

Notice of Project Change Submitted Pursuant to Article 80 of the Boston Zoning Code

316-322 Summer Street Boston, Massachusetts

February 12, 2008

Submitted by:

Lincoln Summer Street Venture LLC c/o Lincoln Property Company 225 Franklin Street Boston, MA 02110

Submitted to:

Boston Redevelopment Authority One City Hall Square Boston, MA 02201

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1.0 PROJECT OVERVIEW

1.1 Introduction

This Notice of Project Change ("NPC") is being submitted in accordance with Article 80 of the Boston Zoning Code (the "Code") by Lincoln Summer Street Venture LLC (the "Proponent") for the proposed renovation and expansion of the two adjacent, existing buildings at 316 and 322 Summer Street for a mixed-use office development with potential retail/restaurant uses and approximately 16 internal parking spaces (the "Project"). These two separate buildings occupy an approximately 0.41-acre site in South Boston bordered by Summer Street on the south, A Street on the west, an unnamed passageway on the north, and a surface parking lot on the east ("Project Site") (see **Figures 1-1** and **1-2**). Until the fall of 2006, approximately 90,800 square feet of the total 123,200 square feet available within the two buildings was occupied by existing commercial tenants.

On June 29, 2006, the prior property owner, W2005 BWH II Realty, LLC, received approval from the Boston Redevelopment Authority ("BRA") to convert these commercial buildings to a mixed-use residential development containing 87 for-sale residential units and approximately 15,500 square feet of ground-floor commercial/retail uses. Since that approval, the market for residential units has slowed while the office market has remained strong. In light of this, the original property owner sold the property to the current owner, Lincoln Summer Street Venture LLC, in late 2007. Lincoln Summer Street Venture LLC now proposes to renovate the buildings for commercial office uses along with a possible ground-floor commercial/retail component and internal parking spaces.

The Proponent has initiated outreach to City agencies with respect to the Project, including the BRA and the Boston Transportation Department; neighborhood representatives and groups; elected officials; and other interested parties.

This NPC presents details about the revised Project, and provides an analysis of changes relative to transportation, environmental protection, historic resources, infrastructure, and other components for the planned reuse in order to inform City agencies and neighborhood residents of the Project, any potential impacts, and possible mitigation. Based on this comprehensive approach to detailing potential impacts, it is the desire of the Proponent that the BRA, after reviewing public and agency comments, will determine that further review under Article 80 is not required.

1.2 Applicant Information

1.2.1 Project Proponent

The Proponent is Lincoln Summer Street Venture LLC, a Delaware limited liability company, and affiliate of Lincoln Property Company. Lincoln Property Company, one of the nation's oldest and most successful real estate companies, was founded in 1965 as a residential and commercial developer. Over its 35-year history, the firm's development efforts have produced over 103 million square feet of commercial space and 170,000 multi-family residential units. Lincoln Property Company currently manages more than 150 million square feet of commercial property nationwide and 88 million square feet of residential property, at a combined value of more than \$11.5 billion.

Today, Lincoln Property Company is one of the most respected and diversified real estate service firms in the United States, employing thousands of experienced, dedicated employees who serve a constantly growing client base. With over three decades of experience, Lincoln Property Company residential and commercial developments have become the industry standard for attractive architecture, attention to detail, superior management, and community enhancement.



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Source: MassGIS, USGS



Ten Forbes Road Braintree, MA 02184 (Formerly Daylor Consulting Group, Inc.)

Project Aerial (2005)

316-322 Summer Street Boston, Massachusetts

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1.2.2 Project Team

Table 1-1: Development Team		
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1.3 Prior Article 80 Review

On April 18, 2006, in accordance with Article 80 of the Code, the prior owner, W2005 BWH II Realty, LLC filed a Project Notification Form ("PNF") with the BRA describing a residential project with commercial/retail space uses on the ground floor. The proposed project consisted of 87 for-sale residential units, 15,500 square feet of retail/commercial space, and 17 parking spaces in the building with access from the passageway on the north side of the existing building. This residential project included a two-story rooftop penthouse addition and infill to the northeast corner of the 322 Summer Street site. The Project received approvals of the Boston Civic Design Commission on May 2, 2006, and the BRA Board on June 29, 2006. The BRA subsequently issued the Scoping Determination waiving further review on September 1, 2006.

As part of the BRA Board vote, authorization was given to the BRA Director to recommend approval on a petition to the Inspectional Services Department ("ISD") and to the Zoning Board of Appeal for approval of zoning variances, IPOD and conditional use permits, and other relief for the project. Subsequently, on August 22, 2006, the City of Boston Zoning Board of Appeal granted verbal approval for the requested Zoning Code and State Building Code relief. The Board of Appeal issued written decisions which were filed with ISD on November 15, 2006. W2005 BWH II Realty LLC continued to pursue other permits necessary for the residential project, however, the Article 80 review was suspended when the Board of Appeal zoning decision was appealed on December 5, 2006.

1.4 **Project Site and Context**

The Project Site is within the Fort Point Channel neighborhood of South Boston, across the Channel from South Station and less than ¼ mile from the Boston Convention and Exhibition Center. Two buildings occupy the existing site – the first and oldest is the building at 316 Summer Street originally built in 1904 as a wool warehouse. The second building, at 322 Summer Street, dates to 1910 and was originally a dry goods warehouse.

Summer Street borders the Project Site on the south, A Street on the west, an unnamed (private) passageway on the north, and a surface parking lot on the east. A Street passes under Summer Street, with access from A Street to Summer Street via an existing stair along A Street on the opposite side of the street from the Project Site. Congress Street is one block to the north and the Silver Line Courthouse Station as well as seven MBTA bus routes are within a five-minute walk of the Project Site.

1.5 Revised Project Description

The existing buildings at 316 and 322 Summer Street are now proposed to be renovated, joined, and expanded with the continued use of the structures as a commercial office building. A two-story rooftop addition will be constructed, set back from the roofline of the existing buildings and designed to be minimally visible from Summer Street and A Street. In addition, a 7-story "infill" addition is proposed along the north side of the building fronting on the rear passageway.

Commercial office space will be the predominant use within the renovated building in the sub-basement, basement, and on floors 1 through 7. There will also be approximately 7,500 square feet of space allocated on the first floor along Summer and/or A Streets for potential retail/restaurant uses. The final location and size of the retail/restaurant use will be subject to the rental market demands for these uses in this area. Parking will be provided for 16 vehicles in the sub-basement level of 322 Summer Street, with access from the unnamed rear passageway on the north side of the building.

The majority of the architectural details on the building exteriors will be preserved and upgraded as part of the Project design. The existing masonry will be restored on all sides of the building to bring out the inherent qualities in the masonry and limestone details and further preserve the building. Overall, the Project massing has generally remained the same as the residential project previously approved by the BRA, while the design of the façade of the rooftop addition has become more regularized in response to the change in programmatic use of the building. Proposed modifications, as noted below, have been the subject of preliminary review with the staff of the BRA and the Boston Landmarks Commission:

- Providing a single unified rooftop addition rather than two disparate additions on the roof of each building.
- Improving upon the design by lowering the height of the proposed rooftop penthouse on 322
 Summer Street from 120 feet in the previously-approved design to 114 feet in the current design.
 It is noted that the height of 316 Summer Street will remain at 114 feet.
- Maintaining the previously-approved 24-foot setback from the major building faces along Summer and A Streets, and extending the footprint of the rooftop addition towards the passageway on the north side of the Project Site to create usable office space within the rooftop addition.
- Modifying the location of building entrances/exits to accommodate the proposed office uses within the building. The revised design provides a single office building entrance/exit and a minimum of two entrances/exits for the possible retail/restaurant uses along Summer Street compared to two residential entrances/exits and four retail entrances/exits in the PNF residential project.

Further discussion of the urban design elements of the Project is provided in Section 2.0 of this NPC.

1.6 Building Program and Comparison to Previously Approved Project

The current design for an office development will increase the square footage of the two existing buildings by 18,800 square feet in contrast to the previously-approved residential project which added 15,000 square feet of new gross floor area. The additional square footage results from: (i) the design changes necessary to accommodate a viable office floor plate and maintain the previously-approved setbacks from Summer and A Streets, and (ii) the manner in which gross floor area is calculated for commercial versus residential uses.

For the purposes of comparisons to the information set forth in **Table 1-2** below, the existing building height for 316 Summer Street is 92 feet (7-stories) and the existing building height for 322 Summer Street building is 98 feet (8-stories).

Table 1-2: Comparison of Building Programs		
	2006 PNF Residential Project	Proposed NPC Office Project
Lot Area:	17,961 s.f.	17,961 s.f.
Building Height ¹ 316 Summer Street: 322 Summer Street:	114 <u>+</u> feet (9-stories) 120 <u>+</u> feet (11-stories)	114 <u>+</u> feet (9-stories) 114 <u>+</u> feet (9-stories)
Residential Gross Floor Area:	72,500 <u>+</u> s.f.	0 s.f.
Office Gross Floor Area:	0 s.f.	132,600 <u>+</u> s.f.
Retail/Restaurant Gross Floor Area:	15,500 <u>+</u> s.f.	7,500 <u>+</u> s.f.
Total Gross Floor Area:	138,000±s.f. ²	140,100± s.f.
Floor Area Ratio (FAR):	6.74	7.8
Parking:	18 spaces ³ (7,300 s.f)	16 spaces (6,900 s.f.)

¹ Height (average) from grade to top of last occupied floor (as defined by Boston Zoning Code)

² This number from the 2006 PNF includes certain mechanical space and the parking area space of 7,300 s.f., which are technically excluded from the definition of gross floor area as defined in the Boston Zoning Code.

³ I7 spaces were approved in the Transportation Access Plan Agreement, one fewer than proposed in the 2006 PNF.

1.7 Zoning Compliance

According to Zoning Map 4, the Project Site is located in the M-4 (Restricted Manufacturing) District, the South Boston Waterfront Interim Planning Overlay District ("IPOD"), the Restricted Parking Overlay District, and the Groundwater Conservation Overlay District ("GCOD"). The nearest S, R or H zoning district is the H-1 zoning district. The M-4 and IPOD zones allow restaurant, retail, office and most service uses as-of-right with no need for zoning relief. The need for zoning relief is described below.

Article 27, Section 3 and Article 27P:	Interim Planning Permit required;
Article 32:	Conditional Use Permit – GCOD;
Article 6-3A:	Conditional Use Permit – Restricted Parking Overlay District;
Article 27P, Section 9 and Appendix B:	Exceed 75-foot height restriction;
Article 27P, Section 9 and Appendix B:	Exceed Floor Area Ratio of 5.0;
Article 13, Table B and Article 18:	Exceed minimum front yard setback ¹ ;
Article 13, Table B and Article 19:	Exceed minimum side yard setback;
Article 13, Table B:	Exceed minimum rear yard setback; and
Article 13, Table B:	Exceed minimum parapet setback.

The proposed Project requires relief from the Boston Zoning Code. An Interim Planning Permit, GCOD Conditional Use Permit, Restricted Parking Overlay District Conditional Use Permit, and certain dimensional variances are required.

In addition, the Project is subject to the BRA's Development Impact Project ("DIP") exactions ("linkage") program, as described in **Section 1.10** of this NPC.

1.8 **Project Schedule**

Construction is expected to begin in the second quarter of 2008, with construction estimated to be completed by the second quarter of 2009.

¹ Please note that there will be no change to the existing front yard setback.

1.9 List of Permits or Other Approvals Which May be Sought

Table 1-3: Anticipated Permits and Approvals*			
Agency	License/Permit/Approval		
State			
Massachusetts Department of Environmental Protection	Construction Dewatering Permit		
Massachusetts Department of Environmental Protection, Division of Air Quality	Notice of Commencement of Demolition and Construction		
Massachusetts Historical Commission	State Register Review		
Local			
Boston Redevelopment Authority	Article 80 Review and Project Agreements Approval Recommendation to Zoning Board of Appeal		
Boston Zoning Board of Appeal	Interim Planning Permit – Interim Planning Overlay District Approval of Bulk and Dimensional Variances Groundwater Conservation Overlay District State Building Code variances		
Boston Civic Design Commission	Design Review		
Boston Landmarks Commission	Review, if required		
Boston Air Pollution Control Commission	New or Modified Parking Freeze Permit(s)		
Boston Water and Sewer Commission	Water and Sewer Connection Permits Temporary Construction Dewatering General Service Application Site Plan Review		
Boston Public Improvement Commission/Boston Department of Public Works	Street/Sidewalk Repair Plan Canopies/Cornices Permits for Street Occupancy and Opening		
Boston Transportation Department	Revisions to Transportation Access Plan Agreement Construction Management Plan		
Boston Public Safety Commission, Committee on Licenses	License for Storage of Fuel in Automobiles Parking Garage Permit		
Boston Fire Department	Approval of Fire Safety Equipment		
Inspectional Services Department	Building Permit Certificate of Occupancy		

*This is a preliminary list based on project information currently available. It is possible that not all of these permits or actions will be required, or that additional permits may be needed.

1.10 Public Benefits

The public benefits associated with the currently-proposed Project include a number of benefits identified for the prior residential project. A summary of benefits is presented as follows:

- Building Renovation The Project will involve new construction and reuse of the existing 316 and 322 Summer Street buildings, which are considered historically significant, and transform these underutilized structures into an attractive, well-designed commercial development.
- Contribution to the Crossroads Initiative Honoring a commitment made by the previous developer, W2005 BWH II Realty, LLC, the Proponent will agree to contribute \$1.00 per square foot of gross floor area to the Crossroads Initiative.
- Linkage Funds As a result of the change from a residential to office development, the Proponent anticipates making a contribution in housing linkage and jobs linkage funds, pursuant to the Development Impact Project ("DIP") requirements of Article 80 of the Boston Zoning Code.
- *Enhance Activity Along Existing Streetscape* The Project will provide attractive building façades, and possibly include retail and restaurant use at street-level, enhancing pedestrian activity and vitality along Summer Street and A Street.
- Improved Access and Circulation The Proponent is investigating providing a new pedestrian stair connection from Summer Street down to A Street at the southwest corner of the building, provided that the Proponent can reasonably address accessibility requirements.
- Property Taxes The Project will generate additional annual property tax revenues to the City of Boston at full-build out and occupancy.
- *Construction and Full-Time Jobs* The Project will create approximately 80 to 100 construction-related jobs, and new office employees will occupy this currently vacant building.

2.1 Introduction/Design Goals

The Proponent believes the proposed Project, as described in this NPC document, remains compatible with the site context and historic structures in the Fort Point Channel neighborhood near the Project Site. The proposed building height does not exceed the dimensions of the Project as previously permitted in 2006 and the critical rooftop penthouse setbacks from Summer and A Streets have been maintained.

The change in program from residential to office use will have the added benefit of allowing for a more regularized design of the façades, particularly along the prominent Summer and A Streets. The proposed rehabilitation and the new rooftop penthouse construction is designed to be in keeping with the symmetrical and straightforward design of the existing buildings although it will employ a modern vocabulary to achieve the design objective.

The proposed design will use to its advantage the two different existing conditions in the massing and façades of each existing building. The shift in building heights from 316 to 322 Summer Street and the unique pattern of the first bay of 322 Summer Street gives a rationale for the decision to locate the office building's new main entry close to a central point along Summer Street. This new ground level entry will occur at this juncture where a historic building entry had once occurred.

At the roof line of the proposed penthouse addition, the necessary elevator overrun will create a break in the roof line that will further acknowledges the juncture between the buildings and the new entry bay.

Provisions for retail and/or restaurant use, as well as an exterior public plaza will still be provided along A Street. The creation of a plaza in this location will allow spill out seating from a potential restaurant use in the building and will serve to add energy and vitality to A Street.

2.2 Building Design

Most of the design features of the proposed office development remain the same as for the prior 2006 PNF residential project. A discussion of key elements is provided below.

- Building Height The proposed rooftop addition will be the same or lower than the previouslyapproved residential rooftop addition. 316 Summer Street will remain at 9-stories, while the 322 Summer Street will be reduced from 11-stories to 9-stories.
- *Building Massing and Rooftop Addition* The building massing will be similar in that the setbacks along Summer Street and A Street have been maintained. The proposed rooftop addition

will now extend to the exterior wall line along the (rear) alley and the two separate additions have been unified into a single addition.

- Masonry Restoration As was planned for the PNF residential project, the façades will undergo
 masonry restoration on all sides of the building to highlight the inherent qualities in the masonry
 and limestone details and further preserve the building.
- *Fenestration* Similar to the PNF residential project, the existing wood double hung windows will be replaced with more energy-efficient aluminum windows. New window muntin patterns and site lines will strive to match the historic windows.
- *Building Materials* The materials used on the proposed rooftop addition will be in keeping with those proposed under the PNF residential proposal, and include glass, metal panel and masonry.
- Building Entries/Exits The PNF residential proposal included two residential entries and four retail entries along Summer Street. With the change in program, a single office building entry is proposed with a minimum of two retail entries. Should market demand for smaller retail space arise, additional retail entries will be added. Along A Street, entries will be provided as part of the build-out for the potential retail/restaurant use as was proposed in the residential project.
- Parking Parking for 16 vehicles will be provided in the sub-basement, the same location as was
 approved in the PNF residential development. The residential development approved by the BRA
 and Board of Appeal provided for 17 spaces.

2.3 Site Design

The exterior site design is similar to the previously-approved project. A summary of site design features are noted in the paragraphs that follow.

Activate the Street Edge – The Project design will include provisions for bringing activity and life to the street level. As noted, along Summer Street, the façades of both 316 and 322 Summer Street will be minimally altered to allow for accessible entries for potential retail use as well as the main commercial use entry. The proposed modifications to the building entries along Summer Street recognize that, with increased pedestrian traffic to the Convention Center along Summer Street, the possibility of sustainable retail space is more likely.

In addition, the Project Site occupies a unique location in the Fort Point Channel Historic District by straddling the upper level of Summer Street on the south and the lower plane of A Street to the west. Taking advantage of this location, the Proponent is investigating whether it may offer a public benefit in the form of a public stair to allow pedestrian access between the Summer Street elevation and the A Street grade, provided that the Proponent can reasonably address accessibility requirements. Overall, there are no other modifications to the building plane along either Summer Street or A Street.

- Provide an Open Space/Plaza Area Along A Street The existing 316 Summer Street building sets back approximately 18 feet from the street line of A Street. Currently this unoccupied space is being used for parking. No curb line or defined sidewalk exists over this stretch of the property. The Project proposes that the parking spaces be abandoned, a curb line established, and a public sidewalk installed. In keeping with the intention of activating the lower level façade along A Street, the Project proposes the creation of a landscaped, at-grade, plaza visible and accessible from the public sidewalk in this area. The presence of this space will allow potential retail/restaurant uses that are targeted for the tenant space along this level of A Street to have outdoor seating areas.
- Vehicular Access While Summer and A Streets bound the Project to the south and west, the
 north side of the building is defined by a private service passageway. Vehicular access to the
 garage area below 322 Summer Street will continue to occur via this existing private passageway
 on the north side of the buildings. No changes in circulation are proposed for the passageway.
- Service and Loading The private passageway is in essence the back of the 316/322 Summer Street building. A number of abutters have service access from this passageway. Similar to the previous project, it is proposed that trash collection will occur at the garage entry located access from the passageway. This location is removed from pedestrian traffic and one of the least visible locations on the Project Site.
- Support the Goals of the Crossroads Initiative The Proponent will work closely with the City's Crossroads Initiative planning group as the Project progresses through the design phase. It is anticipated that such design issues as street plantings along Summer Street and curb alignments along both Summer and A Streets will be the focus of coordination and design review.

2.4 Urban Design Submission and Project Drawings

Figures 2-1 through 2-14, more fully illustrate the Project and include the following plans:

Figure 2-1	Site Context
Figure 2-2	Site Plan
Figure 2-3	Sub-Basement Plan
Figure 2-4	Basement Plan
Figure 2-5	Mezzanine Floor Plan
Figure 2-6	Floor 1 – Main Lobby
Figure 2-7	Floors 2 through 4
Figure 2-8	Floor 5
Figure 2-9	Floor 6
Figure 2-10	Floor 7
Figure 2-11A	Section
Figure 2-11B	Section
Figure 2-12	Proposed Elevation Along Summer Street
Figure 2-13	Proposed Elevation Along A Street
Figure 2-14	Proposed Elevation Along Passageway



Source: Boston Redevelopment Authority

South Station/Financial District

1 Family Residential 2 Family Residential 3 Family Residential Apartments/Condos Mixed Use (Res./Comm.)

Commercial

Institutional

Open Space

Surface Parking

MBTA Stations

Commuter Rail

Bus Routes

Industrial

Main Streets District

MBTA Surface Subway Lines MBTA Underground Subway Lines

Below Ground Commuter Rail Water Transit Facilities Water Transit Routes

Figure 2-1 Site Context Plan

PROPERTY COMPANY WEST SERVICE ROAD ASB REAL ESTATE INVESTMENTS 200 VACANT LOT 337 CONGRESS STREET January 22, 2008 327 PASSAGEWAY Tel: (817) 350 0450 Fax: (817) 350 0215 322 316 322 SUMMER STREET 321 PASSAGEWAY FIGURE 2-2 SUMMER STREET NSTAR 316 Massachusetts 02210 311 A STREET Boston, Street 300 D U Archetype, 300 PASSAGEWAY 285 + Bargmann Hendrie

316 322 SUMMER STREET, BOSTON MA



FIGURE 2-3



FIGURE 2-4

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316 322 SUMMER STREET, BOSTON MA



PROPERTY COMPANY



FIGURE 2-11A

300 A Street Boston, Masaschuseits 02210 Tel: (617) 350 0450 Fax: (617) 350 0215 January 22, 2006

Bargmann Hendrie + Archetype, Inc.

bhia





bhia

Bargmann Hendrie + Archetype, Inc.

300 Å Street Boston, Massachusetts 02210 Tel: (617) 350 0450 Fax: (617) 350 0215 January 22, 2006

316 322 SUMMER STREET, BOSTON, MA



Proposed Elevation along Summer Street

FIGURE 2-12

January 22, 2008

316 322 SUMMER STREET, BOSTON, MA



Proposed Elevation along A Street

FIGURE 2-13

ASB REAL ESTATE INVESTMENTS

> January 22, 2008 Tel: (617) 350 0450 Fax: (617) 350 0215 Bargmann Hendrie + Archetype, Inc. 300 A Street Boston, Massachusetts 02210 bhha







Bargmann Hendrie + Archetype, Inc. 300 A Street Boston, Massachusetts 02210 Tel: (617) 350 0450 Fax: (617) 350 0215 January 22, 2008

FIGURE 2-14

Proposed Elevation along Passageway birte 8 argmann Hendrie + Archetype, Inc. 300 A Street 6
2.5 Sustainable Design

2.5.1 Introduction

The Proponent will implement many sustainable design measures as part of this Project. The Project team will utilize the U.S. Green Building Council's ("USGBC") Leadership in Energy and Environmental Design ("LEED") green building rating system to evaluate the success of these sustainable design measures. The Project goal is to achieve certification level under the LEED Core and Shell v2.0 rating system. Numerous LEED Accredited Professionals are part of the architectural and engineering design team. The architectural project manager will manage and coordinate the certification process.

A LEED checklist is provided at the end of this section to identify sustainability design goals for this Project. Highlights are outlined below, including details on implementation measures to the extent that they are defined at this stage of design. Selection of specific building systems and specifications will be determined in consideration of the Project's sustainability goals. As goals are now being established, design solutions will be developed in an effort to achieve the pertinent LEED credits. The Proponent hopes that the final design will create a sustainable development that will serve to minimize environmental impacts, improve energy and water conservation, and optimize interior environmental quality for the building inhabitants.

2.5.2 LEED Narrative

The LEED Core and Shell rating system is separated into six major categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality and Innovation & Design Process. The following sections discuss the Project sustainable features in that order. The target is to achieve 24 LEED points under the LEED Core and Shell v.2.0 rating system.

Sustainable Sites

1. Construction Activity Pollution Prevention (Prerequisite)

A management plan will enforce measures to protect adjacent areas from pollution. There is no topsoil on site to be distributed as the site boundaries are the extents of the building itself. Construction activity will be required to prevent sedimentation of storm sewer and polluting the air with dust and particulate matter.

2. Site Selection (Credit 1)

The Project Site has previously been completely developed and is located in an urban area. This development does not violate any of the established criteria. 3. Development Density (Credit 2)

The Project Site is located in the Fort Port Channel area with a mixed density of residential and business use. Many basic services are within a 1/2-mile radius including restaurants, cafés, South Station, the Children's Museum, a hardware store, fitness center and the Boston Convention and Exhibition Center.

- Alternative Transportation: Public Transportation Access (Credits 4.1) The building is 1/2 mile from South Station which is a hub for commuter rail, Red and Silver Line subway and buses.
- Alternative Transportation: Parking Capacity (Credit 4.4) The number of parking spaces provided is less than the minimum zoning requirements.
- 6. Heat Island Effects: Non-Roof (Credits 7.1) Parking is located inside the building.
- Heat Island Effects: Roof (Credits 7.2) Roofing material will be selected with high Solar Reflectance Index ("SRI") values to reduce urban heat island effect.
- 8. Tenant Design & Construction Guidelines (Credit 8) Tenants of the renovated building will be provided with a handbook outlining the sustainable design and construction features and the Project's intent with respect to sustainable goals and objectives to be included in the design and construction of the tenant spaces.

Water Efficiency

Water Use Reduction (Credits 3.1)
 Low flow fixtures for this Project will include dual flush toilets, ultra low flush urinals, sensor faucets and showers with aerators. It is the goal is to achieve 20% water use reduction over the baseline, code compliant plumbing fixtures.

Energy and Atmosphere

- Fundamental Commissioning (Prerequisite 1) Building systems will be commissioned in accordance with the USGBC requirements.
- Minimum Energy Performance (Prerequisite 2)
 American Society of Heating, Refrigerating, and Air-Conditioning Engineers ("ASHRAE")
 Standard 90.1-2004 will set the minimum standard for the buildings energy use.
- Fundamental Refrigerant Management (Prerequisite 3 No chloroflurocarbon-based ("CFC-based") refrigerants will be used in the building.

- 4. Optimize Energy Performance (Credit 1)
 - Project's energy conservation goal is to achieve 2 credits under this category or 7% improvement above ASHRAE Standard 90.1-2004 Appendix G. Buildings system shall be evaluated and selected towards this goal. A number of energy conservation measures, including highly efficient lighting, occupancy and daylight controls, premium efficiency motors, variable frequency drives, and heat recovery shall be evaluated.
- Enhanced Refrigerant Management (Credit 4) Refrigerant and equipment selections will be evaluated to optimize the balance between ozonedepletion and global warming effects.

Materials and Resources

- Storage and Collection of Recyclables (Prerequisite) Facilities will be provided for collection of recyclable materials.
- Building Reuse (Credit 1.1. 1.2)
 This Project is primarily a renovation of a previously occupied, historic building. More than 75% of the building structure and envelope will be preserved and refurbished.
- Construction Waste Management (Credits 2.1, 2.2)
 A waste management plan will be implemented that seeks to divert at least 75% of construction waste material removed from the Project Site from landfills through salvage and recycling.
- Recycled Content (Credits 4.1, 4.2)
 Project Specifications will include and encourage provision of materials with recycled content where possible.

Indoor Environmental Quality

- Minimum Indoor Air Quality ("IAQ") Performance (Prerequisite 1) ASHRAE Standard 62.1-2004 will set the standard for minimum indoor air quality.
- Environmental Tobacco Smoke Control (Prerequisite 2) The Proponent intends to designate the entire building as a non-smoking facility.
- 3. Outdoor Air Delivery Monitoring (Credit 1) A permanent carbon dioxide monitoring system will be installed in common areas and parking garages to provide feedback on ventilation system performance to ensure that ventilation systems maintain design minimum requirements. Monitoring equipment will generate an alarm (via building automation system or audible device) when conditions vary by 10% or more from the setpoint.

- Construction IAQ Management Plan: During Construction (Credit 3)
 Project Specifications will require the Contractor to develop and implement an Indoor Air Quality Management Plan for the construction and pre-occupancy phases.
- Low-Emitting Materials (Credits 4.1, 4.2, 4.3, 4.4) Materials including adhesives, sealants, paint, and carpet will be specified with low volatiles organic compounds ("VOC") content limits as prescribed by the respective applicable standards.
- 6. Indoor Chemical and Pollutant Source Control (Credit 5)

A permanent entryway system will be installed at the building entrance to prevent solid containments from entering the building. Parking garage exhaust systems will be separated from the occupied space systems. Minimum Efficiency Reporting Value ("MERV") 13 filters shall be used on air systems.

Innovation and Design Process

 LEED Accredited Professional (Credit 2) The Project team includes a LEED Accredited Professional (AP).

Article 37, Boston Zoning Code

The Project goal is to achieve the following Boston Green Building Credits:

1. Historic Preservation

The Project is located in the "Fort Point Channel Historic District" listed in both the State and National Register of Historic Places. The Fort Point Channel area is also being considered for proposed Landmark District status. The Proponent has had initial meetings with the Boston Landmark Commission ("BLC"). As the Project progresses, the Proponent will continue to meet with the BLC to ensure that their comments and suggestions are being addressed. The Project is a historic renovation of an existing structure. The goal is to preserve and restore the exterior façades. New windows where provided will replicate the historic character of the old windows.

LEED for Core and Shell v2.0 Registered Project Checklist 2/4/2008

Yes	?	No			
7	7	1		Sustainable Sites	15 Points
Y			Prereg 1	Construction Activity Pollution Prevention	Required
1			Credit 1	Site Selection	1
1			Credit 2	Development Density & Community Connectivity	1
		1	Credit 3	Brownfield Redevelopment	1
1			Credit 4.1	Alternative Transportation, Public Transportation Access	1
	1		Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	1
	1		Credit 4.3	Alternative Transportation, Low-Emitting & Fuel-Efficient Vehicles	1
1			Credit 4.4	Alternative Transportation, Parking Capacity	1
	1		Credit 5.1	Site Development, Protect or Restore Habitat	1
	1		Credit 5.2	Site Development, Maximize Open Space	1
	1		Credit 6.1	Stormwater Design, Quantity Control	1
	1		Credit 6.2	Stormwater Design, Quality Control	1
1			Credit 7.1	Heat Island Effect, Non-Roof	1
1			Credit 7.2	Heat Island Effect, Roof	1
	1		Credit 8	Light Pollution Reduction	1
1			Credit 9	Tenant Design & Construction Guidelines	1
Yes	?	No			
1	2	2		Water Efficiency	5 Points
	1		Credit 1.1	Water Efficient Landscaning Reduce by 50%	1
		1	Credit 1.2	Water Efficient Landscaping, Neddee by 30%	1
		1	Credit 2	Innovative Wastewater Technologies	1
1			Credit 3.1	Water Use Reduction 20% Reduction	1
	1		Credit 3.2	Water Use Reduction 30% Reduction	1
Yes	?	No			
3	4	7		Energy & Atmosphere	14 Points
V			Prereg 1	Fundamental Commissioning of the Building Energy Systems	Required
V			Prereg 2	Minimum Energy Derformance	Required
V			Prereg 3	Fundamental Refrigerant Management	Required
*Note	for F	A		$ truction projects registered after lung 26^{th} 2007 are required to achieve at least two (2) points upday EAct$	Required
2		6	Credit 1	Ontimize Energy Performance	1 to 8
2		U	Orotate 1	10.5% New Buildings or 3.5% Existing Building Repovations	1
				2 14% New Buildings or 7% Existing Building Repovations	2
				17 5% New Buildings or 10 5% Existing Building Renovations	3
				21% New Buildings or 14% Existing Building Renovations	4
				24 5% New Buildings or 17 5% Existing Building Renovations	5
				28% New Buildings or 21% Existing Building Renovations	6
				31.5% New Buildings or 24.5% Existing Building Renovations	7
				35% New Buildings or 28% Existing Building Renovations	8
		1	Credit 2	On-Site Renewable Energy, 1%	1
	1		Credit 3	Enhanced Commissioning	1
1			Credit 4	Enhanced Refrigerant Management	1
	1		Credit 5.1	Measurement & Verification - Base Building	1
	1		Credit 5.2	Measurement & Verification - Tenant Sub-metering	1
	1		Credit 6	Green Power	1

continued...

LEED for Core and Shell v2.0 Registered Project Checklist 2/4/2008

Yes	?	No			
5	4	2		Materials & Resources	11 Points
Y			Prereq 1	Storage & Collection of Recyclables	Required
1			Credit 1.1	Building Reuse: Maintain 25% of Existing Walls, Floors & Roof	1
1			Credit 1.2	Building Reuse: Maintain 50% of Existing Walls, Floors & Roof	1
		1	Credit 1.3	Building Reuse: Maintain 75% of Interior Non-Structural Elements	1
1			Credit 2.1	Construction Waste Management: Divert 50% from Disposal	1
1			Credit 2.2	Construction Waste Management: Divert 75% from Disposal	1
		1	Credit 3	Materials Reuse: 1%	1
1			Credit 4.1	Recycled Content: 10% (post-consumer + ¹ / ₂ pre-consumer)	1
	1		Credit 4.2	Recycled Content: 20% (post-consumer + ¹ / ₂ pre-consumer)	1
	1		Credit 5.1	Regional Materials: 10% Extracted, Processed & Manufactured Regiona	lly 1
	1		Credit 5.2	Regional Materials: 20% Extracted, Processed & Manufactured Regiona	lly 1
	1		Credit 6	Certified Wood	1
Yes	?	No			
7	4	1		Indoor Environmental Quality	12 Points
Y			Prereg 1	Minimum IAQ Performance	Required
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required
1			Credit 1	Outdoor Air Delivery Monitoring	. 1
		1	Credit 2	Increased Ventilation	1
1			Credit 3	Construction IAQ Management Plan: During Construction	1
1			Credit 4.1	Low-Emitting Materials: Adhesives & Sealants	1
1			Credit 4.2	Low-Emitting Materials: Paints & Coatings	1
1			Credit 4.3	Low-Emitting Materials: Carpet Systems	1
1			Credit 4.4	Low-Emitting Materials: Composite Wood & Agrifiber Products	1
1			Credit 5	Indoor Chemical & 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 & Views: Daylight 75% of Spaces	1
	1		Credit 8.2	Daylight & Views: Views for 90% of Spaces	1
Yes	?	No			
1	0	4		Innovation & Design Process	5 Points
		1	Credit 1.1	Innovation in Design	1
		1	Credit 1.2	Innovation in Design	1
		1	Credit 1.3	Innovation in Design: Provide Specific Title	1
		1	Credit 1.4	Innovation in Design: Provide Specific Title	1
1			Credit 2		1
Yes	?	No			
24	21	17		LEED Project Totals (pre-certification estimates)	possible 62 Points
<u> </u>		L	O antificada (

Certified: 23 to 27 points, Silver: 28 to 33 points, Gold: 34 to 44 points, Platinum: 45 to 61 points

LEED for Core and Shell v2.0 Registered Project Checklist 2/4/2008

Yes	?	No		
1	0	3	Boston Green Building Credits	possible 4 Points
		1	Credit 1 Modern Grid, DG/CHP	1
1			Credit 2 Historic Preservation	1
		1	Credit 3 Groundwater Recharge	1
		1	Credit 4 Modern Mobility	1
Yes	?	No		
25	21	20	Article 37 (LEED Certifiable + BGBC) Totals	possible 66 Points

The discussion of environmental impacts is largely limited to elements which are changed. Because the height and footprint of the structure do not exceed the PNF residential project, impacts which are a function of building size and massing (i.e., wind and daylight) will be similar. Further, as described in the 2006 PNF, a Construction Management Plan will be developed and submitted to the Boston Transportation Department once final plans are developed and will provide the detailed information on construction mitigation measures and access and staging plans to minimize impacts on abutters and the local community.

3.1 Shadow

New shadow figures have been prepared for the proposed office Project and are discussed below. Similar to the PNF residential project, the currently-proposed design does not cause substantial impacts to the surrounding area or negatively impact public open space areas. New shadows from the Project's two-story rooftop addition fall primarily on rooftops of nearby buildings adjacent to areas with existing shadows, and there is a small area of new shadows on the Congress Street sidewalks in the fall and at noon during the winter solstice.

3.1.1 Vernal Equinox (March 21)

Figure 3.1-1 through Figure 3.1-3 depict shadows on March 21.

At 9:00 a.m., shadows are cast in a northwesterly direction. The Project will cast new shadows within the property boundaries on the roof of 316 Summer Street. In addition, there is a small sliver of new shadows adjacent to existing shadows on the passageway to the north of the existing buildings. This new shadow does not extend to structures on the other side of the passageway.

At 12:00 p.m., new shadows remain on a small area of the existing 316 Summer Street building, and extend across to a small area of the building across the passageway at 355 Congress Street. There is a small area of new shadow at ground level adjacent to 355 Congress Street next to existing shadows between 355 and 369 Congress Street.

At 3:00 p.m., new shadows from the Project fall on a portion of the roofs (rear) of 369 and 381 Congress Streets, and a small segment of the Congress Street pavement. However, no new shadows from the Project extend onto the sidewalks at this time period.

3.1.2 Summer Solstice (June 21)

Figure 3.1-4 through Figure 3.1-7 depict shadows on June 21.

At 9:00 a.m., all new shadows from the Project's rooftop addition fall on the building's roof and do not extend beyond the property boundaries.

At 12:00 p.m., there is a small sliver of new shadows adjacent to existing shadows on the passageway on the north side of the Project, but this new shadow does not extend to buildings across the alley.

At 3:00 p.m., new shadows fall on a small area between the two buildings at 355 and 369 Congress Street adjacent to an area that is already in shadow from existing structures. A small sliver of the roof of 381 Congress Street is also affected by shadows from the rooftop addition.

By 6:00 p.m., much of the area to the northwest of the Project Site is in shadow from existing buildings, and the new shadows falls onto the rear roof of 381 Congress Street and a small sliver of land east of West Service Road.

3.1.3 Autumnal Equinox (September 21)

Figures 3.1-8 through 3.1-11 depict shadows on September 21.

Similar to the spring, at 9:00 a.m., new shadows are cast within the property boundaries on the roof of 316 Summer Street and do not extend beyond the property boundaries.

By 12:00 p.m., new shadows remain on a small area of the existing 316 Summer Street building, and extend across to the rear roof area of the building across the passageway at 355 Congress Street. There is also a small sliver of new shadows at ground level adjacent to 355 Congress Street next to existing shadows between 355 and 369 Congress Street.

At 3:00 p.m., new shadows from the Project fall on a small portion of the sidewalks of Congress Street between the buildings at 355 and 369 Congress Street. This new shadow is adjacent to sidewalks that are in shadow from the existing buildings on Congress Street. A portion of the roofs (rear) of 369 and 381 Congress Streets, and a small wedge of the Congress Street pavement is also impacted by new shadow.

At 6:00 p.m., shadows are cast in a northeasterly direction, and existing shadows affect most of the Congress Street sidewalks and many building roofs. New shadow from the Project is cast onto the roofs of 369 and 374 Congress Street.

3.1.4 Winter Solstice (December 21)

Figures 3.1-12 through 3.1-15 depict shadows on December 21. Winter sun casts the longest shadows of the year.

At 9:00 a.m., shadows are cast in a northwesterly direction, falling onto the roof of 316 Summer Street, 347 Congress Street and on a small corner of the roof of 369 Congress Street.

By 12:00 p.m., new shadows remain on a small area of the existing 316 Summer Street building, and extend across to 355 Congress Street and onto approximately one-half of the roof (rear) of 369 Congress Street. A small area of the Congress Street sidewalk in front of 354 Congress Street is also affected by new shadows adjacent to large areas of the sidewalk that are shadowed by existing buildings.

At 3:00 p.m., new shadows from the Project fall on a portion of the roofs of 369, 368 and 374 Congress Street.





























3.2 Air Quality Impacts

Similar to the PNF residential project, potential long-term air quality impact from the Project will be limited to pollutant emissions from vehicular traffic generated by the Project. The building will use clean natural gas fuel for space heating. As discussed in **Section 4.0**, Transportation, of this NPC the Project will generate approximately 534 net new vehicle trips per day over the previously-approved residential project on a weekday.² When compared to existing office use of the buildings, the currently-proposed Project will generate only 310 net new vehicle trips.³ Measured either way, the Project is expected to have a negligible impact on area roadways and the number of net new trips is not large enough to require a vehicular air quality analysis (mesoscale or microscale).

The Project's space heating boilers and emergency generator are regulated by the Massachusetts Department of Environmental Protection under the Environmental Results Program, 310 CMR 7.26(42), and do not require a Plan Approval air permit.

² Project trip generation of 1,234 trips/day minus the previously-approved residential project's trip generation of 700 trips/day.

³ Project trip generation of 1,234 trips/day minus existing use trip generation of 924 trips/day.

3.3 Noise Impacts

3.3.1 Project Operation

Mechanical equipment (i.e. cooling tower and air handling unit) is proposed to be somewhat larger for the office use than for the previously-approved residential use. Potential noise impacts are expected to continue to comply with the City of Boston and Massachusetts Department of Environmental Protection noise regulations.

This section updates the detailed noise analysis presented in the 2006 PNF for the residential project, using the baseline sound level measurements taken at four locations in the vicinity of the Project area⁴ and acoustic model (Cadna-A) presented in the 2006 PNF. The daytime residential background (L_{90} DBA) measurements ranged from 54 to 66 dBA.

The differences between the currently-proposed Project and the previously-approved residential project relate to a slightly larger rooftop cooling tower (400 tons vs. 255 tons capacity). The 500 kW emergency generator for the Project will be the same size as that assumed in the previously-approved residential project.

The primary sound sources will be the cooling tower, ventilation fans and emergency generator located on the roof at an elevation 117 feet above grade. The cooling tower will have a noise screening wall, and acoustical louvers will be used for the garage exhaust fan. The emergency generator will have an acoustical enclosure and a high-performance silencer. The Project will not have an outdoor dumpster or compactor.

The Cadna-A acoustic modeling was updated to reflect the increased size of the cooling tower and the slightly higher roof elevation for mechanical equipment. The emergency generator will only operate during the daytime for reliability testing, except in a true emergency. **Table 3.3-1** demonstrates Project compliance with the Massachusetts Department of Environmental Protection Noise Policy, which limits the increase in the nighttime L_{90} sound level to no more than 10 dBA. **Table 3.3-2** confirms that the Project complies with the City of Boston nighttime sound level limits and the U.S. Department of Housing and Urban Development (HUD) noise criterion of 65 dBA DNL.

The expected maximum sound levels during the daytime with the emergency generator running for reliability testing, and all other mechanical equipment in operation, are summarized in **Table 3.3-3**, and these results show compliance with the City of Boston daytime sound level limits. If the generator operates due to loss of power from the regional electrical grid, the other rooftop mechanical equipment will not be operating. **Table 3.3-4** demonstrates emergency generator operator operation by itself complies with the City of Boston daytime and nighttime sound level limits.

⁴ Location 1 at the North Property Line; Location 2 at the East Property Line; Location 3 at the South Property Line, and Location 4 at a condominium near the West Property Line.

Overall, the Project will not have an adverse effect on the acoustic environment of the surrounding community, and it will fully comply with the Massachusetts Department of Environmental Protection Noise Policy, the City of Boston noise regulations, and HUD noise guidelines.

Table 3.3-1: Project Compliance with the DEP Noise Policy							
Location	Lowest Existing L ₉₀ Nighttime (dBA)	Future L ₉₀ Project (dBA) ¹	Future L ₉₀ Nighttime Total (dBA) ¹	Increase (dBA) ³			
Location 1 – Property Line North 5' - AGL	48	50	52	4			
Location 2 – Property Line East 5' – AGL	50	45	51	1			
Location 3 – Property Line South 5' - AGL	50	44	51	1			
Location 4 – Nearest Residence 5' – AGL	60	33	60	<1			
Location 4 – Nearest Residence 72' - AGL	60 ²	44	60	<1			

AGL = At Ground Level

¹ Assumes equipment operates continuously.

² Measurement at street level used.

³ Mass DEP Noise Policy Limits increase to no more than 10 dBA.

Table 3.3-2: Project Compliance with the City of Boston Noise Regulationsand the HUD Noise Guideline								
Location	Future L ₉₀ Project (dBA) ¹	Boston Nighttime Limit	Future DNL Project (dBA) ¹	US HUD DNL (dBA) ³				
Location 1 – Property Line North 5' - AGL	50	65	56	NA ²				
Location 2 – Property Line East 5' – AGL	45	65	51	NA ²				
Location 3 – Property Line South 5' - AGL	44	65	50	NA ²				
Location 4 – Nearest Residence 5' – AGL	33	50	39	39				
Location 4 – Nearest Residence 72' - AGL	44	50	50	50				

AGL = At Ground Level

¹ Assumes equipment operates continuously.

² Not applicable to a commercial building.

³ HUD guideline is 65 dBA.

Table 3.3-3: Project Compliance with the City of Boston Noise Regulations for all Rooftop Equipment and Generator

Location	
	Rooftop Equipment and Generator
Location 1 – Property Line North 5' – AGL ¹	50 dBA
Location 2 – Property Line East 5' – AGL ¹	48 dBA
Location 3 – Property Line South 5' – AGL ¹	47 dBA
Location 4 – Nearest Residence 5' – AGL	38 dBA
Location 4 – Nearest Residence 72' - AGL	47 dBA
City of Boston Daytime Limit	60 dBA (day)

AGL = At Ground Level

¹ Commercial use with a limit of 65 dBA anytime.

Table 3.3-4: Emergency Generator Compliance with the City of BostonNoise Regulations					
Location	Rooftop Equipment and Generator				
Location 1 – Property Line North 5' – AGL ¹	37 dBA				
Location 2 – Property Line East 5' – AGL ¹	44 dBA				
Location 3 – Property Line South 5' – AGL ¹	43 dBA				
Location 4 – Nearest Residence 5' – AGL	37 dBA				
Location 4 – Nearest Residence 72' - AGL	43 dBA				
City of Boston Residential Zoning Criteria	60 dBA (day) 50 dBA (night)				

AGL = At Ground Level

¹ Commercial use with a limit of 65 dBA anytime.

3.3.2 Project Construction

As noted, a Construction Management Plan will be developed and submitted to the Boston Transportation Department. Construction noise impacts and mitigation measures will be implemented as part of the Project, as was planned for the residential project in 2006. New support piles for the building are planned to be installed using a low-noise, low-vibration drill and pile placement approach. No pile-driving is planned.

3.4 Geotechnical/Groundwater Impacts

Geotechnical investigations were previously conducted at the Project Site. The Project Site is located in an area of South Boston that was filled during the early to mid 1800s. Based on a test boring completed at the property, the subsurface conditions, from the ground surface downwards consist of a surficial layer of granular and cohesive fill approximately 15 feet thick underlain by a 5 to 10 foot thick layer of organic deposits; marine clay deposits extending from 25 to 90 feet below the ground surface; glacial deposits approximately 15 feet thick and extending to a depth of 105 feet; and bedrock estimated at approximately 105 to 125 feet below the ground surface.

Additional exploratory work consisting of a test pit excavation to observe existing building wood pile foundations was completed at the Project Site, confirming previous assumptions. The piles exposed were observed to be submerged below groundwater and serviceable. The previous analysis of groundwater conditions was validated by the new information and continues to be applicable. In general, since the site conditions and proposed subsurface work are essentially unchanged, the subsurface data is considered valid and applicable for the current office development.

Since the time of the submission of the 2006 PNF, the Groundwater Conservation Overlay District ("GCOD") has been expanded to include the Fort Point Waterfront Subdistrict. The Project is located within this expanded GCOD area and will need to comply with specific requirements of the GCOD (see discussion in **Section 5.4** of this NPC). The Proponent will coordinate with Elliott Laffer at the Boston Groundwater Trust.

Overall, there is no significant excavation or below-grade work requiring dewatering planned. The previous analysis of groundwater conditions was validated by the new test pit information as described above, and continues to be applicable.

3.5 Solid and Hazardous Materials

Solid Waste

With the revised building program, it is estimated that approximately 213 tons of solid waste may be generated by uses within the renovated building. Estimates for solid waste are based on the assumption that each 1,000 square feet of office space will generate approximately 1.3 tons per 1,000 square feet per year, and the remainder of the retail/commercial uses being considered may generate up to 5.5 tons per year of waste for each 1,000 square feet of space.

Separate trash and recycling rooms will be provided in the sub-basement level of the building. Solid waste will be brought to these rooms from the tenant floors above where it will then be moved through the sub-basement level of 322 Summer Street (parking garage) to the rear of the building for daily pick-up by a waste management company. Trash will remain inside the building until the disposal service arrives.

Hazardous Materials

No new studies have been completed and there has been no known change to site environmental conditions related to the presence of oils and or hazardous materials. Since there is no significant change to the previously proposed scope of excavation and site work, the previous analysis remains applicable for the Project.

In undertaking the Project, the Proponent will comply with all laws and regulations regarding hazardous materials, including asbestos-containing materials, that may be found during the renovation of the buildings.

3.6 Historic Resources

As noted in the 2006 PNF, the two buildings – 316 Summer Street and 322 Summer Street – are located within the Fort Point Channel Historic District/proposed Fort Point Channel Landmark District. These properties are also listed in the State Register of Historic Places. In 2006, the prior property owner, W2005 BWH II Realty, LLC initiated review with the Boston Landmarks Commission and the Massachusetts Historical Commission, and attended a meeting with agency representatives to present the project plans.

The current property owner is sensitive to the comments raised regarding the prior project design, which is similar to the current design in terms of overall design, massing, and appearance of the prior residential project. It is noted that the proposed rehabilitation of these existing buildings responds to the historic character of this district in several ways.

The rear infill addition, visible from within the alley and from the abutting parking lot, will maintain the existing building planes along both of the existing façades which it abuts. The infill allows for a new entry to the garage which takes advantage of the existing building's historic loading bays to gain headroom into the garage. As an addition that abuts, and is co-planar with the existing building, the design solution involves cladding the infill with brick masonry. The chosen brick color will be in the reddish-brown range to compliment, but not necessarily match the color of the common brick on the existing façade. Window patterns in this new façade will feature both punched window openings in keeping with the existing buildings as well as large openings that afford more glass area that can take advantage of views over the district and to the harbor beyond.

Overall, the new rooftop addition will be constructed of a lightweight glazing system whose divisions are derived from the symmetrical and orderly alignment of windows in the existing buildings. This component of the Project will clearly read as new, and due to its 24-foot setback along Summer and A Streets, will read as a secondary element within the Project Site. Unlike the design for the PNF residential project, this new proposed design will also be more regularized in nature.

Modifications to the historic fabric of the existing buildings will be limited. Along Summer Street, the wooden storefronts will either be rehabilitated or replaced to match the existing. New building entries along Summer Street will be located where entries were originally designed to occur and the recent creation of a loading dock in 322 Summer Street will be modified to accommodate a new entry as was initially designed.

The façades of the building will benefit from extensive masonry restoration which will include the removal of graffiti.

As was previously approved under the PNF residential project, some minor alterations to the existing façades will occur. One such modification will be the enlargement of the existing hoistway on A Street which will reveal the original granite sills and remove the recent brick infills that obscure the reading of the hoistway. Three existing windows at grade on A Street will be converted to doors by removing the existing arched lintels and brick spandrels.

The Project Site is in the vicinity of several contributing properties in the Fort Point Channel Historic District, and, due to the small scale of the new construction and the density of the surrounding area, will not adversely impact these resources.

4.0 TRANSPORTATION

4.1 Introduction

The 2006 PNF contained a comprehensive transportation analysis by Howard/Stein-Hudson Associates, Inc ("HSH"). Existing conditions were documented in terms of traffic and pedestrian volumes, transit service and ridership, and on-street and off-street parking availability.

For the transportation section of the PNF, HSH used Institute of Transportation Engineers rates, along with local survey data and other sources, to develop trip generation, trip distribution, vehicle occupancy, and mode use estimates for the proposed development program. No traffic analysis was conducted for the 2006 PNF because the proposed residential program would have reduced peak hour vehicle trips when compared to the existing office use of the building. The recommended mitigation measures focused on the pedestrian environment and included improvements to the sidewalks along Summer Street and A Street segments, a new stairway between Summer Street and A Street, and targeted street furniture and sign improvements. A signed Transportation Access Plan Agreement ("TAPA") for the PNF residential project was executed on June 13, 2007.

Because the number of trips generated by the PNF residential project would have been fewer than those generated under existing conditions, there were no impacts on traffic, transit or pedestrian conditions. The currently proposed office project at 316-322 Summer Street, however, will result in an increased number of vehicle trips as compared to the residential program or compared to the existing use of the building.

This section documents transportation issues related to changes under the proposed NPC office project including trip generation, vehicular access, pedestrian access, parking, loading and service, and travel demand management. It also addresses the Transportation Access Plan Agreement, the Construction Management Plan ("CMP") and potential Public Improvements Commission ("PIC") action. For the purposes of this analysis, the prior 2006 PNF residential project is referred to as the BRA Approved Residential Project and the currently-proposed office project is referred to as the Proposed NPC Office Project.

4.2 Trip Generation

The building programs for 316-322 Summer Street are shown in **Table 4-1** for existing conditions, the BRA Approved Residential Project, and the Proposed NPC Office Project. While the current use of the building is office space, the BRA Approved Residential Project would have converted the existing office space to residential units with some street-level retail along A Street and Summer Street. The Proposed NPC Office Project program would continue the current use of the building as predominantly office space with potential retail/restaurant space.

Table 4-1: Building Program Comparison								
	А	В	С	D = C minus B	E = C minus A			
Program Description	Existing Building	BRA Approved Residential Project	Proposed NPC Office Project	Change NPC Office compared to Residential	Change NPC Office compared to Existing			
Residential (units)	0	87 units	0	(87) units	0			
Office	128,900 sf ¹	0	132,600 sf	132,600 sf	3,700 sf			
Restaurant	0	3,400 sf	5,000 sf	1,600 sf	5,000 sf			
Retail	0	12,100 sf	2,500 sf	(9,600) sf	2,500 sf			
Parking Spaces	0	17	16	(1)	16			

¹This number reflects the sf for the existing building, which is now gutted and includes, for example, space occupied by former boiler rooms.

Trip generation estimates for the Project was based on rates derived from ITE's *Trip Generation* (7th edition, 2003) fitted curve equations and average trip rates. The ITE land use codes (LUC) used for estimating trip generation were *LUC 230—Residential Condominium*, *LUC 710—Office*, *LUC 820—Shopping Center/Retail and* LUC 931—Quality Restaurant. The ITE rates produce vehicle trip estimates, which are then converted to person trips based on vehicle occupancy rates (VOR) Using appropriate mode split information for this area, the total person trips are then allocated to vehicle, transit, and walk trips. A detailed presentation of the trip generation numbers is shown in the Transportation Appendix (Appendix A).

The resulting vehicle trip generation for the existing building, the BRA Approved Residential Project, and the Proposed NPC Office Project are shown in **Table 4-2**.

Table 4-2: Adjusted Vehicle Trip Generation Comparison								
	A	В	С	D = C minus B	E = C minus A			
	Existing Building	BRA Approved Residential	Proposed NPC Office Project	Change	Change			
		Project		NPC Office compared to Residential	NPC Office compared to Existing			
Daily								
In	462	350	617	267	155			
Out	462	350	617	267	155			
Total	924	700	1,234	534	310			
a.m. peak								
In	121	19	131	112	10			
Out	12	20	15	(5)	3			
Total	133	39	146	107	13			
p.m. peak								
In	17	54	45	(9)	28			
Out	111	60	140	80	29			
Total	128	114	185	71	57			

As shown in Column D of **Table 4-2**, the NPC Office Project would result in 534 more daily vehicle trips as compared to the BRA Approved Residential Program. During the peak hours, there would be 107 additional vehicle trips in the a.m. and 71 vehicles more in the p.m.

While this comparison yields a significant increase in peak hour trips, a more realistic comparison is to consider the NPC Office Project against the existing office building. Column E of **Table 4-2** shows the vehicle trip difference between the NPC Office Project and the existing building with 100% occupancy. The difference shows a much smaller increase with only 13 more vehicles trips in the a.m. peak hour and 57 more trips in the p.m. peak hour.

Table 4-3 shows a similar comparison of transit trip generation for the existing building, the BRA Approved Residential Project, and Proposed NPC Office Project. As shown in Column E, the difference between the existing building and the NPC Office Project, transit trips would increase by 66 over the day, 3 trips in the a.m. peak hour and 11 trips in the p.m. peak hour.

Table 4-3: Transit Trip Generation Comparison								
	А	В	С	D = C minus B	E = C minus A			
	Existing Building	BRA Approved Residential	Proposed NPC Office Project	Change	Change			
		Project		NPC Office compared to Residential	NPC Office compared to Existing			
Daily								
In	204	180	237	57	33			
Out	204	180	237	57	33			
Total	408	360	474	114	66			
a.m. peak								
In	41	4	43	39	2			
Out	9	13	10	(3)	1			
Total	50	17	53	36	3			
p.m. peak								
In	12	21	19	(2)	7			
Out	38	10	42	32	4			
Total	50	31	61	30	11			

Table 4-4 shows the walk trip generation for the existing building, the BRA Approved Residential Project, and Proposed NPC Office Project. As shown in Column E, the difference between the existing building and the NPC Office Project, walk trips would increase by 498 over the day, 19 trips in the a.m. peak hour and 89 trips in the p.m. peak hour.

Table 4-4: Walk Trip Generation Comparison								
	А	В	С	D = C minus B	E = C minus A			
	Existing Building	BRA Approved	Proposed NPC Office	Change	Change			
	Ballang	Residential Project	Project	NPC Office compared to Residential	NPC Office compared to Existing			
Daily								
In	214	384	463	79	249			
Out	214	384	463	79	249			
Total	428	768	927	158	498			
a.m. peak								
In	56	26	68	42	12			
Out	10	37	17	(20)	7			
Total	66	63	85	22	19			
p.m. peak								
În	13	110	67	(43)	54			
Out	51	78	85	7	34			
Total	64	188	153	(35)	89			

4.3 Vehicular Access and Circulation

Vehicular access to and from the 316-322 Summer Street remains the same as proposed under the BRA Approved Residential Project. On-site parking for 16 vehicles will be provided in the basement level of building. Entry to the parking is via the private alley located north of the building with access from Congress Street and A Street. Because of the limited on-site parking, most people who arrive by vehicle will park in nearby facilities (see **Section 4.5** of this NPC) and walk to the building.

4.4 Pedestrian Access

The primary pedestrian entrance to the office lobby will be provided along Summer Street. Potential retail/restaurant establishments located on the A Street level will have individual access doorways along A Street.

4.5 Parking Management

The existing 316-322 Summer Street building has no on-site parking. Under the Approved Residential Project, 17 on-site parking spaces were to be provided in the basement level and made available to residents and up to 70 spaces were to be made available at the Necco Street Garage, in total providing one parking space for each residential unit.

Under the Proposed NPC Office program, 16 parking spaces will still be designated in the sub-basement level and be reserved for office tenants. No public parking will be provided on-site.

The balance of the building's parking demand will be met at the nearby Farnsworth, Necco Street and Stillings Street garages. The parking supply at these and other facilities within ½ mile of the Project total over 8,000 parking spaces.

The established Boston Transportation Department ("BTD") parking space guidelines for this area of South Boston are 0.7 parking spaces per 1,000 sf for office and retail/restaurant uses. Based on these guidelines, the number of recommended parking spaces for each development program is shown in **Table 4-5**, along with available parking options.
Table 4.5: Parking			
	Existing Building	BRA Approved Residential Project	Proposed NPC Office Project
Recommended number of parking based on BTD guidelines	87 spaces for office	87 spaces for residents + 11 for Retail/Rest. patrons	93 spaces for office + 6 for Retail/Rest. patrons
On-Site Parking Spaces	0	17	16
Available Parking Supply	Nearby public parking facilities, such as Farnsworth Garage, Necco Street Garage, Stillings Street Garage	17 spaces on-site for residents + up to 70 residential spaces in Necco Street Garage. Retail/Restaurant patrons to use nearby public parking facilities or legal on-street spaces.	16 spaces on-site for office tenants. Additional nearby public parking facilities, such as Farnsworth Garage, Necco Street Garage, Stillings Street Garage. Retail/Restaurant patrons to use nearby public parking facilities or legal on-street
			spaces.

4.6 Loading and Service Access

Trash pick-up will be from the private east-west passageway (alley) to the north of the Project Site. Trash storage and pick-up will be located near the parking garage entrance. Trash will be moved to the street level from the trash room in the parking garage by building management. Trash vehicles will enter via Congress Street and exit toward A Street.

Existing and future daily truck activity was estimated based on research of the National Cooperative Highway Research Program ("NCHRP") and on Boston-specific data, where available, for office and retail land uses. When fully occupied, the existing office building generates about 5 daily truck trips. Under the NPC Office Project, truck trips would increase to 11 daily truck trips due to the retail and restaurant delivery activity. The increase of 6 daily truck trips will not affect traffic operations in the study area.

Delivery activity for possible retail/restaurant space at the A Street level will be from the private east-west passageway north of the site. Delivery activity for the office space will occur from the Summer Street curb with approved loading zone as granted by the BTD.

Building management will encourage all loading and service activities to occur during off-peak times of traffic. Permanent "No Idling" signs will post 5-minute idling law restrictions at loading areas.

4.7 Transportation Demand Management

The Proponent is committed to implementing Transportation Demand Management ("TDM") measures to reduce parking demand and dependence on autos. This reflects the Project's commitment to the City's efforts to reduce dependency on the automobile by encouraging travelers to use alternatives to driving alone, especially during peak time periods. The Proponent is prepared to take advantage of the site's pedestrian and transit access in marketing to future office and retail tenants as well as work with the City to develop a TDM program appropriate to the Project and consistent with its level of impact.

TDM measures for the Project may include the following:

- Transportation Management Association The Proponent will provide written evidence to BTD documenting contact with other area businesses or the Seaport TMA in implementing TDM programs, prior to the issuance of a Certificate of Occupancy. The Proponent will provide written evidence of membership in the Seaport TMA within 6 months of the issuance of Certificate of Occupancy.
- Transportation Coordinator A Transportation Coordinator will be designated for the building and will be a full-time, on-site employee of the building management company or the Proponent. The Transportation Coordinator may be part of the building management staff. The Transportation Coordinator will be responsible for managing TDM commitments, including being the representative of the Project in the TMA and for BTD. The Transportation Coordinator may also manage service and loading operations on the Site. The name and contact information of the Transportation Coordinator will be provided to the BTD.
- Transit Pass Program The Proponent will encourage commercial tenants to subsidize transit passes to all full-time and part-time employees. The Transportation Coordinator will provide commercial tenants with transit information, including MBTA pass information and schedules, upon request.
- *Ridesharing/Carpooling* The Proponent will encourage tenants to facilitate ridesharing through geographic matching, parking fee discounts, and preferential parking for carpools / vanpools. This may be accomplished through the Proponent's membership in the TMA, use of computerized ridesharing software, or participation in MassRIDES, the Massachusetts Car Sharing program.

• *Guaranteed Ride Home* – The Proponent will encourage tenants to offer a "Guaranteed Ride Home" to all employees in order to remove an obstacle to transit use and ridesharing. This may be accomplished through the Proponent's membership in the Seaport TMA.

4.8 Transportation Access Plan Agreement

As part of the PNF residential program, a TAPA was signed by the previous proponent (W2005 BWH II Realty) and the City of Boston on June 13, 2007. For the NPC program, the current Proponent will provide an amendment to the TAPA for review and approval by the Boston BTD. The amendment will codify the specific measures, mitigations, and agreements between the Proponent and the Boston Transportation Department.

4.9 Construction Management Plan

The Proponent will produce a Construction Management Plan ('CMP") for review and approval by BTD. The CMP will detail the schedule, staging, parking, delivery, and other associated impacts of the construction of the project.

4.10 Public Improvement Commission

Certain streetscape improvements may require Public Improvement Commission ("PIC") review and approval. The Proponent will also work with the City to conform proposed improvements to the City's Crossroads Initiative for Summer Street.

5.0 INFRASTRUCTURE SYSTEMS

5.1 Introduction

Existing water and sewer services are provided to the Project Site by the Boston Water and Sewer Commission ("BWSC") systems. Based on the evaluation in the 2006 PNF, the capacity of the water and sewer system are more than adequate to serve the anticipated sewage and water flows. Electric, gas, and telephone and cable service are also available to the Project Site and will be coordinated with the appropriate utility as the design is further advanced.

The 2006 PNF project received Site Plan Approval from the BWSC in April 2007 (BWSC Site Plan #06444). The Proponent will resubmit plans to the BWSC for the revised Project design. The proposed revisions to the current office project should not substantially alter impacts to the infrastructure systems or create an adverse impact.

5.2 Sanitary Sewer

The proposed change in the building's use from residential to office results in a modest increase in the sanitary sewer flows provided in the 2006 PNF, increasing from 12,875 gpd to 13,565 gpd (see **Table 5-1** below). However, the anticipated sewage generation of 13,565 gpd from the current project is lower than that approved by the BWSC in April 2007 (19,665 gpd⁵) by approximately 6,100 gpd or 31%.

Similarly to the approved BWSC Site Plan for the previous residential project, a new 8-inch sanitary sewer service will be constructed off the westerly end of the building. This new service will connect into the 24-inch combined sewer in A Street. The 24-inch combined sewer has a flow full capacity of 7.2 million gallons per day. The flow from the development occupies only 0.2% of this capacity.

The Project does not propose any industrial uses and flows are expected to be under the 50,000 gpd or 15,000 gpd that would require filing with the Massachusetts Department of Environmental Protection for a Sewer Connection Permit or Compliance Certificate, respectively. However, the Project does propose the use of pretreatment devices. If a restaurant use is part of the Project, a grease trap will be used to treat the kitchen waste. An oil and grease separator will treat the flow from the garage floor drains before it enters the municipal sewer system.

⁵ Calculated based on the assumption of 104 bedrooms, a 225-seat restaurant and 7,000 s.f. of retail use.

Table 5-1: Comparison of Sewage Flow											
Current Office Project											
Building Use	314 CMR 7.00 Sewage Flow Estimates	Estimated Flow									
132,530± s.f. Office Uses	75 gpd/1,000 sf	9,940± gpd									
2,500± s.f. Retail	50 gpd/1,000 sf	125± gpd									
5,000± s.f. Restaurant (100 seats)*	35 gpd/seat	3,500± gpd									
TOTAL		13,565± gpd									
Previ	ous 2006 Residential Project										
Building Use	314 CMR 7.00 Sewage Flow Estimates	Estimated Flow									
110 Bedrooms	110 gallons/bedroom	12,100± gpd									
15,500± sf retail	50 gpd/1,000 sf	775± gpd									
TOTAL		12,875± gpd									

*100 seats are assumed for the $5,000\pm$ sf restaurant. The estimated flow will be adjusted and provided to the BWSC when the actual seating is determined.

5.3 Water Service

The water demand for the new development is projected to be $15,000\pm$ gpd compared to the $14,162\pm$ gpd evaluated and presented in the PNF, but again this is lower than the Project approved by the BWSC in April 2007. Water demand estimates are based on the design sewer flow plus an added factor for consumption and system losses. The 838 gpd increase in water demand is essentially negligible.

Similar to the 2006 residential project, the new domestic water and fire protection services will connect to the 12-inch water main in the passageway on the north side of the existing buildings. This water main is connected to a 16-inch water main located in A Street.

5.4 Stormwater Management/Water Quality

In the Spring of 2007 (after the submittal of the PNF for the residential project), the Boston Zoning extended the Groundwater Conservation Overlay District ("GCOD"), regulated under Article 32 of the Boston Zoning Code, to the Fort Point Channel neighborhood. Because the Project Site is now within an area regulated by Article 32, the proposed design will be modified to include groundwater recharge through an appropriately designed infiltration system. At this time, it is anticipated that a volume of rainwater equivalent to one-inch across the Project Site will be captured by the stormwater management

system and infiltrated into the ground. The required engineering evaluations related to groundwater impacts will be conducted and reports prepared and submitted to appropriate city agencies during Project design to demonstrate compliance with the GCOD and gain approvals necessary.

The stormwater management system will lead to improvements over the design contemplated in the 2006 PNF filing. Since the existing site is completely impervious, few improvements to the existing stormwater management systems were proposed for the project in 2006. The construction of an infiltration system will serve to reduce peak discharge rates off-site and increase the groundwater recharge currently provided by the site. If there are modified drain inlets, these will be retro-fitted with oil traps and adequate sumps as presented in the 2006 PNF. The Project will continue to comply with the DEP Stormwater Management Policy standards.

The contractor will be responsible for erosion and sediment controls, which will be established before the start of construction. The controls are expected to include street sweeping and the use of catch basin filters. The contractor will also control wind and dust. Dust control may include providing stabilized ground cover and sprinkling water on exposed soils. Good housekeeping practices will also be followed including collecting waste materials in covered receptacles, proper use and disposal of materials, and employing spill prevention practices.

5.5 Energy Requirements and Service

NStar provides electric service in the City of Boston. As noted in the 2006 PNF, there are existing electric manholes and duct banks with service drops in A Street, Congress Street, and the passageway on the north side of the building. For the current Project, a preliminary estimate of the electrical load for heating and cooling is 3,125 mbh and 350 tons, respectively. A new 480Y/277V, three-phase, four-wire, 3,000 amp electrical service is proposed to be installed in the building. This service will be installed underground from A Street. It is planned to serve tenant floors from an electrical bus duct installed in the floor electric rooms.

5.6 Gas Service

Keyspan provides natural gas service in the Project area. There is an existing 12-inch gas main in A Street which supplies a 3-inch gas main in the passageway on the north side of the building. If the Project includes a future restaurant use, is expected that a new gas service (size to be determined) will be extended into the building.

5.7 Telephone and Cable Television

New telephone and cable service will be installed to the building for tenant use. A telephone and cable closet will be provided on all tenant floors. The Proponent will coordinate with the telephone and cable providers when the design is further advanced.

320 Summer Street

Detailed Trip Generation Estimation - Existing Uses Howard/Stein-Hudson Associates

February 1, 2008

					National										Local	
			Trip Rates		vehicle						Walk/Bike/				vehicle	
Component	Size	Category	(Trips/ksf or unit)	Unadjusted Vehicle Trips	occupancy rate ¹	Converted to Person trips	Capture Rate	Person Trips less Capture Rate	Transit Share ²	Transit Trips	Other Share ²	Walk/ Bike/ Other Trips	Vehicle Share ²	Vehicle Person Trips	occupancy rate ³	Total Adjusted Vehicle Trips
-		. /					Daily Trip Gen	eration		<u>, 1</u>				1		
Restaurant ⁴	0	Total	89.95	0	2.1	0	0%	0	5%	0	43%	0	52%	0	2.1	0
	st	In Out	44.98 44.98	0	2.1	0	0%	0	5% 5%	0	43% 43%	0	52%	0	2.1	0
		out	44.55	0	2	Ŭ	0,0	0	070	Ū.	-1070	°,	0270	Ŭ	2	Ŭ
Office ⁵	128,900	Total	12.58	1,622	1.2	1,946	0%	1946	21%	409	22%	428	57%	1,109	1.2	925
	sf	In	6.29	811	1.2	973	0%	973	21%	204	22%	214	57%	555	1.2	462
		Out	6.29	811	1.2	973	0%	973	21%	204	22%	214	57%	555	1.2	462
Residential®	0	Total	50.99	0	1.2	0	0%	0	41%	0	13%	0	46%	0	1.2	0
	units	In	25.49	0	1.2	0	0%	0	41%	0	13%	0	46%	0	1.2	0
		Out	25.49	0	1.2	0	0%	0	41%	0	13%	0	46%	0	1.2	0
Destaurant!		T							50/		4007		1704			
Restaurant	U	lotal	2.86	0	2.1	0	25%	0	5%	0	48%	0	47%	0	2.1	0
	36813	Out	1.43	0	2.1	ő	25%	0	5%	0	48%	o	47%	0	2.1	o
Retail '	0	Total		0	1.8	0	0%	0	5%	0	43%	0	52%	0	1.8	0
	SF	In		0	1.8	0	0%	0	5%	0	43%	0	52%	0	1.8	0
		Out		U	1.8	U	0%	U	5%	U	43%	U	52%	U	1.8	U
Daily		Total				1,946		1,946		409		428				925
Total		In				973		973		204		214				462
		Out		_		973	d Dook hour Trin	973	_	204	_	214	_		_	462
Restaurant*	0	Total	0.81	0	2.1	0	0%	0		0		0		0	2.1	0
	sf	In	0.66	0	2.1	0	0%	0	4%	0	43%	0	53%	0	2.1	0
		Out	0.15	0	2.1	0	0%	0	6%	0	54%	0	40%	0	2.1	0
017																
Office	128,900	Total	1.78	230	1.2	276	0%	276	179/	50	229/	65 56	60%	160	1.2	133
	51	Out	0.21	202	1.2	33	0%	33	27%	9	23%	10	44%	140	1.2	121
Residential [®]	0	Total	8.18	0	1.2	0	0%	0		0		0		0	1.2	0
	units	ln o i	1.39	0	1.2	0	0%	0	16%	0	36%	0	49%	0	1.2	0
		Out	6.79	U	1.2	U	0%	U	24%	U	42%	U	34%	U	1.2	U
Restaurant ⁷	0	Total	0.03	0	2.1	0	25%	0	5%	0	48%	0	47%	0	2.1	0
	seats	In	0.02	0	2.1	0	25%	0	5%	0	48%	0	47%	0	2.1	0
		Out	0.02	0	2.1	0	25%	0	5%	0	48%	0	47%	0	2.1	0
Rotail ⁷	0	Total		0	1.8	0	0%	0		0		0		0	1.8	0
. totali	SF	In		0	1.8	õ	0%	0	4%	ō	43%	ő	53%	õ	1.8	0 0
		Out		0	1.8	0	0%	0	6%	0	54%	0	40%	0	1.8	0
AM Peak		Total				276		276		50		65 56				133
i otai		Out				33		33		9		10				121
						PI	/I Peak-hour Trip	Generation								
Restaurant⁴	0	Total	7.49	0	2.1	0	0%	0		0		0		0	1.2	0
	st	In Out	5.02	0	2.1	0	0%	0	6% 4%	0	54% 43%	0	40% 53%	0	1.2	0
		out	2	0	2	Ŭ	0,0	0	470	Ū,	-1070	Ŭ	0070	0		ů
Office ⁵	128,900	Total	1.73	223	1.2	268	0%	268		50		64		153	1.2	128
	sf	In Out	0.29	38	1.2	46	0%	46	27%	12	29%	13	44% 60%	20	1.2	17
		Out	1.44	105	1.2	222	078	222	17.70	50	2370	51	0078	155	1.2	
Residential ⁶	0	Total	7.23	0	1.2	0	0%	0		0		0		0	1.2	0
	units	In	4.84	0	1.2	0	0%	0	24%	0	42%	0	34%	0	1.2	0
		Out	2.38	0	1.2	0	0%	0	16%	0	36%	0	49%	0	1.2	0
Restaurant ⁷	0	Total	0.26	0	2.1	0	25%	0	5%	0	48%	0	47%	0	2.1	0
	seats	In	0.17	0	2.1	0	25%	0	5%	0	48%	0	47%	0	2.1	0
		Out	0.09	0	2.1	0	25%	0	5%	0	48%	0	47%	0	2.1	0
Retail '	0	Total		0	1.8	0	0%	0		0		0		0	1.8	0
	SF	In		0	1.8	õ	0%	õ	6%	0	54%	õ	40%	0	1.8	ů l
		Out		0	1.8	0	0%	0	4%	0	43%	0	53%	0	1.8	0
DM Deels		T									_		_		_	100
rin Peak Total		Total				268		268		50		64 13				128
i otai		Out				222		222		38		51				111

Notes: 1. National vehicle occupancy rates based on the 2001 National Household Travel Survey

2. Mode shares based on 2000 Census Data (average of Tract 606 & 612) [Residential daily only] and BTD data for Area 13 3. Local vehicle occupancy rates based on 2000 Census and 2001 National Household Travel Survey data

4. ITE Trip Generation, 7th Edition, LUC 931 (Quality Restaurant) by rate

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320 Summer Street

Detailed Trip Generation Estimation - Proposed Project - PNF Program

Howard/Stein-Hudson Associates

February 1,	2008
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		Trip Rates (Trips/ksf or	Unadjusted	vehicle occupancy	Converted to		Person Trips less	Transit		Walk/Bike/	Walk/ Bike/	Vehicle	Vehicle	Local vehicle occupancy	e Total Adjusted
Size	Category	unit)	Vehicle Trips	rate'	Person trips	Capture Rate	Capture Rate	Share ²	Transit Trips	Other Share ²	Other Trips	Share ²	Person Trips	rate ³	Vehicle Trips
3,400	Total	89.95	306	2.1	642	0%	642	5%	32	43%	276	52%	334	<u>2</u> .1	159
sf	In	44.98	153	2.1	321	0%	321	5%	16	43%	138	52%	167	2.1	80
	Out	44.98	153	2.1	321	0%	321	5%	16	43%	138	52%	167	2.1	80
0	Total	0.00	0	1.2	0	0%	0	21%	0	22%	0	57%	0	1.2	0
sf	In	0.00	0	1.2	0	0%	0	21%	0	22%	0	57%	0	1.2	0
	Out	0.00	0	1.2	0	0%	0	21%	0	22%	0	57%	0	1.2	0
87	Total	6.55	570	1.2	684	0%	684	41%	281	13%	89	46%	315	1.2	271
units	In	3.28	285	1.2	342	0%	342	41%	140	13%	44	46%	157	1.2	136
	Out	3.28	285	1.2	342	0%	342	41%	140	13%	44	46%	157	1.2	136
12,100	Total	42.94	520	1.8	935	0%	935	5%	47	43%	402	52%	486	1.8	270
SF	In	21.47	260	1.8	468	0%	468	5%	23	43%	201	52%	243	1.8	135
	Out	21.47	260	1.8	468	0%	468	5%	23	43%	201	52%	243	1.8	135
	Total				2,262		2,262		359		767				701
	In				1,131		1,131		180		384				350
_	Out		_	_	1,151 AM	Peak-hour Trip	Generation	_	180	_	304	_	_	_	350
3,400	Total	0.81	3	2.1	6	0%	6		0		3		3	2.1	1
sf	In	0.66	2	2.1	5	0%	5	4%	0	43%	2	53%	3	2.1	1
	Out	0.15	0	2.1	1	0%	1	6%	0	54%	1	40%	0	2.1	0
0	Total	0.00	0	1.2	0	0%	0		0		0		0	1.2	0
sf	In	0.00	0	1.2	0	0%	0	17%	0	23%	0	60%	0	1.2	0
	Out	0.00	0	1.2	0	0%	0	27%	0	29%	0	44%	0	1.2	0
87	Total	0.53	46	1.2	55	0%	55		13		23		20	1.2	17
units	In	0.09	8	1.2	9	0%	9	16%	2	36%	3	49%	5	1.2	4
	Out	0.44	38	1.2	46	0%	46	24%	11	42%	19	34%	16	1.2	13
12,100	Total	3.64	44	1.8	79	0%	79		4		38		38	1.8	21
SF	In	2.22	27	1.8	48	0%	48	4%	2	43%	21	53%	26	1.8	14
	Out	1.42	17	1.8	31	0%	31	6%	2	54%	17	40%	12	1.8	/
	Total				141		141		17		63				40
	Out				63 78		78		4 13		26 37				19
					PM	Peak-hour Trip	Generation								
3,400	Total	7.49	25	2.1	53	0%	53		3		27		24	1.2	20
st	In Out	5.02	17	2.1	36 18	0%	36	6% 4%	2	54% 43%	19 8	40% 53%	14	1.2	12
	out	2.47	0	2.1	10	070	10	470		4070	Ũ	5570	5	1.2	0
0	Total	0.00	0	1.2	0	0%	0		0		0		0	1.2	0
sf	In	0.00	0	1.2	0	0%	0	27%	0	29%	0	44%	0	1.2	0
	Out	0.00	0	1.2	U	0%	0	17%	U	23%	U	60%	0	1.2	0
87	Total	0.62	54	1.2	64	0%	64		14		26		25	1.2	22
units	In Out	0.41	36 18	1.2	43 21	0%	43 21	24% 16%	10 3	42%	18 8	34% 49%	15	1.2	13 o
	54	0.20	10	1.2	-1	070	21	1070	3	50 /0	5	-370	10	1.4	3
12,100	Total	12.84	155	1.8	280	0%	280		14		135		131	1.8	73
SF	In Out	6.16	75	1.8	134	0%	134	6%	8	54%	72	40%	54	1.8	30
	Out	6.68	81	1.8	145	0%	145	4%	6	43%	63	53%	11	1.8	43
	Total				397		397		30		188				114
	In				213		213		21		110				54
	Out				184		184		10		78				60
	Size 3,400 sf 0 87 units 12,100 SF 3,400 sf 87 units 12,100 SF 3,400 sf 87 units 12,100 SF 3,400 sf 87 units 12,100 SF	Size Category 3,400 Total sf In 0 Total 0 Total 87 Total 10 In 00t Total 87 Total 12,100 Total SF In 0 Total 12,100 Total SF Total In Out 3,400 Total sf In Out Total In Out 3,400 Total sf In Out Out 87 Total In Out 0 Total In Out SF In Out Total In Out 3,400 Total SF In Out Out 3,400 Total In Out 3,400 Total In Out 3,400 Total In Out 3,400 Total In Out 3,400 Total </td <td>Size Category (Trips,Ksf or unit) 3,400 Total 89.95 sf In 44.98 0 Total 0.00 sf In 0.00 out 44.98 0.00 out 0.00 0.00 sf In 0.00 0 Total 0.00 87 Total 6.55 units In 3.28 0ut 3.28 0ut 3.28 12,100 Total 42.94 SF In 21.47 Out Out 0.81 sf In 0.66 Out 0.00 0.00 sf In 0.00 out 0.01 0.00 sf In 0.00 out In 0.00 sf Total 0.61 In 0.02 0.01 SF In 5.02</td> <td>Size Category (Trips/Ksf or unit) Unadjusted Vehicle Trips 3,400 Total 89.95 306 sf In 44.98 153 0 Total 0.00 0 sf In 44.98 153 0 Total 0.00 0 sf In 0.00 0 0 Total 0.00 0 87 Total 6.55 570 units In 3.28 285 0ut 21.47 260 SF In 21.47 260 0ut 0.15 0 0 3.400 Total 0.81 3 out 0.15 0 0 0 Total 0.44 38 12.100 Total 0.53 46 units In 0.09 8 0.11 0.44 38 12.100 Total 3.64</td> <td>Size Category Unadjusted unit) occupancy Vehicle Trips occupancy rate¹ 3,400 Total 89.95 306 2.1 3,400 Total 0.00 0 1.2 0 Total 0.00 0 1.2 0 Total 0.00 0 1.2 0 Total 6.55 570 1.2 0units In 3.28 285 1.2 0ut 3.28 285 1.2 1.8 0ut 2.147 260 1.8 0ut 2.147 260 1.8 0ut 2.147 260 1.8 0ut 0.41 2.147 260 1.8 0ut 0.41 2.147 260 1.8 12.100 Total 0.81 3 2.1 3.400 Total 0.81 3 2.1 0 Total 0.00 0 1.2 0</td> <td>Size Category Unaljusted unit) Ucadjusted Vehicle Trips Occupancy rate¹ Converted to Person trips 3,400 Total 89.95 306 2.1 642 af In 44.98 153 2.1 321 0 Total 0.00 0 1.2 0 af In 3.28 2.85 1.2 342 12,100 Total 42.94 520 1.8 935 af In 0.66 2 2.1 5 af In 0.66 2 2.1 5 af In 0.00 0 1.2<td>Size Converted to the person trips Converted to person trips at f trip 0.00 0 1.2 0 0% 0% 0% Total 0.2.1 Advectour trip <</td><td>Size Category Unadjusted Weiner Occupanto Person Trips Description Description Description Description Description Description 3.400 Total 8.95 3.06 2.1 62.1 62.2 9% 52.1 3.400 Total 44.98 153 2.1 321 0.0% 321 0 Total 0.00 0 1.2 0 0% 0 0.1 76al 0.00 0 1.2 0 0% 0 0.1 76al 3.28 2.85 1.2 342 0% 342 0.01 3.28 2.85 1.2 342 0% 342 0.01 3.28 2.85 1.2 342 0% 342 0.01 2.1.47 2.80 1.8 468 0% 448 0.01 2.1.47 2.80 1.8 468 0% 448 0.01 0.01 0.15 0 1.1 <</td><td>Size Category Category Unadjusted Vehicle (selection) Converted to rate Converted to resorting (selection) Personting (selection) Personting (selection) Thereit (selection) <ththereit (selection) Thereit (sele</ththereit </td><td>Bare Catagory Unsignated or Vehicit Pros Convertion or rate Convertion or Person trips Transit T</td><td>Ster Crategy of the set of</td><td>Site Conjont Unit (Figschaff) Object (Figschaff) Depending (Figschaff) <thdepending (figschaff)<="" th=""></thdepending></td><td>Bits Calegory Ungland by Walked 1% Convented by Person Tage and Pers</td><td>Base Chapter of the large of t</td><td></td></td>	Size Category (Trips,Ksf or unit) 3,400 Total 89.95 sf In 44.98 0 Total 0.00 sf In 0.00 out 44.98 0.00 out 0.00 0.00 sf In 0.00 0 Total 0.00 87 Total 6.55 units In 3.28 0ut 3.28 0ut 3.28 12,100 Total 42.94 SF In 21.47 Out Out 0.81 sf In 0.66 Out 0.00 0.00 sf In 0.00 out 0.01 0.00 sf In 0.00 out In 0.00 sf Total 0.61 In 0.02 0.01 SF In 5.02	Size Category (Trips/Ksf or unit) Unadjusted Vehicle Trips 3,400 Total 89.95 306 sf In 44.98 153 0 Total 0.00 0 sf In 44.98 153 0 Total 0.00 0 sf In 0.00 0 0 Total 0.00 0 87 Total 6.55 570 units In 3.28 285 0ut 21.47 260 SF In 21.47 260 0ut 0.15 0 0 3.400 Total 0.81 3 out 0.15 0 0 0 Total 0.44 38 12.100 Total 0.53 46 units In 0.09 8 0.11 0.44 38 12.100 Total 3.64	Size Category Unadjusted unit) occupancy Vehicle Trips occupancy rate ¹ 3,400 Total 89.95 306 2.1 3,400 Total 0.00 0 1.2 0 Total 0.00 0 1.2 0 Total 0.00 0 1.2 0 Total 6.55 570 1.2 0units In 3.28 285 1.2 0ut 3.28 285 1.2 1.8 0ut 2.147 260 1.8 0ut 2.147 260 1.8 0ut 2.147 260 1.8 0ut 0.41 2.147 260 1.8 0ut 0.41 2.147 260 1.8 12.100 Total 0.81 3 2.1 3.400 Total 0.81 3 2.1 0 Total 0.00 0 1.2 0	Size Category Unaljusted unit) Ucadjusted Vehicle Trips Occupancy rate ¹ Converted to Person trips 3,400 Total 89.95 306 2.1 642 af In 44.98 153 2.1 321 0 Total 0.00 0 1.2 0 af In 3.28 2.85 1.2 342 12,100 Total 42.94 520 1.8 935 af In 0.66 2 2.1 5 af In 0.66 2 2.1 5 af In 0.00 0 1.2 <td>Size Converted to the person trips Converted to person trips at f trip 0.00 0 1.2 0 0% 0% 0% Total 0.2.1 Advectour trip <</td> <td>Size Category Unadjusted Weiner Occupanto Person Trips Description Description Description Description Description Description 3.400 Total 8.95 3.06 2.1 62.1 62.2 9% 52.1 3.400 Total 44.98 153 2.1 321 0.0% 321 0 Total 0.00 0 1.2 0 0% 0 0.1 76al 0.00 0 1.2 0 0% 0 0.1 76al 3.28 2.85 1.2 342 0% 342 0.01 3.28 2.85 1.2 342 0% 342 0.01 3.28 2.85 1.2 342 0% 342 0.01 2.1.47 2.80 1.8 468 0% 448 0.01 2.1.47 2.80 1.8 468 0% 448 0.01 0.01 0.15 0 1.1 <</td> <td>Size Category Category Unadjusted Vehicle (selection) Converted to rate Converted to resorting (selection) Personting (selection) Personting (selection) Thereit (selection) <ththereit (selection) Thereit (sele</ththereit </td> <td>Bare Catagory Unsignated or Vehicit Pros Convertion or rate Convertion or Person trips Transit T</td> <td>Ster Crategy of the set of</td> <td>Site Conjont Unit (Figschaff) Object (Figschaff) Depending (Figschaff) <thdepending (figschaff)<="" th=""></thdepending></td> <td>Bits Calegory Ungland by Walked 1% Convented by Person Tage and Pers</td> <td>Base Chapter of the large of t</td> <td></td>	Size Converted to the person trips Converted to person trips at f trip 0.00 0 1.2 0 0% 0% 0% Total 0.2.1 Advectour trip <	Size Category Unadjusted Weiner Occupanto Person Trips Description Description Description Description Description Description 3.400 Total 8.95 3.06 2.1 62.1 62.2 9% 52.1 3.400 Total 44.98 153 2.1 321 0.0% 321 0 Total 0.00 0 1.2 0 0% 0 0.1 76al 0.00 0 1.2 0 0% 0 0.1 76al 3.28 2.85 1.2 342 0% 342 0.01 3.28 2.85 1.2 342 0% 342 0.01 3.28 2.85 1.2 342 0% 342 0.01 2.1.47 2.80 1.8 468 0% 448 0.01 2.1.47 2.80 1.8 468 0% 448 0.01 0.01 0.15 0 1.1 <	Size Category Category Unadjusted Vehicle (selection) Converted to rate Converted to resorting (selection) Personting (selection) Personting (selection) Thereit (selection) Thereit (selection) <ththereit (selection) Thereit (sele</ththereit 	Bare Catagory Unsignated or Vehicit Pros Convertion or rate Convertion or Person trips Transit T	Ster Crategy of the set of	Site Conjont Unit (Figschaff) Object (Figschaff) Depending (Figschaff) <thdepending (figschaff)<="" th=""></thdepending>	Bits Calegory Ungland by Walked 1% Convented by Person Tage and Pers	Base Chapter of the large of t	

3. Local vehicle occupancy rates based on 2000 Census and 2001 National Household Travel Survey data

4. ITE Trip Generation, 7th Edition, LUC 931 (Quality Restaurant) by rate

5. ITE Trip Generation, 7th Edition, LUC 710 (General Office Building) by equation

6. ITE Trip Generation, 7th Edition, LUC 230 (Townhouse/Condominium) by equation

7. ITE Trip Generation, 7th Edition, LUC 820 (Shopping Center) by rate/equation

320 Summer Street

Detailed Trip Generation Estimation - Proposed Project - NPC Program

Howard/Stein-Hudson Associates

February 1, 2008

Component	Size	Category	Trip Rates (Trips/ksf or unit)	Unadjusted Vehicle Trips	National vehicle occupancy rate ¹	Converted to Person trips	Capture Rate	Person Trips less Capture Rate	Transit Share ²	Transit Trips	Walk/Bike/ Other Share ²	Walk/ Bike/ Other Trips	Vehicle Share ²	Vehicle Person Trips	Local vehicle occupancy rate ³	Total Adjusted Vehicle Trips
Postouront ⁴	5.000	Tatal	80.0F	450	2.4	044	Daily Trip Gen	eration	E0/	47	420/	406	520/	404	2.4	224
Restaurant	5,000	rotai	69.95	450	2.1	944	0%	944	5%	47	43%	406	52%	491	2.1	234
	51	Out	44.98	225	2.1	472	0%	472	5%	24	43%	203	52%	240	2.1	117
		Out	44.90	225	2.1	472	078	472	576	24	4370	203	5276	240	2.1	117
Office ⁵	132 600	Total	12.50	1 658	12	1.989	0%	1 989	21%	418	22%	438	57%	1 134	12	945
Office	sf	In	6.25	829	1.2	995	0%	995	21%	209	22%	219	57%	567	1.2	472
		Out	6.25	829	1.2	995	0%	995	21%	209	22%	219	57%	567	1.2	472
Retail 7	2,500	Total	42.94	107	1.8	193	0%	193	5%	10	43%	83	52%	100	1.8	56
	SF	In	21.47	54	1.8	97	0%	97	5%	5	43%	42	52%	50	1.8	28
		Out	21.47	54	1.8	97	0%	97	5%	5	43%	42	52%	50	1.8	28
Daily		Total				3,127		3,127		475		927				1,235
Total		In				1,564		1,564		237		463				617
		Out				1,564		1,564		237		463				617
						A	M Peak-hour Trip	Generation								
Restaurant⁴	5,000	Total	0.81	4	2.1	9	0%	9		0		4		4	2.1	2
	sf	In	0.66	3	2.1	7	0%	7	4%	0	43%	3	53%	4	2.1	2
		Out	0.15	1	2.1	2	0%	2	6%	0	54%	1	40%	1	2.1	0
Office ⁵	132,600	Total	1.77	235	1.2	282	0%	282		51		67		164	1.2	137
	sf	In	1.56	207	1.2	248	0%	248	17%	42	23%	57	60%	149	1.2	124
		Out	0.21	28	1.2	34	0%	34	27%	9	29%	10	44%	15	1.2	12
_																
Retail '	2,500	Total	6.84	17	1.8	31	0%	31		1		15		15	1.8	8
	SF	In	4.18	10	1.8	19	0%	19	4%	1	43%	8	53%	10	1.8	6
		Out	2.67	7	1.8	12	0%	12	6%	1	54%	6	40%	5	1.8	3
AM Peak		Total				321		321		53		85				147
Total		In				274		274		43		68				131
		Out				47		47		10		17				15
4						Pr	W Peak-hour Trip	Generation								
Restaurant*	5,000	Total	7.49	37	2.1	79	0%	79	00/	4	E 40/	40	400/	35	1.2	29
	SI	In Out	5.02	25	2.1	53	0%	53	6% 49/	3	54%	28	40%	21	1.2	18
		Out	2.47	12	2.1	20	078	20	4 70		4370		55%	14	1.2	
Office ⁵	132 600	Total	1 71	227	1.2	273	0%	273		51		66		156	12	130
onnee	132,000	In	0.29	39	1.2	46	0%	46	27%	13	29%	13	44%	20	1.2	17
		Out	1.42	189	1.2	226	0%	226	17%	38	23%	52	60%	136	1.2	113
Retail ⁷	2,500	Total	21.94	55	1.8	99	0%	99		5		48		46	1.8	26
	SF	In	10.53	26	1.8	47	0%	47	6%	3	54%	26	40%	19	1.8	11
		Out	11.41	29	1.8	51	0%	51	4%	2	43%	22	53%	27	1.8	15
PM Peak		Total				450		450		60		153				185
Total		In				146		146		19		67				45
		Out				304		304		42		85				140

Notes:

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2. Mode shares based on 2000 Census Data (average of Tract 606 & 612) [Residential daily only] and BTD data for Area 13

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