Project may temporarily increase nearby sound levels due to the use of heavy machinery. Heavy machinery is expected to be used intermittently throughout the Project's construction phases, typically during daytime periods. The construction phases that will generate the highest sound levels include the demolition of existing buildings, site excavation and grading, and construction of the foundations for the proposed buildings. The City of Boston Regulations for the Control of Noise considers construction sound levels to be an impact to residential land uses if the L₁₀ is in excess of 75 dB(A) or the L_{max} is in excess of 86 dB(A). A construction noise management program will be developed with the City to ensure that the local construction noise regulation is met.

The Project is subject to construction-hour restrictions and the residential sound limits established under the Regulations for the Control of Noise in the City of Boston. South End residential and commercial neighbors will be provided with contact names and telephone numbers for comments/complaints regarding these and other construction-related issues. Additionally, the Proponent will provide this same information to the Fenway News and Back Bay Courant for publication.

Construction Traffic and Parking

Construction workers and construction trucks will be properly managed to eliminate significant impacts on traffic conditions on surrounding streets during construction.



The Proponent will work with the BTD and MassDOT to develop a site-specific Construction Management Plan (CMP).

The following elements are typically addressed in the CMP:

- Designation of truck routes for deliveries
- Protection of pedestrian walkways
- Location and sizing of staging areas for on-site storage of construction materials
- Definition of worker parking parameters and measures to maximize related use of public transportation
- Identification of truck waiting areas
- Police officer traffic management
- Construction graphics program
- Interim traffic operation improvements
- Definition of street and sidewalk occupancies
- Definition of work hours

Construction Trip Generation and Worker Parking

The number of workers required during the construction will vary with an estimated average daily workforce of approximately 100 during the peak of construction. Because the workforce will arrive and depart prior to peak commuter traffic periods, these trips are not expected to have a large impact on the area's transportation system. Construction workers will arrive at the job site either via public transportation or by personal vehicles, however no on-site parking for construction workers will be provided. Workers will be required to take public transport or park in area lots. The Proponent will work to reduce construction employee vehicle trips through TDM measures, such as:

- Provide secure, on-site storage so that workers do not have to transport tools and equipment each day;
- Offer subsidies and pre-tax payroll deduction for transit pass purchase;
- Provide a ride-matching service;
- Post transit schedules in prominent area; and/or
- Hire local workers.



Construction Truck Routes and Volumes

The vehicular access to the Project Site during the construction period will be from Albany Street. The construction work is not anticipated to generate a high volume during peak hours. Police details may be assigned to all active gate locations to ensure that vehicles are not impacting traffic operations as necessary.

Construction Hazardous Materials and Solid Waste

Asbestos-containing materials (ACM) have been identified in the existing on-site buildings during past hazardous material surveys. The ACM will be abated by a properly licensed contractor prior to building demolition activities. If contaminated soils are identified during construction, they will be handled in accordance with applicable regulations. In the event that subsurface contamination exceeding MCP reporting thresholds is encountered, DEP will be notified and the contamination managed in accordance with the MCP.

All solid waste generated will be recycled off-site or disposed of in accordance with federal, state, and city regulations. The Construction Manager will implement a waste management plan that will seek to divert at least 75 percent of construction and demolition waste material removed from the site from landfills through recycling and salvaging. This credit is expected to be achievable, and may be pursued aggressively in an opportunity to gain an exemplary performance credit of 95 percent construction waste recycling.

Rodent Control During Construction

The City of Boston has declared that the infestation of rodents in the city as a serious problem. In order to control this infestation, the City enforces the requirements established under the Massachusetts State Sanitary Code, Chapter 211, 105 CMR 410.550 and the State Building Code, Section 108.6. Policy Number 87-4 (City of Boston) established that preparation of a program for the extermination of rodents shall be required for issuance of permits for demolition, excavation, foundation, and basement rehabilitation. The Proponent will prepare and adhere to a rodent control program prior to demolition and on a regular basis throughout the duration of construction.

Public Safety During Construction

The entire perimeter of the construction site limits will be protected with a 6-foot high temporary chain link construction fence. Vehicular gates will be provided for construction traffic on perimeter roads to allow safe entrance and exiting for



construction vehicles and personnel. Additionally, signage will be posted on fencing and construction trailers to alert all personnel to the safety requirements.

Larger deliveries of construction materials may require the use of police details to assist in managing vehicular and pedestrian traffic. Coordination with the Boston Police Department will be essential in providing safe travel routes for pedestrians during peak construction periods.

Post-Construction Rodent Control

Trash and solid waste removal will be handled by the hotel maintenance staff. The Proponent will maintain a service contract with a professional pest control firm to address rodent/pest control during the operational phase of the Project. In addition, no open top dumpsters will be allowed as an additional precaution to deter infestation.

Sustainable Design/Green Building

This section provides an overview of the sustainable design elements proposed as part of the Project at this time of preliminary design to demonstrate that the Project will meet the requirements of Article 37 of the Boston Zoning Code relative to the City's Green Building policies and procedures (i.e., "LEED certifiable"). In addition to compliance with Article 37, the Proponent intends to strive for a Silver rating equivalent at minimum.

The design team for the Project includes several LEED Accredited Professionals (AP), including the Architect of Record, Kent Knight, AIA, LEED AP, Vice President with Elkus Manfredi Architects. Other team members with LEED accreditation include the permitting consultant, Lauren DeVoe, AICP, LEED BD+C, a Senior Environmental Planner with VHB. The Proponent and project design team has and will continue to evaluate and incorporate sustainable design and energy conservation as the design process continues.

Regulatory Context

Massachusetts Stretch Energy Code

As part of the Green Communities Act of 2008, Massachusetts developed an optional building code that gives cities and towns the ability to choose stronger energy performance in buildings than the state building code (the “Stretch Energy Code”). Codified by the Board of Building Regulations and Standards as 780 CMR Appendix 115.AA of the 8th edition Massachusetts Building Code, the Stretch Energy Code is an appendix to the Massachusetts building code, based on further amendments to the International Energy Conservation Code (IECC). The Stretch Energy Code increases the energy efficiency code requirements for new construction and major residential renovations or additions in municipalities that adopt it. The Stretch Energy Code applies to both residential and commercial buildings and, specifically, for new commercial buildings over 5,000 square feet in size, including multi-family residential buildings over three (3) stories.

In 2010, the City of Boston was designated a Green Community under the Green Communities Designation and Grant Program—an initiative of the Massachusetts Department of Energy Resources. In order to be designated a Green Community and, therefore, eligible for grant money available annually, communities are required to meet five rigorous qualification criteria one of which includes minimizing life-cycle costs, such as adopt and implement the Stretch Energy Code. The goal of the grant program is for a municipality to use grant money to assist residents, businesses, and the municipality departments/facilities reduce energy use or install renewable energy systems. For the City of Boston, the Stretch Energy Code was adopted and became mandatory on July 1, 2011.

The current Stretch Energy Code requires projects to achieve at minimum a 20 percent energy efficiency compared to the state’s energy code (the “Base Energy Code”) by either meeting the performance standard of 20 percent better than ASHRAE 90.1-2007, or using a prescriptive energy code. On July 1, 2014, the IECC2009 and ASHRAE 90.1-2007 ceased to be a code option for non-Stretch Energy Code communities, and the IECC 2012 and ASHRAE standard 90.1-2010 became the new/updated state-wide Base Energy Code. It is expected that an updated Stretch Energy Code, if/when enacted, will require additional energy reductions beyond these standards and that Green Communities, such as Boston will automatically adopt any updates to the Stretch Energy Code (unless they vote to change their bylaw to no longer be a stretch code community). At the time of this PNF filing, the updated Stretch Energy Code requirements remain unknown.

Article 37 – Green Buildings of the Boston Zoning Code

Through Article 37 – Green Buildings, the City of Boston encourages buildings to decrease energy and water use and cost, improve the efficiency and useful life of building systems and infrastructure, and reduce the burdens imposed by buildings on city services, the environment, and public health. The stated purposes of the article is as follows:

“The purposes of this article are to ensure that major building projects are planned, designed, constructed, and managed to minimize adverse environmental impacts; to conserve natural resources; to promote sustainable development; and to enhance the quality of life in Boston.”

Any project that is subject to Article 80B, Large Project Review is also subject to the requirements of Article 37, which includes demonstrating that a project would meet the minimum requirements to achieve a LEED Certified level (all LEED Pre-requisites and achieve at least 40 points) without registering the project with the USGBC, or “LEED certifiable.”

An interdisciplinary committee called the Boston Interagency Green Building Committee advises the BRA on a proposed project’s compliance with the provisions of the article. The Committee consists of at least one representative of city agencies, including the BRA, BED, BTM, the Inspectional Services Department and the Mayor’s Office.

Boston Green Building Credits

Appendix A of Article 37 lists Boston Green Building Credits, which are credits that may be included in the calculation toward achieving a LEED certifiable project. These credits were developed by the City and are intended to address local issues unique to development within Boston. The credits include the following categories: Modern Grid; Historic Preservation; Groundwater Recharge; and Modern Mobility.

At this preliminary design stage, the Project will evaluate achieving two of the four available Boston Green Building credits (Appendix A of Article 37):

- **Groundwater Recharge.** The Project is located within the GCOD, as defined in Article 32 of the City of Boston Zoning Code. The Project will include and infiltration system that holds one-inch of site runoff and utilizes a leaching bed to infiltrate captured stormwater flows. Refer to Chapter 5, *Infrastructure* of this PNF for further details.
- **Modern Mobility.** Because the Project Site is in close proximity to both rapid transit and bus service strategies are proposed in order to take advantage of available transportation access. The Proponent will consider implementing TDM



measures, such as posting public transportation information (i.e., MBTA subway and bus routes and schedules). Refer to Chapter 3, *Transportation and Parking* of this PNF for further detail on the proposed TDM Plan.

Approach to Sustainability/Compliance with Article 37

The project team, intends to implement sustainable design and construction principles and practices for the project, which include implementing the requirements of Article 37 of the Boston Zoning Code relative to the City's Green Building policies and procedures. The Proponent intends to take the appropriate measures to achieve a "LEED Silver certifiable" building. The preliminary LEED Scorecard presented as Figure 4.5 is tracking 55 'yes' points for a Silver rating and 21 'maybe' points. The 'maybe' points represent credits that will continue to be evaluated as design progresses. This represents a noteworthy increase in LEED points compared to 40 'yes' points for a Certified rating, as required by Article 37.

Sustainable Sites (SS)

- **Construction Activity (Prerequisite).** A management plan will enforce measures to protect adjacent areas from pollution.
- **Site Selection (Credit 1).** The Project Site has previously been completely developed and is located in an urban area. This development does not violate any of the established criteria; therefore, this credit is expected to be achievable.
- **Development Density (Credit 2).** The Project is proposed within a previously developed site and a dense urban area close to established residential areas and basic services; therefore, this credit is expected to be achievable.
- **Brownfield Redevelopment (Credit 3).** Asbestos abatement may be needed prior to demolition activity and will be performed upon confirmation; therefore, this credit is expected to be achievable.
- **Alternative Transportation (Credits 4.1, 4.2, 4.4).** Public transportation is accessible from the Project Site. Also, on-site bicycle storage and shower/changing rooms for employees will be provided. The number of total parking spaces planned will not exceed local zoning requirements. Therefore, these credits are expected to be achievable.
- **Stormwater Design (Credits 6.1, 6.2).** The Project Site is currently almost completely impervious. The Project will provide adequate groundwater recharge program, in accordance with the GCOD and aims to meet the Boston Green Building Groundwater Recharge credit. Therefore, Credit SS6.1 is expected to be achievable. While the Project stormwater treatment program will include removal of total suspended solids. Deep sump, hooded catch basins will be used to



capture site stormwater, which will be routed to an accepted water quality treatment unit (Vortechtechnics, Stormceptor, etc.) before discharging into the infiltration system that overflows to the main drainage trunk line in Albany Street. (Refer to Chapter 5, *Infrastructure* for more information.) Further calculations are required to confirm if Credit SSc6.2 is achievable; therefore, this credit will continue to be investigated as site design progresses.

- **Heat Island Effects (Credit 7.2).** A “green/high-emissivity” roof system will be evaluated for covering all areas of the roof; therefore, this credit may be achievable.

Water Efficiency (WE)

- **Water Use Reduction (Prerequisite 1).** The Project will meet the requirements of this Prerequisite by employing strategies (low-flow plumbing fixtures) to achieve a minimum 20 percent water efficiency over a baseline.
- **Water Efficient Landscaping (Credit 1).** The Proponent is committed to eliminating landscape irrigation needs through the use of native plantings for groundcover and other drought-tolerant landscaping material. Therefore, all four points under this credit are expected to be achieved.
- **Water Use Reduction (Credits 3.1, 3.2).** Appropriate low-flow and low consumption plumbing fixtures are anticipated to achieve up to 40 percent reduction in water usage over baseline. In addition, guests and employees will be educated about water conservation. This credit will continued to be evaluated through project design.

Energy and Atmosphere (EA)

The hotel building design will be required to achieve a minimum 20 percent energy efficiency compared to a baseline building design, in accordance with the current Stretch Energy Code.

- **Fundamental Commissioning (Prerequisite 1).** Commissioning of the Mechanical and Electric building systems will be conducted for the Project.
- **Minimum Energy Performance (Prerequisite 2).** The Project is required to comply with the existing Stretch Energy Code, which sets a minimum energy efficiency requirement of 20 percent over the base energy code and, therefore, the requirements of this Prerequisite (10 percent energy efficiency) will be met.
- **Fundamental Refrigerant Management (Prerequisite 3).** Non-CFC-based refrigerants will be utilized for the Project and, therefore, the Project will meet the requirements of this Prerequisite.



- **Optimize Energy Performance (Credit 1).** The Project is required to comply with the existing Stretch Energy Code, which sets a minimum energy efficiency requirement of 28 percent over the base energy code, which achieves up to nine (9) points under this Credit. Further energy conservation measures will continue to be evaluated through project design.
- **Green Power (Credit 6).** The Proponent intends to enter into a two-year agreement to procure approximately 70 percent (double the required 35 percent) of the electricity used for the Project from renewable sources, as defined by the Center for Resource Solutions' Green-e Energy project certification requirements.

Materials and Resources (MR)

- **Storage and Collection of Recyclables (Prerequisite).** Recycling canisters are expected to be provided in each guest room and in all public spaces of the first floor. Contents will be collected and removed for recycling by trained hotel maintenance staff. Therefore, the Project meets the requirements of this Prerequisite.
- **Construction Waste Management (Credits 2.1, 2.2).** The Construction Manager will be required to implement a Construction Waste Management (CWM) plan that will seek to divert at least 75 percent of construction and demolition waste material removed from the Project Site from landfills through recycling and salvaging of materials. This credit is expected to be achievable, and may be pursued more aggressively (95 percent) in an opportunity to gain an exemplary performance credit (see the Innovation in Design credits below).
- **Recycled Content (Credits 4.1, 4.2).** Project Specifications will encourage provision and tracking of building materials with recycled content, where practical and feasible.
- **Regional Materials (Credits 5.1, 5.2).** Project specifications will encourage provision and tracking of building materials that have been manufactured and extracted/harvested within 500 miles of the Project Site, where practical and feasible.
- **Rapidly Renewable Materials (Credit 6).** Project specifications will encourage provision and tracking of building materials made of rapidly renewable materials, where practical and feasible.
- **Certified Wood (Credit 7).** Project specifications will encourage provision and tracking of wood building materials that are Forest Stewardship Council-certified, where practical and feasible.

Indoor Environmental Quality (IEQ)

- **Minimum IAQ Performance (Prerequisite 1).** The ventilation code utilized for the Project will be ASHRAE Standard 62.1-2007, as required by the present Massachusetts Building Code and in compliance with this Prerequisite.
- **Environmental Tobacco Smoke Control (Prerequisite 2).** The Proponent intends to designate the entire building as a non-smoking facility. In addition, guest rooms will be under a negative pressure to minimize any environmental smoke from migrating between private and common areas.
- **Construction IAQ Management Plan (Credit 3.1).** Indoor Air Quality Management plans are expected to be implemented during the construction phase, in accordance with the requirements of this Credit.
- **Low Emitting Materials (Credits 4.1, 4.2, 4.3, 4.4).** Project specifications will encourage provision and tracking of building materials, including adhesives, sealants, paint and carpets/flooring with low VOC content limits, as prescribed by the applicable standards, where practical and feasible. Composite wood products with no added urea-formaldehyde will be investigated further during design and may be achieved.
- **Controllability of Systems (Credits 6.1, 6.2).** Individual lighting and temperature controls will be provided in guest rooms and are expected to meet the minimum requirements of these Credits.
- **Thermal Comfort (Credits 7.1, 7.2).** The building envelope and HVAC systems are expected to be designed to meet the requirements of ASHRAE 55-2004.
- **Daylight & Views (Credits 8.1, 8.2).** Daylight exposure will be investigated in detail during as design progresses to determine compliance with the requirements of Credit IEQc8.1. Exterior views will be provided for all guest rooms and are expected to be maximized to the fullest extent possible for all common areas. Therefore, the Project is expect to achieve Credit IEQc8.2.

Innovation in Design (ID)

- **Innovation in Design: Green Housekeeping (Credits 1.1).** The Proponent intends to engage in a green housekeeping policy wherein all cleaning chemicals and cleaning equipment used in common areas shall comply with the Green Seal Standard GS-37 – Cleaning Products for Industrial and Institutional Use, Fifth Edition dated August 28, 2009.
- **Innovation in Design: Educational Signage (Credit 1.2).** The Proponent plans to provide interactive displays to educate building visitors on the green aspects of the hotel facility.



- **Exemplary Performance: Green Power (Credit 1.3).** The Proponent intends to purchase a two-year agreement to procure 70 percent (double the required 35 percent) of the electricity for the Project that meets the Green-e definition for renewable power.
- **Exemplary Performance: Construction Waste Management (Credit 1.4).** As part of the Contractor's CWM Plan, the Project may divert at least 95 percent or more of the construction waste from landfills by recycling and/or reusing materials.
- **Exemplary Performance: Recycled Content or Regional Materials (Credit 1.5).** The Proponent intends to use and track 30 percent or more of the building materials that contain recycled content or have been manufactured and extracted / harvested within 500 miles of the Project Site.
- **Innovation in Design: LEED Accredited Professional (IDc2).** This credit is achievable because at least one LEED Accredited Professional will be a participant on the project development team. A Copy of the LEED AP certificate will be provided, as required.

Regional Priority Credits

The concept of Regional Priority Credits (RPCs) was introduced in the LEED 2009 rating system to incentivize the achievement of credits that address geographically specific environmental priorities. RPCs are not new LEED credits, but are existing credits that USGBC chapters and regional councils have designated as being particularly important for their areas and are achieved in the form of a bonus point. The potentially achievable RPCs for the Project include:

- SSc3: Brownfield Redevelopment;
- SSc6.1: Stormwater Design Quantity Control;
- SSc7.2: Heat Island Effect, Roof; and
- SSc7.1: Heat Island Effect, Non-Roof.

Climate Change Preparedness and Resiliency

This section discusses the approach to preparing for changes in climate change, in accordance with Appendix 7 of Article 80 of the Code. The required Climate Change Resiliency and Preparedness Checklist has been completed for the Project and is provided in Appendix C of this PNF.

Addressing Sea Level Rise

The Proponent has evaluated the Project Site in terms of flooding in combination with projected sea level rise, as outlined in the *Sea Level Rise: Understanding and Applying Trends and Future Scenarios for Analysis and Planning* prepared by the Massachusetts Office of Coastal Zone Management (CZM). The FEMA Flood Insurance Rate Map (FIRM) map number 250286C0081J indicates the 100-year flood elevation for the Fort Point Channel is +16.45 feet Boston City Base (BCB). Although this is at or one foot above the Project Site, the Project is not hydrologically connected to the Fort Point Channel. As discussed previously, Interstate 93 and railroad tracks provide a vertical physical barrier between the Fort Point Channel and the South End.

A “bathtub model” approach was used to determine what the extreme flood event elevations would be in the Fort Point Channel, under certain sea level rise scenarios, to compare elevations to the building and critical infrastructure. The CZM report indicated that sea level rise could potentially reach 0.81 feet, 1.91 feet, 4.20 feet, and 6.83 feet in the Boston area by the year 2100 under a range of emission scenarios established by the Intergovernmental Panel on Climate Change in their fourth comprehensive report. These levels of sea level rise correspond to the following 100-year flood elevations in the Fort Point Channel:

- Lowest Scenario – Elevation +17.26 feet BCB
- Intermediate Low Scenario – Elevation +18.36 feet BCB
- Intermediate High Scenario – Elevation +20.65 feet BCB
- Highest Scenario – Elevation +23.28 feet BCB

The elevation at which a coastal flooding will access the South End from flooding over either I-93 or the South Station railroad tracks is not known. These flood elevations provide a proxy for evaluating design decisions. In addition, the typical building design lifecycle for a hotel is approximately 50 years. The Intermediate High Scenario, with sea level rise of 2.47 feet for the year 2075, may be a more appropriate design elevation to compare to with an extreme flood event elevation of +18.92 feet BCB. Although this flood elevation is not expected to occur in the South End due to topographic separation, BWSC infrastructure will be subject to this level of coastal inundation. This realization confirms the design decisions to elevate storm and sewer infrastructure as high as possible on-site, install backflow preventers on lateral service connections, and ensure the internal piping is water tight up to the second floor. This flood elevation will also be accounted for when deciding what elevation to install critical infrastructure, such as electrical and backup generating systems, to higher floors.

Site Design Measures

The Project will use resilient design practices to limit the Project Site's susceptibility to flooding from potential sea level rise in combination with extreme weather events. The BWSC CSO outfall #068 provides drainage to the South End neighborhood, including effluent from the drainage trunk line and combined sewer during high flows in Albany Street to which the Project will connect stormwater and sewer laterals. In an effort to protect the Project from flooding due to coastal inundation in BWSC infrastructure, the Project's stormwater and sewer systems will be designed to provide maximum vertical separation from the mains in Albany Street to make the system as resilient as possible. In addition, backflow preventers can be installed on proposed infrastructure outlets and internal plumbing can be made water-tight up to the second floor to minimize the risk of flooding from inside the building. These design elements reduce the building's vulnerability to flooding by maximizing physical separation from the BWSC system. The need for backflow preventers on the service laterals of site infrastructure will be confirmed by BWSC if Albany Street mains are currently, or expect to be, vulnerable to flooding in large storm events and coastal inundation. In addition, both the stormwater and sewer systems will be elevated to the maximum extent practicable to reduce their susceptibility to flooding from coastal inundation in BWSC infrastructure.

The Project's stormwater management system will be designed with significant capacity to capture and infiltrate a large portion of on-site runoff from the Project Site and building roof areas. The infiltration system will be designed to address Article 32 of the Boston Zoning Code, and evaluate the practicality of meeting the criteria of LEED Sustainable Sites credits 6.1 (Stormwater Design – Quantity Control) and 6.2 (Stormwater Design – Quality Control). The stormwater management infrastructure is discussed in more detail in Chapter 5, *Infrastructure*.

Building Resiliency

Additional site measures include raising all building infrastructure predisposed to flooding as well as the building finished floor elevation above the base flood elevation. The Proponent will evaluate the practicality of raising electrical equipment and emergency generators to higher floors, well above the preliminary 100-year flood elevation during the design process.

Addressing Extreme Weather Conditions

As a result of climate change, the Northeast is expected to experience more frequent and intense storms. The IPCC has also predicted that in Massachusetts the number of days with temperatures greater than 90°F will increase from 5 to 20 days. To prepare for this, the Project will minimize the heat island effect by installing site landscaping,



utilize light-colored paving materials on the pedestrian-oriented hardscape, and a reflective rooftop membrane to absorb less heat.

To minimize the Project's susceptibility to drought, the landscape design is anticipated to incorporate regionally appropriate robust native and adaptive vegetation that will require minimal irrigation. The Project will also incorporate low-flow fixtures to conserve potable water.

To minimize the Project's impact on climate change, the Project's energy performance is anticipated to be 20 percent efficient at minimum, in compliance with the current Stretch Energy Code, which will help reduce GHG emissions associated with building energy sources that contribute to global warming.

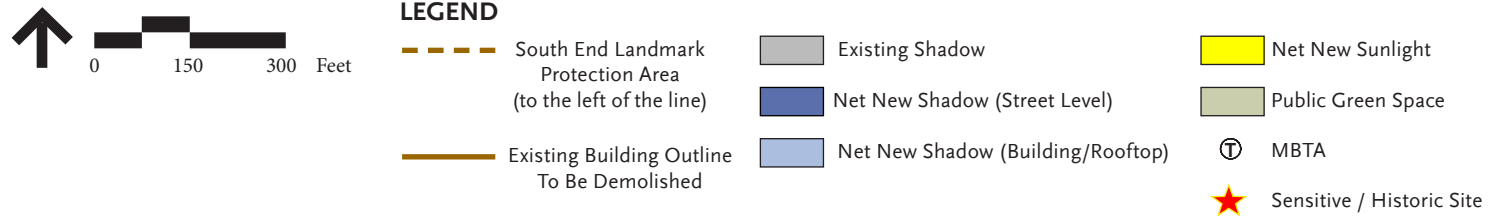
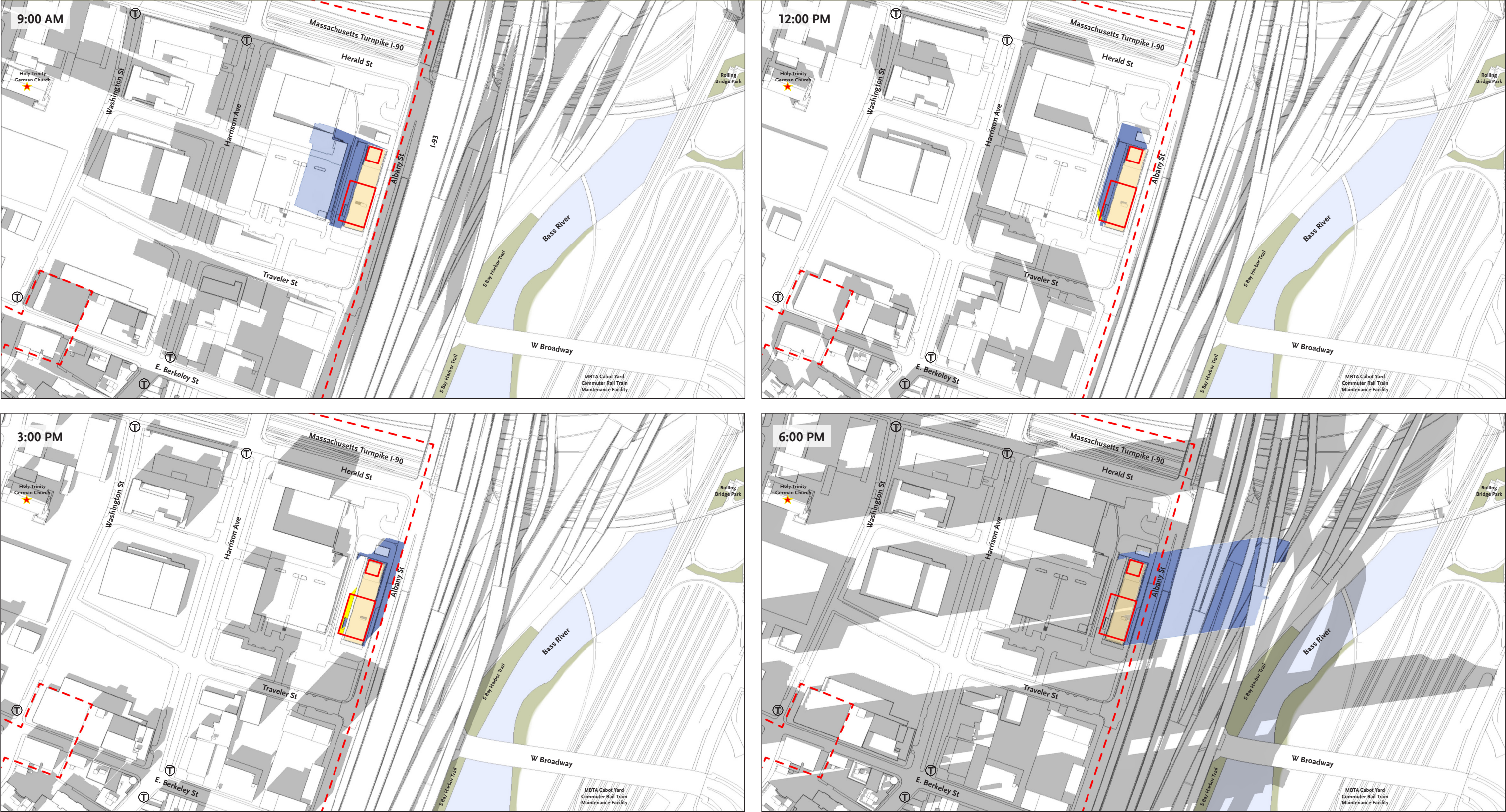


Figure 4.1a
Shadow Impact Studies
March 21 Vernal Equinox
**AC Hotel South End
Boston, MA**

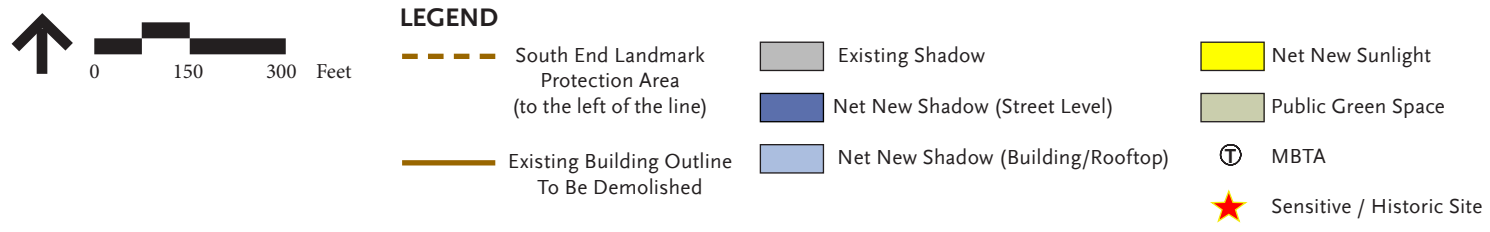
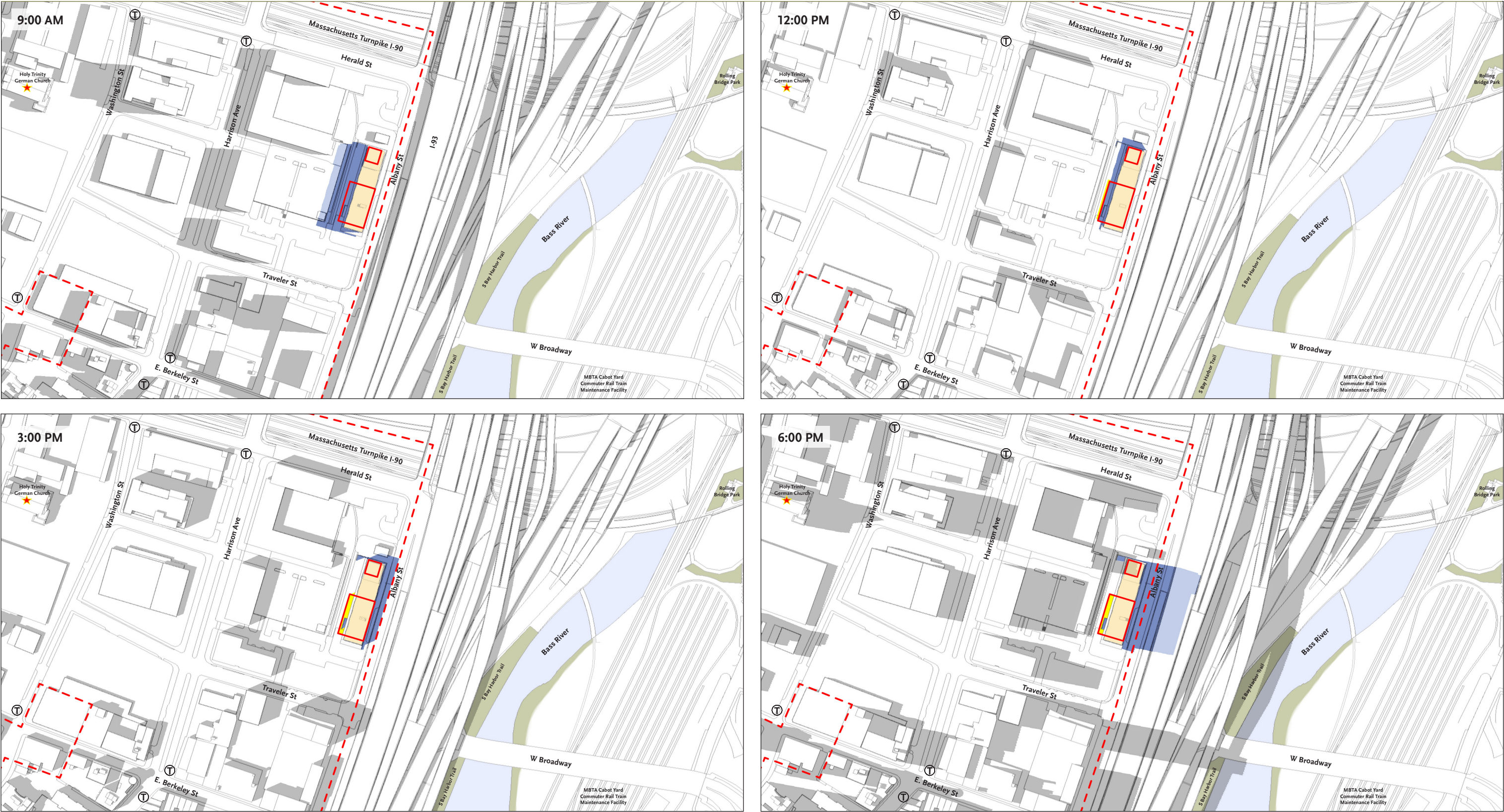


Figure 4.1b
Shadow Impact Studies
June 21 Summer Solstice
**AC Hotel South End
Boston, MA**

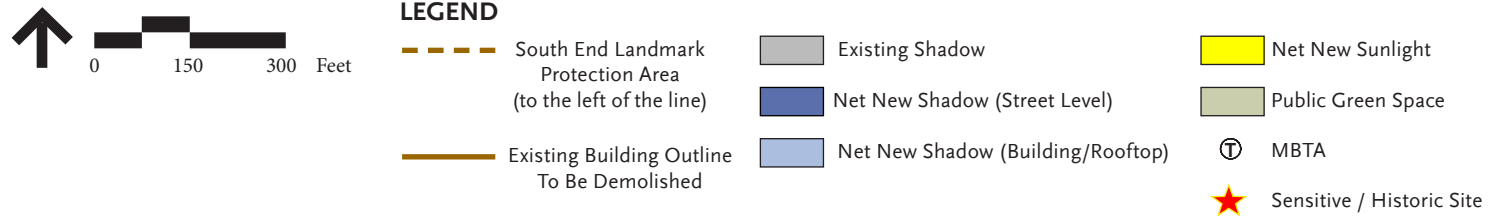
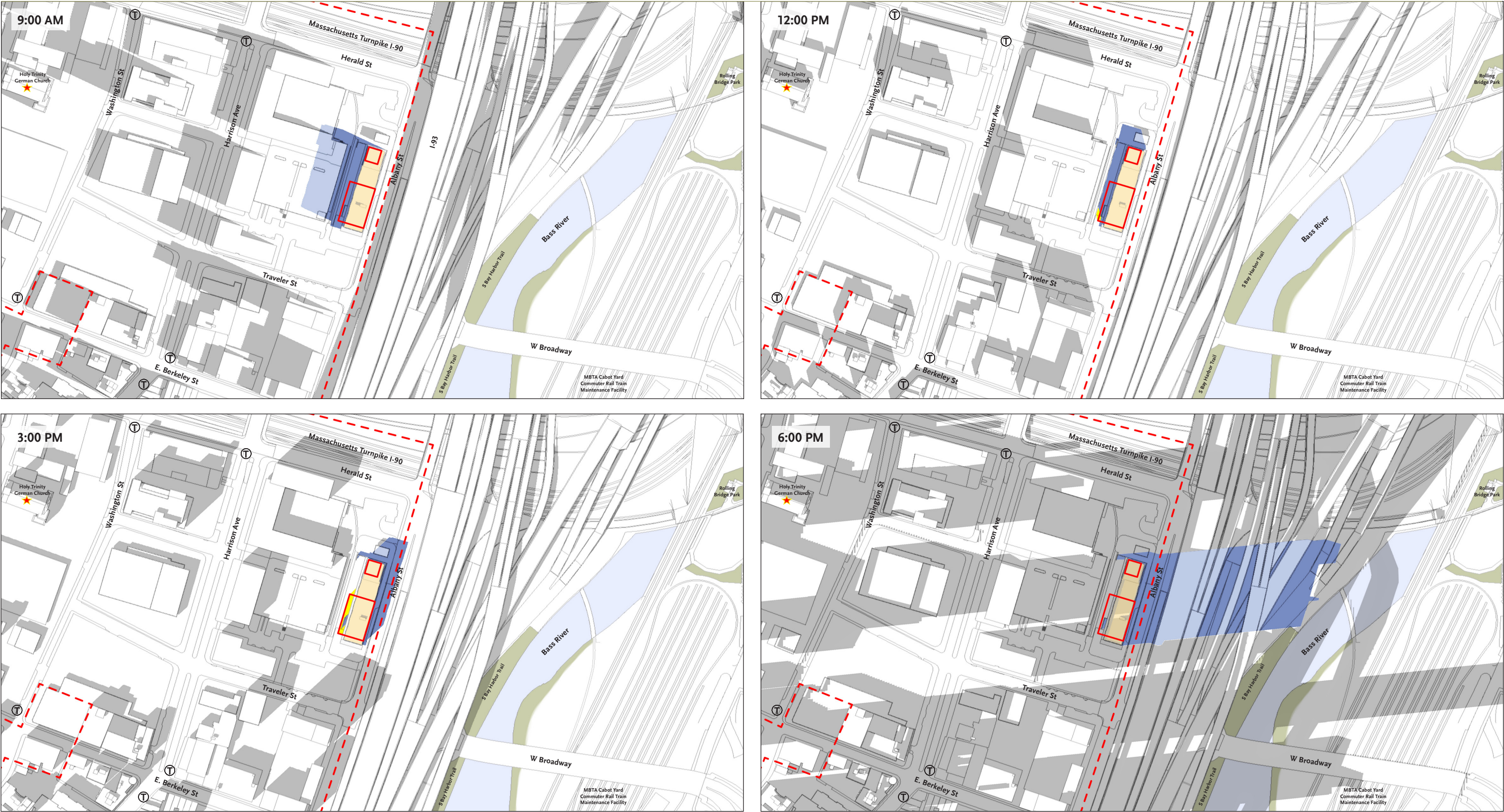


Figure 4.1c
Shadow Impact Studies
September 21 Autumnal Equinox
**AC Hotel South End
Boston, MA**

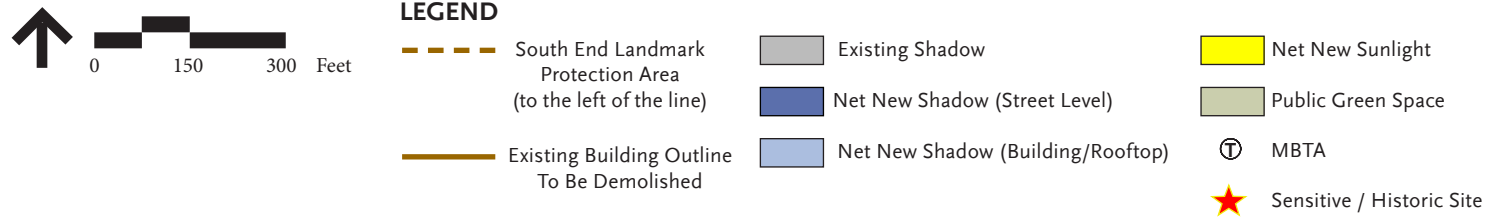
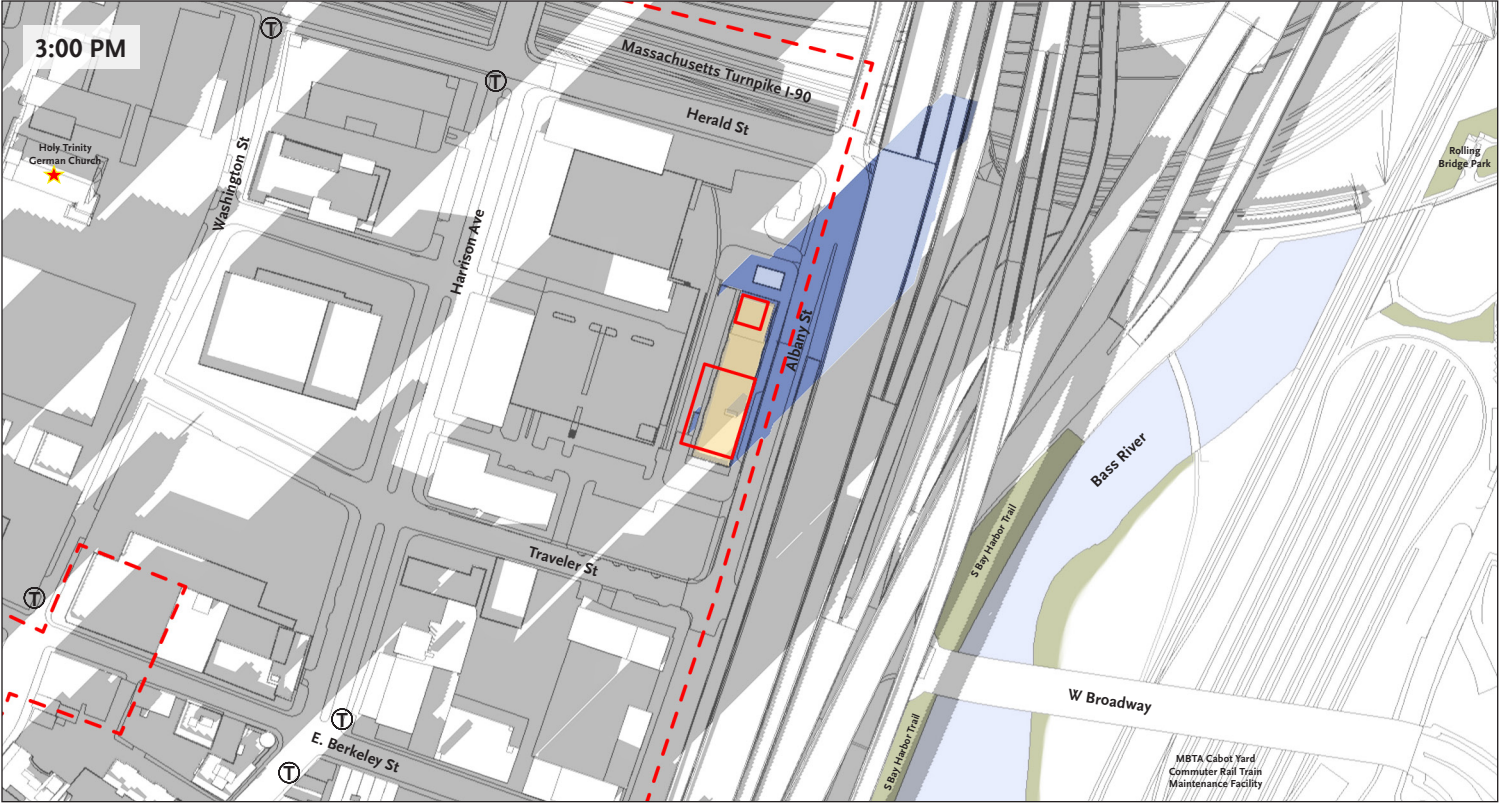
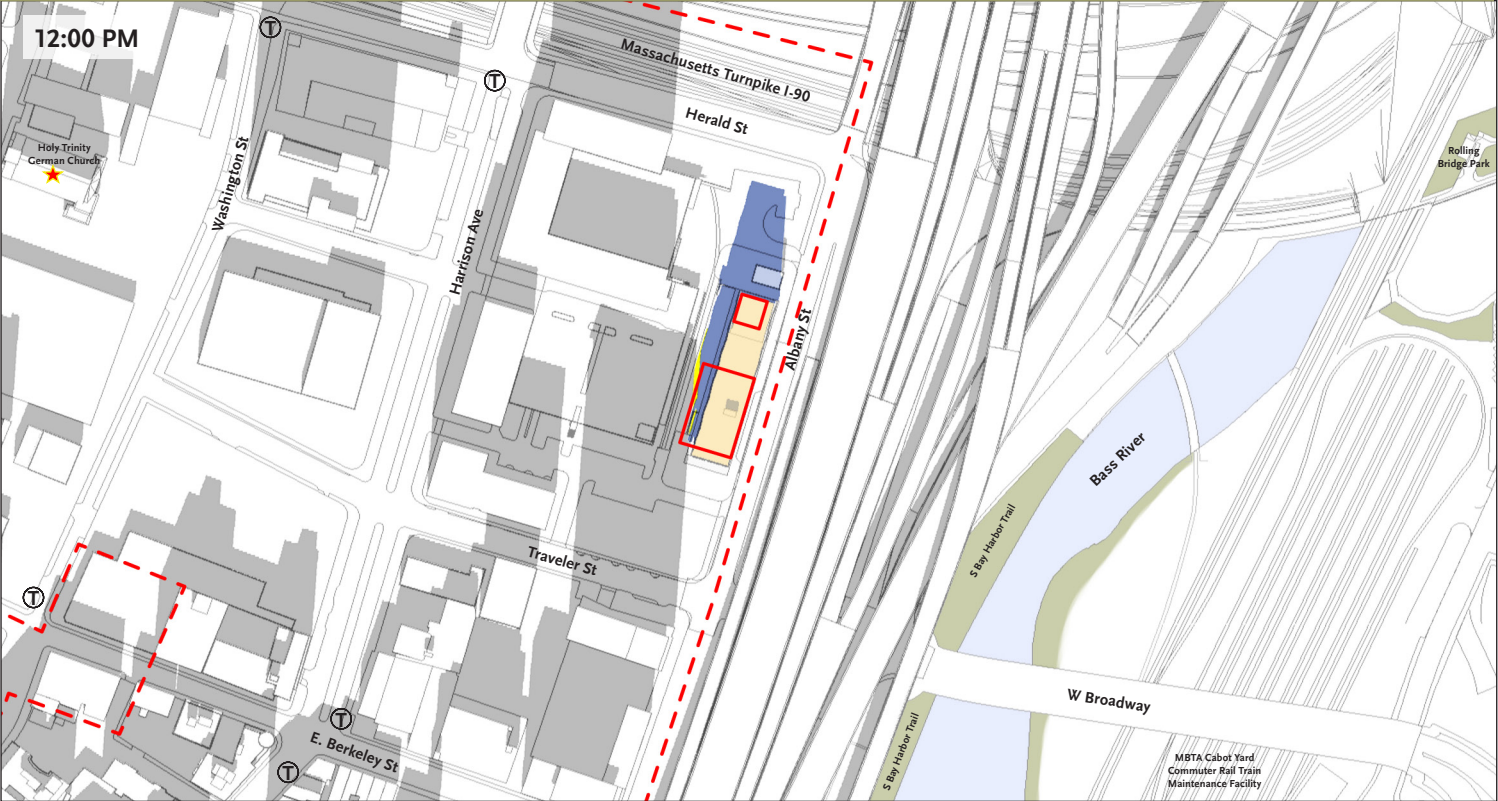
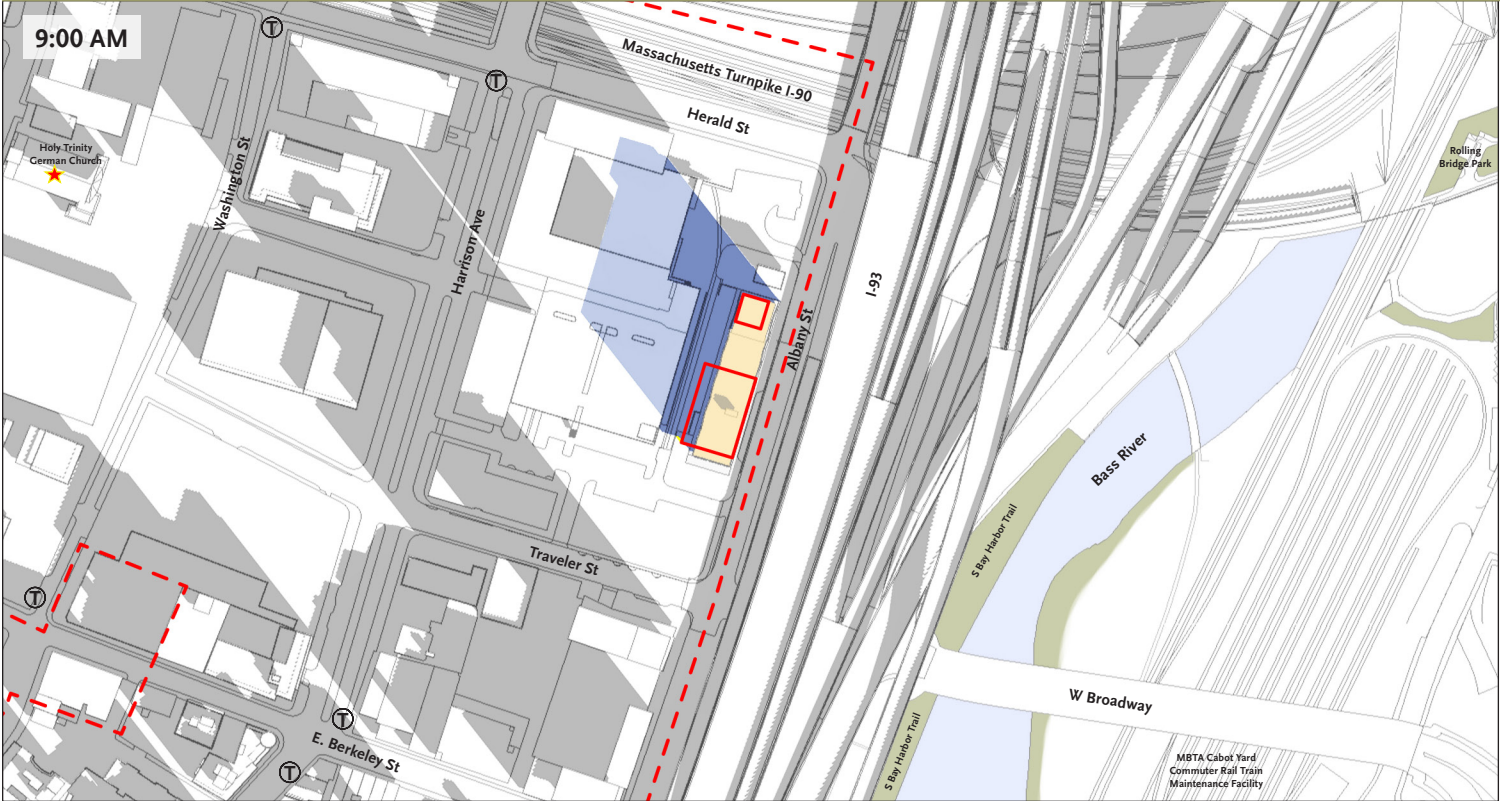


Figure 4.1d
Shadow Impact Studies
December 21 Winter Solstice
**AC Hotel South End
Boston, MA**

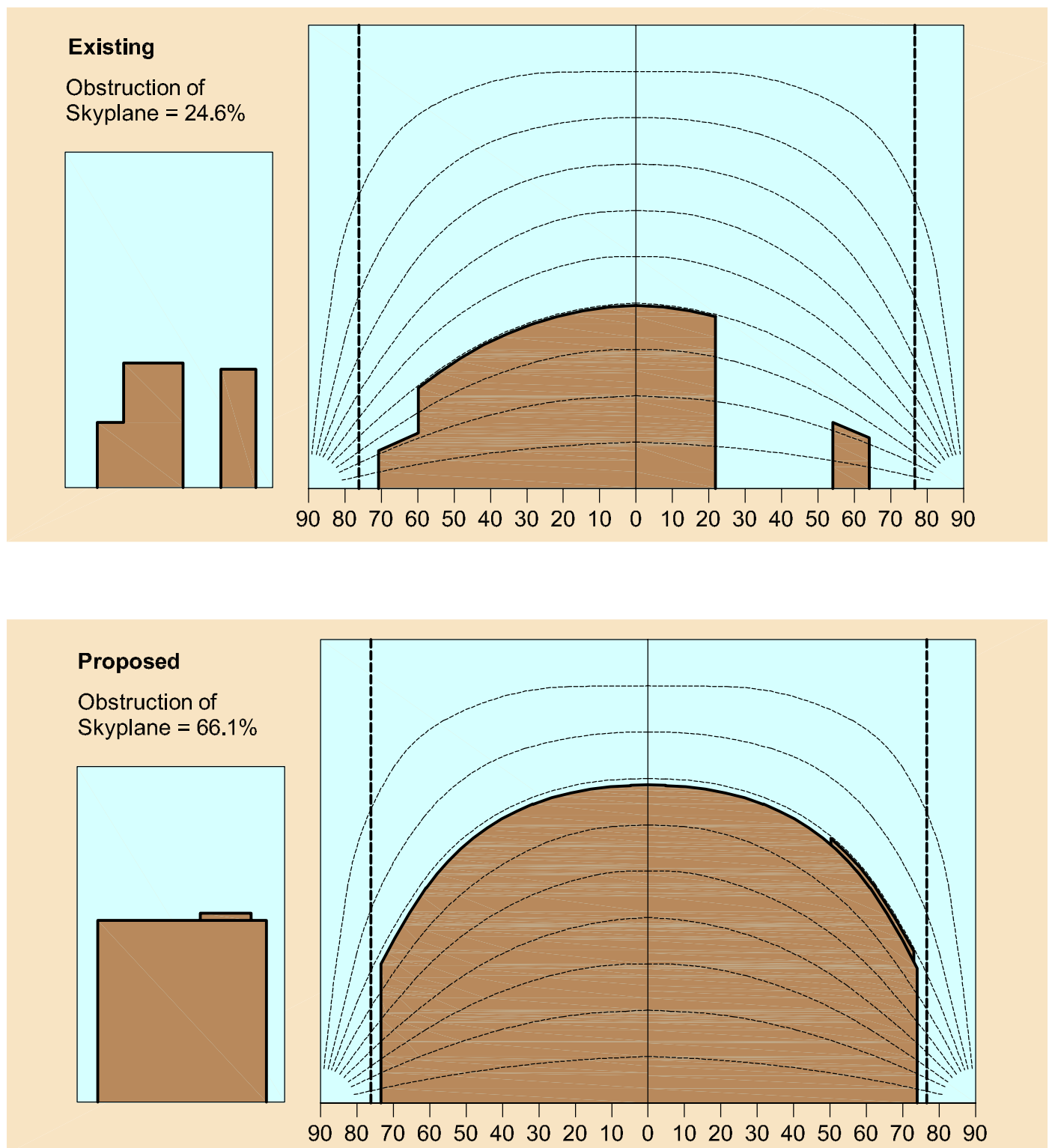


Figure 4.2

Daylighting Analysis - Albany Street

**AC Hotel South End
Boston, MA**

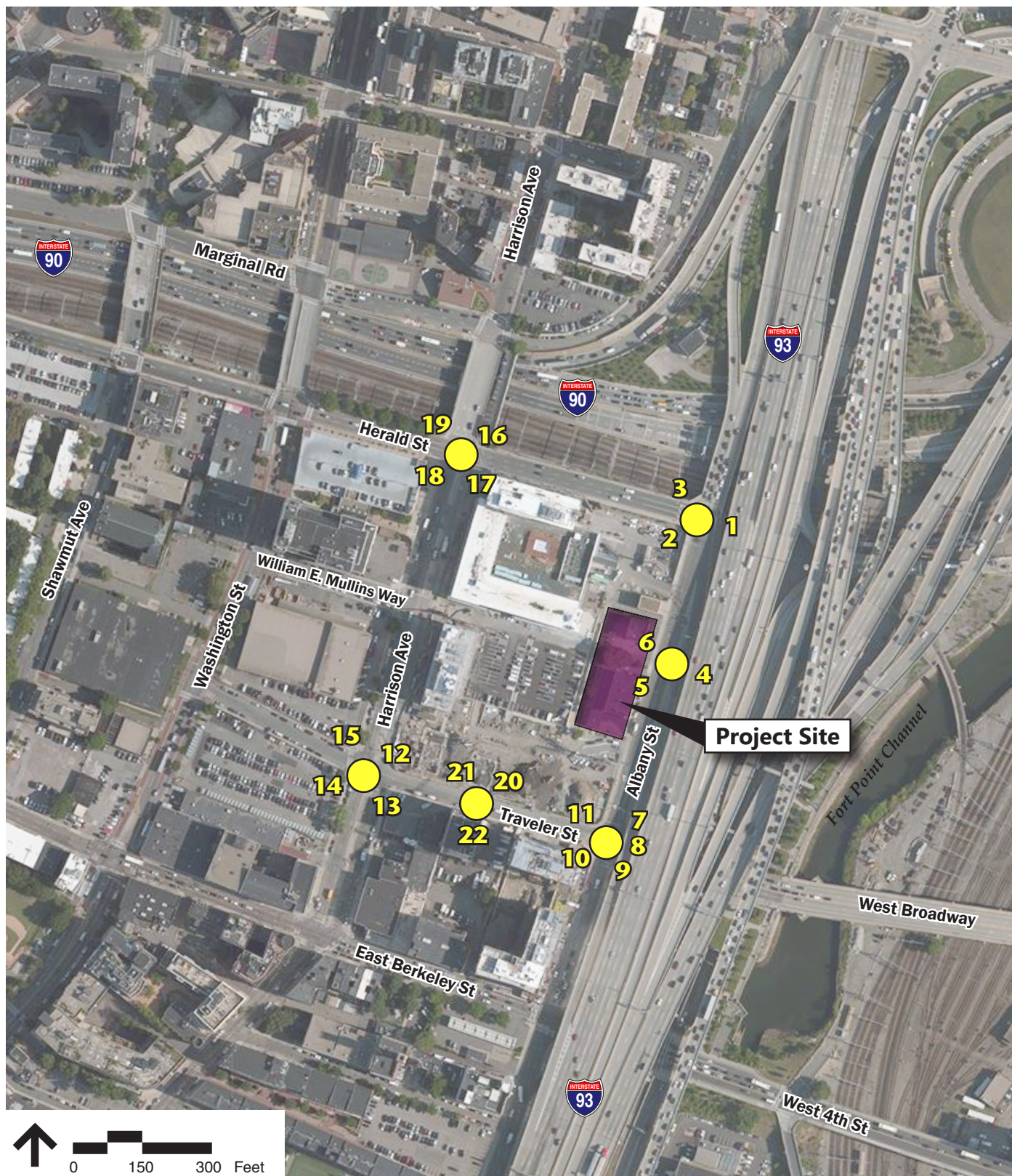


Figure 4.3
Air Quality Monitoring Locations

**AC Hotel South End
Boston, MA**

- R#** Receptor Location
- M#** Monitoring Location

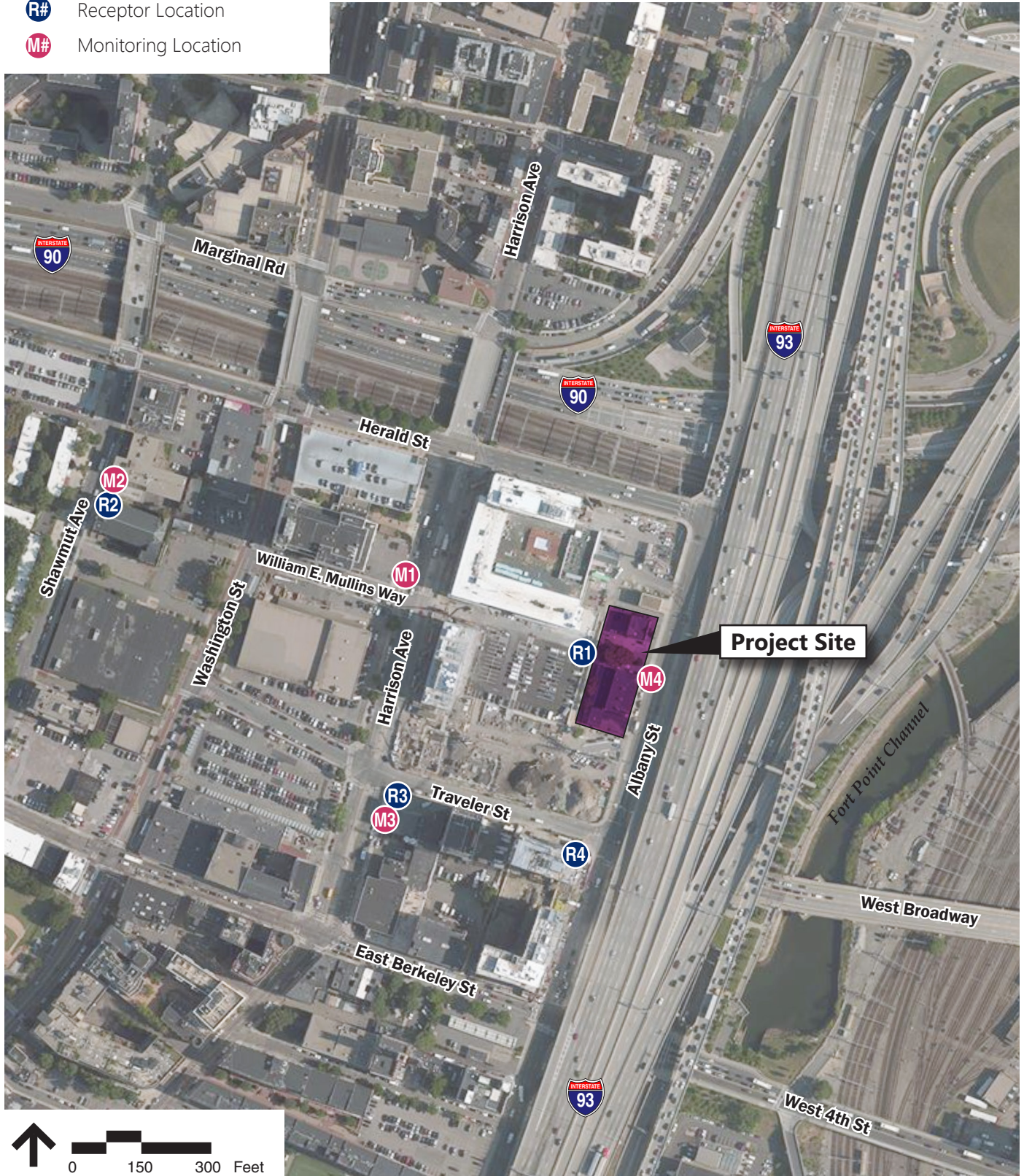


Figure 4.4
Noise Monitor and Receptor Locations

**AC Hotel South End
Boston, MA**



LEED 2009 for New Construction and Major Renovations

Project Checklist

AC Hotel South End

Preliminary Version - March 2015

17	2	7	Sustainable Sites		Possible Points: 26
Y	?	N			
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
5			Credit 2	Development Density and Community Connectivity	5
1			Credit 3	Brownfield Redevelopment	1
6			Credit 4.1	Alternative Transportation—Public Transportation Access	6
1			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
		3	Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
2			Credit 4.4	Alternative Transportation—Parking Capacity	2
		1	Credit 5.1	Site Development—Protect or Restore Habitat	1
		1	Credit 5.2	Site Development—Maximize Open Space	1
1			Credit 6.1	Stormwater Design—Quantity Control	1
	1		Credit 6.2	Stormwater Design—Quality Control	1
		1	Credit 7.1	Heat Island Effect—Non-roof	1
	1		Credit 7.2	Heat Island Effect—Roof	1
		1	Credit 8	Light Pollution Reduction	1

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

11	10	14	Energy and Atmosphere		Possible Points: 35
Y	?	N			
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
9	10		Credit 1	Optimize Energy Performance	1 to 19
		7	Credit 2	On-Site Renewable Energy	1 to 7
		2	Credit 3	Enhanced Commissioning	2
		2	Credit 4	Enhanced Refrigerant Management	2
		3	Credit 5	Measurement and Verification	3
2			Credit 6	Green Power	2

4	4	6	Materials and Resources		Possible Points: 14
Y	?	N			
Y			Prereq 1	Storage and Collection of Recyclables	
		3	Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
		1	Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
2			Credit 2	Construction Waste Management	1 to 2
		2	Credit 3	Materials Reuse	1 to 2

Materials and Resources, Continued				
Y	?	N		
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

9	2	4	Indoor Environmental Quality		Possible Points: 15
Y	?	N			
Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
		1	Credit 1	Outdoor Air Delivery Monitoring	1
		1	Credit 2	Increased Ventilation	1
1			Credit 3.1	Construction IAQ Management Plan—During Construction	1
		1	Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
	1		Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
		1	Credit 5	Indoor Chemical and Pollutant Source Control	1
1			Credit 6.1	Controllability of Systems—Lighting	1
1			Credit 6.2	Controllability of Systems—Thermal Comfort	1
1			Credit 7.1	Thermal Comfort—Design	1
1			Credit 7.2	Thermal Comfort—Verification	1
	1		Credit 8.1	Daylight and Views—Daylight	1
1			Credit 8.2	Daylight and Views—Views	1

4	2	Innovation and Design Process		Possible Points: 6
Y	?	N		
1			Credit 1.1	Innovation in Design: Green Housekeeping 1
1			Credit 1.2	Innovation in Design: Educational Signage 1
1			Credit 1.3	Innovation in Design: Green Power (EAc6) 1
		1	Credit 1.4	Innovation in Design: Construction Waste Management (MRc2) 1
		1	Credit 1.5	Innovation in Design: Recycled Content/Regional Materials (MRc4, 5) 1
1			Credit 2	LEED Accredited Professional 1

2	1	1	Regional Priority Credits		Possible Points: 4
Y	?	N			
1			Credit 1.1	Regional Priority: SSC3	1
1			Credit 1.2	Regional Priority: SSC6.1	1
		1	Credit 1.3	Regional Priority: SSC7.1	1
		1	Credit 1.4	Regional Priority: SSC7.2	1

55	21	34	Total		Possible Points: 110
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Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

Figure 4.5
LEED Scorecard
AC Hotel South End
Boston, MA

Infrastructure

Introduction

This chapter describes the infrastructure systems that will support the Project. The following utilities are evaluated: wastewater, water, stormwater management, natural gas, electricity, and telecommunications.

The systems discussed below include those owned or managed by the Boston Water and Sewer Commission (BWSC), private utility companies, and on-site infrastructure systems. There will be close coordination among these entities and with the Project design team during the construction process for the Project. The Proponent held a pre-filing meeting with the BWSC on March 3, 2015 to discuss the overall intent of the Project and solicit any pertinent utility information with regards to the Project Site.

Key Findings and Benefits

The key impact assessment findings related to infrastructure systems include:

- Based on initial investigations, the existing City and private utilities' infrastructure systems are adequately sized to accept the demand associated with the operation of the Project.
- The existing Project Site is mostly impervious to rainfall infiltration and includes surface water sheet flowing to adjacent catch basins located off-site.
- The Project Site is currently serviced by the BWSC for domestic and fire protection water and sanitary sewage conveyance in Albany Street. Based on 314 CMR 7.15, the Project is projected to require a domestic water supply of approximately 24,200 gallons per day and is estimated to generate a total of 22,000 gallons per day of sanitary sewage (19,843 gallons per day net new).



The key Project-related mitigation and/or benefits associated with the infrastructure systems include:

- The Project includes a reduction in paved site areas, stormwater infiltration systems, and new vegetated areas all of which aim to promote the infiltration of stormwater runoff into the ground and evapotranspiration; thereby, reducing the rate and quantity of stormwater discharged to the drainage system and Boston Harbor.
- The quantity of stormwater runoff associated with the Project will be reduced for the two-year through 100-year storm events, which will have a positive impact due to the reduced load on BWSC's drainage system.
- The quality of stormwater runoff associated with the Project will be improved through the installation of infiltration systems.
- The Project is being designed with performance goals of 30 to 40 percent water efficiency and 20 percent energy efficiency (at minimum) in order to comply with Article 37 and the Stretch Energy Code as well as achieve a design equivalent to a LEED Silver certification.

Regulatory Context

All connections will be designed and constructed in accordance with applicable city, state and federal standards. The final design process for the Project will include required engineering analyses and will adhere to applicable protocols and design standards, ensuring that the proposed buildings are properly supported by, and in turn properly use the utility infrastructure of the City and private utilities. Detailed design of the Project-related utility systems will proceed in conjunction with the final design of the buildings and their interior mechanical systems.

All improvements and connections to BWSC infrastructure will be reviewed by BWSC as part of the BWSC Site Plan Review process. This process includes a comprehensive design review of the proposed service connections, assessment of system demands and capacity and establishment of service accounts.

The Project is located within the Groundwater Conservation Overlay District (GCOD) as defined in Article 32 of the Zoning Code. This zoning article sets forth requirements promoting the infiltration of runoff from impervious site areas within the district. To meet the requirements of this Article, projects within the district must infiltrate to the ground a volume equivalent to 1-inch over the site impervious areas.

- The Boston Fire Department will review the Project with respect to fire protection measures such as Siamese connections, hydrants, and standpipes.



- Design of the site access, hydrant locations, and energy systems (gas and electric) will also be coordinated with the respective system owners.
- Where new utility connections are needed and existing connections are to be capped, the excavation will be authorized by the Massachusetts Department of Transportation through the access permit process, as required.
- Additional information on the regulatory framework for each utility system is included in subsequent sections of this chapter.

Stormwater Management

Existing Drainage Conditions

The Project Site is almost entirely impervious in the existing condition. Runoff from the Project Site is captured by catch basins in Albany Street. These catch basins drain to a 60-inch drain, through a regulator, eventually discharging to the Fort Point Channel via CSO #068. Refer to Figure 5.1 for the location of the existing drain services. On-site infiltration is limited to small landscaped areas and there is no stormwater treatment infrastructure. Stormwater from the Project Site is expected to be that of typical dense, urban areas having high rates and volumes of runoff with significant pollutant loading of nutrients, gas, and oil from paved surfaces.

Proposed Drainage Conditions

The Project will be designed and constructed to greatly reduce the rate and volume of stormwater entering the Fort Point Channel via the BWSC system, while reducing the pollutant loadings. The drainage system will include deep sump, hooded catch basins, water quality BMPs, and subsurface infiltration chambers. The Project Site's infrastructure will be designed, at a minimum, to capture and convey the 10-year design storm, though stormwater flow off-site will be attenuated in rate and volume for all storms up to the 100-year design storm. As part of BWSC's review process, the Proponent will consider measures wherever applicable to minimize flows from the Project Site, by incorporating the required infiltration system capacity. Refer to Figure 5.2 for the proposed storm drain system.

Compliance with Boston Zoning Code Article 32: Groundwater Conservation Overlay District

The Project Site is located within the Groundwater Conservation Overlay District (GCOD) as defined in Article 32 of the Zoning Code. All new projects within this



overlay district are required by the zoning article to infiltrate the volume equivalent to one-inch of the proposed impervious area to groundwater. The Project Site area is equal to approximately 30,100 square feet. As the majority of the Project Site will be impervious surface areas, the proposed infiltration system will be sized to infiltrate 2,509+/- cubic feet of stormwater to be compliant with the requirements of GCOD and the BWSC.

Sanitary Sewage

Existing Sewer System

The Project Site is currently serviced by a 30-inch by 36-inch combined sanitary sewer pipe in Albany Street which was relined in 2010. Table 5-1 below details the existing estimated sanitary sewer generation from the existing F.W. Webb building, which is currently being used as a construction office, and the adjacent taxi dispatch building. Sewer generation for office use is based on the generation rate of 75 gallons per day per one thousand square feet of building.

Proposed Sewage Flow and Connection

The building plumbing has not been designed at this point in the Project, but the design team will reuse existing facilities to the greatest extent practicable. The proposed building program consists of 200-room hotel. The hotel will have a limited kitchen, which will service the dining/breakfast area, the bar, and the lounge. A grease trap will be included in the design and will be designed as part of the plumbing design process. Internal parking facilities will require a gas/oil separator before discharge. As discussed with BWSC, credit will be taken for the sewage generation of the previous buildings on-site. As detailed in Table 5-1 below, the net new increase in sewage flow as a result of the Project is estimated at 19,843 gallons per day over the existing on-site uses.



Table 5-1 Existing and Future Sewer Generation

Program Type	Units	Generation Rate	Sewer Generation (GPD)
Existing			
Office (Webb)	25,000 SF	75 GPD/KSF	1,875
Office (Taxi)	3,750 SF	75 GPD/KSF	282
Total			2,157
Proposed			
Hotel	200 Bedrooms	110 GPD/Bedroom	22,000
Total			22,000
Net New			19,843

Note: Based on DEP 314 CMR 7.15 flow calculation factors.

Proposed Sanitary Sewer Mitigation

The BWSC requires fiscal reparations for the cost of abatement of Infiltration and Inflow (I/I) caused by the additional sewer flow generated by the Project. The current fee rate for net new I/I is \$2.42 per gallon per day multiplied by a ratio of 4:1. Therefore, the estimated I/I mitigation fee is estimated to be \$192,080 based on the latest sewage generation and fee rates.

Domestic Water and Fire Protection

Existing Water Supply System

Domestic and fire protection services are currently provided to the Project Site by BWSC. Albany Street has two water mains, a 12-inch southern low (commonly known as low service) and a 12-inch southern high (commonly known as high service). Both service were constructed in 1997. BWSC Service maps do not indicate direct connections to either main by the two existing buildings on-site, but they do show a number of stubbed services to the Project Site. It is thought that both buildings on-site are serviced from the mains in Albany Street. These existing services will be re-used if possible or cut and capped at the main. There is an existing fire hydrant on Albany Street approximately 140 feet north of the proposed building corner.

Proposed Water Demand and Connection

The Proponent held a pre-filing meeting with the BWSC to discuss the Project. At the BWSC's recommendation, the Project will be serviced by a single domestic connection



to the 12-inch southern low and a single fire protection connection to the 12" south high, both in Albany Street. Although the plumbing design has not begun at the time of filing, the Proponent is confident that the services will have sufficient supply and pressure to provide for the building.

Compliance with the standards for the water system service connections will be reviewed as part of BWSC's Site Plan Review process. The review includes, but is not limited to, sizing of domestic water and fire protection services, calculation of meter sizing, backflow prevention design, and location of hydrants and Siamese connections conform to BWSC and Boston Fire Department requirements.

The Project's domestic water demand is based on the estimated sewage generation as previously determined to be 22,000 gallons per day. Of the 22,000 gallons per day of total sewage flow, the estimated potable water demand is estimated to be 24,200 gallons per day based on an added factor of 10 percent for consumption, system losses, and other use.

Proposed Water Conservation Measures

Consistent with the sustainable design and operations goals for the Project, the Proponent will install low-flow and low-consumption plumbing fixtures to achieve water usage and, consequently, sanitary flow reductions. A water reduction of a minimum of 20 percent over the baseline is a requirement of Article 37 of the Boston Zoning Code, which requires new buildings to be LEED "certifiable." The Proponent is also committed to avoiding the use of irrigation for any plantings by using local and/or drought resistant plantings and evaluating the use of rainwater for HVAC make-up water.

Other Utilities

Natural Gas Service

National Grid has a high pressure gas main in Albany Street adjacent to the Project Site. Although the mechanical systems have not begun design at the time of filing, it is anticipated that the Project's HVAC systems will be via a water source heat pump system. The building will be heated by gas fired hot water boilers, and domestic hot water will be produced by a central gas fired system. Peak gas demand has not been estimated at this time, but given that the program is entirely hotel space, kitchen demands will be zero making the building low use relative to comparably sized building. The proponent will work with National Grid to confirm adequate system capacity as design progresses.



Electrical Service

Eversource Energy (d/b/a NSTAR Electric) provides electric services in the Project area with a large ductbank in Albany Street and existing switch gear installed near the southeast corner of the Project Site. The Proponent will coordinate the design and capacity with Eversource. It is anticipated that a 2,000 AMP @ 277/480 VOLT transformer is required to power the Project.

Telephone and Telecommunications

There are several telecommunications providers in the area including Verizon, Comcast, and RCN-BecoCom. The Proponent will work with service providers to confirm there is sufficient capacity in the area to provide services, and will select providers for telephone, cable, and data services as the design progresses. Upon selection of providers, the Proponent will coordinate service connections and obtain the appropriate approvals.

Protection of Utilities During Construction

Existing public and private utility infrastructure will be protected during the duration of the Project, with the exception of utilities capped on-site for future use. The installation of proposed utilities within the public way will be in accordance with all regulatory bodies, including MassDOT, BWSC, BPWD, the Dig-Safe Program and governing utility company requirements. All appropriate permits will be acquired before construction commences. Specific methods of constructing proposed utilities where they are adjacent to, or connect with, existing water, sewer, or drain infrastructure will be reviewed by the BWSC as part of its Site Plan Review process.

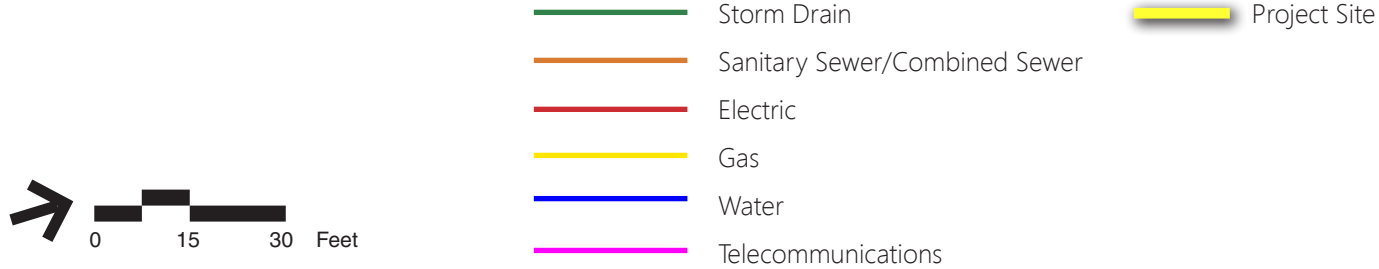
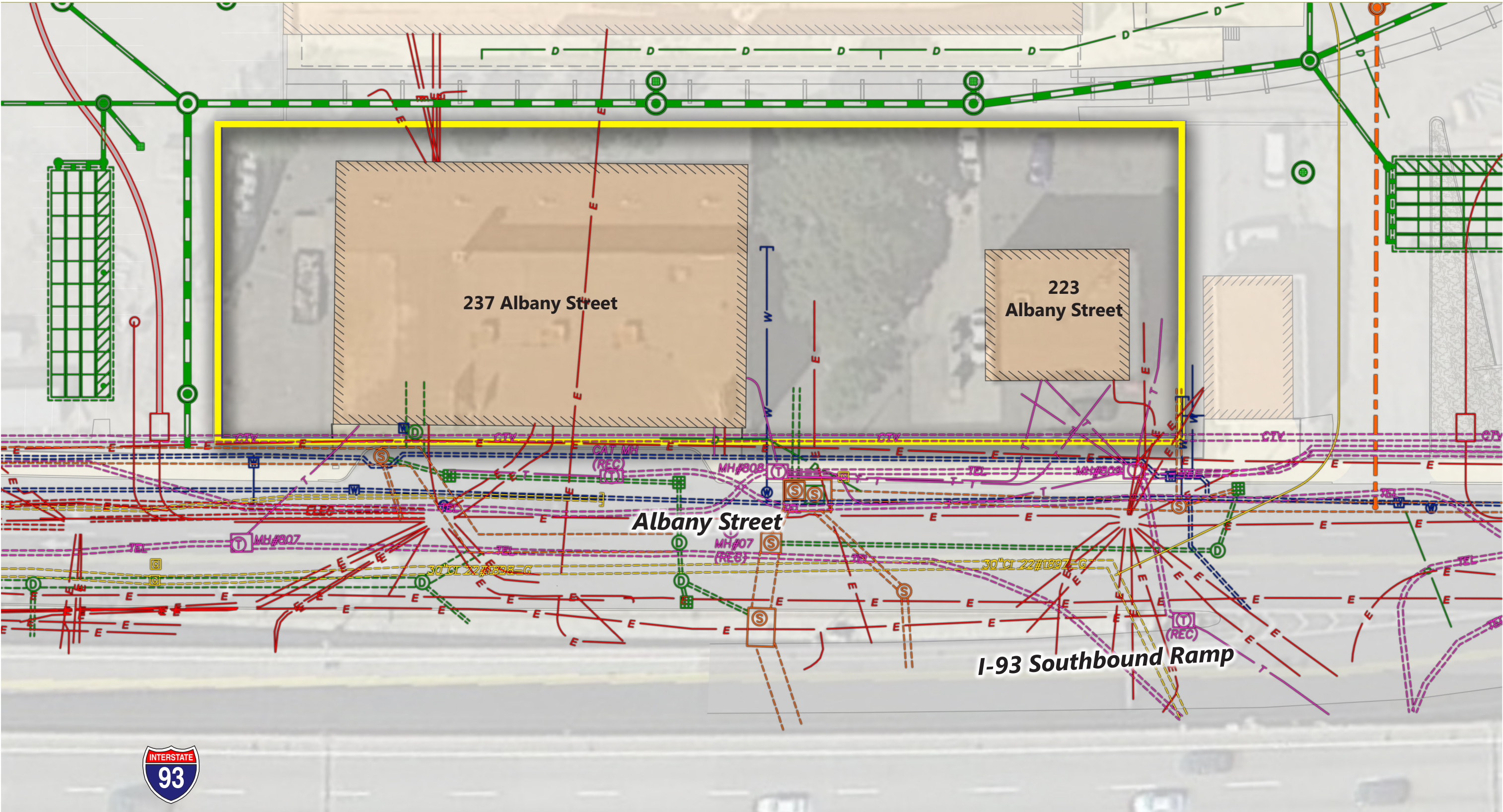
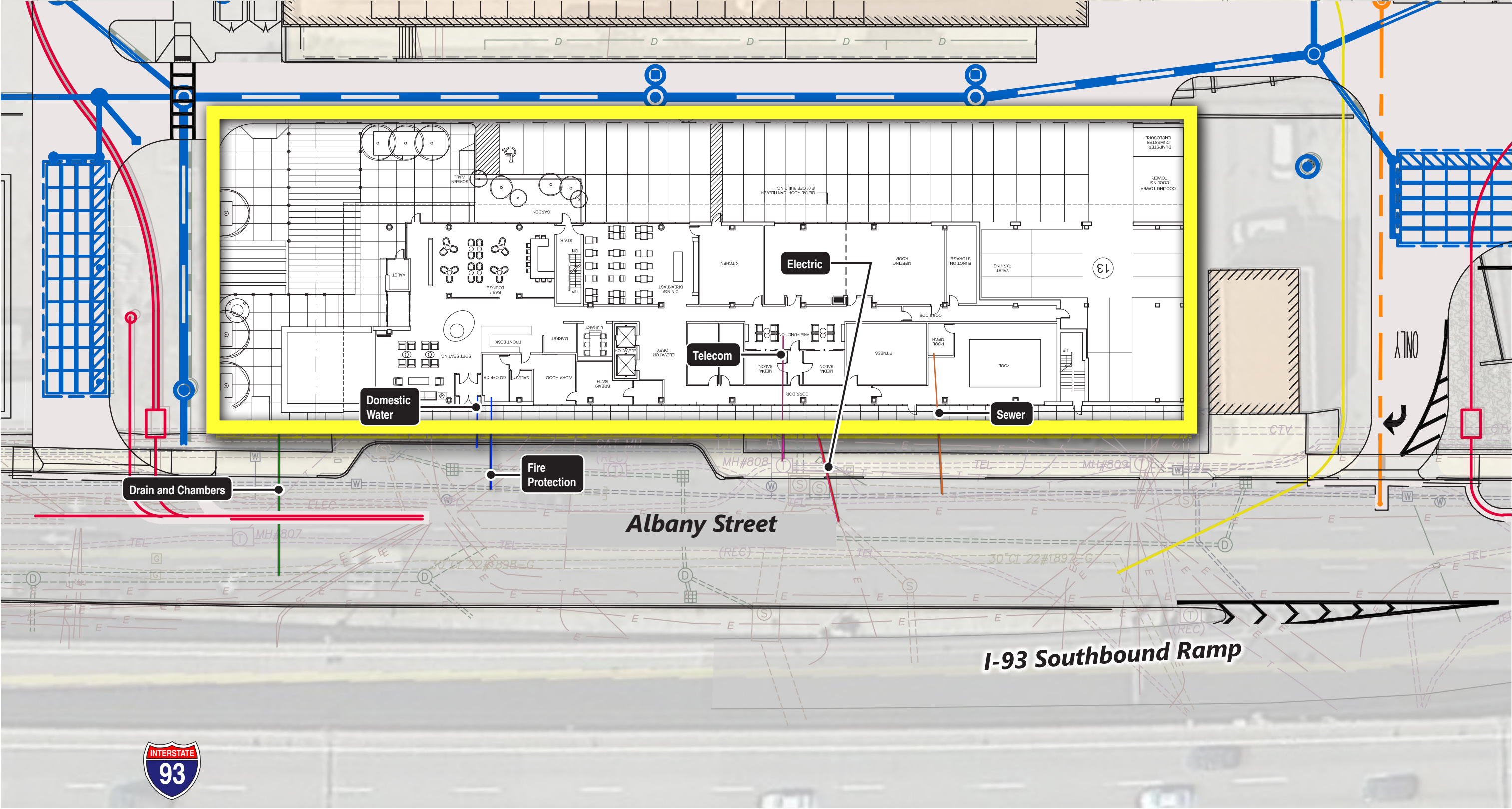


Figure 5.1
Existing Utilities

AC Hotel South End
Boston, MA



- Proposed Storm Drain
- Proposed Sanitary Sewer
- Proposed Electric
- Proposed Water
- Proposed Telecommunications
- Project Site



Figure 5.2
Proposed Utilities

AC Hotel South End
Boston, MA

Historic Resources

Introduction

This chapter identifies properties that are either in the Inventory of Historic and Archaeological Assets of the Commonwealth or listed in the National or State Registers of Historic Places that are within the Project Site or are within close proximity. This chapter also describes any effects to these properties and proposed mitigation, if required, and Project-related benefits.

A search of the Massachusetts Historical Commission's (MHC) Massachusetts Cultural Resource Information System (MACRIS) database and mapping tool was completed to identify previously recorded above-ground and archaeological resources located on or within a one-quarter mile radius of the Project Site. Figure 6.1 shows the location and proximity of these properties to the Project Site.

This section also addresses the question whether the existing on-site buildings, including the Independent Taxi Operators' Association Building at 223 Albany Street and the F.W. Webb Building at 237 Albany Street, are architecturally or historically significant. The Project Site is located within the South End Landmark Protection area, and the South End Landmark Commission is required to review the significance of the buildings in light of their proposed demolition.

Key Findings and Benefits

The key findings and benefits related to historic and cultural resources include:

- The Project Site contains two buildings that predate the urban renewal activities in the "New York Streets" area. From the mid-19th century to the 1950s the area around the Project Site consisted of a series of short, narrow streets and alleyways with residential tenement buildings known as the New York Streets. In the late



1950s, this area was nearly completely redeveloped by the City of Boston for light industrial and manufacturing.

- There are numerous properties that are in the Inventory of Historic and Archaeological Assets of the Commonwealth and the State Register of Historic Places within one-quarter mile of the Project Site, including the South End Landmark District (District) and the South End Landmark District Protection Area (in which the Project Site is located).
- The Project Site is located at the extreme northeast corner of the South End Landmark District Protection Area, two blocks from the closest boundary edge of the South End Landmark District.
- The c. 1865 F.W. Webb Building (BOS.12482, BOS.RK, BOS.AH, BOS.AD) has been heavily altered, including the 1940s removal of the top two stories, and later additions and window replacements. The 1941-1942 Independent Taxi Operators' Association Building (BOS. 16581, BOS.RK, BOS.AH, BOS.AD) just predates the urban renewal of this area, and has been altered with replacement windows and doors.
- The demolition of the c. 1865 F.W. Webb Building and the 1941-1942 Independent Taxi Operators' Association Building will not result in an adverse impact on these buildings as they are not considered to be significant historic resources.
- The Project would not impact the District as it meets the goals of the South End Landmark District Protection Area due to its compatible height, massing, and setback, and complementary design to recent redevelopment.
- The Project will have a beneficial impact on the immediate and surrounding area from both an aesthetic and functional standpoint.
- The Project will continue to transform the northeast quadrant of the South End from an industrial area into a vibrant mixed use urban community consistent with the planning goals of the BRA Harrison-Albany Corridor Strategic Plan.
- The Project will encourage pedestrian activity between Downtown, South Boston, and Chinatown.

Historic Context

The Project Site is in an area that was almost completely redeveloped for a light industrial and manufacturing area in the late 1950s as part of the City's urban renewal activities in the South End. The area previously consisted of a series of short, narrow streets and alleyways known as the "New York Streets." These streets, which were named after New York cities and towns, were populated with densely clustered brick tenement residential buildings prior to the urban redevelopment activities. Several of the streets were anchored by larger commercial, manufacturing, and storage



buildings along the major roads, including the c.1865 F.W. Webb Building (BOS.12482) and the early 1940s Independent Taxi Operators' Association Building (BOS.16581).

As early as 1943, architect Marcel Breuer created a redevelopment plan for the area, consisting of several large-scale apartment buildings encircling schools, parking, retail blocks, and open space in the center (<http://breuer.syr.edu>). Planning began in earnest in 1952 to use the area for large manufacturing parcels capable of creating tax revenue. Some of the buildings in the New York Streets were considered compatible with the new industrial zoning of the renewal area and were retained during the urban renewal process. These brick buildings, industrial in nature, complemented the new uses planned for the area. The existing buildings on the Project Site are two such examples; other examples of buildings retained after urban renewal of the area can be found on the perimeter of the former New York Streets area. These include the ten-story c. 1900 building at 1000 Washington Street, which has been recently renovated; the Medieval Manor at 240 East Berkley Street (c. 1890; BOS.1466, BOS.RK, BOS.AH); and 1110-1130 Washington Street (1916; BOS.13096, BOS.SE). Refer to Figures 6.2 and Figures 6.3a through 6.3n for site photographs of the existing buildings and the adjacent area.

Historic Resources

There are numerous properties that are in the Inventory of Historic and Archaeological Assets of the Commonwealth and the State Register of Historic Places within one-quarter mile of the Project Site. The South End Landmark District is a Local Historic District (LHD); a corresponding National Register District, the South End Historic District (NR #73000324, BOS.AB), has a slightly smaller footprint and is located just outside of the one-quarter mile study radius. The Project Site is located within the boundaries of the South End Landmark District Protection Area of the Landmark District (the "Protection Area"). Additionally, seven inventoried areas, encompassing a total of 49 individually inventoried properties, are within a one-quarter mile radius of the Project Site. Twenty inventoried properties, which are not located within any area or district, are within a one-quarter mile radius of the Project Site. Figure 6.1 shows and Table 6-1 lists the MHC inventoried and listed historic resources within one-quarter mile of the Project Site. Please note that individually inventoried properties within an inventoried area or listed district are not noted on the figure or table.



Table 6-1 Massachusetts Historical Commission Inventoried and Listed Resources

Property Name	Address	MHC Inventory No.	Listed in State Register
South End Landmark District (Local Historic District)	N/A	BOS.AC	Y
South End Landmark Protection Area	N/A	BOS.AD	N
South End Industrial Survey Area	N/A	BOS.RK	N
Washington-Dover Street Area	N/A	BOS.SE	N
South End Industrial District	N/A	BOS.AH	N
89-103 Hudson Street	89-103 Hudson Street	BOS.BH	N
1-9 Johnny Court	1-9 Johnny Court	BOS.ABG	N
94-106 Tyler Street	94-106 Tyler Street	BOS.BI	N
Tufts N.E. Medical Center Posner Hall	200 Harrison Avenue	BOS.12790	N
Row Houses	211-219 Harrison Avenue	BOS.12794-12798	N
Row Houses	223-239 Harrison Avenue	BOS.12799-12803	N
Row Houses	29-39 Oak Street	BOS.12818-12823	N
Joseph P. Cohen Tenement House	16 Pine Street	BOS.12826	N
Row Houses	18-20 Pine Street	BOS.12827-12828	N

Note: Properties listed are within one-quarter mile of the Project Site. Refer to Figure 6.1 for the location of these resources. Inventoried resources noted as “demolished” in MACRIS have not been included.

Previously inventoried and listed properties located within a one-quarter mile radius of the Project Site are discussed here in three sections. There is much overlap in the boundaries of areas and districts, and many individual buildings are included within one or more of these same areas and districts. The first section describes the districts, areas and properties located within the Protection Area, in which the Project Site is located, and the South End Landmark District (BOS.AC), which is the LHD. The second section describes areas and properties located within the Chinatown neighborhood of Boston, north of the I-90 turnpike corridor.

South End Landmark District

The South End Landmark District (BOS.AC) is a Local Historic District (LHD) established on November 14, 1983, and overseen by the South End Landmark District Commission. Its boundaries are nearly identical to, but are slightly larger than that of, the National Register-listed South End Historic District, the boundaries of which lay



just outside of the one-quarter mile study area radius. The major area of deviation between the LHD and the National Register district is on the east boundary; the LHD includes a large area between Pembroke Street, Tremont Street, and West Dedham Street, as well as a number of small areas included near the perimeter of the South End Landmark District, some of which are located within the Project's ¼-mile study area radius.

Both the South End Industrial Survey Area (BOS.RK) and Washington-Dover Streets Area (BOS.SE), discussed below, partially overlap the South End Landmark District, as well as the Protection Area (BOS.AD), which is also discussed further below.

South End Landmark Protection Area

The South End Landmark Protection Area (BOS.AD, referred to as the "Protection Area" in this discussion) was established November 14, 1983 at the same time as the South End Landmark District, and reviews for proposed changes similarly fall under the South End Landmark District Commission's purview. There is no corresponding form on file with the MHC. The c. 1865 F.W. Webb Building (237-241 Albany Street) and the 1941-1942 Independent Tax Operators' Association Building (223 Albany Street), which are proposed for demolition as part of the Project, are within the Protection Area. This area is in the Inventory of Historic and Archaeological Assets of the Commonwealth, but is not listed in the State Register of Historic Places.

The Protection Area is adjacent to the east of the South End Historic District, extending east to Albany and Frontage Roads, north to the Massachusetts Turnpike, and south to Massachusetts Avenue and Northampton Street. The area contains 16 inventoried properties located within a ¼-mile radius of the Project Site, most of which are discussed below in South End Industrial Survey Area (BOS.RK). However, there is one property, the 1870s Holy Trinity (German) Church (BOS.15228), which is located within the Protection Area and within ¼-mile of the Project Site, but is not included in BOS.RK.

Within the Protection Area, there are two smaller areas that are wholly contained by or substantially overlap a portion of both the South End Industrial Survey Area (BOS.RK) and the Washington-Dover Streets Area (BOS.SE), as shown in Figure 6.1.

South End Industrial Survey Area (BOS.RK)

The South End Industrial Survey Area (BOS.RK) is an 83-acre area located south of the Massachusetts Turnpike and east of Albany Street, which forms much of the northern half of the Protection Area (Figure 6.1). A small portion of this area also overlaps the South End Landmark District on the south and west sides. The South End Industrial Survey Area is comprised primarily of industrial and commercial



structures dated ca. 1880-1915, described as mostly multi-story, rectangular buildings with regular fenestration, flat roofs, and masonry cladding. A former power station is also included. Used as machine shops and warehouses, the buildings often contain a first-story commercial component, indicated by heavy granite and iron piers with large glazed areas facing the street. Historically, the major industry was furniture making, especially pianos, accompanied by shoemaking, woodworking, and stonecutting businesses.

In March 1990, the MHC issued an opinion that a portion of the South End Industrial Survey Area was eligible for the National Register as a district, in a concurrence statement with FHWA findings as part of the Central Artery-Tunnel project. This portion is roughly bounded by East Berkeley Street, Albany Street, Paul Sullivan Way, and Harrison Avenue. The boundaries of this eligible district do not include the Project Site.

Washington-Dover Streets Area (BOS.SE)

The Washington-Dover Streets Area (BOS.SE) is located east of the intersection of East Berkeley Street and Washington Street, and overlaps both the Protection Area and the South End Landmark District. The mostly contiguous cluster of masonry buildings at the north boundary of the South End Landmark District represent commercial, residential, and light industrial uses. Constructed ca. 1840-1910, these buildings display a number of different styles, including Greek Revival, Romanesque Revival, Renaissance Revival, and Panel Brick. Several of the buildings have industrial characteristics such as a flat roof, regular fenestration, and rectangular massing; however, a bow front house and a portion of a 19th century hotel still remained when the area was documented.

South End Industrial District (BOS.AH)

The South End Industrial District (BOS.AH) has no form on file at MHC so its precise boundaries are unknown. There are 12 inventoried properties located in the area within a one-quarter mile radius of the Project Site. Because the same 12 properties are also located in the Protection Area and the South End Industrial Survey Area, it can be assumed that the district roughly overlaps with these areas.

Properties in Chinatown

The Chinatown neighborhood includes a number of inventoried areas and properties located within a one-quarter mile radius of the Project Site; however, these resources are separated from the Project Site by the Massachusetts Turnpike, I-90, which runs east/west just north of the Project Site.



**Area BOS.BH, 89-103 Hudson
Street (BOS.2205-2212)**

This set of Greek Revival row houses on Hudson Street in Chinatown date to the 1840s, as part of the South Cove Development's plan for a terminal and railyards for the Boston and Worcester Railroad. Although missing three of the original units, the remaining brick examples of three-story side hall houses form an intact streetscape typical of the mid-19th century in this area. Greek Revival elements such as granite basements and brownstone window trim are still extant, though dormers have been removed and the units have been remodeled with added fourth stories. All eight structures comprising the area are located within one-quarter mile of the Project Site. The MHC issued an opinion that the row houses were eligible for the National Register as part of a possible Chinatown District (MHC eligibility opinion concurrence with FHWA findings, March 1990 as part of the Central Artery-Tunnel project) on April 18, 1990.

**Area BOS.BI, 94-106 Tyler Street
(BOS.2230-2236)**

A set of row houses on Tyler Street in Chinatown, these brick examples are adjacent on the west side to the row houses within Area BOS.BH and were also part of the South Cove Development associated with the Boston and Worcester Railroad. They were constructed 1841-1847, and share similar characteristics with BOS.BH, constructed as three stories tall with side hall plans and recessed entries. Four of the units were removed from the north end in the 1920s. Extant features include stone lintels, gable end chimneys, and dormer windows. Major 20th century alterations include the addition of Mansard and monitor roofs to some of the units, as well as basement stores. The MHC issued an opinion that the houses included in BOS.BI were eligible for the National Register as part of a possible Chinatown District (MHC eligibility opinion concurrence with FHWA findings in conjunction with the Central Artery-Tunnel project, March 1990) on April 18, 1990.

**Area BOS.ABG, 1-9 Johnny Court
(BOS.12804-12812)**

This well-preserved set of three-story brick row houses constructed in 1837-1838 for developer John Wells consists of two double houses and a single side hall residence, all with recessed entries. Federal style details such as gable dormers and a dentillated cornice are still extant, as well as a rear yard formed with a block of row house units on Oak Street which characterized many of the original residential row house blocks in the neighborhood. (Note: all buildings recorded together on a single form.)



**Tufts New England Medical Center
– Posner Hall, 200 Harrison
Avenue (BOS.12790)**

This is a four-story dormitory designed 1953-1954 for the Tufts University Medical School by the firm of McKim, Mead and White Associates, located in Chinatown. It was designed in the International Style with banded casement windows, the concrete building features an entry foyer with plywood paneling and aluminum letters spelling “POSNER HALL”, and a garden patio and recreation room for use of the students.

**Row Houses, 211-219 Harrison
Avenue (BOS.12794-12798)**

A set of sidehall brick Row Houses constructed in 1836-1837 for developer John Wells, with Federal style features such as gable dormers and dentillated eaves and Greek Revival projecting stone steps. Though originally three stories tall, some of the units have been remodeled to four stories during the late 20th century. Similar extant rows on adjoining Johnny Court and Oak Street create a partially enclosed rear yard in the center of the block, a common feature of the early layout of residential blocks in the area. (Note: all buildings recorded together on a single form.)

**Row Houses, 223-239 Harrison
Avenue (BOS.12799-12803)**

Another set of three-story brick row house units constructed for John Wells, these houses exhibit a few original Federal and Greek Revival style features such as brownstone lintels, a dentillated cornice, and projecting stone stairs. However, the row has been subjected to many alterations, including the addition of a fourth story and projecting bay window onto 223 Harrison Avenue, replacement of the unit at 231 Harrison Avenue with a concrete factory loft in 1915, and remodeling some of the units into storefronts, including 225 and 227 Harrison Avenue ca. 1880 and 239 Harrison Avenue in 1992. (Note: all buildings recorded together on a single form.)

**Row Houses, 29-39 Oak Street,
(BOS.12818-12823)**

This relatively well-preserved set of brick row houses is one of several constructed in the early 19th century for developer John Wells. Apparently constructed in three phases by different builders, these three-story units have Federal style details such as stone lintels, dentillated cornice, and an extant external paired chimney. Three of the units, however, have been remodeled to a full three stories – 33 Oak Street in 1867 with an Italianate cornice, and 31 and 35 Oak Street in the late 20th century. The



building at 39 Oak Street was originally a one-story rear ell for a building on Harrison Street, and was converted into a commercial building in 1922. (Note: all buildings recorded together on a single form.)

**Joseph P. Cohen Tenement House,
16 Pine Street (BOS.12826)**

This Classical style four-story tenement house was constructed in 1898. The building features yellow brick, and an arched inset entry topped by granite lintels. The building replaced an earlier brick row house, similar to those at 18-20 Pine Street (BOS.12827-12828). All three buildings were recorded together on a single inventory form.

**Row Houses, 18-20 Pine Street
(BOS.12827-12828)**

These houses were some of the last to be developed by John Wells in the South Cove area, dating from 1845. This block originally had three sidehall three-story brick units, with Greek Revival details including corbelled cornices and wood gable dormers. In 1898, the west unit at 16 Pine Street (BOS.12826) was rebuilt as a four-story tenement house – all three buildings are recorded together on the same inventory form.

An additional inventoried area in Chinatown, 1-17 Nassau Street (BOS.ABH), is partially included in the one-quarter mile area radius geographically; however the inventoried building that overlapped the area radius has since been demolished. Therefore, this area was not included in this discussion.

On-site Resources

There are two existing buildings located on the Project Site: the c. 1865 F.W. Webb Building at 237-241 Albany Street (BOS.12482, located within areas BOS.RK, BOS.AH, BOS.AD), and the 1941-1942 Independent Taxi Operators' Association Building at 223 Albany Street (BOS. 16581, located within areas BOS.RK, BOS.AH, BOS.AD). Figure 6.2 presents photographs of the existing on-site buildings.

F.W. Webb Building, 237-241 Albany Street (BOS.12482)

The c. 1865 F.W. Webb Building, was originally inventoried as part of the South End Industrial Survey Area (BOS.RK), and an individual inventory form was completed



for the building in 2013.¹ The building is also part of the South End Industrial District (BOS.AH), and is located within the Protection Area (BOS.AD).

Building Description

The F.W. Webb Building was historically the end cap to a block of tenement homes in the New York Streets area that was demolished for an urban renewal project in 1955. The building faces east across Albany Street to the on-ramps for I-93. As the area around the structure changed its configuration, the building did as well. Historic maps show a third and fourth story that were removed around 1945. One-story additions were constructed on the west and south elevations during the late 20th century.

The building is currently made up of a two-story main brick section with a one-story concrete block addition on the south elevation (also visible from the east façade) and a steel and aluminum addition on the west elevation. A small shed-roofed aluminum storage area has been attached to the addition on the west elevation. Two large billboard structures extend up from the roof on both the northeast and southeast corner with signage also covering sections of the north and south elevations.

The main section is common running bond patterned brick on a seven-course layout with three row arched headers on each of the window and door openings. There are two pedestrian door entrances, one on the east façade and one on the north elevation, fitted with modern replacement doors with transom and sidelight glass panes. The window openings vary in size and layout. Windows are modern replacements consisting of mismatched double-hung 1/1 aluminum sash and aluminum fixed sash, and several openings are completely infilled with brick. The roof is flat and rubber-covered with a deeply overhung metal drip cap that is visibly seamed together to appear as if it were a cornice molding. There are three large air handling units centrally piercing the roof and a chimney stack at the southeast corner.

The addition can be seen from the north and south elevations, and east façade. Set on a modern poured concrete foundation, the east façade and south elevation have commercial truck unloading bays with traditional steel doors. An additional steel garage door is seen on the ground level of the north elevation. The addition has a flat roof. Additionally, there is a raised attached loading dock in front of two of the bays on the southern elevation.

The interior of the building has been heavily remodeled to suit the last commercial use. Upon access to the building, a stairwell with modern prefabricated steel staircase gives service to the first and second floor, and depending on the level, the original portion of the structure is left uncovered. The open planned first floor has a buffed



¹ The building is also referred to as the Brahman & Dow Pipe and Valve Building, after one of its previous owners.



concrete floor and a series of structural sheetrock covered columns rising floor to ceiling evenly spaced in a grid pattern. The walls are covered in sheetrock and a drop ceiling covers modern mechanicals and structure. Commercial bi-swing doors lead from the main structure to the southern elevation addition where the structure and mechanicals are left entirely uncovered. The second floor has sheetrocked partition walls to distinguish individual rooms with large expanses left open around the perimeter. Structural wooden columns, roof joists, mechanical systems and exterior brick walls are left uncovered.

Building History

The F.W. Webb Building has been used by manufacturing and industrial businesses since the late 19th century. The building is first shown on the 1867 Sanborn map as having three stories containing “Tanner, Currier and Leather Rolling,” and one of the few non-residential buildings in the New York Streets area. Despite its early appearance on the Sanborn map, city directories contain no listings for Albany Street under curriers, tanners, blacking, or the various leather manufacturing listings until the 1880s. On the 1883 and 1888 Bromley Atlas maps, the building is shown as being owned by Mr. Dyer and Edward Dana, and the address had been updated from 192 Albany (shown on the 1867 Sanborn map) to 237-241 Albany Street.² A Sanborn map and city directory from the same time period, in 1885, show that currier John R. Furbush operated his business in the building. By 1890, the city directory shows that Whittemore Bros. and Co. moved into the building, owned by Charles and J.Q.A. Whittemore, where they remained for two decades. The 1895 Sanborn map provides more detail about the business, identifying it as a shoe dressing and ink factory, with shipping located on the first floor, bottling on the second floor, and an ink factory on the third floor.³ After the purchase of the Cambridge factory, Whittemore Bros. moved to a new facility in Cambridge in 1902 and city directories do not list the company on Albany Street after that date; however, Bromley Atlas maps continue to show that the building was owned by the Whittemore brothers and their company until ca. 1917. The only exception is on the 1909 Sanborn map, which shows the F.W. Webb Building being utilized as a storehouse by the Carter Ink Company; this is not reflected in the 1909 or 1910 city directories.

By the 1920s, newspapers show that the F. W. Webb building was operating as a shoe factory, utilized by the Wisdom Shoe Company and the East Boston Shoe Company (*Boston Globe*, help wanted advertisements, 9/21/1920, 7/20/1921, 4/13/1922, 10/16/1922). During the 1930s, city directories show that several businesses operated in the building at the same time. These included a variety of manufacturing and



² Several of the late 19th and early 20th century maps show a variety of addresses for the building between 237 and 243. It is usually shown with a range of multiple addresses, such as 239-241 Albany Street or 237-243 Albany Street.

³ The 1895 Sanborn map also notes storage space on the fourth story, and the 1909 Sanborn map continues to show four stories. However, atlas maps show the building as three stories until the 1920s.



supply enterprises, including the Alden T. Cleveland Manufacturing Company (shoe polish); the Frozen Pop Chocolate Company; Hatters Hat Box Company; M.M. Hirshberg Company (lamp shades); the Boston Radiation Enclosure Company; and State Sheet Metal Works. The Atlantic Pipe and Supply Company, Inc. joined the other businesses at 237 Albany Street by 1936, and owned and operated in the building into the 1980s. City directories from the 1930s show that Albany Street had a number of manufacturing businesses, as well as some automobile service stations. By 1945, Atlantic Pipe and Supply Company was the only business listed in the building, and the 1951 Sanborn map shows that the formerly four-story structure had been reduced to only two stories, as it remains today. The F.W. Webb Building continued to be used for manufacturing, retail, and offices into the 21st century.

Independent Taxi Operators' Association Building, 223 Albany Street (BOS. 16581)

The 1941-1942 Independent Taxi Operators' Association Building was inventoried in 2013. It is also part of the South End Industrial Survey Area (BOS.RK), the South End Industrial District (BOS.AH), and is located within the Protection Area (BOS.AD).

Building Description

Similar to the F.W. Webb Building, the Independent Taxi Operators' Association Building was built at the end of a long row of tenement housing that once characterized the New York Streets area. It also faces east across Albany Street, toward the I-93 on-ramps.

This rectangular, two-story brick building is six bays wide on the east façade, basically three bays wide on each of the side elevations. The rear elevation is mostly blind, with a small number of single window openings. The building has a flat parapet roof, with a centered round-arched brick pediment on the front and raised brick sections on each of the building's corners. The first story of the façade contains both a garage door opening and two entry doors; the north side contains a second garage door opening, while both the north and south sides contain a centered entry door. Large single window openings are located on the first story, while paired windows are located on all elevations, except the rear (west side). Most of the window sash has been replaced with 1/1 vinyl or aluminum sash, although there is what appears to be original multi-pane metal sash in a large window on the south side and on the rear. Window and door openings are trimmed with soldier course lintels, while above the second story windows on the front and sides is a narrow line of black-and-white tile. A metal fire escape is located on the north side. On the south side of the building are two gas pumps on a raised concrete median. The interior was not accessed.



Building History

The Independent Taxi Operators' Association Building was constructed in 1941-1942 in order to house the organization's offices and a service station. Prior to the construction of 223 Albany Street, the property held three buildings that fronted on Oneida Street (40-44 Oneida Street), including a three-story bakery on the corner and two connected tenements. These buildings were removed ca. 1940, and the current building at 223 Albany Street was constructed immediately after their demolition. In 1942, the Independent Taxi Operators Association is listed at 223 Albany Street, having moved from its location on nearby Troy Street (now Traveler Street). The organization was founded in 1924, providing organization, dispatch, and support for otherwise unaffiliated taxicab drivers in the city. Since its construction, the building has remained home to the Independent Taxi Operators' Association and served as one of its offices until recently. When the building was constructed, the area was beginning to evolve in advance of the future urban renewal project. The 1938 Bromley Atlas map shows that many of the brick tenements were being purchased in small groups and taken down, and the 1951 Sanborn shows a number of vacant lots in the New York Streets area.

The 1951 Sanborn map shows the new headquarters of the organization, a two-story steel frame structure with an office on the top floor. The first floor has a service and filling station, presumably for use by organizational members, and two tanks are shown between the building and Albany Street. A ca. 1955 photograph of the area shows three above-ground pumps on a concrete island in front of the building. The above-ground pumps were removed at an unknown date; a 1974 classified advertisement seeking a gas station attendant for the building indicates that the pumps were still in place at the time (*Boston Globe*, Help Wanted advertisements, 4/27/1974).

Evaluation of Significance of On-site Buildings

The F.W. Webb Building at 237-241 Albany Street and the Independent Taxi Operators' Association Building at 223 Albany Street are not considered significant due to their modest design and degree of alteration. Following the submission of the individual inventory forms for the buildings, the MHC issued informal opinions that the buildings are not eligible for the National or State Registers. Refer to Appendix F of this PNF for MHC correspondence.

F.W. Webb Building, 237-241 Albany Street

The c. 1865 F.W Webb Building was built during the first few decades of the New York Streets area, and its three (later four) stories were a prominent feature in a

landscape dominated primarily by narrow, two- and three-story attached tenement houses. Although its rectangular form, brick construction, and arched windows were fairly common for industrial construction during the late 19th century, such buildings were much more commonly found south of the New York Streets area, beginning at what is now East Berkeley Street. When the New York Streets area was cleared for redevelopment in the 1950s, the F.W. Webb Building was retained for the new development, as its size and use were compatible with the larger-scale industrial zoning implemented for the area. However, 20th century renovations have drastically altered the building, severely diminishing the building's integrity and ability to convey the time period of the New York Streets.

The most drastic change to the building occurred shortly before the urban renewal of the area, and a 1951 Sanborn map shows that the formerly four-story building had been reduced to two stories. No explanation of this renovation was located during the research of this property, nor were any photographs found depicting the building prior to the removal of the upper floors. It is unknown how much of the original detail was lost. In the 1990s, a major renovation to the building added a wide, one-story addition to the west elevation; along with another large one-story addition to the south elevation (construction date unknown), these additions obscure much of the original first story. The modern vinyl window replacement and several infilled window and door openings also date to the late 20th century, and may have been part of the 1990s renovation. Late 20th century renovations also gutted the inside of the building as its former manufacturing use evolved into a retail showroom on the first story and offices on the second story. As such, very little of the physical integrity of the building remains. In addition, the more prominent companies that historically owned and/or occupied the building, such as Whittemore Bros. and Co., Carters' Ink, and the East Boston Shoe Company, were better known for larger facilities in Cambridge and East Boston. By the time the urban renewal project was underway in the mid-20th century, the appearance of the F.W. Webb Building, its setting, and its usage were very different than those which characterized the New York Streets era of this area.

Independent Taxi Operators' Association Building, 223 Albany Street

The 1941-1942 Independent Taxi Operators' Association Building at 223 Albany Street is fairly standard in design, and is not notable in style or form. The parapet roof details are intact, and some original multiple-paned windows appear to be extant on the south and west elevations. However, most of the windows and doors are modern replacements or plywood insets, and the gas pumps that used to front the building were moved to the south side of the building during the late 20th century.



The construction of the building just preceded the wholesale urban renewal of the area. The clearing of the New York Streets lots was already underway, and the building's association with the New York Streets era was minimal. The building was constructed during the transition period between the densely-developed housing of the New York Streets and the large-scale industrial and office complexes that would characterize the area after 1955, and is not a defining element of either era.

Potential Impacts to Historic Resources

The removal of the c. 1865 F.W. Webb Building and the 1941-1942 Independent Taxi Operators' Association Building will not have an adverse direct impact to the buildings, as they are not considered significant historic properties. The Project Site is located at the northeast corner of the Protection Area, two blocks from the closest boundary edge of the South End Landmark District (Figure 6.1). The proposed six-story height of the building (height 69'11") will not exceed heights allowed by the current rezoning recommendations for the Project Site (100 feet) or that allowed within the Protection Area (100 feet). Additionally, the new building will not cast any shadows within the South End Landmark District due to its distance from the boundaries of the district and intervening, larger buildings. The Project will have a beneficial impact on the immediate and surrounding area from both an aesthetic and functional standpoint. The proposed hotel use is consistent with the City's ongoing Strategic Plan for revitalization of the Harrison-Albany Corridor.

General Standards and Criteria of the Protection Area

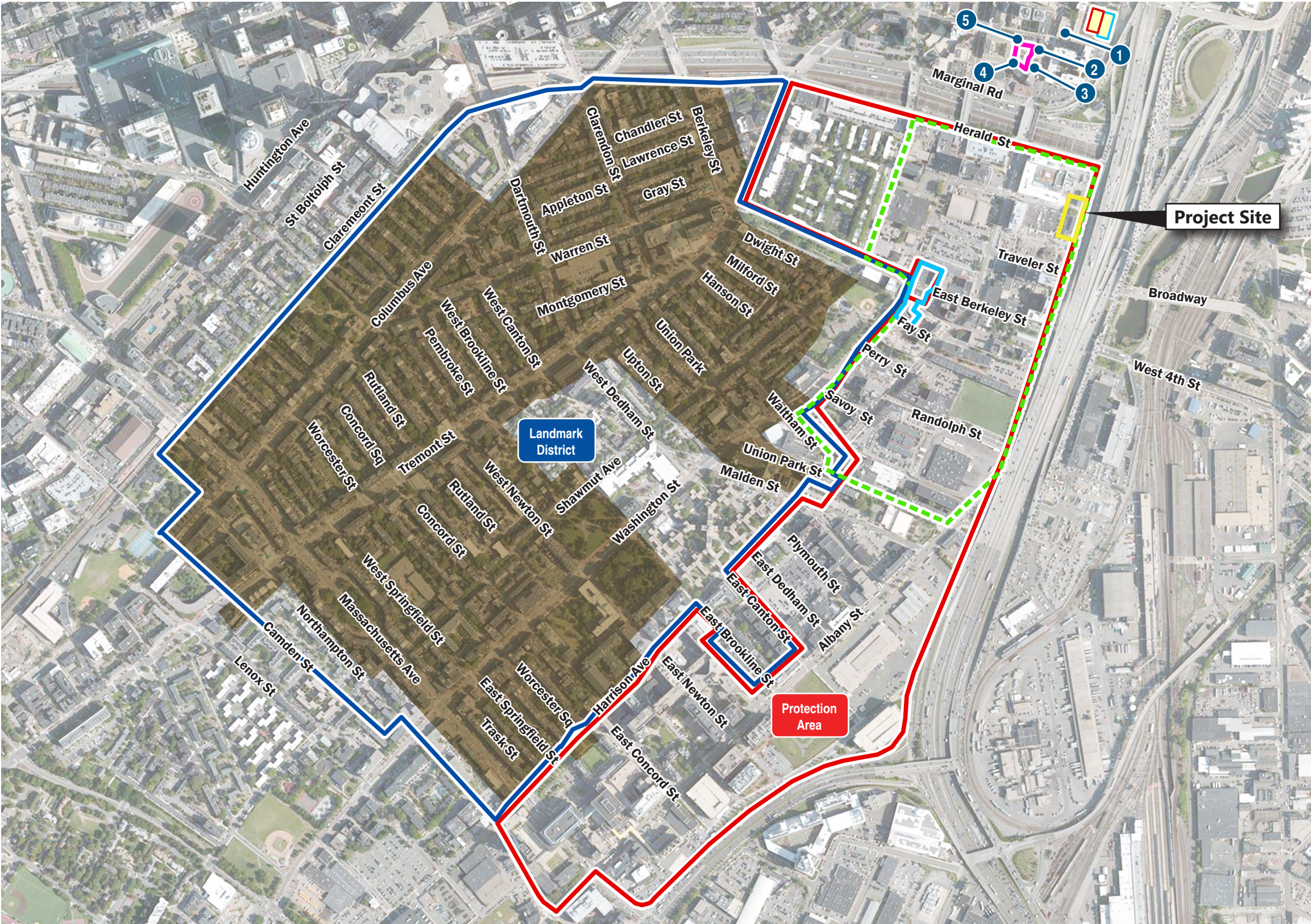
It is assumed at this point in the process that the Project will be evaluated under the General Standards and Criteria of the Protection Area. The goals of the Protection Area are to protect views of the adjacent Landmark District, to ensure that new development or major alterations adjacent to the District is architecturally compatible in massing, setback, and height, and to protect light and air circulation within the Landmark District. The Project meets these goals due to its compatible height, massing, and setback, and complementary design. The Project's proposed height of 69 feet will not cause any new shadows within the District, or require a pedestrian wind analysis under Article 80B, Large Project Review because it is below 150 feet. The Project conforms to the specific standards and criteria for the Protection Area for the following reasons:

- Demolition: The existing buildings are not significant resources within the Protection Area, due to alteration or time period of construction.
- Land Coverage: The setback of the proposed building will not exceed ten feet from the back of the sidewalk line.



- Height of Structures: The tallest height of the hotel building is 69 feet, which is consistent with the 100 feet allowed in this part of the Protection Area.
- Topography: No major changes in topography are proposed.
- Landscape: The proposed landscaping does not obstruct views of the elements of the adjacent Landmark District from any public ways in the Protection Area.

The Project is scheduled for an Advisory Review by the South End Landmark District Commission at their April 7th meeting. If the Commission decides that one or both of the existing buildings is contributing, the Project will be subject to review by the Commission under the South End Landmark District Standards and Criteria as Category B new construction, which regulates construction on parcels that are not abutted by existing structures. Should one or both of the buildings be determined contributing by the Commission, this document will be updated to reflect the new Standards and Criteria.



- Project Site
- South End Landmark District (LHD. BOS.AC)
- South End Landmark Protection Area (BOS.AD)
- Washington-Dover Street Area (BOS.SE)
- South End Industrial Survey Area (BOS.RK)*
- Hudson Street 89-103 (BOS.BH)
- Tyler Street 940106 (BOS.BI)
- 1-9 Johnny Court (BOS.ABG)
- National Register South End Historic District
(This is located outside of the one-quarter mile study area radius)
* Note: The South End Industrial District (BOS.AH) has no form on file at MHC so its precise boundaries are unknown. There are 12 inventoried properties located in the district within a one-quarter mile radius of the Project Site. Because the same 12 properties are also located in the Protection Area and the South End Industrial Survey Area, it can be assumed that the district roughly overlaps with these area.

Individual Inventoried Properties

- 1 BOS.12790
- 2 BOS.12794-12798
- 3 BOS.12799-127803
- 4 BOS.12826-12828
- 5 BOS.12818-12823

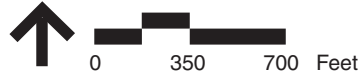


Figure 6.1
Historic Districts and Resources



Figure 6.2
Photo Locations

**AC Hotel South End
Boston, MA**



1. F.W. Webb Building, 237-241 Albany Street, east façade and north elevation. Photographer facing SW, March 2015.



2. F.W. Webb Building, 237-241 Albany Street, south elevation, showing addition. Photographer facing NW, March 2015.



Figure 6.3a
Site Photographs

**AC Hotel South End
Boston, MA**



3. F.W. Webb Building, 237-241 Albany Street, west and south elevations, showing additions. Photographer facing NE, March 2015.



4. F.W. Webb Building, 237-241 Albany Street, north and west elevations. Photographer facing SE, March 2015.



Figure 6.3b
Site Photographs

**AC Hotel South End
Boston, MA**



5. F.W. Webb Building, 237-241 Albany Street, interior of first floor.
Photographer facing SW, March 2015.



6. F.W. Webb Building, 237-241 Albany Street, interior of second floor.
Photographer facing S, March 2015.



Figure 6.3c
Site Photographs

**AC Hotel South End
Boston, MA**



7. Independent Taxi Operators' Association Building, 223 Albany Street, east façade and north elevation. Photographer facing SW, March 2015.



8. Independent Taxi Operators' Association Building, 223 Albany Street, south elevation and east façade. Photographer facing NW, March 2015.



Figure 6.3d
Site Photographs

**AC Hotel South End
Boston, MA**



9. Independent Taxi Operators' Association Building, 223 Albany Street, south and west elevations. Photographer facing NE, March 2015.



10. Independent Taxi Operators' Association Building, 223 Albany Street, north and west elevations. Photographer facing SE, March 2015.



Figure 6.3e
Site Photographs

**AC Hotel South End
Boston, MA**



11. View along Albany Street, showing F.W. Webb Building (237-241 Albany Street) and the Independent Taxi Operators' Association Building (223 Albany Street) in background center. Photographer facing N, March 2015.



12. View along Albany Street from Independent Taxi Operators' Association Building (223 Albany Street). Photographer facing S, March 2015.



Figure 6.3f
Site Photographs

**AC Hotel South End
Boston, MA**



13. View of north portion of Project Site from Ink Block development.
Photographer facing N, March 2015.



14. View of south portion of Project Site from Ink Block development.
Photographer facing S, March 2015.



Figure 6.3g
Site Photographs

**AC Hotel South End
Boston, MA**



7

Project Certification

This expanded PNF has been submitted to the Boston Redevelopment Authority, as required by Article 80B of the Zoning Code, on the 3rd of April 2015.

Proponent
ND Acquisitions LLC

A handwritten signature in black ink, appearing to read "Sherry Clancy", written over a horizontal line.

Sherry Clancy, Project Manager

Preparer
Vanasse Hangen Brustlin, Inc.

A handwritten signature in blue ink, appearing to read "Lauren DeVoe", written over a horizontal line.

Lauren DeVoe, AICP, LEED AP-BD+C
Senior Environmental Planner



Appendix A

Letter of Intent





2310 Washington Street
Newton Lower Falls,
MA 02462

Phone. 617.527.9800
www.natdev.com

March 9, 2015

Brian Golden, Director
Boston Redevelopment Authority
Boston City Hall, 9th Floor
Boston, MA 02201

**Re: Proposed 200 Room Hotel
223-237 Albany Street
Letter of Intent to file Project Notification Form**

Dear Director Golden:

National Development represents the owner of the property located at 217-237 Albany Street. This letter serves as Notice of Intent to file a Project Notification Form [PNF] under Article 80B for Large Project Review with the Boston Redevelopment Authority [BRA] in connection with the planned redevelopment of the property.

The proposed project site consists of two lots totaling 30,100 sf fronting on Albany Street in the South End neighborhood. The Project Proponent intends to develop a 200 room select service hotel. As envisioned by the BRA's Harrison-Albany Corridor Study, this redevelopment will integrate with the urban design framework and comply with the dimensional regulations as set forth in Article 64.

Site improvements will include new landscaping, stormwater infiltration and 63 surface parking spaces. A number of sustainable building and site elements will be incorporated into the design, construction and operation of the Project. In addition to compliance with Boston Zoning Code Article 37 – Green Buildings, the Proponent intends to strive for a rating of no less than Silver under the LEED V 2009 New Construction Program.

The Project includes public realm improvements through wider sidewalks and streetscape for pedestrians. Overall, the Project will improve the architectural character, urban design and pedestrian experience in the vicinity. The City and region as a whole will benefit from job creation and additional tax revenues.

National Development will lead a team of professional planners, Architects, engineers and consultants with extensive experience in the development of mixed-use projects. The team has already conducted several of pre-review planning meetings with the BRA staff in accordance with Article 80B-5(1), and has undertaken significant outreach with elected officials, abutters

March 9, 2015

Page Two

and interested neighborhood groups. The Proponent looks forward to working collaboratively with the BRA, other city agencies and all members of the community to produce the best plan possible for this location.

The PNF will be filed later this month in accordance with the procedural provisions of Article 80B-5(2). On behalf of the development team, we look forward to working with you and your staff to achieve a successful development project that will greatly benefit the neighborhood and the City of Boston.

Sincerely,



Sherry A. Clancy
Project Manager

cc: Theodore R. Tye, National Development



Appendix B

Transportation Supporting Documentation



Note: The following transportation supporting documentation is provided electronically on the enclosed CD-ROM. Hard copies are available upon request.

- Traffic Volume Count Data
- MassDOT Seasonal Adjustment Factors
- Public Transportation Bus Routes and Schedules
- Vehicle Crash Data
- Site-specific Background Growth
- Trip Generation Calculations
- Intersection Capacity Analyses
 - 2015 Existing Conditions
 - 2022 No Build Conditions
 - 2022 Build Conditions



Appendix C

BRA Checklists



-
- Accessibility Checklist
 - Climate Change Preparedness and Resiliency Checklist

Accessibility Checklist

(to be added to the BRA Development Review Guidelines)

In 2009, a nine-member Advisory Board was appointed to the Commission for Persons with Disabilities in an effort to reduce architectural, procedural, attitudinal, and communication barriers affecting persons with disabilities in the City of Boston. These efforts were instituted to work toward creating universal access in the built environment.

In line with these priorities, the Accessibility Checklist aims to support the inclusion of people with disabilities. In order to complete the Checklist, you must provide specific detail, including descriptions, diagrams and data, of the universal access elements that will ensure all individuals have an equal experience that includes full participation in the built environment throughout the proposed buildings and open space.

In conformance with this directive, all development projects subject to Boston Zoning Article 80 Small and Large Project Review, including all Institutional Master Plan modifications and updates, are to complete the following checklist and provide any necessary responses regarding the following:

- improvements for pedestrian and vehicular circulation and access;
- encourage new buildings and public spaces to be designed to enhance and preserve Boston's system of parks, squares, walkways, and active shopping streets;
- ensure that persons with disabilities have full access to buildings open to the public;
- afford such persons the educational, employment, and recreational opportunities available to all citizens; and
- preserve and increase the supply of living space accessible to persons with disabilities.

We would like to thank you in advance for your time and effort in advancing best practices and progressive approaches to expand accessibility throughout Boston's built environment.

Accessibility Analysis Information Sources:

1. Americans with Disabilities Act – 2010 ADA Standards for Accessible Design
 - a. http://www.ada.gov/2010ADASTandards_index.htm
2. Massachusetts Architectural Access Board 521 CMR
 - a. <http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html>
3. Boston Complete Street Guidelines
 - a. <http://bostoncompletestreets.org/>
4. City of Boston Mayors Commission for Persons with Disabilities Advisory Board
 - a. <http://www.cityofboston.gov/Disability>
5. City of Boston – Public Works Sidewalk Reconstruction Policy
 - a. http://www.cityofboston.gov/images_documents/sidewalk%20policy%200114_tcm3-41668.pdf
6. Massachusetts Office On Disability Accessible Parking Requirements
 - a. www.mass.gov/anf/docs/mod/hp-parking-regulations-mod.doc
7. MBTA Fixed Route Accessible Transit Stations
 - a. http://www.mbta.com/about_the_mbta/accessibility/

Project Information

Project Name:	AC Hotel South End
Project Address Primary:	223-237 Albany Street, Boston, MA 02118
Project Address Additional:	N/A
Project Contact (name / Title / Company / email / phone):	Sherry Clancy, National Development 617-559-5080; sclancy@natdev.com

Team Description

Owner / Developer:	South End Hotel I LLC and South End Hotel II LLC (Owners) ND Acquisitions LLC (Proponent) National Development (Developer)
Architect:	Elkus Manfredi Architects
Engineer (building systems):	AHA Consulting Engineers
Sustainability / LEED:	Elkus Manfredi Architects
Permitting:	National Development/VHB
Construction Management:	Cranshaw Construction

Project Permitting and Phase

At what phase is the project – at time of this questionnaire?

PNF / Expanded PNF Submitted	Draft / Final Project Impact Report Submitted	BRA Board Approved
BRA Design Approved	Under Construction	Construction just completed:

Building Classification and Description

What are the principal Building Uses - select all appropriate uses?

First Floor Uses (List)	Residential – One to Three Unit	Residential - Multi-unit, Four +	Institutional	Education
	Commercial	Office	Retail	Assembly
	Laboratory / Medical	Manufacturing / Industrial	Mercantile	Storage, Utility and Other
	Hotel			
	Hotel lobby with general office, bar/lounge, restaurant with kitchen, meeting rooms, fitness/pool			

What is the Construction Type – select most appropriate type?

Wood Frame	Masonry	Steel Frame	Concrete
------------	---------	-------------	----------

Describe the building?

Site Area:	30,100 SF	Building Area:	96,000 GSF (13,500 SF footprint)
Building Height:	69 Ft..	Number of Stories:	6 Flrs.
First Floor Elevation:	Elev. 16.0	Are there below grade spaces:	None

Assessment of Existing Infrastructure for Accessibility:

This section explores the proximity to accessible transit lines and proximate institutions such as, but not limited to hospitals, elderly and disabled housing, and general neighborhood information. The proponent should identify how the area surrounding the development is accessible for people with mobility impairments and should analyze the existing condition of the accessible routes through sidewalk and pedestrian ramp reports.

Article 80 | ACCESSIBILITY CHECKLIST

Provide a description of the development neighborhood and identifying characteristics.

The Project Site is located at the northeastern edge of the South End neighborhood bordering both the Chinatown and South Boston neighborhoods. In general, the area surrounding the Project Site is industrial in nature with mostly one- to two-story light manufacturing (storage and warehousing) land uses with surface parking. However, more recent redevelopment of surrounding properties, such as the Boston Troy residential project at 275 Albany Street and the mixed use redevelopment of the Herald Building fronting Harrison Avenue has resulted in greater density with taller and varying building heights and sizes.

List the surrounding ADA compliant MBTA transit lines and the proximity to the development site: Commuter rail, subway, bus, etc.

MBTA bus Routes 9, 11 and 47 and the MBTA Silver Line SL4 and SL5 routes all run within ¼ mile of the Project Site, and all MBTA system busses are accessible. The MBTA Red Line West Broadway station is located just over ¼ mile to the east over Broadway Bridge, and the MBTA Orange Line Tufts Medical Center Station is located roughly 1/3 mile to the north on Washington Street. The MBTA classifies both stations as being accessible.

List the surrounding institutions: hospitals, public housing and elderly and disabled housing developments, educational facilities, etc.

The Project Site is generally surrounded by highway infrastructure (Massachusetts Turnpike/I-90 runs east-west just north of Herald Street, and directly to the east of Albany Street lies the elevated Southeast Expressway/Interstate-93/Route 3, which runs north-south) and light industrial/manufacturing businesses. The Pine Street Inn, which provides services for the homeless is located nearby at 444 Harrison Avenue.

Is the proposed development on a priority accessible route to a key public use facility? List the surrounding: government buildings, libraries, community centers and recreational facilities and other related facilities.

No. There are a three public parks located approximately ¼-mile from the Project Site, including Peter's Park and Rotch Playground in the South End, and Rolling Bridge Park, which is located on the Fort Point Channel.

Surrounding Site Conditions – Existing:

This section identifies the current condition of the sidewalks and pedestrian ramps around the development site.

Are there sidewalks and pedestrian ramps existing at the development site?

Yes

If yes above, list the existing sidewalk and pedestrian ramp materials and physical condition at the development site.

The existing sidewalks and pedestrian ramps are concrete, which appear to be mostly intact, along the frontage of the site on Albany Street.

Article 80 | ACCESSIBILITY CHECKLIST

Are the sidewalks and pedestrian ramps existing-to-remain? **If yes**, have the sidewalks and pedestrian ramps been verified as compliant? **If yes**, please provide surveyors report.

Sidewalks are planned to be replaced where existing curb cuts are to be closed, and where construction activities cause sidewalk damage. Any sidewalk panels found to be non-compliant will be replaced.

Is the development site within a historic district? **If yes**, please identify.

The Project Site is located within the South End Landmark District Protection Area.

Surrounding Site Conditions – Proposed

This section identifies the proposed condition of the walkways and pedestrian ramps in and around the development site. The width of the sidewalk contributes to the degree of comfort and enjoyment of walking along a street. Narrow sidewalks do not support lively pedestrian activity, and may create dangerous conditions that force people to walk in the street. Typically, a five foot wide Pedestrian Zone supports two people walking side by side or two wheelchairs passing each other. An eight foot wide Pedestrian Zone allows two pairs of people to comfortably pass each other, and a ten foot or wider Pedestrian Zone can support high volumes of pedestrians.

Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? See: www.bostoncompletestreets.org

Yes

If yes above, choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, Boulevard.

Industrial

What is the total width of the proposed sidewalk? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone.

Total:6.83', Frontage:0.33', Pedestrian: 5', Furnishing: 1.5'

List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?

Frontage: Concrete on Private, Pedestrian: Concrete on both Private and Public, Furnishing: Concrete on Public

Article 80 | ACCESSIBILITY CHECKLIST

If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the City of Boston Public Improvement Commission?

Yes

Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way?

No

If yes above, what are the proposed dimensions of the sidewalk café or furnishings and what will the right-of-way clearance be?

Proposed Accessible Parking:

See Massachusetts Architectural Access Board Rules and Regulations 521 CMR Section 23.00 regarding accessible parking requirement counts and the Massachusetts Office of Disability Handicap Parking Regulations.

What is the total number of parking spaces provided at the development site parking lot or garage?

Approximately 63 tandem valet-only surface parking spaces and one (1) accessible van parking space will be provided. Guest parking will be entirely handled through a valet operation with arriving guests leaving and picking up their vehicles at the accessible front entrance of the hotel located on the south side of the building.

What is the total number of accessible spaces provided at the development site?

All on-site guest parking will be handled through a valet operation. One (1) accessible van parking space will be provided.

Will any on street accessible parking spaces be required? **If yes,** has the proponent contacted the Commission for Persons with Disabilities and City of Boston Transportation Department regarding this need?

No.

Where is accessible visitor parking located?

All parking will be valet operated with accessible drop-off area at the hotel entrance.

Has a drop-off area been identified? **If yes,** will it be accessible?

Yes. In addition to the accessible front entrance, a second accessible guest drop-off and pick-up area is planned on Albany Street.

Article 80 | ACCESSIBILITY CHECKLIST

Include a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations. Please include route distances.

The main hotel accessible entrance off the site driveway, as shown on PNF Figure 1.5. This figure also shows the vehicle pull-off area along Albany Street where second hotel entrance will be. This entrance will also be accessible directly from the Albany Street sidewalk.

Circulation and Accessible Routes:

The primary objective in designing smooth and continuous paths of travel is to accommodate persons of all abilities that allow for universal access to entryways, common spaces and the visit-ability* of neighbors.

**Visit-ability – Neighbors ability to access and visit with neighbors without architectural barrier limitations*

Provide a diagram of the accessible route connections through the site.

PNF Figure 3.20 shows the proposed access and circulation through and around the Project Site.

Describe accessibility at each entryway: Flush Condition, Stairs, Ramp Elevator.

All entryways are accessible via flush condition from street level.

Are the accessible entrance and the standard entrance integrated?

Accessible door is adjacent to revolving non-accessible door

If no above, what is the reason?

Will there be a roof deck or outdoor courtyard space? **If yes**, include diagram of the accessible route.

No

Has an accessible routes way-finding and signage package been developed? **If yes**, please describe.

No

Accessible Units: (If applicable)

In order to facilitate access to housing opportunities this section addresses the number of accessible units that are proposed for the development site that remove barriers to housing choice.

What is the total number of proposed units for the development?

There will be 200 hotel rooms total in the Project.

Article 80 | ACCESSIBILITY CHECKLIST

How many units are for sale; how many are for rent? What is the market value vs. affordable breakdown?

N/A

How many accessible units are being proposed?

Ten (10) hotel rooms will be accessible, two (2) of which will have roll in showers.

Please provide plan and diagram of the accessible units.

Refer to the attached room layouts.

How many accessible units will also be affordable? If none, please describe reason.

N/A

Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs at entry or step to balcony. **If yes**, please provide reason.

No

Has the proponent reviewed or presented the proposed plan to the City of Boston Mayor's Commission for Persons with Disabilities Advisory Board?

No. To be completed by the Proponent

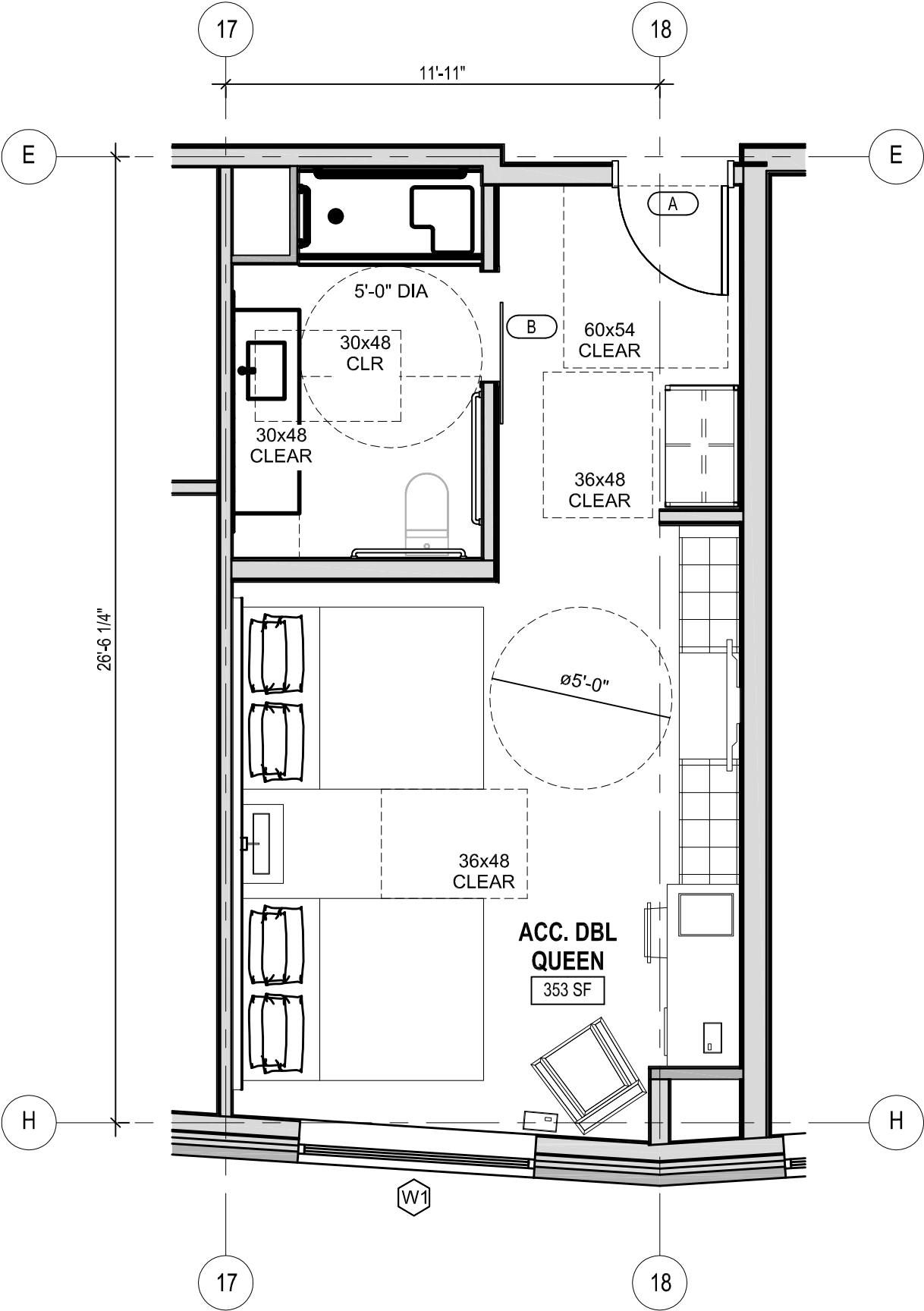
Did the Advisory Board vote to support this project? **If no**, what recommendations did the Advisory Board give to make this project more accessible?

See Above.

Thank you for completing the Accessibility Checklist!

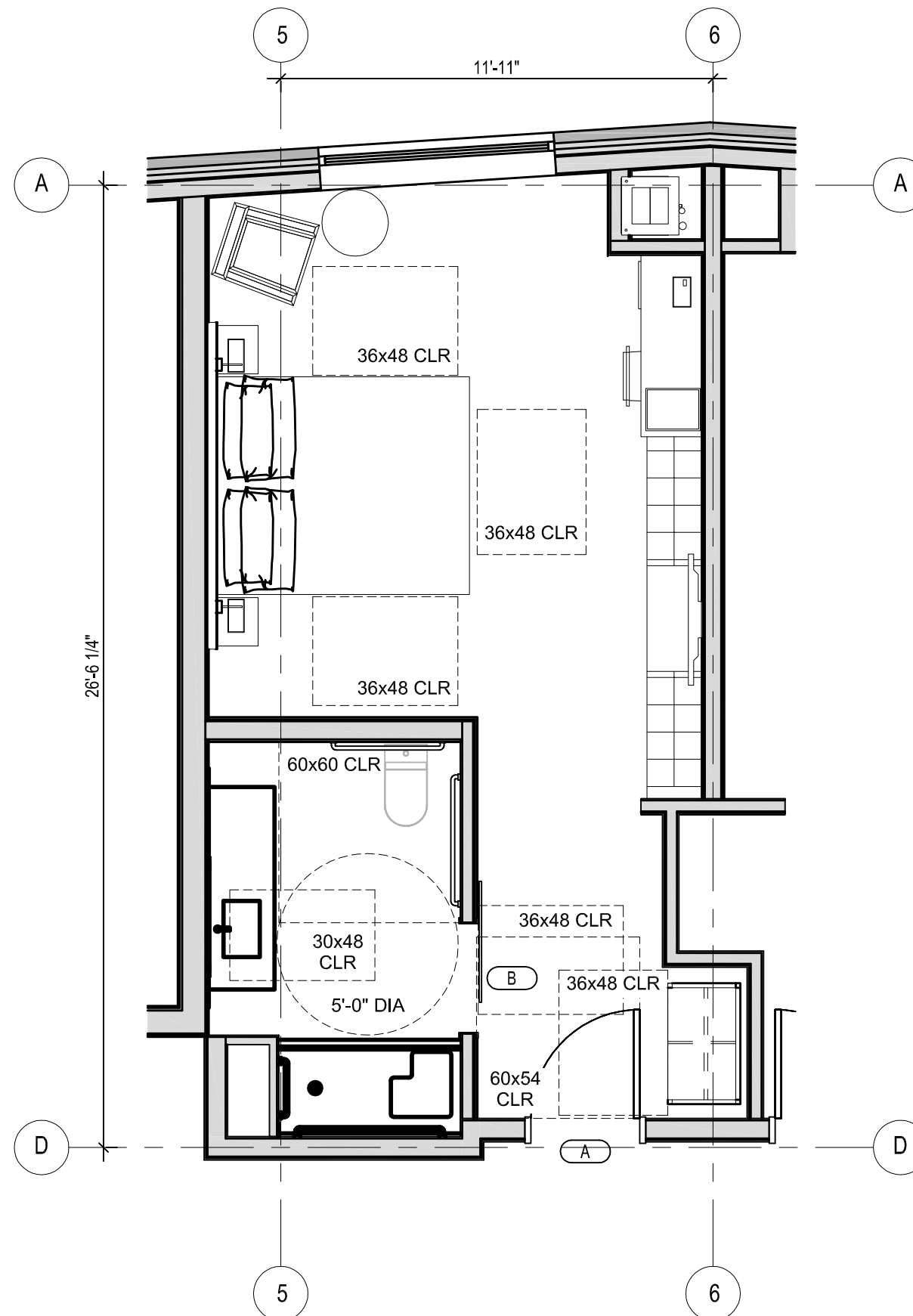
For questions or comments about this checklist or accessibility practices, please contact:

kathryn.quigley@boston.gov | Mayors Commission for Persons with Disabilities



ACC DOUBLE QUEEN UNIT

AC Hotel South End
Boston, MA



ACC KING ROOM

**AC Hotel South End
Boston, MA**

Climate Change Preparedness and Resiliency Checklist for New Construction

In November 2013, in conformance with the Mayor's 2011 Climate Action Leadership Committee's recommendations, the Boston Redevelopment Authority adopted policy for all development projects subject to Boston Zoning Article 80 Small and Large Project Review, including all Institutional Master Plan modifications and updates, are to complete the following checklist and provide any necessary responses regarding project resiliency, preparedness, and to mitigate any identified adverse impacts that might arise under future climate conditions.

For more information about the City of Boston's climate policies and practices, and the 2011 update of the climate action plan, *A Climate of Progress*, please see the City's climate action web pages at <http://www.cityofboston.gov/climate>

In advance we thank you for your time and assistance in advancing best practices in Boston.

Climate Change Analysis and Information Sources:

1. Northeast Climate Impacts Assessment (www.climatechoices.org/ne/)
2. USGCRP 2009 (<http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/>)
3. Army Corps of Engineers guidance on sea level rise (<http://planning.usace.army.mil/toolbox/library/ECs/EC11652212Nov2011.pdf>)
4. Proceeding of the National Academy of Science, "Global sea level rise linked to global temperature", Vermeer and Rahmstorf, 2009 (<http://www.pnas.org/content/early/2009/12/04/0907765106.full.pdf>)
5. "Hotspot of accelerated sea-level rise on the Atlantic coast of North America", Asbury H. Sallenger Jr*, Kara S. Doran and Peter A. Howd, 2012 ([http://www.bostonredevelopmentauthority.org/planning/Hotspot of Accelerated Sea-level Rise 2012.pdf](http://www.bostonredevelopmentauthority.org/planning/Hotspot%20of%20Accelerated%20Sea-level%20Rise%202012.pdf))
6. "Building Resilience in Boston": Best Practices for Climate Change Adaptation and Resilience for Existing Buildings, Linnean Solutions, The Built Environment Coalition, The Resilient Design Institute, 2103 ([http://www.greenribboncommission.org/downloads/Building Resilience in Boston SML.pdf](http://www.greenribboncommission.org/downloads/Building_Resilience_in_Boston_SML.pdf))

Checklist

Please respond to all of the checklist questions to the fullest extent possible. For projects that respond "Yes" to any of the D.1 – Sea-Level Rise and Storms, Location Description and Classification questions, please respond to all of the remaining Section D questions.

Checklist responses are due at the time of initial project filing or Notice of Project Change and final filings just prior seeking Final BRA Approval. A PDF of your response to the Checklist should be submitted to the Boston Redevelopment Authority via your project manager.

Please Note: When initiating a new project, please visit the BRA web site for the most current [Climate Change Preparedness & Resiliency Checklist](#).

Climate Change Resiliency and Preparedness Checklist

A.1 - Project Information

Project Name:	AC Hotel South End
Project Address Primary:	223-237 Albany Street, Boston, MA 02118
Project Address Additional:	N/A
Project Contact (name / Title / Company / email / phone):	Sherry Clancy, National Development 617-559-5080; sclancy@natdev.com

A.2 - Team Description

Owner / Developer:	South End Hotel I LLC and South End Hotel II LLC (Owners) ND Acquisitions LLC (Proponent) National Development (Developer)
Architect:	Elkus Manfredi Architects
Engineer (building systems):	AHA Consulting Engineers
Sustainability / LEED:	Elkus Manfredi Architects
Permitting:	National Development/VHB
Construction Management:	Cranshaw Construction
Climate Change Expert:	N/A

A.3 - Project Permitting and Phase

At what phase is the project – most recent completed submission at the time of this response?

PNF / Expanded PNF Submission	Draft / Final Project Impact Report Submission	BRA Board Approved	Notice of Project Change
Planned Development Area	BRA Final Design Approved	Under Construction	Construction just completed:

A.4 - Building Classification and Description

List the principal Building Uses:	Hotel
List the First Floor Uses:	Hotel lobby with general office, bar/lounge, restaurant with kitchen, meeting rooms, fitness/pool

What is the principal Construction Type – select most appropriate type?

Wood Frame	Masonry	Steel Frame	Concrete
------------	---------	-------------	----------

Describe the building?

Site Area:	30,100 SF	Building Area:	96,000 GSF (13,500 SF footprint)
Building Height:	69 Ft.	Number of Stories:	6 Flrs.
First Floor Elevation (reference Boston City Base):	Elev. 16.0	Are there below grade spaces/levels, if yes how many:	None

A.5 - Green Building

Which LEED Rating System(s) and version has or will your project use (by area for multiple rating systems)?

Select by Primary Use:	New Construction	Core & Shell	Healthcare	Schools
	Retail	Homes Midrise	Homes	Other
Select LEED Outcome:	Certified	Silver	Gold	Platinum

Will the project be USGBC Registered and / or USGBC Certified?

Registered:	Yes / No	Certified:	Yes / No

A.6 - Building Energy

What are the base and peak operating energy loads for the building?

Electric:	200 (kW)	Heating:	4 (MMBtu/hr)
What is the planned building Energy Use Intensity:	200 (kbt/SF or kWh/SF)	Cooling:	200 (Tons/hr)

What are the peak energy demands of your critical systems in the event of a service interruption? **Critical Systems are provided with battery back-up.**

Electric:	(kW)	Heating:	(MMBtu/hr)
		Cooling:	(Tons/hr)

What is nature and source of your back-up / emergency generators? **No emergency generators are proposed as part of the Project.**

Electrical Generation:	(kW)	Fuel Source:	
System Type and Number of Units:	Combustion Engine	Gas Turbine	Combine Heat and Power (Units)

B - Extreme Weather and Heat Events

Climate change will result in more extreme weather events including higher year round average temperatures, higher peak temperatures, and more periods of extended peak temperatures. The section explores how a project responds to higher temperatures and heat waves.

B.1 – Analysis

What is the full expected life of the project?

Select most appropriate:	10 Years	25 Years	50 Years	75 Years
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What is the full expected operational life of key building systems (e.g. heating, cooling, ventilation)?

Select most appropriate:	10 Years	25 Years	50 Years	75 Years
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What time span of future Climate Conditions was considered?

Select most appropriate:	10 Years	25 Years	50 Years	75 Years
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Analysis Conditions - What range of temperatures will be used for project planning – Low/High?

7 / 88 Deg.

What Extreme Heat Event characteristics will be used for project planning – Peak High, Duration, and Frequency?

95 Deg.	5 Days	2 Events / yr.
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What Drought characteristics will be used for project planning – Duration and Frequency?

5 Days	2 Events / yr.
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What Extreme Rain Event characteristics will be used for project planning – Seasonal Rain Fall, Peak Rain Fall, and Frequency of Events per year?

41.51 Inches / yr.	4.9 Inches	127 Events / yr.
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What Extreme Wind Storm Event characteristics will be used for project planning – Peak Wind Speed, Duration of Storm Event, and Frequency of Events per year?

Peak Wind	Hours	Events / yr.
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B.2 - Mitigation Strategies

What will be the overall energy performance, based on use, of the project and how will performance be determined?

Building energy use below code:

≥20%	In accordance with the current Stretch Energy Code (ASHRAE 90.1-2007, Appendix G).
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How is performance determined:

A building energy model will be conducted as design advances and as required for a future Building Permit.

What specific measures will the project employ to reduce building energy consumption?

Select all appropriate:

High performance building envelop	High performance lighting & controls	Building day lighting	EnergyStar equip. / appliances
High performance HVAC equipment	Energy recovery ventilation	No active cooling	No active heating

Describe any added measures:

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What are the insulation (R) values for building envelop elements?

Roof:	R = 34 Minimum	Walls / Curtain Wall Assembly:	Walls = R-21 CW U-Value=0.31 SF U-Value=0.32 (System Performance)
Foundation:	R = 10 Minimum	Basement / Slab:	R = N/A
Windows:	U = 0.24	Doors:	U =0.37 Minimum

What specific measures will the project employ to reduce building energy demands on the utilities and infrastructure?

On-site clean energy / CHP system(s)	Building-wide power dimming	Thermal energy storage systems	Ground source heat pump
On-site Solar PV	On-site Solar Thermal	Wind power	None

Describe any added measures:

95% LED lighting

Will the project employ Distributed Energy / Smart Grid Infrastructure and /or Systems? **No**

Select all appropriate:	Connected to local distributed electrical	Building will be Smart Grid ready	Connected to distributed steam, hot, chilled water	Distributed thermal energy ready
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Will the building remain operable without utility power for an extended period?

	Yes / No	If yes, for how long:	Days
If Yes, is building "Islandable?"			
If Yes, describe strategies:			

Describe any non-mechanical strategies that will support building functionality and use during an extended interruption(s) of utility services and infrastructure:

Select all appropriate:	Solar oriented – longer south walls	Prevailing winds oriented	External shading devices	Tuned glazing,
	Building cool zones	Operable windows	Natural ventilation	Building shading
	Potable water for drinking / food preparation	Potable water for sinks / sanitary systems	Waste water storage capacity	High Performance Building Envelop
Describe any added measures:				

What measures will the project employ to reduce urban heat-island effect?

Select all appropriate:	High reflective paving materials	Shade trees & shrubs	High reflective roof materials	Vegetated roofs
Describe other strategies:				

What measures will the project employ to accommodate rain events and more rain fall?

Select all appropriate:	On-site retention systems & ponds	Infiltration galleries & areas	vegetated water capture systems	Vegetated roofs
Describe other strategies:	Increase sizing of inlet and pipe for additional capacity			

What measures will the project employ to accommodate extreme storm events and high winds?

Select all appropriate:	Hardened building structure & elements	Buried utilities & hardened infrastructure	Hazard removal & protective landscapes	Soft & permeable surfaces (water infiltration)
Describe other strategies:				

C - Sea-Level Rise and Storms

Rising Sea-Levels and more frequent Extreme Storms increase the probability of coastal and river flooding and enlarging the extent of the 100 Year Flood Plain. This section explores if a project is or might be subject to Sea-Level Rise and Storm impacts.

C.1 - Location Description and Classification:

Do you believe the building to susceptible to flooding now or during the full expected life of the building?

Yes / No

Describe site conditions?

Site Elevation – Low/High Points: *Boston City Base*

	15.0/18.7 Elev.(Ft.)
Building Proximity to Water:	450 Ft.
Is the site or building located in any of the following?	
Coastal Zone:	Yes / No
Flood Zone:	Yes / No
Velocity Zone:	Yes / No
Area Prone to Flooding:	Yes / No
Will the 2013 Preliminary FEMA Flood Insurance Rate Maps or future floodplain delineation updates due to Climate Change result in a change of the classification of the site or building location?	
2013 FEMA Prelim. FIRMs:	Yes / No
Future floodplain delineation updates:	Yes / No
What is the project or building proximity to nearest Coastal, Velocity or Flood Zone or Area Prone to Flooding?	
	440 Ft.

If you answered YES to any of the above Location Description and Classification questions, please complete the following questions. Otherwise you have completed the questionnaire; thank you!

C - Sea-Level Rise and Storms

This section explores how a project responds to Sea-Level Rise and / or increase in storm frequency or severity.

C.2 - Analysis

How were impacts from higher sea levels and more frequent and extreme storm events analyzed:

Sea Level Rise:	Ft.	Frequency of storms:	per year
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C.3 - Building Flood Proofing

Describe any strategies to limit storm and flood damage and to maintain functionality during an extended periods of disruption.

What will be the Building Flood Proof Elevation and First Floor Elevation:

Flood Proof Elevation:	Boston City Base Elev.(Ft.)	First Floor Elevation:	Boston City Base Elev. (Ft.)
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Will the project employ temporary measures to prevent building flooding (e.g. barricades, flood gates):

Yes / No	If Yes, to what elevation	Boston City Base Elev. (Ft.)
If Yes, describe:		

What measures will be taken to ensure the integrity of critical building systems during a flood or severe storm event:

Systems located above 1 st Floor.	Water tight utility conduits	Waste water back flow prevention	Storm water back flow prevention
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Were the differing effects of fresh water and salt water flooding considered:

Yes / No

Will the project site / building(s) be accessible during periods of inundation or limited access to transportation:

Yes / No	If yes, to what height above 100 Year Floodplain:	Boston City Base Elev. (Ft.)
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Will the project employ hard and / or soft landscape elements as velocity barriers to reduce wind or wave impacts?

	Yes / No
If Yes, describe:	

Will the building remain occupiable without utility power during an extended period of inundation:

Yes / No	If Yes, for how long:	days
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Describe any additional strategies to addressing sea level rise and or sever storm impacts:

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C.4 - Building Resilience and Adaptability

Describe any strategies that would support rapid recovery after a weather event and accommodate future building changes that respond to climate change:

Will the building be able to withstand severe storm impacts and endure temporary inundation?

Select appropriate:	Yes / No	Hardened / Resilient Ground Floor Construction	Temporary shutters and or barricades	Resilient site design, materials and construction
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Can the site and building be reasonably modified to increase Building Flood Proof Elevation?

Select appropriate:	Yes / No	Surrounding site elevation can be raised	Building ground floor can be raised	Construction been engineered
Describe additional strategies:				

Has the building been planned and designed to accommodate future resiliency enhancements?

Select appropriate:	Yes / No	Solar PV	Solar Thermal	Clean Energy / CHP System(s)
		Potable water storage	Wastewater storage	Back up energy systems & fuel
Describe any specific or additional strategies:				

Thank you for completing the Boston Climate Change Resilience and Preparedness Checklist!

For questions or comments about this checklist or Climate Change Resiliency and Preparedness best practices, please contact: John.Dalzell.BRA@cityofboston.gov



Appendix D

Air Quality



Note: The following air quality supporting documentation is provided electronically on the enclosed CD-ROM. Hard copies are available upon request.

- MOVES Emission Factors
- Cal3QHC Input Files
 - 2015 Existing Conditions
 - 2022 No Build Conditions
 - 2022 Build Conditions
- Cal3QHC Output Files
 - 2015 Existing Conditions
 - 2022 No Build Conditions
 - 2022 Build Conditions
- Cal3QHC Results



Appendix E

Noise



Note: The following noise supporting documentation is provided electronically on the enclosed CD-ROM. Hard copies are available upon request.

- Noise Monitoring Data Summary
- Mechanical Equipment Data
 - Equipment Location Drawings
 - SPX Cooling Technologies Cooling Tower
 - AAON Roof Top Unit
- Mechanical Equipment Sound Level Report



Appendix F

MassHistoric Determinations





The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

November 20, 2013

Nicole Benjamin-Ma
Preservation Planner
Vanasse Hangen Brustlin, Inc.
101 Walnut Street, P.O. Box 9151
Watertown, MA 02471

RE: 223 Albany Street Boston, MA

Dear Nicole:

Thank you for your letter and inventory form for 223 Albany Street. The materials will be added to the Inventory of the Historic and Archaeological Assets of the Commonwealth.

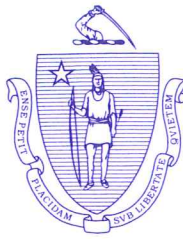
At its bi-weekly meeting today, MHC staff reviewed the information known concerning 223 Albany Street, based on the Inventory form you submitted. Built in 1941-42 as the dispatch office and service station for the Independent Taxi Operators Association, the building is among the last standing structures in what was largely a 19th-century tenement neighborhood, demolished in 1955 as part of Boston's first urban renewal program. While the building's features above the second floor, including the parapet design and decorative banding appear unaltered, the alterations to the window and door openings of the first and second floors have had a greater impact on the overall integrity of the building. Changes to the sash on the second floor, as well as alterations to the ground-floor openings lead us to conclude, based on the information currently available to us, that 223 Albany Street is ineligible for the National Register of Historic Places.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Stott".

Peter Stott
Preservation Planner
Massachusetts Historical Commission

xc: Ellen Lipsey, Director, Boston Landmarks Commission



The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

July 22, 2013

Nicole Benjamin-Ma
Preservation Planner
Vanasse Hangen Brustlin, Inc.
101 Walnut Street, P.O. Box 9151
Watertown, MA 02471

RE: 237-241 Albany Street Boston, MA

Dear Ms. Benjamin-Ma:

Thank you for your submission regarding the above referenced property, received June 21, 2103. The building form that you prepared will be added to the Inventory of the Historic and Archaeological Assets of the Commonwealth. The staff of the Massachusetts Historical Commission (MHC) has reviewed the information submitted and has the following comments.

The building at 237-241 Albany Street, Boston, known most recently as the F. W. Webb Building, is presently a two-story brick industrial structure, a fragment of a 19th-century building that survives without its historic context. Historic maps identify an industrial building on this site as early as 1867. Although the building footprint aligns with the footprint of the present structure, its exterior architectural features (paired segmental arched windows) suggest a late 19th or early 20th-century date for the structure. Sanborn maps prior to 1951 show the building as 3½ and then 4 stories in height. No earlier photos exist to show its appearance before the removal of the upper floors. The building's original surroundings, blocks of residential row housing in the area once known as the "New York Streets," were demolished in 1955 as part of Boston's first major redevelopment project.

Recent changes to the exterior include one-story additions on the south and west elevations, modern door and window replacements with double-hung 1/1 aluminum sash and aluminum fixed sash, and window openings with brick infill. The interior has been heavily remodeled to suit the most recent commercial use, in the late 20th century. As an undistinguished and altered remnant that lacks integrity and historic context, it is the opinion of the MHC that the building at 237-241 Albany Street does not meet the criteria of eligibility for listing in the National Register of Historic Places.

Sincerely,

A handwritten signature in blue ink that reads "Betsy Friedberg".

Betsy Friedberg
National Register Director
Massachusetts Historical Commission

Cc: Caitlin Greeley, Boston Landmarks Commission