

115 WINTHROP SQUARE

Project Notification Form

November 8, 2016

Submitted To
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

MPWinthropSquare.com



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Submitted By
MCAF Winthrop LLC
c/o Millennium Partners
7 Water Street, 2nd Floor
Boston, MA 02109

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

In Association With
Handel Architects LLP
D/R/E/A/M Collaborative LLC
Ground, Inc.
DLA Piper LLP
WSP Group
Steven Winter Associates, Inc.
DeSimone Consulting Engineers
Vanasse Hangen Brustlin, Inc. (VHB)
Nitsch Engineering, Inc.
Haley & Aldrich, Inc.
Commercial Construction Consulting, Inc.
Acentech
Harry R. Feldman, Inc.
Walker Parking Consultants/Engineers, Inc.
Rowan Williams Davies & Irwin, Inc. (RWDI)
Suffolk Construction Company, Inc.

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Section 1.0

General Information

1.0 GENERAL INFORMATION

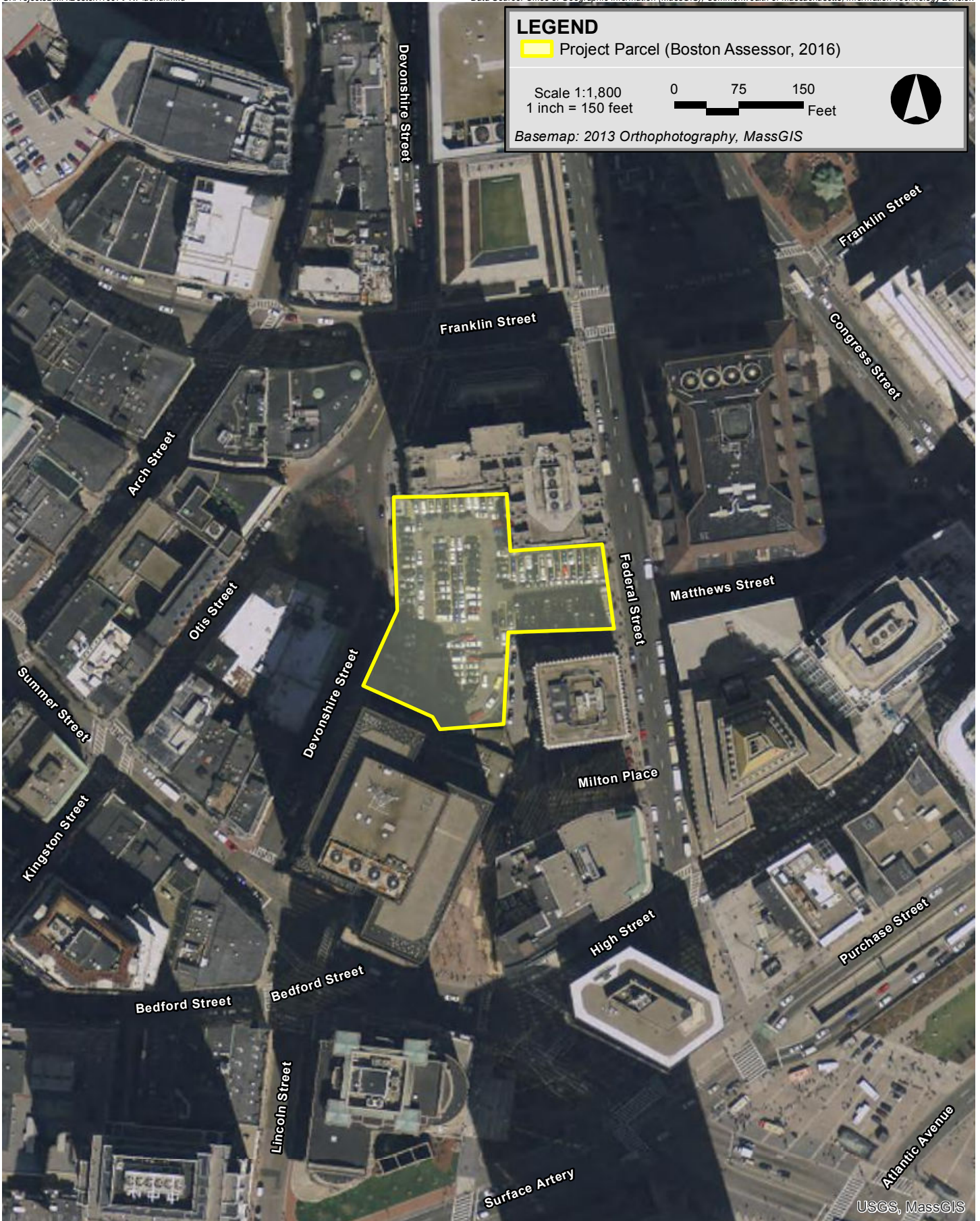
1.1 Introduction

MCAF Winthrop LLC, a Millennium Partners company, (the Proponent) proposes the redevelopment of 115 Winthrop Square, also known as 115 Federal Street, located between Devonshire Street and Federal Street in Downtown Boston (the Project site). See Figure 1-1. The Proposed redevelopment of 115 Winthrop Square (the Project) consists of a thoughtfully designed, iconic, tower of synergistic uses, up to 775 feet tall, built respectfully around a voluminous approximately 200 foot long by 60 foot wide by 60 foot high area that includes curated public gathering space (the Great Hall) that connects streets, cultures, ideas and people. The Project includes innovative office work space; residential units; retail, dining, and other commercial space; residential and private commercial parking below grade, as well as a business “Accelerator.” The Accelerator space will provide an organized business assistance program for entrepreneurs to help further establish Downtown Boston as a hub of innovation across industries and support functions. Please see Figure 1-2.

The Project site, approximately 1.1 acres (47,962 square feet), is presently occupied by a vacant and deteriorated four-story (three levels above ground and one level below ground) public parking garage with capacity to park over 1,000 vehicles before closing in 2013. The proposed Project includes the demolition of the existing structure and the construction of a mixed-use building with commercial (retail, restaurant, service), office and residential above, and below-grade parking as described above. In addition to the new building, the Project will provide, via the Great Hall, an open midblock link between public spaces and an improved pedestrian experience around the Project site.

The Project site is well located among green space areas such as Post Office Square and the Rose Kennedy Greenway. Significant development activity has taken place in and around Downtown Boston in recent years, including new retail, office, and residential space such as Millennium Tower & Burnham Building and Millennium Place, projects recently completed by Millennium Partners, an affiliate of the Proponent. The Project will transform the underutilized and blighted Project site to provide the Downtown and Financial District with new housing, retail space, improved pedestrian linkages, civic gathering space, increased tax revenues. The Project is also anticipated to result in purchase price payments to the City totaling approximately \$152,790,000.

The Project will be a market leader in sustainability and resiliency and be designed to meet the more extreme climactic conditions anticipated in the future. The Proponent is exploring a host of measures in the initial design process, from chilled beams or under-floor air distribution in the office areas to heat exchangers between uses, a high-performance façade, variable refrigerant flow, displacement ventilation systems, greywater systems, thoughtful daylighting, operable windows, smart metering, master switches and more.



115 Winthrop Square Boston, Massachusetts



115 Winthrop Square

Boston, Massachusetts

HANDEL ARCHITECTS LLP

Figure 1-2

Conceptual Rendering of Project

This Project Notification Form (PNF) is being submitted to the Boston Planning & Development Agency [formerly known as the Boston Redevelopment Authority (BRA)] (BPDA) to initiate review of the Project under Article 80B, Large Project Review, of the Boston Zoning Code.

1.2 Project Identification and Team

Name / Location: 115 Winthrop Square (also known as 115 Federal Street)
Between Devonshire Street and Federal Street in Downtown Boston

Proponent: MCAF Winthrop LLC
c/o Millennium Partners
7 Water Street, Suite 200
Boston, Massachusetts 02109
617-451-0300
Joseph Larkin
Kathleen MacNeill

Architect: Handel Architects
120 Broadway, 6th Floor
New York, NY 10271
212-595-4112
857-310-5290
Blake Middleton
Stephen Matkovits
Seth Riseman

Collaborating Architect: D/R/E/A/M Collaborative
236 Huntington Avenue
Suite 303
Boston, MA 02115
617-606-7029
Gregory Minott
Troy DePeiza

Landscape Architect: Ground Inc.
6 Carlton Street
Somerville, MA 02143
(617) 718-0889
Shauna Gillies-Smith

Off-site Affordable
Housing Collaborator:

Asian Community Development Corporation
38 Oak Street
Boston, MA 02111
617-482-2380
Angie Liou
Debbie Chen

Article 80 and Historic
Resources Consultant:

Epsilon Associates, Inc.
3 Clock Tower Place, Suite 250
Maynard, MA 01754
978-897-7100
Cindy Schlessinger
Catie Ferrara
Holly Johnston

Transportation and
Parking Consultant:

VHB
99 High Street, 10th Floor
Boston, MA
617-728-7777
David Black

Civil Engineer:

Nitsch Engineering, Inc.
2 Center Plaza, Suite 430
Boston, MA 02108
617-338-0063
Jared Gentilucci
Chris Hodney

Mechanical-Electrical-
Plumbing Engineer:

WSP Group
88 Black Falcon Avenue, Suite 210
Boston, MA 02210
Thomas Burroughs
Nancy Gould

Geotechnical Engineer:

Haley & Aldrich, Inc.
465 Medford Street, Suite 2200
Boston, MA 02129
Steve Kraemer
Damian Siebert

Legal Counsel: DLA Piper LLP
33 Arch Street, 26th Floor
Boston, MA 02110
617-406-6000
John Rattigan
Anita Agajanian
Brian Awe

1.3 Public Benefits

The Project will generate many public benefits for the surrounding neighborhood and the City of Boston as a whole, both during construction and on an ongoing basis upon its completion.

Innovative Economic Development Strategy

Innovative economic development strategies for the Project's components play essential roles in the overall vision.

The Great Hall: Delivering Great Economic and Cultural Impact

The Great Hall will be an open, robust, inclusive space, free to the public, designed to foster community and an appreciation for the arts and Boston's rich culture. The Great Hall will be open to all 18 hours a day, 52 weeks of the year. For most of the year, both the Federal and Devonshire street facades approaching the Great Hall will be wide open. In the cold weather season, the façade will be reinstalled, and multiple unlocked doors will serve as replacements. An inclusive group of community, civic, and non-profit organizations will be actively encouraged to use the Great Hall for special events.

The Accelerator: Keeping Innovation in Boston

The Proponent proposes dedicating space to an Accelerator in partnership with the City of Boston with the goal of supporting the development, growth and maturation of Boston-based startups. Accelerators serve as organized business assistance programs for entrepreneurs. At this particular location, the necessary structure, mentorship and capital that these burgeoning businesses need to "accelerate" their growth are already in place in Boston's Downtown and Financial Districts.

Accelerators typically provide services to their companies in the following areas: marketing, legal, technology infrastructure, human resources, recruiting, access to capital, access to potential customers, educational events, pilot days, demo days, and more. The goal of the Accelerator is to provide these services to help increase a startup's likelihood of success. After graduating, the startup matriculates to the broader local economy with a tested concept and the functional skills required to grow and hire more people.

The Proponent would like to make the Project Boston's next great innovation hub, with the Accelerator serving as a driver of economic activity and job growth within the City of Boston.

Creative and Productive Spaces that Work

The Project will further the infrastructure available to tomorrow's employers by strengthening and diversifying the downtown employment base. In sync with other City of Boston initiatives, the Project will appeal to the broad range of innovative companies at every stage of their growth, from embryonic businesses to the larger office users competing on the world stage.

Adding Good Jobs to the Economy

The Project will create approximately 2,670 permanent jobs. The Proponent will set the employment priorities upfront and endeavor to meet the goals of the City of Boston Residents Jobs and Diversity Policy. While the aggregate numbers tell one story, it is at the individual level that Boston citizens see and feel the greatest impact. The Project is anticipated to include over 2,200 workers in the commercial office space, over 390 workers in the various restaurant and retail businesses and over 82 employees in building management and operations functions.

In addition to the permanent jobs, the Project will create approximately 2,950 onsite union construction jobs. The Proponent will team up with Suffolk Construction to promote Suffolk's Trades Partnership Series, a program designed for Disadvantaged Business Enterprise (DBE), Minority Business Enterprise (MBE) and Women-Owned Business Enterprise (WBE). It offers formal training for disadvantaged, minority, and women-owned Trade Partner firms to strengthen their business acumen and provides opportunities to foster relationships with Suffolk and its subcontractors.

Enhancement of the Downtown Public Realm

The Project will activate an underutilized site with enhanced connectivity for pedestrians through the ground-floor Great Hall that connects streets, culture, ideas and people. In addition to providing retail and restaurants to serve as a pedestrian attractor, the Great Hall will improve the pedestrian experience more broadly in the area by becoming a part of a larger pattern of midblock pedestrian open space links. Specifically, through new planting and outdoor seating, the Project will provide an accessible space for walking between the Great Hall and the adjacent 100 Summer Street Plaza and open terrace at 133 Federal Street. Sections 2.2 and 3.4 provide more detailed information.

Sustainable Development for the Future

The Proponent is committed to making the Project a shining model of sustainability and resiliency. The Proponent will focus on integrating sustainable design seamlessly into all aspects of the Project, from the early concept, through construction, and into operation and post-occupancy. The Project will strive to achieve LEED Platinum Certifiability and adopt the principals of Passive House in the office component. Passive House principles promote reduction in energy consumption, greenhouse gas emissions, and the health and wellness of its occupants. It will also be designed to meet the more extreme weather conditions anticipated in the future. Section 3.3 includes more detailed information.

Smart Growth/Transit-Oriented Development

The Project is consistent with smart-growth and transit-oriented development principles. The Project site is well served by existing public transportation, including major regional rapid transit and commuter rail lines that provide easy access to the Project site from the Greater Boston region. With the Project site's close proximity to public transportation, shared vehicular and biking options, and its central location, the Project will need less parking relative to other projects of its size. The addition of residential uses to an underutilized site that is adjacent to new, more active uses will support the expansion of retail, office, and residential uses in the neighborhood.

Affordable Housing

The Proponent anticipates an active, hands-on role to help address the City's housing affordability crisis. The Project will comply with the City's Inclusionary Development Policy. To do so, the Proponent is collaborating with the Asian Community Development Corporation (Asian CDC) to explore opportunities to create affordable housing in Boston's Chinatown neighborhood.

New Property Tax

The Project will result in increased tax revenues. Estimated annual stabilized property taxes for the Project will be dependent on the final size and mix of uses, but are expected to be in excess of \$12 million annually.

Additional Revenue to the City

The Proponent has committed to pay a purchase price anticipated to equal approximately \$152,790,000, with \$102,000,000 of that total paid upon conveyance of the Project site to the BPDA (see Section 1.5, below). Approximately \$50,790,000 of that total will be adjusted up or down based on the final residential program.

1.4 Zoning and Regulatory Controls

The Project site is located in a B-10 Retail Business and Office District under the base provisions of the Boston Zoning Code, and is not presently located in a Downtown or Neighborhood District. In addition, the Project site is located within the Downtown Interim Planning Overlay District (IPOD) and the Downtown IPOD Study Area established pursuant to Article 27D of the Boston Zoning Code as well as a Restricted Parking Overlay District. The Proponent intends to apply for the creation of a Planned Development Area (PDA) and approval of a PDA Development Plan to permit construction of the Project.

1.5 Pre-Designation and Designation Process

The Project site has been widely considered an underutilized space and an opportunity for redevelopment for over ten years. In May of 2006, the BRA (now known as the BPDA) issued its first Request for Proposals (RFP) for the Winthrop Square Garage site. The RFP was widely circulated throughout the commercial real estate industry and was advertised in major national newspapers.

On November 13, 2006, Trans National Properties submitted a response to that RFP for a major mixed-use tower of significant size combining the Project site and the adjacent site at 133 Federal Street. On January 25, 2007, the BPDA Board of Directors recommended that Trans National Properties be preliminarily selected as the Redeveloper of the Winthrop Square site for development of a signature tower of significant height and density. However, Trans National's proposed project was put on hold in mid-2008.

On February 11, 2015, the BPDA issued a Request for Information (RFI) to generate proposals for the Project site. The RFI identified goals including "the demonstration of an innovative economic development strategy; the dramatic enhancement of the downtown public realm; and achievement as a model for sustainable development." On April 13, 2015, Millennium Partners, an affiliate of the Proponent, submitted a response to the RFI. A total of eight responses to the RFI were submitted. Proposed alternatives for the Project site included all-office uses, all-residential uses, and others that proposed varying combinations of residential, hotel, and office. All proposed designs for the Project site presented towers of varying heights.

Based on information provided through the RFI responses, the BPDA issued a new Request for Proposals for the Project site in March 2016. Several developers, including Millennium Partners, submitted development proposals for the redevelopment of the Project site to the BPDA in April 2016. Among these proposals, programs again varied; all presented towers 675 feet or greater in height. After completion of the review and evaluation process described in the RFP, the BPDA voted to designate the Proponent as the redeveloper of the site. The Proponent anticipates entering into an agreement

with the BPDA pursuant to which the Proponent is granted the right to obtain fee title to the Property from the BPDA and undertake the Project, subject to customary development review.

1.6 Legal Information

1.6.1 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 Proponent's undertaking of the Project.

1.6.2 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.

1.6.3 Evidence of Site Control/Nature of Public Easements

The Proponent has been designated as the redeveloper of the Project site by the Boston Planning & Development Agency. The Proponent anticipates entering into an agreement with the BPDA pursuant to which the Proponent is granted the right to obtain fee title to the Property from the BPDA and undertake the Project, subject to customary development review. The Proponent is not aware of any public easements into, through or affecting the Project site other than typical utility easements and adjacent public rights of way.

1.7 Anticipated Permits and Approvals

Table 1-1, below, sets forth a preliminary list of permits and approvals from governmental agencies and authorities that are expected to be required for the Project. It is possible that only some of these permits and approvals may be required, or that additional permits or approvals will be required.

1.8 Public Participation

A Letter of Intent has been filed with the BPDA pursuant to the Executive Order Relative to the Provision of Mitigation by Development Projects in Boston issued on October 10, 2000, as amended. The Letter of Intent began the Project's formal public review process. The Proponent looks forward to a comprehensive review process, including meetings with neighbors, local groups, elected officials and other interested parties.

1.9 Schedule

Construction of the Project is estimated to commence in the third quarter of 2017 with initial occupancy by the fourth quarter of 2020. Demolition of the existing garage and related work may occur prior to construction commencement.

Table 1-1 Anticipated Permits and Approvals

<i>Agency Name</i>	<i>Permit / Approval</i>
FEDERAL	
Environmental Protection Agency	National Pollution Discharge Elimination System General Permit Notice
Federal Aviation Administration	Determination of No Hazard to Air Navigation
STATE	
Department of Environmental Protection	Construction and Demolition Notices; Source Registration for Emergency Generator; Asbestos Notices (if necessary); RAM Plan and completion certification (if necessary); Boiler Emissions Approval, Emergency Generator Emissions Approvals, Air Plan Approval, Fossil Fuel Utilization Permit (if necessary)
Executive Office of Energy and Environmental Affairs (MEPA Office)	Review under the Massachusetts Environmental Policy Act
Massachusetts Historical Commission	Determination of No Adverse Effect
Massachusetts Water Resources Authority	Construction Dewatering Permit
State Building Code Appeals Board	Variances from Building Code (if necessary)
LOCAL	
Boston Air Pollution Control Commission	Parking Freeze Permit
Boston Civic Design Commission	Design Approval
Boston Fire Department	Asbestos Removal Permit (if necessary); Fuel Storage Permit; Equipment and Access Permit
Boston Inspectional Service Department	Building Permit; Demolition Permit; Foundation Permit; Certificate of Occupancy
Boston Public Improvement Commission	Specific Repair and/or Canopy Approvals; Street and Sidewalk Occupancy Permits; Earth Retention/Tieback Approvals and Curb Cuts
Boston Public Safety Commission, Committee on Licenses	Permit to Erect Parking Garage; License for Storage of Inflammables
Boston Planning & Development Agency	Article 80B Large Project Review and Related Agreements and Disclosures; Affordable Housing Agreement; Article 80C Planned Development Area Development Plan Approvals; Certification of Compliance and Consistency
Boston Transportation Department	Transportation Access Plan Agreement; Review and Approval of a Construction Management Plan
Boston Water and Sewer Commission	Site Plan Approval; Construction Dewatering Permit; Connection, Cross Connection, and Extension Permits
Boston Zoning Commission	Approval of Planned Development Area Development Plan
Boston Parks Department	Construction Approval if the Project is within 100 feet of a park and Boston Parks Department jurisdiction
Boston Landmarks Commission	Demolition Review in accordance with Article 85

Section 2.0

Project Description

2.0 PROJECT DESCRIPTION

2.1 Existing Site and Area Context

The approximately 47,962 square foot Project site is located at 115 Winthrop Square, also known as 115 Federal Street, in Downtown Boston. It is bounded by 75-101 Federal Street to the north, 100 Summer Street to the south, Devonshire Street to the west, and Federal Street to the east.

The Project site currently contains a vacant four-story (three levels above grade, one level below grade) public parking garage building that formerly served Boston's Financial District. The building is currently fenced and boarded at all access points, and will be demolished as part of the Project.

Major retail and entertainment venues along the Downtown Crossing Corridor are located within a short distance of the Project site. Significant development activity has taken place in and around Downtown Boston in recent years, including new retail, office, and residential space including Millennium Tower & Burnham Building and Millennium Place, projects recently completed by Millennium Partners, an affiliate of the Proponent.

The Project site is in close proximity to several MBTA public transit routes and transportation hubs, with nearby South Station, Downtown Crossing, and State Street offering service to the Silver, Orange, Green, Red, and Blue lines for MBTA service, along with commuter rail and Amtrak. In addition, the downtown is served by numerous MBTA local bus routes. The area is also regionally accessible via Interstate 93 (Exit 20), which runs below Atlantic Avenue, Purchase Street, and the Rose Kennedy Greenway within one-quarter mile of the Project site.

The Project site is also well located among green space areas such as the Rose Kennedy Greenway and Post Office Square.

Photographs of the Project area are presented below in Figures 2-1 and 2-2. A Project site diagram of existing conditions is presented in Figure 2-3.

2.2 Project Description

The Project represents what has become a paradigm for successful urban re-vitalization in historic city centers, commonly described as a Mixed-Use High-Rise Residential Building. A mixed-use building, with complex and diverse functions, when artfully assembled, has the power to drive significant pedestrian activity on the street through all hours of the day.



115 Winthrop Square

Boston, Massachusetts



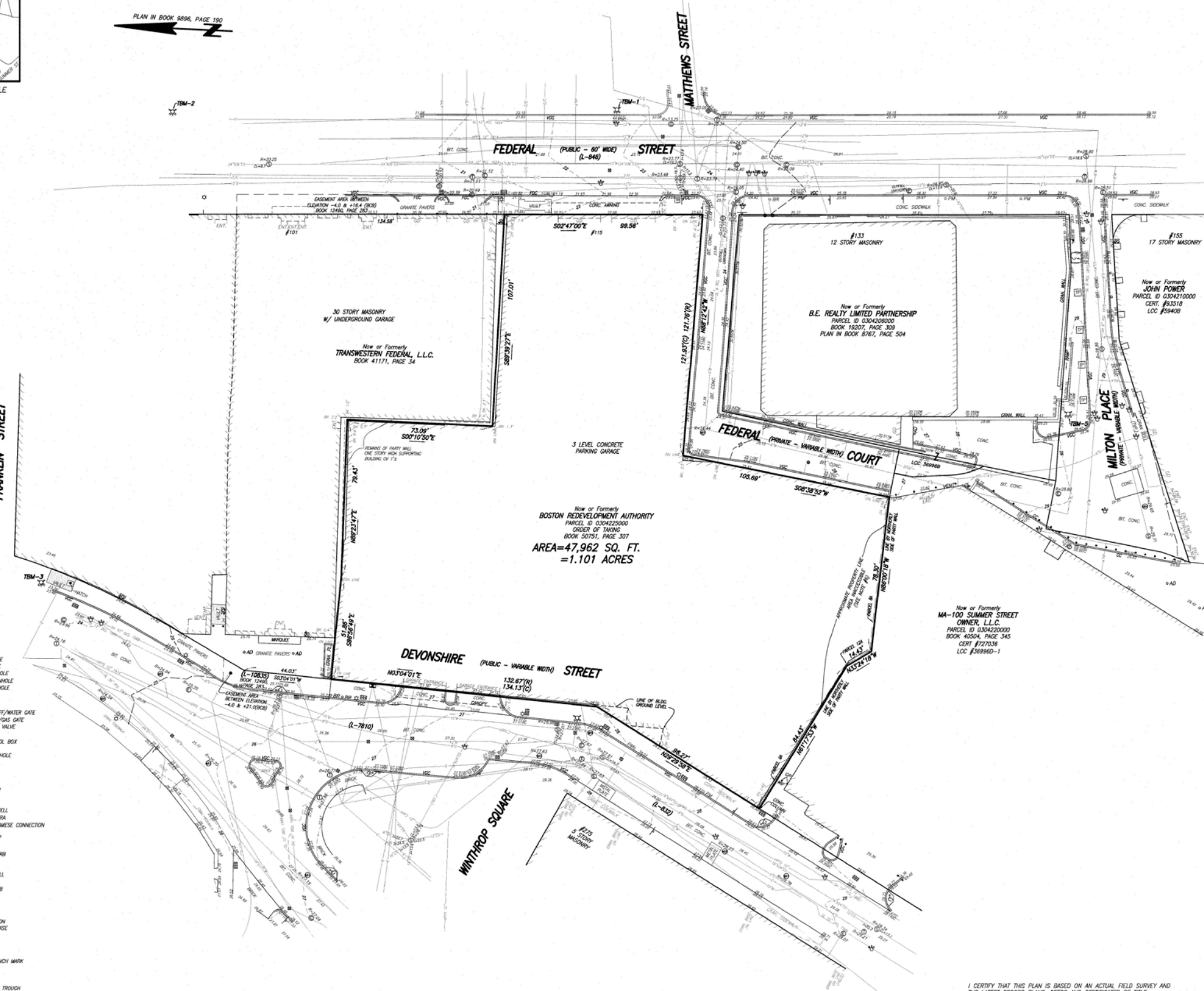
115 Winthrop Square

Boston, Massachusetts



LOCUS MAP - NOT TO SCALE

PLAN IN BOOK 8896, PAGE 190



- LEGEND**
- ⊙ SEWER MANHOLE
 - ⊙ DRAIN MANHOLE
 - ⊙ ELECTRIC MANHOLE
 - ⊙ TELEPHONE MANHOLE
 - ⊙ CABLE TV MANHOLE
 - ⊙ MANHOLE
 - ⊙ HYDRANT
 - ⊙ WATER SHUT OFF/WATER GATE
 - ⊙ GAS SHUT OFF/GAS GATE
 - ⊙ BOSTON WATER VALVE
 - ⊙ CATCH BASIN
 - ⊙ TRAFFIC CONTROL BOX
 - ⊙ LIGHT POLE
 - ⊙ ELECTRIC MANHOLE
 - ⊙ BOLLARD
 - ⊙ POST
 - ⊙ SIGN
 - ⊙ AD AREA DRAIN
 - ⊙ PM PARKING METER
 - ⊙ CD CLEAN OUT
 - ⊙ FA FIRE ALARM
 - ⊙ OW OBSERVATION WELL
 - ⊙ SC SECURITY CAMERA
 - ⊙ ST STAND PIPE/SEWER CONNECTION
 - ⊙ HS HANDICAP RAMP
 - ⊙ GP GATE POST
 - ⊙ BC BOTTOM OF CURB
 - ⊙ BT BITUMINOUS
 - ⊙ BK BRICK
 - ⊙ BW BOTTOM OF WALL
 - ⊙ (C) CALCULATED
 - ⊙ CC CONCRETE CURB
 - ⊙ CONC CONCRETE
 - ⊙ ENT ENTRANCE
 - ⊙ GD GRASS DOOR
 - ⊙ GRAN GRANITE
 - ⊙ IN INERT ELEVATION
 - ⊙ LOC LAND COURT CASE
 - ⊙ LD LOADING DOCK
 - ⊙ OV OVER
 - ⊙ REC RECORD
 - ⊙ SQ. FT. SQUARE FEET
 - ⊙ TBM TEMPORARY BENCH MARK
 - ⊙ TC TOP OF CURB
 - ⊙ TH THRESHOLD
 - ⊙ TR TRAIL
 - ⊙ TR+ CENTERLINE OF TROUGH
 - ⊙ TT TOP OF TRAP
 - ⊙ TW TOP OF WALL
 - ⊙ TYP TYPICAL
 - ⊙ VEC VERTICAL GRANITE CURB
 - ⊙ CS CROWNED SEWER
 - ⊙ DRAIN DRAIN
 - ⊙ E ELECTRIC
 - ⊙ G GAS
 - ⊙ T TELEPHONE
 - ⊙ W WATER

- NOTES:**
- BENCH MARK INFORMATION:**
 - BENCH MARK USED:
 - TBM-B: X-MARK SET ON STREET SIDE HYDRANT FLANGE BOLT AT THE INTERSECTION OF THE NORTHWESTERLY SIDE OF CONGRESS STREET AND THE NORTHERLY SIDE OF FRANKLIN STREET. (FELDMAN LAND SURVEYORS JOB NO. 150234) ELEVATION = 20.80
 - TBM-CSD: X-MARK SET ON RIGHT FRONT HYDRANT FLANGE BOLT ON MATTHEWS STREET, APPROXIMATELY 30' WEST OF CONGRESS STREET. (FELDMAN LAND SURVEYORS JOB NO. 150234) ELEVATION = 21.68
 - TEMPORARY BENCH MARKS SET:**
 - TBM-1: X-CUT SET ON RIGHT FRONT BOLT OF A HYDRANT AT THE INTERSECTION OF THE EASTERLY SIDELINE OF FEDERAL STREET AND THE NORTHERLY SIDELINE OF MATTHEWS STREET, 2.4' ABOVE GRADE, AS SHOWN HEREON. ELEVATION = 25.55
 - TBM-2: X-CUT SET ON RIGHT FRONT BOLT OF A HYDRANT ON THE EASTERLY SIDE OF FEDERAL STREET, 70' SOUTHERLY OF FRANKLIN STREET, 2.1' ABOVE GRADE, AS SHOWN HEREON. ELEVATION = 22.26
 - TBM-3: X-CUT SET ON RIGHT FRONT BOLT OF A HYDRANT ON THE SOUTHEASTERLY SIDE OF DEVONSHIRE STREET, 20' SOUTHWESTERLY OF FRANKLIN STREET, 2.3' ABOVE GRADE, AS SHOWN HEREON. ELEVATION = 25.94
 - TBM-4: X-CUT SET ON RIGHT FRONT BOLT OF A HYDRANT AT THE INTERSECTION OF THE EASTERLY SIDE OF DEVONSHIRE STREET AND THE NORTHERLY SIDE OF SUMMER STREET, 2.3' ABOVE GRADE. ELEVATION = 30.78
 - TBM-5: X-CUT SET ON RIGHT FRONT BOLT OF A HYDRANT ON THE NORTHERLY SIDE OF MILTON PLACE, 100' WESTERLY OF FEDERAL STREET, 2.4' ABOVE GRADE, AS SHOWN HEREON. ELEVATION = 31.67
 - ELEVATIONS REFER TO BOSTON CITY BASE.
 - CONTOUR INTERVAL EQUALS ONE (1) FOOT.
 - BY GRAPHIC PLOTTING ONLY: THE PARCEL SHOWN HEREON LIES WITHIN A ZONE "A" (UNSHADED), AN AREA OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD, AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (F.E.M.A.) FLOOD INSURANCE RATE MAP (F.I.R.M.) FOR SUFFOLK COUNTY, MASSACHUSETTS, MAP NUMBER 2502C0001A, CITY OF BOSTON, HAVING AN EFFECTIVE DATE OF MARCH 16, 2016.
 - UTILITY INFORMATION SHOWN IS BASED ON BOTH A FIELD SURVEY AND PLANS OF RECORD. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM THE AFORESAID RECORD PLANS AND ARE APPROXIMATE ONLY. WE CANNOT ASSUME RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES THAT ARE OMITTED OR INACCURATELY SHOWN ON SAID RECORD PLANS, SINCE SUBSURFACE UTILITIES CANNOT BE VISUALLY VERIFIED. BEFORE PLANNING FUTURE CONNECTIONS, THE PROPER UTILITY ENGINEERING DEPARTMENT SHOULD BE CONSULTED AND THE ACTUAL LOCATION OF SUBSURFACE STRUCTURES SHOULD BE DETERMINED IN THE FIELD CALL TOLL FREE, THE DIG SAFE CALL CENTER AT 1-888-344-7233 SEVENTY-TWO HOURS PRIOR TO EXCAVATION.
 - THE PROPERTY LINE ALONG THE ADJUTING PARCEL, OWNED NOW OR FORMERLY BY MA-100 SUMMER STREET OWNER, LLC, IS DEFINED BY A LINE BY THE NORTHERLY SIDE OF A PARTY WALL. THIS PARTY WALL WAS NOT ACCESSIBLE AT THE TIME OF THE SURVEY AND WILL NEED TO BE LOCATED FROM THE THIRD LEVEL OF THE EXISTING GARAGE.
 - STREET LIGHTING AND STEAM LINE RECORDS WERE NOT AVAILABLE AT THE TIME OF SURVEY.
 - THIS DOCUMENT IS AN INSTRUMENT OF SERVICE OF FELDMAN LAND SURVEYORS ISSUED TO OUR CLIENT FOR PURPOSES RELATED DIRECTLY AND SOLELY TO FELDMAN LAND SURVEYORS' SCOPE OF SERVICES UNDER CONTRACT TO OUR CLIENT FOR THIS PROJECT. ANY USE OR REUSE OF THIS DOCUMENT FOR ANY REASON BY ANY PARTY FOR PURPOSES UNRELATED DIRECTLY AND SOLELY TO SAID CONTRACT SHALL BE AT THE USER'S SOLE AND EXCLUSIVE RISK AND LIABILITY, INCLUDING LIABILITY FOR VIOLATION OF COPYRIGHT LAWS, UNLESS WRITTEN CONSENT IS PROVIDED BY FELDMAN LAND SURVEYORS.

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115 FEDERAL STREET
BOSTON, MASS.

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 112 SHAWMUT AVENUE PHONE: (617)357-9740
 BOSTON, MASS. 02118 www.feldmansurveyors.com

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SCALE: 1"=20'

RESEARCH TRA FIELD CHECK TRA PROJ MGR PRF APPROVED [Signature] SHEET NO. 1 OF 1
 CALC TRA CAD TRA FIELD CHECKED CRD FILE 15313 JOB NO. 15313
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I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST RECORD PLANS, DEEDS AND CERTIFICATES OF TITLE.

Paul R. Foley 10/14/2016
 PAUL R. FOLEY, PLS (MA 48355) DATE
 PRP@FELDMANSURVEYORS.COM

PAUL R. FOLEY
 MA 48355
 LICENSED PROFESSIONAL LAND SURVEYOR

115 Winthrop Square Boston, Massachusetts



Figure 2-3 Existing Site Survey

Elementally, the building is a traditional “tower on a podium.” The tower, composed of residential units, is lozenge-shaped and oriented along the north-south axis. The podium, containing retail, restaurants, and office space, is dramatically punctuated by a major public space linking Federal Street to Winthrop Square, the Great Hall. Straddling the Great Hall is a mid-rise wing of the “Office Solaria”: a set of interconnecting office convening spaces designed to be bathed in natural light.

The central public feature of the Project is the Great Hall: a distinctive gathering place active through all seasons and a focal point for activity from morning into the evening. It is a new urban room of shape and size, intended to be inherently civic in scale and function. It is a public connector, a celebratory arcade conceived as a signature space finished with warm stone paving, shimmering metal panels and transparent glazing. At either end, as the Great Hall opens to Winthrop Square or Federal Street, approximately 20-foot tall glass panels open expansively in warm months to the sidewalks, enhancing the continuity of the public realm. The space is complimented by dining, cafe, and market activity, curated community space and office services space, and the Accelerator. Similar to great streets, the markets, cafes, restaurants, office lobby, and other programs open directly onto, and flank, the main spine of the space, further energizing the pedestrian realm.

As a Mixed-Use High-Rise building, the Project is composed of an intense array of diverse functions. The proposed building stacks these uses in a vertical arrangement that locates uses in their optimum location. The residential lobby is located at the base of the tower at the north corner. Service and parking ramps are discretely situated at the north and south edges of the Project site.

Upper levels of the podium contain the Accelerator, an organized business assistance program for entrepreneurs to help further establish Downtown Boston as a hub of innovation across industries and support functions, typical office floors and the interconnecting Office Solaria.

The more public functions of the Great Hall (e.g., retail, restaurants, events) and the office spaces, when coupled with residents living in the building, will create a critical mass of activity on the streets and squares in this neighborhood.

Design and programming of the Project continue to evolve through market analyses and discussions with the City of Boston. The Project is anticipated to include approximately 1,100,000 to 1,500,000 square feet of gross floor area, as defined in Article 2A of the Boston Zoning Code. The allocation of square footage among specific uses will be determined during the design process, but anticipated ranges are presented in Table 2-1.

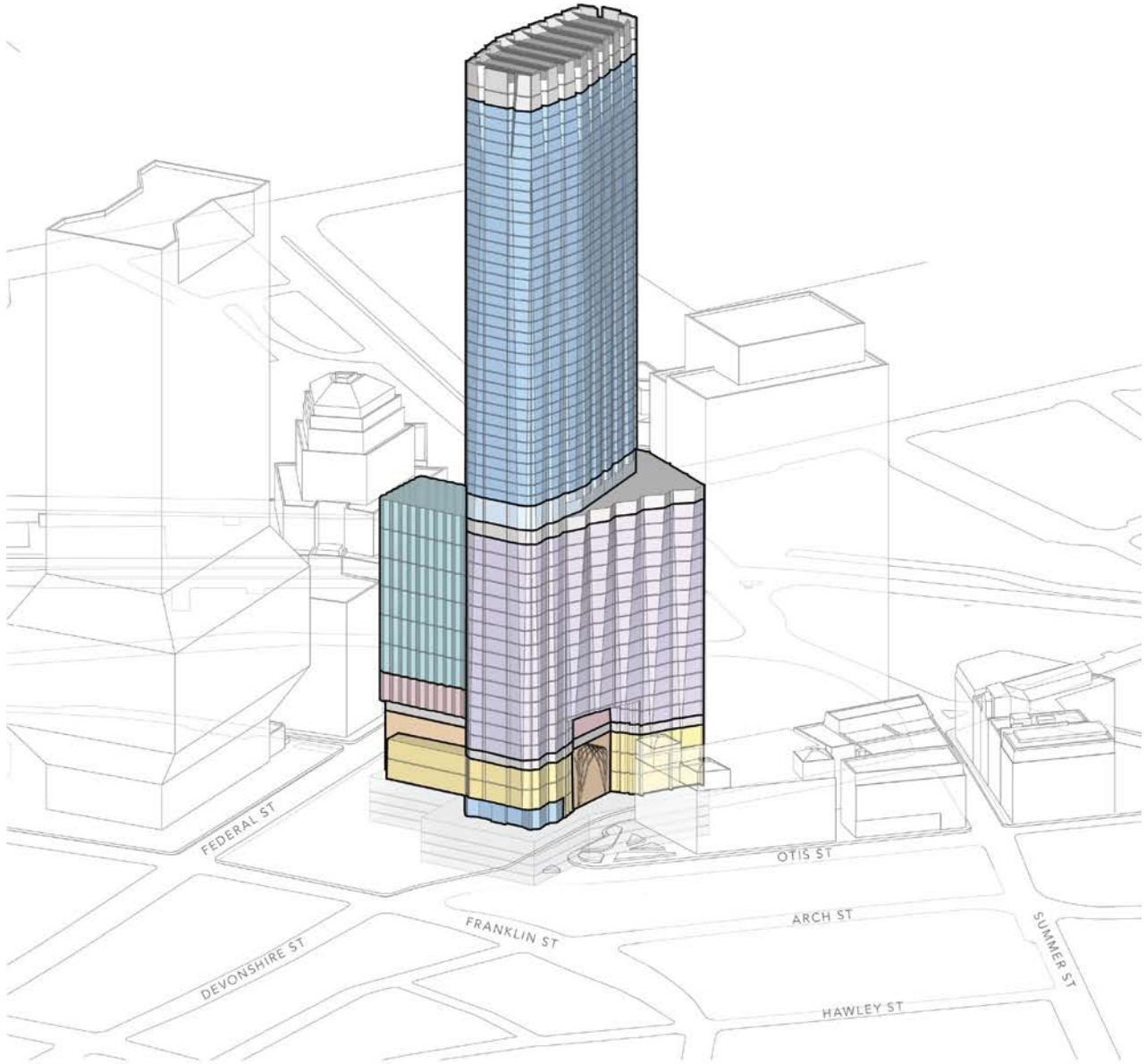
Table 2-1 Project Program

<i>Project Element</i>	<i>Approximate Minimum</i>	<i>Approximate Maximum*</i>
Residential	570,000 sf	780,000 sf
Units	290	460
Total bedrooms	580	920
Office	450,000 sf	635,000 sf
Office Club	10,000 sf	20,000 sf
Accelerator Office	3,000 sf	8,000 sf
Retail and Restaurant	35,000 sf	60,000 sf
Great Hall	10,000 sf	15,000 sf
Parking		
Commercial Private	100 spaces	250 spaces
Total Parking	400 spaces	550 spaces

* This table provides a range in the square footage of each use. The Approximate Minimum column represents the lowest likely square footage for each use, and the Approximate Maximum column represents the potential maximum square footage for each use. In reality, as the square footage of one use goes up, the square footage of another use will generally go down. To be conservative for purposes of the analysis of potential Project impacts, the maximum square footages (or, the maximum unit or bedroom count) for each use will be used in analyses described in Section 3, except where noted.

Floor plans, program massing, elevations and Project renderings are presented below in Figures 2-4 through 2-19.

- Residential
- Residential Amenities
- Office
- Office Solaria
- Accelerator
- THE GREAT HALL
- Retail
- Mechanical, BOH, Parking



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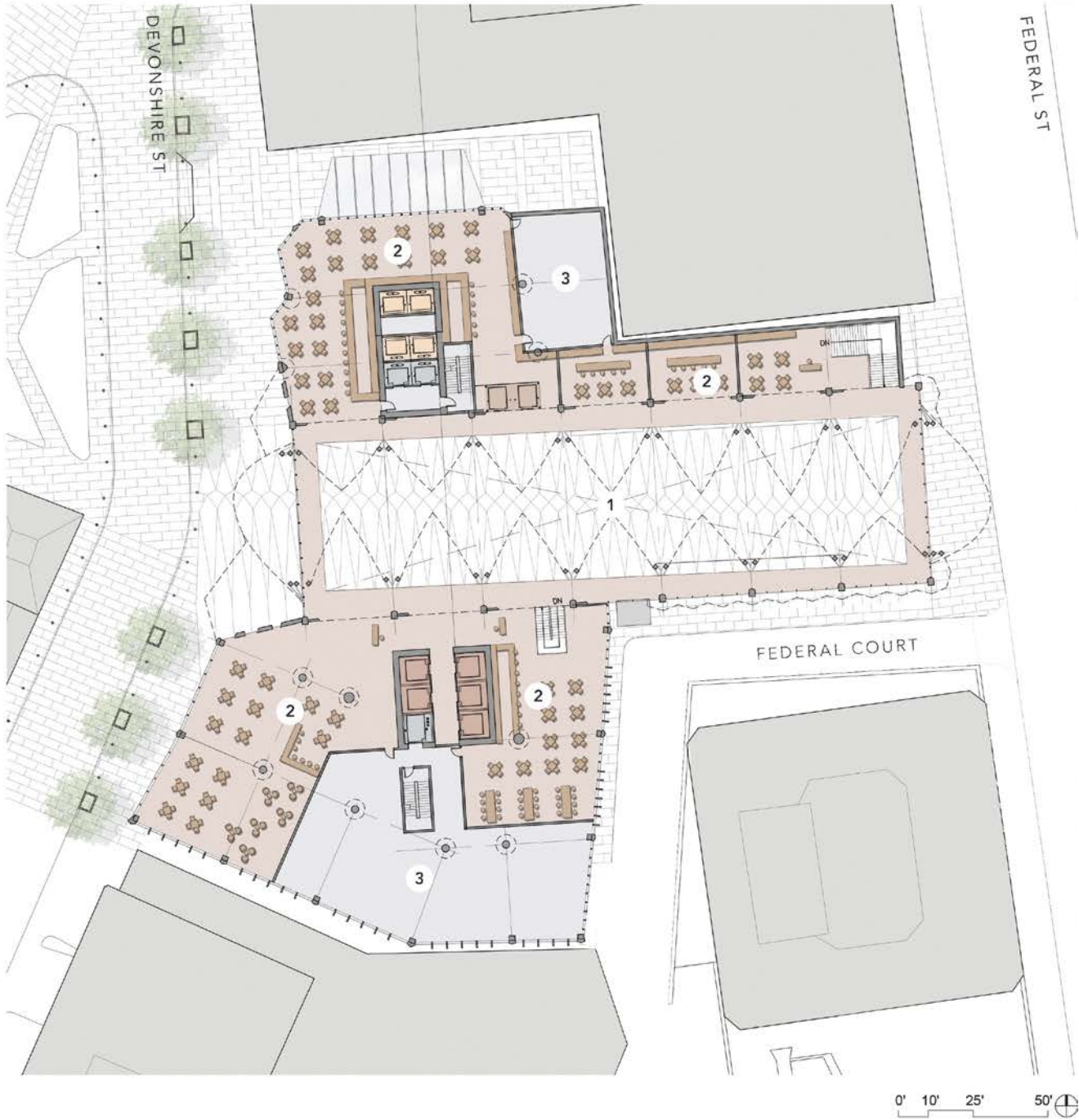
- 1 The Great Hall
- 2 Retail / food & beverage
- 3 Residential lobby
- 4 Office lobby
- 5 BOH/loading
- 6 Service & non-resident parking access
- 7 Residential porte-cochère



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Figure 2-5
Conceptual Ground Floor Plan

- 1 The Great Hall (Open to below)
- 2 Retail / food & beverage
- 3 Common food & beverage facilities



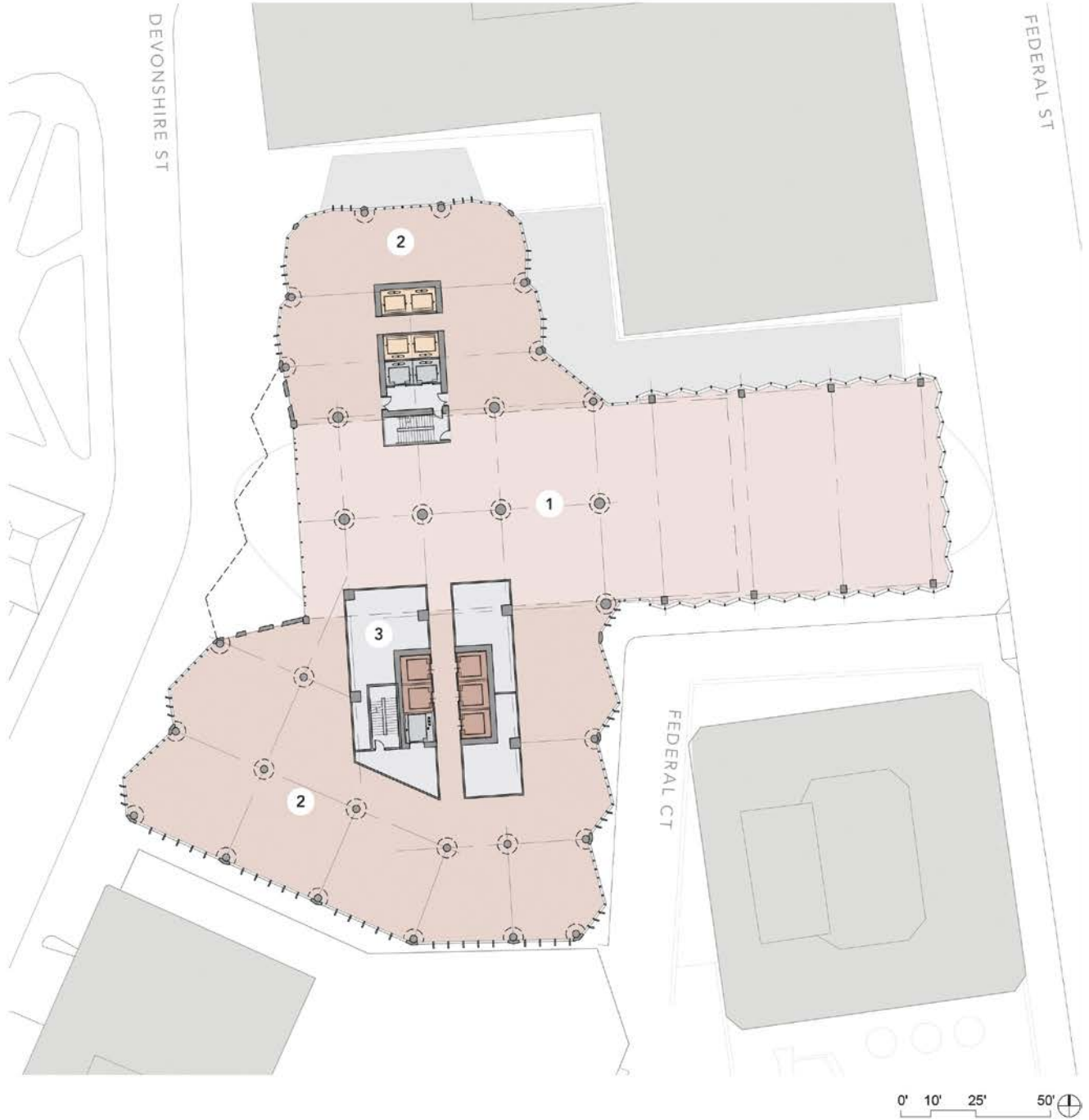
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Figure 2-6
Conceptual Second Floor Plan

- 1 Accelerator
- 2 Office
- 3 BOH



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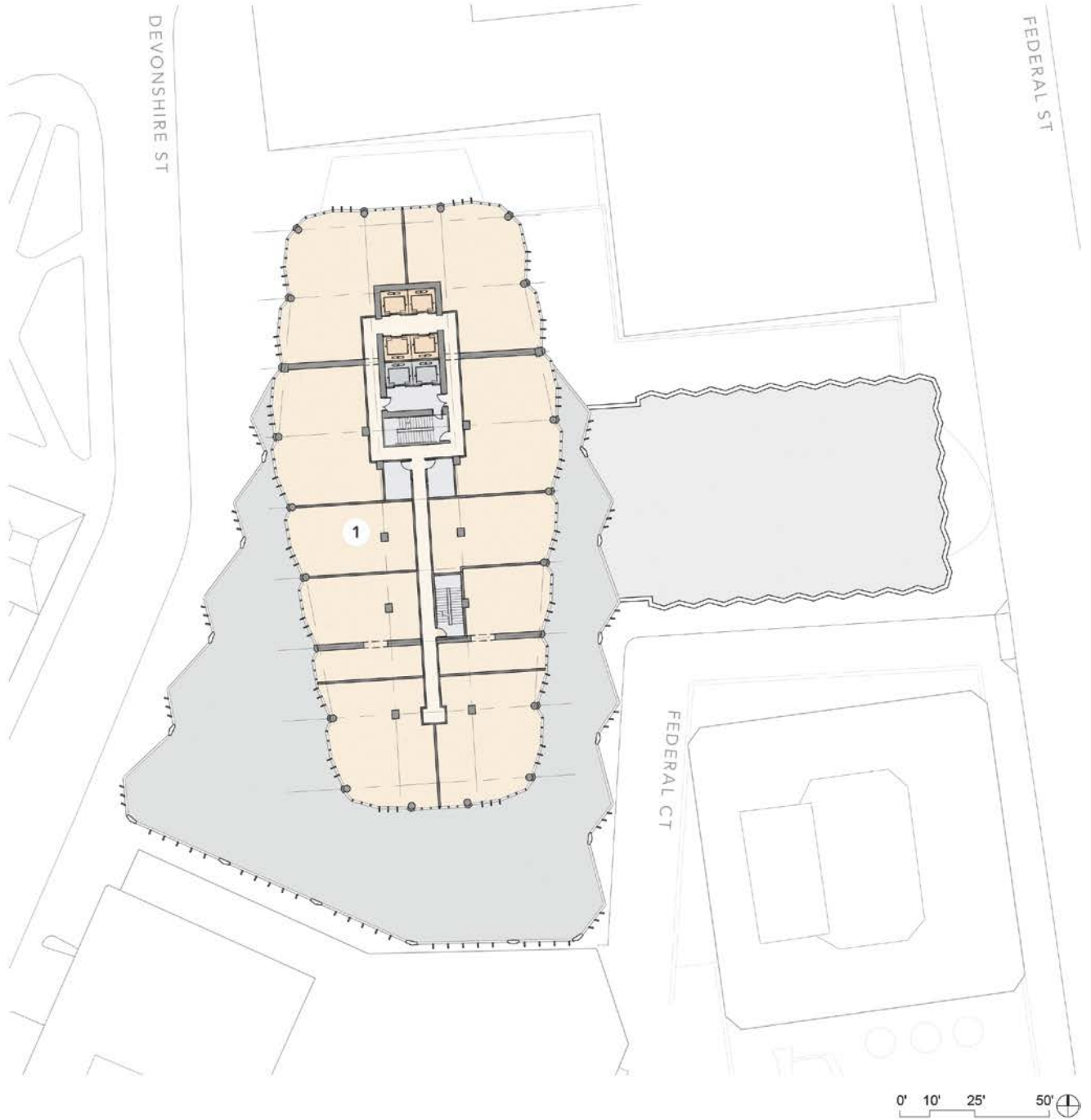
Figure 2-7
Conceptual Accelerator Plan

- 1 Office
- 2 Office Solaria
- 3 BOH



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Figure 2-9
Conceptual Typical Residential Plan

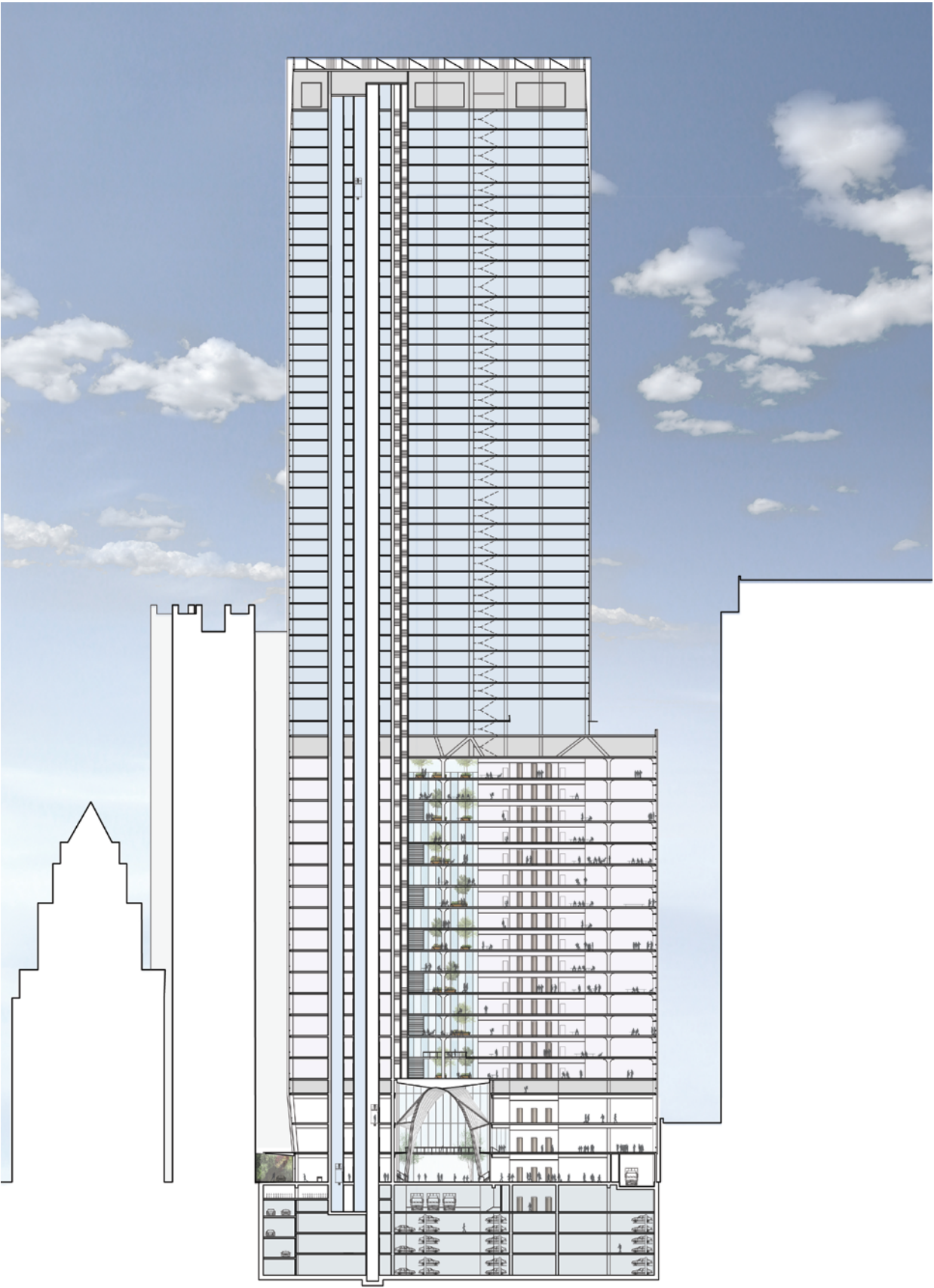


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Figure 2-10
Conceptual Section, Facing North



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Figure 2-11
Conceptual Section, Facing East



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0' 4' 10' 20'

Figure 2-12

Conceptual Enlarged Section – Great Hall



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Figure 2-13
Conceptual Elevation, West



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Figure 2-14
Conceptual Elevation, East



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Figure 2-15
Conceptual Elevation, South



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Figure 2-16
Conceptual Elevation, North



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Figure 2-17

Conceptual Rendering of the Great Hall - Entry



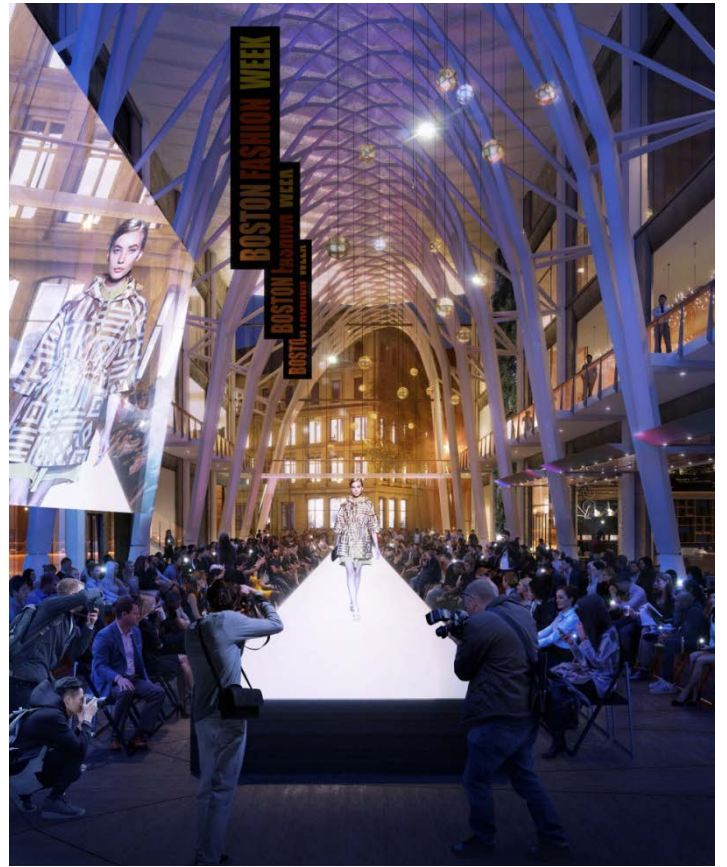
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Figure 2-18

Conceptual Rendering of the Great Hall – Public Realm



115 Winthrop Square Boston, Massachusetts

Section 3.0

Assessment of Development Review Components

3.0 ASSESSMENT OF DEVELOPMENT REVIEW COMPONENTS

Article 80 of the Code specifies that the BPDA may require in its Scoping Determination that the applicant conduct studies to determine the direct or indirect impact to the environment 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, design measures may be required to mitigate the impacts, to the extent economically feasible. The areas for which studies of the Project's impacts and potential mitigation of those impacts may be required are addressed below.

Design and programming of the Project continue to evolve through market analyses and discussions with the City of Boston. The final allocation of square footage among specific uses will be determined later in the design process. To be conservative for purposes of the analysis of potential Project impacts, the maximum square footages (or, the maximum unit or bedroom count) for each use will be used in the analyses described below, except where noted.

3.1 Transportation

3.1.1 Introduction

This section presents a preliminary analysis of trip generation for the proposed Project to inform the development of an appropriate scope of transportation analysis for the Draft Project Impact Report (DPIR). The Proponent will work with the Boston Transportation Department (BTD) to refine the trip generation analysis and define a comprehensive analysis to identify potential transportation impacts of the Project, both positive and negative.

The DPIR analysis will be multi-modal, and will include evaluation of vehicular traffic, transit, bicycle and pedestrian conditions, as well as parking and loading/servicing needs. The transportation analysis will inform the development of improvement strategies to address existing problems as well as potential impacts.

The Project site is ideally located to take advantage of its unique multimodal context. Like most downtown locations, it is truly transit-oriented, being close to both regional and local public transportation services. Boston's largest transit hub, South Station, is less than a five-minute walk from the Project site, and all four MBTA rapid transit lines are located in proximity to the site. In addition, the downtown is served by numerous MBTA local bus routes.

Development of the Project site presents unique opportunities to substantially enhance the pedestrian environment in the vicinity of the site and throughout this section of downtown. The site plan itself will create an important missing link in the pedestrian network. Bicycle access will also be integrated as an increasingly important mode of transportation, with both short- and long-term bicycle parking accommodations integrated in the site design.

Finally, the Project site is well located in relation to both regional routes I-93 and the I-90 Mass Turnpike. Vehicular circulation will be designed to provide direct access to onsite parking with minimum impact to the non-auto or shared circulation environment, as well as drop-off locations which have become increasingly important for on-demand services.

Following is a summary of the preliminary trip generation analysis, starting with un-adjusted trips based on the Institute of Transportation Engineers (ITE) Trip Generation manual, and the application of mode splits and vehicle occupancies specific to this location. As trip generation and mode share vary significantly between different land uses, individual components of the Project program are evaluated separately. They are then combined and adjusted to account for "internal" trips to determine the net generation of vehicle, transit and pedestrian/other trips (including bicycle) for the entire Project.

3.1.2 Trip Generation

The Project program is presented in Table 3-1, along with the ITE land use categories for each use. Preliminary programming ranges for the Project were presented in Section 2.2 and Table 2-1. As discussed in that section, design and programming of the Project continue to evolve. For this analysis of potential trip generation, two program scenarios are evaluated: the first scenario includes the maximum amount of residential program that might be built, and the second includes the maximum amount of office program that might be built. Each scenario is based on the maximum amount of total floor space that the Project could include (i.e., approximately 1,500,000 square feet of gross floor area), and therefore, for the purpose of being conservative in analyzing potential project impacts, the analysis represents an over-estimate of Project-generated trips.

It should be noted that parts of the program do not correspond to any standard land use categories. In the case of the Office Club, the facility may be used by visitors as well as occupants of the other Project's office space, but will not generate any significant additional commuter trips. As food service will also be available, the Office Club is expected to have trip generation characteristic similar to a restaurant use, in terms of both trip rates (number of trips) and temporal (time-of-day) profile; it is assigned a corresponding ITE Land Use Code (LUC).

It is important to note that while the Great Hall will attract large numbers of users, is not an independent trip generator in its own right. Rather, the users of the space will be generated by the Project land use program elements, as well as trips generated by other land uses and activities in the surrounding area. When events are held in the Great Hall, which are expected to be typically during off-peak periods, additional visitors will be attracted to the location. However, events are not expected to generate significant numbers of single-destination trips and will generate minimal commuter trips. As a result, event days are not expected to contribute significantly to vehicle trip generation and would have minimal impact in the commuter peak hours.

Table 3-1 Project Program and ITE Land Use Codes

Program Land Use	Max. Residential Program	Max. Office Program	ITE Land Use Code (LUC)
Office	565,000 SF	635,000 SF	LUC 710
Office Club	20,000 SF	20,000 SF	LUC 932
Accelerator	8,000 SF	8,000 SF	LUC 710
Residential	460 Units	350 units	LUC 230
Retail	12,000 SF	12,000 SF	LUC 820
	36,000 SF	36,000 SF	LUC 933
	12,000 SF	12,000 SF	LUC 931
Great Hall	15,000 SF	15,000 SF	N/A*

* The Great Hall is not an independent trip generator; trips to and from the Great Hall are generated by the surrounding land uses.

3.1.3 Mode Split

Like trip generation rates, the choice of transportation mode (mode split) varies between the different land uses, as well as by time of day. Initially, mode shares have been based on the BTD guidelines for this location, although the Draft PIR analysis might also consider US Census/National Household Travel Survey (NHTS) data for the corresponding census tract, if meaningful sample sizes are available. The range of mode shares for each Project program component are presented in Table 3-2.

Table 3-2 Mode Shares

		Vehicle			Transit			Walk/Other		
		Daily	AM	PM	Daily	AM	PM	Daily	AM	PM
Residential	In	28%	41%	31%	30%	52%	18%	42%	7%	51%
	Out	28%	31%	41%	30%	18%	52%	42%	51%	7%
Office	In	26%	32%	56%	43%	63%	18%	31%	5%	26%
	Out	26%	56%	32%	43%	18%	63%	31%	26%	5%
Office Club	In	26%	32%	56%	43%	63%	18%	31%	5%	26%
	Out	26%	56%	32%	43%	18%	63%	31%	26%	5%
Accelerator	In	26%	32%	56%	43%	63%	18%	31%	5%	26%
	Out	26%	56%	32%	43%	18%	63%	31%	26%	5%
Retail	In	24%	40%	32%	35%	46%	10%	41%	14%	58%
	Out	24%	32%	40%	35%	10%	46%	41%	58%	14%

Source: BTD Data for Area 2

The next step in the trip generation analysis entails the application of mode shares to the numbers of person-trips generated for each program component. In addition, average vehicle occupancy (AVO) based on NHTS data is applied for vehicle trips. Finally, it is important to identify the number of “internal” trips - that is trips which start in one land use in the Project program and end in a different land use element. Typical “internal” trips include people who live in the development and also work or visit the retail in the development, or commuters working in the development who visit the retail in the development. This sharing of trips is referred to as “internal capture,” as the people making the trips do not actually leave the Project site.

The resulting Project trip generation for each land use component of the program by mode is presented in Tables 3-3 and 3-4 for the maximum residential and maximum office scenarios, respectively. Both daily and peak hour (morning and evening) trips are presented. While it is useful to identify the numbers of Project trips over the course of the day, it is the peak hour trips that are critical for the transportation analysis as they typically coincide with the busiest times on the transportation network. The internal capture analysis is applied for the AM and PM peak hours based on NCHRP 8-51 Internal Trip Capture Estimation Tool.

As shown in Table 3-3, the preliminary analysis projects that, for the Maximum Residential Program, the Project will generate approximately 493/589 vehicle trips, 803/812 transit trips, and 343/473 other trips in the AM/PM peak hours, respectively. As shown in Table 3-4, the preliminary analysis projects that, for the Maximum Office Program, the Project will generate approximately 525/613 vehicle trips, 869/867 transit trips, and 367/468 other trips in the AM/PM peak hours, respectively.

Table 3-3 Project Trip Generation – Maximum Residential Program

Program Land Use		Vehicle			Transit			Walk/Other		
		Daily	AM*	PM*	Daily	AM*	PM*	Daily	AM*	PM*
Residential	In	374	13	38	453	19	25	634	3	71
	Out	374	40	23	453	26	33	634	75	4
Office	In	810	213	74	1,514	473	27	1,092	38	39
	Out	810	4	219	1,514	1	487	1,092	2	39
Office Club	In	331	37	66	618	82	24	445	7	34
	Out	331	53	25	618	19	55	445	28	4
Accelerator	In	11	3	1	21	7	0	15	1	1
	Out	11	1	3	21	0	7	15	0	1
Retail	In	739	73	82	1,803	140	43	2,111	43	248
	Out	739	48	60	1,803	25	114	2,111	144	34
Great Hall	In	0	0	0	0	0	0	0	0	0
	Out	0	0	0	0	0	0	0	0	0
TOTAL	In	2,265	342	260	4,409	730	118	4,297	92	391
	Out	2,265	151	329	4,409	73	694	4,297	251	82
Total		4,530	493	589	8,818	803	812	8,594	343	473

* Internal capture applied to AM and PM peak hours based on NCHRP 8-51 Internal Trip Capture Estimation Tool

Table 3-4 Project Trip Generation – Maximum Office Program

Program Land Use		Vehicle			Transit			Walk/Other		
		Daily	AM*	PM*	Daily	AM*	PM*	Daily	AM*	PM*
Residential	In	285	10	29	345	15	19	483	2	53
	Out	285	31	18	345	20	25	483	57	3
Office	In	911	244	84	1,702	542	31	1,227	43	44
	Out	911	11	247	1,702	4	549	1,227	6	44
Office Club	In	331	37	66	618	82	24	445	7	34
	Out	331	53	25	618	19	55	445	28	4
Accelerator	In	11	3	1	21	7	0	15	1	1
	Out	11	1	3	21	0	7	15	0	1
Retail	In	739	76	83	1,803	145	43	2,111	44	251
	Out	739	49	61	1,803	25	117	2,111	145	35
Great Hall	In	0	0	0	0	0	0	0	0	0
	Out	0	0	0	0	0	0	0	0	0
TOTAL	In	2,277	374	261	4,489	799	116	4,281	98	381
	Out	2,277	151	352	4,489	70	751	4,281	239	87
Total		4,554	525	613	8,978	869	867	8,562	337	468

* Internal capture applied to AM and PM peak hours based on NCHRP 8-51 Internal Trip Capture Estimation Tool

3.1.4 *Site Access*

The BDPA's Request for Proposals contemplates that entrances to the parking and loading facilities for any project on the Project site could be located on the Federal Court / Milton Place loop. However, the Proponent's initial research indicates that Milton Place, a private way, may not be available for such use. Federal Court is also a private way. The Proponent is presently reviewing the nature of the City's rights in Federal Court. Should Federal Court not be available for use, primary access and egress to the Project site could be from Devonshire Street. Accordingly, the conceptual diagram provided in Figure 3-1 contemplates alternative approaches for primary access and egress to the Project site, which the Proponent anticipates refining in the Draft PIR based on the availability of Federal Court.

3.2 **Environmental Protection**

3.2.1 *Wind*

The Project will have a height of up to 775 feet. The Proponent will conduct a quantitative wind analysis, including a wind tunnel test, as required by the BPDA for buildings over 150 feet. Results of the wind analysis will be included in the DPIR.

3.2.2 *Shadow*

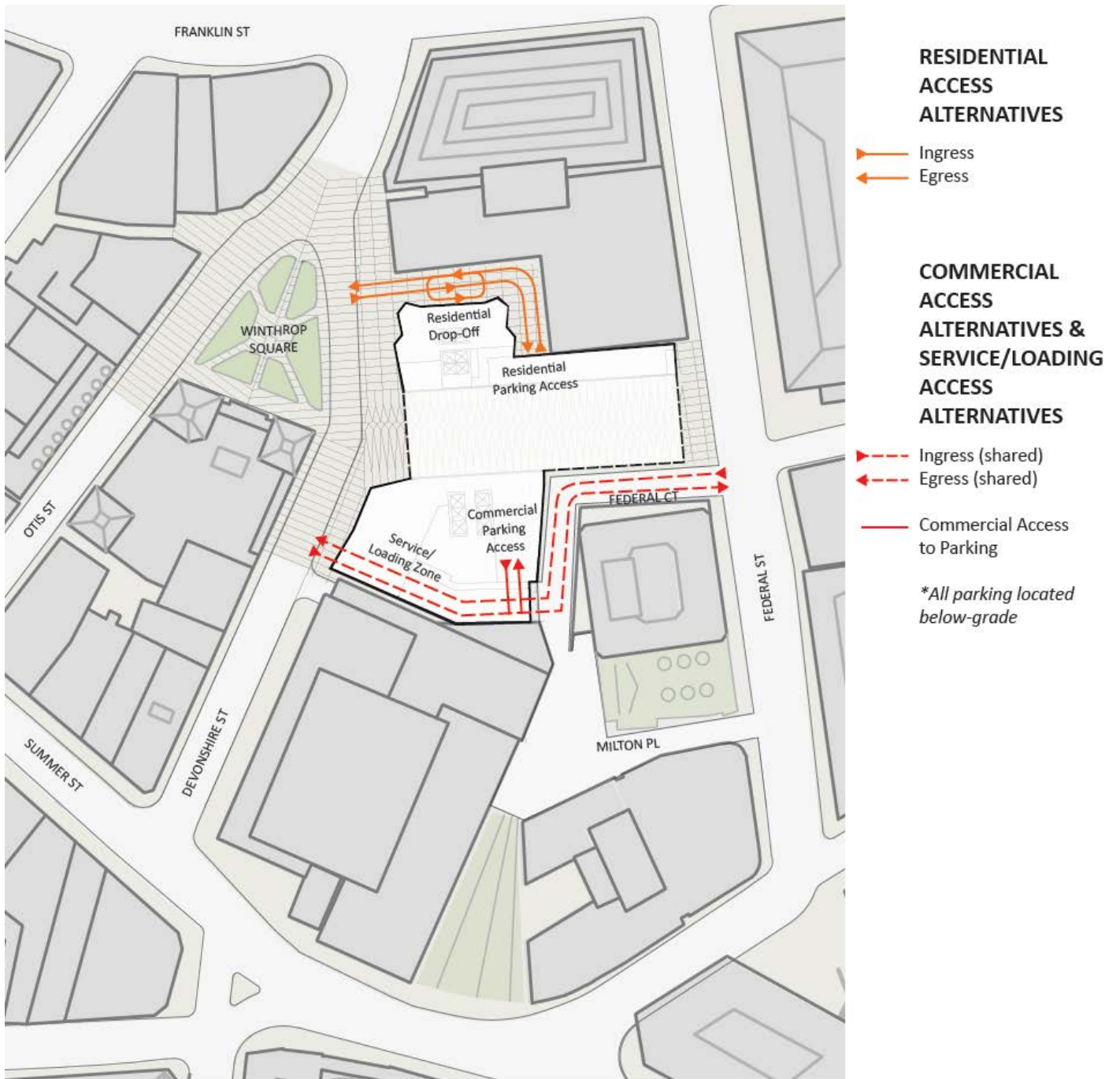
The Project site is located in a densely built urban area and the proposed Project will be surrounded by and adjacent to existing structures that cast shadows on public roads and spaces. Most new shadow will occur in the immediately surrounding area. A full shadow study will be prepared to indicate new shadows resulting from the Project. This shadow study will pay particular attention to shadow impacts on the Boston Common and the Public Garden, both of which have existing laws restricting new shadows outside of certain permitted conditions that will need to be modified in order to permit this or any other tall project to proceed on this site.

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 Draft PIR.

3.2.4 *Solar Glare*

Today's energy code requirements mandate that glass façades are coated; most coating materials have some reflectivity. Therefore, it is anticipated that a solar glare study will be required for the Project. RWDI is being retained to conduct this study.



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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 Project. Potential air quality impacts will be modeled for both existing and future conditions in the DPIR as required to demonstrate conformance with the National Ambient Air Quality Standards (NAAQS).

Construction period air quality impacts and mitigation are discussed below in Section 3.2.11.1.

3.2.6 *Stormwater and Water Quality*

There are existing Boston Water and Sewer Commission (BWSC) combined sewer mains located in Devonshire Street and Federal Street adjacent to the Project site. There is no separate stormwater infrastructure in the streets adjacent to the Project site.

Stormwater from the existing parking structure is collected through roof drains and likely directed out to the combined sewers in Devonshire Street and Federal Street.

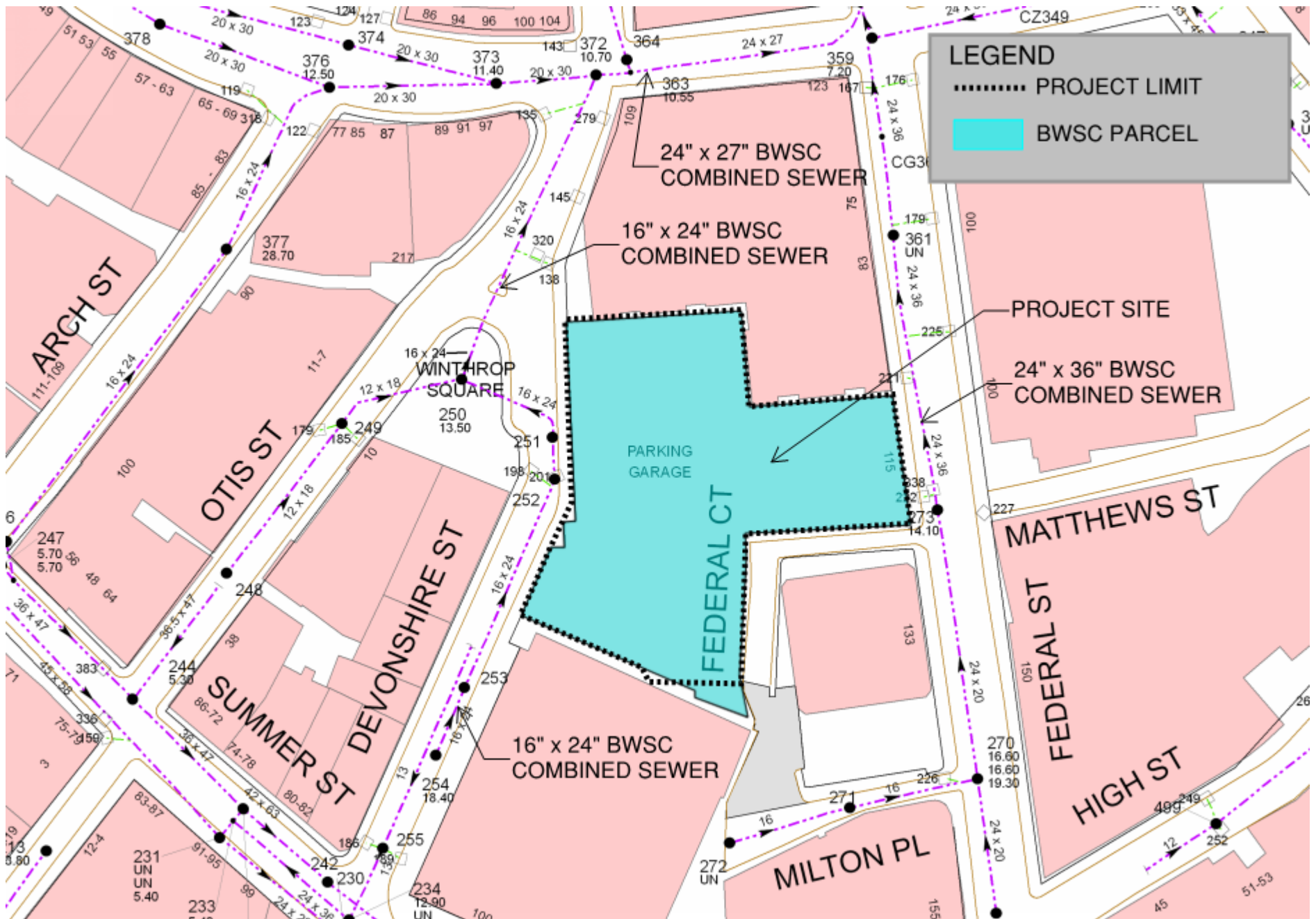
3.2.6.1 **Proposed Project**

The existing BWSC combined sewer system adjacent to the Project site discharges to the Deer Island Waste Water Treatment Plant. If this system were separated in the future, the site would fall in the Boston Harbor watershed. The existing BWSC storm drain system is illustrated in Figure 3-2.

The Project will result in no net increase or decrease in impervious area. The existing and proposed Project site is 100 percent impervious. The Project will maintain the existing peak rates and volumes of runoff. No significant stormwater rate or volume mitigation is anticipated.

The design will comply fully with the Boston Water and Sewer Commission (BWSC) requirement to store and recharge stormwater into the ground or reuse/recycle. The Project will capture the required rainfall from all building roof areas, recycle it through a greywater system, and/or recharge it into the ground through injection wells located in adjacent public ways or, if available for use, in other areas adjacent to the Project site.

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



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3.2.6.2 Water Quality Impact

The Project will not affect the water quality of nearby water bodies. Erosion and sediment control measures will be implemented during construction to minimize the transport of site soils to offsite areas and BWSC storm drain systems. During construction, existing catch basins will be protected with filter fabric, hay bales and/or crushed stone, to provide for sediment removal from runoff. These controls will be inspected and maintained throughout the construction phase until all areas of disturbance have been stabilized.

All necessary dewatering will be conducted in accordance with applicable MWRA and BWSC discharge permits. Once construction is complete, the Project will be in compliance with all local and state stormwater management policies.

3.2.6.3 DEP Stormwater Management Policy Standards

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

A brief explanation of each Policy Standard and the system compliance is provided below:

Standard #1: No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

Compliance: The Project's design will comply with this Standard. No new untreated stormwater will be directly discharged to, nor will erosion be caused to wetlands or waters of the Commonwealth as a result of stormwater discharges related to the Project.

Standard #2: Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.

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

Standard #3: Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to the maximum extent practicable. The annual recharge from the post development site should approximate the annual recharge from the pre-development or existing site conditions, based on soil types.

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

Standard #4: For new development, stormwater management systems must be designed to remove 80 percent of the average annual load (post-development conditions) of Total Suspended Solids (TSS). It is presumed that this standard is met when: Suitable nonstructural practices for source control and pollution prevention are implemented; Stormwater management best management practices (BMPs) are sized to capture the prescribed runoff volume; and Stormwater management BMPs are maintained as designed.

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

Standard #5: For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If, through source control and/or pollution prevention, all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L.c. 21, §§ 26-53 and the regulations promulgated there under at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

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 1-6). The Project complies with this standard.

Standard #6: Stormwater discharge to critical areas must utilize certain stormwater management BMPs approved for critical areas. Critical areas are Outstanding Resource Waters (ORWs), shellfish beds, swimming beaches, cold-water fisheries and recharge areas for public water supplies.

Compliance: The proposed design will comply with this Standard. The Project will not discharge untreated stormwater to a critical area.

Standard #7: A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural stormwater best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

Compliance: The Project is a redevelopment. The proposed design will comply with this Standard. The Project complies with the Stormwater Management Standards as applicable to the development.

Standard #8: Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities.

Compliance: The Project will comply with this standard. Sedimentation and erosion controls will be incorporated as part of the design of the project and employed during construction.

Standard 9: A Long-Term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that stormwater management systems function as designed.

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

Standard 10: All illicit discharges to the stormwater management system are prohibited.

Compliance: The Project will comply with this Standard. There will be no illicit connections associated with the Project.

3.2.7 Flood Hazard Zones and Wetlands

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the site located in the City of Boston - Community Panel Number 25025C 0081 J indicates the FEMA Flood Zone Designations for the site area. The map shows that the Project site is outside of the 500-year flood zone.

The Project site is developed and does not contain wetlands.

3.2.8 *Geotechnical and Groundwater*

This section describes site conditions, subsurface geologic and groundwater conditions, planned below-grade construction, potential impacts of the below-grade construction, and planned mitigation measures.

Site Conditions

The Project site, an approximately 1.1-acre parcel, currently contains the Winthrop Square Parking Garage at 115 Winthrop Square/115 Federal Street. Originally constructed in 1952 and reconfigured in 1967, the Winthrop Square Parking Garage is a four-level (three levels above ground and one level below ground) cast concrete parking structure. The site is bounded by 75-101 Federal Street to the north, 100 Summer Street to the south, Devonshire Street to the west, and Federal Street to the east.

Adjacent street grades typically slope upward from north to south along Devonshire Street from about El. 26 to El. 28 Boston City Base. Grades along Federal Street slope upwards from north to south from about El. 21 to El. 28.

Subsurface Soil and Bedrock Conditions

The Project site is within the original shoreline of the Colonial Boston Peninsula. Based on available subsurface data, subsurface soil strata present at the Project site are listed below in Table 3-5, in order of increasing depth below ground surface:

Table 3-5 Site Soil Strata

Generalized Strata	Approximate Thickness (Feet)
Miscellaneous Fill	5 - 13
Marine Clay	19 - 50
Glacial Deposits	16 - 30
Argillite Bedrock	---

Groundwater

Subsurface water levels were measured in Project site observation wells in 2007 and ranged from approximately El. 11.2 to El. 13.8. Based on topography, regional groundwater flow is anticipated to be to the east-southeast, generally towards Fort Point Channel, located approximately 1,500 feet from the Project site.

Groundwater levels in the site vicinity are anticipated to fluctuate and could be influenced by nearby construction activities, leakage into and out of sewers, storm drains and other below-grade structures, as well as environmental factors such as precipitation, snowmelt, season, and temperature.

Proposed Below-Grade Construction

The Project, in the early design phase, is planned to consist of a podium and tower up to 775 feet containing office, residential and retail space and three to five levels of below-grade parking. The building is planned to be supported on foundations consisting of a combination of either reinforced concrete footings/mats, reinforced concrete Load Bearing Elements (LBEs) or drilled shafts bearing in bedrock. The basement will be constructed within a 50- to 65-ft deep excavation extending approximately to the limits of the property.

The basement excavation is currently being designed to be enclosed by a stiff, watertight, internally-braced reinforced concrete diaphragm wall ("slurry wall"), installed from ground surface down into the glacial soils or bedrock. Some pre-excavation and backfilling will be performed in a narrow trench along the building perimeter to remove obstructions prior to installing the wall. The diaphragm wall will also serve as the permanent perimeter basement wall. A secant pile wall will also be explored.

Temporary dewatering will be required within the excavation during foundation construction to remove "free" water from the soils to be excavated as well as precipitation. The essentially watertight excavation support wall will prevent withdrawal of groundwater from outside the excavation. In the unlikely event that leakage occurs through the wall(s), it will be sealed by pressure grouting of the wall(s).

If possible the groundwater will be recharged into the ground otherwise a temporary construction dewatering permit will be obtained from governing agencies prior to discharge of temporary dewatering effluent from the site. If a permit is obtained, testing of the effluent will be conducted prior to and during discharge to confirm compliance with all permit requirements.

Potential Impacts of the Below-Grade Construction

Potential impacts during excavation and foundation construction include temporary lowering of nearby groundwater levels, ground vibrations, noise, and ground movements outside of the excavation. Four buildings are present near the proposed basement excavation:

- ◆ 75/101 Federal Street, abutting the Project site to the north, having an approximately 21-foot deep basement and supported on concrete caissons bearing in bedrock.
- ◆ 100 Summer Street, abutting the site to the south, having a 20- to 30-ft deep basement and supported on concrete caissons bearing in glacial till.

- ◆ 133 Federal Street, 25 to 40 ft to the east and south of the site, respectively, having 20-ft deep basement and supported on concrete caissons bearing in glacial till; and
- ◆ One Winthrop Square, approximately 30 to 40 ft to the west across Devonshire Street. The number of basements and foundation system is not currently known.

With the exception of One Winthrop Square, where the foundation system is not known, the above buildings are supported on robust reinforced concrete caisson foundations bearing in competent glacial till or bedrock below the proposed basement excavation depth.

The foundation design and construction will be conducted to control and limit potential adverse impacts, especially to the adjacent structures, using methods that have been proven successful on many similar projects in Boston including the recently-completed Millennium Tower project just blocks away. In addition, a significant instrumentation monitoring program, described further below, will be employed before construction to establish a baseline and during construction to compare changes to the preconstruction baseline.

Mitigation Measures

Significant mitigation measures to be incorporated into the design and construction of the Project to limit potential adverse impacts include the following:

- ◆ The Project team will conduct studies, prepare designs and specifications, and monitor the contractors' performance for conformance to the Project's contract documents with specific attention to protecting nearby structures and facilities.
- ◆ The foundation system for the Project consisting of Load Bearing Elements, footings/mats and/or drilled shafts will be installed using drilling or excavating methods that avoid vibrations, noise and soil disturbances that can be caused by other foundation systems such as pile driving. No pile driving or other similar vibration and noise-inducing construction activities will be conducted.
- ◆ The stiff, internally-braced concrete diaphragm or secant pile wall excavation support system is anticipated to mitigate adverse temporary and long-term effects outside the Project site. These systems have proven to be protective of adjacent buildings and capable of limiting ground movements outside the wall to acceptable levels under similar conditions on many projects in Boston. The nearby buildings are supported on deep foundations bearing in very competent strata (glacial till or bedrock) at estimated depths ranging from about 70 to 80

feet, and are not anticipated to experience adverse movements as a result of the planned construction. Accordingly, underpinning or similar mitigation is not required for the adjacent buildings.

- ◆ As described above, the building basement perimeter wall will be a reinforced concrete or secant pile wall that extends from ground surface through clay, and down into low-permeability glacial soils or bedrock. This system isolates the excavation and permanent basement from the groundwater table. Accordingly, temporary or permanent lowering of groundwater levels is not anticipated. As discussed further below existing and new groundwater observation wells will be monitored to show no adverse effect on the water levels.
- ◆ Performance criteria will be established in the Project specifications for the lateral excavation support system with respect to movements, water-tightness and the construction sequence of the below-grade portion of the work. The contractor will be required to plan, employ and modify construction methods as necessary, and take all necessary steps during the work to protect nearby buildings and other facilities. Planning will include development of mitigation measures that will be implemented in the event that performance differs from that which is anticipated or if performance criteria are approached. Haley & Aldrich, Inc. on behalf of the owner will observe the below grade construction and obtain readings from the below proposed instrumentation to evaluate the performance of the system.
- ◆ Pre-construction condition surveys will be conducted of adjacent buildings as allowed by building owners. Existing conditions and evidence of existing building distress (cracks, etc.) will be documented by video and still photography.
- ◆ As discussed above, significant geotechnical instrumentation will be installed and monitored before and during the below-grade portion of the work to observe the performance of the excavation, adjacent buildings and structures, and area groundwater levels, including the following:
 - Inclinometers in the basement walls to monitor lateral movements of the excavation support system;
 - Vertical and horizontal survey reference points on the basement walls to provide additional information on movements of wall;
 - Vertical reference points on adjacent buildings as well as on the ground surface and surface utility features, to detect settlements, as allowed by building owners;

- o Crack gages on selected existing cracks in nearby buildings (if any) to detect changes to the cracks, as allowed by building owners;
 - o Groundwater observation wells to monitor subsurface water levels around the excavation; and
 - o Vibration and noise monitoring may be performed at selected periods during the work to document the anticipated low levels.
- ◆ Selected instrumentation will be installed and monitored before start of construction to establish baseline conditions, and for a period after construction to confirm stable conditions. All instrumentation will be monitored on a regular basis during the underground work to confirm compliance with the project performance criteria and to enable implementation of mitigating measures, if required.

Boston Water and Sewer Commission Stormwater Recharge

The design will comply fully with the Boston Water and Sewer Commission (BWSC) requirement to store and recharge stormwater into the ground or reuse/recycle. The Project will capture the required rainfall from all building roof areas, recycle it through a greywater system, and/or recharge it into the ground through injection wells located in adjacent public ways or, if available for use, in other areas adjacent to the Project site.

Groundwater Conservation Overlay District

The Project site is not located within the Groundwater Conservation Overlay District (GCOD) as established by Article 32 of the City of Boston Zoning Code. Although the provisions of Article 32 do not apply to the Project site, the BWSC-mandated stormwater recharge from the Project will meet the Article 32 requirements or be recycled.

3.2.9 Solid and Hazardous Wastes

3.2.9.1 Existing Hazardous Waste Conditions

Prior to construction of the existing garage, historic uses of the Project site included a variety of commercial, manufacturing and warehouse uses and a parking lot.

As part of the proposed construction, the existing parking garage will be demolished and removed from the site. The concrete and other construction debris will be removed from the site in accordance with normal practices following local, state and federal regulations. Based on conditions at other nearby sites, it is likely that site urban fill materials contain certain compounds at levels that exceed applicable Massachusetts Contingency Plan (MCP) reportable concentrations. The contaminants are likely the

result of historical site use, fills brought to the site and the presence of coal, coal ash, wood ash in the fill and historical use of the property as a parking garage. The anticipated conditions are commonly present on similar sites throughout Boston, and are not expected to represent any unusual concern or requirements in connection with the proposed development.

In accordance with normal practices, the Proponent will be conducting soil testing to characterize and classify the soil within the proposed excavation limits, for off-site removal to appropriate facilities, and to characterize any remaining soil for risk assessment purposes. Testing of groundwater will also be conducted to determine if treatment of construction dewatering effluent will be necessary, and to support filing of the appropriate permits for discharge of the effluent to nearby storm drains or sewers if necessary. Materials excavated during construction of the development will be managed in accordance with all applicable regulatory requirements including, to the extent applicable, a Release Abatement Measure (RAM) under the MCP. Response actions conducted under the RAM in conjunction with project construction are expected to result in achievement of a Permanent Solution under the MCP.

3.2.9.2 Operational Solid and Hazardous Wastes

The Project will generate solid waste typical of residential and commercial/retail uses. Solid waste is expected to include wastepaper, cardboard, glass bottles and food. Recyclable materials will be recycled through a program implemented by building management.

With the exception of household hazardous wastes typical of residential and commercial/retail developments (e.g., cleaning fluids and paint), the Project will not involve the generation, use, transportation, storage, release, or disposal of potentially hazardous materials. Typical waste generated by the uses will be handled in compliance with all local, state and federal regulations.

The Project will include recycling areas for items such as paper, plastic, glass and cans.

3.2.10 Noise

During operation, neither the Project's mechanical equipment nor traffic noise associated with the Project are 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 Draft PIR.

Construction period noise impacts and mitigation are discussed below in Section 3.2.11.2.

3.2.11 Construction Impacts

The proximity of city streets and abutting commercial properties to the Project site will require careful scheduling of material removal and delivery. 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 the BTD for review and approval prior to issuance of a building permit. The CMP will define truck routes which will help in minimizing the impact of trucks on local streets. A police detail will be provided to maintain access to adjacent properties and to direct pedestrian and vehicle flow, if required.

Construction methods 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.

In addition, a name and phone number will be provided to contact regarding any construction questions or concerns.

3.2.11.1 Construction Air Quality

Short-term air quality impacts from fugitive dust may be expected during demolition, excavation and the early phases of construction. Plans for controlling fugitive dust during demolition, excavation and construction include mechanical street sweeping, wetting portions of the 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.

3.2.11.2 Construction Noise

The Proponent is committed to mitigating noise impacts from the construction of the Project. Periodic 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, including:

- ◆ Instituting a proactive program to ensure compliance with the City of Boston noise limitation policy;
- ◆ Using appropriate mufflers on all equipment and ongoing maintenance of intake and exhaust mufflers;
- ◆ Muffling enclosures on continuously running equipment, such as air compressors and welding generators;
- ◆ Replacing specific construction operations and techniques by less noisy ones where feasible;
- ◆ Selecting the quietest of alternative items of equipment where feasible;
- ◆ Scheduling equipment operations to keep average noise levels low, to synchronize the noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels;
- ◆ Turning off idling equipment; and
- ◆ Locating noisy equipment at locations that protect sensitive locations by shielding or distance.

3.2.11.3 Construction Waste Management

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

3.2.11.4 Utility Protection during Construction

The Project's contractor will notify utility companies and call "Dig Safe" prior to excavation. During construction, infrastructure will be protected using sheeting and shoring, temporary relocations, and construction staging as required. The Construction Contractor will be required to coordinate all protection measures, temporary supports,

and temporary shutdowns of all utilities with the appropriate utility owners and/or agencies. The Construction Contractor will also be required to provide adequate notification to the utility owner prior to any work commencing on their utility. Also, in the event a utility cannot be maintained in service during switch over to a temporary or permanent system, the construction contractor will be required to coordinate the shutdown with the utility owners and Project abutters to minimize impacts and inconveniences.

3.2.12 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 commencement will consist of treatment of areas throughout the site.

3.2.13 Wildlife Habitat

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

3.3 Sustainable Design and Climate Change

In cooperation with the City of Boston, the Proponent and Handel Architects are committed to making the Project a model of sustainability and resiliency. The Project is anticipated to strive for Leadership in Energy and Environmental Design (LEED) 2009 Platinum certifiability and adopt the principals of Passive House for the office portion. It will also be designed to meet the more extreme weather conditions anticipated in the future.

Sustainability Strategies: LEED Platinum Meets Passive House

The Project will strive for LEED Platinum certifiability. The mixed-use Project will use separate LEED checklists to address commercial spaces (2009 Core and Shell Rating System for Office) and residential spaces (2009 New Construction Rating System for Residential). Preliminary versions of each checklist are provided in Appendix A.

In addition, the office component of the Project will strive to implement "Passive House" principles. Passive House was launched in Europe that has similar intent to LEED, but with a much more focused attention on extreme reduction in energy consumption, greenhouse gas emissions, and the health and wellness of its occupants.

Finally, the planned implementation of Passive House principles will be supplemented with WELL Building ideals, as published by the International WELL Building Institute, which also adds occupant behavioral encouragement and participation to the energy savings initiatives.

This section outlines sustainable strategies currently being considered in the proposed design of Winthrop Square.

3.3.1 LEED Credits

The Project is anticipated to be certifiable at a Platinum level under the U.S. Green Council's (USGBC) Leadership in Energy and Environmental Design (LEED v2009) rating system. The Project has been registered with the USGBC. The building will employ energy-efficient and water-conservation features for mechanical, electrical, architectural, and structural systems, assemblies, and materials where possible. Mechanical and HVAC systems will be installed to the current industry standards and cooperation with the local utility providers will be maintained during design and construction. Preliminary categories of credits targeted are outlined below and shown in the LEED checklists provided in Appendix A. The assessment of achievable credits will be ongoing as the Project design is advanced.

Sustainable Sites (SS)

The Project site is currently completely developed and is located in an urban area. The Project will add density in a neighborhood already well-connected to public transportation, infrastructure, and commercial and cultural activity. As discussed above, the Proponent commits to addressing stormwater and water quality in design and is considering options to capture the required rainfall from all building roof areas, recycle it through a greywater system, and/or recharge it into the ground through injection wells located in adjacent public ways or, if available for use, in other areas adjacent to the Project site.

Water Efficiency (WE)

The Project will employ several potable water reduction strategies such as low-flow fixtures and greywater/rainwater harvesting. The harvested water will be used for flushing of toilets in the office, irrigation and cooling tower make-up. This can significantly reduce the amount of potable water used on the Project.

Energy and Atmosphere (EA)

The Project design will incorporate a highly efficient mechanical system design to comply with the Stretch Code provisions of the Massachusetts Building Code and at the same time will incorporate LEED principles.

In order to reduce overall energy usage, enthalpy wheel energy recovery units will be utilized. The system will collect all bathrooms' and general exhaust and pre-condition the ventilation air feeding the building. The Proponent will consider passive and low-energy HVAC strategies such as natural ventilation, solar pre-heating and thermal massing. The design team for the Project will select HVAC equipment with refrigerants that meet the LEED prerequisite thresholds regarding refrigerant types.

Reducing loads upfront through high-performance facade and daylighting strategies allows the selection of progressive, low-energy HVAC systems, which also increase building efficiency.

The Proponent will perform the enhanced commissioning and has agreed to share energy consumption quantities.

Materials and Resources (MR)

The Proponent will reuse or recycle demolition and construction materials to the extent feasible. Construction procedures will allow for the reuse and recycling of materials. As design progresses, the Project architects will specify materials and products with high recycled content, and the Proponent will work with the general contractor to specify regional materials where possible.

During operation, the Project will include recycling areas for items such as paper, plastic, glass and cans.

Indoor Environmental Air Quality (EQ)

In order to promote improved occupant wellbeing, the design will investigate the use of dedicated outdoor air systems capable of providing 100 percent fresh air to the office areas and feature enhanced filtration systems.

Demand controlled ventilation will be incorporated in the HVAC design; carbon dioxide levels will be monitored and the amount of ventilation air provided will be adjusted to match actual occupancy levels in areas of the building.

The Project architect will specify adhesives, sealants, paints, coatings, flooring systems, and composite wood that meet LEED requirements for low-emitting materials.

Innovation and Design Process (ID)

Among other measures, the Proponent commits to educating and actively engaging tenants in sustainability and conservation efforts.

The Project team includes at least one LEED Accredited Professional.

Regional Priority Credits

Regional Priority Credits (RPC) are established LEED credits designated by the USGBC to have priority for a particular area of the country. This Project anticipates three RPCs for each portion of the Project: SSc7.1-Heat Island Effect, Non-Roof; SSc7.2-Heat Island Effect, Roof; and SSc6.1-Stormwater Design-Quantity Control.

Credit for EAc2-On-Site Renewable Energy is under consideration for the residential portion of the Project. The Proponent will consider integrating photovoltaic (PV) panels on the upper areas of the façade to provide a strong architectural expression while generating renewable energy for the building. Progressive thin-film and PV glazing technologies will also be explored. For large glazed areas, the Proponent will explore solar pre-heating concepts to reduce ventilation and space heating energy use.

3.3.2 Passive House Design

The Proponent will strive to integrate the principles of Passive House design into office areas of the Project. The goals of Passive House design are to reduce the overall energy consumption of a building, ensure occupant comfort by reducing cold spots and drafts, and reduce durability problems in the building envelope by eliminating thermal bridging in the facade. Passive House design of an air-tight building envelope with highly efficient mechanical systems, lighting radically reduces the whole building energy demand by approximately 75 percent and consequently drastically reduces greenhouse gas emissions. Buildings constructed to this standard realize heating and cooling energy savings as high as 90 percent compared to the existing building stock.

3.3.3 Climate Change Adaptability and Resiliency

Adapting to severe climate events is becoming an increasingly important consideration. Climate change conditions considered by the Project team include higher maximum and mean temperatures, more frequent and longer extreme heat events, more frequent and longer droughts, more severe freezing rain and heavy rainfall events, and increased wind gusts.

The expected life of the Project is anticipated to be approximately 50 years. Therefore, the Proponent planned for climate-related conditions projected 50 years into the future. A copy of the Climate Change Preparedness and Resiliency Checklist for New Construction is included in Appendix A. Given the preliminary level of design, the responses are also preliminary and may be updated as the Project design progresses.

3.3.3.1 Extreme Heat Events

The Intergovernmental Panel on Climate Change (IPCC) has predicted that in Massachusetts the number of days with temperatures greater than 90°F will increase from the current five-to-twenty days annually, to thirty-to-sixty days annually.¹ The Project design will include measures to adapt to these conditions, including constructing a high performance building envelope and including operable windows where possible.

3.3.3.2 Extreme Storms

As a result of climate change, the Northeast is expected to experience more frequent and intense storms. The Project will be studied to ensure resilience towards rainfall events, as well as high winds create by extreme storms. The Project design will include features to help the building mitigate the risk of disruptive weather, such as high-levels of insulation, flood protection for critical building systems, and responsive building management systems. A cogeneration system is being investigated to provide domestic hot water and potential standby power for tenants to use in the event of a loss of power.

3.3.3.3 Drought Conditions

Although more intense rain storms are predicted, extended periods of drought are also predicted due to climate change. Under the high emissions scenario, the occurrence of droughts lasting one to three months could go up by as much as 75 percent over existing conditions by the end of the century. To minimize the Project's susceptibility to drought conditions, the Project will employ several potable water conservation strategies such as low-flow fixtures and greywater/rainwater harvesting. The installation of sensor-operated sinks with water conserving aerators and sensor-operated toilets in all restrooms will be incorporated into the design plans for the Project. Harvested water will be used for flushing of toilets in the office. This can significantly reduce the amount of potable water used on the Project.

3.4 Urban Design

Several distinguished buildings in the immediate vicinity of Winthrop Square provide an architectural inspiration for materiality and detail. These are exemplars of the Art Deco era, dating from the 1920s to the 1940s. Located directly across Federal Street from the site is the United Shoe Machinery Corporation Building (now 160 Federal Street,

¹ IPCC (Intergovernmental Panel on Climate Change), 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Avery, M. Tignor, and H. L. Miller (eds.)]. Cambridge University Press, Cambridge, UK, and New York, 996 pp.

1928). Other nearby examples include the New England Telephone Building (185 Franklin Street, 1947); the Second National Bank (75 Federal Street, 1929); and the John McCormack Federal Building, by Ralph Adams Cram (Post Office Square, 1932).

More broadly, the site design is developed with connection to the neighborhood, its history, and pedestrian and building user experience in mind through the following principles:

- ◆ Downtown “tesserae”: The site is located in the epicenter of three significant districts of downtown Boston: the resurgent creative commercial node of Downtown Crossing to the west; the primary transit gateway of South Station; and the vital Financial District to the east. The program’s new Great Hall, coupled with the creative Accelerator office space, will become a pedestrian attractor. In this way it is part of urban “tesserae” – or links – that reinforce and add multiple pathways between these major nodes of Downtown.
- ◆ Urban “tesori”: Boston is blessed with iconic outdoor urban spaces: The Common, Copley Square, and The Fenway, among others. Downtown, intimately-scaled spaces constitute part of the special texture of Colonial-era city: Post Office Square, the soon-to-be-rebuilt Shopper’s Park, the plaza dedicated for the Irish Famine Memorial and, between these, Winthrop Square. These are part of the city’s urban “tesori” or “treasures.” These are the memorable outdoor urban rooms of this district. In the summer, these spaces are teeming with pedestrians, vendors, tourists, and workers on lunch break enjoying the sun and verdure.
- ◆ The District Street Pattern: Boston’s streets were established by cow paths, or so the story goes. In reality, the Colonial-era pattern was formed by geography: the circumferential pattern east of Beacon Hill traversing the grade around the hill, and the radial pathways connecting the intense commercial activity of the wharfs to the upland merchant shops. A distinct pattern of east-west streets are bisected by Washington and Federal Streets, radiating from State Street southwards. This Project design envisions new streetscape treatments creating a living street and incorporating the 100 Summer Street Plaza into this network of pedestrian links, connecting Summer Street, the open terrace at 133 Federal, and The Great Hall. In this way, the Great Hall becomes part of a larger pattern of midblock pedestrian open space links.
- ◆ Re-Constituting Federal Street: The east side of the site along Federal Street poses a challenge: how to reconstitute the western street wall that has been missing for more than 40 years? Combined with the “negative space” created by the Bank of America building along half the block on the east side, the shape and character of the Federal Street façade has the potential to create some spatial order in an otherwise unresolved block. This Project design resolves this

problem with a detached vertical building form that mediates the height between 150-foot 133 Federal, the 390-foot 101 Federal Street tower, and the 240-foot 75 Federal building at the north end of the block facing on Franklin Street. All the while, natural light is allowed into the existing office windows at 101 Federal. The resultant stepped massing completes the street wall while respecting the inherent morphology of the disparate buildings on the block.

- ◆ Framing Urban Space: The site is bracketed by two 400-foot towers along Devonshire. The proposed building, gracefully inflected on its west face, creates vertical continuity between 100 Summer and 101 Federal. These tower faces roughly trace the contour of Winthrop Square, thus marking on the city scale this special location.
- ◆ Completing the Urban Room of Winthrop Square: The Great Fire of 1872 remade much of this district. The straightening of several thoroughfares, the creation of Post Office Square, and the new Boston Herald Traveler newspaper building at Winthrop Square gave new shape and a Victorian- architectural veneer to the neighborhood. But the 20th century transformation of the Financial District has been at best indifferent to cogent urban space-making. At Winthrop Square, while the granite One Winthrop Square building still axially organizes the plaza landscape, sheer façades of the 400-foot office towers flank the east side with an uneasy counterpoint of 90-foot masonry loft buildings to the west. The office program in the Project introduces an intermediate scale, gently bending to re-establish the Devonshire Street side of the Square, creating a setback for the tower, and giving definition to the stately One Winthrop Square Building. The inflection will draw the eye to the arched canopy threshold of the Great Hall.

3.5 Historic and Archaeological Resources

This section describes the historic and archaeological resources located on the Project site and within the Project's vicinity.

3.5.1 *Existing Buildings on the Project Site*

The Project site currently contains the Winthrop Square Garage at 115 Winthrop Square/115 Federal Street. Originally constructed in 1952 and reconfigured with a one-story addition in 1967, the Winthrop Square Parking Garage is a four-level (three levels above ground and one level below ground) cast concrete parking structure. The garage was constructed by First Federal Parking Corp. pursuant to a lease of City-owned land dated June 26, 1952. The garage possesses no district architectural characteristics and is currently closed due to its poor physical condition.

3.5.2 *Historic Resources in the Vicinity*

Numerous properties listed on the State and National Registers of Historic Places are located within the Project vicinity. Notable resources include the United Shoe Machinery Corporation Building on the opposite side of Federal Street, the Commercial Palace Historic District immediately west of the Project site, and the Church Green Buildings Historic District south of the Project site.

The State and National Register-listed historic districts located within a quarter-mile radius of the Project site, are listed in Table 3-6.

Table 3-6 State and National Register - Listed Historic Districts

State and National Register Historic District	Boundaries
Commercial Palace Historic District	Roughly bounded by Bedford, Summer, Franklin, Hawley and Chauncy streets
Church Green Buildings	101-113 Summer Street
Textile District	Roughly Essex Street from Phillips Square to Columbia Street, and Chauncy Street from Phillips Street to Rowe Place
Leather District	Roughly bounded by Atlantic Avenue, Surface Artery and Kneeland Street
Washington Street Theatre District	511-559 Washington Street
West Street Historic District	West and Tremont streets
Temple Place Historic District	11-55 and 26-58 Temple Place
Custom House District	Between Kilby Street, JFK Expressway, High and Battery March Streets, Merchants Row, South Market and State Streets.
Gridley Street Historic District	Bounded by Congress, High, Pearl and Purchase Streets

The properties individually listed in the State and National Register-listed located within a quarter-mile radius of the Project site, are listed in Table 3-7. Figure 3-3 identifies the locations of all the State and National Register-listed properties and districts within a quarter-mile radius of the Project site.

Table 3-7 State and National Register - Listed Properties

State and National Register Properties	Address
1. South Station Waiting Room	620-690 Atlantic Avenue
2. South Station Interlocking System - Tower 1	Atlantic Avenue
3. South Station Headhouse	620-690 Atlantic Avenue
4. Russia Wharf Buildings	518-540 Atlantic Avenue
5. Richardson Block	133-151 Peal Street
6. Federal Reserve Bank Building	30 Pearl Street
7. National Shawmut Bank Building	20-42 Water Street
8. The Old Corner Bookstore	281-283 Washington Street
9. Codman Building (10 Liberty Sq. Building)	51-57 Kilby Street
10. Samuel Appleton Building	110-114 Milk Street
11. International Trust Company	39-47 Milk Street
12. John W. McCormack Building & Courthouse	Post Office Square
13. King's Chapel	38 Tremont Street
14. Old City Hall	41-45 School Street
15. Parker House	56-72 School Street
16. Tremont Temple Baptist Church	76-88 Tremont Street
17. St. Paul's Church	136 Tremont Street
18. Old South Meeting House	308 Washington Street
19. Newspaper Row	322-328 Washington Street
20. Filene's Department Store	426 Washington Street
21. Locke-Ober Restaurant	3-4 Winter Place
22. Temple Place Historic District	Temple Place
23. Kennedy's Building	26-38 Summer Street
24. The Bedford Building	89-103 Bedford Street
25. Thomas E. Proctor Building	100-106 Bedford Street
26. Church Green Building	105-113 Summer Street
27. R.H. Stearns – Foster Waterman Building	140 Tremont Street
28. 83-87 Summer Street	83-87 Summer Street
29. 89-95 Summer Street	89-95 Summer Street
30. Savoy Theater (Opera House)	537-539 Washington Street
31. 20-30 Bromfield Street	20-30 Bromfield Street
32. Wesleyan Association Building	32-38 Bromfield Street
33. Wigglesworth Building	83-89 Franklin Street

Table 3-7 State and National Register - Listed Properties (Continued)

State and National Register Properties	Address
34. Winthrop Building	1-17 Water Street
35. United Shoe Machinery Corporation Building	138-164 Federal Street
36. Battery March Building	54 Battery March Street
37. Keith Memorial Theatre (Opera House)	537-539 Washington Street
38. Dobson Building – Modern Theatre	523-527 Washington Street

A description of the Project’s impacts on historic resources will be included in the DPIR.

3.5.3 Archaeological Resources

The Project site consists of a previously developed urban parcel. Due to previous development activities and disturbances, it is expected that the Project site does not contain significant archaeological resources.

3.5.4 Status of Project Reviews with Historical Agencies

3.5.4.1 Boston Landmarks Commission

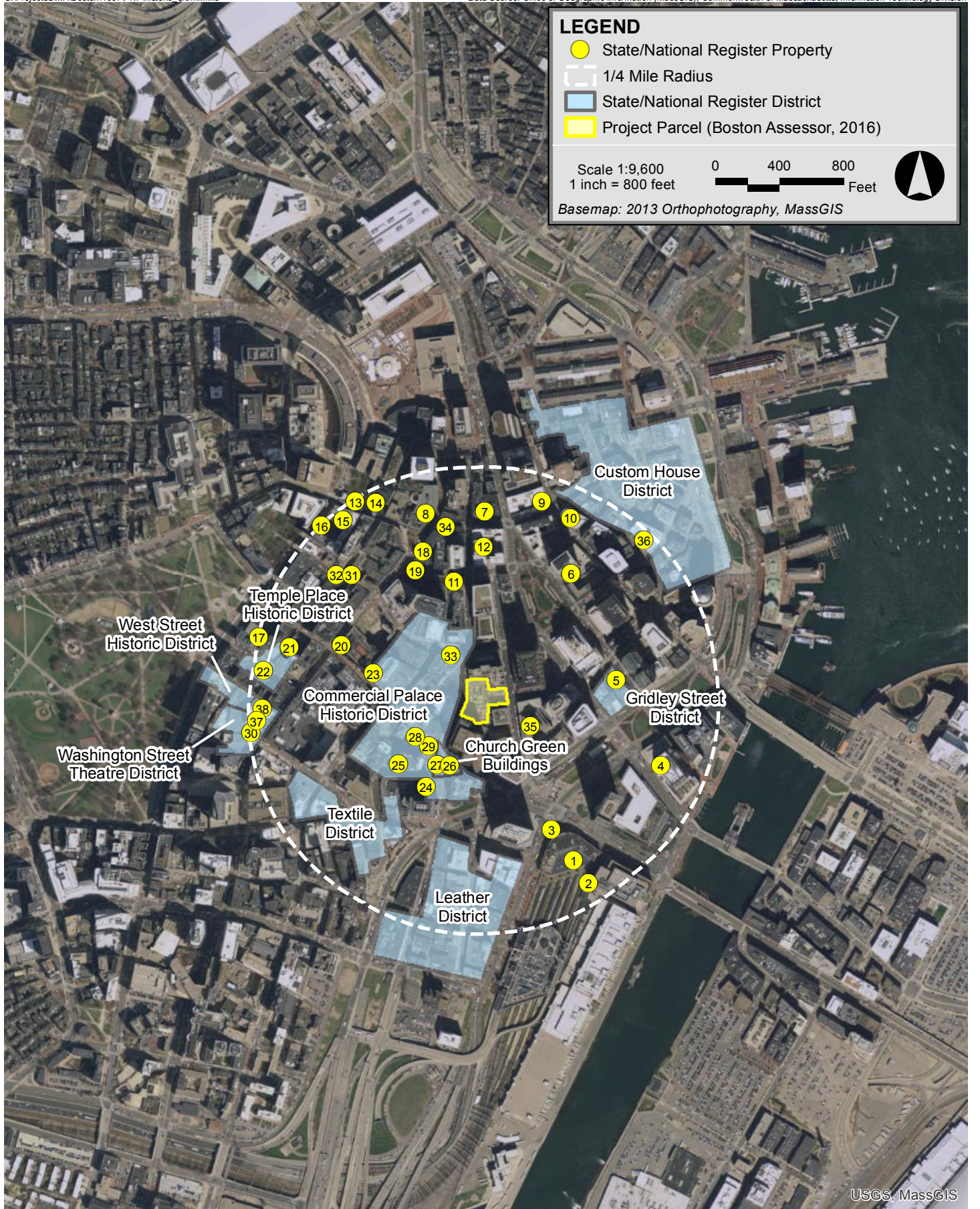
The proposed demolition of the 1952 Winthrop Square parking garage is subject to review by the Boston Landmarks Commission (BLC) review in accordance with Article 85 of the Boston Zoning Code (Demolition Delay). At the appropriate time, the Proponent will file the required Article 85 application with the BLC. The Proponent will work closely with the BLC staff to fulfill the Article 85 review process.

3.5.4.2 Massachusetts Historical Commission

As noted in Section 1.7, the Project is subject to Massachusetts Environmental Policy Act (MEPA) review. As part of the Project’s MEPA review, the Massachusetts Historical Commission (MHC) will review the Project for potential impacts to significant historic and archaeological resources. MHC’s review will be initiated with the filing of the ENF. The Proponent will consult with MHC in an effort to avoid, minimize or mitigate the Project’s potential impacts to significant historic and archaeological resources.

3.6 Infrastructure Systems

This section outlines the existing utilities surrounding the proposed Project site, the proposed connections required to provide service to the new structure, and any impacts on the existing utility systems that may result from the construction of the proposed Project.



115 Winthrop Square Boston, Massachusetts

3.6.1 Sewer

There are existing Boston Water and Sewer Commission (BWSC) combined sewer mains located in Devonshire Street and Federal Street adjacent to the Project site:

- ◆ There is a 16-inch x 24-inch combined sewer beneath Devonshire Street which flows in a northerly direction.
- ◆ There is a 24-inch x 36-inch combined sewer beneath Federal Street which flows in a northerly direction.

Both combined sewers adjacent to the Project site flow through the Financial District, eventually emptying into the New East Side Interceptor and ultimately to the Deer Island Waste Water Treatment Plant.

There are currently no known sewer services at the Project site. The existing sewer system is illustrated in Figure 3-4.

3.6.1.1 Wastewater Generation

The Project's sewage generation rates were estimated using 310 CMR 15.00, The State Environmental Code Regulating Septic Systems (Title 5). 310 CMR 15.203 lists typical generation values for the sources listed in Table 3-8 for the Project. Typical generation values are generally conservative values for estimating the sewage flows from new construction.

Table 3-8 Proposed Maximum Project Wastewater Generation

Room Use	Size		310 CMR Value (gpd/unit)		Total Flow (gpd)
Residential	920	bedrooms	110	/bedroom	101,200
Office	663,000*	sf	75	/1,000 sf	49,725
Function Hall	1,200	Persons	15	/seat	18,000
Restaurant	700	Seats	35	/seat	24,500
Retail	12,000	sf	50	/1,000 sf	600
Proposed Sewer Flows (gpd):					194,025

* Includes Office Club and Accelerator space.

3.6.1.2 Sewage Capacity and Impacts

The Project's impact to the existing BWSC systems in Devonshire Street and Federal Street was analyzed. The existing sewer system capacity calculations are presented in Table 3-9.

Table 3-9 Sewer Hydraulic Capacity Analysis

Manhole (BWSC Number)	Distance (feet)	Invert Elevation (up)	Invert Elevation (down)	Slope (%)	Diameter (inches)	Manning's Number	Flow Capacity (cfs)	Flow Capacity (MGD)
253 to 251	160	17.1	14.70	1.5%	20	0.013	17.04	11.01
251 to 250	128	14.70	13.40	1.0%	20	0.013	14.02	9.06
250 to 372	250	13.40	10.60	1.1%	20	0.013	14.72	9.52
273 to 361	204	10.30	9.70	0.3%	30	0.013	22.24	14.38

Note: 1. Manhole numbers taken from BWSC Sewer System GIS
 2. Flow Calculations based on Manning Equation
 3. All pipes assumed to be vitrified clay, to be conservative

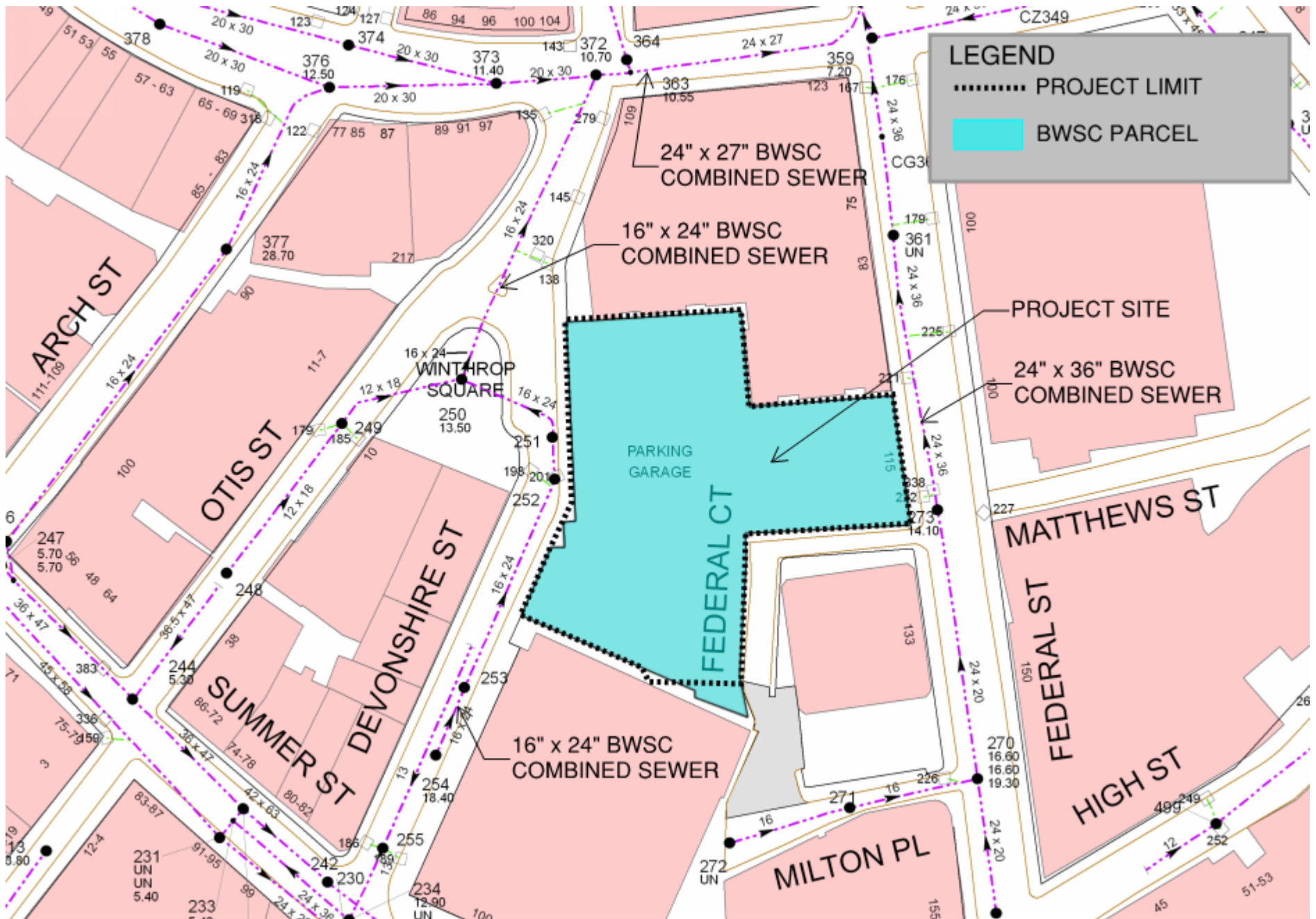
3.6.1.3 Proposed Conditions

The Proponent will coordinate with BWSC on the design and capacity of the proposed connections to the sewer system. The Project is expected to generate new wastewater flows of approximately 194,025 gallons per day. Approval for the net increase in flow will come from BWSC.

The sewer services for the Project will connect to either the 16-inch x 24-inch combined sewer in Devonshire Street or the 24-inch by 36-inch combined sewer in Federal Street.

This Project will result in a net increase in flows of greater than 15,000 gpd and will therefore be required to contribute an Inflow and Infiltration fee to BWSC. The sewer flows indicated in this PNF are maximum numbers that will be modified as the Project progresses. This fee will be finalized during the BWSC site plan review process based on the building program at that time.

All improvements and connections to BWSC infrastructure will be reviewed as part of the BWSC's site plan review process for the Project. This process includes a comprehensive design review of the proposed service connections, an assessment of Project demands and system capacity, and the establishment of service accounts.



115 Winthrop Square Boston, Massachusetts

3.6.1.4 Proposed Impacts

The adjacent roadway sewer system in Devonshire Street and Federal Street and potential building service connections to the sewer system were analyzed.

Results shown in Table 3-9 indicate the hydraulic capacity of the sewer systems located near the Project. The minimum hydraulic capacity is 9.06 million gallons per day (MGD) or 14.02 cubic feet per second (cfs) for the 16-inch by 24-inch system in Devonshire Street. Based on a maximum average daily flow estimate for the Project of 194,350 GPD or 0.30 cfs; and with a factor of safety of 10 (total estimate = 0.30 cfs x 10 = 3.0 cfs), no capacity problems are expected within either the Devonshire Street or Federal Street systems.

3.6.2 Water

Water for the Project site is provided by the BWSC. There are six different water systems within the City of Boston, and these provide service to portions of the city based on ground surface elevation. The six systems are southern low (commonly known as low service), southern high (commonly known as high service), southern extra high, northern low, northern high and the high pressure fire service:

- ◆ There is a 10-inch southern high water main, a 12-inch southern low water main and a 12-inch high pressure fire service main beneath Devonshire Street.
- ◆ There is a 10-inch southern high water main, a 12-inch southern low water main and a 12-inch high pressure fire service main beneath Federal Street.
- ◆ There is an 8-inch southern high water main and a 6-inch southern low water main beneath Federal Court.

The existing water system is illustrated in Figure 3-5.

There is a water service from the existing garage that connects to the 10-inch southern high main in Devonshire Street. There are also two water services that connect to the 10-inch southern high main in Federal Street. These water services will be cut and capped at the main. All cut and caps of existing water infrastructure will be reviewed as part of the BWSC's site plan review process for the Project.

3.6.2.1 Water Consumption

The water demand estimate for domestic services is based on the Project's estimated sewage generation, described above. A conservative factor of 1.1 (10 percent) is applied to the estimated average daily wastewater flows calculated with 310 CMR 15.00 values to account for consumption, system losses, and other usages to estimate an

average daily water demand. The Project, which includes the demolition of the existing building and construction of a new building, will require up to approximately 213,428 gpd of domestic water. The water for the Project will be supplied by the BWSC system.

All efforts to reduce water consumption will be made. Aeration fixtures and appliances will be chosen for water conservation qualities. In public areas, sensor operated faucets and toilets will be installed.

All new water services will be installed in accordance with the latest Local, State, and Federal codes and standards. Backflow preventers will be installed at both domestic and fire protection service connections. New meters will be installed with Meter Transmitter Units (MTU's) as part of the Boston Water and Sewer Commission's Automatic Meter Reading (AMR) system.

3.6.2.2 Existing Water Capacity and Impacts

BWSC hydrant flow testing has been requested, as hydrant flow data should be less than a year old for use as a design tool.

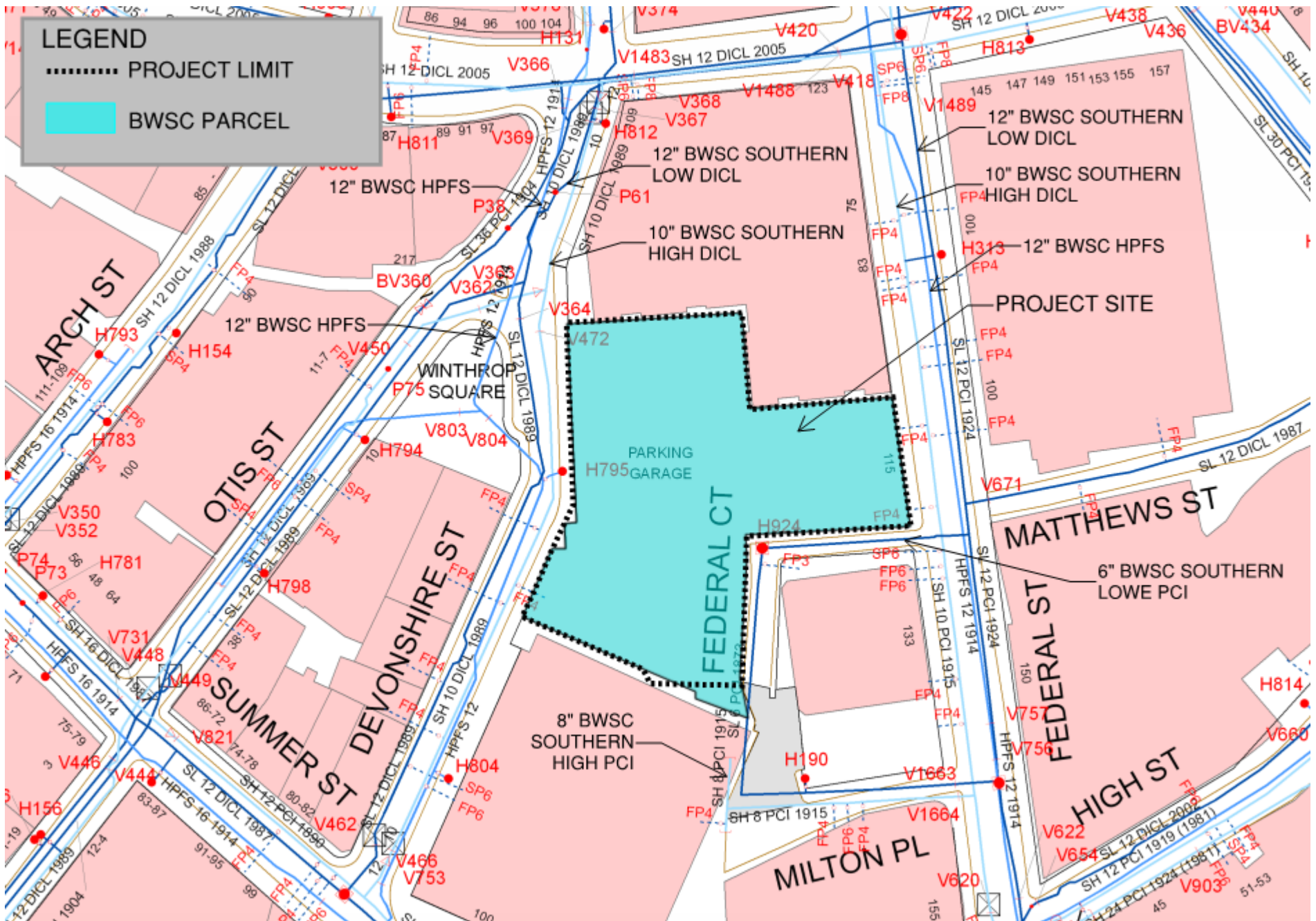
Proposed Project

The domestic water services for the Project will likely connect to either the 12-inch southern low water main in Devonshire Street or the 12-inch southern low in Federal Street. The fire protection services for the proposed project will likely connect to either the 10-inch southern high water main in Devonshire Street, the 8-inch southern high water main in Federal Court or the 10-inch southern high water main in Federal Street.

The domestic and fire protection water service connections required by the Project will meet the applicable City and State codes and standards, including cross-connection backflow prevention. Compliance with the standards for the domestic water system service connection will be reviewed as part of BWSC's Site Plan Review Process. This review includes, but is not limited to, sizing of domestic water and fire protection services, calculation of meter sizing, backflow prevention design, and location of hydrants and siamese connections that conform to BWSC and Boston Fire Department requirements.

Proposed Impacts

No water capacity problems are anticipated within this system as a result of the Project's construction.



115 Winthrop Square Boston, Massachusetts

3.6.3 Stormwater

A discussion of stormwater and water quality is provided above in Section 3.2.6.

3.6.4 Protection during Construction

Existing public and private infrastructure located within nearby public rights-of-way will be protected during construction of each component of the Project. The installation of proposed utility connections within public ways will be undertaken in accordance with BWSC, Boston Public Works Department, the Dig-Safe Program, and applicable utility company requirements. Specific methods for constructing proposed utilities where they are near to, or connect with, existing water, sewer, and drain facilities will be reviewed by the BWSC as part of its Site Plan Review process. All necessary permits will be obtained before the commencement of work.

The Proponent will continue to work and coordinate with the BWSC and the utility companies to ensure safe and coordinated utility operations in connection with the Project.

3.6.5 Conservation of Resources

The State Building Code requires the use of water-conserving fixtures. Water conservation measures such as low-flow toilets and restricted flow faucets will help reduce the domestic water demand on the existing distribution system. The installation of sensor-operated sinks with water conserving aerators and sensor-operated toilets in all the commercial area restrooms will be incorporated into the design plans for the Project.

Section 4.0

Coordination with other Governmental Agencies

4.0 COORDINATION WITH OTHER GOVERNMENTAL AGENCIES

4.1 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. The Accessibility Checklist is included in Appendix B.

4.2 Massachusetts Environmental Policy Act (MEPA)

The Project will be subject to review in accordance with the requirements of the Massachusetts Environmental Policy Act, MGL c. 30, §§61-62H (MEPA), and the MEPA regulations at 301 CMR 11.00 (MEPA Regulations). MEPA applies to certain actions undertaken and certain permits granted by agencies, departments, boards, commissions, and authorities of the Commonwealth of Massachusetts and other authorities or political subdivisions of the Commonwealth. According to the MEPA Regulations, MEPA review is required if a project exceeds certain thresholds specified in the MEPA Regulations and the project involves a state agency transferring an interest in real property, providing financial assistance or issuing a permit or approval. MEPA review is generally only required if a state agency approval is required and the project exceeds a MEPA threshold. Specifically, pursuant to 301 CMR 11.01(2)(b), the MEPA office only has jurisdiction when “the subject matter of the review threshold is conceptually or physically related to the subject matter of one or more required [permits from a state agency].”

In this case, MEPA jurisdiction is established through the disposition of the Project site from the BPDA to the Proponent for development, as well as the State permit requirements listed in Section 1.7. Based on preliminary analysis, the Project will exceed MEPA review thresholds including trip generation and wastewater generation. The Proponent will be submitting an Environmental Notification Form (ENF) and Environmental Impact Review (EIR) documentation to the MEPA Office.

4.3 Massachusetts Historical Commission State Register Review

The Project will require review by MHC under State Register review regulations (950 CMR 71.00). The Project will commence MHC review through the MEPA process.

4.4 Other Permits and Approvals

Section 1.7 provides a list of agencies from which it is anticipated that permits and approvals for the Project will be sought.

Appendix A

Climate Change Preparedness and Resiliency Checklist

LEED Checklists

Climate Change Preparedness and Resiliency Checklist for New Construction

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

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

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

Climate Change Analysis and Information Sources:

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

Checklist

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

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

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

Climate Change Resiliency and Preparedness Checklist

A.1 - Project Information

Project Name:	115 Winthrop Square
Project Address Primary:	115 Federal Street, Boston, MA 02110
Project Address Additional:	115 Winthrop Square, Boston, MA 02110
Project Contact (name / Title / Company / email / phone):	MCAF Winthrop LLC c/o Millennium Partners Joseph Larkin, Principal JLarkin@MillenniumPtrs.com , 617-451-0300

A.2 - Team Description

Owner / Developer:	Millennium Partners
Architect:	Handel Architects
Engineer (building systems):	WSP
Sustainability / LEED:	Built Ecology
Permitting:	Epsilon Associates, Inc.
Construction Management:	Suffolk Construction Company
Climate Change Expert:	Epsilon Associates, Inc.

A.3 - Project Permitting and Phase

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

<input checked="" type="checkbox"/> PNF / Expanded PNF Submission	<input type="checkbox"/> Draft / Final Project Impact Report Submission	<input type="checkbox"/> BRA Board Approved	<input type="checkbox"/> Notice of Project Change
<input type="checkbox"/> Planned Development Area	<input type="checkbox"/> BRA Final Design Approved	<input type="checkbox"/> Under Construction	<input type="checkbox"/> Construction just completed:

A.4 - Building Classification and Description

List the principal Building Uses:	Commercial/Retail, Office, Residential
List the First Floor Uses:	Retail, Restaurant, Indoor Open/Function Space

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

<input type="checkbox"/> Wood Frame	<input type="checkbox"/> Masonry	<input type="checkbox"/> Steel Frame	<input checked="" type="checkbox"/> Concrete
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Describe the building?

Site Area:	47,962 SF	Building Area:	1.1 Mil -1.5 Mil SF
Building Height:	Up to 775 Ft.	Number of Stories:	Up to 60 Flrs.
First Floor Elevation (reference Boston City Base):	Elev. 22.5'-28.0' (Avg. 25.25') BCB	Are there below grade spaces/levels, if yes how many:	Yes/ 3-5 Levels

A.5 - Green Building

Which LEED Rating System(s) and version has or will your project use (by area for multiple rating systems)? **v2009**

Select by Primary Use:	<input checked="" type="checkbox"/> New Construction [Residential]	<input checked="" type="checkbox"/> Core & Shell [Office]	<input type="checkbox"/> Healthcare	<input type="checkbox"/> Schools
	<input type="checkbox"/> Retail	<input type="checkbox"/> Homes Midrise	<input type="checkbox"/> Homes	<input type="checkbox"/> Other
Select LEED Outcome:	<input type="checkbox"/> Certified	<input type="checkbox"/> Silver	<input type="checkbox"/> Gold	<input checked="" type="checkbox"/> Platinum (target)

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

Registered:	<input type="text" value="Yes"/>	Certified:	<input type="text" value="TBD"/>
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A.6 - Building Energy-

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

Electric:	<input type="text" value="15,000 kW"/>	Heating:	<input type="text" value="36 MMBtu/hr"/>
What is the planned building Energy Use Intensity:	<input type="text" value="10-16 kWh/SF"/>	Cooling:	<input type="text" value="3,050 Tons/hr"/>

What are the peak energy demands of your critical systems in the event of a service interruption?

Electric:	<input type="text" value="TBD (kW)"/>	Heating:	<input type="text" value="TBD (MMBtu/hr)"/>
		Cooling:	<input type="text" value="TBD (Tons/hr)"/>

What is nature and source of your back-up / emergency generators?

Electrical Generation:	<input type="text" value="1,500 kW per unit"/>	Fuel Source:	<input type="text" value="Diesel"/>
System Type and Number of Units:	<input checked="" type="checkbox"/> Combustion Engine	<input type="checkbox"/> Gas Turbine	<input type="checkbox"/> Combine Heat and Power
			<input type="text" value="2 Units"/>

Note that a combined heat and power plant is being studied.

B - Extreme Weather and Heat Events

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

B.1 - Analysis

What is the full expected life of the project?

Select most appropriate:	<input type="checkbox"/> 10 Years	<input type="checkbox"/> 25 Years	<input checked="" type="checkbox"/> 50 Years	<input type="checkbox"/> 75 Years
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What is the full expected operational life of key building systems (e.g. heating, cooling, ventilation)?

Select most appropriate:	<input type="checkbox"/> 10 Years	<input checked="" type="checkbox"/> 25 Years	<input type="checkbox"/> 50 Years	<input type="checkbox"/> 75 Years
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What time span of future Climate Conditions was considered?

Select most appropriate:	<input type="checkbox"/> 10 Years	<input type="checkbox"/> 25 Years	<input checked="" type="checkbox"/> 50 Years	<input type="checkbox"/> 75 Years
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Analysis Conditions - What range of temperatures will be used for project planning – Low/High?

8/91 Deg.

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

95 Deg.	5 Days	6 Events / yr.
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What Drought characteristics will be used for project planning – Duration and Frequency?

30-90 Days	0.2 Events / yr.
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What Extreme Rain Event characteristics will be used for project planning – Seasonal Rain Fall, Peak Rain Fall, and Frequency of Events per year?

45 Inches / yr.	4 Inches	0.5 Events / yr.
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What Extreme Wind Storm Event characteristics will be used for project planning – Peak Wind Speed, Duration of Storm Event, and Frequency of Events per year?

105 Peak Wind		0.25 Events / yr.
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B.2 - Mitigation Strategies

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

Building energy use below code: **> 10% below 90.1-2013**

How is performance determined: Energy model

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

Select all appropriate:	<input checked="" type="checkbox"/> High performance building envelop	<input checked="" type="checkbox"/> High performance lighting & controls	<input checked="" type="checkbox"/> Building day lighting	<input checked="" type="checkbox"/> EnergyStar equip. / appliances
	<input checked="" type="checkbox"/> High performance HVAC equipment	<input checked="" type="checkbox"/> Energy recovery ventilation	<input type="checkbox"/> No active cooling	<input type="checkbox"/> No active heating
Describe any added measures:	Project will strive to integrate the principles of Passive House design.			

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

Roof:	R = 30	Walls / Curtain Wall Assembly:	R = 5
Foundation:	R = 15	Basement / Slab:	R = 10
Windows:	U = 0.35	Doors:	U = 0.7

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

<input type="checkbox"/> On-site clean energy / CHP system(s)	<input type="checkbox"/> Building-wide power dimming	<input type="checkbox"/> Thermal energy storage systems	<input type="checkbox"/> Ground source heat pump
<input type="checkbox"/> On-site Solar PV	<input type="checkbox"/> On-site Solar Thermal	<input type="checkbox"/> Wind power	<input type="checkbox"/> None
Describe any added measures:	CHP and on-site solar PV are being studied.		

Will the project employ Distributed Energy / Smart Grid Infrastructure and /or Systems?
 Connection to distributed steam will be studied.

Select all appropriate:

<input type="checkbox"/> Connected to local distributed electrical	<input type="checkbox"/> Building will be Smart Grid ready	<input type="checkbox"/> Connected to distributed steam, hot, chilled water	<input type="checkbox"/> Distributed thermal energy ready
--	--	---	---

Will the building remain operable without utility power for an extended period?

Yes <i>[Life Safety only]</i>	If yes, for how long:	<i>If fuel is available, for several days</i>
If Yes, is building "Islandable?" No		
If Yes, describe strategies:		

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

Select all appropriate:

<input type="checkbox"/> Solar oriented - longer south walls	<input type="checkbox"/> Prevailing winds oriented	<input checked="" type="checkbox"/> External shading devices	<input type="checkbox"/> Tuned glazing
<input type="checkbox"/> Building cool zones	<input checked="" type="checkbox"/> Operable windows <i>[Residential only]</i>	<input checked="" type="checkbox"/> Natural ventilation	<input type="checkbox"/> Building shading
<input type="checkbox"/> Potable water for drinking / food preparation	<input type="checkbox"/> Potable water for sinks / sanitary systems	<input type="checkbox"/> Waste water storage capacity	<input checked="" type="checkbox"/> High Performance Building Envelop
Describe any added measures:			

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

Select all appropriate:

<input checked="" type="checkbox"/> High reflective paving materials	<input type="checkbox"/> Shade trees & shrubs	<input checked="" type="checkbox"/> High reflective roof materials	<input checked="" type="checkbox"/> Vegetated roofs
Describe other strategies:			

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

Select all appropriate:

<input type="checkbox"/> On-site retention systems & ponds	<input type="checkbox"/> Infiltration galleries & areas	<input type="checkbox"/> Vegetated water capture systems	<input checked="" type="checkbox"/> Vegetated roofs
Describe other strategies: Stormwater collection and storage			

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

Select all appropriate:

<input type="checkbox"/> Hardened building structure & elements	<input checked="" type="checkbox"/> Buried utilities & hardened infrastructure	<input type="checkbox"/> Hazard removal & protective landscapes	<input type="checkbox"/> Soft & permeable surfaces (water infiltration)
Describe other strategies:			

C - Sea-Level Rise and Storms

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

C.1 - Location Description and Classification:

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

No

Describe site conditions?

Site Elevation – Low/High Points:

22.5' - 28.0' BCB
Elev.(Ft.)

Building Proximity to Water:

~1,500 Ft.

Is the site or building located in any of the following?

Coastal Zone:

No

Velocity Zone:

No

Flood Zone:

No

Area Prone to Flooding:

No

Will the 2013 Preliminary FEMA Flood Insurance Rate Maps or future floodplain delineation updates due to Climate Change result in a change of the classification of the site or building location?

2013 FEMA
Prelim. FIRMs:

No

Future floodplain delineation updates:

No

What is the project or building proximity to nearest Coastal, Velocity or Flood Zone or Area Prone to Flooding?

~550 Ft.

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

C - Sea-Level Rise and Storms

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

C.2 - Analysis

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

Sea Level Rise:

Ft.

Frequency of storms:

per year

C.3 - Building Flood Proofing

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

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

Flood Proof Elevation:

Boston City Base
Elev.(Ft.)

First Floor Elevation:

Boston City Base
Elev. (Ft.)

Will the project employ temporary measures to prevent building flooding (e.g. barricades, flood gates):

Yes / No

If Yes, to what elevation

Boston City Base
Elev. (Ft.)

If Yes, describe:

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

<input type="checkbox"/> Systems located above 1 st Floor.	<input type="checkbox"/> Water tight utility conduits	<input type="checkbox"/> Waste water back flow prevention	<input type="checkbox"/> Storm water back flow prevention
---	---	---	---

Were the differing effects of fresh water and salt water flooding considered:

Yes / No

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

Yes / No	If yes, to what height above 100 Year Floodplain:	Boston City Base Elev. (Ft.)
----------	---	------------------------------

Will the project employ hard and / or soft landscape elements as velocity barriers to reduce wind or wave impacts?

Yes / No

If Yes, describe:

--

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

Yes / No	If Yes, for how long:	days
----------	-----------------------	------

Describe any additional strategies to addressing sea level rise and or sever storm impacts:

--

C.4 - Building Resilience and Adaptability

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

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

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

Select appropriate:	Yes / No	<input type="checkbox"/> Surrounding site elevation can be raised	<input type="checkbox"/> Building ground floor can be raised	<input type="checkbox"/> Construction been engineered
---------------------	----------	---	--	---

Describe additional strategies:

--

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

Select appropriate:	Yes / No	<input type="checkbox"/> Solar PV	<input type="checkbox"/> Solar Thermal	<input type="checkbox"/> Clean Energy / CHP System(s)
		<input type="checkbox"/> Potable water storage	<input type="checkbox"/> Wastewater storage	<input type="checkbox"/> Back up energy systems & fuel

Describe any specific or additional strategies:

--

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

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



LEED 2009 for Core and Shell Development

Project Checklist

Winthrop Square - Office

10/12/2016

25 3 Sustainable Sites Possible Points: 28

Y	?	N			
			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
5			Credit 2	Development Density and Community Connectivity	5
		1	Credit 3	Brownfield Redevelopment	1
6			Credit 4.1	Alternative Transportation—Public Transportation Access	6
2			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	2
3			Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
2			Credit 4.4	Alternative Transportation—Parking Capacity	2
		1	Credit 5.1	Site Development—Protect or Restore Habitat	1
		1	Credit 5.2	Site Development—Maximize Open Space	1
1			Credit 6.1	Stormwater Design—Quantity Control	1
1			Credit 6.2	Stormwater Design—Quality Control	1
1			Credit 7.1	Heat Island Effect—Non-roof	1
1			Credit 7.2	Heat Island Effect—Roof	1
1			Credit 8	Light Pollution Reduction	1
1			Credit 9	Tenant Design and Construction Guidelines	1

8 2 Water Efficiency Possible Points: 10

Y	?	N			
			Prereq 1	Water Use Reduction—20% Reduction	
4			Credit 1	Water Efficient Landscaping	2 to 4
		2	Credit 2	Innovative Wastewater Technologies	2
4			Credit 3	Water Use Reduction	2 to 4

26 3 8 Energy and Atmosphere Possible Points: 37

Y	?	N			
			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
14	3	4	Credit 1	Optimize Energy Performance	3 to 21
		4	Credit 2	On-Site Renewable Energy	4
2			Credit 3	Enhanced Commissioning	2
2			Credit 4	Enhanced Refrigerant Management	2
3			Credit 5.1	Measurement and Verification—Base Building	3
3			Credit 5.2	Measurement and Verification—Tenant Submetering	3
2			Credit 6	Green Power	2

7 6 Materials and Resources Possible Points: 13

Y	?	N			
			Prereq 1	Storage and Collection of Recyclables	
Y			Credit 1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 5
2		5	Credit 2	Construction Waste Management	1 to 2
		1	Credit 3	Materials Reuse	1
2			Credit 4	Recycled Content	1 to 2
2			Credit 5	Regional Materials	1 to 2
1			Credit 6	Certified Wood	1

9 3 Indoor Environmental Quality Possible Points: 12

Y	?	N			
			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
1			Credit 1	Outdoor Air Delivery Monitoring	1
		1	Credit 2	Increased Ventilation	1
1			Credit 3	Construction IAQ Management Plan—During Construction	1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
		1	Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
1			Credit 5	Indoor Chemical and Pollutant Source Control	1
		1	Credit 6	Controllability of Systems—Thermal Comfort	1
1			Credit 7	Thermal Comfort—Design	1
1			Credit 8.1	Daylight and Views—Daylight	1
1			Credit 8.2	Daylight and Views—Views	1

6 Innovation and Design Process Possible Points: 6

Y	?	N			
1			Credit 1.1	Innovation in Design: Educational Outreach	1
1			Credit 1.2	Innovation in Design: Green Cleaning	1
1			Credit 1.3	Innovation in Design: Assessment & Planning for Resilience	1
1			Credit 1.4	Innovation in Design: Cooling Tower Management	1
1			Credit 1.5	Innovation in Design: Mercury Lamp Content	1
1			Credit 2	LEED Accredited Professional	1

3 1 Regional Priority Credits Possible Points: 4

Y	?	N			
1			Credit 1.1	Regional Priority: Heat Island Effect - Roof	1
1			Credit 1.2	Regional Priority: Stormwater Design - Quantity Control	1
1			Credit 1.3	Regional Priority: Heat Island Effect - Non-Roof	1
		1	Credit 1.4	Regional Priority: On-Site Renewable Energy	1

84 8 18 Total Possible Points: 110

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



LEED 2009 for New Construction and Major Renovations

Project Checklist

Wintrop Square - Residential

10/12/2016

23 3 Sustainable Sites Possible Points: 26

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

8 2 Water Efficiency Possible Points: 10

Y	?	N			
Y			Prereq 1	Water Use Reduction—20% Reduction	
4			Credit 1	Water Efficient Landscaping	2 to 4
		2	Credit 2	Innovative Wastewater Technologies	2
4			Credit 3	Water Use Reduction	2 to 4

22 3 10 Energy and Atmosphere Possible Points: 35

Y	?	N			
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
12	3	4	Credit 1	Optimize Energy Performance	1 to 19
1		6	Credit 2	On-Site Renewable Energy	1 to 7
2			Credit 3	Enhanced Commissioning	2
2			Credit 4	Enhanced Refrigerant Management	2
3			Credit 5	Measurement and Verification	3
2			Credit 6	Green Power	2

7 1 6 Materials and Resources Possible Points: 14

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

Materials and Resources, Continued

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

12 3 Indoor Environmental Quality Possible Points: 15

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

6 Innovation and Design Process Possible Points: 6

Y	?	N			
1			Credit 1.1	Innovation in Design: Specific Title	1
1			Credit 1.2	Innovation in Design: Specific Title	1
1			Credit 1.3	Innovation in Design: Specific Title	1
1			Credit 1.4	Innovation in Design: Specific Title	1
1			Credit 1.5	Innovation in Design: Specific Title	1
1			Credit 2	LEED Accredited Professional	1

3 1 Regional Priority Credits Possible Points: 4

Y	?	N			
1			Credit 1.1	Regional Priority: Heat Island Effect - Roof	1
1			Credit 1.2	Regional Priority: Stormwater Design - Quantity Control	1
1			Credit 1.3	Regional Priority: Heat Island Effect - Non-Roof	1
		1	Credit 1.4	Regional Priority: On-Site Renewable Energy	1

81 7 22 Total Possible Points: 110

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

Appendix B

Accessibility Checklist

Accessibility Checklist

(to be added to the BRA Development Review Guidelines)

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

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

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

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

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

Accessibility Analysis Information Sources:

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

Article 80 | ACCESSIBILTY CHECKLIST

Project Information

Project Name:	115 Winthrop Square
Project Address Primary:	115 Federal Street Boston, MA 02110
Project Address Additional:	115 Winthrop Square Boston, MA 02110
Project Contact (name / Title / Company / email / phone):	MCAF Winthrop LLC c/o Millennium Partners Joseph Larkin, Principal JLarkin@MillenniumPtrs.com , 617-451-0300

Team Description

Owner / Developer:	MCAF Winthrop LLC
Architect:	Handel Architects LLP
Engineer (building systems):	WSP Group
Sustainability / LEED:	WSP Group
Permitting:	Epsilon Associates, Inc
Construction Management:	Suffolk Construction Company, Inc.

Project Permitting and Phase

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

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

Article 80 | ACCESSIBILITY CHECKLIST

Building Classification and Description

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

Residential – One to Three Unit	Residential - Multi-unit, Four +	Institutional	Education
Commercial	Office	Retail	Assembly
Laboratory / Medical	Manufacturing / Industrial	Mercantile	Storage, Utility and Other
First Floor Uses (List) <i>Retail, food&beverage, office lobby, residential lobby, assembly space</i>			

What is the Construction Type – select most appropriate type?

Wood Frame	Masonry	Steel Frame	Concrete
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Describe the building?

Site Area:	<i>Approx. 47,962 SF (survey)</i>	Building Area:	<i>1,100,000 to 1,500,000 GSF</i>
Building Height:	<i>Up to 775 Ft.</i>	Number of Stories:	<i>Up to 60 Flrs.</i>
First Floor Elevation:	<i>22.5'-28.0' BCB Elev.(Ft.)</i>	Are there below grade spaces:	Yes

Assessment of Existing Infrastructure for Accessibility:

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

Provide a description of the development neighborhood and identifying characteristics.

Major retail and entertainment venues along the Downtown Crossing Corridor are located within a short distance of the Project site. Significant development activity has taken place in and around Downtown Boston in recent years, including new retail, office, and residential space.

The Project site is in close proximity to several MBTA public transit routes and

Article 80 | ACCESSIBILITY CHECKLIST

<p>List the surrounding ADA compliant MBTA transit lines and the proximity to the development site: Commuter rail, subway, bus, etc.</p>	<p>transportation hubs, with nearby South Station, Downtown Crossing, and State Street offering service to the Silver, Orange, Green, Red and Blue Lines for MBTA service, along with commuter rail and Amtrak. In addition, the downtown is served by numerous MBTA local bus routes. The area is also regionally accessible via Interstate 93 (Exit 20), which runs below Atlantic Avenue, Purchase Street, and the Rose Kennedy Greenway within one-quarter mile of the Project site. The Project site is also well located among green space areas such as the Rose Kennedy Greenway and Post Office Square.</p>
<p>List the surrounding institutions: hospitals, public housing and elderly and disabled housing developments, educational facilities, etc.</p>	<p>Within 5 minute walk of Project site: Red line, Silver Line, Commuter Rail and inter-city bus services at South Station; Red line and Orange line at Downtown Crossing.</p> <p>Adjacent to Project site: MBTA express bus routes</p>
<p>Is the proposed development on a priority accessible route to a key public use facility? List the surrounding: government buildings, libraries, community centers and recreational facilities and other related facilities.</p>	<p>Tufts Medical Center: 0.5 mile Massachusetts General Hospital: 0.9 mile Ausonia Public Housing (Elderly and Disabled): 0.7 mile Eva White Public Housing (Elderly and Disabled): 0.8 mile Suffolk University: 0.3 mile Emerson College: 0.5 mile Josiah Quincy K-8 School: 0.6 mile Boston Adult Technical Academy: 0.7 mile Eliot K-8 School: 0.8 mile</p>
<p>Is the proposed development on a priority accessible route to a key public use facility? List the surrounding: government buildings, libraries, community centers and recreational facilities and other related facilities.</p>	<p>The Project site does not provide a priority access route to any of the following: Boston City Hall: 0.4 mile Massachusetts State House: 0.5 mile Boston Public Library - West End Branch: 0.6 mile Boston Public Library - North End Branch: 0.7 mile Boston Center for Youth and Families - Quincy: 0.6 mile Boston Center for Youth and Families - Nazzaro: 0.8 mile</p>

Surrounding Site Conditions – Existing:

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

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

Yes – any existing sidewalk and pedestrian ramps affected by new construction will be replaced and/or enhanced.

Article 80 | ACCESSIBILITY CHECKLIST

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

Sidewalks along Devonshire and Federal Streets are constructed out of concrete and show signs of aging, particularly along Federal Street.

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

Sidewalks and ramps providing access to the new building will be new.

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

No

Surrounding Site Conditions – Proposed

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

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

The nature of proposed sidewalks will be determined as the design advances, but will be consistent with the Boston Complete Street Guidelines.

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

Specifics will be determined as the design advances.

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

Specifics will be determined as the design advances.

List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on

Proposed materials will be determined as the design advances.

Article 80 | ACCESSIBILITY CHECKLIST

the City of Boston pedestrian right-of-way?

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

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

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

No	
Yes. Specific furnishings will be determined as the design advances.	
Specific dimensions will be determined as the design advances.	

Proposed Accessible Parking:

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

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

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

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

Where is accessible visitor parking located?

Up to approximately 550 spaces	
On-site parking will be provided in the below-grade garage with valet assistance available to provide accessibility for all visitors.	
No	
On-site parking will be provided in the below-grade garage with valet assistance available to provide accessibility for all visitors.	

Article 80 | ACCESSIBILITY CHECKLIST

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

For commercial office, retail, and other users there will be an accessible “curb-side” drop-off. For residents and their guests, there will be an accessible drop-off internal to the site.

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

Diagram will be provided as the design advances.

Circulation and Accessible Routes:

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

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

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

Diagram will be provided as the design advances.

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

Flush Condition or ramp at all entryways.

Are the accessible entrance and the standard entrance integrated?

Yes

If no above, what is the reason?

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

Yes. Diagram will be provided as the design advances.

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

No. Wayfinding and signage to be developed as design advances.

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Accessible Units: (If applicable)

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

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

290-460

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

Intent is that all units will be for sale. To be confirmed. All on-site units are anticipated to be market value.

How many accessible units are being proposed?

To be determined.

Please provide plan and diagram of the accessible units.

Diagram will be provided as design advances.

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

None. Affordable units are anticipated to be off-site.

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

No.

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

The proposed plan has not been presented yet.

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

N/A

Article 80 | ACCESSIBILITY CHECKLIST

Thank you for completing the Accessibility Checklist!

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

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