Project Notification Form

Submitted Pursuant to Article 80 of the Boston Zoning Code

ONE BROMFIELD STREET

Submitted to:

BOSTON REDEVELOPMENT AUTHORITY
One City Hall Square
Boston, MA 02201

Submitted by:

MIDWOOD MANAGEMENT CORPORATION
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Prepared by:

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In Association with:

Elkus-Manfredi Architects
Howard/Stein-Hudson Associates
Nitsch Engineering
Wilmer Cutler Pickering Hale and Dorr LLP

October 27, 2008

PUBLIC NOTICE

The Boston Redevelopment Authority ("BRA"), pursuant to Article 80 of the Boston Zoning Code ("Code"), hereby gives notice that a Project Notification Form ("PNF") was filed by Midwood Management Corporation ("Proponent") for the One Bromfield Street Project ("Project") to be located at the corner of Washington and Bromfield Streets in the Downtown Crossing area of Downtown Boston, and includes the properties designated as 11-21 Bromfield Street, 349-363 Washington Street, 365 Washington Street, 367-369 Washington Street and 1-9 Bromfield Street.

The Project includes the replacement of the four existing buildings on the site with a new, 28-story building containing a base of six floors, and a 22-story tower rising above. The mixed-use program includes a total of approximately 407,000 sf of gross floor area, including approximately 49,000 sf of retail space in the basement and first two floors; approximately 192 parking spaces on the next three floors; primarily residential amenities and lobby area on the sixth floor; and approximately 276 residential units on floors seven through 28 totaling approximately 281,000 sf. The Project will advance the City's efforts to create affordable units by complying with the Mayor's Executive Order Relative to Affordable Housing dated February 29, 2000, as amended.

The Proponent is seeking issuance of a Scoping Determination by the BRA pursuant to Section 80B-5 of the Code. The BRA in the Scoping Determination for such PNF may waive further review pursuant to Section 80B-5.3(d) of the Code, if, after reviewing public comments, the BRA finds that such PNF adequately describes the Proposed Project's impacts.

The PNF may be reviewed in the office of the Secretary of the BRA, Room 910, Boston City Hall, Boston, MA 02201, between 9:00AM and 5:00PM, Monday through Friday, except legal holidays. Public comments on the PNF should be transmitted to John Fitzgerald, BRA at the address stated above or via email at john.fitzgerald.bra@cityofboston.gov within 30 days of the date of this notice.

BOSTON REDEVELOPMENT AUTHORITY
Harry R. Collings
Executive Director / Secretary

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1.1 Project Identification

Project Name:	One Bromfield Street
Location:	The Project is located at the corner of Washington and Bromfield Streets in Boston's Downtown Crossing district
Proponent:	Midwood Management Corporation 430 Park Avenue, Suite 505 New York, NY 10022 Paul Davis Kevin Cornell
Architects:	Elkus Manfredi Architects 300 A Street Boston, MA 02210 (617) 426-1300 Sam Norod Jeff Pivorunas Beth Niemi
Permitting Consultants:	Epsilon Associates, Inc. 3 Clock Tower Place, Suite 250 Maynard, MA 01754 (978) 897-7100 Peggy Briggs Ron Morad
Transportation and Parking Consultants:	Howard / Stein – Hudson, Inc. 38 Chauncy Street, 9th Floor Boston, MA 02111 (617) 482-7080 Jane Howard Adrien Lane
Legal Counsel:	Wilmer Cutler Pickering Hale and Dorr LLP 60 State Street Boston, MA 02109 Mel Shuman, Esq.

Civil Engineer:	Nitsch Engineering, Inc. 186 Lincoln Street, Suite 200 Boston, MA 02111 (617) 338-0063 John Schmid, P.E. Deborah Katzman, P.E.

1.2 Project Summary

1.2.1 Project Site

The One Bromfield Street development (the "Project") will be located at the corner of Washington and Bromfield Streets in Boston's Downtown Crossing area. The Project site consists of approximately 23,700 square feet (sf) of land area (the "Project site"). Figures 1-1 and 1-2 show the location of the Project site.

1.2.2 Proposed Development

Midwood Management Corporation (the "Proponent") is a New York, NY, based company specializing in real estate ownership, development and management with a nationwide portfolio of over 100 properties containing more than 3,000,000 sf.

The Project includes the demolition of the four existing buildings on the site and the construction of a new building. The Project will include a base of six floors, with a 22-story tower rising above. The mixed-use program includes a total of approximately 407,000 sf of gross floor area, including approximately 49,000 sf of retail space in the basement and first two floors; 192 parking spaces on the next three floors; primarily residential amenities and lobby area on the sixth floor; and approximately 276 residential units on floors seven through 28 totaling approximately 281,000 sf. The Project will advance the City's efforts to create affordable units by complying with the Mayor's Executive Order Relative to Affordable Housing dated February 29, 2000, as amended. Figure 1-3 displays the Project uses.

1.2.3 Design Objectives

The proposed mixed-use building intends to respond to the unique site conditions and create an architectural anchor at this premier retail corner site adjacent to Shopper's Park and the One Franklin Street/Filene's Redevelopment project. The building has been designed to respond to its prominent corner site, to the urban retail street wall of Washington Street, and to the adjacent high-rises that are visible on the Boston skyline. As a mixed-use building, the building form is derived from the building functions and the dual scale of the neighborhood. The coupling of the podium base and a tower convey the dual uses (retail and residential, respectively) and the dual scales (traditional retail street wall and

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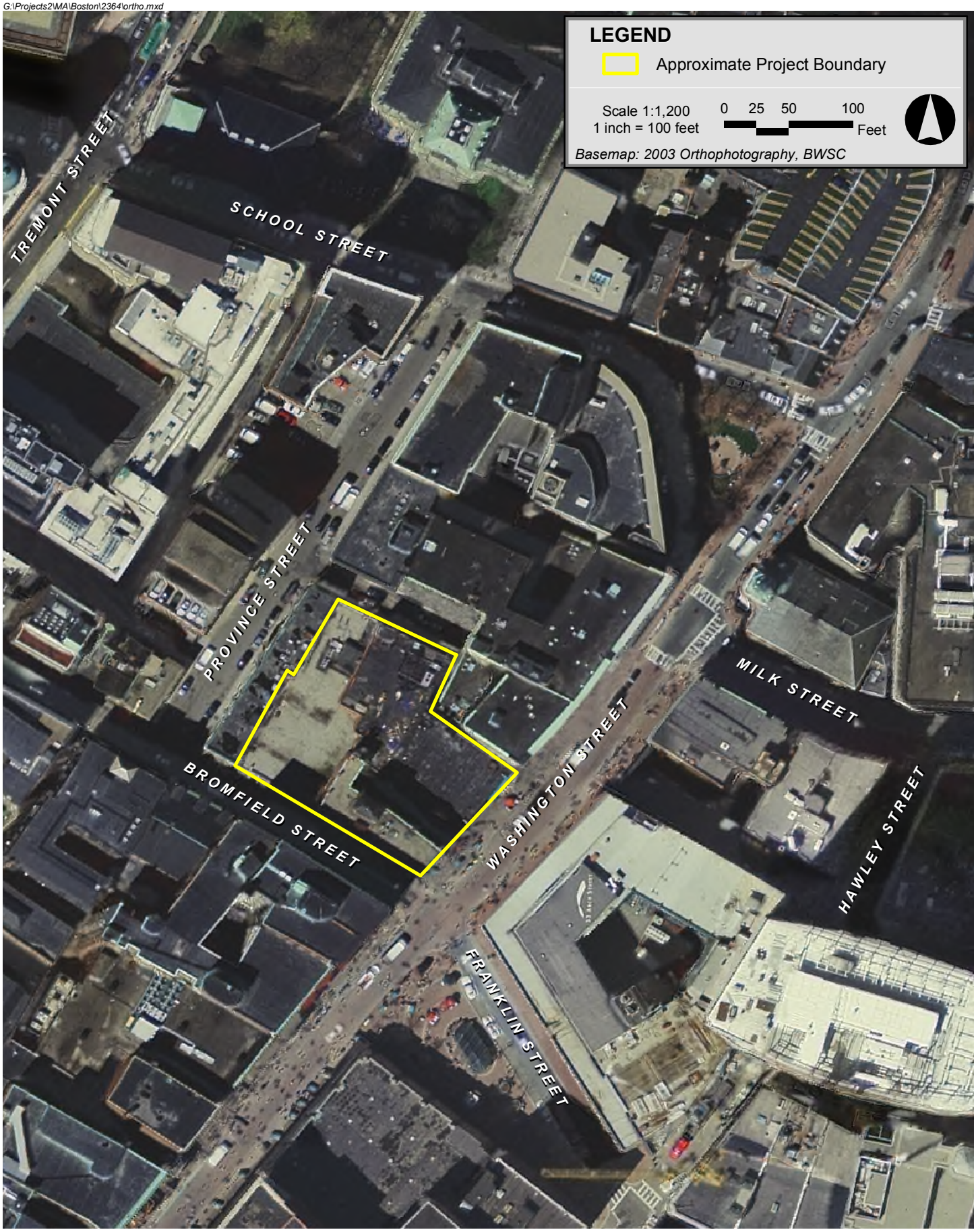

One Bromfield Street Boston, Massachusetts

Epsilon ASSOCIATES INC.

Figure 1-1
Aerial Locus Map

ONE BROMFIELD STREET

MIDWOOD MANAGEMENT CORP.

PROPOSED SITE PLAN

Figure 1-2

SCALE: 1/32" = 1'-0"

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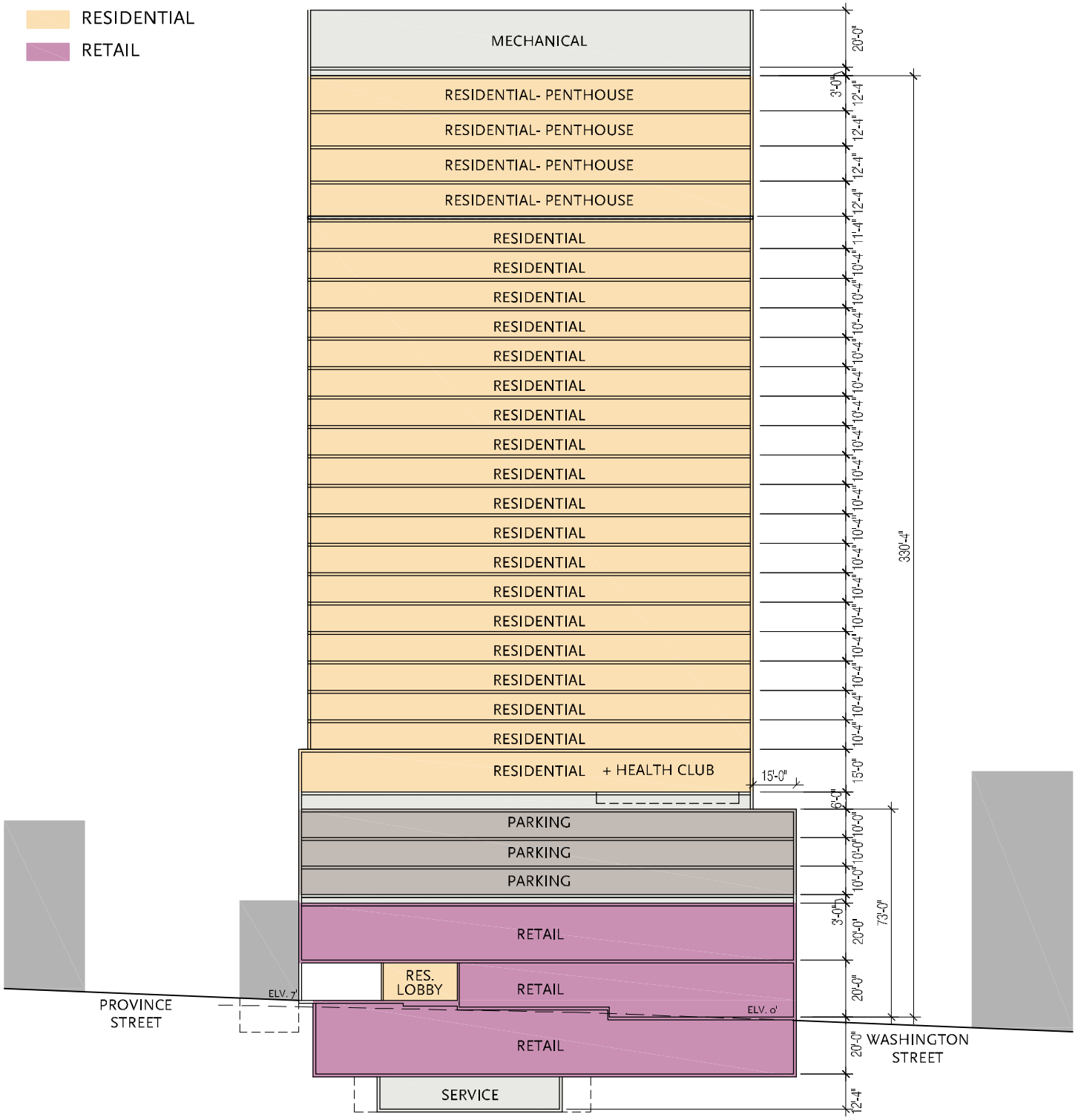
KEY

- PARKING
- MECHANICAL
- RESIDENTIAL
- RETAIL



ONE BROMFIELD STREET

MIDWOOD MANAGEMENT CORP.

PROJECT USES

FIGURE 1-3

SCALE: 1" = 50'

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adjacent 21st century high-rise towers). In concert with One Franklin Street and 45 Province Street, which are already under construction, the proposed Project will help fuel the energetic resurgence of the Downtown Crossing district.

1.2.4 Public Review

The Project will exceed 50,000 sf of gross floor area. Therefore, it is subject to Large Project Review under Article 80B of the Boston Zoning Code (the "Code"). This PNF is being prepared to initiate that review, and the Proponent expects that it will facilitate a comprehensive public process.

1.2.5 Public Benefits

The Project provides a number of public benefits to the City of Boston. The Project will contribute to revitalizing Downtown Crossing, improving pedestrian and retail vitality, and enhancing the urban design and architectural character of the Mid-Town Cultural District. The mix of uses will assist in enlivening the area and restoring Downtown Crossing as a destination for Bostonians and visitors alike. Specific benefits are described below.

Increased Housing

The Project will provide approximately 276 residential units to the burgeoning downtown neighborhood. The Project will promote the vibrant mix of uses envisioned by the City for this area.

Affordable Housing

The Mayor's Executive Order dated May 16, 2006 established as City policy that any residential project seeking zoning relief must set aside at least 15% of its units as affordable to moderate income and middle income households or contribute to a housing creation fund a per unit subsidy for 15% of the total number of project units. The Project will assist in the creation of affordable units in accordance with the Mayor's Executive Order entitled "An Order Relative to Affordable Housing" dated February 29, 2000, as amended, including the Mayor's Executive Order entitled "An Order Relative to the Inclusionary Development Policy's Income Policy" dated September 27, 2007.

Smart Growth/Transit-Oriented Development

With 276 residential units located in the middle of a commercial employment core, the Project site is ideal for promoting walking as a means of transport to and from work. It is near the core of major public transportation facilities -- the MBTA's Red, Orange, Green, Blue, and Silver Lines -- a major component of a transit-oriented development.

Sustainable Design/ Green Building

The Project will meet the requirements of Article 37 of the Code. The Proponent will review and consider suggestions for incorporating sustainable design into the Project. The Project will be certifiable under the U.S. Green Council's Leadership in Energy and Environmental Design (LEED) system. The preliminary LEED checklist is provided in Section 3.3.

Downtown Crossing Economic Improvement Initiative

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

The Project will complement the goals of the Downtown Crossing Economic Improvement Initiative. The proposed mixed-use program will make the Project a destination for residents, shoppers, and visitors, and will enhance the vibrancy of and economic vitality of the area.

Improved Street and Pedestrian Environment

The Project's retail and residential components will foster pedestrian activity and contribute to the vitality of the area throughout the course of the day and during the evening hours.

Increased Employment

The Project will create approximately 250 construction jobs and approximately 150 permanent jobs. The permanent jobs will result from the proposed residential and retail components as well as and building management and maintenance.

New Property Tax Revenue

The new development will generate substantial annual property taxes.

1.3 Consistency with Zoning

The Project site is located within Subdistrict 1 of the Midtown Cultural District and the Restricted Parking District. Zoning relief will be required from the Board of Appeal to permit increased building height and FAR. In the Restricted Parking district, parking uses are conditional uses unless they are accessory to residential uses. Since the approximately 192 parking spaces provided on floors three through five of the Project will all be devoted to the approximately 276 residential units, with up to five spaces provided for employee

parking, a conditional use permit is not required from the Board of Appeal for the parking use. In accordance with Section 38-24 of the Boston Zoning Code, the provision and design of off-street loading facilities will be determined during Large Project Review.

1.4 Legal Information

1.4.1 Legal Judgments Adverse to the Proposed Project

The Proponent is not aware of any legal judgments in effect or legal actions pending that are adverse to the Project.

1.4.2 History of Tax Arrears on Property

The Proponent does not have a history of tax arrears on any property owned within the City of Boston.

1.4.3 Evidence of Site Control/Nature of Public Easements

The entire Project site is owned and controlled by the Proponent.

1.5 Public Agencies

Table 1-1 below presents a list of state and local agencies from which permits or other actions are expected to be required:

Table 1-1 Anticipated Permits and Approvals

Agency Name	Permit / Approval
FEDERAL	
Federal Aviation Administration	Determination of No Hazard to Air Navigation
STATE	
Department of Environmental Protection, Division of Water Pollution Control	Sewer Connection and Extension Permit
Department of Environmental Protection, Division of Air Quality Control	Air Plans Approval; Pre-Construction Notice
Massachusetts Water Resources Authority	Sewer Use Discharge Permit; Construction Dewatering Permit
Massachusetts Historical Commission	State Register Review
LOCAL	
Boston Civic Design Commission	Review and Approval
Boston Redevelopment Authority	80B Large Project Review

Table 1-1 Anticipated Permits and Approvals (Continued)

Agency Name	Permit / Approval
Boston Water and Sewer Commission	Sewer Use Discharge Permit; Site Plan Approval; Construction Dewatering Permit; Sewer Extension/ Connection Permit; Stormwater Connection
Boston Air Pollution Control Commission	Parking Freeze Exemption
City of Boston Committee on Licenses	Parking Garage Permit; Fuel Storage License
City of Boston Inspectional Services Department	Building and Occupancy Permits
Boston Public Improvement Commission	Street and Sidewalk Occupation Permits; Tieback/Earth Retention Permit; Specific Repair Plan
Boston Transportation Department	Transportation Access Plan Agreement Construction Management Plan
Board of Appeal	Zoning Code Variance

2.0 PROJECT DESCRIPTION

2.1 Existing Site

The proposed Project will be located on an approximately 0.54-acre (23,700 sf) parcel of land at the corner of Washington and Bromfield Streets in the Downtown Crossing area of Boston. The Project site contains four existing buildings with approximately 80,003 sf of mostly office space and ground floor retail, at 11-21 Bromfield Street, 349-363 Washington Street, 365 Washington Street, 367-369 Washington Street and 1-9 Bromfield Street. It is bounded by Washington Street to the east, Bromfield Street to the south, Province Court and Ordway Court to the north, and 32-54 Bromfield Street to the west. The Project site is immediately adjacent to office, commercial and residential uses, and has excellent access to public transportation and vehicular transportation systems.

Appendix A contains photographs of the existing conditions on the Project site.

2.2 Proposed Development Program

2.2.1 Building Program

The proposed Project is a mixed-use development that will replace the four existing buildings located on the site with a 28-story, approximately 407,300-sf structure with a base of six floors that will include approximately 49,200 sf of retail space on the basement floor and first two floors; approximately 192 parking spaces on floors three through five; residential lobby, amenities and up to six residential units on the sixth floor; and approximately 276 residential units on floors seven through 28 in approximately 281,000 sf of space. Access to the parking garage will be from Province Court with egress out to Bromfield Street. All loading facilities and trash bays will be located inside the building, with access from Province Court.

2.2.2 Approximate Dimensions

Table 2-1 presents the approximate dimensions of the Project:

Table 2-1 Approximate Dimensions and Uses

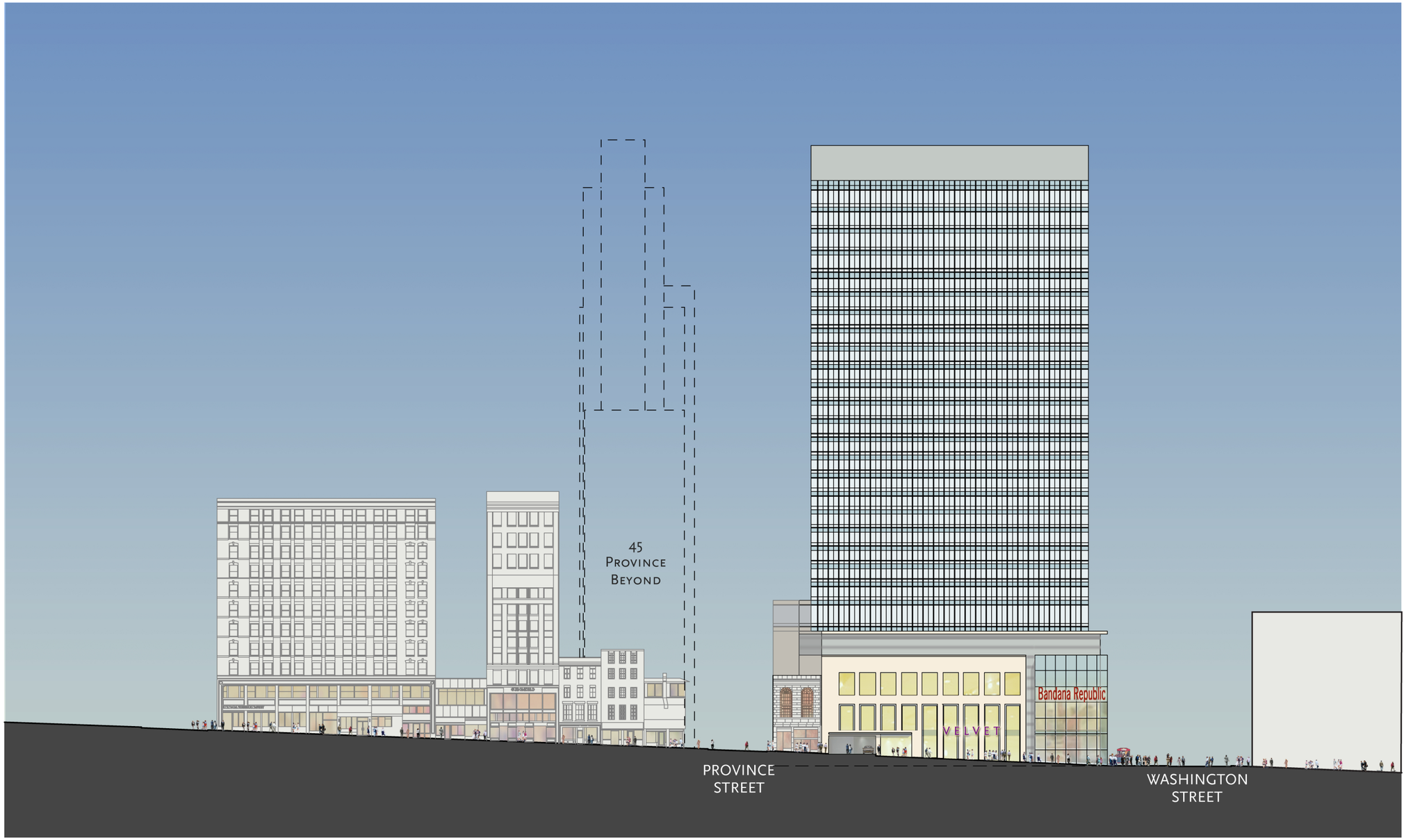
Element	Existing	Proposed
Project site	0.54 acres (23,700 sf)	0.54 acres (23,700 sf)
Residential	N/A	276 units / 281,000 +/- sf
Retail	50,323 sf	49,200 +/- sf
Office	29,680 sf	N/A
Parking	N/A	192 spaces
Floor Area Ratio	3.38 +/-	17.19 +/-
Building Height	Two to six stories / maximum of 60 feet	28 stories / maximum of 333 feet

The massing of the Project will be broken up, with components of the structure reducing in mass as it gets higher. The base will contain up to approximately 23,500 sf of area per floor through the fifth floor, topped by the sixth floor which will contain approximately 17,400 sf. A tower will rise above the base with floors seven through 24 containing approximately 12,300 sf each, and floors 25 through 28 containing approximately 10,300 sf each.

Figures 2-1 and 2-2 display perspectives of the Project. Floor plans of the Project are attached as Appendix B.

2.3 Schedule

Demolition of the four existing building on-site is expected to begin in March 2010 and construction is expected to begin during the summer of 2010. Construction is anticipated to last approximately 30 months.



ONE BROMFIELD STREET

MIDWOOD MANAGEMENT CORP.

Figure 2-1 Bromfield Street Perspective

SCALE: 1" = 60'

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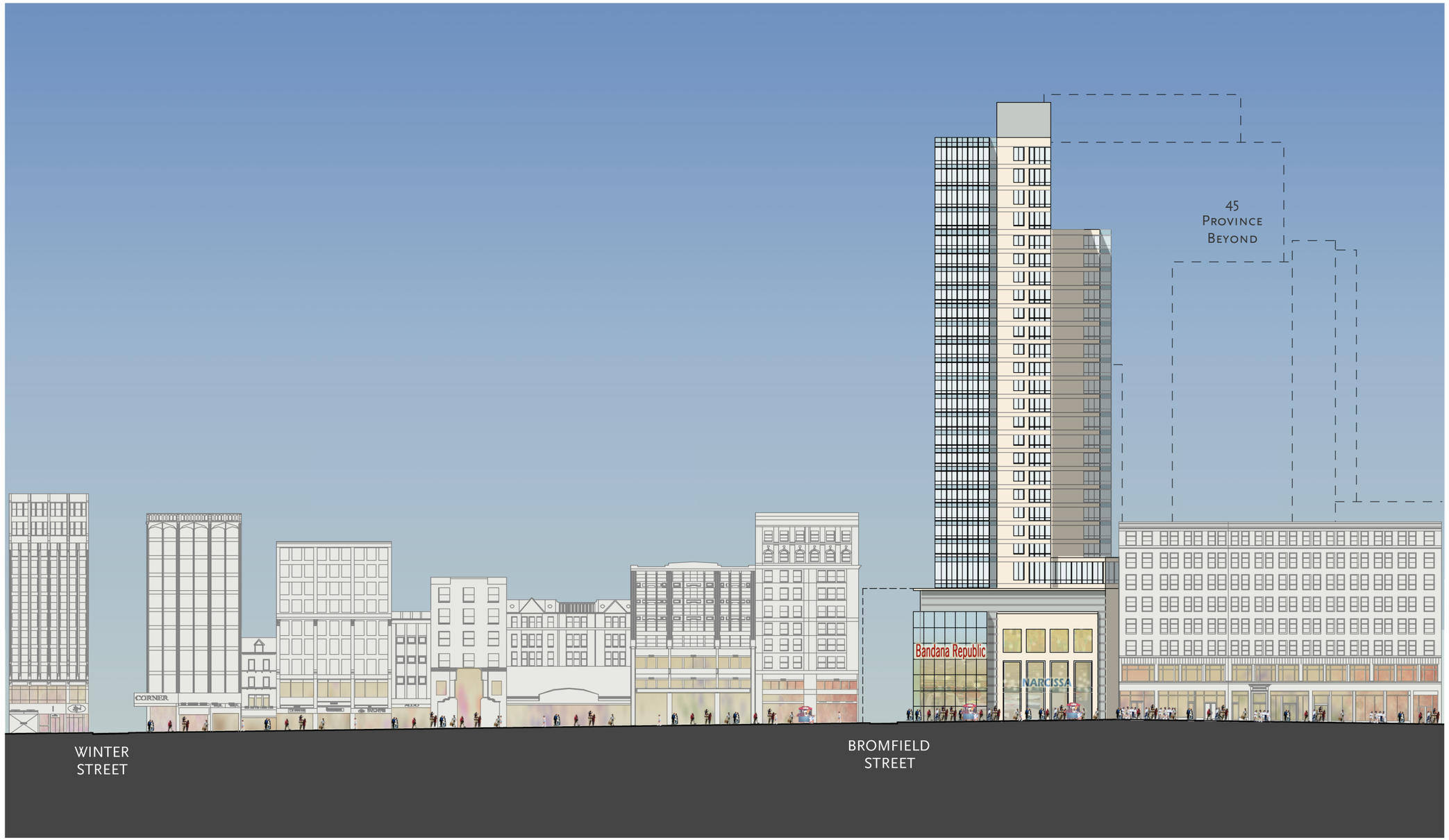

One Bromfield Street

Midwood Management Corp.

Figure 2-2 Washington Street Perspective

SCALE: 1" = 60'

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3.0 ASSESSMENT OF DEVELOPMENT REVIEW COMPONENTS

Article 80 of the Code specifies that the BRA may require in its Scoping Determination that the applicant conduct studies to determine the direct or indirect impact on its surroundings that are reasonably attributable to a proposed project. The development review components include transportation, environmental protection, urban design, historic resources, and infrastructure systems. Where potential for direct or indirect impacts exist, measures may be required to mitigate the impacts. The areas for which studies and mitigation may be required are addressed below.

3.1 Transportation

3.1.1 Introduction

This section summarizes the transportation issues related to One Bromfield Street and discusses preliminary Project trip generation numbers, preliminary transportation impacts, and transportation demand management measures associated with the Project. The proposed Project consists of the redevelopment of four existing buildings located in the Downtown Crossing block of Washington Street, Bromfield Street, Province Street, and Province Court. The Proponent anticipates the preparation of a comprehensive analysis of transportation aspects of the Project, including pedestrian, transit, automobile traffic, parking, and loading activity. The study will be developed in cooperation with the Boston Transportation Department ("BTD"), BRA, and the community.

3.1.2 Project Description

The Project comprises most of the block bounded by Province Court to the north, Bromfield Street to the south, Washington Street to the east, and Province Street to the west in Boston's Downtown Crossing area. The existing Hutchinson Building on 32-54 Province Street is not included in the Project site. The Project site currently consists of four buildings containing 29,680 sf of office space and 50,323 sf of retail.

The Project includes demolition of four buildings on the site, along with construction of a new, 28-story, mixed-use building totaling approximately 407,300 sf of space. The Project will provide a total of about 49,200 sf of retail space and approximately 276 residential rental apartment units. Parking for approximately 192 vehicles will be provided on-site in a parking garage located above the retail levels.

3.1.3 Site Access

Vehicular access to the Project site's parking garage will be provided on Province Court (see Figure 3-1). The main pedestrian entry will be from Bromfield Street, with primary access to retail uses through separate entrances along both Bromfield Street and Washington Street. The residential lobby will be accessed from Bromfield Street.

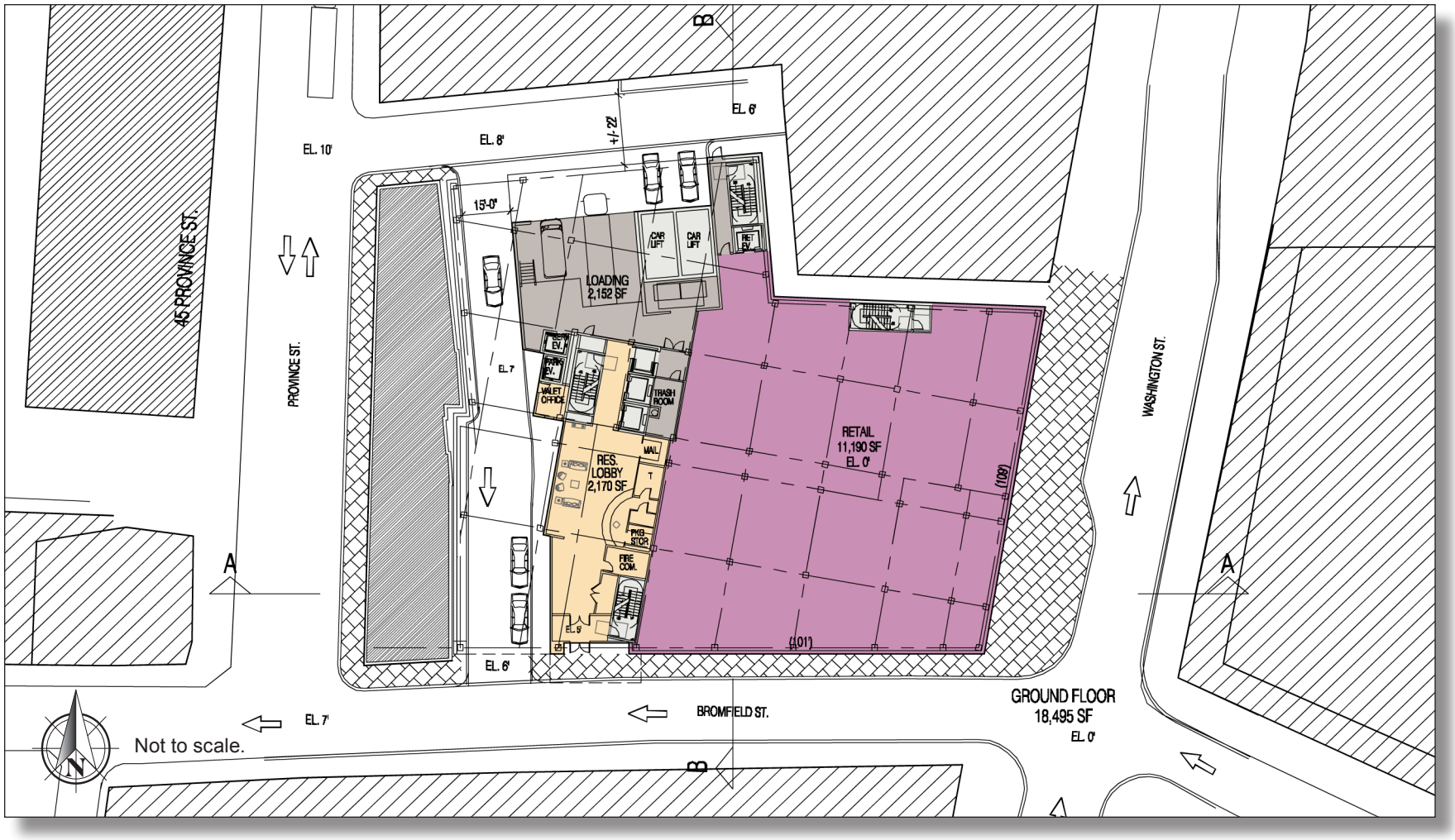


Figure 3-1
Proposed Site Plan

Building loading and servicing will occur from loading / service areas within the building accessed from Province Court.

3.1.4 Parking

The site currently has no parking accommodations. The proposed building will contain approximately 192 above-grade parking spaces serving the residential use only. The parking will be located on the third to fifth levels of the proposed building and will be accessed via two vehicle elevators along Province Court. All on-site parking will be valet managed.

Parking provisions are consistent with BTD guidelines for the area, with 0.70 spaces provided for each residential unit. BTD guidelines for the Downtown Crossing area require 0.5–1.0 spaces per residential unit and have no requirements for retail parking.

On-street parking restrictions within a five-minute walk, or a quarter of a mile, of the Project consist of a mixture of no parking, commercial, cab stands, and handicapped spaces. There are a limited number of metered and two-hour spaces within the immediate area, mostly on Arch Street and Devonshire Street.

Additionally, more than 8,000 off-street commercial public parking spaces are provided in garages and lots within a quarter-mile radius of the Project site. These facilities are identified in Figure 3-2 and Table 3-1.

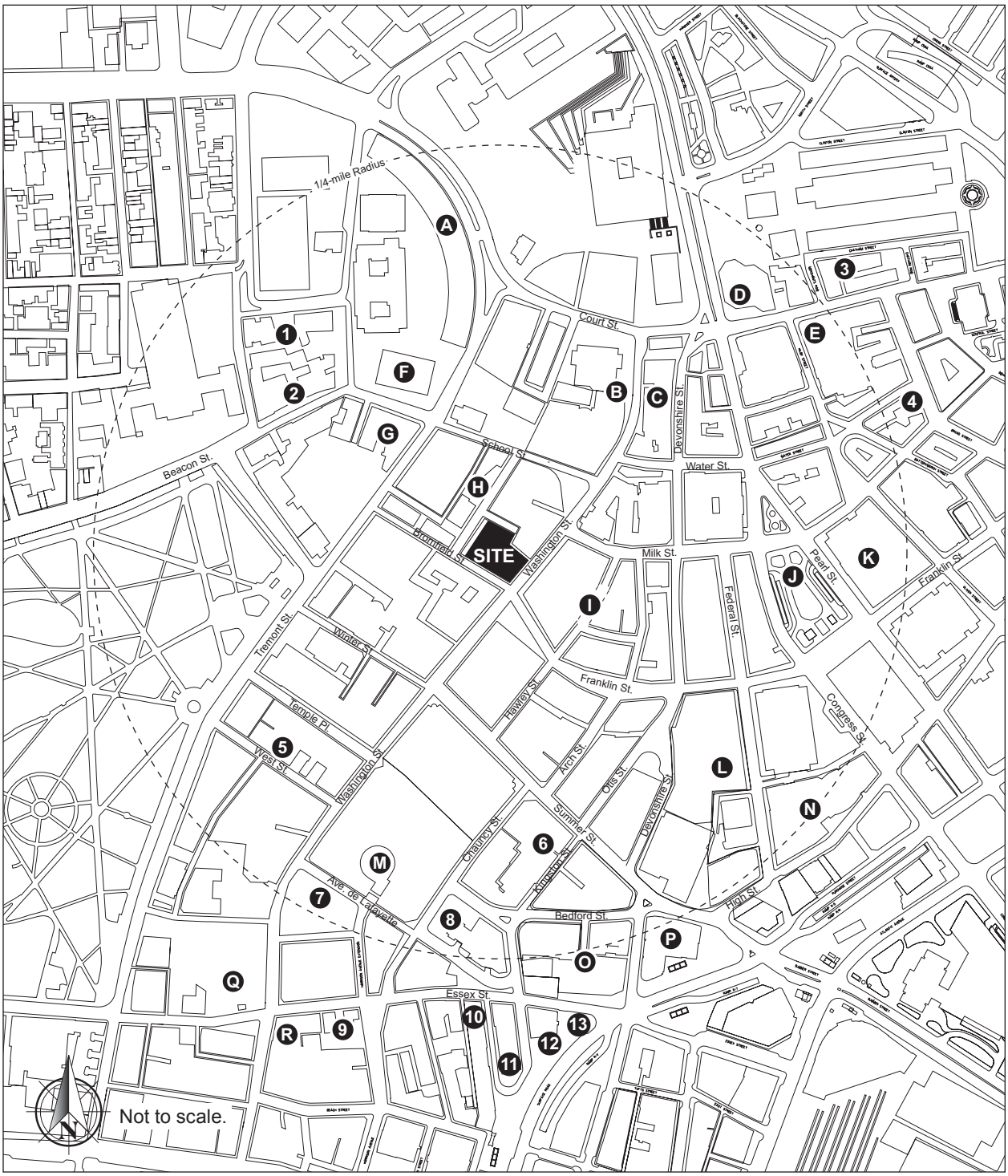


Figure 3-2
Off-street Public Parking in the Study Area

Table 3-1 Off-street Public Parking within a Quarter-mile of the Site

Map ID	Facility Name	Public Parking Spaces
A	Center Plaza	586
B	Pi Alley	600
C	One Devonshire Place	87
D	60 State Street	78
E	75 State Street	450
F	One Beacon Street	150
G	73 Tremont Street	120
H	45 Province Street*	184
I	33 Arch Street	880
J	Post Office Square Garage	900
K	One Post Office Square	82
L	Winthrop Square	1,125
M	Lafayette Place Garage	1,267
N	150/160 Federal Street	80
O	One Lincoln	265
P	125 Summer Street	75
Q	Millennium Place Garage	563
R	Archstone	177
	Total Garage Spaces	**7,669**
1	General Trading (Ashburton Place)	38
2	Allright Parking (Beacon Street)	26
3	Chatham Street Lot	31
4	Broad & Water Lot	21
5	Allright Parking (West Street)	15
6	23 Kingston Street	15
7	Allright Parking (Hayward Place)	150
8	Bradford Lot	10
9	Stanhope Garage (Essex Street)	53
10	P & J's Auto Park	50
11	22 Edinboro Street	11
12	Kingston/Surface Artery	24
13	Essex/Surface Artery	18
	Total Lot Spaces	**462**
	Total Off-street Parking	**8,131**
*45 Province Street closed during construction.		

3.1.5 Public Transportation

The Project is located central to all four downtown MBTA lines. Local and express bus service also runs in close proximity to the Project site. The MBTA public transportation services are summarized in Table 3-2 and Figure 3-3.

Table 3-2 MBTA Transit Service within a Quarter-mile of the Site

Transit Service	Description	Rush-hour Headway (in minutes)
	Rapid Transit Routes	
Orange Line	Forest Hills–Oak Grove	5
Red Line	Alewife–-Braintree/Mattapan	6
Green Line	Lechmere–Boston College/Cleveland Circle/Riverside/Heath Street	5–7
Silver Line	Dudley Square–Downtown via Washington Street	5
Blue Line	Bowdoin–Wonderland	4
	Local Bus Routes	
4	North Station–World Trade Center	16
6	South Station–Haymarket Station	35
7	City Point–Otis Street & Summer Street	8
11	City Point–Downtown	12
43	Ruggles Station–Park Street & Tremont Street	12
55	Queensberry–Copley Square or Park Street Station	30
92	Assembly Square Mall–Downtown	13
93	Sullivan Square–Downtown	7
352	Burlington–State Street Station Express	20
354	Woburn Express–State Street Station	20
355	Mishawum Station–State Station via Medford Square	—
448	Marblehead–Haymarket or Wonderland Station	30
449	Marblehead–Downtown Crossing	60
459	Marblehead–Downtown Crossing	60
	Express Bus Routes	
500	Riverside–Downtown Express	15
501	Brighton Center–Downtown Express	8
504	Watertown Square–Downtown Express	10
505	Waltham Center–Downtown Express	12
553	Roberts–Downtown Boston	60
554	Waverly Square–Downtown Boston	60
556	Waltham Highlands–Downtown Boston	60
558	Auburndale–Downtown Boston	45

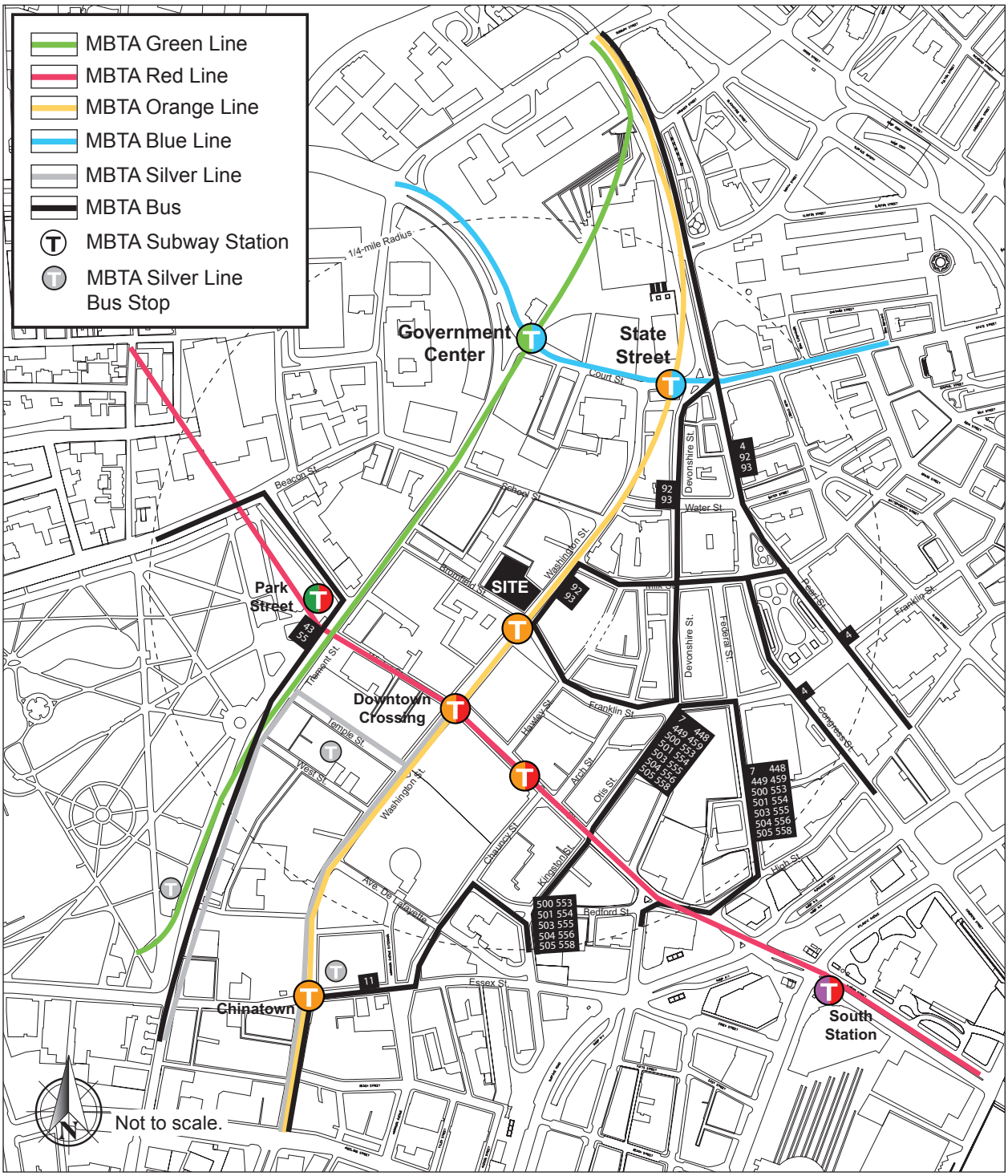


Figure 3-3
Public Transportation in the Study Area

3.1.6 Transportation Impact Overview

3.1.6.1 Existing Site Trip Generation

The existing site includes four buildings with approximately 29,680 sf of office and approximately 50,323 sf of retail space (including accessory storage), which currently includes a fast-food restaurant.

The vehicle trips generated by the existing uses were estimated based on Institute of Transportation Engineers (ITE) data for retail (Land Use Code [LUC] 820–Shopping Center) and office (LUC 710–General Office). The existing fast-food restaurant is included in the Shopping Center LUC, because of the overall shopping district characteristic of the Downtown Crossing neighborhood. The existing site trip generation is summarized in Table 3-3.

As shown in the table, the existing site generates approximately 348 vehicle trips over the course of a day, including 7 entering and 4 exiting vehicle trips during the morning peak hour, 15 entering and 21 exiting vehicle trips during the evening peak hour, and 21 entering and 19 exiting vehicle trips during the Saturday mid-day peak hour. These vehicle trips are distributed throughout the local area roadway network, since parking is not currently provided on-site.

Table 3-3 Existing Site Vehicle Trip Generation

Land Use		Walk Trips	Transit Trips	Auto Trips
Daily				
Retail (50.3 ksf)	In	861	292	170
	Out	861	292	170
Office (29.7 ksf)	In	6	8	4
	Out	6	8	4
Total	**In**	**867**	**300**	**174**
	Out	**867**	**300**	**174**
a.m. Peak Hour				
Retail (50.3 ksf)	In	4	13	6
	Out	11	2	3
Office (29.7 ksf)	In	0	3	1
	Out	0	0	1
Total	**In**	**4**	**16**	**7**
	Out	**11**	**2**	**4**
p.m. Peak Hour				
Retail (50.3 ksf)	In	47	8	14
	Out	12	41	20
Office (29.7 ksf)	In	0	0	1
	Out	0	3	1
Total	**In**	**47**	**8**	**15**
	Out	**12**	**44**	**21**
Saturday Mid-day Peak Hour				
Retail (50.3 ksf)	In	104	35	20
	Out	96	32	19
Office (29.7 ksf)	In	0	1	1
	Out	0	0	0
Total	**In**	**104**	**36**	**21**
	Out	**96**	**32**	**19**

Numbers may not add due to rounding.

3.1.6.2 Project Trip Generation and Mode Split

The trip generation for the proposed Project was based on rates derived from ITE's *Trip Generation*. The following ITE land use codes (LUC) were used in the development of Project-related trips.

Land Use Code 220 — Residential Apartment. This land use code refers to rental dwelling units that have at least three other dwelling units within the same building structure. Calculation of the number of trips uses ITE's fitted equation per dwelling unit.

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

The ITE rates produce vehicle trip estimates that are then converted to person trips based on average vehicle occupancy rates. Using BTD's mode split data for Area 2 (which includes the Project site), shown in Table 3-4, the person trips are then reallocated to vehicle, transit, and walk/bike trips.

Table 3-4 Mode Split Assumptions

Land Use		Walk Share	Transit Share	Auto Share	Local Vehicle Occupancy Rate
Daily					
Residential	In	42%	30%	28%	1.2
	Out	42%	30%	28%	1.2
Retail	In	59%	20%	21%	1.8
	Out	59%	20%	21%	1.8
a.m. Peak Hour					
Residential	In	7%	52%	41%	1.2
	Out	51%	18%	31%	1.2
Retail	In	14%	46%	40%	1.8
	Out	58%	10%	32%	1.8
p.m. Peak Hour					
Residential	In	51%	18%	31%	1.2
	Out	7%	52%	41%	1.2
Retail	In	58%	10%	32%	1.8
	Out	14%	46%	40%	1.8

Table 3-4 Mode Split Assumptions (Continued)

Land Use		Walk Share	Transit Share	Auto Share	Local Vehicle Occupancy Rate
Saturday Mid-day Peak Hour					
Residential	In	42%	30%	28%	1.2
	Out	42%	30%	28%	1.2
Retail	In	59%	20%	21%	1.8
	Out	59%	20%	21%	1.8

Based on the land use trip rates and mode split assumptions described above, Table 3-5 summarizes the resulting total adjusted Project-generated vehicle trips.

Table 3-5 Proposed Project Trip Generation

Land Use		Walk Trips	Transit Trips	Auto Trips
Daily				
Residential (276 units)	In	467	334	260
	Out	467	334	260
Retail (49.182 ksf)	In	841	285	166
	Out	841	285	166
Total	**In**	**1,308**	**619**	**426**
	Out	**1,308**	**619**	**426**
a.m. Peak Hour				
Residential (276 Units)	In	2	18	12
	Out	69	24	35
Retail (49.182 ksf)	In	4	13	6
	Out	10	2	3
Total	**In**	**6**	**31**	**18**
	Out	**79**	**26**	**38**
p.m. Peak Hour				
Residential (276 Units)	In	68	24	34
	Out	5	37	25
Retail (49.182 ksf)	In	46	8	14
	Out	12	40	19
Total	**In**	**114**	**32**	**48**
	Out	**17**	**77**	**44**

Table 3-5 Proposed Project Trip Generation (Continued)

Land Use		Walk Trips	Transit Trips	Auto Trips
Saturday Mid-day Peak Hour				
Residential (276 Units)	In	31	22	17
	Out	31	22	17
Retail (49.182 ksf)	In	101	34	20
	Out	93	32	18
Total	**In**	**132**	**56**	**37**
	Out	**124**	**54**	**35**

Numbers may not add due to rounding.

To estimate the net new trips for the redevelopment, trips generated by the existing retail and office space were determined and subtracted from the Project-generated trips. The net new vehicle trips for the proposed redevelopment adjusted are summarized in Table 3-6.

Table 3-6 Net New Site Vehicle Trip Generation

Period/Direction		Existing Vehicle Trips	Future Vehicle Trips	Net New Vehicle Trips
Daily	In	174	426	252
	Out	174	426	252
	Total	348	852	504
a.m. Peak Hour	In	8	18	10
	Out	4	38	35
	Total	12	56	45
p.m. Peak Hour	In	15	48	34
	Out	21	44	23
	Total	36	92	57
Saturday Mid-day Peak Hour	In	20	37	17
	Out	19	36	17
	Total	39	73	34

Numbers may not add due to rounding.

As shown in the table, estimated new daily vehicle trips to and from the site will increase by 252 trips in and 252 trips out. In the a.m. peak hour, an estimated 10 new vehicle trips in and 35 new vehicle trips out will occur; in the p.m. peak hour, 34 new vehicle trips in and 23 new vehicle trips out will occur; and in the Saturday mid-day peak hour, 17 new

vehicle trips in and 17 vehicle trips out will occur. The new residential trips will be added in the off-peak direction; i.e., leaving the site in the morning and returning in the evening; office and retail trips will be reduced by the proposed Project. Trip generation analysis for the proposed Project is presented in detail in Appendix C.

3.1.7 Service and Loading

All service and loading activity will occur on-site from a loading/service area in the building located along Province Court that will include two loading bays: one to accommodate smaller delivery vehicles like vans, and one to accommodate delivery trucks (e.g., SU-35). These plans are still in the early development stages.

"No Idling" signs will be posted in all the loading/service areas.

3.1.8 Study Area

Detailed analysis of intersection traffic operations and development of appropriate mitigation measures will be addressed by the Proponent. Vehicular access to and from the site is restricted by the Downtown Crossing pedestrian zone along Washington Street, Winter Street, and Summer Street. Additional vehicle restrictions along the block of Franklin Street east of Washington Street and on Washington Street north of Franklin Street also significantly restrict access and egress to and from the site by general traffic. Traffic generated by retail uses will be distributed to local public parking facilities in the area, as is the condition with existing uses on-site, since no parking will be available for retail uses. With the addition of a parking garage on the site for residential uses, site-related traffic will be distributed on local streets providing access by general traffic to and from the site. Any impacts that require mitigation will be carefully coordinated with BTD as well as with local neighbors.

To evaluate both existing and future traffic operating conditions, the study team proposes to study the following intersections (see Figure 3-4):

- Tremont Street/School Street/Beacon Street;
- Province Street/School Street;
- Washington Street/School Street;
- Province Street/Bromfield Street;
- Tremont Street/Bromfield Street; and
- Tremont Street/Park Street.

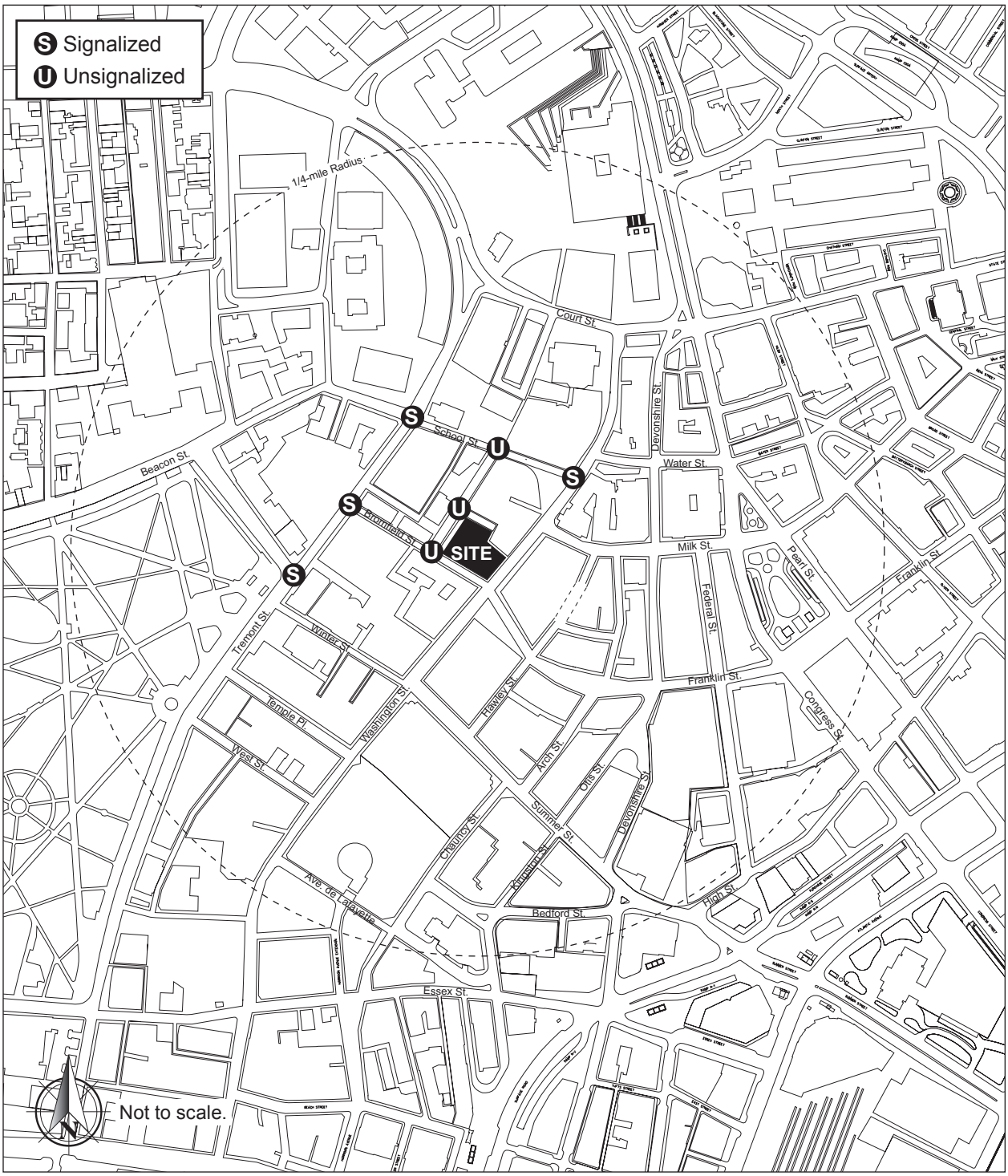


Figure 3-4
Study Area Intersections

Traffic and pedestrian counts will be conducted at the above-listed study area intersections during the weekday morning (7:00–9:00 a.m.) and evening (4:00–6:00 p.m.) peak periods. Traffic and pedestrian data will also be collected for the peak Saturday period between 11:00 a.m. and 1:00 p.m. These traffic counts will serve as a base scenario for the traffic analysis to be presented in the subsequent analysis.

The Proponent will coordinate with BRA and BTD to identify an appropriate study area, build year, growth rate, and any area development projects.

3.1.9 Transportation Demand Management

The Proponent is committed to implementing Transportation Demand Management (TDM) measures to minimize automobile usage and Project-traffic impacts. The TDM program supports the City's efforts to reduce dependency on the automobile by encouraging travelers to use alternatives to driving alone, especially during peak time periods. A TDM program may include transit pass subsidies for employees, secure bicycle parking areas, and distributions of transit maps and schedules to residents, guests, and employees. TDM measures will be described and evaluated in the DPIR and Transportation Access Plan Agreement ("TAPA").

The Proponent is prepared to take advantage of good transit access in marketing the site to future apartment renters and retail tenants to work with them to implement the following demand management measures to encourage the use of public transportation, ridesharing, bicycling, and walking, as discussed below.

3.1.9.1 Alternative Mode Benefits/Tactics

The primary alternative transportation modes to be encouraged will be public transportation, ridesharing, bicycling, and walking.

3.1.9.2 Public Transportation

The following promotion and incentive measures aim to increase public transit use to and from the site:

- Provide one free monthly MBTA subway pass per residential unit for the first six months of operation;
- Include language in new commercial tenant leases to encourage tenants to promote public transportation and consider subsidizing employee use of public transit;
- Promote to commercial tenants that, as employers, they can save on payroll-related taxes and provide employee benefits when they offer transportation benefits such as subsidized public transportation; and

- Make available information on bus and subway routes and schedules to residents.

3.1.9.3 Ridesharing/Carsharing

The following promotion and incentive measures aim to increase ridesharing:

- Discourage drive-alone employee commuting by providing not more than five employee parking spaces in the Project garage;
- Create lease language encouraging tenants to promote ridesharing; and
- Through membership in the local Transportation Management Association (TMA):
  - Provide on-line registration for the RideSource ride-matching program through Caravan for Commuters;
  - Provide access to information on area carpool and vanpool participants through Caravan; and
  - Organize an internal ride-matching program for employees who would be more willing to participate in a ride-matching service with fellow employees than with a large regional database.

3.1.9.4 Bicycle/Pedestrian Trips

Promotions and Incentives to encourage bicycle and pedestrian trips include:

- Provision of on-site bike racks; and
- Provision of secure bicycle storage for residents of the Project.

3.1.10 Construction-period Impacts

A Construction Management Plan ("CMP") executed with BTD will describe the need to occupy lanes of surrounding streets and/or sidewalks during construction and discuss measures for minimizing negative impacts associated with trucking activity and construction worker parking, including demand management for construction workers.

3.2 Environmental Protection

3.2.1 Wind

The Project will have a height of approximately 333 feet. Buildings of similar height are located in the immediate Project vicinity. The Proponent will conduct a quantitative wind analysis, including wind tunnel testing, as required by the BRA for buildings over 150 feet. Results of the wind analysis will be included in the Draft Project Impact Report ("DPIR").

3.2.2 Shadow

A shadow impact analysis was conducted for the Project. This analysis is included as Appendix D to the PNF. Three time periods (9:00 a.m., 12:00 noon, and 3:00 p.m.) during the Vernal Equinox (March 21), Summer Solstice (June 21), Autumnal Equinox (September 21), and the Winter Solstice (December 21) were evaluated. In addition, shadow studies were conducted for 6:00 p.m. during the Summer Solstice and Autumnal Equinox.

The Project site is located in a densely built urban area and the proposed Project will be surrounded by and adjacent to structures of similar height and massing such as 33 Arch Street, and two currently under construction, One Franklin Street, and 45 Province Street. Therefore, the Project is not anticipated to create significant new shadow on surrounding public open spaces, public ways and building facades. As shown, much of the new shadow from the Project will be cast on the rooftops of other buildings in the Project area. No new shadows from the Project will be cast on the Boston Common. The Project will comply with the requirements of Section 2(c) of Chapter 362 of the Acts and Resolves passed by The General Court of Massachusetts in 1990 (An Act Protecting Certain Public Commons) and the requirements of the Boston Zoning Code.

3.2.3 Daylight

The purpose of a daylight analysis is to estimate the extent to which a proposed project affects the amount of daylight reaching public streets in the immediate vicinity of a project site. The extent of daylight obstruction resulting from the Project and measures to mitigate adverse impacts will be studied in the DPIR.

3.2.4 Solar Glare

It is not anticipated that the Project will include the use of reflective glass or other reflective materials on the building facades that would result in adverse impacts from reflected solar glare from the Project. Should reflective glass or other reflective materials be proposed as the Project design advances, the Proponent will undertake a solar glare study as appropriate.

3.2.5 Air Quality

Potential long-term air quality impacts will be limited to emissions from Project-related mechanical equipment and pollutant emissions from vehicular traffic generated by the development of the Project. If changes in traffic operations are significant, the potential air quality impacts will be modeled for both existing and future conditions in the DPIR to demonstrate conformance with the National Ambient Air Quality Standards.

Construction period air quality impacts and mitigation are discussed below in Section 3.2.10.1.

3.2.6 Stormwater/Water Quality

Water quality should be improved with the appropriate use of catch basins and oil/sand separators under the proposed Project. Improvements to water quality will be described in the DPIR. Section 3.5.4 includes a discussion of compliance with DEP's Stormwater Management Program and a description of the proposed Site drainage system and how it will connect to the Boston Water and Sewer Commission (BWSC) system.

3.2.7 Flood Hazard Zones/Wetlands

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the Site located in the City of Boston - Community Panel Number 250286 0010 C indicates the FEMA Flood Zone Designations for the site area. The map shows that the Project is located in a Zone C, Area of Minimal Flooding.

The Project site is developed and does not contain wetlands.

3.2.8 Solid and Hazardous Wastes

3.2.8.1 Operational Solid and Hazardous Wastes

The Project will generate solid waste typical of other residential/mixed-use projects. Solid waste generated by the Project will be approximately 512 tons per year, based on the number of bedrooms proposed at a generation rate of four pounds (lbs) per bedroom per day and commercial, retail, and restaurant space proposed at a generation rate of 5.5 tons per 1,000 sf per year as shown in Table 3-7.

Table 3-7 Solid Waste Generation

Unit Type	Program	Number of Bedrooms	Generation Rate	Solid Waste (tons per year)
Studio / One Bedroom Units	223	223	4 lbs/bedroom/day	163
Two Bedroom Units	53	106	4 lbs/bedroom/day	78
Commercial / Retail / Restaurant	49,200 sf	N/A	5.5 tons/1,000 sf/year	271
Total Solid Waste Generation				512

Solid waste will include wastepaper, cardboard, glass, and bottles. A portion of the waste will be recycled. The remainder of the waste will be compacted and removed by a waste hauler contracted by building management. The Project's recycling program will be described in the DPIR. With the exception of "household hazardous wastes" typical of residential and restaurant uses (for example, cleaning fluids and paint), the residential and retail uses will not generate hazardous waste.

3.2.9 Noise

During operations, neither the Project's mechanical equipment nor traffic noise associated with the Project is expected to result in a perceptible change in noise levels. These impacts, and the Project's compliance with the City of Boston Noise Ordinance, will be studied in the DPIR.

Construction period noise impacts and mitigation are discussed below in Section 3.2.10.2.

3.2.10 Construction Impacts

The proximity of city streets and abutting commercial properties to the Project site will require careful scheduling of material removal and delivery, as well as evaluation of the existing use of the site. Planning with the City and neighborhood will be essential to the successful development of the Project.

A Construction Management Plan (CMP) will be submitted to BTD for review and approval prior to issuance of a building permit. The CMP will define truck routes which will help in minimizing the impact of trucks on local streets. A police detail will be provided to maintain access to adjacent properties and to direct pedestrian and vehicle flow.

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

Throughout Project construction, a secure perimeter will be maintained to protect the public from construction activities.

3.2.10.1 Construction Air Quality

Short-term air quality impacts from fugitive dust may be expected during the early phases of construction and during demolition. Plans for controlling fugitive dust during construction and demolition include mechanical street sweeping, wetting portions of the Project site during periods of high wind, and careful removal of debris by covered trucks. The construction contract will provide for a number of strictly enforced measures to be used by contractors to reduce potential emissions and minimize impacts. These measures are expected to include:

- Using wetting agents on area of exposed soil on a scheduled basis;
- Using covered trucks;

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

3.2.10.2 Construction Noise

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

Mitigation measures are expected to include:

- Instituting a proactive program to ensure compliance with the City of Boston noise limitation policy;
- Using appropriate mufflers on selected equipment and ongoing maintenance of intake and exhaust mufflers;
- Scheduling equipment operations to synchronize the noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels;
- Turning off idling equipment; and
- To the extent practical, locating noisy equipment at locations intended to mitigate impact on sensitive locations by shielding or distance.

3.2.10.3 Construction Waste Management

During demolition, construction procedures will allow for the segregation, reuse, and / or recycling of construction materials. Materials that cannot reasonably be reused or recycled will be transported in covered trucks by a contract hauler to a licensed facility.

3.2.11 Rodent Control

A rodent extermination certificate will be filed with the building permit application to the City. Rodent inspection monitoring and treatment will be carried out before, during, and at the completion of all construction work for the proposed Project, in compliance with the

City's requirements. Rodent extermination prior to work start-up will consist of treatment of areas throughout the site. During the construction process, regular service visits will be made.

3.2.12 Wildlife Habitat

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

3.2.13 Sustainable Design

The Project will be certifiable under the U.S. Green Council's LEED system. Energy conservation measures will be an integral part of the Project's design. The building will employ energy-efficient and water-conservation features for mechanical, electrical, architectural, and structural systems, assemblies and materials where practical. The base configuration of the proposed building will meet the Massachusetts Energy Code. Mechanical and HVAC systems will be installed to the current industry standards and full cooperation with the local utility providers will be maintained during design and construction. The Project will occupy a previously developed and dense urban site that is well served by public transportation. Issues of sustainable design are further discussed in Section 3.3 below.

3.3 Urban Design

3.3.1 Building Design

The proposed mixed-use building intends to respond to the unique site conditions at this important intersection defined by the convergence of Franklin Street and Bromfield Street along the Washington Street retail corridor at the north corner of Shopper's Park. The building has been designed to respond to its prominent corner site, to the urban retail street wall of Washington Street, and to the adjacent high-rises that are visible on the Boston skyline. Furthermore, this Project (along with One Franklin Street and 45 Province Street which are already under construction) will help to fuel the energetic resurgence of the Downtown Crossing district.

3.3.1.1 Design Concept

The design concept of the building is to create an architectural anchor at this prime retail corner adjacent to the One Franklin Street project and Shopper's Park that is at the heart of the Downtown Crossing neighborhood. Given the configuration of the existing street pattern and the planned configuration of the One Franklin Street project, the plaza-like setting of Shopper's Park will become the new pulse of Downtown Crossing. Shopper's Park also facilitates view opportunities to and from the One Bromfield Project site located at the terminus of Franklin Street.

As a result of the need to respond to this prominent urban site with the adjacent open space of Shopper's Park, the building will feature a highly-visible, distinctive corner element that will become the beacon of the neighborhood. The three-level retail component is consistent with the City's vision for Downtown Crossing and will be coupled with three levels of screened parking, which will create a podium that is consistent in massing and scale with other buildings along Washington and Bromfield Streets.

The tower portion of the Project, which will infuse the area with a rental residential option, will be a 21st century tower of two vertical slabs. These tower slabs will gracefully slide past each other, one a gleaming glass slab and the other a solid masonry and/or metal backdrop. The tower portion of the Project will respond to the secondary skyline scale of the neighborhood created by the adjacent One Franklin Street, 33 Arch Street, 45 Province Street and nearby Millenium Towers.

The tower has been divided into two materials, in order to further emphasize the vertical proportion, and present an elegant slender tower to the neighborhood from key vantage points.

The tower has been set back from the podium to preserve the retail street wall scale. In addition with the setbacks, the tower has been positioned and rotated to serve both as a sculptural object and a good urban neighbor.

3.3.1.2 Existing Building Considerations

Presently, the site consists of four existing buildings, ranging in height from one story to six stories. The buildings, built between 1840 and 1948, unlike many of their neighbors, have been deemed as historically insignificant. Most have been altered significantly (especially at the ground level) with a great amount of historic detailing lost to either post WWII renovations or general deterioration. The facades can best be described as a patchwork of architectural alterations and urban decay. Two of the buildings are classified a Category V structures, with the other two listed as Category VI structures as designated by the Boston Landmarks Commission (BLC).

The most prominent feature of the existing structures is their scale, which for the most part is consistent with the Washington Street corridor (with the exception of the one-story building on Bromfield Street). It is the intent of the new building design to maintain and enhance the existing scale of the retail street wall.

3.3.1.3 Height and Massing

As a mixed-use building, the building form is a derivative of the building functions and the dual scale of the neighborhood. The coupling of the podium base and a tower convey the dual uses (retail and residential, respectively) and the dual scales (retail street wall and

adjacent high-rise towers, respectively). As noted above, the tower has been setback from the podium, and slightly rotated to work with the other tower massings that are immediately adjacent to the site.

3.3.1.4 Façade Design, Fenestration and Building Materials

The podium façade is intended to reflect the dynamic nature of the retail world and is envisioned as a series of glass storefronts along both Washington and Bromfield Streets. As a reflection of the tighter and smaller pedestrian scale of Bromfield Street, storefronts along the western Bromfield Street façade are smaller than the south façade on Washington Street. Immediately above the glass retail storefront will be the subtle cladding which screens the parking garage and is intended to complement the storefront glass to create a podium that is pedestrian in scale, but substantial enough to act as the base of the tower. At the prominent corner of Washington and Bromfield Streets above the retail entrances, is the Project beacon, a sculptural architectural element that will act as the focal corner piece of the new building and Shopper's Park defined by Franklin and Washington Streets.

The two slender tower slabs will offer the juxtaposition of a gleaming glass slab that will gently slide past the more stately and substantial masonry and/or metal slab, which acts as the backbone of the composition. The tower will be topped of by a simple metal and glass screened mechanical penthouse, whose refined detail, will be visible on the Boston skyline.

3.3.2 Site Design

3.3.2.1 Open Space and Landscaped Areas

The Project site is a grouping of four parcels that total an area of approximately 23,700 sf. The existing buildings presently cover the entire parcel, and the proposed building will offer a covered one-way residential drive-through/drop-off from Province Court to Bromfield Street. Additionally, a loading / service area will be included in the building, accessible via Province Court.

Given the site configuration, there is no opportunity beyond the drive-through and building services area to incorporate open space. However, the building will form an important street wall corner that will serve to define Shopper's Park, the adjacent open space at One Franklin Street. This plaza-like urban space houses the MBTA's Orange Line Downtown Crossing Station, and will become a bustling urban open space.

Additionally, the Proponent will be working within the context of the City's vision for Bromfield Street, to help make the pedestrian experience on Bromfield Street a unique and pleasant one. Likewise, the expansive width of the Washington Street sidewalk will enable it to encompass potential pedestrian amenities within the context of the plan for Washington Street.

3.3.2.2 Pedestrian Circulation

There exists strong pedestrian travel along Washington Street in both directions, and entrances to the subgrade, ground floor and second floor retail is anticipated to be at the prominent corner of Washington Street and Bromfield Street for the larger (anchor) tenants. Additional retail entries for the grade-level retail will be placed along both Washington Street and Bromfield Street.

The pedestrian entrance for the residential tower will be at the western end of the Project site along Bromfield Street prior to the intersection with Province Street.

There has been some discussion, in accordance with the community's vision for the neighborhood, that Bromfield Street between Washington Street and Province Street will become a pedestrian street (with no vehicular access). The Proponent's proposal accommodates the pedestrianization of most of this portion of Bromfield Street and accordingly places the vehicular drop-off and pick-up for One Bromfield Street, as close to Province Street as possible.

3.3.2.3 Parking and Vehicular Circulation

The majority of travel to and from the site will be by pedestrians and by public transportation commuters utilizing the adjacent Downtown Crossing MBTA Station and other nearby stations. The limited vehicular access will be handled as described in the Traffic Analysis and summarized below.

Taxis: Retail Patrons:

Taxis will be able to drop-off or pick-up retail patrons along Franklin Street or Washington Street as they are accessible to only cabs and delivery trucks.

Taxis: Residential Tower Guests and Residents:

Taxis will be able to utilize the covered vehicular drop-off and pick-up at grade beneath the tower off of Province Court accessible from Province Street. Vehicles would then proceed westward on Bromfield Street which is a one-way street.

Parking:

Residents wishing to utilize the 192-space, three-level parking garage will access the site via either Tremont Street or Beacon Street proceeding onto School Street and then onto Province Street, accessing the covered vehicular drive via Province Court. Taxis and resident vehicles will arrive at the residential lobby via the covered vehicular drive-thru.

Loading and Deliveries:

Delivery trucks would take a similar route as parking residents in order to access the loading / service area which is located off of Province Court. Vehicles would be limited in size to SU-35, and would turn onto Province Court from Province Street and back in the loading areas from Province Court. It should be noted that a portion of the Project site approximately 20 feet wide immediately adjacent to Province Court will be paved to increase the maneuverability of loading vehicles, thus making Province Court much more efficient than it is in its present condition.

The design of the resident vehicular access and service / loading areas provides for efficient traffic flow as well as the separation of service and resident traffic.

3.3.3 Sustainable Design/Energy Conservation

The Project will meet the requirements of Article 37 of the Code and will be certifiable under the U.S. Green Council's LEED system. The Project provides an opportunity to revitalize Downtown Crossing as a place to live, work and shop, while showcasing sustainable principles. The Proponent is committed to executing a project which is guided by LEED principles and practices.

To that end, various LEED Accredited Professionals (AP) will be included in the design team. A preliminary LEED checklist is provided at the end of this section to identify sustainable design goals for the Project. At this early state of the design process, specific building systems and specifications have not yet been determined. Design solutions will be developed in keeping with LEED credit intentions. It is intended that the final design will create a development that will serve to minimize environmental impacts, optimize interior environmental quality for the building inhabitants and enhance the surrounding communities.

Project Highlights

The proposed mixed-use Project is located in Downtown Crossing, a dense urban area, near the Boston Common and the Public Garden. This location, with access to public transportation and the ability to walk to many services, results in reduction in pollution and land use by automobiles. The Project strives to reduce energy use by ten percent (10%) with strategies like efficient equipment, appropriate insulation, commissioning of building systems, and incorporation of day lighting. According to the United States Green Building Commission (USGBC), energy use reduction and auto use reduction can reduce emissions that affect air quality and are implicated in climate change.

Additionally, the Proponent intends to implement various strategies to positively impact the indoor environmental quality such as a Construction Indoor Air Quality Plan, occupant

control of building systems and access to daylight and views. According to the USGBC, these approaches may enhance the indoor environment.

Article 37, Boston Zoning Code

The Project is investigating achievement of two of the four available Boston Green Building Credits:

1. Modern Mobility
2. Ground Water Recharge

The Project is unlikely to achieve two of the four available Boston Green Building Credits:

1. Modern Grid
2. Historic Preservation

At this initial stage, the Project team anticipates achieving the equivalent of a LEED certifiable project by meeting the requirements for the following LEED points as defined under the USGBC LEED New Construction Version 2.2. A brief description of each point is listed below, and a USBGC project Checklist has been included at the end of this section. Presently, 27 points have been targeted, not including any of the potential Boston Zoning Code Article 37 points.

Sustainable Sites

1. Construction Activity Pollution Prevention (SS prerequisite 1). A management plan will be created and implemented to reduce pollution from construction activity.
2. Site Selection (SS credit 1). The Project site is currently completely developed and is located in a dense urban area. This development does not violate any of the established LEED criteria.
3. Development Density and Community Connectivity (SS credit 2). The development is in a dense urban area with existing infrastructure and basic services.
4. Alternative Transportation – Public Transportation Access (SS credit 4.1). The Project is sited near several heavily served mass transit stops.
5. Heat Island Effect – Non-Roof (SS credit 7.1). The intent is to reduce heat islands by placing one hundred percent (100%) of parking under cover.
6. Heat Island Effect – Roof (SS credit 7.2). The intent is to reduce heat islands by designing and installing a roof with an appropriate Solar Reflectance Index (SRI).

Water Efficiency

1. Water Efficient Landscaping (WE credit 1.1). The intent is to limit the use of potable water with strategies such as using adaptive plants, efficient irrigation systems and climate base controllers.

Energy and Atmosphere

1. Fundamental Commissioning of the Building Energy Systems (EA prereq. 1). The intent is to verify that the building's related systems are installed and perform as intended, via means of a commissioning process.

2. Minimum Energy Performance (EA prereq. 2). The intent is to clarify the minimum level of energy efficiency for the building and related systems.

3. Fundamental Refrigerant Management (EA prereq. 3). The intent is to reduce ozone depletion through thoughtful use of appropriate refrigerants.

4. Optimize Energy Performance (EA credit 1). The intent is to reduce the environmental impacts associated with energy use, via means of increased energy performance.

5. Enhanced Commissioning (EA credit 3). The intent is to verify that the building's related systems are installed and perform as intended, via means of an enhanced commissioning process.

6. Enhanced Refrigerant Management (EA credit 4). The intent is to reduce ozone depletion through thoughtful evaluation and use of appropriate refrigerants.

Materials and Resources

1. Storage and Collection of Recyclables (MR prereq. 1). The intent is to reduce the amount of building waste that is taken to landfills, by supporting occupant recycling efforts.

2. Construction Waste Management (MR credit 2.1 and 2.2). The intent is to divert construction and demolition debris from landfills through the use of a construction waste management plan.

3. Recycled Content (MR credit 4.1 and 4.2). The intent is to reduce the impacts from use of virgin materials, by using building materials with recycled content, where appropriate.

Indoor Environmental Quality

1. Minimum Indoor Air Quality (EQ prereq. 1). The intent is to establish minimum indoor air quality performance.

2. Environmental Tobacco Smoke Control (EQ prereq. 2). The intent is to minimize the exposure of building occupants, indoor surfaces and ventilation air distribution systems to Environmental Tobacco Smoke (ETS).

3. Construction IAQ Management Plan (EQ credit 1). The intent is to reduce indoor air quality problems resulting from the construction process, through the means of a Construction IAQ Management Plan.

4. Low Emitting Materials – (EQ credit 4.1, 4.2 and 4.3). The intent is to reduce the quantity of indoor air contaminants through thoughtful use of adhesives and sealants, paints, and carpet with low VOC content.

5. Indoor Chemical and Pollutant Source Control (EQ credit 5). The intent is to minimize the exposure of building occupants to potentially hazardous particulates and chemical pollutants.

6. Controllability of Systems – Lighting (EQ credit 6.1). The intent is to enhance the indoor environmental quality by providing access to lighting systems controls.

7. Controllability of Systems – Thermal Comfort (EQ credit 6.2). The intent is to enhance the indoor environmental quality by providing access to thermal systems controls.

8. Daylight and Views – (EQ credits 8.1 and 8.2). The intent is to provide a connection between the indoor and outdoor spaces through the incorporation of daylight and views.

Innovation in Design

1. Exemplary Performance – Public Transportation Access (ID credit 1.1). The Project is sited near several heavily served mass transit stops.

2. Exemplary Performance Heat Island Effect – Non-Roof (ID credit 1.2). The Project hopes to reduce heat islands by placing one hundred percent (100%) of parking under cover.

3. Exemplary Performance Construction Waste Management – (ID credit 1.3). The goal is to divert construction and demolition debris from landfills through the use of a construction waste management plan.

4. Innovation in Design – Green Housekeeping (ID credit 1.4). The intent is to engage in a green housekeeping policy wherein all cleaners used in common areas shall comply with Green Seal standards.

5. Innovation in Design – LEED AP (ID credit 2). The goal is to support and encourage the design integration of LEED through the input of LEED Accredited Professionals.

LEED for New Construction v2.2
Registered Project Checklist

Updated: August 25, 2008
One Bromfield Street
Boston - Massachusetts

Yes	?	No			
5	4	6	**Sustainable Sites**		14 Points
Y			Prereq 1	**Construction Activity Pollution Prevention**	Required
1			Credit 1	**Site Selection**	1
1			Credit 2	**Development Density & Community Connectivity**	1
		1	Credit 3	**Brownfield Redevelopment**	1
1			Credit 4.1	**Alternative Transportation**, Public Transportation Access	1
		1	Credit 4.2	**Alternative Transportation**, Bicycle Storage & Changing Rooms	1
	1	1	Credit 4.3	**Alternative Transportation**, Low-Emitting & Fuel-Efficient Vehicles	1
	1		Credit 4.4	**Alternative Transportation**, Parking Capacity	1
		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

Yes	?	No			
1	3	1	**Water Efficiency**		5 Points
1			Credit 1.1	**Water Efficient Landscaping**, Reduce by 50%	1
	1		Credit 1.2	**Water Efficient Landscaping**, No Potable Use or No Irrigation	1
		1	Credit 2	**Innovative Wastewater Technologies**	1
	1		Credit 3.1	**Water Use Reduction**, 20% Reduction	1
	1		Credit 3.2	**Water Use Reduction**, 30% Reduction	1

4	2	11	**Energy & Atmosphere**		17 Points
Y			Prereq 1	**Fundamental Commissioning of the Building Energy Systems**	Required
Y			Prereq 2	**Minimum Energy Performance**	Required
Y			Prereq 3	**Fundamental Refrigerant Management**	Required

***Note for EAc1**: All LEED for New Construction projects registered after June 26th, 2007 are required to achieve at least two (2) points under EAc1.

2		8	Credit 1	**Optimize Energy Performance**	1 to 10
				10.5% New Buildings or 3.5% Existing Building Renovations	1
				14% New Buildings or 7% Existing Building Renovations	2
				17.5% New Buildings or 10.5% Existing Building Renovations	3
				21% New Buildings or 14% Existing Building Renovations	4
				24.5% New Buildings or 17.5% Existing Building Renovations	5
				28% New Buildings or 21% Existing Building Renovations	6
				31.5% New Buildings or 24.5% Existing Building Renovations	7
				35% New Buildings or 28% Existing Building Renovations	8
				38.5% New Buildings or 31.5% Existing Building Renovations	9
				42% New Buildings or 35% Existing Building Renovations	10
		3	Credit 2	**On-Site Renewable Energy**	1 to 3
				2.5% Renewable Energy	1
				7.5% Renewable Energy	2
				12.5% Renewable Energy	3
1			Credit 3	**Enhanced Commissioning**	1
1			Credit 4	**Enhanced Refrigerant Management**	1
	1		Credit 5	**Measurement & Verification**	1
	1		Credit 6	**Green Power**	1

continued…

Yes	?	No			
4	3	6	**Materials & Resources**		**13** Points
Y			Prereq 1	**Storage & Collection of Recyclables**	Required
		1	Credit 1.1	**Building Reuse**, Maintain 75% of Existing Walls, Floors & Roof	1
		1	Credit 1.2	**Building Reuse**, Maintain 95% of Existing Walls, Floors & Roof	1
		1	Credit 1.3	**Building Reuse**, Maintain 50% of Interior Non-Structural Elements	1
1			Credit 2.1	**Construction Waste Management**, Divert 50% from Disposal	1
1			Credit 2.2	**Construction Waste Management**, Divert 75% from Disposal	1
		1	Credit 3.1	**Materials Reuse**, 5%	1
		1	Credit 3.2	**Materials Reuse**,10%	1
1			Credit 4.1	**Recycled Content**, 10% (post-consumer + ½ pre-consumer)	1
1			Credit 4.2	**Recycled Content**, 20% (post-consumer + ½ pre-consumer)	1
	1		Credit 5.1	**Regional Materials**, 10% Extracted, Processed & Manufactured Regional	1
	1		Credit 5.2	**Regional Materials**, 20% Extracted, Processed & Manufactured Regional	1
		1	Credit 6	**Rapidly Renewable Materials**	1
	1		Credit 7	**Certified Wood**	1

Yes	?	No			
8	3	2	**Indoor Environmental Quality**		**15** Points
Y			Prereq 1	**Minimum IAQ Performance**	Required
Y			Prereq 2	**Environmental Tobacco Smoke** (ETS) **Control**	Required
	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 & Sealants	1
1			Credit 4.2	**Low-Emitting Materials**, Paints & Coatings	1
			Credit 4.3	**Low-Emitting Materials**, Carpet Systems	1
			Credit 4.4	**Low-Emitting Materials**, Composite Wood & Agrifiber Products	1
1			Credit 5	**Indoor Chemical & Pollutant Source Control**	1
1			Credit 6.1	**Controllability of Systems**, Lighting	1
1			Credit 6.2	**Controllability of Systems**, Thermal Comfort	1
	1		Credit 7.1	**Thermal Comfort**, Design	1
		1	Credit 7.2	**Thermal Comfort**, Verification	1
1			Credit 8.1	**Daylight & Views**, Daylight 75% of Spaces	1
1			Credit 8.2	**Daylight & Views**, Views for 90% of Spaces	1

Yes	?	No			
5			**Innovation & Design Process**		**5** Points
1			Credit 1.1	**Innovation in Design**: Public Transporation Access	1
1			Credit 1.2	**Innovation in Design**: Exemplary Perf. Heat Island Effect	1
1			Credit 1.3	**Innovation in Design**: Exemplary Perf. Construction Waste Mgmt	1
1			Credit 1.4	**Innovation in Design**: Green Housekeeping	1
1			Credit 2	**LEED® Accredited Professional**	1

Yes	?	No		
27	15	26	**Project Totals** (pre-certification estimates)	**69** Points

Certified: 26-32 points, **Silver:** 33-38 points, **Gold:** 39-51 points, **Platinum:** 52-69 points

3.4 Historic and Archaeological Resources

This section describes historic and archaeological resources that may be affected by the proposed Project.

3.4.1 Historic Resources Within the Project Site

The Project site includes four properties included in the *Inventory of Historic and Archaeological Assets of the Commonwealth* (Inventory) maintained by the Massachusetts Historical Commission (MHC). These resources are included in the Inventory and have been evaluated by the Boston Landmarks Commission (BLC) for significance in accordance with the BLC category system.[1]

3.4.1.1 351-363 Washington Street

Constructed in 1928, the two-story building now contains two separate retail spaces: "Wendy's" and "The Children's Place." The 1980 BLC Inventory Form notes the building was altered in 1945-48. Further alterations to the building, including changes to the exterior building envelope through the application of metal panels and cast stone, have occurred since the Inventory Form was completed. In 1980, the BLC evaluated this building as a Category VI structure (that is, non-contributing as an intrusion). The "Greek key motif," noted on the BLC Inventory Form, is no longer visible on the Washington Street elevation, but is present on the side elevation within the alley off of Washington Street.

3.4.1.2 365 Washington Street

An altered example of the Boston Granite style prevalent in Boston between ca. 1830 and 1870, this ca. 1840-50 building is three stories in height and three bays wide. The third floor and attic represent the building's original design, while the second floor retains some turn-of-the-century cast iron storefront elements. The ground floor has been altered with the installation of modern storefronts. In 1980, the BLC evaluated the building as a Category V structure (that is, minor significance associated with the streetscape).

[1] BLC Categories: Category 1: nationally significant and eligible for listing on the NRHP and as local landmarks (LL); Category II: major significance to City, State, Region and individually eligible for listing on the NRHP and as LL; Category III: significant to the City of Boston and may be individually eligible for listing on or contribute to a district on the NHRP and may be eligible as a LL; Category IV: notable and important to the character of the area and may contribute to NRHP-eligible district; Category V: minor significance associated with the streetscape and may contribute to NRHP-eligible district ; Category VI: non-contributing as intrusions

3.4.1.3 1-9 Bromfield Street

Known as the Bromfield Building, this six-story building is situated at the prominent corner of Washington and Bromfield Streets. The Renaissance Revival style commercial structure features pairs of one-over-one, double hung, wood windows with cast stone surrounds on the third through sixth floors. The yellow brick building is capped with a sheet metal parapet and features cast iron storefront features at the second floor level. The ground floor has been extensively altered with the installation of modern storefronts. In 1980, the BLC evaluated this building as a Category V structure.

3.4.1.4 11-21 Bromfield Street

This ca. 1948 one-story commercial structure currently houses "City Sports." Described as a "post-WWII utilitarian structure" in the 1980 BLC Inventory Form, the building features a central door and two slightly projecting end bays. Although the original storefront windows and door have been replaced, the building retains its original cast stone walls and polished, dark red granite base and upper central bay. Evaluated by the BLC, it was determined to be a Category VI building that "detracts from the rhythm of the streetscape."

3.4.2 Historic Resources in the Vicinity of the Project Site

Multiple properties listed on the State and National Registers of Historic Places are located in the immediate vicinity of the Project site including, but not limited to, the Wesleyan Association Building, 20-30 Bromfield Street (also a Boston Landmark), the Jewelers Building, the Boston Transcript Building, the Boston Post Building, Old South Meeting House (also a National Historic Landmark, Massachusetts Landmark and Boston Landmark) and the Globe Corner Bookstore. In addition, multiple properties included in the Inventory are located in the immediate vicinity of the Project site including, but not limited to, the Hutchinson Building at 32-54 Province Street, the Province Building at 315-343 Washington Street and 20-28 Province Street.

In addition to multiple State and National Register properties in the vicinity of the Project site, the property at 32-54 Province Street, known as the "Hutchinson Building," is located immediately adjacent to the proposed Project site within the same City block. The building is three-stories high, two-bays wide and fourteen-bays long and is included in the Inventory. This Classical Revival style building was constructed in 1924 and features "Boston Casualty Co" in bronze letters on the upper floors of the Province and Bromfield Street elevations. Designed by Ralph Harrington Doane, a significant Boston architect, the building features a pair of triangular pediments supported by composite order pilasters over Palladian motif windows on the second and third floors. Large arched windows are evenly spaced along the elevations. Although the ground floor has been altered with the introduction of mid-to-late twentieth century storefronts, the building retains original rolled steel sash windows throughout the second and third floors. The building was originally evaluated by the BLC in 1980 as a Category IV structure, but was revaluated in 1982 as a Category III building.

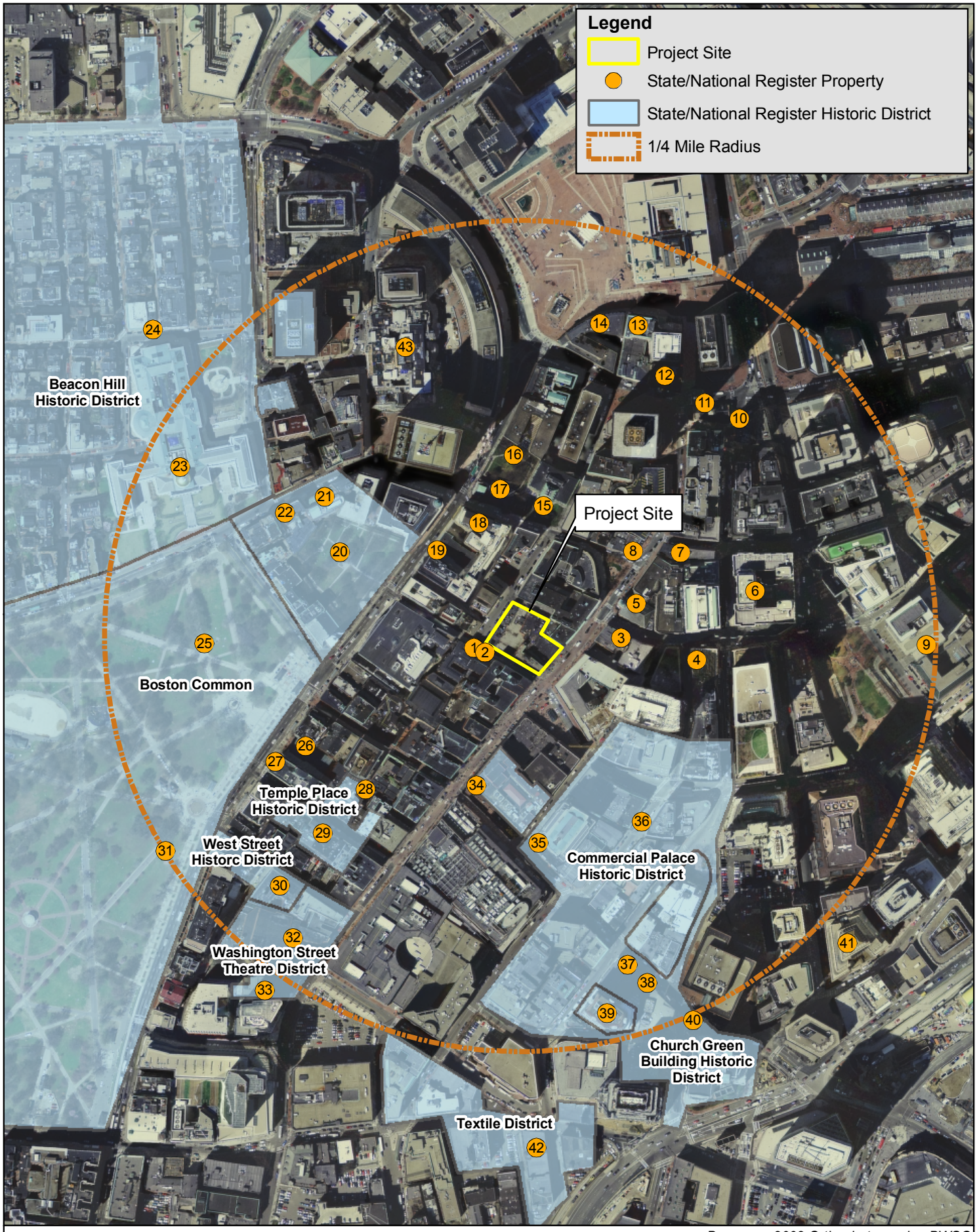
Table 3-8 presents resources listed in the State and National Registers of Historic Places that are located within one-quarter mile of the Project site. These resources are mapped on Figure 3-5.

Table 3-8 State and National Register-Listed Properties

Historic Resource	Address
1. Wesleyan Association Building	32-38 Bromfield Street
2. 20-30 Bromfield Street	23-30 Bromfield Street
3. Newspaper Row	322-328 Washington St., 5-23 Milk St., and 11 Hawley St.
4. International Trust Co. Building	39-47 Milk Street
5. Old South Meetinghouse	308 Washington Street
6. John W. McCormack Federal Building & Courthouse	5 Post Office Square
7. Winthrop Building	1-17 Water St., 276-278 Washington St. and 4-16 Spring Lane
8. The Old Corner Bookstore	277-285 Washington Street
9. Federal Reserve Bank Building	30 Pearl Street
10. Second Brazer Building	25-29 State Street
11. Old State House	State Street
12. Ames Building	1 Court Street
13. Old Colony Trust Company Building (VA Outpatient Clinic)	17 Court Street
14. Sear Crescent and Sears Block	38-68 and 70-72 Cornhill Street
15. Old City Hall	45 School Street
16. King's Chapel Burying Ground	Tremont Street
17. King's Chapel	38 Tremont Street
18. Parker House	56-72 School Street
19. Tremont Temple Baptist Church	76-88 Tremont Street
20. Park Street District	
21. Boston Athenaeum	10½ Beacon Street
22. Chester Harding House	16 Beacon Street
23. Massachusetts State House	Beacon Street
24. Beacon Hill Historic District	Roughly bounded by Beacon St., Embankment Rd, Storrow Dr., Cambridge and Bowdoin Streets
25. Boston Common	Beacon, Park, Tremont and Charles Streets
26. Saint Paul's Church	136 Tremont Street
27. R.H. Sterns Building	76-78 Warrenton Street
28. Lock-Ober Restaurant	3-4 Winter Place
29. Temple Place Historic District	11-55 and 26-58 Temple Place

Table 3-8 State and National Register-Listed Properties (Continued)

Historic Resource	Address
30. West Street Historic District	West and Tremont Streets
31. Tremont Street Subway	Tremont Street at Boston Common
32. Washington Street Theatre District	511-559 Washington Street
33. Paramount Theatre	549-563 Washington Street
34. Filene's Department Store	426 Washington Street
35. Kennedy's Building	26-38 Summer Street
36. Commercial Palace Historic District	Roughly bounded by Bedford, Summer, Franklin, Hawley, and Chauncy Streets
37. 83-87 Summer Street	83-87 Summer Street
38. 89-95 Summer Street	89-95 Summer Street
39. The Bedford Building	89-103 Bedford Street
40. Church Green Buildings Historic District	101-113 Summer Street
41. United Shoe Machinery Corporation Building	138-164 Federal Street and 34-66 High Street
42. Textile District	Roughly Essex St. from Phillips Sq. to Columbia St. and Chauncy St. from Phillips Sq. to Rowe Place
43. Suffolk County Courthouse	Pemberton Square



Scale 1:4,800
1 inch = 400 feet
150 0 150 300
Feet

Figure 3-5
Historic Resources

One Bromfield Street
Boston, Massachusetts

Basemap: 2003 Orthophotography, BWSC

Epsilon Associates Inc.

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3.4.3 Archaeological Resources on the Project Site

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

3.4.4 Coordination of Historic Resource Reviews

3.4.4.1 Boston Landmarks Commission Article 80 Review

The submission of this PNF initiates review of the Project by the BLC under the City's Article 80 Review process. Direct and indirect impacts to historic resources including, but not limited to, demolition, urban design, architecture, shadow, and geotechnical will be addressed in the DPIR.

3.4.4.2 Boston Landmarks Commission Article 85 Review

The proposed demolition of the existing buildings on the Project site including 351-363 Washington Street, 365 Washington Street, 1-9 Bromfield Street, 11-21 Bromfield Street will be subject to review by the Boston Landmarks Commission under Article 85 of the Boston Zoning Code. An Article 85 Application for each property will be submitted to the BLC.

3.4.4.3 Massachusetts Historical Commission State Register Review

The MHC has review authority over projects requiring state funding, licensing, permitting and/or approvals that may have direct or indirect impacts to properties listed in the State Register of Historic Places. The State Register Review process will be initiated either through the filing of a Project Notification Form with MHC or, if a Massachusetts Environmental Policy Act (MEPA) review is required, an Environmental Notification Form (ENF) under MEPA.

3.4.4.4 Massachusetts Environmental Policy Act

If the Project requires review under the MEPA, an ENF will be filed.

3.5 Infrastructure Systems

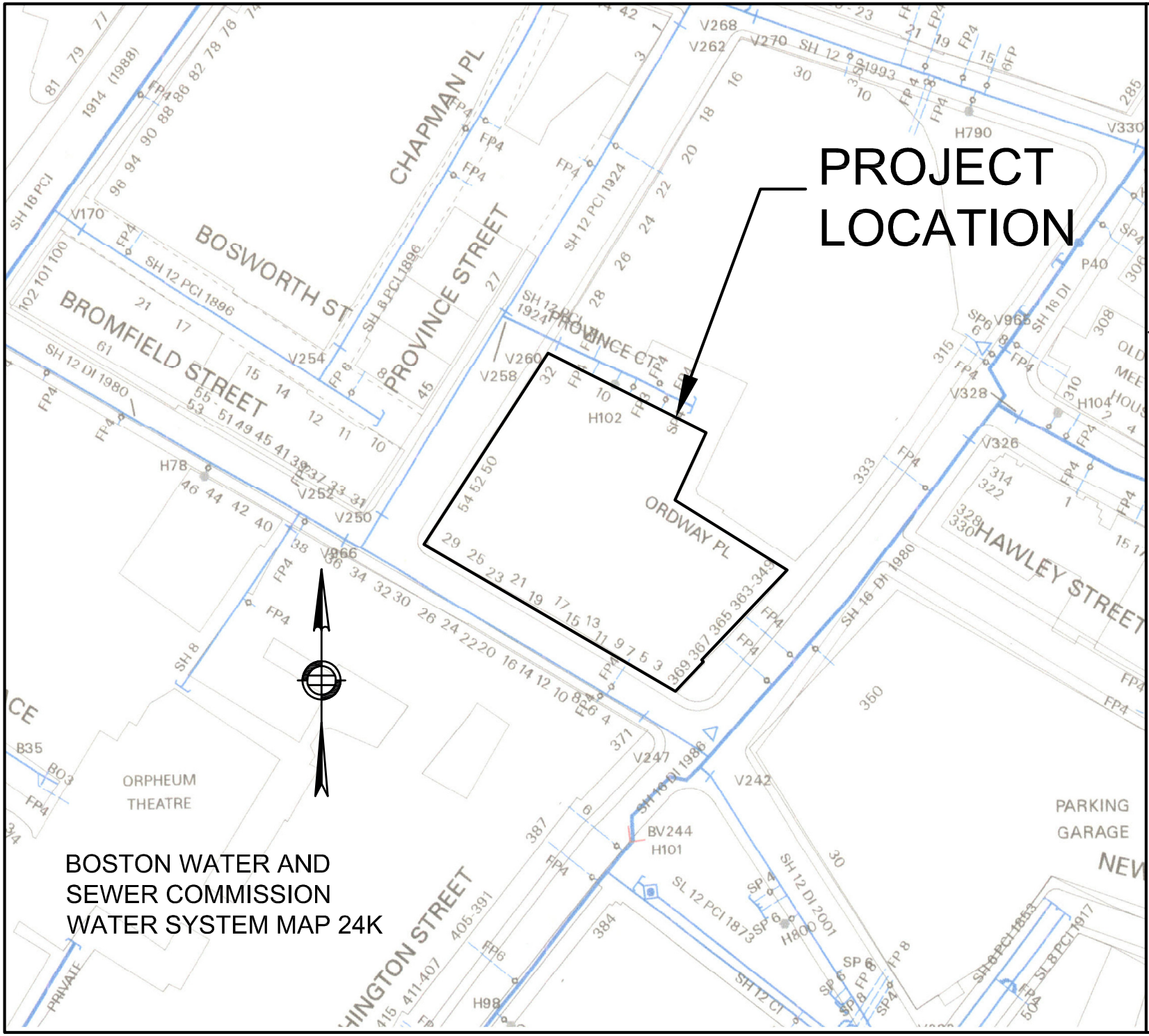
The following analysis describes the existing utility systems in the Project area and their ability to provide service to the Project. Also discussed are the probable impacts this Project could have on the utility systems and the ways these potential impacts could be mitigated. Best management practices and sustainable design will be incorporated into the Project wherever practical and applicable.

The Project's Civil and MEP Engineers will coordinate with the City agencies responsible for the area's utility systems as the design progresses. Utility connections will be designed to minimize impacts to the surrounding area and all appropriate permits and approvals will be obtained prior to construction. The following sections describe the existing and proposed conditions of the domestic water, fire protection, sanitary sewer, storm drain, electric, telephone, cable, and gas systems.

3.5.1 Overview of Existing Utility Services

The site is 100 percent impervious and is covered with existing one-, three-, four-, and six-story buildings and sidewalks. The site is bounded by Bromfield Street to the southwest, properties located at 32-54 Province Street to the northwest, Province Court and Ordway Place to the northeast, and Washington Street to the southeast. As shown on Figure 3-6, within Bromfield Street, Province Street, and Province Court there are existing 12-inch ductile iron southern high water mains. There is also a 16-inch ductile iron southern high water main in Washington Street. All four water mains are owned and maintained by the BWSC. There are multiple catch basins in all the surrounding streets to collect stormwater runoff. As shown on Figure 3-7 there is a 24″x27″ BWSC combined sewage line in Bromfield Street, a 15-inch MBTA combined sewage line in Washington Street, a 12-inch combined sewer in Province Street adjacent to the Project, and a 10-inch dedicated storm drain in Ordway Place.

A BWSC approved Site Plan and General Service Application is required for the construction of proposed water and sanitary sewer connections to the main lines in the surrounding streets. Proposed connections to the BWSC's water and sanitary sewer systems as well as the site's storm drainage system will be designed in conformance with the BWSC's design standards, Sewer Use and Water Distribution System Regulations, and Requirements for Site Plans. The Proponent will submit the General Service Application and Site Plans to BWSC for review and approval prior to construction. The Site Plans will indicate the existing and proposed water mains, sanitary sewer lines, and storm drainage system within the site and in Bromfield Street, Province Street, Province Court, Ordway Place, and Washington Streets. The Site Plans will show any existing utilities to be abandoned, the locations of proposed connections, and the limit of work to be performed in the City streets. Abandoned services will be cut and capped at the main line in accordance with the BWSC standards.



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300 A STREET, BOSTON, MA

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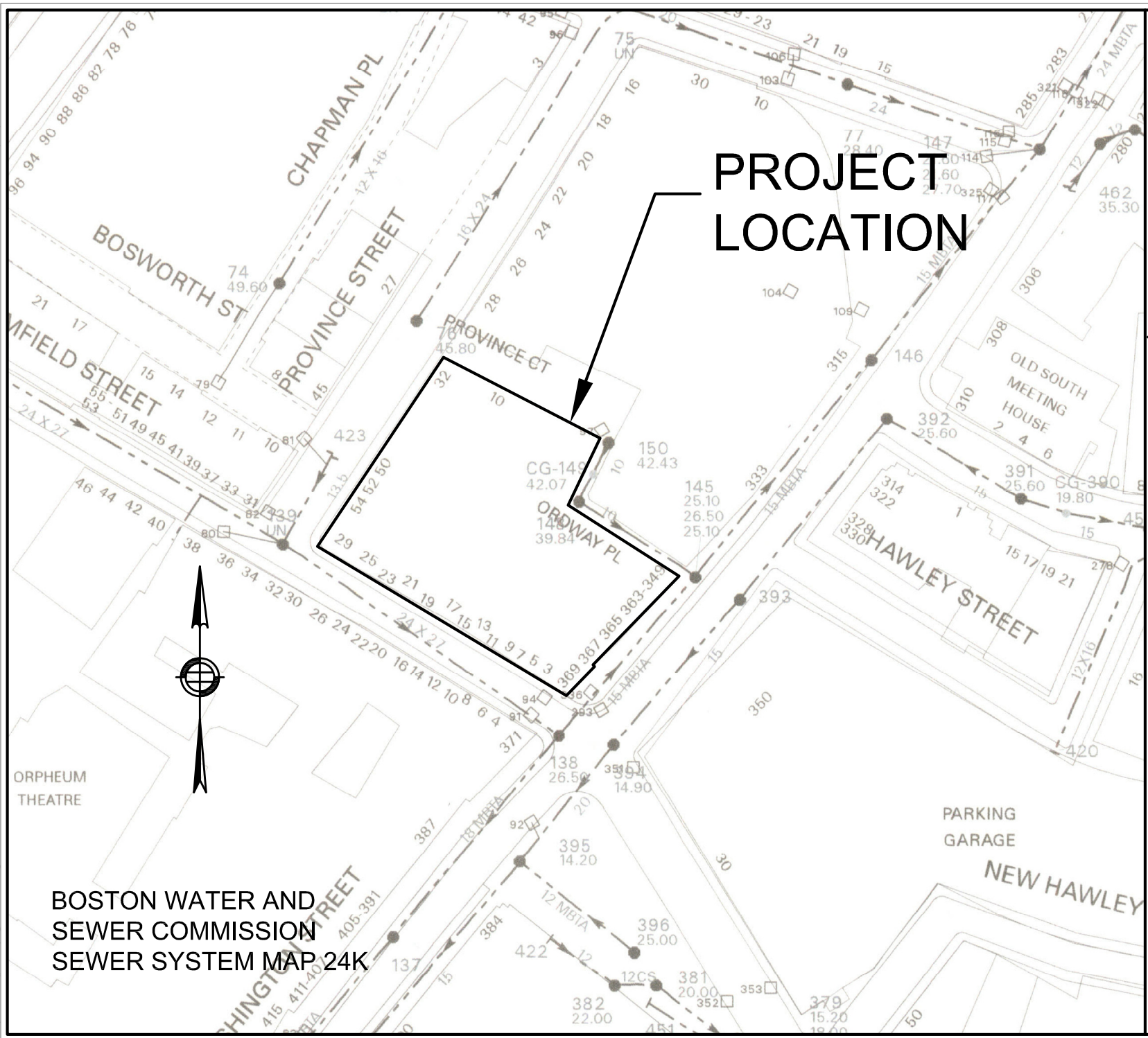
FILE:	FIGURES.DWG
SCALE:	NTS
DATE:	08/08/08
PROJECT MGR:	JMS
SURVEYOR:	
DRAFTED BY:	DMK
CHECKED BY:	JMS

SHEET:

FIG 3-6

1 OF 1 REV.



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PROJECT MGR:	JMS
SURVEYOR:	
DRAFTED BY:	DMK
CHECKED BY:	JMS

SHEET:

FIG 3-7

1 OF 1 REV.

3.5.2 Water System

3.5.2.1 Existing Water Service

The BWSC owns, operates, and maintains the water distribution systems in the vicinity of the Project site. Bromfield Street, Province Street, and Province Court contain 12-inch ductile iron southern high water main with Province Street and Province Court constructed in 1924 and Bromfield Street constructed in 1980. There is also a 16-inch ductile iron southern high water main in Washington Street constructed in 1980. There are four 4-inch fire services and one 3-inch fire service that enter the site and feed the existing buildings. The existing water distribution system is illustrated on Figure 3-6.

There are no expected water capacity problems in the vicinity of the Project site. The results of a pending flow test by BWSC will confirm the ability of the water distribution system to service the proposed development.

3.5.2.2 Estimated Proposed Water Demand

The Project's estimated proposed water demand for domestic sources is based on the estimated sanitary flow. A conservative factor of 1.10 is applied to the estimated sanitary flow to account for consumption and other miscellaneous losses. The Project's estimated peak water demand for domestic sources is 42,515 gallons per day (gpd). This water will be supplied by the BWSC.

3.5.2.3 Proposed Water Service

Proposed domestic water service will connect to one of the water mains in the adjacent streets. The size and locations of proposed domestic water services will be coordinated with the Plumbing Engineer. Domestic water service to the proposed buildings will be metered in accordance with BWSC standards, which includes a meter transmission unit (MTU) as part of BWSC's automatic meter reading system. Gate valves will be installed on these new domestic water lines to minimize public hazard or inconvenience in the event of a water main break. A valve box and cover will be installed over the gate valve to provide shut-off access. If required, internal booster pumps will be included in the design by the Plumbing Engineer to provide adequate domestic water pressure to the upper floor spaces.

Proposed fire protection service will connect to one of the water mains in the adjacent streets. The size and locations of proposed fire protection service will be coordinated with the Fire Protection Engineer. As with the domestic water service, gate valves will be installed on these new fire protection lines to minimize public hazard or inconvenience in the event of a water main break. A valve box and cover will be installed over the gate valve to provide shut-off access. If required, internal booster pumps will be included in the design by the Fire Protection Engineer to provide adequate water pressure to all standpipes

and sprinkler systems. A double check valve assembly or reduced pressure backflow preventer will be provided on all fire protection services as they enter the building to protect the municipal water supply.

All proposed domestic water and fire protection services will be shown on the Site Plans and submitted to the BWSC. Any existing services to be abandoned shall be cut and capped at the main per BWSC standards.

3.5.2.4 Water Supply Conservation and Mitigation

The Project will be LEED certifiable through City's Article 37 Green Building Program, which requires the use of water conserving fixtures. As a result, water conservation measures, including low-flow toilets and urinals, restricted flow faucets, and sensor operated sinks, toilets, and urinals, will be incorporated into the design where possible and applicable.

3.5.3 Sanitary Sewage Service

3.5.3.1 Existing Sanitary Sewer System

The BWSC owns, operates, and maintains the 24"x27" combined sewage line in Bromfield Street and the 12-inch combined sewer adjacent to the Project in Province Street. The MBTA owns, operates, and maintains the 15-inch combined sewage line in Washington Street. The existing sanitary sewer system is illustrated on Figure 3-7.

The BWSC and MBTA combined sewer lines drain into the MWRA sewer lines. Regional sewer service and treatment are provided by the MWRA system, which ultimately connects to the Deer Island Wastewater Treatment Plant. From here, sanitary sewer flow is treated and discharged to the Boston Harbor.

3.5.3.2 Estimated proposed sanitary Flow

The Massachusetts Department of Environmental Projection (DEP) sets forth estimated sewage generation rates for specific establishments and building uses. These values can be related to the number of bedrooms, square footage of a building, number of seats, or various other factors. DEP's estimated sewage generation rates can be found in 310 CMR 15.203 and 314 CMR 7.15.

The proposed construction and building program will increase the effluent discharged to the existing sanitary sewer system. The proposed development will consist of a 28-story building with 276 residential units (223 studio and one-bedroom units and 53 two-bedroom units) and approximately 49,200 sf of retail space. Other Project elements include a parking garage, which will produce negligible sewage. Table 3-9 includes a detailed breakdown of the proposed building program, the respective sewage generation rate for each building use, the total flow for each building use, and the total proposed sanitary flow

for the Project. Sewage generation rates were taken from the Massachusetts Department of Environmental Protection, 310 CMR 15.00, The State Environmental Code, Title V, Section 15.203: Sewage System Design Flow Criteria; and 314 CMR 7.00, Sewer System Extension and Connection Permit Program, Section 7.15: Calculation of Flows.

Per the regulations of 314 CMR 7.00, any proposed development with a new sewer connection that results in a discharge greater than 15,000 gallons per day (gpd) but less than 50,000 gpd is required to file a one-time Compliance Certificate with DEP. The Project's building program results in an estimated sewage discharge of 40,876 gpd and therefore the Project will need to file a Compliance Certificate with DEP.

Table 3-9 Estimated Proposed Sewer Discharge

Building Use	Number	Sewage Generation Rate	Total Flow (gpd)
Studio/One Bedroom Units (223 units)	223 Bedrooms	110 gpd/bedroom	24,530
Two Bedroom Units (53 units)	106 Bedrooms	110 gpd/bedroom	11,660
Retail Space	49,200 sf	50 gpd/1,000 sf	2,460
Total			38,650

3.5.3.3 Proposed Sanitary Sewer Connections

Proposed sanitary sewer lines from the new building will connect to the BWSC's combined sewer lines in Bromfield Street, and Province Street and the MBTA's combined sewer line in Washington Street as required. (The parking garage will have a separate sewer system that collects runoff into an oil/grease separator. The runoff collected by the oil/grease separator will be discharged to the adjacent BWSC and/or MBTA systems. Oil/grease separators will conform to BWSC standards.)

The construction of all connections will be performed so as to minimize any effects on adjacent streets, sidewalks, and any areas within the public right-of-way. All proposed sanitary sewer connections for the new building will be kept separate from proposed storm drain connections. The Project's sewage and stormwater flows will be kept separate in compliance with BWSC requirements, but may connect to the same combined sewage system. The BWSC and the City of Boston are attempting to separate stormwater and wastewater over time to prevent periodic overflows of combined sewer and stormwater into receiving waters, and to reduce the sewage treatment burden at Deer Island. The separation of the proposed sewer and stormwater flows from the site will allow a connection to any future stormwater system constructed by the BWSC.

All existing sanitary sewer connections to be abandoned will be cut and capped at the main in accordance with BWSC standards. Also, all required approvals and permits for new sewer connections will be obtained prior to construction.

Based on the peak sewage flow estimate there is sufficient capacity in the existing adjacent sewer mains and the Deer Island treatment facility. The estimated sewage generation from the proposed development will trigger a certification statement with the Massachusetts Department of Environmental Protection.

3.5.3.4 Sewer System Mitigation

To help conserve water and reduce the amount of wastewater generated by the Project, water conservation devices, including low-flow toilets and urinals as well as flow-restricting faucets, will be incorporated into the Project design wherever possible.

3.5.4 Storm Drainage System

3.5.4.1 Existing Storm Drainage System

The existing site soils consist of Urban Land as classified by the National Resource Conservation Service (NRCS) soil survey. All stormwater runoff from the site discharges through drain line connections and as sheet flow into the BWSC closed drainage systems in Bromfield, Washington and Province Streets and Ordway Place. The Project site is currently fully developed and 100 percent impervious; therefore, the proposed Project will not increase the amount of impervious area on the site and consequently there will no increase in the amount of stormwater run-off flowing to the combined sewer system.

3.5.4.2 Proposed Storm Drainage System

The Project plans include constructing new roof drain connections to the adjacent BWSC and MBTA systems. There is no site drainage to collect as the whole site will be covered with building structure. All stormwater run-off from the proposed building will be collected via a closed drainage system, treated as required using Best Management Practices (BMPs) and discharged into the BWSC system. The Project site is currently fully developed and 100 percent impervious. Therefore, the proposed Project will not increase the amount of impervious area on the site and consequently there will no increase in the amount of stormwater run-off flowing to the combined sewer system.

During construction, existing catch basins and area drains will be protected with filter fabric, silt sacks, and/or hay bales to prevent sediment from entering the structures. These controls will be inspected and maintained throughout the construction phase until all areas of disturbance have been stabilized through the placement of pavement, structure, or vegetative cover.

3.5.4.3 DEP Stormwater Management Policy

The Project site is currently fully developed and 100 percent impervious; therefore, the proposed Project will not increase the amount of impervious area on the site. Consequently peak stormwater run-off rates for the 2-, 10-, 25-, and 100-year storm events

after construction will not exceed existing peak rates. The Project will incorporate stormwater BMPs recommended by DEP designed to reduce Total Suspended Solids (TSS) from the storm flow before connecting to the BWSC system. Mitigation measures to be incorporated include oil/grease separators, and the implementation of an Operations and Maintenance Plan.

The design objective for the stormwater management system proposed for the site is to meet the Massachusetts Storm Water Management Standards to the greatest extent possible. These standards have been specifically addressed in the Project design in the following manner:

Standard #1: No new untreated stormwater will discharge into, or cause erosion to, wetlands or waters.

Compliance: The proposed design will comply with this Standard. There will be no untreated stormwater discharge. All discharges will be treated prior to connection to the BWSC system.

Standard #2: Post-development peak discharge rates do not exceed pre-development rates on the site either at the point of discharge or down-gradient of the property boundary for the 2- and 10-year 24-hour design storms. The project's stormwater design will not increase flooding impacts offsite for the 100-year design storm.

Compliance: The proposed design will comply with this Standard. The proposed design will not increase peak discharge rates for 2-, 10-, 25-, and 100-year storm events.

Standard #3: The annual groundwater recharge for the post-development site must approximate the annual recharge from existing site conditions, based on soil type.

Compliance: The proposed design will comply with this Standard. The current amount of groundwater recharge is negligible given that the site is 100 percent impervious and located within a highly urbanized area. The proposed design will not decrease annual recharge.

Standard #4: For new development, the proposed stormwater management system must achieve an 80% removal rate for the site's average annual load of TSS.

Compliance: The proposed design will comply with this standard. The proposed building will completely cover the Project site and all runoff from the site will be collected by the roof drainage system. The DEP categorizes roof runoff as "clean" and no TSS removal is required.

Standard #5: If the site contains an area with Higher Potential Pollutant Loads (as prescribed by the Policy), BMPs must be used to prevent the recharge of untreated stormwater.

Compliance: The proposed design will comply with this Standard. The Project is not associated with Higher Potential Pollutant Loads (per the Policy, Volume I, page 12-13). This Project complies with this standard.

Standard #6: If the site contains areas of Sensitive Resources (as prescribed by the Policy), such as rare/endangered wildlife habitats, ACECs, etc., a larger volume of runoff from the "first flush" must be treated (1 inch of runoff from impervious area vs. the standard ½ inch).

Compliance: The proposed design will comply with this Standard. The Project will not discharge to or affect any critical areas

Standard #7: Redevelopment of previously developed sites must meet the Stormwater Management Standards to the maximum extent practicable.

Compliance: The Project will meet or exceed all standards.

Standard #8: Erosion and sediment controls must be designed into the project to minimize adverse environmental effects.

Compliance: The Project will comply with this standard. The erosion control measures incorporated into the Project include the placement of haybale/siltation barriers and the installation of silt sacks in catch basins. Erosion control measures will be placed around stockpiles of loose materials. The measures will be inspected and maintained until the disturbed areas are stabilized.

Standard #9: The proposed design will comply with this Standard. A long-term BMP operation and maintenance plan is required to ensure proper maintenance and functioning of the stormwater management system.

Compliance: An Operations and Maintenance Plan including long-term BMP operation requirements will be prepared to ensure proper maintenance and functioning of the system. The Operations and Maintenance Plan will ensure that the facility provides adequate preventative maintenance to minimize discharge of contaminants to the BWSC and MBTA systems. Facility personnel will inspect the stormwater management system on a routine basis not less than once per month for the first six months of operation and annually thereafter. A typical maintenance schedule is provided below:

1. Catch Basins and Manholes shall be inspected for accumulation of silt, sediment or debris on a monthly basis. Cleaning will be performed whenever the sediment level rises to within one foot of invert elevation of the outlet pipe. Removed sediment will be disposed off site by a qualified waste disposal contractor in accordance with state and federal regulations.

2. Mechanical Separators shall be inspected and maintained in accordance with the manufacturer's recommendations. During the first year of operation, the units shall be

inspected monthly to determine an appropriate maintenance schedule based on actual site conditions. Mechanical Separators shall be inspected annually at the end of the winter season and cleaned as necessary. Accumulated sediment will be removed by means of a vacuum truck and disposed off site by a qualified waste disposal contractor in accordance with state and federal regulations.

3. Street sweeping of the Project site shall be performed on an as-needed basis. At a minimum, street sweeping will be performed once per year during the spring to remove salt and sand from snow removal and de-icing.

Standard #10: The proposed design will comply with this Standard. All illicit discharges to the stormwater management system are prohibited.

Compliance: No illicit discharges, including wastewater, process wastes, toxic pollutants and hazardous substances will be introduced into the stormwater management system. An Illicit Discharge Compliance Statement will be filed with the Boston Conservation Commission prior to receiving a Certificate of Compliance for the Project.

3.5.5 Energy and Telecommunications

The survey plan prepared by the Project team indicates that there are electric, telephone, cable, and gas services in Bromfield Street, Province Street, and Washington Street that are accessible to the proposed development. The MEP Engineer will coordinate the design of these services with the respective utility companies.

4.0 COORDINATION WITH OTHER GOVERNMENTAL AGENCIES

4.1 Massachusetts Environmental Policy Act

If the Project requires review under the Massachusetts Environmental Policy Act (MEPA), an Environmental Notification Form (ENF) will be filed.

4.2 Massachusetts Historical Commission

Since the Project requires state permits, it is subject to review by the Massachusetts Historical Commission (MHC) in accordance with M.G.L., Chapter 9, Sec. 26-27c, as amended by Chapter 254 of the Acts of 1988 (950 CMR 71.00). If review under MEPA is required, the ENF will be submitted to the MHC to initiate the Chapter 254 review process. If MEPA review is not required, an MHC Project Notification Form will be submitted to initiate MHC review.

4.3 Boston Landmarks Commission

As indicated above, the proposed demolition of the existing buildings on the Project site will be subject to review by the BLC under Article 85 of the Boston Zoning Code. Appropriate applications will be submitted to the BLC.

4.4 Architectural Access Board Requirements

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

4.5 Boston Civic Design Commission

The Project will comply with the provisions of Article 28 of the Boston Zoning Code. This PNF will be submitted to the Boston Civic Design Commission by the BRA as part of the Article 80 process.

4.6 Other Permits and Approvals

Section 1.5 of this PNF lists agencies from which permits and approvals for the Project will be sought.

4.7 Community Outreach

The Proponent is committed to effective and meaningful community outreach and will engage the community to ensure public input on the Project.

5.0 PROJECT'S CERTIFICATION

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

Signature of Proponent's Representative

Paul Davis

Midwood Management Corporation
430 Park Avenue, Suite 505
New York, NY 10022
(646) 292-4949

10/24/2008
Date:

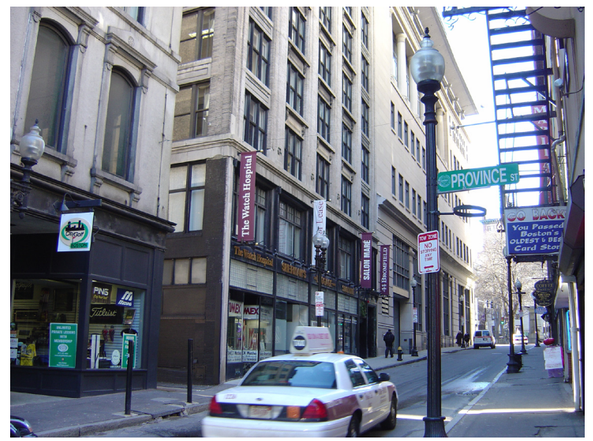
Signature of Preparer

Peggy Briggs

Epsilon Associates, Inc.
3 Clock Tower Place, Suite 250
Maynard, MA 01754
(978) 897-7100

10/24/2008
Date:

Appendix A
Existing Conditions – Photographs



Bromfield Street

Bromfield Street

ELKUS | MANFREDI
ARCHITECTS

[*address*] 300 A STREET
BOSTON MASSACHUSETTS 02210
[*tel*] 617-426-1300

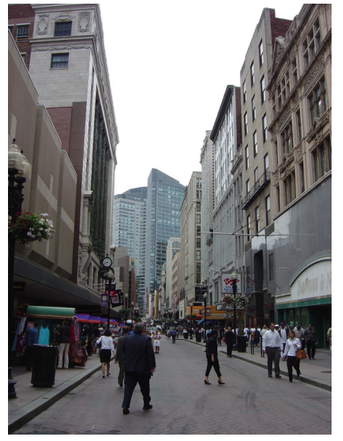
Province Street

Province Court

[*address*] 300 A STREET
BOSTON MASSACHUSETTS 02210
[*tel*] 617-426-1300

Washington Street

Franklin Street



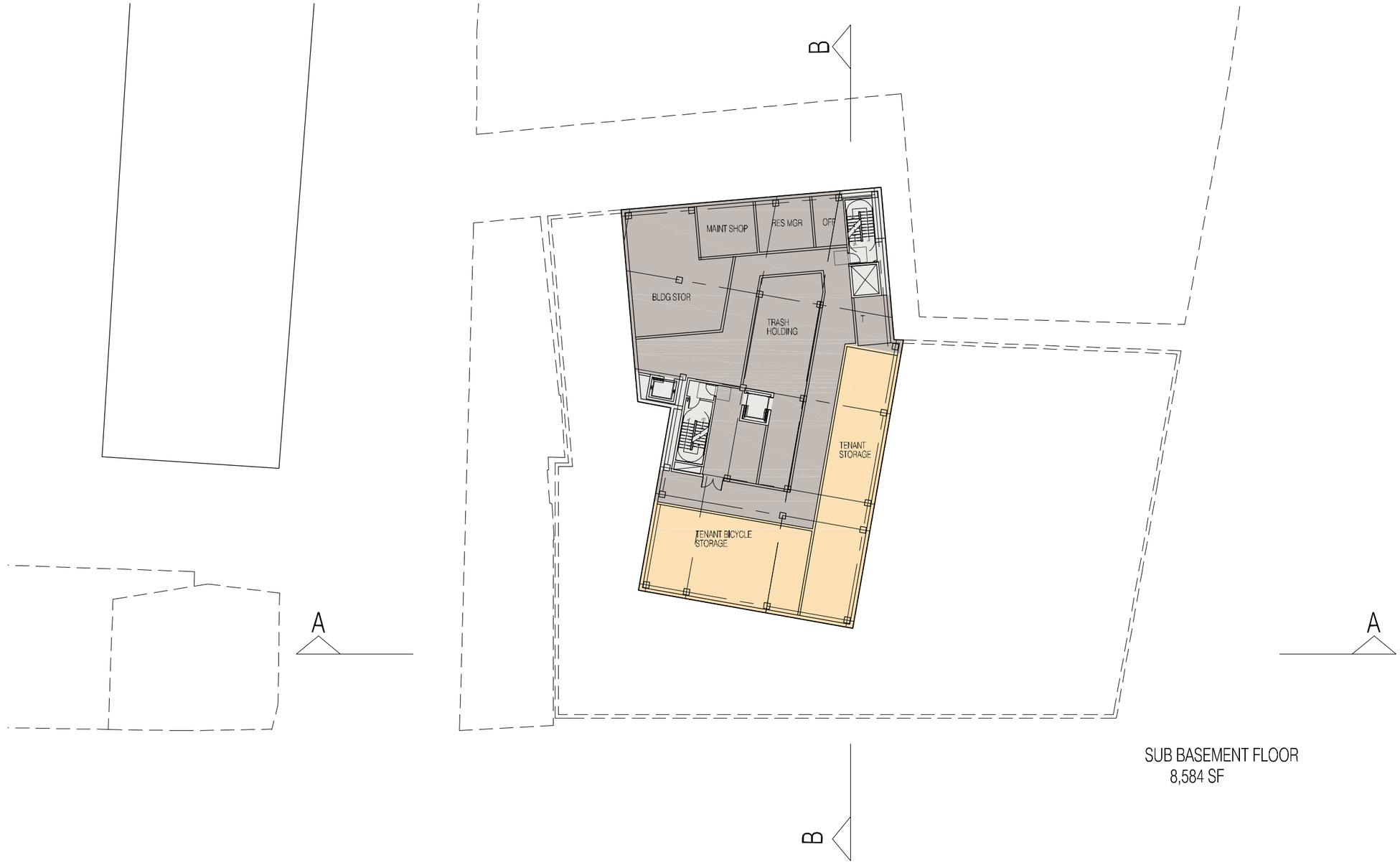
Washington Street

ELKUS | MANFREDI
ARCHITECTS

[*address*] 300 A STREET
BOSTON MASSACHUSETTS 02210
[*tel*] 617-426-1300

Appendix B

Floor Plans, Section and Elevations



SUB BASEMENT FLOOR
8,584 SF

ONE BROMFIELD STREET

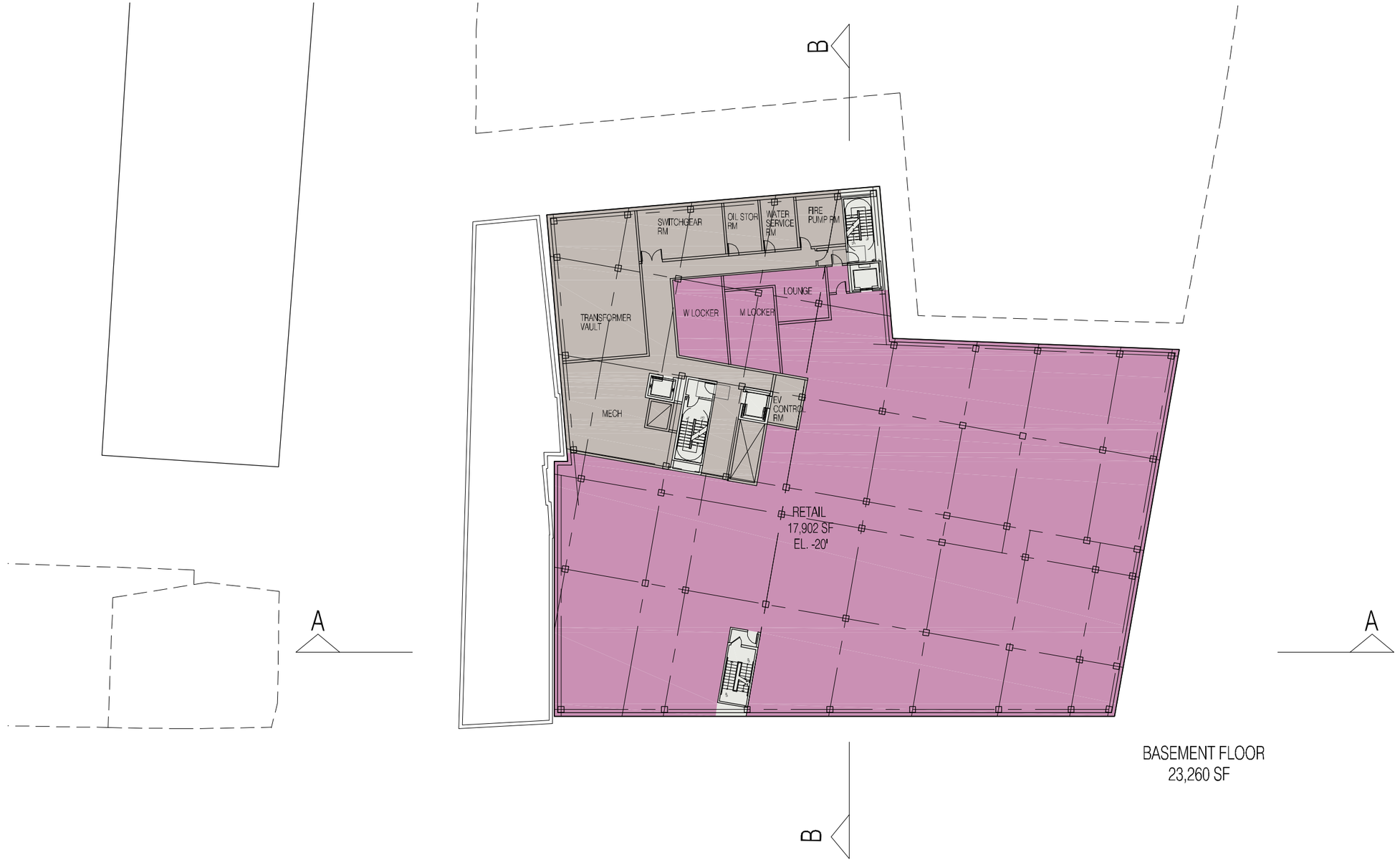
MIDWOOD MANAGEMENT CORP.

SUB BASEMENT LEVEL

SCALE: 1/32" = 1'-0"

ELKUS | MANFREDI
ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300



BASEMENT FLOOR
23,260 SF

One Bromfield Street
Midwood Management Corp.

BASEMENT LEVEL

SCALE: 1/32" = 1'-0"

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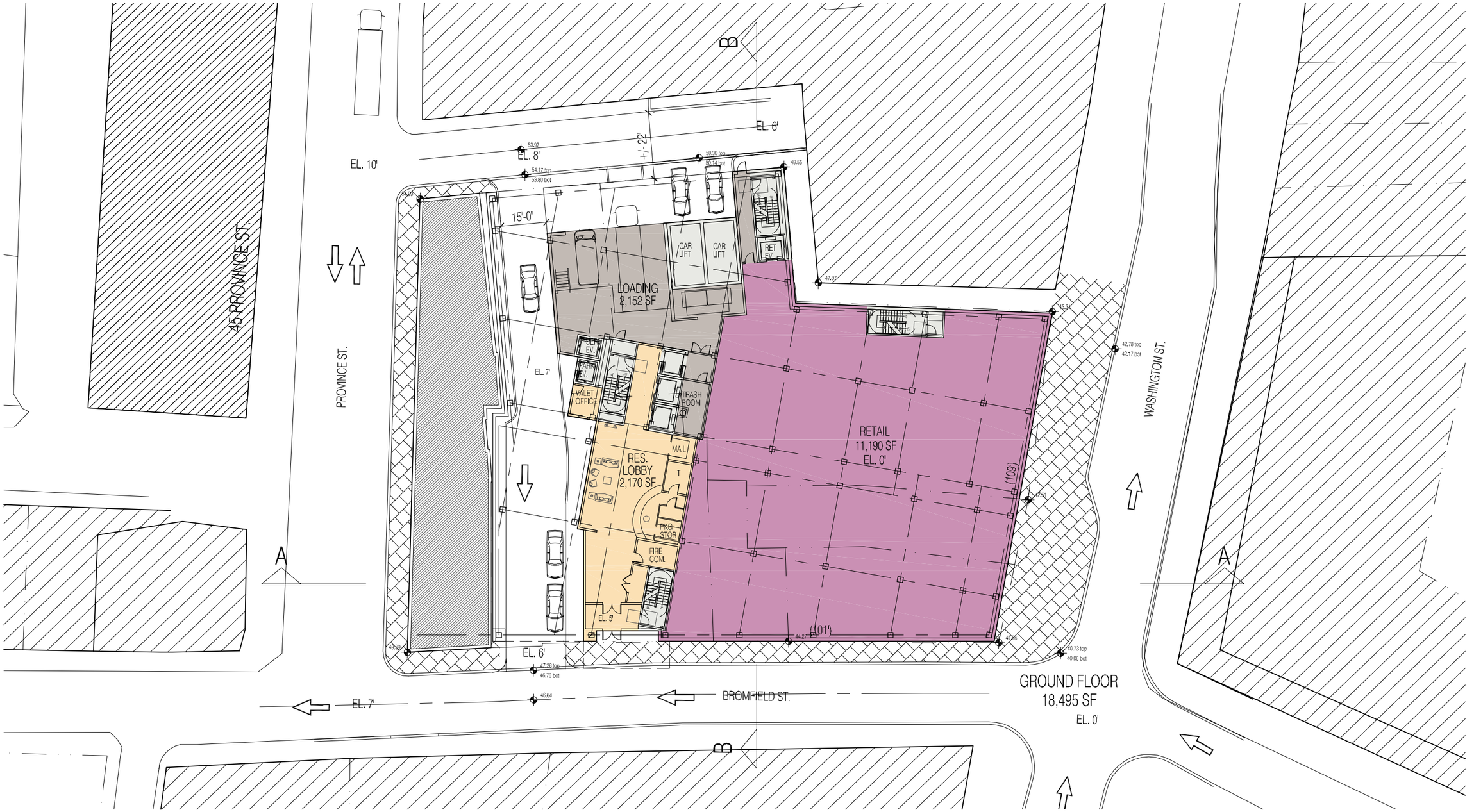
ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300



ONE BROMFIELD STREET

MIDWOOD MANAGEMENT CORP.

GROUND FLOOR LEVEL

SCALE: 1/32" = 1'-0"

ELKUS | MANFREDI
ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300

ONE BROMFIELD STREET

MIDWOOD MANAGEMENT CORP.

2ND FLOOR LEVEL

SCALE: 1/32" = 1'-0"

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ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300

ONE BROMFIELD STREET

MIDWOOD MANAGEMENT CORP.

PARKING LEVEL

SCALE: 1/32" = 1'-0"

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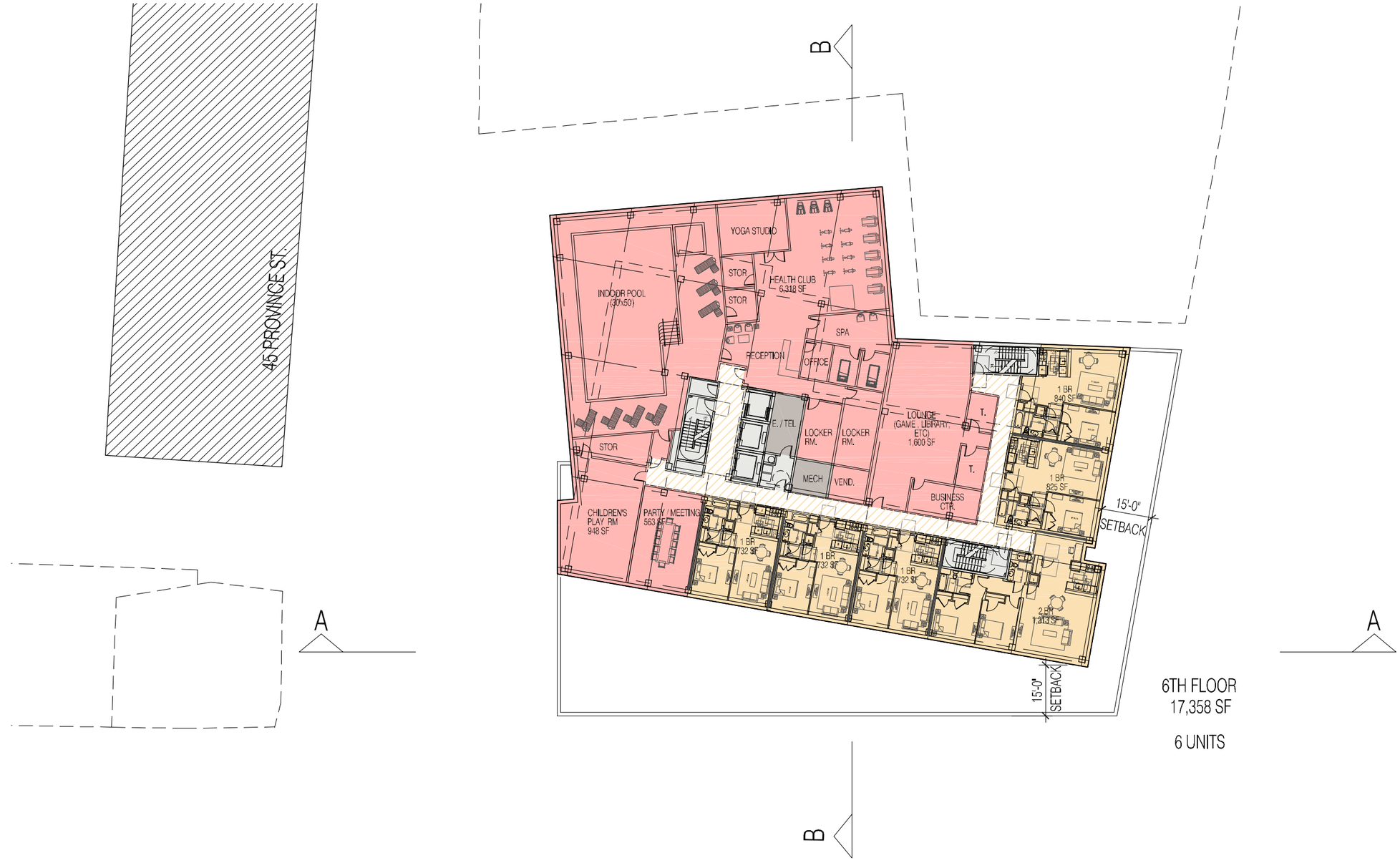
[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300



6TH FLOOR
17,358 SF

6 UNITS

ONE BROMFIELD STREET

MIDWOOD MANAGEMENT CORP.

AMENITY LEVEL

SCALE: 1/32" = 1'-0"

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ARCHITECTS

[address] 300 A STREET
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[tel] 617-426-1300

ONE BROMFIELD STREET

MIDWOOD MANAGEMENT CORP.

TYPICAL RESIDENTIAL LEVEL

SCALE: 1/32" = 1'-0"

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ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300

ONE BROMFIELD STREET

MIDWOOD MANAGEMENT CORP.

UPPER RESIDENTIAL LEVEL

SCALE: 1/32" = 1'-0"

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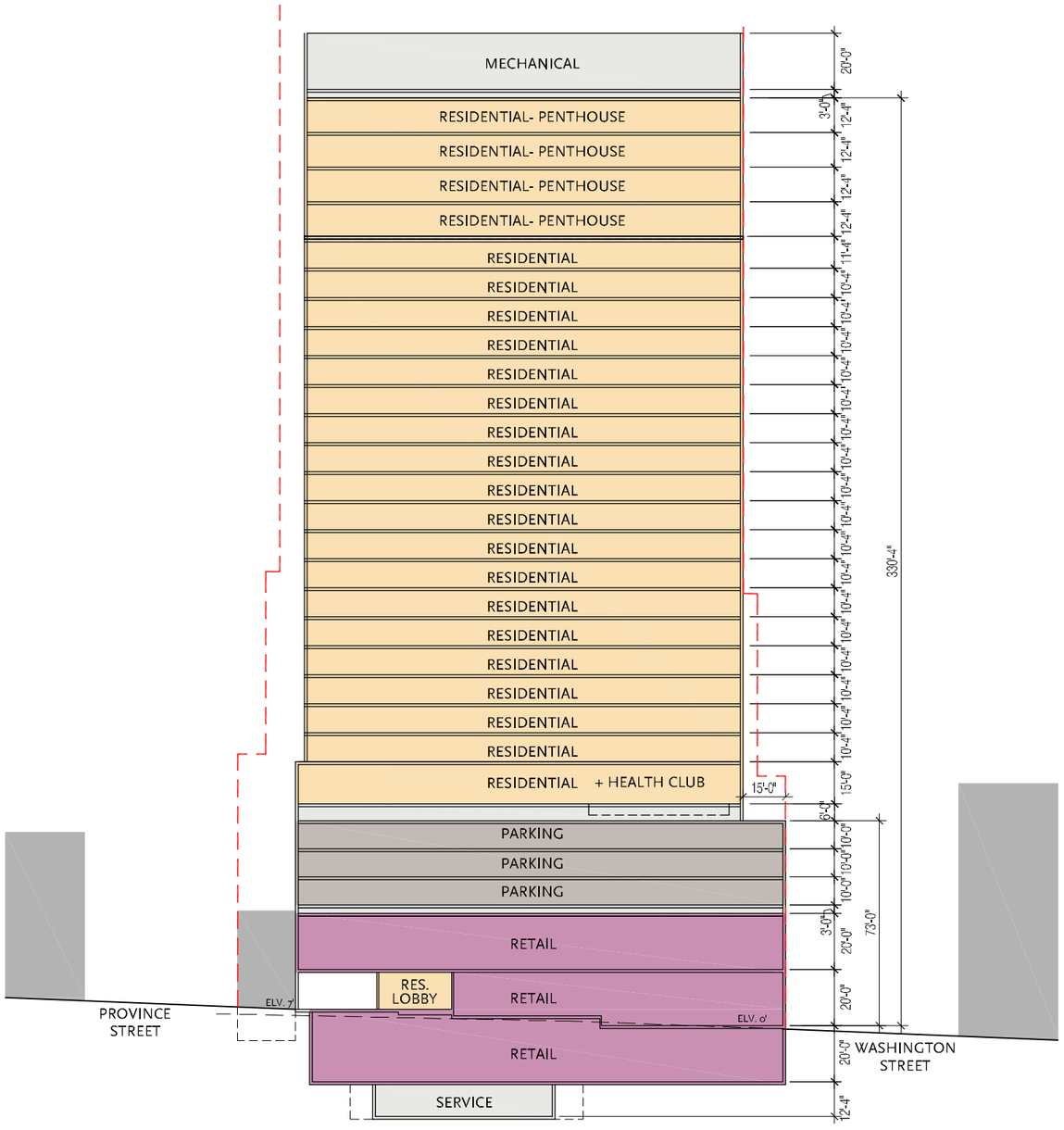
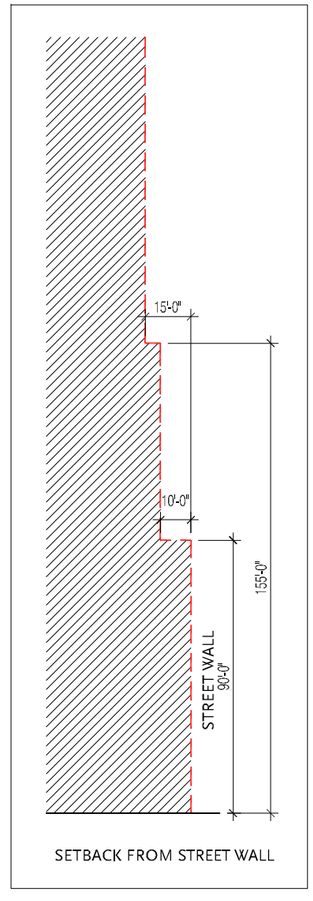
ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300



KEY

- PARKING
- MECHANICAL
- RESIDENTIAL
- RETAIL



One Bromfield Street

Midwood Management Corp.

Building Section A

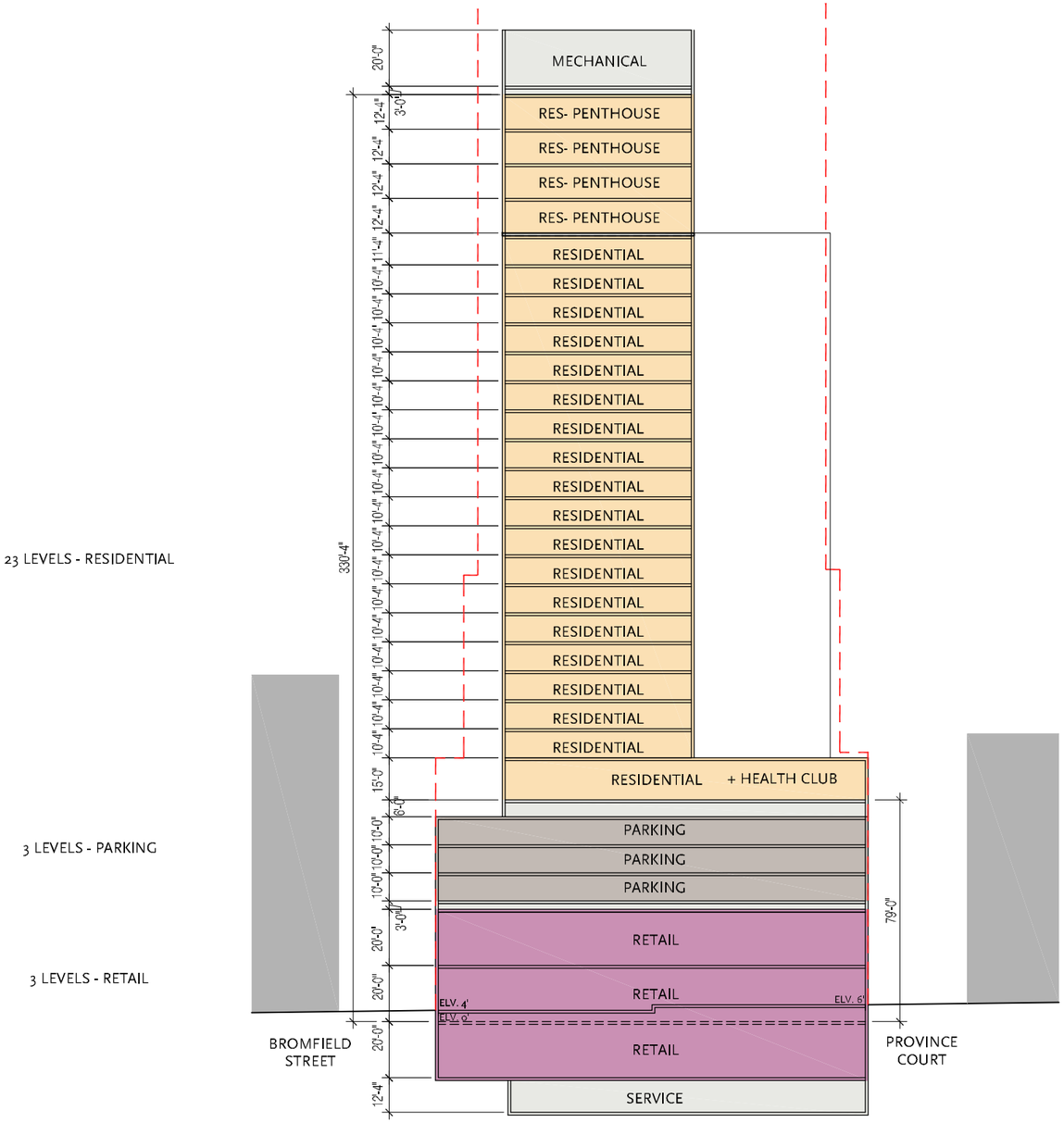
SCALE: 1" = 50'

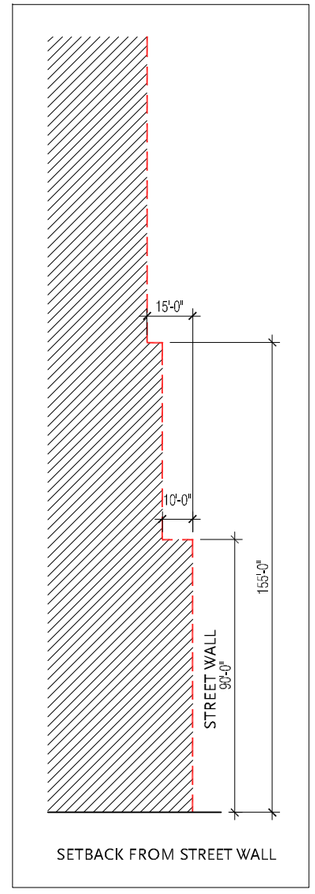
ELKUS | MANFREDI
ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300

KEY

- PARKING
- MECHANICAL
- RESIDENTIAL
- RETAIL





SETBACK FROM STREET WALL

One Bromfield Street

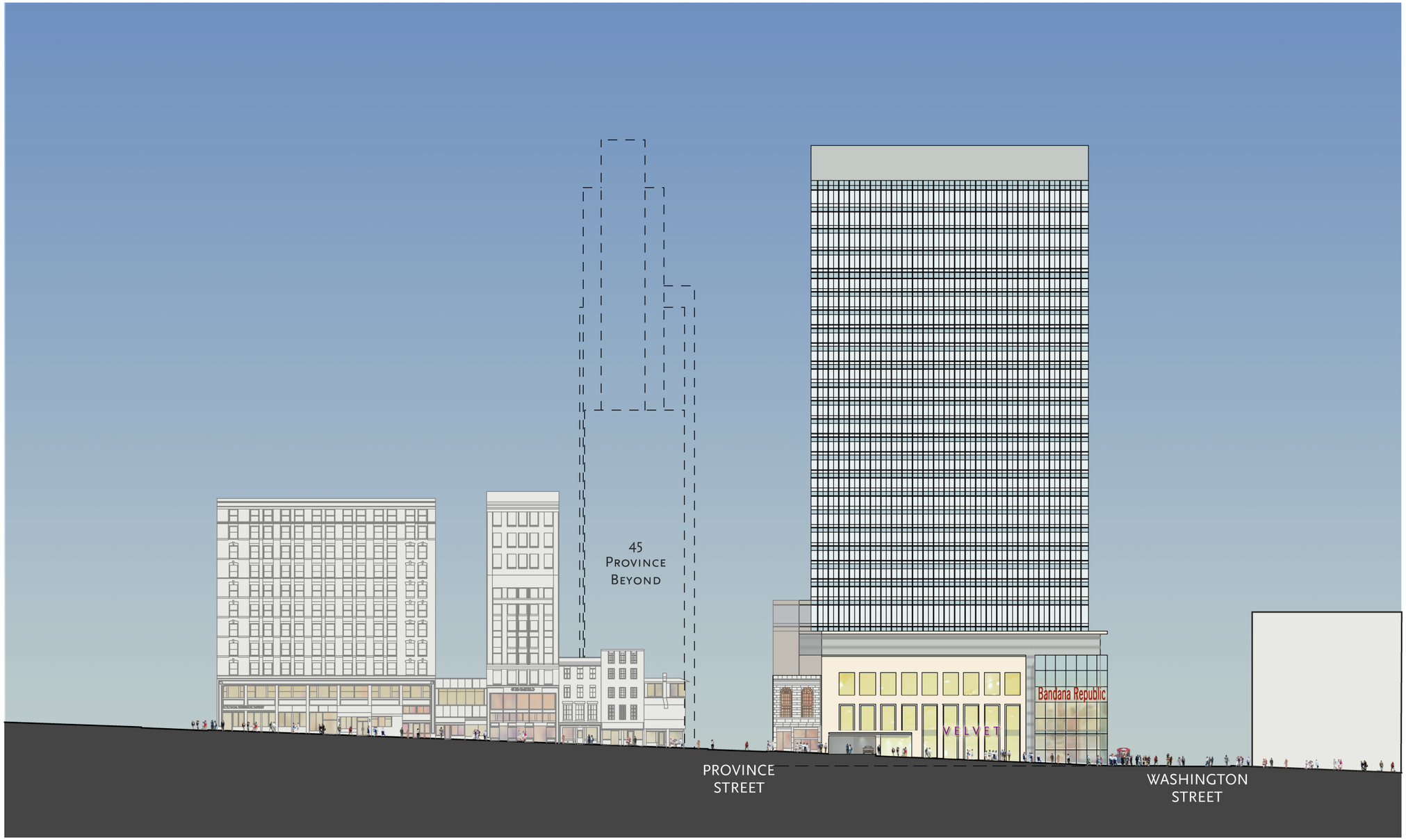
Midwood Management Corp.

Building Section B

SCALE: 1" = 50'

ELKUS | MANFREDI
ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300



ONE BROMFIELD STREET

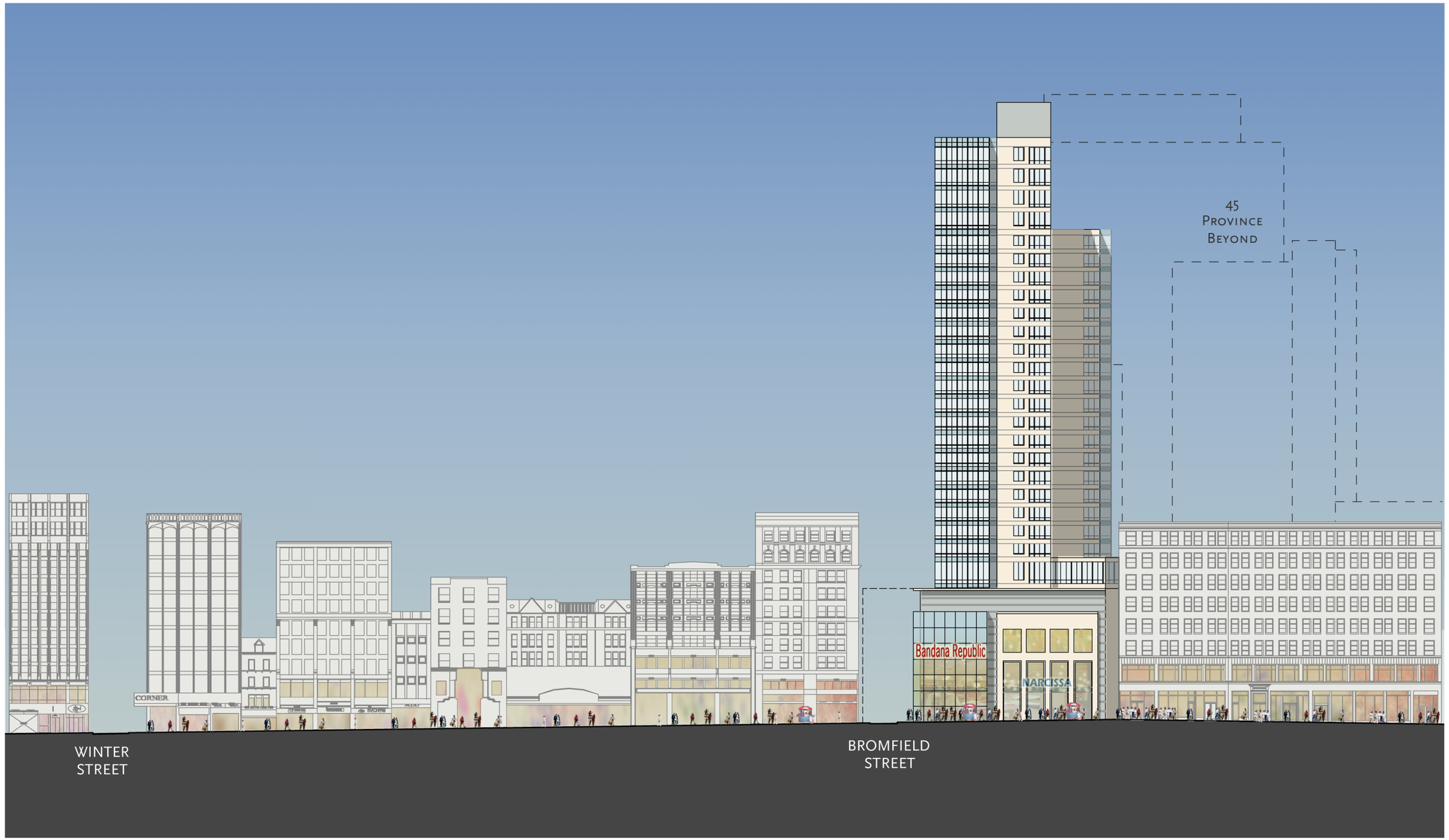
MIDWOOD MANAGEMENT CORP.

BROMFIELD STREET SECTION

SCALE: 1" = 60'

ELKUS | MANFREDI
ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300



One Bromfield Street

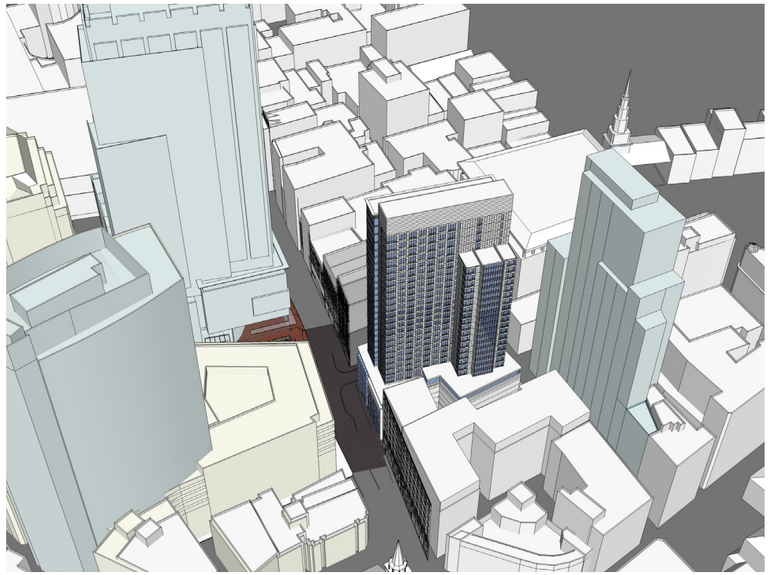
Midwood Management Corp.

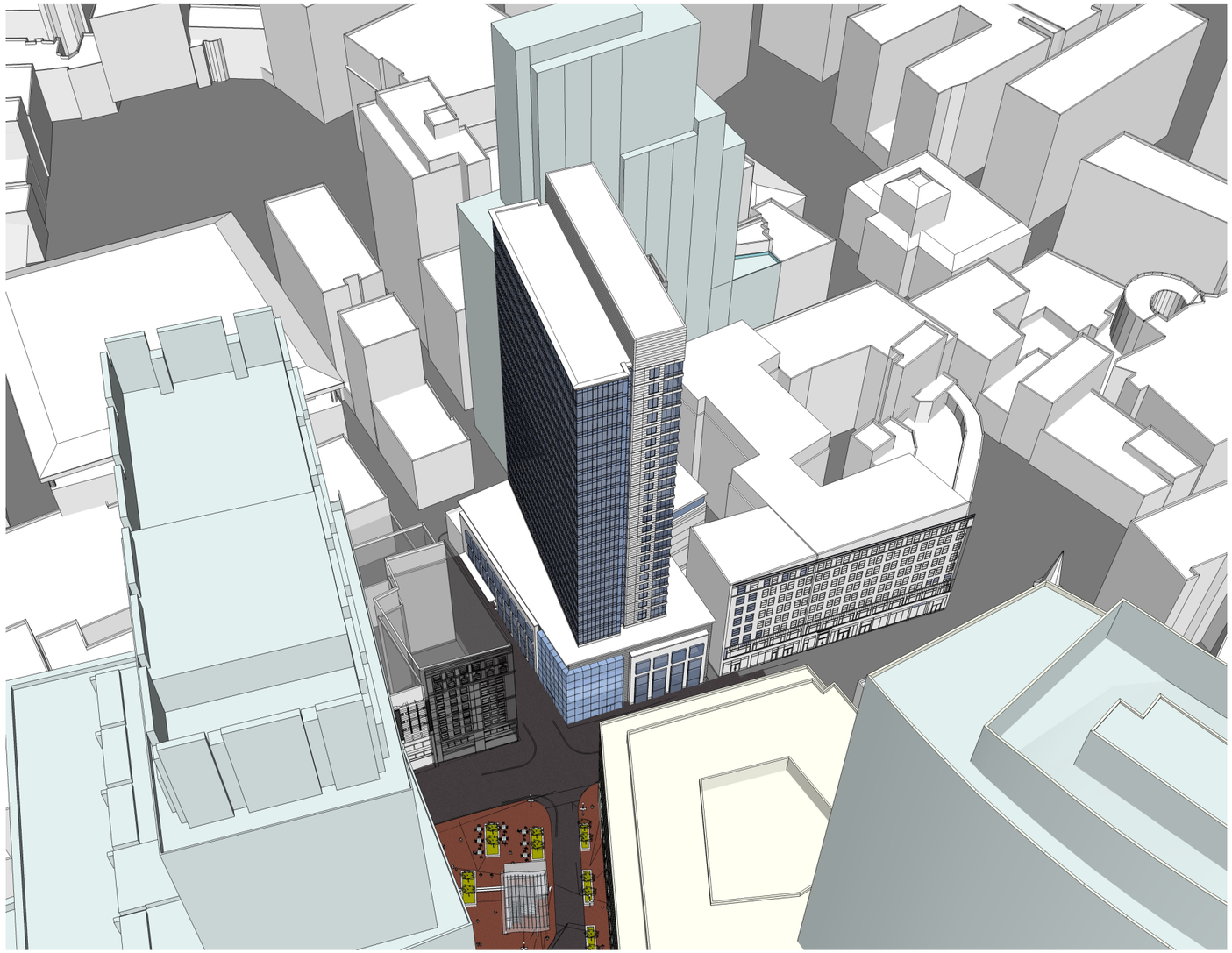
Washington Street Section

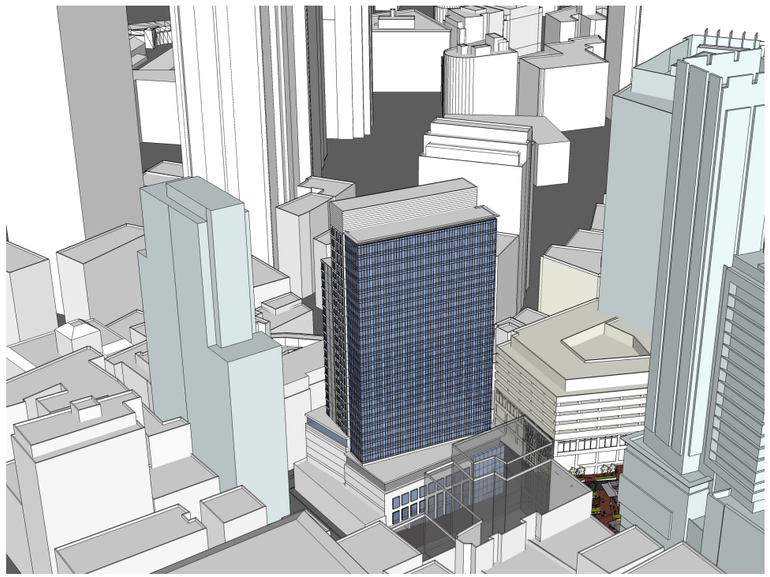
SCALE: 1" = 60'

ELKUS | MANFREDI
ARCHITECTS

[address] 300 A STREET
BOSTON MASSACHUSETTS 02210
[tel] 617-426-1300







One Bromfield Street

Midwood Management Corp.

Proposed Massing Diagrams

ELKUS | MANFREDI
ARCHITECTS

[*address*] 300 A STREET
BOSTON MASSACHUSETTS 02210
[*tel*] 617-426-1300

Appendix C
Trip Generation

Bromfield Street Redevelopment

Detailed Trip Generation Estimate

Howard/Stein-Hudson Associates

2008019

Land Use		Existing*	Proposed 4/2008	Net New
Residential (apt.)	units		276	276
Office	KSF	2.96	0	(2.960)
Retail	KSF	50.323	49	(1.141)
Restaurant	KSF	0	0	0.000

Existing Program*

8/1/2008

11-12 Bromfield		
City Sports	14304	
Storage	2784	
349-363 Washington		
Wendys	7405	consider retail
Storage	7725	
Children's Place	5500	
Storage	0	
Vacant	15390	
365 Washington		
Discounts Jewlery	1220	
Kung Fu Video	1220	
Storage	1220	
Office(vancant)	1220	
367-369 Washington		
Payless Shoe Store	4760	
Bromfield Pen	1030	
Barber Shop	1340	
Storage	1815	
Vacant Office	9465	
Office(occupied)	3155	
Office Lobby/stairs	3605	
Office	3155	
Retail	36779	
Restaurant	0	

Bromfield Street Redevelopment - Existing

Detailed Trip Generation Estimate

Howard/Stein-Hudson Associates

9/22/2008

Land Use	Size	Category	Trip Rates (Trips/ksf or unit)	Unadjusted Vehicle Trips	Pass-by %	Less capture trips	Assumed national vehicle occupancy rate[2]	Converted to Person trips	Transit Share[3]	Transit Trips	Walk/Bike/ Other Share[3]	Walk/ Bike/ Other Trips	Vehicle Share[3]	Vehicle Person Trips	Assumed local vehicle occupancy rate[4]	Total Adjusted Vehicle Trips
Daily Trip Generation																
Residential - Apartment[5]																
	0	Total	6.72	0	0%	0	1.2	0	30%	0	42%	0	28%	0	1.2	0
	Units	In	3.36	0	0%	0	1.2	0	30%	0	42%	0	28%	0	1.2	0
		Out	3.36	0	0%	0	1.2	0	30%	0	42%	0	28%	0	1.2	0
Office[6]																
	2.960	Total	11.01	33	0%	33	1.2	39	43%	17	31%	12	26%	10	1.2	8
	KSF	In	5.51	16	0%	16	1.2	20	43%	8	31%	6	26%	5	1.2	4
		Out	5.51	16	0%	16	1.2	20	43%	8	31%	6	26%	5	1.2	4
Retail[7]																
	50.323	Total	42.94	2,161	25%	1,621	1.8	2,917	20%	583	59%	1,721	21%	613	1.8	340
	KSF	In	21.47	1,080	25%	810	1.8	1,459	20%	292	59%	861	21%	306	1.8	170
		Out	21.47	1,080	25%	810	1.8	1459	20%	292	59%	861	21%	306	1.8	170
Total		Total		2,193				2,956		600		1,733				340
		In		1,097				1,478		300		867				174
		Out		1,097				1,478		300		867				174
AM Peak Hour Trip Generation																
Residential - Apartment[5]																
	0	Total	0.51	0	0%	0	1.2	0		0		0		0	1.2	0
	Units	In	0.10	0	0%	0	1.2	0	52%	0	7%	0	41%	0	1.2	0
		Out	0.41	0	0%	0	1.2	0	18%	0	51%	0	31%	0	1.2	0
Office[6]																
	2.960	Total	1.55	5	0%	5	1.2	6		3		0		2	1.2	2
	KSF	In	1.36	4	0%	4	1.2	5	63%	3	5%	0	32%	2	1.2	1
		Out	0.19	1	0%	1	1.2	1	18%	0	26%	0	56%	0	1.2	0
Retail[7]																
	50.323	Total	1.03	52	50%	26	1.8	47		15		15		17	1.8	10
	KSF	In	0.63	32	50%	16	1.8	28	46%	13	14%	4	40%	11	1.8	6
		Out	0.40	20	50%	10	1.8	18	10%	2	58%	11	32%	6	1.8	3
Total		Total		56				52		18		15				11
		In		36				33		16		4				8
		Out		21				19		2		11				4
PM Peak Hour Trip Generation																
Residential - Apartment[5]																
	0	Total	0.62	0	0%	0	1.2	0		0		0		0	1.2	0
	Units	In	0.40	0	0%	0	1.2	0	18%	0	51%	0	31%	0	1.2	0
		Out	0.22	0	0%	0	1.2	0	52%	0	7%	0	41%	0	1.2	0
Office[6]																
	2.960	Total	1.49	4	0%	4	1.2	5		3		0		2	1.2	2
	KSF	In	0.25	1	0%	1	1.2	1	18%	0	26%	0	56%	1	1.2	0
		Out	1.24	4	0%	4	1.2	4	63%	3	5%	0	32%	1	1.2	1
Retail[7]																
	50.323	Total	3.75	189	50%	94	1.8	170		49		60		61	1.8	34
	KSF	In	1.80	91	50%	45	1.8	82	10%	8	58%	47	32%	26	1.8	14
		Out	1.95	98	50%	49	1.8	88	46%	41	14%	12	40%	35	1.8	20
Total		Total		193				175		52		60				36
		In		91				82		8		48				15
		Out		102				93		43		13				21
Saturday Mid-day Peak Hour Trip Generation																
Residential - Apartment[5]																
	0	Total	0.45	0	0%	0	1.2	0		0		0		0	1.2	0
	Units	In	0.23	0	0%	0	1.2	0	30%	0	42%	0	28%	0	1.2	0
		Out	0.23	0	0%	0	1.2	0	30%	0	42%	0	28%	0	1.2	0
Office[6]																
	2.960	Total	0.41	1	0%	1	1.2	1		1		0		0	1.2	0
	KSF	In	0.22	1	0%	1	1.2	1	43%	0	31%	0	26%	0	1.2	0
		Out	0.19	1	0%	1	1.2	1	43%	0	31%	0	26%	0	1.2	0
Retail[7]																
	50.323	Total	4.97	250	25%	188	1.8	338		68		199		71	1.8	39
	KSF	In	2.58	130	25%	98	1.8	176	20%	35	59%	104	21%	37	1.8	20
		Out	2.39	120	25%	90	1.8	162	20%	32	59%	96	21%	34	1.8	19
Total		Total		251				339		68		200				40
		In		131				176		35		104				21
		Out		121				163		33		96				19

Notes:

1. Intrenal trips based on ITE Trip Generation Handbook, 2nd Edition, Multi-Use Development
2. 2001 National vehicle occupancy rates - 1.2: Home to work; 1.8: Retail; 2.1: Social and Recreational
3. Mode shares based on 2000 Census data and BTD Data for Area 2
4. Local vehicle occupancy rates based on 2000 Census data and 2001 National VOR.
5. ITE Trip Generation Equation, 7th Edition, LUC 220 (Apartment), average rate
6. ITE Trip Generation Rate, 7th Edition, LUC 710 (General Office), average rate
7. ITE Trip Generation Rate, 7th Edition, LUC 820 (Shopping Center), average rate

Bromfield Street Redevelopment - Proposed
Detailed Trip Generation Estimate
Howard/Stein-Hudson Associates

9/22/2008

Land Use	Size	Category	Trip Rates (Trips/ksf or unit)	Unadjusted Vehicle Trips	Pass-by %	Less capture trips	Assumed national vehicle occupancy rate[2]	Converted to Person trips	Transit Share[3]	Transit Trips	Walk/Bike/ Other Share[3]	Walk/ Bike/ Other Trips	Vehicle Share[3]	Vehicle Person Trips	Assumed local vehicle occupancy rate[4]	Total Adjusted Vehicle Trips
Daily Trip Generation																
Residential - Apartment[5]																
	276	Total	6.72	1,855	0%	1,855	1.2	2,226	30%	668	42%	935	28%	623	1.2	519
	Units	In	3.36	927	0%	927	1.2	1,113	30%	334	42%	467	28%	312	1.2	260
		Out	3.36	927	0%	927	1.2	1113	30%	334	42%	467	28%	312	1.2	260
Office[6]																
	0.000	Total	11.01	0	0%	0	1.2	0	43%	0	31%	0	26%	0	1.2	0
	KSF	In	5.51	0	0%	0	1.2	0	43%	0	31%	0	26%	0	1.2	0
		Out	5.51	0	0%	0	1.2	0	43%	0	31%	0	26%	0	1.2	0
Retail[7]																
	49.182	Total	42.94	2,112	25%	1,584	1.8	2,851	20%	570	59%	1,682	21%	599	1.8	333
	KSF	In	21.47	1,056	25%	792	1.8	1,426	20%	285	59%	841	21%	299	1.8	166
		Out	21.47	1,056	25%	792	1.8	1426	20%	285	59%	841	21%	299	1.8	166
Total		Total		3,967				5,077		1,238		2,617				852
		In		1,983				2,538		619		1,308				426
		Out		1,983				2,538		619		1,308				426
AM Peak Hour Trip Generation																
Residential - Apartment[5]																
	276	Total	0.51	141	0%	141	1.2	169		42		71		56	1.2	46
	Units	In	0.10	28	0%	28	1.2	34	52%	18	7%	2	41%	14	1.2	12
		Out	0.41	113	0%	113	1.2	135	18%	24	51%	69	31%	42	1.2	35
Office[6]																
	0.000	Total	1.55	0	0%	0	1.2	0		0		0		0	1.2	0
	KSF	In	1.36	0	0%	0	1.2	0	63%	0	5%	0	32%	0	1.2	0
		Out	0.19	0	0%	0	1.2	0	18%	0	26%	0	56%	0	1.2	0
Retail[7]																
	49.182	Total	1.03	51	50%	25	1.8	46		15		14		17	1.8	9
	KSF	In	0.63	31	50%	15	1.8	28	46%	13	14%	4	40%	11	1.8	6
		Out	0.40	20	50%	10	1.8	18	10%	2	58%	10	32%	6	1.8	3
Total		Total		191				213		56		85				56
		In		59				62		30		6				18
		Out		132				153		26		79				38
PM Peak Hour Trip Generation																
Residential - Apartment[5]																
	276	Total	0.62	171	0%	171	1.2	205		61		73		71	1.2	59
	Units	In	0.40	111	0%	111	1.2	133	18%	24	51%	68	31%	41	1.2	34
		Out	0.22	60	0%	60	1.2	72	52%	37	7%	5	41%	29	1.2	25
Office[6]																
	0.000	Total	1.49	0	0%	0	1.2	0		0		0		0	1.2	0
	KSF	In	0.25	0	0%	0	1.2	0	18%	0	26%	0	56%	0	1.2	0
		Out	1.24	0	0%	0	1.2	0	63%	0	5%	0	32%	0	1.2	0
Retail[7]																
	49.182	Total	3.75	184	50%	92	1.8	166		48		58		60	1.8	33
	KSF	In	1.80	89	50%	44	1.8	80	10%	8	58%	46	32%	25	1.8	14
		Out	1.95	96	50%	48	1.8	86	46%	40	14%	12	40%	35	1.8	19
Total		Total		356				371		109		131				92
		In		200				213		32		114				48
		Out		156				158		77		17				44
Saturday Mid-day Peak Hour Trip Generation																
Residential - Apartment[5]																
	276	Total	0.45	124	0%	124	1.2	149		45		63		42	1.2	35
	Units	In	0.23	62	0%	62	1.2	75	30%	22	42%	31	28%	21	1.2	17
		Out	0.23	62	0%	62	1.2	75	30%	22	42%	31	28%	21	1.2	17
Office[6]																
	0.000	Total	0.41	0	0%	0	1.2	0		0		0		0	1.2	0
	KSF	In	0.22	0	0%	0	1.2	0	43%	0	31%	0	26%	0	1.2	0
		Out	0.19	0	0%	0	1.2	0	43%	0	31%	0	26%	0	1.2	0
Retail[7]																
	49.182	Total	4.97	244	25%	183	1.8	330		66		195		69	1.8	38
	KSF	In	2.58	127	25%	95	1.8	172	20%	34	59%	101	21%	36	1.8	20
		Out	2.39	117	25%	88	1.8	158	20%	32	59%	93	21%	33	1.8	18
Total		Total		369				479		111		257				73
		In		189				246		57		133				37
		Out		179				233		54		125				36

Notes:

1. Intrenal trips based on ITE Trip Generation Handbook, 2nd Edition, Multi-Use Development
2. 2001 National vehicle occupancy rates - 1.2: Home to work; 1.8: Retail; 2.1: Social and Recreational
3. Mode shares based on 2000 Census data and BTD Data for Area 2
4. Local vehicle occupancy rates based on 2000 Census data and 2001 National VOR.
5. ITE Trip Generation Equation, 7th Edition, LUC 220 (Apartment), average rate
6. ITE Trip Generation Rate, 7th Edition, LUC 710 (General Office), average rate
7. ITE Trip Generation Rate, 7th Edition, LUC 820 (Shopping Center), average rate

Bromfield Street Redevelopment - NET NEW

Detailed Trip Generation Estimate

Howard/Stein-Hudson Associates

9/22/2008

Land Use	Size	Category	Trip Rates (Trips/ksf or unit)	Unadjusted Vehicle Trips	Pass-by %	Less capture trips	Assumed national vehicle occupancy rate[2]	Converted to Person trips	Transit Share[3]	Transit Trips	Walk/Bike/ Other Share[3]	Walk/ Bike/ Other Trips	Vehicle Share[3]	Vehicle Person Trips	Assumed local vehicle occupancy rate[4]	Total Adjusted Vehicle Trips
Daily Trip Generation																
Residential - Apartment[5]																
	276							2226		668		935		623		519
	Units	In						1113		334		467		312		260
		Out						1113		334		467		312		260
Office[6]																
	-2.960							-39		-17		-12		-10		-8
	KSF	In						-20		-8		-6		-5		-4
		Out						-20		-8		-6		-5		-4
Retail[7]																
	-1.141							-66		-13		-39		-14		-8
	KSF	In						-33		-7		-20		-7		-4
		Out						-33		-7		-20		-7		-4
Total		Total						2120		638		864				503
		In						1060		319		442				252
		Out						1060		319		442				252
AM Peak Hour Trip Generation																
Residential - Apartment[5]																
	276							169		42		71		56		46
	Units	In						34		18		2		14		12
		Out						135		24		69		42		35
Office[6]																
	-2.960							-6		-3		0		-2		-2
	KSF	In						-5		-3		0		-2		-1
		Out						-1		0		0		0		0
Retail[7]																
	-1.141							-1		0		0		0		0
	KSF	In						-1		0		0		0		0
		Out						0		0		0		0		0
Total		Total						162		38		71				45
		In						28		14		2				10
		Out						134		24		69				35
PM Peak Hour Trip Generation																
Residential - Apartment[5]																
	276							205		61		73		71		59
	Units	In						133		24		68		41		34
		Out						72		37		5		29		25
Office[6]																
	-2.960							-5		-3		0		-2		-2
	KSF	In						-1		0		0		-1		0
		Out						-4		-3		0		-1		-1
Retail[7]																
	-1.141							-4		-1		-1		-1		-1
	KSF	In						-2		0		-1		-1		0
		Out						-2		-1		0		-1		0
Total		Total						196		57		71				57
		In						131		24		67				34
		Out						65		34		5				23
Saturday Mid-day Peak Hour Trip Generation																
Residential - Apartment[5]																
	276							149		45		63		42		35
	Units	In						75		22		31		21		17
		Out						75		22		31		21		17
Office[6]																
	-2.960							-1		-1		0		0		0
	KSF	In						-1		0		0		0		0
		Out						-1		0		0		0		0
Retail[7]																
	-1.141							-8		-2		-5		-2		-1
	KSF	In						-4		-1		-2		-1		0
		Out						-4		-1		-2		-1		0
Total		Total						140		43		58				34
		In						70		21		29				17
		Out						70		21		29				17

Notes:

1. Intrenal trips based on ITE Trip Generation Handbook, 2nd Edition, Multi-Use Development
2. 2001 National vehicle occupancy rates - 1.2: Home to work; 1.8: Retail; 2.1: Social and Recreational
3. Mode shares based on 2000 Census data and BTD Data for Area 2
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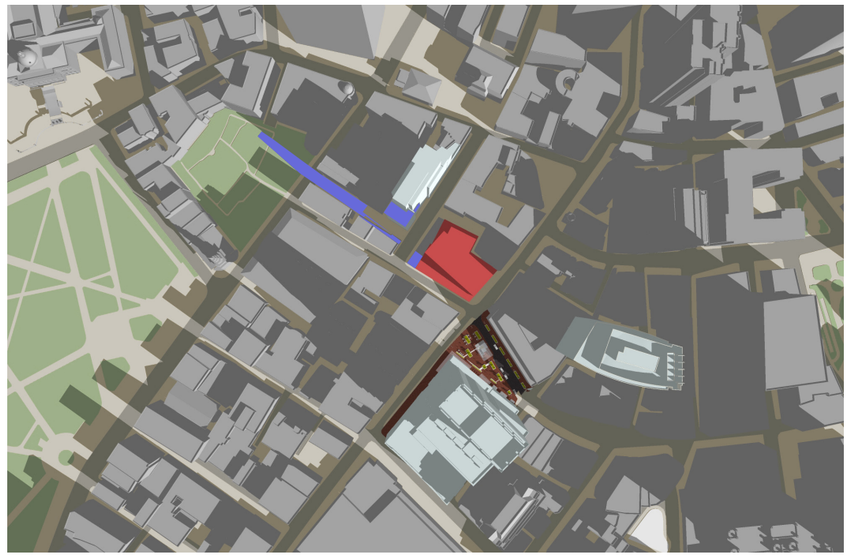
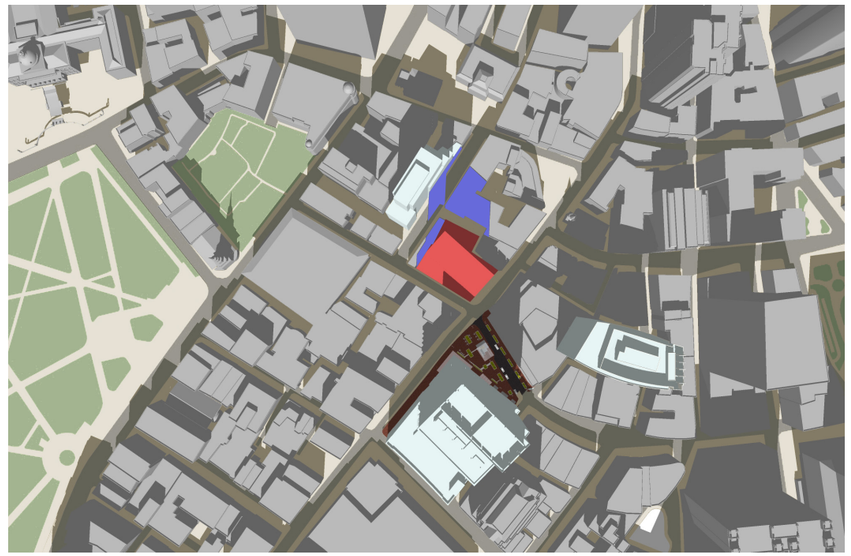
6. ITE Trip Generation Rate, 7th Edition, LUC 710 (General Office), average rate
7. ITE Trip Generation Rate, 7th Edition, LUC 820 (Shopping Center), average rate

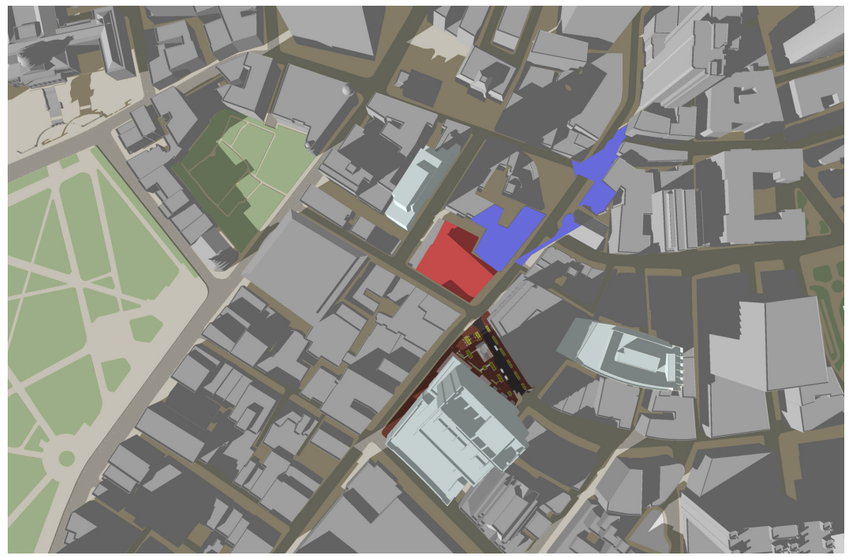
Appendix D
Shadow Analysis



March 21- 9:00 am



March 21- 12:00 pm



March 21- 3:00 pm

0 100 200 400

New Shadows-

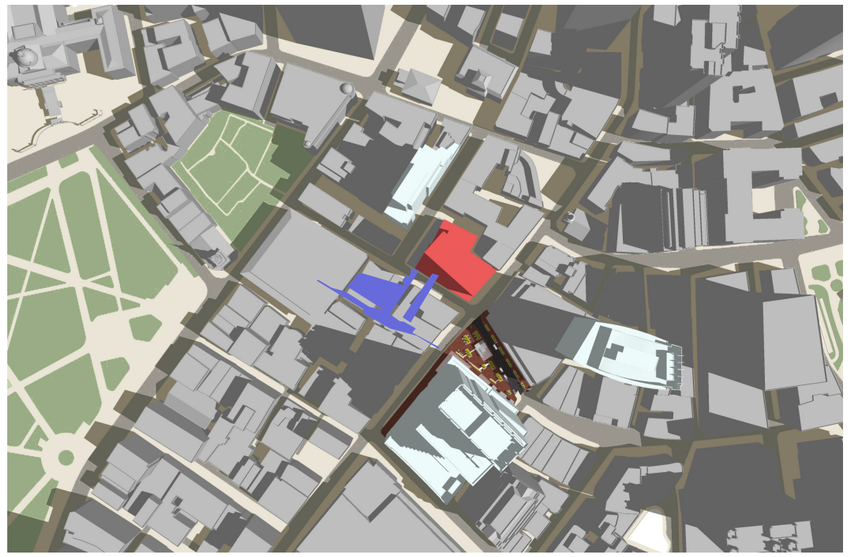
One Bromfield Street

Midwood Management Corp.

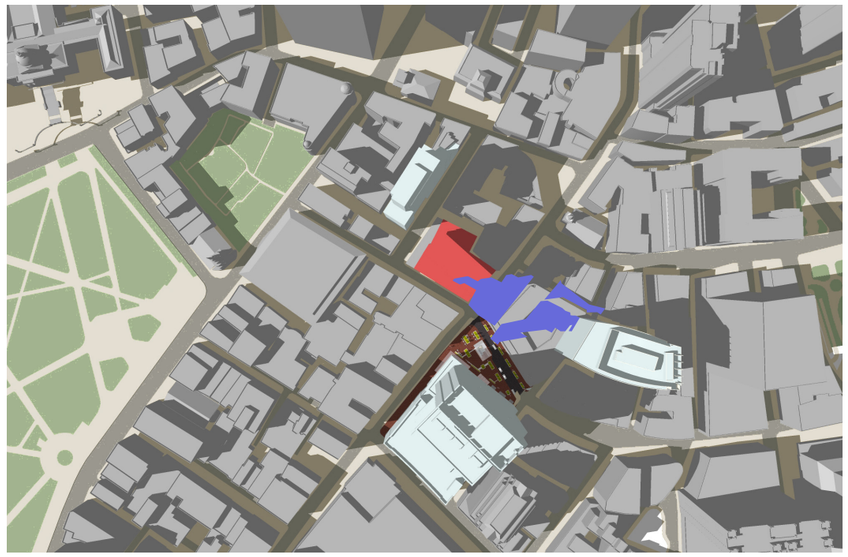
Shadow Impact Study- March

ELKUS | MANFREDI
ARCHITECTS

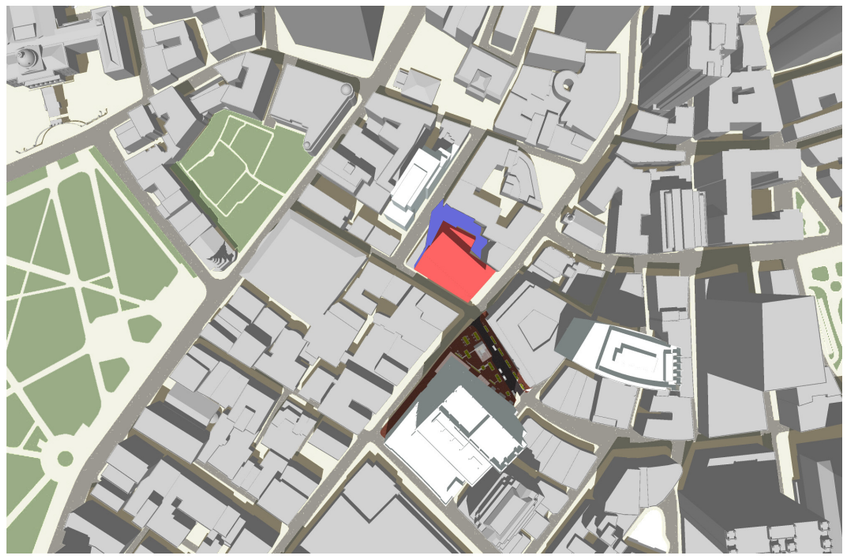
[*address*] 300 A STREET
BOSTON MASSACHUSETTS 02210
[*tel*] 617-426-1300



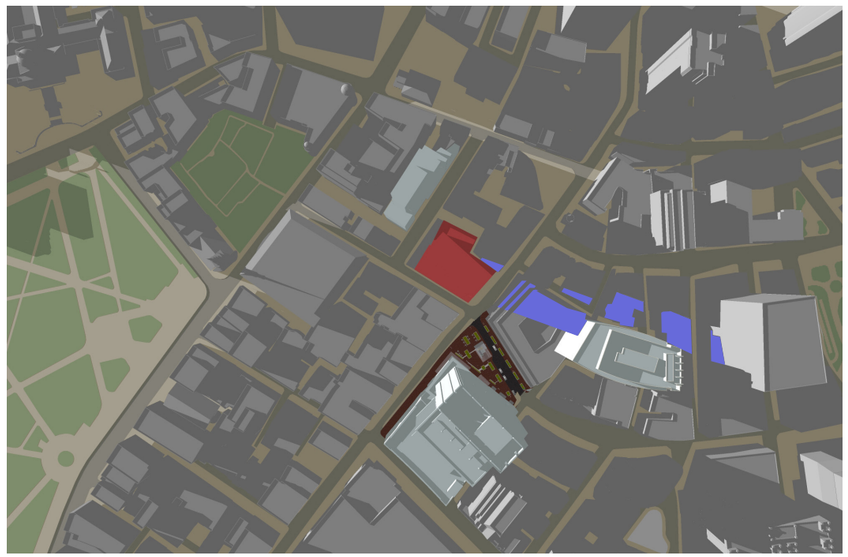
June 21- 9:00 AM



June 21- 3:00 PM



June 21- 12:00 PM



June 21- 6:00 PM

0 100 200 400

New Shadows-

One Bromfield Street

Midwood Management Corp.

Shadow Impact Study- June

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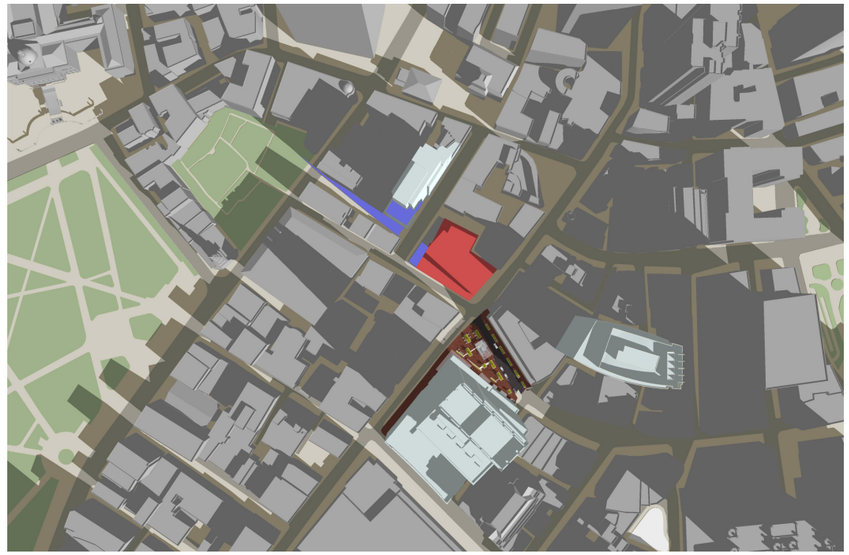
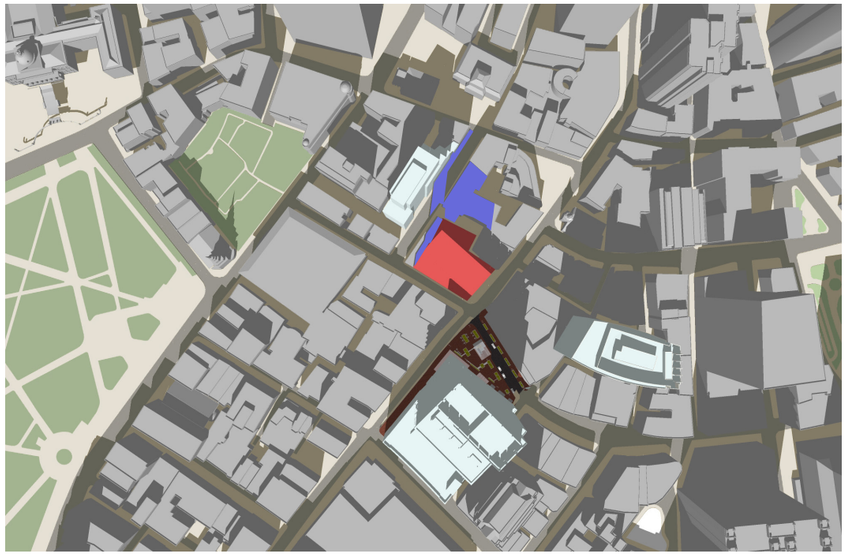
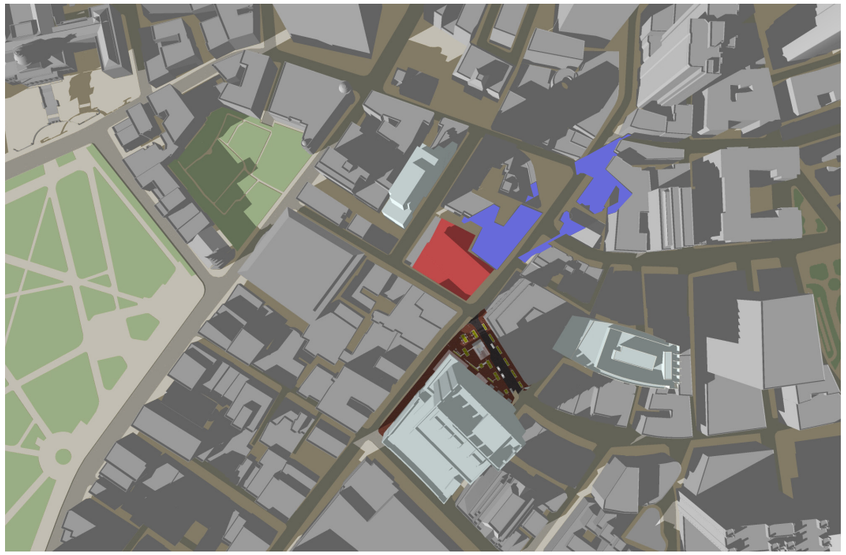
[*tel*] 617-426-1300



September 21- 9:00 am



September 21- 12:00 pm



September 21- 3:00 pm

September 21- 6:00 pm

0 100 200 400

New Shadows-

One Bromfield Street

Midwood Management Corp.

Shadow Impact Study- September

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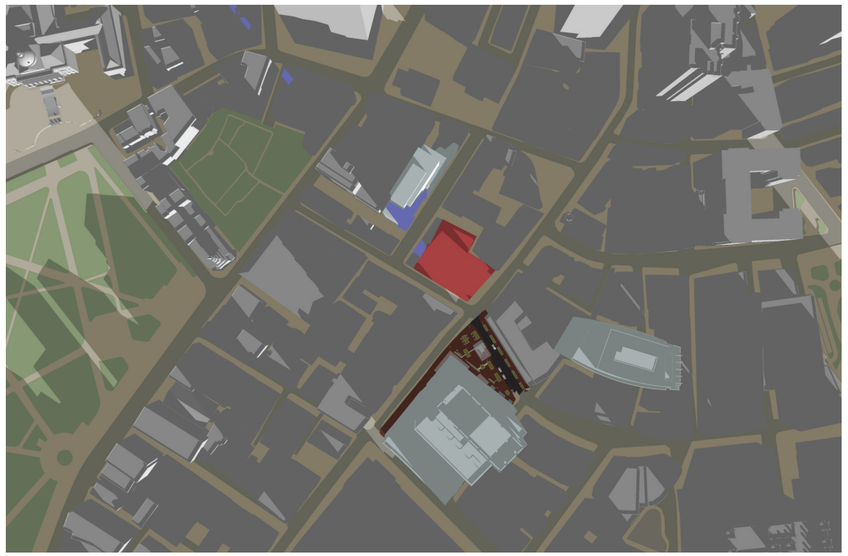
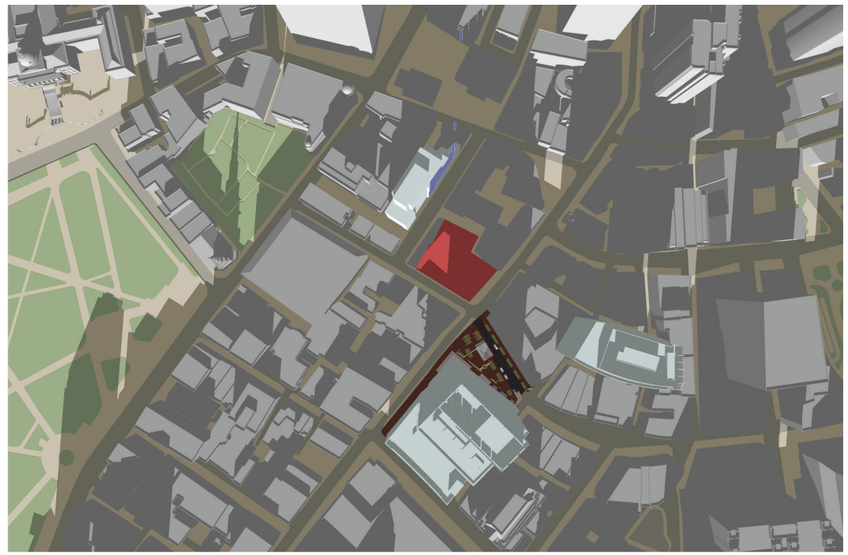
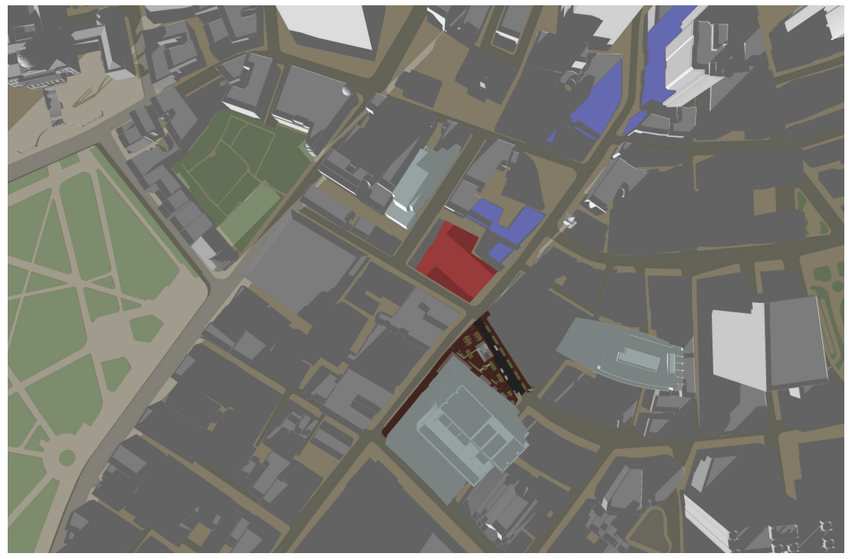


December 21- 9:00 am



December 21- 12:00 pm



December 21- 3:00 pm

0 100 200 400

New Shadows-

One Bromfield Street

Midwood Management Corp.

Shadow Impact Study- December

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